Verizon

IFB STPD 12-001-A, C3-A-13-02-TS-08

Amendment #3, Rev. March 25, 2015

CALNET 3, Category 1: Voice and Data Services

Subcategory 1.2 – MPLS, VPN and Converged VoIP

Volume 2 – Response to Unique Subcategory Requirements

SOW Technical Requirements Response

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Required IFB Exhibits

Required IFB Exhibits unique to each subcategory, in the following order:

a. Exhibit 8: Contractor's License Information

b. Exhibit 9: Service Taxes, Fees, Surcharges and Surcredits

Verizon Response

The required exhibits are provided in the following pages, and as embedded documents in the electronic version of this submission.

To Open File:

- *Double Click "icon"*

  Or

- *Right Click over "icon", then select "Object", then select "Open"*

EXHIBIT 8 Contractors License In

Exhibit 9 Subcategory 1.2

Preference/Incentive Exhibits

2. Preference/Incentive Exhibits, (required only as indicated):

a. Exhibit 10: Bidding Preferences and Incentives

b. Exhibit 11: STD 843, DVBE Declarations (required if claiming a DVBE incentive per Section 2.3.12.)

c. Exhibit 12: GSPD 05-105, Bidder Declaration (required if claiming a SB preference using Subcontractors, if claiming a DVBE incentive, or if Subcontractors will receive 15% or more revenue per Section 2.3.5.)

Verizon Response

The required exhibits are provided in the following pages, and as embedded documents in the electronic version of this submission.

To Open File:

- *Double Click "icon"*

  Or

- *Right Click over "icon", then select "Object", then select "Open"*

Exhibit 10 Bidding Preferences and Incer

EXHIBIT 11 STD 843 DVBE Declarations Sub

Exhibit 12_Bidder Declarations_Subcat 1

SOW Technical Requirements

SUBCATEGORY 1.2 - MULTIPLE PROTOCOL LABEL SWITCHING (MPLS), VIRTUAL PRIVATE NETWORKING (VPN), AND CONVERGED VOIP TELEPHONY

1.2.1 OVERVIEW

This Subcategory 1.2 IFB provides the State's solicitation for best value solutions for MPLS, Converged VoIP, IP Audio, and Session Initiated Protocol Trunking services. This IFB also describes the CALNET 3 technical requirements necessary to support the CALNET 3 program requirements.

This IFB will be awarded to Bidders that meet the award criteria as described in IFB Section 4. The CALNET 3 Contract(s) that result from the award of this IFB will be managed on a day-to-day basis by the CALNET 3 Contract Management and Oversight (CALNET 3 CMO).

1.2.1.1 BIDDER RESPONSE REQUIREMENTS

Throughout this IFB, Bidders are required to acknowledge acceptance of the requirements described herein by responding to one (1) of the following:

Example A (for requirements that require confirmation that the Bidder understands and accepts the requirement):

"Bidder understands the Requirement and shall meet or exceed it? Yes___ No___"

Or,

Example B (for responses that require the Bidder to provide a description or written response to the requirement):

"Bidder understands the requirements in Section xxx and shall meet or exceed them? Yes_____ No_____

Description:"

1.2.1.2 DESIGNATION OF REQUIREMENTS

All Technical Requirements specified in this IFB Section are Mandatory and must be responded to as identified in IFB Section 3.4.2.5 by the Bidder. Additionally, some Mandatory requirements are "Mandatory-Scorable" and are designated as "(M S)". The State will have the option of whether or not to include each item in the Contract, based on the best interest of the State. Furthermore, Customers will have the option whether or not to order services or features included in the Contract. Service Requests for some CALNET 3 services or features may require CALNET 3 CMO approval.

Costs associated with services shall be included in the prices provided by the Bidder for the individual items included in the Subcategory Cost Worksheets. Items not listed in the

Subcategory Cost Worksheets will not be billable by the Contractor. If additional unsolicited items include the features described in the IFB and are not included as billable in the Subcategory Cost Worksheets, the cost associated with the features shall not be included in the unsolicited price.

Services and features included in the Subcategory Cost Worksheets are those that the Bidder must provide. All Bidders must provide individual prices as indicated in the Subcategory Cost Worksheets in the Bidder's Final Proposal. Items submitted with no price will be considered as offered at no cost.

1.2.1.3 PACIFIC TIME ZONE

Unless specified otherwise, all times stated herein are times in the Pacific Time Zone.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.2 MULTI-PROTOCOL LABEL SWITCHING (MPLS) SERVICES

Bidders shall confirm that the Contractor's Multi-Protocol Label Switching (MPLS) Wide Area Network (WAN) Virtual Private Network (VPN) service will meet all of the requirements described in Table 1.2.2.

Table 1.2.2 MPLS Service Functionality

	MPLS Service Functionality	Bidder Meets or Exceeds? Y	N
1	Contractors shall provide a private MPLS WAN (VPN) service for the networking of all voice, video and data applications.	Y	
	Bidder's Product Description: Verizon's MPLS service, "Private IP," is a purpose-built private VPN WAN network that provides networking of voice, video and data in a converged environment.		
2	The MPLS WAN VPN service shall support voice, video and data applications over a single access connection with individual Class of Service (CoS) to allow each set of applications to be transported within its service specifications.	Y	
	Bidder's Product Description: Verizon will provide MPLS WAN VPN for voice, video and data applications over a single access connection with individual Class of Service (CoS) to allow each set of applications to be transported within its service specifications.		

Table 1.2.2 MPLS Service Functionality (continued)

	MPLS Service Functionality	Bidder Meets or Exceeds? Y	N
3	The MPLS WAN VPN service shall support the ability to assign specific application priority over other applications.	Y	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will support the ability to assign specific application priority over other applications. MPLS Quality of Service parameters will allow CALNET 3 customers to assign specific priorities to meet their requirements. Verizon's MPLS service has differentiated Service Classes and recognizes ten Diff-Serv Code Points (DSCP) that allow the customer to set specific application priority based on their desired parameters and requirements.		
4	The MPLS WAN VPN service shall provide any-to-any connectivity	Y	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will provide any-to-any connectivity.		
5	The MPLS WAN VPN service shall not use the public Internet for transport. Remote access to this solution may use the public Internet.	Y	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will not use the public Internet for transport. Remote access to this solution may use the public Internet.		
6	The MPLS WAN VPN service shall be a fully Managed Service that includes the Customer Edge router as described in 7c below	Y	
	Bidder's Product Description: Verizon will provide MPLS WAN VPN service that will provide a comprehensive, fully managed, configurable Network Management service, including the Customer Edge (CE) router, the MPLS port and the access in a bundled configuration as described in 7C below.		
7	The MPLS WAN VPN service shall support the following configurations:		
7a	Port Only configuration	Y	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will provide Port Only services.		

Table 1.2.2 MPLS Service Functionality (continued)

	MPLS Service Functionality	Bidder Meets or Exceeds? Y	N
7b	Bundled port and access configuration	**Y**	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will provide a configurable, bundled port and access configuration.		
7c	Bundled port, access and Customer Edge router configuration	**Y**	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will provide a configurable, bundled port, access and Customer Edge router configuration.		

1.2.2.1 MPLS Industry Security Standards

1. ***Upon demand by the CALNET 3 CMO, Contractor will provide for viewing at Contractor's facility the security controls in force for both the MPLS WAN and converged VoIP infrastructure as well as independent audit results of those controls for authorized State personnel (under NDA). This will include the full scope of controls NIST SP 800-53, ISO/IEC 27001, or equivalent.***

2. ***If Contractor determines that a breach of data has occurred within the Contractor's MPLS WAN that may involve CALNET 3 Customer data, the nature and scope of the breach (as it affects Customer data) must be reported to both the Customer and the CALNET 3 CMO within 24 hours of that determination.***

3. ***If Contractor determines that a breach of infrastructure has occurred within the Contractor's MPLS WAN that may involve CALNET 3 Customer data, the nature and scope of the breach (as it affects Customer data) must be reported to both the Customer and the CALNET 3 CMO within 24 hours of that determination.***

4. ***Contractor shall apply available patches and/or updates which remediate published vulnerabilities within the following timeframe requirements to the Contractor managed Customer Edge Devices:***

Table 1.2.2.1, Security Patches

Vulnerability CVSS2 Base Score	Informal Category Name	Max Time to Apply Patch/Update
9.1 – 10.0	Critical	Within 14 days
8.0 – 9.0	High	Within 21 days
5.0 – 7.9	Moderate	Within 60 days

Table 1.2.2.1, Security Patches (continued)

Vulnerability CVSS2 Base Score	Informal Category Name	Max Time to Apply Patch/Update
Below 5.0	Low	Within 90 days

5. ***Contractor shall provide to the CALNET 3 CMO an annual report of the 12 month prior patching/update activity including min/avg/max time from patch/update release to install categorized by the classifications found in table 1.2.2.1 for all Contractor managed Customer Edge Devices.***

6. ***Contractor shall provide to the CALNET 3 CMO an annual report detailing all (if any) actual violations of security protections, policies, practices, and/or procedures involving Contractor managed Customer Edge Devices and what remediations were implemented.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.2.1.1 MPLS Physical Security

Contractor shall physically secure all data and networking facilities through which data traverses Contractor's MPLS network complying with the physical security controls of NIST SP 800-53, ISO/IEC 27001, or equivalent standards.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.2.1.2 Protection against Unauthorized Access

Contractor shall provide access controls for all equipment through which data traverses Contractor's MPLS WAN complying with the physical security controls of NIST SP 800-53, ISO/IEC 27001, or equivalent standards.

Bidders shall state the access security controls in force for this equipment.

Bidder understands the requirements in 1.2.2.1.2 and shall meet or exceed them?
Yes X No_____

Description:

Providing Equipment Access Controls

Verizon provides equipment access controls for all equipment through which MPLS WAN data traverses, complying with or exceeding the requirement of NIST SP 800-53, ISO/IEC 27001 or equivalent standards.

Verizon's Access Security Controls for Equipment

Verizon co-locates MPLS and WAN equipment in company facilities and data centers with physical access restrictions complying with physical security control standards as described in the response to *Section 1.2.2.1.1* above.

We have taken several steps within our own facility to limit the amount of key knowledge that is readily available. The passwords for "root" login to the management platforms are not given out to the operational floor. The distribution of the passwords is limited to the group leaders of the first level engineers and the second level support engineers who perform the advanced troubleshooting and change management. We use building security to prevent non-Verizon personnel access to any floors in the building.

Verizon also uses LAN switching equipment to reduce the risk that in the case of a server breach, traffic not destined for the breached server could be captured.

Access to Network Elements

Access to Verizon network elements are via a dedicated private internal data network. The network has a multi-firewall edge and internal partitioning; continuous IP scanning; system logging, parsing, and analysis; intrusion detection/monitoring; and access authentication and logging via Cisco TACACS platform. Authentication is done using a two-factor authentication method. All elements are monitored through the Verizon Information Security Operations Center.

Verizon also applies access controls to secure MPLS and management system networks. Other access controls include best practices such as denying ICMP unreachable messages (no IP unreachable). Protocol specific access-lists would be configured on the Customer Edge router. Access Lists on the Customer Edge are defined by the Customer. Access Lists are utilized on the Provider Edge to secure the MPLS network but cannot be defined in detail in order to maintain that security which they provide. The first level of access list is applied to the inbound customer interface on the Provider Edge to ensure only applicable customer VPN traffic is allowed into the MPLS core.

Verizon uses the following mechanisms to secure the Verizon MPLS network:

- Data Center employees are unable to access network equipment via console access. Other groups are responsible for equipment configuration.
- Two-factor authentication is necessary to access network devices.
- Each login must be traced back to an individual. No group logins.
- Security administration level passwords must be reset whenever administration responsibilities are transferred.

1.2.2.2 MPLS WAN VPN STANDARDS

Bidders shall confirm that the Contractor's CALNET 3 MPLS WAN VPN services meet all of the standards described in Table 1.2.2.2.

Table 1.2.2.2 MPLS WAN VPN Standards

	Standard	Bidder Meets or Exceeds? Y	N
1	International Engineering Task Force (IETF) Standards Track Request for Comments (RFC's) for IPv6 when/where offered commercially by the Contractor.	**Y**	
2	All Standards Track IETF RFC's associated with MPLS constrained by Border Gateway Protocol (BGP) routing	**Y**	
3	All Standards Track IETF RFC's associated with Transport of Layer 2 frames over MPLS	**Y**	
4	IETF MPLS Working Group Standards Track RFCs	**Y**	
5	IETF Layer 3 VPN Working Group Standards Track RFCs	**Y**	
6	IETF Pseudo Wire Emulation Edge-to-Edge Working Group Standards Track RFCs	**Y**	
7	All IETF Standards Track RFC's associated with:		
7a	General IPSec	**Y**	
7b	Encapsulating Security Payload (ESP) and Authentication Header (AH)	**Y**	
7c	Key Exchange, Cryptographic Algorithms	**Y**	
7d	Internet Protocol Security (IPSec) Policy Handling	**Y**	
7e	IPSec Management Information Bases (MIBs)	**Y**	
7f	Remote Access, Certificate Authorities	**Y**	
7g	Secure Socket Layer (SSL) and Transport Layer Security (TLS)	**Y**	
8	Encryption, if offered, shall meet Triple Data Encryption Standard (3DES) and Advanced Encryption Standard (AES) in accordance with the appropriate Federal Information Processing standard (FIPS) publications and modules, including FIPS 140-2.	**Y**	

1.2.2.3 MPLS PERFORMANCE METRICS

Bidders shall confirm that the Contractor's solution will meet all of the requirements described in Table 1.2.2.3.

Table 1.2.2.3, MPLS Performance Metrics

	Requirement	Bidder Agrees? Y	N
1	Service availability shall be 99.9% measured port to port	**Y**	
2	MPLS shall have a packet loss of <0.2% measured port to port	**Y**	
3	MPLS shall have jitter <10ms measured port to port	**Y**	

1.2.2.4 MPLS REQUIRED GEOGRAPHIC SERVICE AREAS

The Contractor shall provide MPLS services in all Incumbent Local Exchange Carrier (ILEC) territories open to competition as defined by the California Public Utilities Commission (CPUC) where facilities are available either through bidder owned facilities or through resale of Incumbent Local Exchange Carrier facilities.

For DS3 access and below, the Contractor shall provide MPLS services at the same monthly rate and same non-recurring charge in all ILEC territories open to competition as determined by the CPUC for all On-Net and Off-Net locations.

For Optical Carrier (OC) or Ethernet access, the Contractor shall provide MPLS services at the same monthly rate and same non-recurring charge in all ILEC territories open to competition as determined by the CPUC for all Contractor On-net locations. Monthly recurring and non-recurring charges for Off-net locations shall be handled on an Individual Case Basis (ICB).

Ethernet services shall only be used in conjunction with MPLS services and not as a standalone service.

Bidder shall identify the strategy for establishing agreements with ILECs in areas open to competition as defined by the CPUC necessary to provide end-to-end service in these areas. Agreements shall be in effect at Contract award.

Bidder shall describe how MPLS service will be provided in ILEC territories closed to competition as defined by the CPUC necessary to provide service in these areas. The description shall include billing arrangements (such as "pass-through", "meet point"), invoicing and price structure. Contractor shall commit to establishing business relationships with these ILECs.

Bidder understands the requirements in Section 1.2.2.4 and shall meet or exceed them?
Yes X No_____

Description:

Verizon will provide MPLS services in all Incumbent Local Exchange Carrier (ILEC) territories open to competition as defined by the California Public Utilities Commission (CPUC).

For DS3 access and below, Verizon will provide MPLS services at the same monthly rate and same non-recurring charge in all ILEC territories open to competition as determined by the CPUC for all On-Net and Off-Net locations.

For Optical Carrier (OC) or Ethernet access, Verizon will provide MPLS services at the same monthly rate and same non-recurring charge in all ILEC territories open to competition as determined by the CPUC for all Verizon On-net locations. Monthly recurring and non-recurring charges for Off-net locations shall be handled on an Individual Case Basis (ICB).

Verizon Ethernet services will only be used in conjunction with MPLS services and not as a standalone service.

Special Construction will apply where local facilities to the Customer's site are not available from Verizon, either through Verizon-owned facilities or facilities acquired through a 3rd party.

Verizon has established agreements with ILECs in areas open to competition as defined by the CPUC necessary to provide end-to-end service in these areas. Agreements will be in effect at Contract award.

Verizon MPLS service will be provided in ILEC territories closed to competition as defined by the CPUC, necessary to provide service in these areas. The billing arrangements will be incorporated into the Verizon invoicing and pricing of the service. Verizon commits to establishing business relationships with these ILECs. Verizon will provide MPLS service and has current agreements with all Incumbent Local Exchange Carriers (ILEC) open to competition in California as defined by the CPUC. Verizon will establish relationships with new ILEC entities doing business in California as they appear.

1.2.2.5 MPLS NETWORK DESIGNS AND DIAGRAMS

Bidders shall provide network designs and diagrams for the network and MPLS services listed under this Section 1.2.2 (MPLS Services).

Bidders shall provide two (2) hard copies and one (1) electronic copy with their proposal. Electronic drawings shall be in .dwg, .dfx, .vsd or any mutually agreed format. Hard copy drawings shall be provided in standard D size.

Drawings must include a thorough presentation of how the Contractor's network(s) deployed for each service type will address the following:

1. ***Redundancy – Having one (1) or more circuits/systems deployed in case of failure of the main circuits/systems; and***

2. ***Diversity – Backbone network paths and infrastructure offered in such a way as to minimize the chance of a single point of failure.***

The Contractor shall provide revisions upon CALNET 3 CMO request.

Drawings shall include both topology and logical representations of all critical network backbone elements to include but not be limited to the following:

1. ***Geographic location of equipment;***

2. ***Type and capacity of equipment at each location including any backup systems;***

3. Service type;

4. Unique identifier for each element;

5. Circuit type; and,

6. General circuit route

Bidder understands the requirements in Section 1.2.2.5 and shall meet or exceed them?
Yes X No_____

Embedded Soft Copy of Drawing (Optional): Verizon has provided an embedded copy of the required drawings.

1.2.2.5 Verizon CA MPLS Network.vsd

Visio-1.2.2.5 Verizon MPLS Network.pdf

1.2.2.7 MPLS TECHNICAL REQUIREMENTS

Bidder shall confirm that its MPLS solution to be deployed for CALNET 3 will include the technical features and functionality described in Table 1.2.2.7.

Table 1.2.2.7, MPLS Technical Requirements

	Requirement	Bidder Meets or Exceeds? Y	N
1	Contractors shall be able to scale the number of VPNs supported by the network	Y	
	Bidders shall describe here the Contractor's ability to scale the number of VPNs: Verizon's MPLS network supports Multi-VRF and is able to scale the number of VPNs supported by the network.		
2	Contractor shall support multiple VPNs per access loop	Y	
	Bidders shall describe here the number of VPN's that will be supported in any one (1) access loop: Verizon's MPLS service will support multiple VPNs per access loop. The standard maximum number of VPNs over a single physical connection is as follows: 20 VPNs for traditional TDM interfaces and 12 for Ethernet interfaces. Verizon will also support non-standard numbers on an individual case basis.		
3	Contractor shall support multiple VPNs across the MPLS network	Y	
	Bidders shall describe here the number of VPN's that will be supported across the Bidder's MPLS network: Verizon's MPLS network currently supports thousands of VPNs and continues to scale and operate efficiently and effectively. Verizon will support the amount of VPN's that are required across Verizon's MPLS network.		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
4	Contractor shall provide the rapid service restoration practices for all MPLS deployments in accordance with the SLAs in Section 1.2.9.8 (Technical Service Level Agreements)	Y	
	Bidders shall describe here the Contractor's specific processes that will be employed to operate or restore services in the face of unanticipated incidents, disasters or catastrophes: **Maintaining Network Availability During Disasters** Verizon's MPLS network infrastructure is designed to eliminate any single point of failure in the network backbone infrastructure. All Provider Edge and Provider Core routers are equipped with redundant processor cards and DC power supplies and dual Provider Edge routers are deployed at backbone node sites. Route Reflector redundancy is achieved by deploying dual Route Reflectors at each site. All network elements have backup battery power and standby electrical generators. All trunking connections are dual-homed to diverse routers. **Disaster Recovery** Verizon has developed a Disaster Recovery and Business Continuity response strategy for a variety of disruptive events. Verizon follows a two-phased approach to disaster recovery. The first phase is designing systems with integrated backup strategies. The second phase is maintaining a proactive disaster recovery strategy to minimize the impact a disaster has on system operations. **Data Backup** To minimize the possibility that a disaster may disrupt system operations, Verizon designs solutions with built-in system redundancies, fault tolerances and switch-over technologies. The 'Production' instance is fully replicated on a real-time basis with a failover instance in another Network POP or Data Center. The redundant system operations are geographically separated within the Verizon high availability Data network. Verizon performs daily incremental and weekly full data backups of the data stored within the primary Data Center. The daily incremental backups are distributed to a geographically diverse secondary Data Center, and the data, operating systems and software versions at both centers are kept in sync in case of catastrophic failure at Verizon's primary Data Center. Verizon retains the backup files online for a minimum of 90 days. The weekly full data backup files are taken offsite. The data backups are maintained offsite for at least six (6) years, or longer as required by the Customer. Verizon enables a data Flashback feature for up to 24 hours. **Data Recovery** Verizon has developed Disaster Recovery strategies around industry best practices. Preparation includes the following:		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y N
	▪ Constructing a disaster recovery team. ▪ Performing an impact analysis to identify business processes and operations that are critical to an organization and variables that would affect them. ▪ Conducting a risk assessment. ▪ Planning a strategic response to a disaster and prioritizing operational performance goals. ▪ Defining a Disaster Recovery Plans to ensure the continued operation of critical functions. ▪ Developing and implementing a Disaster Recovery test plan. **Verizon Disaster Recovery Team** To achieve effective Disaster Recovery a member from each Verizon unit is represented on our Disaster Recovery Team. Each member is a specialist within each of their areas of expertise who not only develop the strategic direction for our disaster recovery processes, but are also the people who direct the testing and potential implementation of those processes and strategies. Our management organization, notification and communication strategies are handled through our designated Disaster Recovery Coordinator who acts as the central point of contact. In the event that the Disaster Recovery Coordinator is not available, an alternate Disaster Recovery Coordinator assumes the responsibilities of managing the response efforts. **Impact Analysis** Verizon performs a Business Impact Analysis to assess the impact through the identification of: ▪ Critical business processes. ▪ Impact of losing the support of any resource. ▪ Resources needed to recover and prioritize the recovery of processes and supporting systems. ▪ Timing within which levels of staffing, facilities, and services need to be recovered. **Disaster Recovery Risk Assessment/Risk Management** The second driver in determining disaster recovery requirements is an assessment of the level of threat and the extent to which the system is vulnerable to that threat. Verizon will perform Risk Assessment activities to help to determine priorities. **Verizon Disaster Recovery Plan (DRP)** Verizon has developed an enterprise level Disaster Recovery Plan (DRP) which outlines our strategic response to a disaster event and prioritizes the operational performance goals by which we would re-establish operations. In the event of a disaster, the Verizon Disaster Recovery Coordinator or Site Manager activates the Disaster Recovery Plan in conjunction with the overall Emergency/Disaster Alert and Invocation process and with the full support of all	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y N
	Managers and staff responsible for the impacted services or location. **Establishing Communication Channels** Following a disaster, Verizon designated Disaster Recovery Coordinators implement the following process: ▪ Immediately notify the designated Customer contacts in addition to activating the internal team Call Tree. ▪ Activate Verizon Emergency Management Bridge Line where each manager and appropriate staff members dials for further instruction. ▪ Set up the Primary Command Center(s) in the designated location(s) based on nature of disaster(s). ▪ Maintain the Status Line to provide basic instructions and status updates to all interested or impacted parties. **Ensuring Availability and Recovery of All System Functionality** Once communication channels have been established, the Disaster Recovery Team moves into the problem detection phase. During the problem detection phase of an emergency, the Disaster Recovery Team examines key areas of business function and establishes recovery priority based on the symptoms of the problem. The first priority is to re-establish the operation of critical infrastructure, hardware, applications and database services. After critical services are operating, the Team addresses restoring additional, ancillary systems and storage devices and ensuring that all areas of the facility are restored. Verizon ensures that the Disaster Recovery Plan remains current and accurate by: ▪ Continually updating the DRP. ▪ Revising the DRP based on an annual Disaster Recovery drill. ▪ Integrating Disaster Recovery planning as part of daily operations **Disaster Recovery Test and Implementation** To ensure that our plans work properly, the Disaster Recovery plans are tested frequently. The progression of exercises within the Test Plan is intended to prepare and build towards a comprehensive and realistic recovery capability. **Verizon Disaster Tests & Reviews** ▪ **Call Tree.** On a pre-determined basis a call-tree test or validation is performed to ensure that all contact information is correct, that all staff members can be contacted in a timely manner. ▪ **Walkthrough.** A documentation driven review and validation of recovery activities performed by all key representatives, who are questioned on their access to, understanding of, and confidence with, documented plans & recovery procedures. ▪ **Evacuation.** An actual emergency management evacuation of a facility or floor to test the ability for all on-site resources to vacate quickly and to gather at pre-designated areas. ▪ **Technical Recovery.** Technical recovery involves the simulation of one or more	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	components becoming unavailable in a protected environment to ensure that the recovery procedures are executed properly. ▪ **Simulated Recovery.** This test involves a controlled recovery of actual components whereby the recovery is simulated using live production data. ▪ **Live Recovery.** This test involves live production recovered to the recovery site to continue to service ongoing production operations, which includes a switchover or relocation of business operations to our redundant Data Center. ▪ **Post Exercise Review.** A review is performed by the Disaster Recovery coordinator to make suggestions for corrective actions and required updates to the DRP. The DRP is updated accordingly and a formal results summary is published to the Customer.		
5	Contractor shall provide redundant network circuits in the backbone network	**Y**	
	Bidders shall describe here the specific network configurations that will be utilized to provide redundancy to survive failures in the backbone network: Redundancy is the most important tool for ensuring network survivability. Verizon has explicitly engineered the MPLS network infrastructure to eliminate any single point of failure beyond the customer's access connection. All Provider Edge and Provider Core routers are equipped with redundant processor cards and DC power supplies and dual Provider Core routers are deployed at backbone node sites. Route Reflector redundancy is achieved by deploying dual Route Reflectors at each site. All network elements have backup battery power and standby electrical generators. All trunking connections are dual-homed to diverse routers. **Verizon's MPLS Backbone Topology** Verizon's MPLS backbone topology has been engineered to maximize resiliency and minimize failover times. The Provider Core is a closed private MPLS backbone – which means there is no Internet connectivity dedicated solely to MPLS Label Switching and no support for direct customer access connections. Using a dedicated Provider Core enhances network scalability by reducing OSPF adjacencies, reducing the number of routes through summarization, and providing a high-speed backbone for Provider Edge trunk aggregation. All Provider Edge routers are diversely trunked using dual uplinks into two diverse Provider Core routers. Dual routers are deployed at each Provider Core site and diversely trunked using 10GigE and 100GE circuits. Every Provider Core router has at least 2 physically diverse paths to other Provider Core sites to ensure that a node will never be isolated. Both the Provider Edge and Provider Core trunks are QoS-enabled with a Layer 3 QoS scheme that uses LLQ (Low Latency Queuing) and CBWFQ (Class-Based Weighted Fair Queuing) to enable QoS on a per hop basis, which delivers end-to-end QoS. **Verizon's MPLS Network**		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	The Verizon MPLS network will automatically detect and dynamically reroute around transmission path failures. The OSPF routing protocol is used within the MPLS network to establish and maintain IP reachability. LDP (Label Distribution Protocol) is used to dynamically establish LSPs (Label Switched Paths) between all Provider Edge and Provider Core routers and will automatically re-establish the LSP following an OSPF rerouting event. Verizon has deployed an innovative geographically diverse dual-plane Route Reflector architecture that requires only 2 Border Gateway Protocol peering sessions per Provider Edge router, minimizing the peering load on the Provider Edge and the probability of Border Gateway Protocol re-convergence events. Multiple pairs of route reflectors are deployed in each geographic region. Every Provider Edge router within a region maintains Border Gateway Protocol peering sessions with the Route Reflector pair in one of the planes within its region. Each Route Reflector pair is capable of supporting the full load of its client Provider Edge routers so that a Route Reflector failure will be completely transparent.		
6	Contractor shall provide network diversity to eliminate single points of failure in the backbone network	**Y**	
	Bidders shall describe here the diversity that will be designed in the MPLS network to eliminate single points of failure in the backbone network: The Verizon MPLS backbone is engineered as a single MPLS backbone with consistent engineering standards and equipment regardless of region. The MPLS backbone is not segmented into separate regions and utilizes the same Autonomous System number (AS 65000) worldwide. MPLS access is globally available today in over 190+ cities and over 67 countries with ongoing expansion. Verizon has explicitly engineered the MPLS network infrastructure to eliminate any single point of failure beyond the customer's access connection. All Provider Edge (PE) and Provider Core routers are equipped with redundant processor cards and DC power supplies, and dual Provider Core routers are deployed at backbone node sites. Route Reflector redundancy is achieved by deploying dual RRs at each site. All network elements have backup battery power and standby electrical generators. All trunking connections are dual homed to diverse routers. The Provider Edge and Provider Core routers are directly trunked together via high-speed connections. Every Provider Edge router is diversely trunked into two diverse Provider Core routers to insure a node will never be isolated. Dual routers are deployed at each Provider Core site and diversely trunked. Every Provider Core router has at least two (2) physically diverse paths to other Provider Core sites to ensure a node will never be isolated. Verizon designs the MPLS Backbone to be able to reroute around trunk failures, based on the number of trunks that exist out of any given location and the utilization associated with them. Verizon has deployed an innovative geographically diverse Route Reflector architecture		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	that requires a limited number of Border Gateway Protocol peering sessions per Provider Edge router, minimizing the peering load on the Provider Edge and the probability of Border Gateway Protocol re-convergence events. Dual route reflectors are deployed in each geographic region and each Provider Edge router within a region maintains Border Gateway Protocol peering sessions with the Route Reflectors within its region. The RRs within a region are each capable of supporting the full load so that a failure will be completely transparent.		
7	Contractor shall provide a remote access service that allows an off-net Customer location access to any on-net Customer site contained within the same VPN. The solution may utilize the public Internet.	**Y**	
	Bidders shall describe here the specific remote access Customers shall have to the MPLS: Verizon will provide a remote access service that allows an off-net Customer location access to any on-net Customer site contained within the same VPN. Remote access to and from an off-net location to the MPLS VPN can be accomplished with any internet service provider via the public internet from the Verizon Secure Gateway port into the Private MPLS network VPN. Available access speeds to the Secure Gateway port will vary depending upon the access type and the provider of the particular access service. Verizon provides internet access to connect to the Secure Gateway Port via Internet DSL, Internet Dedicated Access and Internet Dedicated Ethernet. Speeds include the following: Secure Internet Gateway Port: 128Kbps - 622Mbps Internet DSL: 128Kbps – 2.3Mbps Internet Dedicated Access: T1 - OC48 Internet Dedicated Ethernet: 2Mbps – 10Gbps Verizon will also include a fully-managed solution, comprised of a router hardware client, between the Internet connection and the secure gateway port, where an IPSec connection is terminated on the MPLS Provider Edge network, which can logically connect to the customer's VPN.		
8	The remote access service shall be secured.	**Y**	
	Bidders shall describe here how the MPLS remote access solution will be secured: Verizon's MPLS remote access solution provides secure, encrypted, remote access to the customer's Verizon MPLS network for remote locations and employees. The remote access solution is enabled by geographically-dispersed network gateways deployed at Verizon points of presence (PoPs). The service provides remote access through an exclusively-provisioned secure access gateway port between the remote customer site and the Verizon remote access network service.		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	Remote sites use Verizon or third-party dial, Wireless Internet, DSL, or Internet broadband to connect to the Verizon IP Internet backbone. Then, using a VPN software client, the remote site automatically establishes a secure IPSec tunnel, through the IP network to the secured port, located on a Verizon network gateway. The VPN client allows optional split tunneling for flexible end-user access to the customer's Verizon network service only, or to the customer's Verizon network service and the public Internet.		
9	The MPLS WAN VPN service shall support controlled and monitored connections between the MPLS network and the public Internet via a hardened trusted managed firewall	**Y**	
	Bidders shall describe here the hardened trusted managed firewall that will be provided and how it will be used to control and monitor connections between the MPLS network and the public Internet: Verizon is able to provide VPN access and hardened, trusted, managed firewall services over a common architecture, using a secured portion of a network firewall. The managed firewall service bundles IP access with a network-based firewall to protect against a range of network security threats. The firewall service uses a virtual context within the secure gateway to manage inbound and outbound traffic flows while providing access from the customer's private Virtual Route Forwarding (VRF) to the Internet. A virtual firewall instance is created within a firewall services module within the secure gateway infrastructure. The VLANs within the secure gateway isolate traffic between users and allow it to flow between your private Customer VRF, the firewall context, and ultimately to and from the public Internet.		
10	Contractor shall list points-of-presence (PoP) where provider edge routers are located	**Y**	
	Bidders shall list here the locations of all PoPs where provider edge routers are deployed for CALNET 3 and the associated common language location identifier (CLLI): Verizon's MPLS network in California currently consists of ten (10) PoP locations, each with multiple Provider Edge routers, as depicted in 1.2.2.5, "MPLS Network Designs and Diagrams." Locations & CLLI identifiers are: ▪ Bakersfield – BKFDCA12 ▪ Dominguez Hills – TRNCCA11 ▪ Hayward – HYWRCA11 ▪ Los Angeles – LSANCA03 ▪ Rialto – RILTCA11		

Table 1.2.2.7, MPLS Technical Requirements (continued)

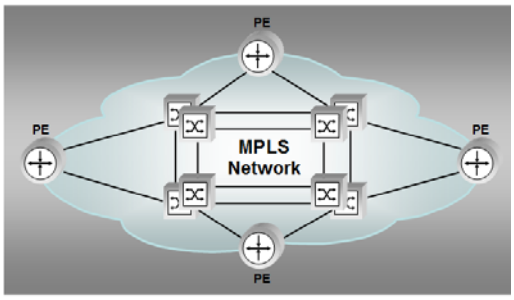
	Requirement	Bidder Meets or Exceeds? Y	N
	▪ Sacramento – WSCRCA03 ▪ San Diego – SNDGCA03 ▪ San Francisco – SNFCCA05 ▪ San Jose – SNJSCA02 ▪ Santa Clara – SNVACA01		
11	The MPLS WAN VPN service shall be resilient	**Y**	
	Bidders shall describe here the minimum level of service that will be maintained amid network failure: **Bidders shall describe here the minimum level of service that will be maintained amid network failure:** The minimum level of service that will be maintained amid network failure in Verizon's MPLS WAN VPN Network is delineated within the Service Level Agreements as described in the RFP. To maintain this minimum level of service, Verizon architects each Point of Presence (POP) as a highly resilient Layer 3-routed environment. Verizon's POP minimum design requirements include diverse entrance facilities and diverse power feeds with generator backup. The network Provider Edge (PE) Routers are fully redundant and connect to multiple (no less than 2) PE/PCore Routers which mitigate the impact of physical route failures while allowing for logical reroutes as a core attribute of a Layer 3-routed environment as illustrated in this diagram.  **Redundancy** MPLS routers have diverse physical and logical connectivity to the network Verizon has also provided a network diagram in the SOW Supporting Technical Literature section that demonstrates this capability to meet this minimum level of service.		
12	Contractor shall provide support for multiple Layer 2 access protocols	**Y**	
	Bidders shall describe here the Layer 2 access protocols that will be utilized with the Contractor's solution: Verizon's solution will use Layer 2 access protocols and/or encapsulation.		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	Layer 2 access protocols used in Verizon's Layer 3 MPLS network is commonly known as encapsulation. The Layer 2 protocols are encapsulated within the Layer 3 IP packet between the Customer Edge and Provider Edge routers. Verizon's MPLS supports the following Layer 2 access protocols: ▪ Frame Relay ▪ Packet Over SONET (POS) ▪ High-level Data Link Control (HDLC) ▪ Point-to-Point Protocol (PPP)		
13	Contractor shall provide segregation of Customer traffic in a VPN environment	**Y**	
	Bidders shall describe here how the solution will segregate Customer traffic in a VPN and any additional features included by the Contractor at no cost that are available to Customers to protect access to Customer data: The Verizon MPLS solution will segregate Customer traffic in a VPN and will provide additional features to Customers at no cost to protect access to Customer data: All of the Layer 3 functionality in the MPLS network is located in the core of the network, and there is *no interconnectivity* between the public IP network and Verizon's private MPLS network. Verizon's MPLS meets or exceeds the security characteristics described below, which are typically associated with traditional Layer 2 VPN service: ▪ It is necessary to have addressing and routing separation. ▪ The internal structure of the backbone network must be hidden from the outside. ▪ The network must be resistant to attacks. **Address Space** Customers need the flexibility of maintaining their own addressing plans and the freedom to use either public or private address space. MPLS allows the use of public or private IP addressing. This is possible by adding a 64-bit route distinguisher (RD) to each IPv4/IPv6 route. This new route called a "VPN-IPv4/IPv6 address" ensures that VPN-unique addresses are also unique in the MPLS core. **Routing Separation** All of the Layer 3 functionality in the MPLS network is located in the core of the network, and there is absolutely no interconnectivity to public IP networks from this environment. Layer 3 MPLS provides route separation by having each Provider Edge router maintain a separate routing table for each connected VPN. This routing table, called a "Virtual Routing and Forwarding instance (VRF)," contains the routes from one VPN that were learned statically or through a dynamic routing protocol. These VRFs are separate from each other as well as from the global routing table. Individual VRFs are further secured from injecting non-customer routes by the		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y N
	use of Import and Export targets with Multi-Protocol Border Gateway Protocol. In addition, VRF tables are set up to only accept routes and pass user data from the sub-interface that is set up for the directly connected customer. MPLS has the same addressing and routing separation capabilities as comparable Layer-2 VPNs, such as Frame-Relay or ATM. **Hiding the MPLS Core Network** MPLS does not reveal additional unnecessary information even to customer VPNs. Since the interface to the VPNs is Border Gateway Protocol there is no need to reveal any information about the core. The only information that is required in the case of a routing protocol between Provider Edge and Customer Edge is the address of the Provider Edge router. If this is not desired, static routing can be configured between the Provider Edge and CE. With this measure, the MPLS core can be kept completely hidden and be addressed using public or even private addressing. Using the Trace Route utility, the MPLS cloud does not show up as a hop in the output. **Resistance to Attacks** With MPLS, it is impossible to gain access into other VPNs, unless this has been specifically configured (extranet configuration), making it is impossible to attack other VPNs from within a VPN. This makes MPLS as secure as its Frame-Relay and ATM counterparts. **MPLS Label Spoofing** All interfaces into the MPLS core network only require IP packets, without labels. For security reasons, a Provider Edge router should never accept a packet with a label from a Customer Edge router. The implementation is such that labeled packets that arrive on any interface where label switching is not enabled will be dropped – which means that it is not possible to insert fake labels, since no labels will be accepted. It is almost impossible to insert a 'spoofed' label into an MPLS network to gain access to another VPN or the MPLS core. In this capability, MPLS provides the same security and privacy associated with Layer 2 Frame Relay & ATM based networks. Customers do not have to add a connection-oriented overlay to the Verizon MPLS Service network to encrypt tunnels, which would be required if the customer was using Internet Protocol Security (IPSec).	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
14	The MPLS WAN VPN service shall support IPv4 Capability	**Y**	
	Bidder's Product Description: Verizon MPLS network will support IPv4 Capability on the existing MPLS architecture deployed today. Whether sending IPv4 or IPv6, it will be transparent to the backbone, as all packet forwarding within the MPLS network is based on MPLS labels only. Multi Protocol Border Gateway Protocol continues to carry routing information, whether IPv4 or IPv6.		
15	The MPLS WAN VPN service shall support IPv6 Capability when/where offered commercially by the Contractor	**Y**	
	Bidder's Product Description: Verizon MPLS supports IPv6 and will mirror the same connectivity and service offerings which are available today with IPv4. This includes support for Quality of Service (QoS) along with the same interface and speed options. MPLS has been readying the provider edge devices to support IPv6. Provider Edge routers have been upgraded to support IPv6. IPv6 support is based on RFC 4659, an extension of RFC 4364, which allows for the distribution of IPv6 routes. Support for IPv6 is provided by the same MPLS architecture deployed today. The MPLS core does not require network upgrades to transport IPv6 traffic. IP Addressing, whether IPv4 or IPv6, is transparent to the core backbone, as all packet forwarding within the MPLS network is based on MPLS labels only. The control plane remains untouched and continues to utilize OSPF and LDP for label path selection. Multi Protocol Border Gateway Protocol continues to carry customer routing information, whether IPv4 or IPv6. The IPv6 awareness, and upgrade potential, exists only at the network edge on the Customer Edge to Provider Edge link.		
16	The Contractor shall provide MPLS port diversity capability within the same MPLS POP	**Y**	
	Bidders shall describe here the MPLS port diversity capability to be included in the Contractor's solution: Each Verizon MPLS PoP contains multiple carrier-class router nodes, each with multiple control and processor planes. Port diversity can be provided within the same PoP by using a second Provider Edge in that PoP, or using a port that is controlled by a different processor and control plane —which, in effect, is a separate logical device.		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
17	The Contractor shall provide MPLS PoP diversity capability	**Y**	
	Bidders shall describe here the MPLS point-of-presence diversity capability to be included in the Contractor's solution: Verizon MPLS allows for PoP diversity, also referred to a Geographic Diversity or Gateway Deiversity, which would ensure that the customer's circuit is diverse at the POP, or gateway level from another customer MPLS circuit.		
18	The Contractor shall provide dial backup capability to support routing of traffic outside of the MPLS network in case of MPLS network failure	**Y**	
	Bidders shall describe here the dial backup capability supported by the Contractor's solution: Verizon will provide dial backup capability to support routing of traffic outside of the MPLS network in case of MPLS network failure.		
19	The MPLS WAN VPN service shall support IP Multicasting	**Y**	
	Bidders shall describe here the maximum number of multicast routes that will be supported by the Contractor's solution: Verizon MPLS supports IP Multicasting, which is considered a bandwidth-conserving technology that reduces traffic by simultaneously delivering a steady stream of information to multiple locations. MPLS Multicasting VPN supports Protocol Independent Multicast Sparse Mode -Version 2 (PIM-SM (v2)) and PIM Source Specific Multicast (SSM). The default maximum number of multicast routes supported as a standard service in a MPLS VPN is 200. This can be increased on a per-Customer-VPN basis.		
20	The MPLS WAN VPN service shall provide Multiple CoS to support the prioritization of Entity applications and traffic flows	**Y**	
	Bidders shall describe here the CoS levels that will be supported for CALNET 3 and the ingress/egress profiles supported by the Contractor's solution. Bidders shall describe here the mechanisms that will be used for CALNET 3 that allow the Customer to mark packets for treatment that corresponds to the ingress/egress policy chosen: The Verizon MPLS Network provides multiple Classes of Service (CoS) for different traffic types. Rate policies provide separate bandwidth reservations for the different traffic classes. There are five (5) Standard CoS for traffic types and one (1) Optional (unsolicited feature) CoS for traffic types. **Standard Classes of Service** The Standard supported Classes of Service are as follows:		

Table 1.2.2.7, MPLS Technical Requirements (continued)

Requirement	Bidder Meets or Exceeds? Y N
▪ **Assured Forwarding 4 (AF4).** Used for either video or business critical applications such as SAP, Siebel, PeopleSoft, or Point of Sale (POS). Traffic marked AF4 has the second highest forwarding priority. ▪ **Assured Forwarding 3 (AF3).** Associated with business critical applications; i.e., SAP, Siebel, PeopleSoft, POS, TN3270 emulations, Citrix. The main difference between AF4 and AF3 is that the AF4 class is associated primarily with video applications. Traffic marked AF3 has the third highest forwarding priority. ▪ **Assured Forwarding 2 (AF2).** Ideal for Telnet, extranet Web applications, and general data applications. Traffic marked AF2 are given fourth highest forwarding priority. ▪ **Assured Forwarding 1 (AF1).** Ideal for Batch Data and general data applications. Traffic marked AF1 are given fifth highest forwarding priority. ▪ **Best Effort (BE).** With the lowest forwarding priority, BE is typically used for FTP, database synchronization, eMail, Web surfing. Traffic marked BE has the lowest priority. **Classes of Service and Traffic Types** **Queue** / **Naming** AF4 / Video / Priority Data AF3 / Mission Critical Data AF2 / Business Data AF1 / General Data BE / Default Data EF *(Unsolicited)** / Real Time / Voice ***Expedited Forwarding (EF). *Unsolicited.*** The optional and sixth CoS, Expedited Forwarding (EF), is dedicated for real-time applications such as voice. A Gold CAR is contracted and assigned ("subscription") to the EF class. Traffic marked EF has the highest traffic priority. **Access to Priority Classes** Access to these traffic priority classes is based on the following as applicable: - **IETF DSCP Settings.** IP precedence settings applied to the ToS (Type of Service) byte in the IP header. In order to use the CoS, either DSCP or IP precedence must be set by the Customer Edge device before the traffic leaves the premises. If congestion occurs on the MPLS Network, Real-Time traffic has the highest delivery ratio above all traffic types. *(Unsolicited: Real-Time – Expedite Forwarding bandwidth will be maintained*	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y N
	regardless of the traffic type. Real-time traffic that is delivered to the MPLS network in excess of the subscribed EF level will be dropped.) - **CoS is Layer 3 Based.** The CoS scheme for the MPLS Network is IP based and not Layer 2 based, which means that the CoS obtained is related to Layer 3 parameters and not Layer 2. The mechanisms used by CoS are as follows: ▪ IP Precedence - Packet Classification ▪ Low Latency Queuing (LLQ) ▪ Class-Based Weighted Fair Queuing (CBWFQ) ▪ Weighted Random Early Discard (WRED) **Bandwidth Reservations - Policing of the Classes of Service** - **Video/Priority Data traffic** is not regulated at the ingress of the MPLS network and will be able to burst to full port speed if available, and based on the outbound prioritization configured on the Customer Edge router. Rate Policies are configured with CBWFQ to prioritize data and WRED for congestion control in this class. Traffic that is marked Video/Priority Data will be provided at least 40% of the bandwidth remaining from Real-Time traffic. Traffic that is marked Priority Data High will be delivered in a higher ratio than Priority Data Low as the queue approaches a congested state. - **Mission Critical Data traffic** is not regulated at the ingress of the MPLS network and will be able to burst to full port speed if available, and based on the outbound prioritization configured on the Customer Edge router. Additionally, when using Diff-Serv, customers may further designate traffic into Mission Critical High/Low levels. Rate Policies are configured with CBWFQ to prioritize data WRED for congestion control in this class. Traffic that is marked as Mission Critical Data will be provided at least 16% of the bandwidth remaining from Real-Time traffic. Traffic that is marked Mission Critical High will be delivered in a higher ratio than Mission Critical Low as the queue approaches a congested state. - **Business Data traffic** is not regulated at the ingress of the MPLS network and will be able to burst to full port speed if available, and based on the outbound prioritization configured on the Customer Edge router. Rate Policies are configured with CBWFQ to prioritize data WRED for congestion control in this class. Traffic that is marked Business Data High will be delivered in a higher ratio than Business Data Low as the queue approaches a congested state. - **General Data traffic** is not regulated at the ingress of the MPLS network and will be able to burst to full port speed if available, based on the outbound prioritization configured on the Customer Edge router. Rate Policies are configured with CBWFQ to prioritize data WRED for congestion control in this class. Traffic that is marked General Data High will be	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y N
	delivered in a higher ratio than General Data Low as the queue approaches a congested state. - **Default Data traffic** is not regulated at the ingress of the MPLS network and will be able to burst to full port speed if available, and based on the outbound prioritization configured on the Customer Edge router. Rate Policies are configured with CBWFQ to prioritize data WRED for congestion control in this class. Traffic that is marked as General Data will be provided at least 4% of the bandwidth remaining from Real-Time traffic. **Traffic Engineering and Quality of Service (QoS)** Verizon uses several techniques to deliver Quality of Service (QoS) and manage Traffic Engineering on the MPLS Network. These techniques allow sharing of links in the presence of contending traffic flows by using rate policies, and queuing disciplines. These techniques are applied to all traffic flows on the MPLS Network. **LLQ and CBWFQ** The Provider Core trunks are QoS-enabled with a Layer 3 QoS scheme that utilizes Low Latency Queuing (LLQ) and Class-Based Weighted Fair Queuing (CBWFQ) to enable QoS on a per hop basis instead of relying on over-provisioned trunks like other Service Providers. Access connections and the uplink trunks between the Provider Edge routers and the Provider Core routers utilize a similar but enhanced Layer 3 QoS scheme, e.g. LLQ and CBWFQ, which, together with the core, provides end-to-end QoS support for MPLS customers. **WRED** Weighted Random Early Discard (WRED) is also used to manage network congestion. WRED is a congestion avoidance mechanism that slows traffic by randomly dropping packets based on class when congestion exists. As outbound buffers fill up, WRED drops a few frames early before congestion becomes serious. The network then sends a message to the end-user TCP/IP sessions to slow down. The resulting drop in traffic load relieves the congestion that otherwise would have occurred. **Core Routing** Every Provider Edge router is diversely trunked into two diverse Provider-Core (Provider Core) routers to insure a node will never be isolated. Every Provider Core router has at least two physically diverse paths to other Provider Core sites to insure a node will never be isolated. Open Shortest Path First (OSPF) Routing is used within the Provider Core to establish and maintain IP reachability. Using a dedicated Provider Core enhances network scalability by reducing OSPF adjacencies and providing high density aggregation of Provider Edge trunks. This diverse, redundant design allows maximum throughput in the network, minimizing congestion. **Core Capacity** Verizon carefully models each and every customer before implementing MPLS, using WANDL network modeling and optimization software. This helps ensure that the MPLS Network infrastructure is properly engineered to support enterprise networks. Daily monitoring is performed on the network to track actual network traffic and forecast	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	accordingly. For physical trunk utilization, if the peak traffic average reaches 50%, Verizon will augment the network. Based on this information the Data Traffic Engineering group proactively deploys additional switches/ports/trunks to ensure that customer traffic sent across the backbone is delivered in accordance with applicable Service Level Agreement.		
21	The MPLS WAN VPN service shall support the division of an MPLS port into multiple logical channels such that each logical channel can be used to support a VPN.	**Y**	
	Bidder's Product Description: Verizon will provide MPLS WAN VPN service to support division of MPLS into multiple, logical channels, which can be used to support VPNs. **VRFs (Virtual Routing Forwarding)** can be implemented to create smaller VPNs inside of a customer's Verizon MPLS service. **VRF-Lite** MPLS uses VRF-lite with multiple logical interfaces, such as VLANs or virtual circuits. VRF-lite features a per-site forwarding table. Every site to which the Provider Edge router is attached is associated with one of these tables. A VRF will look up a particular packet's destination IP address only if the arriving packet is associated with the forwarding table. Associations are made by mapping the logical interface access (such as a VLAN or Virtual Circuit) or physical interface access to the VRF. Several departments can belong to the same VRF. **Multiple VPNs over a Single Access Circuit**		

Table 1.2.2.7, MPLS Technical Requirements (continued)

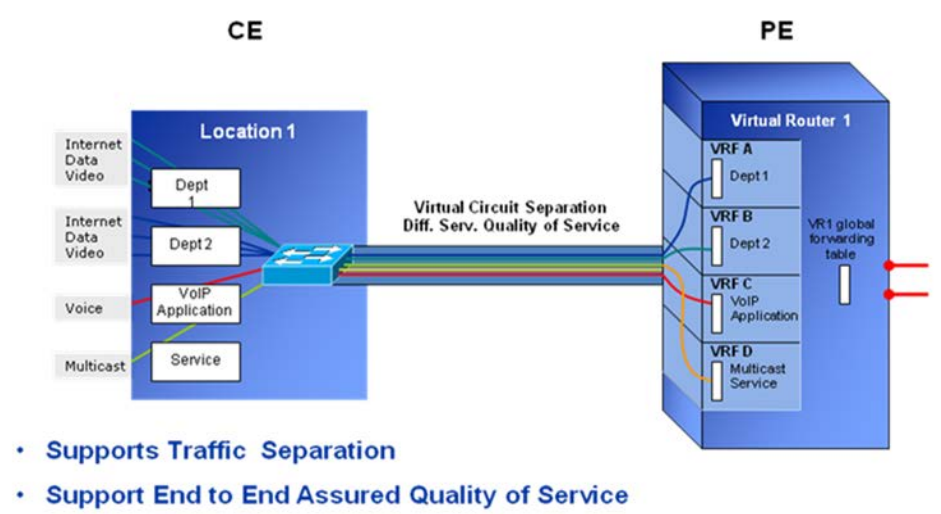
Requirement	Bidder Meets or Exceeds? Y N
 ***Provisioning of multiple VPNs over a single access circuit.*** VRF-lite enables the customer to build end-to-end departmental networks by extending the routing separation provided by MPLS to the customer's local intranet. The Border Gateway Protocol/MPLS VPN technology implemented in MPLS provides per-customer routing separation by building a separate Virtual Routing & Forwarding (VRF) table in the MPLS Provider Edge devices for each customer VPN. The use of VRFs ensures that any customer or site that belongs to a VPN is provided access only to the set of routes contained within that VRF table. With VRF-lite – *also known as Multi-VRF CE (*Customer Edge) – the concept of VRFs is extended to the Customer Edge router. Now the Customer Edge router has the ability to maintain separate VRF tables to extend the privacy and security of an MPLS VPN network down to the various LANs in a branch office. Multiple VPNs can be configured on the MPLS network to separate data traffic by department or application. Customers who implement VRF-lite on their Customer Edge router can create multiple VPN connections into MPLS via a single MPLS Port. Each department on the customer's LAN can have a virtual connection (through a Permanent Virtual Circuit or VLAN) to the MPLS service. This enables customers to segment their network and to dedicate bandwidth for each organization based on their unique needs. Access encapsulation must be Frame Relay in order to utilize multiple logical sub-interfaces.	

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
22	The MPLS WAN VPN service shall support access speeds from 128 Kbps to 10 Gbps	**Y**	
	Bidder's Product Description: Verizon's MPLS service has a number of available access, transport and port speeds ranging from 56Kbps through 10Gbps.		
23	The MPLS WAN VPN service shall support multiple network interfaces	**Y**	
	Bidders shall list here the network interfaces that will be supported for CALNET 3, e.g., Dedicated Private Line, SONET, or Ethernet: Verizon's MPLS supports multiple network interfaces, including dedicated private line, SONET, or Ethernet network interfaces.		
24	The MPLS WAN VPN service shall support multiple Layer 2 protocols	**Y**	
	Bidders shall list here the Layer 2 protocols that will be supported for CALNET 3: Verizon MPLS supports the following Layer 2 protocol encapsulation methods: ▪ Frame Relay ▪ Packet Over SONET (POS) ▪ High-level Data Link Control (HDLC) ▪ Point-to-Point Protocol (PPP) ▪ Ethernet		
25	The MPLS WAN VPN service shall support wireless Customer access capability to the MPLS network	**Y**	
	Bidder's Product Description: Verizon's MPLS WAN VPN service supports wireless access to MPLS through the Verizon Wireless private data network. 4G/LTE, 3G, and 1xRTT access speeds are supported, based on customer signal strength to a Verizon Wireless tower. This Verizon Wireless data service is usage sensitive. Speeds supported through the Verizon Wireless private data access network include – ▪ 1xRTT supports access speeds up to 144Kbps ▪ EVDO Rev A supports uplink access speeds up to 800 Kbps and downlink access speeds up to 1.4 Mbps ▪ 4G LTE supports uplink speeds up to 5 Mbps and downlink access speeds up to 12 Mbps		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
26	The MPLS WAN VPN service shall support Digital Subscriber Line (DSL) with speeds from 128 Kbps to 1500 Kbps	**Y**	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will support Digital Subscriber Line (DSL) with speeds ranging from 128 Kbps to 1500 Kbps.		
27	The MPLS WAN VPN service shall support Customer access to the MPLS network via satellite communications	**Y**	
	Bidder's Product Description: Verizon's MPLS WAN VPN service will support Customer access via satellite communication. Verizon's Private Satellite service enables customers to access the Verizon MPLS network from any location within the satellite coverage area. This service is an effective broadband connectivity solution that provides access to customer remote locations in all 50 states, as well as Puerto Rico and the U.S. Virgin Islands. Remote satellite terminals are aggregated using an individual Virtual LAN (VLAN) per customer. Each VLAN is mapped to an MPLS PVC at the satellite hub. Private Satellite service provides speeds up to 2 Mbps transmit, 2 Mbps receive as a standard service offering, with speeds above 2 Mbps available via the ICB process.		

Table 1.2.2.7, MPLS Technical Requirements (continued)

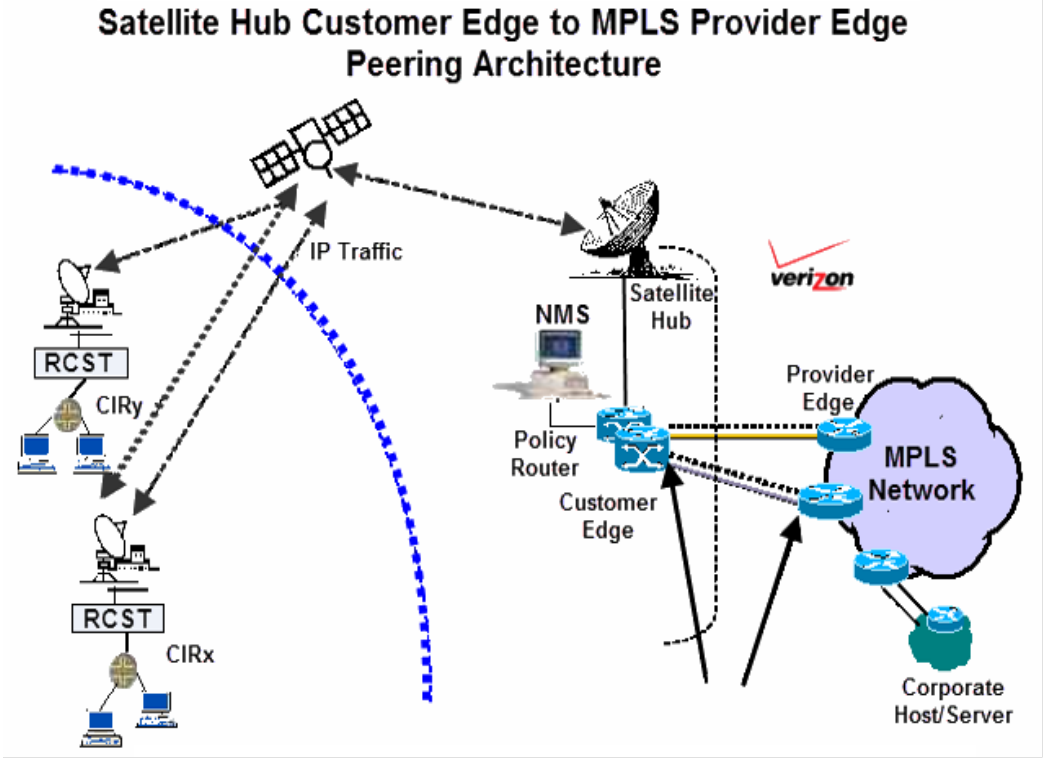
	Requirement	Bidder Meets or Exceeds? Y	N
			
28	The MPLS service shall include inside wiring/demarcation extension up to 300 feet in Customer provided conduit.	Y	
	Bidder's Product Description: Verizon MPLS service will include inside wiring/demarcation extension up to 300 feet in customer provided conduit.		
29	The MPLS service shall include business line and modem for out-of-band emergency access to the managed router	Y	
	Bidder's Product Description: Verizon MPLS service will include modem and business line for out-of-band emergency access to the managed router.		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
30	Contractor shall identify managed router reports available at no additional charge. Bidder shall describe the method of accessing these reports.	**Y**	
	Bidder's Product Description: Verizon provides reports that show CPE health (CPU, memory utilization) and LAN/WAN interface bandwidth utilization and errors at no additional charge. In addition to the CPE health reports, Verizon includes capacity planning, What-If reporting, as well as On-Demand and scheduled capacity analysis reports that include TopN, Trend, and At-a-Glance as a standard service at no additional cost. All reports are available and accessed through the Verizon Enterprise Center (VEC) portal.		
Contractor shall provide fully managed router service bundles that include:			
31a	Router Maintenance. Proactively detect, isolate and resolve hardware, software and firmware faults associated with the managed router and modem used for access to the managed router. The Contractor shall also respond to Customer reported faults. Router maintenance shall be provided 24x365. If dispatch is required, a Field Service Repair Technician shall arrive within four (4) hours of isolating the fault to the managed router/modem. Customer shall be notified of router faults and be provided trouble status at (1) hour intervals.	**Y**	
	Bidder's Product Description Verizon proactively detects, isolates and resolves hardware, software and firmware faults associated with the managed router and out-of-band management modem. Additionally, Verizon will respond to Customer-reported faults. Verizon provides router maintenance 24x365. If a dispatch is required, a Field Service Repair Technician shall arrive within four (4) hours of isolating the fault to the managed router or modem. Verizon will notify Customer of detected and reported faults within fifteen (15) minutes and will provided a trouble status on one (1) hour intervals or better.		
31b	Router Monitoring. Proactively detect, isolate and resolve logical faults associated with the managed router. Router monitoring shall be provided 24x365.	**Y**	
	Bidder's Product Description Verizon proactively detects, isolates, and resolves logical faults associated with the managed router. Verizon provides router monitoring 24x365.		
31c	Router Management. Manage router configuration. This includes passwords, access lists and configuration changes due to moves, adds, changes and deletes.	**Y**	
	Bidder's Product Description		

Table 1.2.2.7, MPLS Technical Requirements (continued)

	Requirement	Bidder Meets or Exceeds? Y	N
	Verizon's Router Management provides for the management of the router configuration. Changes covered by Router Management include (but are not limited to)– ▪ Password changes ▪ Access lists ▪ Configuration changes due to moves, adds, changes and deletes.		
31d	Network Monitoring. Proactively detect, isolate and resolve network faults. Network monitoring shall be provided 24x365. Customer shall be notified of network faults and be provided trouble status at one (1) hour intervals.	**Y**	
	Bidder's Product Description Verizon will proactively detect, isolate and resolve network faults associated with customer networks 24x365. Additionally, Verizon will respond to Customer reported faults. Verizon will notify Customer of detected and reported faults within fifteen (15) minutes and will provided a trouble status on one (1) hour intervals or better.		

1.2.2.8 MPLS TRANSPORT SPEEDS

Contractor's CALNET 3 solution shall include transport options to one (1) endpoint for each of the speeds detailed in Tables 1.2.2.8. Pricing for each of these speeds will be provided by the Bidder in the response to the Subcategory Cost Worksheets.

1.2.2.8.1 MPLS Port Transport Speeds

Table 1.2.2.8.1.a, MPLS Port Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS Transport DS1 Port service at minimum line rate of 128 Kbps	**Y**		PORT0128
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 128 Kbps port only service on sub rate DS1 Port.			
2	MPLS Transport DS1 Port service at minimum line rate of 384 Kbps	**Y**		PORT0384
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 384 Kbps port only service on sub rate DS1 Port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
3	MPLS Transport DS1 Port service at minimum line rate of 512 Kbps	**Y**		PORT0512
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 512 Kbps port only service on sub rate DS1 Port.			
4	MPLS Transport DS1 Port service at minimum line rate of 768 Kbps	**Y**		PORT0768
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 768 Kbps port only service on sub rate DS1 Port.			
5	MPLS Transport DS1 Port service at minimum line rate of 1.024 Mbps	**Y**		PORT1024
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 1.024 Mbps port only service on sub rate DS1 Port.			
6	MPLS Transport DS1 Port service at minimum line rate of 1.544 Mbps	**Y**		PORT1536
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 1.544 Mbps port only service on a full rate DS1 Port.			
7	MPLS Transport NxDS1 Port service at minimum line rate of 3.088 Mbps	**Y**		MPND0003
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 3.088 Mbps port only service on a full rate Multilink PPP 2x DS1 Port.			
8	MPLS Transport NxDS1 Port service at minimum line rate of 4.632 Mbps	**Y**		MPND0004
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 4.632 Mbps port only service on a full rate Multilink PPP 3x DS1 Port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
9	MPLS Transport NxDS1 Port service at minimum line rate of 6.176 Mbps	**Y**		MPND0006
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 6.176 Mbps port only service on a full rate Multilink PPP 4x DS1 Port.			
10	MPLS Transport NxDS1 Port service at minimum line rate of 7.720 Mbps	**Y**		MPND0007
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 7.720 Mbps port only service on a full rate Multilink PPP 5x DS1 Port.			
11	MPLS Transport NxDS1 Port service at minimum line rate of 9.264 Mbps	**Y**		MPND0009
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 9.264 Mbps port only service on a full rate Multilink PPP 6x DS1 Port.			
12	MPLS Transport DS3 Port service at minimum line rate of 10 Mbps	**Y**		MTDS0010
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 10 Mbps port only service on a sub rate DS3 Port.			
13	MPLS Transport NxDS1 Port service at minimum line rate of 12.352 Mbps	**Y**		MPND0012
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 12.352 Mbps port only service on a full rate Multilink PPP 8x DS1 Port.			
14	MPLS Transport DS3 Port service at minimum line rate of 20 Mbps	**Y**		MTDS0020
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 20 Mbps port only service on a sub rate DS3 Port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
15	MPLS Transport DS3 Port service at minimum line rate of 45 Mbps	**Y**		MTDS0045
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 45 Mbps port only service on a full rate DS3 Port.			
16	MPLS Transport OC3 Port service at minimum line rate of 155 Mbps	**Y**		PIOC0003
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 155 Mbps port only service on a full rate OC3 Port.			
17	MPLS Transport OC12 Port service at minimum line rate of 622 Mbps	**Y**		PIOC0012
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 622 Mbps port only service on a full rate OC12 Port.			
18	MPLS Transport Ethernet Port service at minimum line rate of one (1) Mbps	**Y**		PIET0001
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of one (1) Mbps port only service with an Ethernet port.			
19	MPLS Transport Ethernet Port service at minimum line rate of two (2) Mbps	**Y**		PIET0002
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of two (2) Mbps port only service with an Ethernet port.			
20	MPLS Transport Ethernet Port service at minimum line rate of three (3) Mbps	**Y**		PIET0003
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of three (3) Mbps port only service with an Ethernet port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
21	MPLS Transport Ethernet Port service at minimum line rate of four (4) Mbps	**Y**		PIET0004
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of four (4) Mbps port only service with an Ethernet port.			
22	MPLS Transport Ethernet Port service at minimum line rate of five (5) Mbps	**Y**		PIET0005
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of five (5) Mbps port only service with an Ethernet port.			
23	MPLS Transport Ethernet Port service at minimum line rate of six (6) Mbps	**Y**		PIET0006
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of six (6) Mbps port only service with an Ethernet port.			
24	MPLS Transport Ethernet Port service at minimum line rate of seven (7) Mbps	**Y**		PIET0007
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of seven (7) Mbps port only service with an Ethernet port.			
25	MPLS Transport Ethernet Port service at minimum line rate of eight (8) Mbps	**Y**		PIET0008
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of eight (8) Mbps port only service with an Ethernet port.			
26	MPLS Transport Ethernet Port service at minimum line rate of nine (9) Mbps	**Y**		PIET0009
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of nine (9) Mbps port only service with an Ethernet port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
27	MPLS Transport Ethernet Port service at minimum line rate of 10 Mbps	**Y**		PIET0010
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 10 Mbps port only service with an Ethernet port.			
28	MPLS Transport Ethernet Port service at minimum line rate of 20 Mbps	**Y**		PIET0020
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 20 Mbps port only service with an Ethernet port.			
29	MPLS Transport Ethernet Port service at minimum line rate of 30 Mbps	**Y**		PIET0030
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 30 Mbps port only service with an Ethernet port.			
30	MPLS Transport Ethernet Port service at minimum line rate of 40 Mbps	**Y**		PIET0040
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 40 Mbps port only service with an Ethernet port.			
31	MPLS Transport Ethernet Port service at minimum line rate of 50 Mbps	**Y**		PIET0050
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 50 Mbps port only service with an Ethernet port.			
32	MPLS Transport Ethernet Port service at minimum line rate of 60 Mbps	**Y**		PIET0060
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 60 Mbps port only service with an Ethernet port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
33	MPLS Transport Ethernet Port service at minimum line rate of 70 Mbps	**Y**		PIET0070
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 70 Mbps port only service with an Ethernet port.			
34	MPLS Transport Ethernet Port service at minimum line rate of 80 Mbps	**Y**		PIET0080
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 80 Mbps port only service with an Ethernet port.			
35	MPLS Transport Ethernet Port service at minimum line rate of 90 Mbps	**Y**		PIET0090
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 90 Mbps port only service with an Ethernet port.			
36	MPLS Transport Ethernet Port service at minimum line rate of 100 Mbps	**Y**		PIET0100
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 100 Mbps port only service with an Ethernet port.			
36 a	**MPLS Transport Ethernet Port Only - 150 Mbps Speed**	**Y**		PRTO0150
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 150 Mbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
37	MPLS Transport Ethernet Port service at minimum line rate of 200 Mbps	**Y**		PIET0200
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 200 Mbps port only service with a Gigabit Ethernet port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
38	MPLS Transport Ethernet Port service at minimum line rate of 300 Mbps	**Y**		PIET0300
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 300 Mbps port only service with a Gigabit Ethernet port.			
39	MPLS Transport Ethernet Port service at minimum line rate of 400 Mbps	**Y**		PIET0400
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 400 Mbps port only service with a Gigabit Ethernet port.			
40	MPLS Transport Ethernet Port service at minimum line rate of 500 Mbps	**Y**		PIET0500
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 500 Mbps port only service with a Gigabit Ethernet port.			
41	MPLS Transport Ethernet Port service at minimum line rate of 600 Mbps	**Y**		PIET0600
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 600 Mbps port only service with a Gigabit Ethernet port.			
42	MPLS Transport Ethernet Port service at minimum line rate of 700 Mbps	**Y**		PIET0700
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 700 Mbps port only service with a Gigabit Ethernet port.			
43	MPLS Transport Ethernet Port service at minimum line rate of 900 Mbps	**Y**		PIET0900
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of 900 Mbps port only service with a Gigabit Ethernet port.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
44	MPLS Transport Ethernet Port service at minimum line rate of one (1) Gbps	**Y**		PIET1000
	Bidder's Product Description: Verizon's MPLS transport service will provide CALNET 3 Customers a minimum line rate of one (1) Gbps port only service with a Gigabit Ethernet port.			
45	MPLS Transport Ethernet Port Only - 1.5 Gbps Speed	**Y**		PRTO1005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 1.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
46	MPLS Transport Ethernet Port Only - 2 Gbps Speed	**Y**		PRTO2000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 2 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
47	MPLS Transport Ethernet Port Only - 2.5 Gbps Speed	**Y**		PRTO2005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 2.5 Gps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
48	MPLS Transport Ethernet Port Only - 3 Gbps Speed	**Y**		PRTO3000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 3 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
49	MPLS Transport Ethernet Port Only - 3.5 Gbps Speed	**Y**		PRTO3005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 3.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
50	MPLS Transport Ethernet Port Only - 4 Gbps Speed	**Y**		PRTO4000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 4 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
51	MPLS Transport Ethernet Port Only - 4.5 Gbps Speed	**Y**		PRTO4005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 4.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
52	MPLS Transport Ethernet Port Only - 5 Gbps Speed	**Y**		PRTO5000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
53	MPLS Transport Ethernet Port Only - 5.5 Gbps Speed	**Y**		PRTO5005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 5.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
54	MPLS Transport Ethernet Port Only - 6 Gbps Speed	**Y**		PRTO6000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 6 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
55	MPLS Transport Ethernet Port Only - 6.5 Gbps Speed	**Y**		PRTO6005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 6.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
56	MPLS Transport Ethernet Port Only - 7 Gbps Speed	**Y**		PRTO7000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 7 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item			
57	MPLS Transport Ethernet Port Only - 7.5 Gbps Speed	**Y**		PRTO7005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 7.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			

Table 1.2.2.8.1.a, MPLS Port Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
58	MPLS Transport Ethernet Port Only - 8 Gbps Speed	**Y**		PRTO8000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 8 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
59	MPLS Transport Ethernet Port Only - 8.5 Gbps Speed	**Y**		PRTO8005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 8.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
60	MPLS Transport Ethernet Port Only - 9 Gbps Speed	**Y**		PRTO9000
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 9 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
61	MPLS Transport Ethernet Port Only - 9.5 Gbps Speed	**Y**		PRTO9005
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 9.5 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			
62	MPLS Transport Ethernet Port Only - 10 Gbps Speed	**Y**		PRTM0010
	Bidder's Product Description: MPLS Transport Ethernet Port Only - 10 Gbps Speed provides customer a MPLS Ethernet Port only service to connect to an unbundled access circuit not included on this line item.			

The Contractor may offer additional unsolicited MPLS Port Transport Speeds in Table 1.2.2.8.1.b.

Table 1.2.2.8.1.b Unsolicited MPLS Port Transport Speeds

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.2.8.2 MPLS Port and Access Bundled Transport Speeds

Table 1.2.2.8.2.a, MPLS Port and Access Bundled Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS Transport DS1 Port and Access service at minimum line rate of 128 Kbps	Y		MPPA0128
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 128 Kbps service on a sub rate DS1 Port on DS1 access.			
2	MPLS Transport DS1 Port and Access service at minimum line rate of 256 Kbps	Y		MPPA0256
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 256 Kbps service on a sub rate DS1 Port on DS1 access.			
3	MPLS Transport DS1 Port and Access service at minimum line rate of 384 Kbps	Y		MPPA0384
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 384 Kbps service on a sub rate DS1 Port on DS1 access.			

Table 1.2.2.8.2.a, MPLS Port and Access Bundled Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
4	MPLS Transport DS1 Port and Access service at minimum line rate of 512 Kbps	**Y**		MPPA0512
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 512 Kbps service on a sub rate DS1 Port on DS1 access.			
5	MPLS Transport DS1 Port and Access service at minimum line rate of 768 Kbps	**Y**		MPPA0768
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 768 Kbps service on a sub rate DS1 Port on DS1 access.			
6	MPLS Transport DS1 Port and Access service at minimum line rate of 1.024 Mbps	**Y**		MPPA1024
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 1.024 Mbps service on sub rate DS1 Port on DS1 access.			
7	MPLS Transport DS1 Port and Access service at minimum line rate of 1.544 Mbps	**Y**		MPPA1544
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 1.544 Mbps service on a full rate DS1 Port on DS1 access.			
8	MPLS Transport NxDS1 Port and Access service at minimum line rate of 3.088 Mbps	**Y**		MNDP0003
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 3.088 Mbps service on a full rate Multilink PPP 2x DS1 Port and 2x DS1 Access.			
9	MPLS Transport NxDS1 Port and Access service at minimum line rate of 4.632 Mbps	**Y**		MNDP0004
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 4.632 Mbps service on a full rate Multilink PPP 3x DS1 Port and 2x DS1 Access.			

Table 1.2.2.8.2.a, MPLS Port and Access Bundled Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
10	MPLS Transport NxDS1 Port and Access service at minimum line rate of 6.176 Mbps	**Y**		MPAB0006
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 6.176 Mbps service on a full rate Multilink PPP 4x DS1 Port and 4x DS1 Access.			
11	MPLS Transport NxDS1 Port and Access service at minimum line rate of 7.720 Mbps	**Y**		MPTN0007
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 7.720 Mbps service on a full rate Multilink PPP 5x DS1 Port and 5x DS1 Access.			
12	MPLS Transport NxDS1 Port and Access service at minimum line rate of 9.264 Mbps	**Y**		MPAB0009
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 9.264 Mbps service on a full rate Multilink PPP 6x DS1 Port and 6x DS1 Access.			
13	MPLS Transport DS3 Port and Access service at minimum line rate of 10 Mbps	**Y**		MDPA0010
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 10 Mbps service on a sub rate DS3 Port and DS3 Access.			
14	MPLS Transport NxDS1 Port and Access service at minimum line rate of 12.352 Mbps	**Y**		MNDP0012
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 12.352 Mbps service on a full rate Multilink PPP 8x DS1 Port and 8x DS1 Access.			
15	MPLS Transport DS3 Port and Access service at minimum line rate of 15 Mbps	**Y**		MDPA0015
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 15 Mbps service on a sub rate DS3 Port and DS3 Access.			

Table 1.2.2.8.2.a, MPLS Port and Access Bundled Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
16	MPLS Transport DS3 Port and Access service at minimum line rate of 20 Mbps	**Y**		MDPA0020
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 20 Mbps service on a sub rate DS3 Port and DS3 Access.			
17	MPLS Transport DS3 Port and Access service at minimum line rate of 25 Mbps	**Y**		MDPA0025
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 25 Mbps service on a sub rate DS3 Port and DS3 Access.			
18	MPLS Transport DS3 Port and Access service at minimum line rate of 30 Mbps	**Y**		MDPA0030
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 30 Mbps service on a sub rate DS3 Port and DS3 Access.			
19	MPLS Transport DS3 Port and Access service at minimum line rate of 45 Mbps	**Y**		MDPA0045
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 45 Mbps service on a full rate DS3 Port and DS3 Access.			

The Contractor may offer additional unsolicited MPLS Port and Access Bundled Transport Speeds in Table 1.2.2.8.2.b.

Table 1.2.2.8.2.b Unsolicited MPLS Port and Access Bundled Transport Speeds

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.2.8.3 MPLS Port, Access and Router Bundled Transport Speeds

Table 1.2.2.8.3.a, MPLS Port, Access and Router Bundled Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS Transport DS1 port, access and router bundled service at minimum line rate of 128 Kbps	Y		IPTK0128
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 128 Kbps service. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
2	MPLS Transport DS1 port, access and router bundled service at minimum line rate of 384 Kbps	Y		IPTK0384
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 384 Kbps service. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
3	MPLS Transport DS1 port, access and router bundled service at minimum line rate of 512 Kbps	Y		IPTK0512
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 512 Kbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.3.a, MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
4	MPLS Transport DS1 port, access and router bundled service at minimum line rate of 768 Kbps	**Y**		IPTK0768
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 768 Kbps service. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
5	MPLS Transport DS1 port, access and router bundled service at minimum line rate of 1.024 Mbps	**Y**		IPTK1024
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 1.024 Mbps service. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
6	MPLS Transport DS1 port, access and router bundled service at minimum line rate of 1.544 Mbps	**Y**		IPTK1536
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 1.544 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
7	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 3.088 Mbps	**Y**		IPTK3088
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 3.088 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
8	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 4.632 Mbps	**Y**		IPTK4632
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 4.362 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
9	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 5.000 Mbps	**Y**		IPTK5000
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 5.000 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.3.a, MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
10	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 6.176 Mbps	**Y**		IPTK6144
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 6.176 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
11	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 7.720 Mbps	**Y**		MPRB0007
	Bidder's Product Description: Verizon's MPLS NxDS1 transport service will provide a minimum line rate of 7.720 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
12	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 9.264 Mbps	**Y**		MPRB0009
	Bidder's Product Description: Verizon's MPLS NxDS1 transport service will provide a minimum line rate of 9.264 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access			
13	MPLS Transport NxDS1 port, access and router bundled service at minimum line rate of 12.352 Mbps	**Y**		MPRB0012
	Bidder's Product Description: Verizon's MPLS NxDS1 transport service will provide a minimum line rate of 12.352 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
14	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 10 Mbps	**Y**		IPTM0010
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 10 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
15	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 15 Mbps	**Y**		IPTM0015
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 15 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.3.a, MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
16	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 20 Mbps	**Y**		IPTM0020
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 20 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
17	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 25 Mbps	**Y**		IPTM0025
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 25 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
18	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 30 Mbps	**Y**		IPTM0030
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 30 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
19	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 40 Mbps	**Y**		IPTM0040
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 40 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
20	MPLS Transport DS3 port, access and router bundled service at minimum line rate of 45 Mbps	**Y**		IPTM0045
	Bidder's Product Description: Verizon's MPLS transport service will provide a minimum line rate of 45 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

The Contractor may offer additional unsolicited MPLS Port, Access and Router Bundled Transport Speeds in Table 1.2.2.8.3.b.

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds

	Feature Name	Feature Description	Bidder's Product Identifier
1	**Expedite MPLS Service**	Expedite MPLS Service will provide improved installation intervals less than the standard intervals with available facilities.	**EXMP0000**

Bidder's Product Description:
Verizon is proposing Expedite MPLS as an unsolicited service offering in Section 1.2. Verizon is providing Expedite MPLS Service which will provide to the customer improved installation intervals less than the standard intervals. Standard intervals for provisioning the following services include:

Service	Interval	Type
MPLS Port Transport (1.2.2.8.1)	35	Coordinated/Managed Project
MPLS Port and Access Bundle Transport (1.2.2.8.2)	35	Coordinated/Managed Project
MPLS Port, Access and Router Transport (1.2.2.8.3)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled On-Net Transport Speeds (1.2.2.8.4)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled Off-Net Transport Speeds (1.2.2.8.5)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled Ethernet On-Net Transport (1.2.2.8.6)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled Ethernet Off-Net Transport (1.2.2.8.7)	45	Coordinated/Managed Project

MPLS EF Gold CAR

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
2	**MPLS EF Gold CAR at 8 Kbps**	MPLS EF Gold CAR at 8 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0008**
	Bidder's Product Description: Verizon is proposing MPLS EF Gold CAR as an unsolicited service offering in section 1.2. Expedited Forwarding (EF) – Gold CAR is applicable as an additional enhanced service element to our MPLS WAN service offering in this section. **MPLS EF Gold CAR general description applies to the following MPLS EF Gold CAR line items.** The MPLS Enhanced Traffic Management (ETM) service allows the assignment of up to six (6) traffic priority classes with up to ten (10) priority levels, thus facilitating prioritization and differentiation of applications. Verizon's Expedite Forwarding (EF) – Gold CAR Service is an optional priority class that can be added to a network as a Class of Service (CoS). EF queue has the highest priority of the six available priority classes and is used primarily for real time Data traffic. EF is typically used by customers who wish to utilize Voice over IP (VoIP) over the MPLS network for "Real Time" applications. The EF CoS utilizes a Low Latency Queue (LLQ) through the core of the MPLS network. Strict priority queuing is used to control jitter with EF CoS. The EF CoS is the highest priority of data traffic in the MPLS Network. EF Data traffic is prioritized in the PE ingress and egress access queues between the PE and the CE devices. These access queues allow EF marked data packets to enter and exit the MPLS Network at a higher priority than other data Traffic. Verizon utilizes the "Gold CAR" naming convention to designate the EF CoS compared to the other priority classes available to the customer. EF Real-Time Data must conform to the optionally subscribed GOLD CAR rate at the ingress of the MPLS network for the transmitted real-time traffic. EF Traffic that exceeds the subscribed GOLD CAR rate at the ingress will be discarded by the MPLS PE Router. These rate policies do not allow for bursting of Real-Time traffic. Any traffic that exceeds the subscribed EF/Real Time CoS is dropped. Customers must ensure that CE devices send packets with the appropriate IP Type of Service (TOS) settings in order to ensure EF Real-Time prioritization. MPLS EF Gold CAR at 8 Kbps provides one additional queue for Expedited Forwarding (EF) traffic added to the customer's IP Transport Service.		
3	**MPLS EF Gold CAR at 16 Kbps**	MPLS EF Gold EF CAR at 16 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0016**
	Bidder's Product Description: Verizon will provide MPLS EF Gold EF CAR at 16 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		
4	**MPLS EF Gold CAR at 32 Kbps**	MPLS EF Gold CAR at 32 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0032**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 32 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
5	**MPLS EF Gold CAR at 128 Kbps**	MPLS EF Gold CAR at 128 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0128**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 128 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		
6	**MPLS EF Gold CAR at 256 Kbps**	MPLS EF Gold CAR at 256 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0256**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 256 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		
7	**MPLS EF Gold CAR at 384 Kbps**	MPLS EF Gold CAR at 384 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0384**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 384 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		
8	**MPLS EF Gold CAR at 512 Kbps**	MPLS EF Gold CAR at 512 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0512**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 512 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		
9	**MPLS EF Gold CAR at 768 Kbps**	MPLS EF Gold CAR at 768 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0768**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 768 Kbps provides one additional queue for Expedited Forwarding (EF) traffic.		
10	**MPLS EF Gold CAR at 1.024 Mbps**	MPLS EF Gold CAR at 1.024 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD1024**

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 1.024 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
11	**MPLS EF Gold CAR at 1.376 Mbps**	MPLS EF Gold CAR at 1.376 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD1376**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 1.376 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
12	**MPLS EF Gold CAR at 1.536 Mbps**	MPLS EF Gold CAR at 1.536 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD1536**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 1.536 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
13	**MPLS EF Gold CAR at 1.728 Mbps**	MPLS EF Gold CAR at 1.728 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD1728**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 1.728 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
14	**MPLS EF Gold CAR at 2 Mbps**	MPLS EF Gold CAR at 2 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0002**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 2 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
15	**MPLS EF Gold CAR at 3 Mbps**	MPLS EF Gold CAR at 3 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0003**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 3 Mbps provides one additional queue for Expedited F1(EF) traffic.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
16	**MPLS EF Gold CAR at 3.5 Mbps**	MPLS EF Gold CAR at 3.5 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGE0003**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 3.5 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
17	**MPLS EF Gold CAR at 4.096 Mbps**	MPLS EF Gold CAR at 4.096 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0004**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 4.096 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
18	**MPLS EF Gold CAR at 5Mbps**	MPLS EF Gold CAR at 5 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0005**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 5 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
19	**MPLS EF Gold CAR at 7.2 Mbps**	MPLS EF Gold CAR at 7.2 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0007**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 7.2 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
20	**MPLS EF Gold CAR at 9.216 Mbps**	MPLS EF Gold CAR at 9.216 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0009**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 9.216 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
21	**MPLS EF Gold CAR at 10 Mbps**	MPLS EF Gold CAR at 10 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0010**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 10 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
22	**MPLS EF Gold CAR at 13.488 Mbps**	MPLS EF Gold CAR at 13.488 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0013**

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 13.488 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
23	**MPLS EF Gold CAR at 15.360 Mbps**	MPLS EF Gold CAR at 15.360 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD1560**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 15.360 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
24	**MPLS EF Gold CAR at 17.808 Mbps**	MPLS EF Gold CAR at 17.808 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0017**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 17.808 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
25	**MPLS EF Gold CAR at 18.432 Mbps**	MPLS EF Gold CAR at 18.432 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD1843**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 18.432 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
26	**MPLS EF Gold CAR at 20 Mbps**	MPLS EF Gold CAR at 20 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0020**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 20 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
27	**MPLS EF Gold CAR at 24.576 Mbps**	MPLS EF Gold CAR at 24.576 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD2457**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 24.576 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
28	**MPLS EF Gold CAR at 30 Mbps**	MPLS EF Gold CAR at 30 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0030**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 30 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
29	**MPLS EF Gold CAR at 40 Mbps**	MPLS EF Gold CAR at 40 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0040**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 40 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
30	**MPLS EF Gold CAR at 44.992 Mbps**	MPLS EF Gold CAR at 44.992 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0044**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 44.992 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
31	**MPLS EF Gold CAR at 50 Mbps**	MPLS EF Gold CAR at 50 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0050**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 50 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
32	**MPLS EF Gold CAR at 72 Mbps**	MPLS EF Gold CAR at 72 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0072**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 72 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
33	**MPLS EF Gold CAR at 90 Mbps**	MPLS EF Gold CAR at 90 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0090**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 90 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
34	**MPLS EF Gold CAR at 110.500 Mbps**	MPLS EF Gold CAR at 110.500 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0110**

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 110.500 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
35	**MPLS EF Gold CAR at 139.936 Mbps**	MPLS EF Gold CAR at 139.936 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0139**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 139.936 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
36	**MPLS EF Gold CAR at 180 Mbps**	MPLS EF Gold CAR at 180 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0180**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 180 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
37	**MPLS EF Gold CAR at 248.8 Mbps**	MPLS EF Gold CAR at 248.8 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0248**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 248.8 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
38	**MPLS EF Gold CAR at 450 Mbps**	MPLS EF Gold CAR at 450 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0450**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 450 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
39	**MPLS EF Gold CAR at 700 Mbps**	MPLS EF Gold CAR at 700 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0700**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 700 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		
40	**MPLS EF Gold CAR at 900 Mbps**	MPLS EF Gold CAR at 900 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.	**CRGD0900**
	Bidder's Product Description: Verizon will provide MPLS EF Gold CAR at 900 Mbps provides one additional queue for Expedited Forwarding (EF) traffic.		

MPLS Multicast

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
41	**MPLS Multicast Tier 8 - 100 Mbps-499.99 Mbps**	MPLS Multicast Tier 8 - Bandwidth Range 100 Mbps-499.99 Mbps	**PIPM0008**

Bidder's Product Description:

Verizon is proposing MPLS Multicast as an unsolicited service offering in Section 1.2. MPLS Multicast VPN is applicable as an additional enhanced service element to our MPLS WAN service offering in this section.

MPLS Multicast general description applies to the following MPLS Multicast line items. MPLS Multicast is a bandwidth conserving technology that reduces traffic by simultaneously delivering a steady stream of information to multiple locations. Applications that take advantage of MPLS Multicast include video conferencing, corporate communications, distance learning, and distribution of software, stock quotes, and news.

With this feature, customers can create a multicasting group that consists of the locations within their network. These locations will receive packets of information sent from the host site. At the host site, the customer creates the data stream, which is sent to the network. The network receives the information and simultaneously sends a copy to each member of the multicasting group.

MPLS Multicast supports Protocol Independent Multicast (PIM) Spare Mode (Version 2) and PIM Source Specific Multicast (SSM).

Multicast traffic is sent to the access port with its own multicast CAR (MCAR) value at MPLS ingress. The customer must select an input rate (input/ingress to MPLS) for their multicast traffic originating at their primary source site(s). The customer cannot send more traffic than the agreed upon rate or the multicast traffic at ingress to MPLS will be discarded.

Multicast ingress rate enforcement is not related to MPLS Real–Time CAR enforcement. Multicast VPN traffic is treated separately from unicast at ingress. A customer can send full multicast input concurrently with fully utilized Real–Time and/or AF CAR inputs as long as the port speed is not exceeded. CAR independence remains even when multicast traffic is marked as Real–Time (EF), AF, or BE by the customer.

At egress, the DiffServ marking placed on multicast traffic by the customer is honored in the egress queues of the Provider Edge (PE) toward the Customer Edge (CE); therefore, Class of Service (CoS) is extended to include multicast at the egress edge of the network, though some hardware exceptions apply. Multicast Tier 0 through Tier 7 are included with the Verizon MPLS at no extra charge.

MPLS Multicast Tier 8 has a Bandwidth Range of 100 Mbps-499.99 Mbps for Multicast Traffic across a MPLS Network.

Tier Name	Bandwidth Range
Multicast Tier 0	0 Kbps-15 Kbps

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
		Multicast Tier 1: 16 Kbps-511 Kbps Multicast Tier 2: 512 Kbps-1.499 Mbps Multicast Tier 3: 1.5 Mbps-2.99 Mbps Multicast Tier 4: 3 Mbps-5.99 Mbps Multicast Tier 5: 6 Mbps-14.99 Mbps Multicast Tier 6: 15 Mbps-44.99 Mbps Multicast Tier 7: 45 Mbps-99.99 Mbps Multicast Tier 8: 100 Mbps-499.99 Mbps Multicast Tier 9: 500 Mbps-999.99 Mbps Multicast Tier 10: 1G bps-4.99 Gbps Multicast Tier 11: 5 Gbps-9.99 Gbps	
42	**MPLS Multicast Tier 9 - 500 Mbps-999.99 Mbps**	MPLS Multicast Tier 9 - Bandwidth Range 500 Mbps-999.99 Mbps	**PIPM0009**
	Bidder's Product Description: Multicast Tier 9 has a Bandwidth Range of 500 Mbps-999.99 Mbps for Multicast Traffic across a MPLS Network.		

MPLS Port Only Cross Connect

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
43	**MPLS Port Only Cross Connect 200 Mbps Ethernet**	MPLS Port Only Cross Connect 200 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 200 Mbps Ethernet.	**PICC0001**
	Bidder's Product Description: Verizon is proposing MPLS Port Only Cross Connect as an unsolicited service offering in Section 1.2. MPLS Port Only Cross Connect is applicable as an additional enhanced service element to our MPLS WAN service offering in this section. **MPLS Port Only Cross Connect general description applies to the following MPLS Port Only Cross Connect line items.** MPLS Cross Connect is a point-to-point Intra-building dedicated circuit used to connect customers to the MPLS Network. Cross Connection ("Cross Connect") charges apply strictly to MPLS Port Only ("Port Only") services. Port Only services are only available when Customer is collocated in the same building as the Port Only capable IP MPLS hub. A Cross Connection is only available via Ethernet from 250 Mbps to 10 Gbps. Port Only services may be available when Customer is collocated within an adjacent building if agreed to by Verizon. The MPLS Cross Connection would be applied to replace a traditional Local Loop with one of the following network configurations: Configuration 1 – A customer requires a connection between the MPLS network and the customer's Network Colocation space within the same lit building. Configuration 2 – A customer requires a connection between the MPLS network and the customer's alternative provider's colocation space within the same Verizon lit building Configuration 3 – A customer requires a connection between the MPLS network and the customer's location within the same Verizon lit building. MPLS Port Only Cross Connect 200 Mbps Ethernet is a point-to-point intra-building connection between a customer location utilizing a MPLS Port only circuit and a Verizon Port-Only Capable IP MPLS Hub. This service request is for a 200 Mbps Ethernet Port Only Cross Connection service.		
44	**MPLS Port Only Cross Connect 250 Mbps Ethernet**	MPLS Port Only Cross Connect 250 Ethernet is a Point-to-point Intra-building Cross Connect at 250 Mbps Ethernet.	**PICC0002**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 250 Ethernet is a Point-to-point Intra-building Cross Connect at 250 Mbps Ethernet.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
45	**MPLS Port Only Cross Connect 300 Mbps Ethernet**	MPLS Port Only Cross Connect is a Point-to-point Intra-building Cross Connect at 300 Mbps Ethernet.	**PICC0003**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect is a Point-to-point Intra-building Cross Connect at 300 Mbps Ethernet.		
46	**MPLS Port Only Cross Connect 350 Mbps Ethernet**	MPLS Port Only Cross Connect 350 is a Point-to-point Intra-building Cross Connect at 350 Mbps Ethernet.	**PICC0004**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 350 is a Point-to-point Intra-building Cross Connect at 350 Mbps Ethernet.		
47	**MPLS Port Only Cross Connect 400 Mbps Ethernet**	MPLS Port Only Cross Connect 400 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 400 Mbps Ethernet.	**PICC0005**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 400 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 400 Mbps Ethernet.		
48	**MPLS Port Only Cross Connect 450 Mbps Ethernet**	MPLS Port Only Cross Connect 450 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 450 Mbps Ethernet.	**PICC0006**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 450 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 450 Mbps Ethernet.		
49	**MPLS Port Only Cross Connect 500 Mbps Ethernet**	MPLS Port Only Cross Connect 500 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 500 Mbps Ethernet.	**PICC0007**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 500 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 500 Mbps Ethernet.		
50	**MPLS Port Only Cross Connect 600 Mbps Ethernet**	MPLS Port Only Cross Connect 600 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 600 Mbps Ethernet.	**PICC0008**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 600 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 600 Mbps Ethernet.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
51	**MPLS Port Only Cross Connect 700 Mbps Ethernet**	MPLS Port Only Cross Connect 700 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 700 Mbps Ethernet.	**PICC0009**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 700 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 700 Mbps Ethernet.		
52	**MPLS Port Only Cross Connect 800 Mbps Ethernet**	MPLS Port Only Cross Connect 800 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 800 Mbps Ethernet.	**PICC0010**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 800 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 800 Mbps Ethernet.		
53	**MPLS Port Only Cross Connect 900 Mbps Ethernet**	MPLS Port Only Cross Connect 900 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 900 Mbps Ethernet.	**PICC0011**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 900 Mbps Ethernet is a Point-to-point Intra-building Cross Connect at 900 Mbps Ethernet.		
54	**MPLS Port Only Cross Connect 1 Gbps Ethernet**	MPLS Port Only Cross Connect 1 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 1 Gbps Ethernet.	**PICC0012**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 1 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 1 Gbps Ethernet.		
55	**MPLS Port Only Cross Connect 1.5 Gbps Ethernet**	MPLS Port Only Cross Connect 1.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 1.5 Gbps Ethernet.	**PICC0013**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 1.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 1.5 Gbps Ethernet.		
56	**MPLS Port Only Cross Connect 2 Gbps Ethernet**	MPLS Port Only Cross Connect 2 Gbps Ethernet is an Intra-building Cross Connect at 2 Gbps Ethernet.	**PICC0014**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 2 Gbps Ethernet is an Intra-building Cross Connect at 2 Gbps Ethernet.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
57	**MPLS Port Only Cross Connect 2.5 Gbps Ethernet**	MPLS Port Only Point-to-point Intra-building Cross Connect at 2.5 Gbps Ethernet.	**PICC0015**
	Bidder's Product Description: Verizon will provide MPLS Port Only Point-to-point Intra-building Cross Connect at 2.5 Gbps Ethernet.		
58	**MPLS Port Only Cross Connect 3 Gbps Ethernet**	MPLS Port Only Cross Connect 3 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 3 Gbps Ethernet.	**PICC0016**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 3 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 3 Gbps Ethernet.		
59	**MPLS Port Only Cross Connect 3.5 Gbps Ethernet**	MPLS Port Only Cross Connect 3.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 3.5 Gbps Ethernet.	**PICC0017**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 3.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 3.5 Gbps Ethernet.		
60	**MPLS Port Only Cross Connect 4 Gbps Ethernet**	MPLS Port Only Cross Connect 4 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 4 Gbps Ethernet.	**PICC0018**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 4 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 4 Gbps Ethernet.		
61	**MPLS Port Only Cross Connect 4.5 Gbps**	MPLS Port Only Cross Connect 4.5 Gbps is a Point-to-point Intra-building Cross Connect at 4.5 Gbps Ethernet.	**PICC0019**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 4.5 Gbps is a Point-to-point Intra-building Cross Connect at 4.5 Gbps Ethernet.		
62	**MPLS Port Only Cross Connect 5 Gbps Ethernet**	MPLS Port Only Cross Connect 5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 5 Gbps Ethernet.	**PICC0020**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 5 Gbps Ethernet.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
63	**MPLS Port Only Cross Connect 5.5 Gbps Ethernet**	MPLS Port Only Cross Connect 5.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 5.5 Gbps Ethernet.	**PICC0021**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 5.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 5.5 Gbps Ethernet.		
64	**MPLS Port Only Cross Connect 6 Gbps Ethernet**	MPLS Port Only Cross Connect 6 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 6 Gbps Ethernet.	**PICC0022**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 6 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 6 Gbps Ethernet.		
65	**MPLS Port Only Cross Connect 6.5 Gbps Ethernet**	MPLS Port Only Cross Connect 6.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 6.5 Gbps Ethernet.	**PICC0023**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 6.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 6.5 Gbps Ethernet.		
66	**MPLS Port Only Cross Connect 7 Gbps Ethernet**	MPLS Port Only Cross Connect 7 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 7 Gbps Ethernet.	**PICC0024**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 7 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 7 Gbps Ethernet.		
67	**MPLS Port Only Cross Connect 7.5 Gbps Ethernet**	MPLS Port Only Cross Connect 7.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 7.5 Gbps Ethernet.	**PICC0025**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 7.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 7.5 Gbps Ethernet.		
68	**MPLS Port Only Cross Connect 8 Gbps Ethernet**	MPLS Port Only Cross Connect 8 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 8 Gbps Ethernet.	**PICC0026**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 8 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 8 Gbps Ethernet.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
69	**MPLS Port Only Cross Connect 8.5 Gbps Ethernet**	MPLS Port Only Cross Connect 8.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 8.5 Gbps Ethernet.	**PICC0027**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 8.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 8.5 Gbps Ethernet.		
70	**MPLS Port Only Cross Connect 9 Gbps Ethernet**	MPLS Port Only Cross Connect 9 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 9 Gbps Ethernet.	**PICC0028**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 9 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 9 Gbps Ethernet.		
71	**MPLS Port Only Cross Connect 9.5 Gbps Ethernet**	MPLS Port Only Cross Connect 9.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 9.5 Gbps Ethernet.	**PICC0029**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 9.5 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 9.5 Gbps Ethernet.		
72	**MPLS Port Only Cross Connect 10 Gbps Ethernet**	MPLS Port Only Cross Connect 10 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 10 Gbps Ethernet.	**PICC0030**
	Bidder's Product Description: Verizon will provide MPLS Port Only Cross Connect 10 Gbps Ethernet is a Point-to-point Intra-building Cross Connect at 10 Gbps Ethernet.		

MPLS Layer 2

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
73	**MPLS Layer 2 – 64 Kbps PVC**	MPLS Layer 2 – 64 Kbps PVC provides 64 Kbps Permanent Virtual Circuit (PVC) connectivity on a sub rate DS1.	**PIPL0064**
	Bidder's Product Description: Verizon is proposing MPLS Layer 2 as an Unsolicited Service Offering in section 1.2. MPLS Layer 2 is applicable as an additional enhanced service element to Verizon's MPLS VPN (Layer 3) and Converged VoIP services, provided in this section.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	MPLS Layer 2 general description applies to the following MPLS Layer 2 line items. MPLS Layer 2 is a next-generation MPLS-based Layer 2 solution that supports Point-to-Point (Virtual Private Lines) and Point-to-Multipoint (Virtual Private Networks - VPNs) configurations over Private IP's global MPLS network. MPLS Layer 2 is based on the Virtual Private Wire Service (VPWS) standard that enables Verizon to provision point-to-point pseudo-wires over the MPLS network to meet a broad range of Layer 2 networking requirements. MPLS Layer 2 is ideal for customers looking to migrate from traditional Private Lines or legacy Frame Relay, FRASI, or ATM services to an MPLS-based Layer 2 point-to-point or point-to-multipoint solution. MPLS Layer 2 key features include: • Supports Point-to-Point and Point-to-Multipoint configurations. • Delivers a Layer 2 VPN with similar feature set to traditional Frame Relay service • Enables a near-seamless migration from Frame Relay to MPLS that can leverage the customer's existing CPE and CPE configurations. • Supports IP and non-IP applications. • Supports all routing protocols EIGRP, BGP, RIPv2, etc. • Customer controls IP routing configurations. Enables customer to control convergence times and routing paths during failover events. • Supports Frame Relay encapsulation. • Supports DS0, NxDS0, DS1, NxDS1, Subrate DS3, DS3, OC-3, OC-12, OC-48. In order to utilize this Verizon MPLS Layer 2 service, CALNET 3 customers will need to order a TDM T1, NxT1, DS3, OC-3, OC-12 or OC-48 Access per access circuit. Verizon MPLS Layer 2 is a MPLS based layer 2 solution that provides either a point-to-point or point-to-multi-point configuration over Verizon's global MPLS Network. MPLS Layer 2 is based on the Virtual Private Wire Service (VPWS) standard that enables Verizon to provision point-to-point pseudo wires over the MPLS network. MPLS Layer 2 – 64 Kbps PVC is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 64 Kbps Permanent Virtual Circuits (PVC) connectivity on a sub rate DS1.		
74	**MPLS Layer 2 – 128 Kbps PVC**	MPLS Layer 2 – 128 Kbps PVC provides 128 Kbps Permanent Virtual Circuit (PVC) connectivity on a sub rate DS1.	**PIPL0128**
	Bidder's Product Description: MPLS Layer 2 – 128 Kbps PVC is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 128 Kbps Permanent Virtual Circuits (PVC) connectivity on a sub rate DS1.		
75	**MPLS Layer 2 – 256 Kbps PVC**	MPLS Layer 2 – 256 Kbps PVC provides 256 Kbps Permanent Virtual Circuit (PVC) connectivity on a sub rate DS1.	**PIPL0256**
	Bidder's Product Description: MPLS Layer 2 – 256 Kbps PVC is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 256 Kbps Permanent Virtual Circuits (PVC) on a sub rate DS1.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
76	**MPLS Layer 2 – 384 Kbps PVC**	MPLS Layer 2 – 384 Kbps PVC service provides 384 Kbps connectivity on a sub rate DS1.	**PIPL0384**
	Bidder's Product Description: MPLS Layer 2 – 384 Kbps PVC is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 384 Kbps Permanent Virtual Circuits (PVC) on a sub rate DS1.		
77	**MPLS Layer 2 – 512 Kbps PVC**	MPLS Layer 2 – 512 Kbps PVC service provides 512 Kbps Permanent Virtual Circuit (PVC) connectivity on a sub rate DS1.	**PIPL0512**
	Bidder's Product Description: MPLS Layer 2 – 512 Kbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 512 Kbps Permanent Virtual Circuits (PVC) on a sub rate DS1.		
78	**MPLS Layer 2 – 768 Kbps PVC**	MPLS Layer 2 – 768 Kbps PVC service provides 768 Kbps Permanent Virtual Circuit (PVC) connectivity on a sub rate DS1.	**PIPL0768**
	Bidder's Product Description: MPLS Layer 2 – 768 Kbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 768 Kbps Permanent Virtual Circuits (PVC) on a sub rate DS1.		
79	**MPLS Layer 2 – 1.024 Mbps PVC**	MPLS Layer 2 – 1.024 Mbps PVC service provides 1.024 Mbps Permanent Virtual Circuit (PVC) connectivity on a sub rate DS1.	**PIPL1024**
	Bidder's Product Description: MPLS Layer 2 – 1.024 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 1.024 Mbps Permanent Virtual Circuits (PVC) connectivity on a sub rate DS1.		
80	**MPLS Layer 2 – 3.072 Mbps PVC**	MPLS Layer 2 – 3.072 Mbps PVC service provides 3.072 Mbps Permanent Virtual Circuit (PVC) connectivity on 2x DS1.	**PIPL3072**
	Bidder's Product Description: MPLS Layer 2 – 3.072 Mbps PVC. This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 3.072 Mbps Permanent Virtual Circuits (PVC) connectivity on 2x DS1.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
81	**MPLS Layer 2 – 4.608 Mbps PVC**	MPLS Layer 2 – 4.608 Mbps PVC service provides 4.068 Mbps Permanent Virtual Circuit (PVC) connectivity on 3x DS1	**PIPL4608**
	Bidder's Product Description: MPLS Layer 2 – 4.608 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 4.068 Mbps Permanent Virtual Circuits (PVC) connectivity on 3x DS1.		
82	**MPLS Layer 2 – 6.144 Mbps PVC**	MPLS Layer 2 – 6.144 Mbps PVC service provides 6.144 Mbps Permanent Virtual Circuit (PVC) connectivity on 4x DS1.	**PIPL6144**
	Bidder's Product Description: MPLS Layer 2 – 6.144 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 4.068 Mbps Permanent Virtual Circuits (PVC) connectivity on 4x DS1.		
83	**MPLS Layer 2 – 7.680 Mbps PVC**	MPLS Layer 2 – 7.680 Mbps PVC service provides 7.680 Mbps Permanent Virtual Circuit (PVC) connectivity on 5x DS1.	**PIPL7680**
	Bidder's Product Description: MPLS Layer 2 – 7.680 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 7.680 Mbps Permanent Virtual Circuits (PVC) connectivity on 5x DS1.		
84	**MPLS Layer 2 – 8 Mbps PVC**	MPLS Layer 2 – 8 Mbps PVC service provides 8 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0008**
	Bidder's Product Description: MPLS Layer 2 – 8 Mbps PVC. This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 8 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
85	**MPLS Layer 2 – 9 Mbps PVC**	MPLS Layer 2 – 9 Mbps PVC service provides 9 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0009**
	Bidder's Product Description: MPLS Layer 2 – 9 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 9 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
86	**MPLS Layer 2 – 9.216 Mbps PVC**	MPLS Layer 2 – 9.216 Mbps PVC service provides 9.216 Mbps Permanent Virtual Circuit (PVC) connectivity on 6x DS1.	**PIPL9216**
	Bidder's Product Description: MPLS Layer 2 – 9.216 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 9.216 Mbps Permanent Virtual Circuits (PVC) connectivity on 6x DS1.		
87	**MPLS Layer 2 – 10 Mbps PVC**	MPLS Layer 2 – 10 Mbps PVC service provides 10 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0010**
	Bidder's Product Description: MPLS Layer 2 – 10 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 10 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
88	**MPLS Layer 2 – 10.752 Mbps PVC**	MPLS Layer 2 – 10.752 Mbps PVC service provides 10.752 Mbps Permanent Virtual Circuit (PVC) connectivity on 7x DS1.	**PIPL1075**
	Bidder's Product Description: MPLS Layer 2 – 10.752 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 10.752 Mbps Permanent Virtual Circuits (PVC) connectivity on 7x DS1.		
89	**MPLS Layer 2 – 12 Mbps PVC**	MPLS Layer 2 – 12 Mbps PVC service provides 12 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0012**
	Bidder's Product Description: MPLS Layer 2 – 12 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 12 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
90	**MPLS Layer 2 – 12.288 Mbps PVC**	MPLS Layer 2 – 12.288 Mbps PVC service provides 12.288 Mbps Permanent Virtual Circuit (PVC) connectivity on 8x DS1.	**PIPL1228**
	Bidder's Product Description: MPLS Layer 2 – 12.288 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 12.288 Mbps Permanent Virtual Circuits (PVC) connectivity on 8x DS1.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
91	**MPLS Layer 2 – 15 Mbps PVC**	MPLS Layer 2 – 15 Mbps PVC service provides 15 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0015**
	Bidder's Product Description: MPLS Layer 2 – 15 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 15 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
92	**MPLS Layer 2 – 18 Mbps PVC**	MPLS Layer 2 – 18 Mbps PVC service provides 18 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0018**
	Bidder's Product Description: Verizon MPLS Layer 2. This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 18 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
93	**MPLS Layer 2 – 20 Mbps PVC**	MPLS Layer 2 – 20 Mbps PVC service provides 20 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0020**
	Bidder's Product Description: MPLS Layer 2 – 20 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 20 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
94	**MPLS Layer 2 – 21 Mbps PVC**	MPLS Layer 2 – 21 Mbps PVC service provides 21 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0021**
	Bidder's Product Description: MPLS Layer 2 – 21 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 21 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
95	**MPLS Layer 2 – 24 Mbps PVC**	MPLS Layer 2 – 24 Mbps PVC service provides 24 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0024**
	Bidder's Product Description: MPLS Layer 2 – 24 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 24 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
96	**MPLS Layer 2 – 25 Mbps PVC**	MPLS Layer 2 – 25 Mbps PVC service provides 25 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0025**
	Bidder's Product Description: MPLS Layer 2 – 25 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 25 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
97	**MPLS Layer 2 – 27 Mbps PVC**	MPLS Layer 2 – 27 Mbps PVC service provides 27 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0027**
	Bidder's Product Description: MPLS Layer 2 – 27 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 27 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
98	**MPLS Layer 2 – 30 Mbps PVC**	MPLS Layer 2 – 30 Mbps PVC service provides 30 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0030**
	Bidder's Product Description: MPLS Layer 2 – 30 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 30 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
99	**MPLS Layer 2 – 33 Mbps PVC**	MPLS Layer 2 – 33 Mbps PVC service provides 33 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0033**
	Bidder's Product Description: MPLS Layer 2 – 33 Mbps PVC Thisis a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 33 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
100	**MPLS Layer 2 – 35 Mbps PVC**	MPLS Layer 2 – 35 Mbps PVC service provides 35 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0035**
	Bidder's Product Description: MPLS Layer 2 – 35 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 35 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
101	**MPLS Layer 2 – 36 Mbps PVC**	MPLS Layer 2 – 36 Mbps PVC service provides 36 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0036**
	Bidder's Product Description: MPLS Layer 2 – 36 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 36 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
102	**MPLS Layer 2 – 40 Mbps PVC**	MPLS Layer 2 – 40 Mbps PVC service provides 40 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0040**
	Bidder's Product Description: MPLS Layer 2 – 40 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 40 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
103	**MPLS Layer 2 – 41 Mbps PVC**	MPLS Layer 2 – 41 Mbps PVC service provides 41 Mbps Permanent Virtual Circuit (PVC) connectivity on sub rate DS3.	**PIPL0041**
	Bidder's Product Description: MPLS Layer 2 – 41 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 41 Mbps Permanent Virtual Circuits (PVC) connectivity on sub rate DS3.		
104	**MPLS Layer 2 – 44.736 Mbps PVC**	MPLS Layer 2 – 44.736 Mbps PVC service provides 44.736 Mbps Permanent Virtual Circuit (PVC) connectivity on a DS3.	**PIPL4473**
	Bidder's Product Description: MPLS Layer 2 – 44.736 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 44.736 Mbps Permanent Virtual Circuits (PVC) connectivity on a DS3.		
105	**MPLS Layer 2 – 155 Mbps / 155.52 PVC**	MPLS Layer 2 – 155 Mbps / 155.52 PVC service provides 155 Mbps / 155.52 Mbps Permanent Virtual Circuit (PVC) connectivity on a OC3.	**PIPL0155**
	Bidder's Product Description: MPLS Layer 2 – 155 Mbps / 155.52 PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 155 Mbps / 155.52 Mbps Permanent Virtual Circuits (PVC) connectivity on a OC3.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
106	**MPLS Layer 2 – 622.08 Mbps PVC**	MPLS Layer 2 – 622.08 Mbps PVC service provides 622.08 Mbps Permanent Virtual Circuit (PVC) connectivity on an OC12.	**PIPL0622**
	Bidder's Product Description: MPLS Layer 2 – 622.08 Mbps PVC This is a Verizon MPLS based layer 2 service, based on VPWS standard, to provide a point-to-point solution at 622.08 Mbps Permanent Virtual Circuits (PVC) connectivity on an OC12.		

Ethernet Access

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
107	**Ethernet Access (Type 1) – 1 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 10 BaseT Uni Handoff.	**EAON0001**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 10 BaseT Uni Handoff.		
108	**Ethernet Access (Type 1) – 2 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 10 BaseT Uni Handoff.	**EAON0002**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 10 BaseT Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
109	**Ethernet Access (Type 1) – 3 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 10 BaseT Uni Handoff.	**EAON0003**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 10 BaseT Uni Handoff.		
110	**Ethernet Access (Type 1) – 4 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 10 BaseT Uni Handoff.	**EAON0004**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 10 BaseT Uni Handoff.		
111	**Ethernet Access (Type 1) – 5 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 10 BaseT Uni Handoff.	**EAON0005**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 10 BaseT Uni Handoff.		
112	**Ethernet Access (Type 1) – 6 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 10 BaseT Uni Handoff.	**EAON0006**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 10 BaseT Uni Handoff.		
113	**Ethernet Access (Type 1) – 7 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 10 BaseT Uni Handoff.	**EAON0007**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 10 BaseT Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
114	**Ethernet Access (Type 1) – 8 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 10 BaseT Uni Handoff.	**EAON0008**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 10 BaseT Uni Handoff.		
115	**Ethernet Access (Type 1) – 9 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 10 BaseT Uni Handoff.	**EAON0009**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 10 BaseT Uni Handoff.		
116	**Ethernet Access (Type 1) – 10 Mbps – 10 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 10 BaseT Uni Handoff.	**EAON0010**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 10 BaseT Uni Handoff.		
117	**Ethernet Access (Type 1) – 1 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0011**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
118	**Ethernet Access (Type 1) – 2 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0012**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
119	**Ethernet Access (Type 1) – 3 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0013**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
120	**Ethernet Access (Type 1) – 4 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0014**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
121	**Ethernet Access (Type 1) – 5 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0015**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
122	**Ethernet Access (Type 1) – 6 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0016**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
123	**Ethernet Access (Type 1) – 7 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0017**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
124	**Ethernet Access (Type 1) – 8 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0018**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
125	**Ethernet Access (Type 1) – 9 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0019**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
126	**Ethernet Access (Type 1) – 10 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0020**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
127	**Ethernet Access (Type 1) – 20 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0021**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
128	**Ethernet Access (Type 1) – 30 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0022**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
129	**Ethernet Access (Type 1) – 40 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0023**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
130	**Ethernet Access (Type 1) – 50 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0024**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
131	**Ethernet Access (Type 1) – 60 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0025**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
132	**Ethernet Access (Type 1) – 70 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0026**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
133	**Ethernet Access (Type 1) – 80 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0027**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
134	**Ethernet Access (Type 1) – 90 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0028**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
135	**Ethernet Access (Type 1) – 100 Mbps – 100 Mbps UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0029**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
136	**Ethernet Access (Type 1) – 1 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0030**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
137	**Ethernet Access (Type 1) – 2 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0031**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
138	**Ethernet Access (Type 1) – 3 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0032**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
139	**Ethernet Access (Type 1) – 4 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0033**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
140	**Ethernet Access (Type 1) – 5 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0034**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
141	**Ethernet Access (Type 1) – 6 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0035**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
142	**Ethernet Access (Type 1) – 7 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0036**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
143	**Ethernet Access (Type 1) – 8 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0037**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
144	**Ethernet Access (Type 1) – 9 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0038**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
145	**Ethernet Access (Type 1) – 10 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0039**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
146	**Ethernet Access (Type 1) – 20 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0040**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
147	**Ethernet Access (Type 1) – 30 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0041**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
148	**Ethernet Access (Type 1) – 40 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0042**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
149	**Ethernet Access (Type 1) – 50 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0043**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
150	**Ethernet Access (Type 1) – 60 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0044**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
151	**Ethernet Access (Type 1) – 70 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0045**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
152	**Ethernet Access (Type 1) – 80 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0046**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
153	**Ethernet Access (Type 1) – 90 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0047**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
154	**Ethernet Access (Type 1) – 100 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0048**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
155	**Ethernet Access (Type 1) – 150 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 150 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000 BaseSX Uni Handoff.	**EAON0049**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 150 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000 BaseSX Uni Handoff.		
156	**Ethernet Access (Type 1) – 200 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 200 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0050**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 200 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
157	**Ethernet Access (Type 1) – 300 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 300 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0051**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 300 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
158	**Ethernet Access (Type 1) – 400 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 400 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0052**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 400 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
159	**Ethernet Access (Type 1) – 500 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 500 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0053**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 500 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
160	**Ethernet Access (Type 1) – 600 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 600 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0054**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 600 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
161	**Ethernet Access (Type 1) – 700 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 700 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0055**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 700 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
162	**Ethernet Access (Type 1) – 800 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 800 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0056**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 800 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
163	**Ethernet Access (Type 1) – 900 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 900 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0057**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 900 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
164	**Ethernet Access (Type 1) – 1000 Mbps – GigE UNI Speed – ALL CA Central Offices Except ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1000 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0058**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1000 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
165	**On-Net Ethernet Access (Type 1) – 1 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 10 BaseT Uni Handoff.	**EAON0073**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 10 BaseT Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
166	**On-Net Ethernet Access (Type 1) – 2 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 10 BaseT Uni Handoff.	**EAON0074**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 10 BaseT Uni Handoff.		
167	**On-Net Ethernet Access (Type 1) – 3 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 10 BaseT Uni Handoff.	**EAON0075**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 10 BaseT Uni Handoff.		
168	**On-Net Ethernet Access (Type 1) – 4 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 10 BaseT Uni Handoff.	**EAON0076**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 10 BaseT Uni Handoff.		
160	**On-Net Ethernet Access (Type 1) – 5 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 10 BaseT Uni Handoff.	**EAON0077**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 10 BaseT Uni Handoff.		
170	**On-Net Ethernet Access (Type 1) – 6 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 10 BaseT Uni Handoff.	**EAON0078**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 10 BaseT Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
171	**On-Net Ethernet Access (Type 1) – 7 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 10 BaseT Uni Handoff.	**EAON0079**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 10 BaseT Uni Handoff.		
172	**On-Net Ethernet Access (Type 1) – 8 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 10 BaseT Uni Handoff.	**EAON0080**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 10 BaseT Uni Handoff.		
173	**On-Net Ethernet Access (Type 1) – 9 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 10 BaseT Uni Handoff.	**EAON0081**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 10 BaseT Uni Handoff.		
174	**On-Net Ethernet Access (Type 1) – 10 Mbps – 10 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 10 BaseT Uni Handoff.	**EAON0082**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 10 BaseT Uni Handoff.		
175	**On-Net Ethernet Access (Type 1) – 1 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0083**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
176	**On-Net Ethernet Access (Type 1) – 2 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0084**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
177	**On-Net Ethernet Access (Type 1) – 3 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0085**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
178	**On-Net Ethernet Access (Type 1) – 4 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0086**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
179	**On-Net Ethernet Access (Type 1) – 5 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0087**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
180	**On-Net Ethernet Access (Type 1) – 6 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0088**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
181	**On-Net Ethernet Access (Type 1) – 7 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0089**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
182	**On-Net Ethernet Access (Type 1) – 8 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0090**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
183	**On-Net Ethernet Access (Type 1) – 9 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0091**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
184	**On-Net Ethernet Access (Type 1) – 10 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0092**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
185	**On-Net Ethernet Access (Type 1) – 20 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0093**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
186	**On-Net Ethernet Access (Type 1) – 30 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0094**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
187	**On-Net Ethernet Access (Type 1) – 40 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0095**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
188	**On-Net Ethernet Access (Type 1) – 50 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0096**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
189	**On-Net Ethernet Access (Type 1) – 60 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0097**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
190	**On-Net Ethernet Access (Type 1) – 70 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0098**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
191	**On-Net Ethernet Access (Type 1) – 80 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0099**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
192	**On-Net Ethernet Access (Type 1) – 90 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0100**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
193	**On-Net Ethernet Access (Type 1) – 100 Mbps – 100 Mbps UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.	**EAON0101**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 100 BaseTX or a 100 Base FX Uni Handoff.		
194	**On-Net Ethernet Access (Type 1) – 1 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0102**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
195	**On-Net Ethernet Access (Type 1) – 2 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0103**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 2 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
196	**On-Net Ethernet Access (Type 1) – 3 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0104**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 3 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
197	**On-Net Ethernet Access (Type 1) – 4 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0105**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 4 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
198	**On-Net Ethernet Access (Type 1) – 5 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0106**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 5 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
199	**On-Net Ethernet Access (Type 1) – 6 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0107**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 6 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
200	**On-Net Ethernet Access (Type 1) – 7 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0108**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 7 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
201	**On-Net Ethernet Access (Type 1) – 8 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0109**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 8 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
202	**On-Net Ethernet Access (Type 1) – 9 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0110**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 9 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
203	**On-Net Ethernet Access (Type 1) – 10 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0111**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 10 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
204	**On-Net Ethernet Access (Type 1) – 20 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0112**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 20 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
205	**On-Net Ethernet Access (Type 1) – 30 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0113**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 30 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
206	**On-Net Ethernet Access (Type 1) – 40 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0114**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 40 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
207	**On-Net Ethernet Access (Type 1) – 50 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0115**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 50 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
208	**On-Net Ethernet Access (Type 1) – 60 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0116**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 60 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
209	**On-Net Ethernet Access (Type 1) – 70 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0117**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 70 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
210	**On-Net Ethernet Access (Type 1) – 80 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0118**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 80 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
211	**On-Net Ethernet Access (Type 1) – 90 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0119**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 90 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
212	**On-Net Ethernet Access (Type 1) – 100 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0120**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 100 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
213	**On-Net Ethernet Access (Type 1) – 200 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 200 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0122**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 200 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
214	**On-Net Ethernet Access (Type 1) – 300 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 300 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0123**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 300 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
215	**On-Net Ethernet Access (Type 1) – 400 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 400 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0124**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 400 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
216	**On-Net Ethernet Access (Type 1) – 500 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 500 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0125**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 500 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
217	**On-Net Ethernet Access (Type 1) – 600 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 600 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0126**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 600 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
218	**On-Net Ethernet Access (Type 1) – 700 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 700 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0127**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 700 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
219	**On-Net Ethernet Access (Type 1) – 800 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 800 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0128**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 800 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
220	**On-Net Ethernet Access (Type 1) – 900 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 900 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0129**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 900 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
221	**On-Net Ethernet Access (Type 1) – 1000 Mbps – GigE UNI Speed – CA Central Offices ELRICAXF / SNMNCAXG / THOKCAXF**	Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1000 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.	**EAON0130**
	Bidder's Product Description: Verizon will provide Ethernet Access (Type 1) service, Ethernet service provided on Verizon provider designated facilities at 1000 Mbps on a 1000 BaseTX, 1000 Base LX Uni Handoff or a 1000BaseSX Uni Handoff.		
221 a	**Off-Net OC3 Access - 155 Mbps UNI Speed**	Off-Net OC3 Access - 155 Mbps UNI Speed provides customer a connection to MPLS Port only service.	ACOC0003
221 b	**Off-Net OC12 Access - 622 Mbps UNI Speed**	Off-Net OC12 Access - 622 Mbps UNI Speed provides customer a connection to MPLS Port only service.	ACOC0012
221 c	**Off-Net OC48 Access - 2.488 Gbps UNI Speed**	Off-Net OC48 Access - 2.488 Gbps UNI Speed provides customer a connection to MPLS Port only service.	ACOC0048
221 d	**Off-Net OC192 Access - 9.953 Gbps UNI Speed**	Off-Net OC192 Access - 9.953 Gbps UNI Speed provides customer a connection to MPLS Port only service.	ACOC0192

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
221 e	**Off-Net Ethernet Access - 1 Mbps UNI Speed**	Off-Net Ethernet Access - 1 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EA0F0001
221 f	**Off-Net Ethernet Access - 2 Mbps UNI Speed**	Off-Net Ethernet Access - 2 Mbps UNI Speed provides customer a connection to MPLS Port only service	EAOF0002
221 g	**Off-Net Ethernet Access - 3 Mbps UNI Speed**	Off-Net Ethernet Access - 3 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0003
221 h	**Off-Net Ethernet Access - 4 Mbps UNI Speed**	Off-Net Ethernet Access - 4 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0004
221i	**Off-Net Ethernet Access - 5 Mbps UNI Speed**	Off-Net Ethernet Access - 5 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0005
221j	**Off-Net Ethernet Access - 6 Mbps UNI Speed**	Off-Net Ethernet Access - 6 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0006
221 k	**Off-Net Ethernet Access - 7 Mbps UNI Speed**	Off-Net Ethernet Access - 7 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0007
221l	**Off-Net Ethernet Access - 8 Mbps UNI Speed**	Off-Net Ethernet Access - 8 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0008
221 m	**Off-Net Ethernet Access - 9 Mbps UNI Speed**	Off-Net Ethernet Access - 9 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0009
221 n	**Off-Net Ethernet Access - 10 Mbps UNI Speed**	Off-Net Ethernet Access - 10 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0010
221 o	**Off-Net Ethernet Access - 20 Mbps UNI Speed**	Off-Net Ethernet Access - 20 Mbps UNI Speed provides customer a connection to MPLS Port only service. Requires Virtual Contact Center (VCC) Agent Package and Supervisor Package.	EAOF0020

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
221 p	**Off-Net Ethernet Access - 30 Mbps UNI Speed**	Off-Net Ethernet Access - 30 Mbps UNI Speed provides customer a connection to MPLS Port only service. Requires Virtual Contact Center (VCC) Agent Package and Supervisor Package.	EAOF0030
221 q	**Off-Net Ethernet Access - 40 Mbps UNI Speed**	Off-Net Ethernet Access - 40 Mbps UNI Speed provides customer a connection to MPLS Port only service. Requires Virtual Contact Center (VCC) Agent Package and Supervisor Package.	EAOF0040
221 r	**Off-Net Ethernet Access - 50 Mbps UNI Speed**	Off-Net Ethernet Access - 50 Mbps UNI Speed provides customer a connection to MPLS Port only service. Requires Virtual Contact Center (VCC) Agent Package and Supervisor Package.	EAOF0050
221 s	**Off-Net Ethernet Access - 60 Mbps UNI Speed**	Off-Net Ethernet Access - 60 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0060
221 t	**Off-Net Ethernet Access - 70 Mbps UNI Speed**	Off-Net Ethernet Access - 70 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0070
221 u	**Off-Net Ethernet Access - 80 Mbps UNI Speed**	Off-Net Ethernet Access - 80 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0080
221 v	**Off-Net Ethernet Access - 90 Mbps UNI Speed**	Off-Net Ethernet Access - 90 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0090
221 w	**Off-Net Ethernet Access - 100 Mbps UNI Speed**	Off-Net Ethernet Access - 100 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0100
221 x	**Off-Net Ethernet Access - 150 Mbps UNI Speed**	Off-Net Ethernet Access - 150 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0150
221 y	**Off-Net Ethernet Access - 200 Mbps UNI Speed**	Off-Net Ethernet Access - 200 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0200

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
221 z	**Off-Net Ethernet Access - 300 Mbps UNI Speed**	Off-Net Ethernet Access - 300 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0300
221 aa	**Off-Net Ethernet Access - 400 Mbps UNI Speed**	Off-Net Ethernet Access - 400 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0400
221 bb	**Off-Net Ethernet Access - 500 Mbps UNI Speed**	Off-Net Ethernet Access - 500 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0500
221 cc	**Off-Net Ethernet Access - 600 Mbps UNI Speed**	Off-Net Ethernet Access - 600 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0600
221 dd	**Off-Net Ethernet Access - 700 Mbps UNI Speed**	Off-Net Ethernet Access - 700 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0700
221 ee	**Off-Net Ethernet Access - 800 Mbps UNI Speed**	Off-Net Ethernet Access - 800 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0800
221 ff	**Off-Net Ethernet Access - 900 Mbps UNI Speed**	Off-Net Ethernet Access - 900 Mbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF0900
221 gg	**Off-Net Ethernet Access - 1 Gbps UNI Speed**	Off-Net Ethernet Access - 1 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF1000
221 hh	**Off-Net Ethernet Access - 1.5 Gbps UNI Speed**	Off-Net Ethernet Access - 1.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF1005
221i i	**Off-Net Ethernet Access - 2 Gbps UNI Speed**	Off-Net Ethernet Access - 2 Gbps UNI Speed provides customer a connection to MPLS Port only service	EAOF2000
221j j	**Off-Net Ethernet Access - 2.5 Gbps UNI Speed**	Off-Net Ethernet Access - 2.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF2005
221 kk	**Off-Net Ethernet Access - 3 Gbps UNI Speed**	Off-Net Ethernet Access - 3 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF3000
221l l	**Off-Net Ethernet Access - 3.5 Gbps UNI Speed**	Off-Net Ethernet Access - 3.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF3005

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
221 mm	**Off-Net Ethernet Access - 4 Gbps UNI Speed**	Off-Net Ethernet Access - 4 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF4000
221 nn	**Off-Net Ethernet Access - 4.5 Gbps UNI Speed**	Off-Net Ethernet Access - 4.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF4005
221 oo	**Off-Net Ethernet Access - 5 Gbps UNI Speed**	Off-Net Ethernet Access - 5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF5000
221 pp	**Off-Net Ethernet Access - 5.5 Gbps UNI Speed**	Off-Net Ethernet Access - 5.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF5005
221 qq	**Off-Net Ethernet Access - 6 Gbps UNI Speed**	Off-Net Ethernet Access - 6 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF6000
221 rr	**Off-Net Ethernet Access - 6.5 Gbps UNI Speed**	Off-Net Ethernet Access - 6.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF6005
221 ss	**Off-Net Ethernet Access - 7 Gbps UNI Speed**	Off-Net Ethernet Access - 7 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF7000
221 tt	**Off-Net Ethernet Access - 7.5 Gbps UNI Speed**	Off-Net Ethernet Access - 7.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF7005
221 uu	**Off-Net Ethernet Access - 8 Gbps UNI Speed**	Off-Net Ethernet Access - 8 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF8000
221 vv	**Off-Net Ethernet Access - 8.5 Gbps UNI Speed**	Off-Net Ethernet Access - 8.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF8005
221 ww	**Off-Net Ethernet Access - 9 Gbps UNI Speed**	Off-Net Ethernet Access - 9 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF9000
221 xx	**Off-Net Ethernet Access - 9.5 Gbps UNI Speed**	Off-Net Ethernet Access - 9.5 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOF9005
221 yy	**Off-Net Ethernet Access - 10 Gbps UNI Speed**	Off-Net Ethernet Access - 10 Gbps UNI Speed provides customer a connection to MPLS Port only service.	EAOO0010

Virtual Private LAN Service (VPLS)

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
222	**VPLS Standard / Transparent Flow – 1 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 1 Mbps.	**VPST0001**
	Bidder's Product Description: Verizon is proposing Virtual Private LAN Service (VPLS) as an Unsolicited Service Offering in section 1.2. VPLS is a private IP network that supports native Layer 2 protocols. Some State agencies require transport services that support native layer 2 protocol. **Verizon VPLS general description** applies to the following VPLS line items. Virtual Private LAN Service (VPLS) is a type of layer 2 VPN, based on Ethernet over a provider MultiProtocol Label Switching (MPLS) backbone. With VPLS, the customer's Ethernet LAN is extended to the service edge of the provider (Verizon) network. The provider network then emulates the function of a LAN switch or bridge to connect all of the customer's LANs to create a single bridged (Ethernet) LAN. VPLS makes all customer sites appear to be on the same LAN, regardless of their geographic locations. VPLS provides true Layer 2 multipoint services, which constitutes its main difference from other types of VPNs, including Virtual Private Wire Service (VPWS) which provides a point-to-point service. Multipoint service connects two or more customer devices using Ethernet multipoint bridging techniques. With VPLS, the forwarding is based on MAC addressing. This means that customers do not have to share their routing plans with the provider, which is a concern for some customers. In fact, customer routing can be independent of provider routing. The customer connects to the VPLS network site by site with one circuit. With this single connection, the site is able to communicate to all sites within the customer VPLS domain. The customer hand-off to the WAN with VPLS is always Ethernet. VPLS features include: ▪ Multi-service Ethernet Access allows customers to receive multiple VPLS Flows and/or EVCs - MPLS, Internet Dedicated - Ethernet, and Ethernet Virtual Private Line (EVPL) - through a single User Network Interface (UNI). ▪ VPLS supports four Classes of Service - Real Time Data, Priority Data, Business Data, and Basic Data as defined under 802.1p. ▪ Real Time CoS is offered as optional Premium QoS feature while the other three CoS are standard with every VPLS service ▪ Ethernet Access with Service Multiplexed or All-to-one bundled UNIs over a Verizon global provisioning platform. ▪ MAC address forwarding supporting IP and non-IP based network protocol. ▪ Broadcast, Unicast, and Multicast traffic supported using Traffic Replication. Virtual Private LAN Service (VPLS) provides any-to-any Ethernet virtual connections utilizing Ethernet Access (EA) terminating technology at the customer's designated premises. EA technology provides customers the ability to leverage a single EA port to support multiple network services. Virtual Local Area Network (VLAN) tags are employed to distinguish one flow from another.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. VPLS Flow supports IEEE 802.1p by supporting three standard classes of service (CoS) and a Premium QoS Class for an additional charge. With 802.1p, the P-bits in the VLAN Tagged Ethernet frame are used to define the priority of a frame. If Customer delivers untagged frames they are treated as the lowest class of service. Standard. The Priority Data, Business Data, and Basic Data classes are standard and included as part of the monthly recurring charges ("MRCs") and non-recurring charges ("NRCs") of the VPLS Flow speed selected at each site. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. Premium QoS. Premium QoS is offered as an option for an additional charge. Premium QoS provides an additional class of service: Real Time Data. Premium QoS has MRCs and NRCs based on the Premium QoS speed selected at each site. The Premium QoS charges are in addition to the VPLS Flow charges. This **VPLS Standard / Transparent Flow** is for a 1 Mbps Ethernet flow.		
223	**VPLS Standard / Transparent Flow – 2 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 2 Mbps.	**VPST0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 2 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
224	**VPLS Standard / Transparent Flow – 3 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 3 Mbps.	**VPST0003**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 3 Mbps Ethernet flow.		
225	**VPLS Standard / Transparent Flow – 4 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 4 Mbps.	**VPST0004**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for an 4 Mbps Ethernet flow.		
226	**VPLS Standard / Transparent Flow – 5 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 5 Mbps.	**VPST0005**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 5 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
227	**VPLS Standard / Transparent Flow – 6 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 6 Mbps.	**VPST0006**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 6 Mbps Ethernet flow.		
228	**VPLS Standard / Transparent Flow – 7 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 7 Mbps.	**VPST0007**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 7 Mbps Ethernet flow.		
229	**VPLS Standard / Transparent Flow – 8 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 8 Mbps.	**VPST0008**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for an 8 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
230	**VPLS Standard / Transparent Flow – 9 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 9 Mbps.	**VPST0009**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 9 Mbps Ethernet flow.		
231	**VPLS Standard / Transparent Flow – 10 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 10 Mbps.	**VPST0010**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 10 Mbps Ethernet flow.		
232	**VPLS Standard / Transparent Flow – 15 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 15 Mbps.	**VPST0015**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 15 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
233	**VPLS Standard / Transparent Flow – 20 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 20 Mbps.	**VPST0020**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 20 Mbps Ethernet flow.		
234	**VPLS Standard / Transparent Flow – 25 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 25 Mbps.	**VPST0025**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 25 Mbps Ethernet flow.		
235	**VPLS Standard / Transparent Flow – 30 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 30 Mbps.	**VPST0030**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 30 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
236	**VPLS Standard / Transparent Flow – 35 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 35 Mbps.	**VPST0035**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for an 35 Mbps Ethernet flow.		
237	**VPLS Standard / Transparent Flow – 40 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 40 Mbps.	**VPST0040**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 40 Mbps Ethernet flow.		
238	**VPLS Standard / Transparent Flow – 45 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 45 Mbps.	**VPST0045**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 45 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
239	**VPLS Standard / Transparent Flow – 50 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 50 Mbps.	**VPST0050**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 50 Mbps Ethernet flow.		
240	**VPLS Standard / Transparent Flow – 60 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 60 Mbps.	**VPST0060**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 60 Mbps Ethernet flow.		
241	**VPLS Standard / Transparent Flow – 70 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 70 Mbps.	**VPST0070**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 70 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
242	**VPLS Standard / Transparent Flow – 80 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 80 Mbps.	**VPST0080**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for an 80 Mbps Ethernet flow.		
243	**VPLS Standard / Transparent Flow – 90 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 90 Mbps.	**VPST0090**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 90 Mbps Ethernet flow.		
244	**VPLS Standard / Transparent Flow – 100 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 100 Mbps.	**VPST0100**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 100 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
245	**VPLS Standard / Transparent Flow – 150 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 150 Mbps.	**VPST0150**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 150 Mbps Ethernet flow.		
246	**VPLS Standard / Transparent Flow – 200 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 200 Mbps.	**VPST0200**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 200 Mbps Ethernet flow.		
247	**VPLS Standard / Transparent Flow – 300 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 300 Mbps.	**VPST0300**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 300 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
248	**VPLS Standard / Transparent Flow – 400 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 400 Mbps.	**VPST0400**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 400 Mbps Ethernet flow.		
249	**VPLS Standard / Transparent Flow – 500 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 500 Mbps.	**VPST0500**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 500 Mbps Ethernet flow.		
250	**VPLS Standard / Transparent Flow – 600 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 600 Mbps.	**VPST0600**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 600 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
251	**VPLS Standard / Transparent Flow – 700 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 700 Mbps.	**VPST0700**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 700 Mbps Ethernet flow.		
252	**VPLS Standard / Transparent Flow – 800 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 800 Mbps.	**VPST0800**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for an 800 Mbps Ethernet flow.		
253	**VPLS Standard / Transparent Flow – 900 Mbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 900 Mbps.	**VPST0900**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 900 Mbps Ethernet flow.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
254	**VPLS Standard / Transparent Flow – 1 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 1 Gbps.	**VPST1000**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 1 Gbps Ethernet flow.		
255	**VPLS Standard / Transparent Flow – 1.5 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 1.5 Gbps via an ICB.	**VPCB0001**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 1.5 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
256	**VPLS Standard / Transparent Flow – 2 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 2 Gbps via an ICB.	**VPCB0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 2 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
257	**VPLS Standard / Transparent Flow – 2.5 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 2.5 Gbps via an ICB.	**VPIC0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 2.5 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
258	**VPLS Standard / Transparent Flow – 3 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 3 Gbps via an ICB.	**VPCB0003**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 3 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
259	**VPLS Standard / Transparent Flow – 4 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 4 Gbps via an ICB.	**VPCB0004**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 4 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
260	**VPLS Standard / Transparent Flow – 5 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 5 Gbps via an ICB.	**VPCB0005**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 5 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
261	**VPLS Standard / Transparent Flow – 6 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 6 Gbps via an ICB.	**VPCB0006**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS):		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 6 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
262	**VPLS Standard / Transparent Flow – 7 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 7 Gbps via an ICB.	**VPCB0007**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 7 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
263	**VPLS Standard / Transparent Flow – 8 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 8 Gbps via an ICB.	**VPCB0008**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for an 8 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
264	**VPLS Standard / Transparent Flow – 9 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 9 Gbps via an ICB.	**VPCB0009**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 9 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
265	**VPLS Standard / Transparent Flow – 10 Gbps**	Virtual Private LAN Service (VPLS) Standard / Transparent Ethernet Flow at 10 Gbps via an ICB.	**VPCB0010**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Standard VLAN Tagged/Transparent support IEEE 802.1p and a QoS feature by supporting three standard classes of service (CoS): The Priority Data, Business Data, and Basic Data classes. This VPLS Standard / Transparent Flow is for a 10 Gbps Ethernet flow provided via an Individual Case Basis (ICB) request.		
266	**VPLS Premium Quality of Service (QoS) – 64 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 64 Kbps	**VPQK0064**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 64 Kbps.		
267	**VPLS Premium Quality of Service (QoS) – 128 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 128 Kbps	**VPQK0128**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 128 Kbps.		
268	**VPLS Premium Quality of Service (QoS) – 256 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 256 Kbps	**VPQK0256**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 256 Kbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
269	**VPLS Premium Quality of Service (QoS) – 384 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 384 Kbps	**VPQK0384**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 384 Kbps.		
270	**VPLS Premium Quality of Service (QoS) – 512 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 512 Kbps	**VPQK0512**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 512 Kbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
271	**VPLS Premium Quality of Service (QoS) – 640 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 640 Kbps	**VPQK0640**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 640 Kbps.		
272	**VPLS Premium Quality of Service (QoS) – 768 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 768 Kbps	**VPQK768**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 768 Kbps.		
273	**VPLS Premium Quality of Service (QoS) – 864 Kbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 864 Kbps	**VPQK0864**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 864 Kbps.		
274	**VPLS Premium Quality of Service (QoS) – 1 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 1 Mbps	**VPQS0001**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 1 Mbps.		
275	**VPLS Premium Quality of Service (QoS) – 2 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 2 Mbps	**VPQS0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 2 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
276	**VPLS Premium Quality of Service (QoS) – 3 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 3 Mbps	**VPQS0003**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 3 Mbps.		
277	**VPLS Premium Quality of Service (QoS) – 4 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 4 Mbps	**VPQS0004**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 4 Mbps.		
278	**VPLS Premium Quality of Service (QoS) – 5 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 5 Mbps	**VPQS0005**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 5 Mbps.		
279	**VPLS Premium Quality of Service (QoS) – 6 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 6 Mbps	**VPQS0006**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 6 Mbps.		
280	**VPLS Premium Quality of Service (QoS) – 7 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 7 Mbps	**VPQS0007**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 7 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
281	**VPLS Premium Quality of Service (QoS) – 8 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 8 Mbps	**VPQS0008**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 8 Mbps.		
282	**VPLS Premium Quality of Service (QoS) – 9 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 9 Mbps	**VPQS0009**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 9 Mbps		
283	**VPLS Premium Quality of Service (QoS) – 10 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 10 Mbps	**VPQS0010**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 10 Mbps.		
284	**VPLS Premium Quality of Service (QoS) – 15 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 15 Mbps	**VPQS0015**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 15 Mbps		
285	**VPLS Premium Quality of Service (QoS) – 20 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 20 Mbps	**VPQS0020**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 20 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
286	**VPLS Premium Quality of Service (QoS) – 25 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 25 Mbps	**VPQS0025**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 25 Mbps.		
287	**VPLS Premium Quality of Service (QoS) – 30 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 30 Mbps	**VPQS0030**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 30 Mbps		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
288	**VPLS Premium Quality of Service (QoS) – 35 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 35 Mbps	**VPQS0035**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 35 Mbps		
289	**VPLS Premium Quality of Service (QoS) – 40 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 40 Mbps	**VPQS0040**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 40 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
290	**VPLS Premium Quality of Service (QoS) – 45 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 45 Mbps	**VPQS0045**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 45 Mbps.		
291	**VPLS Premium Quality of Service (QoS) – 50 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 50 Mbps	**VPQS0050**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 50 Mbps.		
292	**VPLS Premium Quality of Service (QoS) – 60 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 60 Mbps	**VPQS0060**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 60 Mbps.		
293	**VPLS Premium Quality of Service (QoS) – 70 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 70 Mbps	**VPQS0070**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 70 Mbps.		
294	**VPLS Premium Quality of Service (QoS) – 80 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 80 Mbps	**VPQS0080**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 80 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
295	**VPLS Premium Quality of Service (QoS) – 90 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 90 Mbps	**VPQS0090**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 90 Mbps		
296	**VPLS Premium Quality of Service (QoS) – 100 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 100 Mbps	**VPQS0100**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 100 Mbps		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
297	**VPLS Premium Quality of Service (QoS) – 150 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 150 Mbps	**VPQS0150**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 150 Mbps		
298	**VPLS Premium Quality of Service (QoS) – 200 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 200 Mbps	**VPQS0200**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 200 Mbps		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
299	**VPLS Premium Quality of Service (QoS) – 300 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 300 Mbps	**VPQS0300**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 300 Mbps		
300	**VPLS Premium Quality of Service (QoS) – 400 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 400 Mbps	**VPQS0400**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition.		
301	**VPLS Premium Quality of Service (QoS) – 500 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 500 Mbps	**VPQS0500**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 500 Mbps		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
302	**VPLS Premium Quality of Service (QoS) – 600 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 600 Mbps	**VPQS0600**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 600 Mbps		
303	**VPLS Premium Quality of Service (QoS) – 700 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 700 Mbps	**VPQS0700**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 700 Mbps		
304	**VPLS Premium Quality of Service (QoS) – 800 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 800 Mbps	**VPQS0800**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 800 Mbps		
305	**VPLS Premium Quality of Service (QoS) – 900 Mbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 900 Mbps	**VPQS0900**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 900 Mbps		
306	**VPLS Premium Quality of Service (QoS) – 1 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 1 Gbps	**VPQL0001**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 1 Gbps		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
307	**VPLS Premium Quality of Service (QoS) – 2 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 2 Gbps	**VPQL0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 2 Gbps		
308	**VPLS Premium Quality of Service (QoS) – 3 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 3 Gbps	**VPQL0003**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 3 Gbps		
309	**VPLS Premium Quality of Service (QoS) – 4 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 4 Gbps	**VPQL0004**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 4 Gbps		
310	**VPLS Premium Quality of Service (QoS) – 5 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 5 Gbps	**VPQL0005**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 5 Gbps		
311	**VPLS Premium Quality of Service (QoS) – 6 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 6 Gbps	**VPQL0006**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 6 Gbps		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
312	**VPLS Premium Quality of Service (QoS) – 7 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 7 Gbps	**VPQL0007**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 7 Gbps		
313	**VPLS Premium Quality of Service (QoS) – 8 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 8 Gbps	**VPQL0008**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 8 Gbps		
314	**VPLS Premium Quality of Service (QoS) – 9 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 9 Gbps	**VPQL0009**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 9 Gbps		
315	**VPLS Premium Quality of Service (QoS) – 10 Gbps**	Optional Virtual Private LAN Service (VPLS) Premium Quality of Service – Real Time Data – 10 Gbps	**VPQL0010**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) is a Layer 2 VPN, which combines the flexibility of MultiProtocol Label Switching (MPLS) and the simplicity of Ethernet into an international wide area networking (WAN) solution. VPLS is IP protocol independent; thus allowing customers to run their own IP control protocol and their own IP address routing scheme. VPLS is classified as an Ethernet LAN (E-LAN) service based on the Metro Ethernet Forum (MEF) service definition. Premium QoS is an option providing an additional class of service, Real Time Data, to the classes of service which come with the standard/transparent VPLS Flow. MRCs vary according to speed and are charged for each Premium QoS installed on a VPLS Flow. Any required transport through the MPLS-based core is included in the monthly charge. Premium QoS charges are in addition to the VPLS Flow charges. Premium QoS bandwidth must be less than or equal to the VPLS Flow bandwidth. This VPLS Premium Quality of Service (QoS) is for a Real Time Data at a rate of 10 Gbps.		
316	**VPLS MAC Address Block**	Virtual Private LAN Service (VPLS) customer domain --Media Access Control (MAC) address block charges	**VPMC0000**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Standard MAC Address Block provides fifty 50 MAC addresses (i.e., a MAC address block) for each set of 25 sites per Customer Domain. Additional MAC Address Blocks may be ordered by CALNET III customers. Additional block(s) of MAC addresses are used within a particular Customer Domain to supplement the company-provided MAC Address Block. MAC Address Blocks. Standard MAC Address Block. Company provides fifty (50) Media Access Control addresses (MAC) (i.e., a MAC Address Block) for each set of 25 sites, per Customer Domain. Additional MAC Address Blocks. Customer may order additional block(s) of MAC Addresses for use within a particular Customer Domain to supplement the Company provided MAC Address Block. The MRC and NRC charges for each additional block are set forth in Rates and Charges, below.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
317	**VPLS Traffic Replication – 1 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 1 Mbps	**VPTR0001**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 1 Mbps.		
318	**VPLS Traffic Replication – 2 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 2 Mbps	**VPTR0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 2 Mbps.		
319	**VPLS Traffic Replication – 3 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 3 Mbps	**VPTR0003**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 3 Mbps.		
320	**VPLS Traffic Replication – 4 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 4 Mbps	**VPTR0004**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 4 Mbps.		
321	**VPLS Traffic Replication – 5 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 5 Mbps	**VPTR0005**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 5 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
322	**VPLS Traffic Replication – 6 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 6 Mbps	**VPTR0006**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 6 Mbps.		
323	**VPLS Traffic Replication – 7 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 7 Mbps	**VPTR0007**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 7 Mbps.		
324	**VPLS Traffic Replication – 8 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 8 Mbps	**VPTR0008**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 8 Mbps.		
325	**VPLS Traffic Replication – 9 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 9 Mbps	**VPTR0009**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 9 Mbps.		
326	**VPLS Traffic Replication – 10 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 10 Mbps	**VPTR0010**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 10 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
327	**VPLS Traffic Replication – 15 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 15 Mbps	**VPTR0015**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 15 Mbps.		
328	**VPLS Traffic Replication – 20 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 20 Mbps	**VPTR0020**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 20 Mbps.		
329	**VPLS Traffic Replication – 25 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 25 Mbps	**VPTR0025**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 25 Mbps.		
330	**VPLS Traffic Replication – 30 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 30 Mbps	**VPTR0030**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 30 Mbps.		
331	**VPLS Traffic Replication – 35 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 35 Mbps	**VPTR0035**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 35 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
332	**VPLS Traffic Replication – 40 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 40 Mbps	**VPTR0040**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 40 Mbps.		
333	**VPLS Traffic Replication – 45 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 45 Mbps.	**VPTR0045**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 45 Mbps.		
334	**VPLS Traffic Replication – 50 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 50 Mbps	**VPTR0050**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 50 Mbps.		
335	**VPLS Traffic Replication – 60 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 60 Mbps	**VPTR0060**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 60 Mbps.		
336	**VPLS Traffic Replication – 65 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 65 Mbps	**VPTR0065**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET 3 customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
337	**VPLS Traffic Replication – 70 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 70 Mbps	**VPTR0070**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 70 Mbps.		
338	**VPLS Traffic Replication – 80 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 80 Mbps	**VPTR0080**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 80 Mbps.		
330	**VPLS Traffic Replication – 90 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 90 Mbps	**VPTR0090**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 90 Mbps.		
340	**VPLS Traffic Replication – 100 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 100 Mbps	**VPTR0100**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 100 Mbps.		
341	**VPLS Traffic Replication – 150 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 150 Mbps	**VPTR0150**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 150 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
342	**VPLS Traffic Replication – 200 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 200 Mbps	**VPTR0200**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 200 Mbps.		
343	**VPLS Traffic Replication – 300 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 300 Mbps	**VPTR0300**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 300 Mbps.		
344	**VPLS Traffic Replication – 400 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 400 Mbps	**VPTR0400**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 400 Mbps.		
345	**VPLS Traffic Replication – 500 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 500 Mbps	**VPTR0500**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 500 Mbps.		
346	**VPLS Traffic Replication – 600 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 600 Mbps	**VPTR0600**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 600 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
347	**VPLS Traffic Replication – 700 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 700 Mbps	**VPTR0700**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 700 Mbps.		
348	**VPLS Traffic Replication – 800 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 800 Mbps	**VPTR0800**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 800 Mbps.		
349	**VPLS Traffic Replication – 900 Mbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 900 Mbps	**VPTR0900**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 900 Mbps.		
350	**VPLS Traffic Replication – 1 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 1 Gbps	**VPTR1000**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 1 Gbps.		
351	**VPLS Traffic Replication – 1.5 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 1.5 Gbps	**VPTG0001**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 1.5 Gbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
352	**VPLS Traffic Replication – 2 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 2 Gbps	**VPTG0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 2 Gbps.		
353	**VPLS Traffic Replication – 2.5 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 2.5 Gbps	**VPTI0002**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 2.5 Gbps.		
254	**VPLS Traffic Replication – 3 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 3 Gbps	**VPTG0003**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 3 Gbps.		
355	**VPLS Traffic Replication – 4 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 4 Gbps	**VPTG0004**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 4 Gbps.		
356	**VPLS Traffic Replication – 5 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 5 Gbps	**VPTG0005**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 5 Gbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
357	**VPLS Traffic Replication – 6 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 6 Gbps	**VPTG0006**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 6 Gbps.		
358	**VPLS Traffic Replication – 7 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 7 Gbps	**VPTG0007**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 7 Gbps.		
359	**VPLS Traffic Replication – 8 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 8 Gbps	**VPTG0008**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 8 Gbps.		
360	**VPLS Traffic Replication – 9 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 9 Gbps	**VPTG0009**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 9 Gbps.		
361	**VPLS Traffic Replication – 10 Gbps**	Virtual Private LAN Service (VPLS) Traffic Replication at 10 Gbps	**VBPT0010**
	Bidder's Product Description: Virtual Private LAN Service (VPLS) Traffic Replication provides CALNET III customers the ability to transmit broadcast, unknown and multicast traffic up to 100% of a VPLS standard flow speed. This service has limited availability and is only available at 10 Gbps.		

Managed MPLS Wireless

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
362	**Managed MPLS Wireless 5GB Usage Shared Extra Small Bridge**	Managed Wireless MPLS 5GB Shared Usage Shared Extra Small Service includes a wireless access bridge device, monitoring, and a shared 5GB wireless data plan.	**MWRX0000**
	Bidder's Product Description: Verizon is proposing MPLS Managed Wireless Service as an Unsolicited Service Offering in section 1.2. Managed Wireless Service provides a backup solution to MPLS Services frequently requested by many agencies to satisify redundancy and resilience requirements. Managed MPLS Wireless provides the interface requested as a capability of the MPLS requirements. Managed Wireless MPLS 5GB Shared Usage Shared Extra Small Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access bridge device to connect to an existing managed (Extra Small) router.		
363	**Managed MPLS Wireless 5GB Usage Shared Small Bridge**	Managed MPLS Wireless 5GB Shared Usage Shared Small Service includes a wireless access bridge device, monitoring, and a shared 5GB wireless data plan.	**MWRS0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Small Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access bridge device to connect to an existing managed (Small) router.		
364	**Managed MPLS Wireless 5GB Usage Shared Medium Bridge**	Managed MPLS Wireless 5GB Shared Usage Shared Medium Service includes a wireless access bridge device, monitoring, and a shared 5GB wireless data plan.	**MWRM0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Medium Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access bridge device to connect to an existing managed (Medium) router.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
365	**Managed MPLS Wireless 5GB Usage Shared Large Bridge**	Managed MPLS Wireless 5GB Shared Usage Shared Large Service includes a wireless access bridge device, monitoring, and a shared 5GB wireless data plan.	**MWRL0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Large Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access bridge device to connect to an existing managed (Large) router.		
366	**Managed MPLS Wireless 5GB Usage Shared Extra Small Card**	Managed MPLS Wireless 5GB Shared Usage Shared Extra Small Service includes a wireless access card, monitoring, and a shared 5GB wireless data plan.	**MWAX0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Extra Small Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access card for an existing managed (Extra Small) router.		
367	**Managed MPLS Wireless 5GB Usage Shared Small Card**	Managed MPLS Wireless 5GB Shared Usage Shared Small Service includes a wireless access card, monitoring, and a shared 5GB wireless data plan.	**MWSS0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Small Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access card for an existing managed (Small) router.		
368	**Managed MPLS Wireless 5GB Usage Shared Medium Card**	Managed MPLS Wireless 5GB Shared Usage Shared Medium Service includes a wireless access card, monitoring, and a shared 5GB wireless data plan.	**PWAM0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Medium Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access card for an existing managed (Medium) router.		
369	**Managed MPLS Wireless 5GB Usage Shared Large Card**	Managed MPLS Wireless 5GB Shared Usage Shared Large Service includes a wireless access card, monitoring, and a shared 5GB wireless data plan.	**PWAL0000**
	Bidder's Product Description: Managed MPLS Wireless 5GB Shared Usage Shared Large Service requires a MPLS connection bundle with fully managed router. The 5GB wireless usage plan includes 5 GB per month per connection. Overage charges above 5GB will apply for exceeding 5GB per site unless there are multiple sites in 1GB increments. Customers with multiple sites will share aggregate usage across all locations before overage would apply. Verizon will provide, install and monitor a wireless access card for an existing managed (Large) router.		
370	**Managed MPLS Wireless Overage**	Managed MPLS Wireless Overage	**MWOV0000**
	Bidder's Product Description: Usage is measured in GB Usage over the subscribed allotment. This is measured and charged on a per GB basis.		
371	**Managed MPLS Wireless - PWG Port Setup**	Managed MPLS Wireless – PWG Port Setup is for the Network to Network Interface (NNI) between the Verizon Wireless network and the Verizon MPLS.	**PWAP0000**
	Bidder's Product Description: Managed MPLS Wireless – PWG Port Setup is for the Network to Network Interface (NNI) between the Verizon Wireless network and the Verizon MPLS. It provides: ☐ PWG Port Setup Extension to MPLS Wireless Access ☐ Traffic flows over the MPLS Wireless Gateway (PWG). This is the Network to Network Interface (NNI) between the Verizon Wireless network and the Verizon MPLS network and is ordered separately. Sized per Port.		
372	**Managed MPLS Wireless – Static IP Address Set Up&Assignment**	Managed MPLS Wireless – Static IP Address Set Up&Assignment is the set up and assignment of Static IP Addressing on the Verizon MPLS Network.	**PWAI0000**
	Bidder's Product Description: Managed MPLS Wireless – Static IP Address Set Up & Assignment is the set up and assignment of Static IP Addressing on the Verizon MPLS Network. It provides: ☐ Static IP Addressing Extension to MPLS Wireless Access ☐ Set Up and Assignment of Static IP Addressing on the Verizon Private Network (required for MPLS - Wireless Access – Managed)		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
373	**Managed MPLS Wireless – DMNR**	Managed MPLS Wireless Access - Dynamic Mobile Network Routing (DMNR) with extension to MPLS Wireless Access.	**PWAD0000**
	Bidder's Product Description: Managed MPLS Wireless Access - Dynamic Mobile Network Routing (DMNR) with extension to MPLS Wireless Access. It provides: ☐ Dynamic Mobile Network Routing (DMNR) Extension to MPLS Wireless Access ☐ DMNR ☐ Allows the use of a dynamic routing protocol- ideal to leverage the any-to-any nature of MPLS used in Private MPLS network		

Secure Internet Gateway

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
374	**Secure Gateway – Universal Port 128 Kbps**	Secure Gateway – Universal Port 128 Kbps is a Firewall (Standard) MPLS side port connection with 128Kbps.	**SEGU0128**
	Bidder's Product Description: Verizon is proposing Secure Internet Gateway (SIG) Service as an Unsolicited Service Offering in section 1.2. SIG Service provides an internet solution to MPLS Services frequently requested by many agencies to satisfy the requirements of remote access into MPLS securely. SIG provides the interface requested as a capability of the MPLS requirements **Secure Gateway general description applies to the following Secure Gateway line items.** Secure Gateway - Firewall provides enterprise employees secure access to the Internet from customer locations connected to a Verizon network service via a network-based firewall. Secure Gateway - Firewall is available with Private IP worldwide. Secure Gateway - Firewall bundles Internet access with a "stateful firewall" to help protect against a range of network security threats. The network-based firewall (FW) inspects and tracks all inbound and outbound data streams, allowing passage of only those packets that match a known and authorized state. Stateful firewalls improve on the security and performance of more traditional packet filters because they capture and hold attributes of each data stream for the entire length of the connection. Secure Gateway - Firewall is able to identify and help protect against Denial of Service (DoS) attacks that can overwhelm a server or network with illegitimate requests that may prevent		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	users from accessing corporate resources. Secure Gateway - Firewall can also defend against IP spoofing, an attack that sends a system rogue packets that appear to originate from an authenticated source. These packets may induce a local host to execute commands that can compromise the security of an entire network or cause damage to valuable data resources. Secure Gateway - Firewall (Standard) is provided with only one available firewall configuration. Secure Gateway - Firewall (standard) is designed to support outbound web surfing and up to seven in-bound firewall policy/protocol settings administered by Verizon. Customers will be allocated seven public IP addresses per Secure Gateway Universal Port ordered with the Secure Gateway - Firewall (Standard) feature in addition to one address for standard outbound access. Customers are limited to seven in-bound public IP addresses. Secure Gateway – Universal Port 128 Kbps is a Firewall (Standard) MPLS		
375	**Secure Gateway – Universal Port 256Kbps**	Secure Gateway – Universal Port 256Kbps is a Firewall (Standard) - Universal MPLS side port with connection 256Kbps.	**SEGU0256**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 256Kbps is a Firewall (Standard) - Universal MPLS side port with connection 256Kbps.		
376	**Secure Gateway – Universal Port 384 Kbps**	Secure Gateway – Universal Port 384 Kbps is a Firewall (Standard) – Universal MPLS side port with connection 384Kbps.	**SEGU0384**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 384 Kbps is a Firewall (Standard) – Universal MPLS side port with connection 384Kbps.		
377	**Secure Gateway – Universal Port 512 Kbps**	Secure Gateway – Universal Port 512 Kbps - Firewall (Standard) – Universal MPLS side port with connection 512Kbps.	**SEGU0512**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 512 Kbps -Firewall (Standard) – Universal MPLS side port with connection 512Kbps.		
378	**Secure Gateway – Universal Port 768 Kbps**	Secure Gateway – Universal Port 768 Kbps is a Firewall (Standard) – Universal - MPLS side port with connection 768Kbps.	**SEGU0768**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 768 Kbps is a Firewall (Standard) – Universal - MPLS side port with connection 768Kbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
379	**Secure Gateway – Universal Port 1.024Mbps**	Secure Gateway – Universal Port 1.024mbps is a Firewall (Standard) – Universal - MPLS side port with connection 1024Kbps.	**SGUP0001**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 1.024mbps is a Firewall (Standard) – Universal - MPLS side port with connection 1024Kbps.		
380	**Secure Gateway – Universal Port 1.536 Mbps**	Secure Gateway – Universal Port 1.536 Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 1.536Mbps.	**SGUP0002**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 1.536 Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 1.536Mbps.		
381	**Secure Gateway – Universal Port 3.072Mbps**	Secure Gateway – Secure Gateway Universal Port 3.072Mbps is a Firewall (Standard) – Universal MPLS side port with connection 3072Kbps.	**SGUP0003**
	Bidder's Product Description: Verizon will provide Secure Gateway – Secure Gateway Universal Port 3.072Mbps is a Firewall (Standard) – Universal MPLS side port with connection 3072Kbps.		
382	**Secure Gateway – Universal Port 4.608Mbps**	Secure Gateway – Universal Port 4.608Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 4.608Mbps.	**SGUP0004**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 4.608Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 4.608Mbps.		
383	**Secure Gateway – Universal Port 6.144Mbps**	Secure Gateway – Universal Port 6.144Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 6.144Mbps.	**SGUP0006**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 6.144Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 6.144Mbps.		
384	**Secure Gateway – Universal Port 7.680Mbps**	Secure Gateway – Universal Port 7.680Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 7.680Mbps.	**SGUP0007**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 7.680Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 7.680Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
385	**Secure Gateway – Universal Port 9.216Mbps**	Secure Gateway – Universal Port 9.216Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 9.216Mbps.	**SGUP0009**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 9.216Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 9.216Mbps.		
386	**Secure Gateway – Universal Port 10.752Mbps**	Secure Gateway – Secure Gateway Universal Port 10.752Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 10.752Mbps.	**SGUP0010**
	Bidder's Product Description: Verizon will provide Secure Gateway – Secure Gateway Universal Port 10.752Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 10.752Mbps.		
387	**Secure Gateway – Universal Port 12.288Mbps**	Secure Gateway – Universal Port 12.288Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 12.288Mbps.	**SGUP0012**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 12.288Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 12.288Mbps.		
388	**Secure Gateway – Universal Port 15 Mbps**	Secure Gateway – Universal Port 15Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 15Mbps.	**SGUP0015**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 15Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 15Mbps.		
389	**Secure Gateway – Universal Port 18Mbps**	Secure Gateway – Universal Port 18Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 18Mbps.	**SGUP0018**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 18Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 18Mbps.		
390	**Secure Gateway – Universal Port 25Mbps**	Secure Gateway – Universal Port 25Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 25Mbps.	**SGUP0025**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 25Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 25Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
391	**Secure Gateway – Universal Port 44.184Mbps**	Secure Gateway – Universal Port 44.184Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 44.184Mbps.	**SGUP0044**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 44.184Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 44.184Mbps.		
392	**Secure Gateway – Universal Port 50Mbps**	Secure Gateway – Universal Port 50Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 50Mbps.	**SGUP0050**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 50Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 50Mbps.		
393	**Secure Gateway – Universal Port 60Mbps**	Secure Gateway – Universal Port 60Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 60Mbps.	**SGUP0060**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 60Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 60Mbps.		
394	**Secure Gateway – Universal Port 70Mbps**	Secure Gateway – Universal Port 70Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 70Mbps.	**SGUP0070**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 70Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 70Mbps.		
395	**Secure Gateway – Universal Port 80Mbps**	Secure Gateway – Universal Port 80Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 80Mbps.	**SGUP0080**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 80Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 80Mbps.		
396	**Secure Gateway – Universal Port 90Mbps**	Secure Gateway – Universal Port 90Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 90Mbps.	**SGUP0090**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 90Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 90Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
397	**Secure Gateway – Universal Port 100Mbps**	Secure Gateway – Universal Port 100Mbps is a Firewall (Standard) – Firewall- MPLS side port with connection 100Mbps.	**SGUP0100**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 100Mbps is a Firewall (Standard) – Firewall- MPLS side port with connection 100Mbps.		
398	**Secure Gateway – Universal Port 155Mbps**	Secure Gateway – Universal Port 155Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 155Mbps.	**SGUP0155**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 155Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 155Mbps.		
399	**Secure Gateway – Universal Port 622.100Mbps**	Secure Gateway – Universal Port 622.100Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 622.100Mbps.	**SGUP0622**
	Bidder's Product Description: Verizon will provide Secure Gateway – Universal Port 622.100Mbps is a Firewall (Standard) – Universal - MPLS side port with connection 622.100Mbps.		
400	**Secure Gateway Cisco 871/881 Mgmt Remote Install**	Secure Gateway Cisco 871 / 881 - Management with Remote Installation	**SGCR0871**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 871/881 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
401	**Secure Gateway Cisco 871 / 881 - Mgmt On-site Install**	Secure Gateway Cisco 871 / 881 - Management with On-Site Installation	**SGCO0871**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 871/881 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
402	**Secure Gateway Cisco881EVDO Mgmt Remote Install**	Cisco 881 with EVDO - Management with Remote Installation	**SGCR0881**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 881 with EVDO router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
403	**Secure Gateway Cisco881EVDO Mgmt On-Site Install**	Secure Gateway Cisco 881 with EVDO - Management with On-Site Installation	**SGCO0881**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 881 with EVDO router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
404	**Secure Gateway Cisco 891 Mgmt Remote Install**	Secure Gateway Cisco 891 - Management with Remote Installation	**SGCR0891**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 891 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
405	**Secure Gateway Cisco 891 Mgmt On-Site Install**	Secure Gateway Cisco 891 - Management with On-Site Installation	**SGCO0891**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 891 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
406	**Secure Gateway Cisco 1841 Mgmt Remote Install**	Secure Gateway Cisco 1841 - Management with Remote Installation	**SGCR1841**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 1841 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
407	**Secure Gateway Cisco 1841 Mgmt On-Site Install**	Secure Gateway Cisco 1841 - Management with On-Site Installation	**SGCO1841**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 1841 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
408	**Secure Gateway Cisco 1941 Mgmt Remote Install**	Secure Gateway Cisco 1941 - Management with Remote Installation	**SGCR1941**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 1941 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
409	**Secure Gateway Cisco 1941 Mgmt On-Site Install**	Secure Gateway Cisco 1941 - Management with On-Site Installation	**SGCO1941**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 1941 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
410	**Secure Gateway Cisco1941EVDO Mgmt Remote Install**	Secure Gateway Cisco 1941 with EVDO - Management with Remote Installation	**SGER1941**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 1941 with EVDO router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
411	**Secure Gateway Cisco1941EVDO Mgmt On-Site Install**	Secure Gateway Cisco 1941 with EVDO - Management with On-Site Installation	**SGEI1941**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 1941 with EVDO router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
412	**Secure Gateway Cisco 2811 Mgmt Remote Install**	Secure Gateway Cisco 2811 - Management with Remote Installation	**SGCR2811**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2811 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
413	**Secure Gateway Cisco 2811 Mgmt On-Site Install**	Secure Gateway Cisco 2811 - Management with On-Site Installation	**SGCO2811**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2811 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
414	**Secure Gateway Cisco 2911 Mgmt Remote Install**	Secure Gateway Cisco 2911 - Management with Remote Installation	**SGCR2911**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2911 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
415	**Secure Gateway Cisco 2911 Mgmt On-Site Install**	Secure Gateway Cisco 2911 - Management with On-Site Installation	**SGCO2911**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2911 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
416	**Secure Gateway Cisco 2851 Mgmt Remote Install**	Secure Gateway Cisco 2851 - Management with Remote Installation	**SGCR2851**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2851 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
417	**Secure Gateway Cisco 2851 Mgmt On-Site Install**	Secure Gateway Cisco 2851 - Management with On-Site Installation	**SGCO2851**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2851 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
418	**Secure Gateway Cisco 2951 Mgmt Remote Install**	Secure Gateway Cisco 2951 - Management with Remote Installation	**SGCR2951**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2951 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
419	**Secure Gateway Cisco 2951 Mgmt On-Site Install**	Secure Gateway Cisco 2951 - Management with On-Site Installation	**SGCO2951**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 2951 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
420	**Secure Gateway Cisco 3845 Mgmt Remote Install**	Secure Gateway Cisco 3845 - Management with Remote Installation	**SGCR3845**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 3845 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
421	**Secure Gateway Cisco 3845 Mgmt On-Site Install**	Secure Gateway Cisco 3845 - Management with On-Site Installation	**SGCO3845**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 3845 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
422	**Secure Gateway Cisco 3945 Mgmt Remote Install**	Secure Gateway Cisco 3945 - Management with Remote Installation	**SGCR3945**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 3945 router), maintenance and management for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
423	**Secure Gateway Cisco 3945 Mgmt On-Site Install**	Secure Gateway Cisco 3945 - Management with On-Site Installation	**SGCO3945**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the equipment (Cisco 3945 router), maintenance and management for the Secure Gateway Remote Office. On-site installation is included. The customer is responsible for providing the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
424	**Secure Gateway Cisco 8xx Series Router Mgmt w/Remote Install**	Cisco 8xx Series Router Management with Remote Installation (Customer Provided Router)	**CCPR0800**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the maintenance and management of a Customer provided Cisco 8xx series router for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the Cisco 8xx series router and the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
425	**Secure Gateway Cisco 1xxx/2xxx Router Mgmt w/Remote Install**	Secure Gateway Cisco 1xxx/2xxx Series Router Management with Remote Installation (Customer Provided Router)	**CCPR1000**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the maintenance and management of a Customer provided Cisco 1xxx/2xxx series router for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the Cisco 1xxx/2xxx series router and the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		
426	**Secure Gateway Cisco 3xxx/4xxx Router Mgmt/w Remote Install**	Secure Gateway Cisco 3xxx/4xxx Series Router Management with Remote Installation (Customer Provided Router)	**CCPR3000**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes the maintenance and management of a Customer provided Cisco 3xxx/4xxx series router for the Secure Gateway Remote Office. Remote installation is included. The customer is responsible for providing the Cisco 3xxx/4xxx series router and the out-of-band remote management modem and the analog telephone line. The customer is also responsible for the providing the Internet connection.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
427	**Secure Gateway OOB Modem with analog line**	Secure Gateway OOB Modem with analog line	**OOBM0002**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes is the Out-Of-Band (OOB) management modem plus the analog line.		
428	**Secure Gateway OOB Modem without analog line**	Secure Gateway OOB Modem without analog line	**OOBM0001**
	Bidder's Product Description: This is an addition add to the Secure Gateway Firewall Service. This end user package includes is the Out-Of-Band (OOB) management modem without the analog line.		

DSL Internet

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
429	**DSL Internet Solo 384kbps**	DSL Internet Solo 384kbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (up to 384 kbps download and up to 128 kbps upload)	**DSLS0001**
	Bidder's Product Description: Verizon is proposing DSL Internet Service as an Unsolicited Service Offering in section 1.2. DSL Internet Service provides a internet access to the MPLS Secure Internet Gateway Service frequently requested by many agencies to satisify the requirements of remote access into MPLS. **Verizon DSL Internet general description applies to the following DSL Internet line items.** DSL Internet services in general provide customers with reliable, high-bandwidth communications using standard copper telephone lines. For remote workers and small branch offices, where leased-line costs would be difficult to justify, DSL enables rich, multi-media communication, including voice, video, and high-speed access to information and corporate LAN resources. DSL Internet Solo 384kbps is a single-user service provided via DSL modem using asymmetric bandwidth DSL (ADSL) line-sharing technology, or, at Verizon's discretion, a dedicated loop (up to 384 kbps download and up to 128 kbps upload). Static, pre-assigned IP addressing is provided. Customer is responsible for operation and configuration of its own computer. Customer must provide ILEC analog voice (also known as "plain old telephone service" or "POTS") for use with the service. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
430	**DSL Internet Solo 1.5Mbps**	DSL Internet Solo 1.5Mbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (up to 1.5Mbps download and up to 384kbps upload)	**DSLS0003**
	Bidder's Product Description: DSL Internet Solo 1.5Mbps is a single-user service provided via DSL modem using asymmetric bandwidth DSL (ADSL) line-sharing technology, or, at Verizon's discretion, a dedicated loop (up to 1.5Mbps download and up to 384kbps upload). Static, pre-assigned IP addressing is provided. Customer is responsible for operation and configuration of its own computer. Customer must provide ILEC analog voice (also known as "plain old telephone service" or "POTS") for use with the service. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
431	**DSL Internet Solo 3Mbps**	DSL Internet Solo 3Mbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (up to 3Mbps download and up to 512kbps upload)	**DSLS0004**
	Bidder's Product Description: DSL Internet Solo 3Mbps is a single-user service provided via DSL modem using asymmetric bandwidth DSL (ADSL) line-sharing technology, or, at Verizon's discretion, a dedicated loop		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	(up to 3Mbps download and up to 512kbps upload). Static, pre-assigned IP addressing is provided. Customer is responsible for operation and configuration of its own computer. Customer must provide ILEC analog voice (also known as "plain old telephone service" or "POTS") for use with the service. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
432	**DSL Internet Solo 6Mbps**	DSL Internet Solo 6Mbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (up to 6Mbps download and up to 768kbps upload)	**DSLS0005**
	Bidder's Product Description: DSL Internet Solo 6Mbps is a single-user service provided via DSL modem using asymmetric bandwidth DSL (ADSL) line-sharing technology, or, at Verizon's discretion, a dedicated loop (up to 6Mbps download and up to 768kbps upload). Static, pre-assigned IP addressing is provided. Customer is responsible for operation and configuration of its own computer. Customer must provide ILEC analog voice (also known as "plain old telephone service" or "POTS") for use with the service. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
433	**DSL Internet Office 128Kbps**	DSL Internet Office 128Kbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (symmetric bandwidth at 128kbps)	**DSLO0001**
	Bidder's Product Description: DSL Internet Office (DSL Office) 128Kbps is a multi-user service provided via DSL modem or DSL router in symmetric bandwidth at (128kbps). DSL local loop connections between Customer's location and Verizon will be arranged by Verizon, and are provided through an ILEC. Service components include static, pre-assigned IP addressing, up to 128 IP addresses per location, up to 20 Hosted POP3 e-mail boxes and up to five (5) concurrent Newsreader accounts (USENET news Servers) per location.. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
434	**DSL Internet Office 192Kbps**	DSL Internet Office 192Kbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (symmetric bandwidth at 192kbps)	**DSLO0002**
	Bidder's Product Description: DSL Internet Office (DSL Office) 192Kbps is a multi-user service provided via DSL modem or DSL router in symmetric bandwidth (at 192kbps). DSL local loop connections between Customer's location and Verizon will be arranged by Verizon, and are provided through an ILEC. Service components include static, pre-assigned IP addressing, up to 128 IP addresses per location, up to 20 Hosted POP3 e-mail boxes and up to five (5) concurrent Newsreader accounts (USENET news Servers) per location. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
435	**DSL Internet Office 384Kbps**	DSL Internet Office 384Kbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (symmetric bandwidth at 384kbps)	**DSLO0003**
	Bidder's Product Description: DSL Internet Office (DSL Office) 384Kbps is a multi-user service provided via DSL modem or DSL router in symmetric bandwidth at 384kbps). DSL local loop connections between Customer's location and Verizon will be arranged by Verizon, and are provided through an ILEC. Service components include static, pre-assigned IP addressing, up to 128 IP addresses per location, up to 20 Hosted POP3 e-mail boxes and up to five (5) concurrent Newsreader accounts (USENET news Servers) per location. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
436	**DSL Internet Office 768Kbps**	DSL Internet Office 768Kbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (symmetric bandwidth at 768 kbps)	**DSLO0004**
	Bidder's Product Description: DSL Internet Office (DSL Office) 768Kbps is a multi-user service provided via DSL modem or DSL router in symmetric bandwidth at 768 kbps. DSL local loop connections between Customer's location and Verizon will be arranged by Verizon, and are provided through an ILEC. Service components include static, pre-assigned IP addressing, up to 128 IP addresses per location, up to 20 Hosted POP3 e-mail boxes and up to five (5) concurrent Newsreader accounts (USENET news Servers) per location. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
437	**DSL Internet Office 1Mbps**	DSL Internet Office 1Mbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (symmetric bandwidth at 1Mbps)	**DSLO0005**
	Bidder's Product Description: DSL Internet Office (DSL Office) 1Mbps is a multi-user service provided via DSL modem or DSL router in symmetric bandwidth at 1Mbps. DSL local loop connections between Customer's location and Verizon will be arranged by Verizon, and are provided through an ILEC. Service components include static, pre-assigned IP addressing, up to 128 IP addresses per location, up to 20 Hosted POP3 e-mail boxes and up to five (5) concurrent Newsreader accounts (USENET news Servers) per location. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
438	**DSL Internet Office 1.5Mbps**	DSL Internet Office 1.5Mbps provides Internet access via Digital Subscriber Line (DSL) using broadband technologies (symmetric bandwidth at 1.5Mbps)	**DSLO0006**
	Bidder's Product Description: DSL Internet Office (DSL Office) is a multi-user service provided via DSL modem or DSL router in symmetric bandwidth at 1.5Mbps. DSL local loop connections between Customer's location and Verizon will be arranged by Verizon, and are provided through an ILEC. Service components include static, pre-assigned IP addressing, up to 128 IP addresses per location, up to 20 Hosted POP3 e-mail boxes and up to five (5) concurrent Newsreader accounts (USENET news Servers) per location. This Service excludes DSL modem. DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
439	**DSL Internet Solo 384 Kbps Modem**	DSL Internet Solo 384 Kbps Modem. Required for DSL Solo Service.	**DSLE0001**
	Bidder's Product Description: DSL Internet Solo 384 Kbps Modem required to terminate DSL Service.		
440	**DSL Internet Solo, 1.5,3,6M Router&Self-install Kit (Covad)**	DSL Internet Solo, 1.5Mbps, 3Mbps, and 6Mbps Router and Self-install Kit (Covad). Required for DSL Solo Service	**DSLE0003**
	Bidder's Product Description: DSL Internet Solo, 1.5Mbps, 3Mbps, and 6Mbps Router and Self-install Kit (Covad). DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
441	**DSL Internet Office Modem/Bridge**	DSL Internet Office Modem/Bridge to terminate DSL Office Service (Optional)	**DSLE0005**
	Bidder's Product Description: DSL Internet Office Modem/Bridge to terminate DSL Office Service (Optional) DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		
442	**DSL Internet Office Router**	DSL Internet Office Router to terminate DSL Office Service (Optional)	**DSLE0006**
	Bidder's Product Description: DSL Office Router to terminate DSL Office Service (Optional) DSL Internet Solo/Office service geographic coverage is limited to Verizon's Covad footprint areas in CA.		

Managed Application Assurance

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
443	**MAAS Customer Setup**	Managed Application Assurance Service (MAAS) Customer Setup is a charge that provides the following features: Startup, Setup, and Configuration of Customer Domain.	**MAAC0000**
	Bidder's Product Description: Verizon is proposing Managed Application Assurance Services (MAAS) as an Unsolicited Service Offering in section 1.2. Managed Application Assurance Services (MAAS) utilizes application protocol level detail over the MPLS Service. Several State agenices require additional visiblilty to further identify and manage application utilization over MPLS Service. **Managed Application Assurance Services (MAAS) general description** applies to the following MAAS line items. Application Assurance is a monthly subscription service that provides network and application utilization and performance monitoring, troubleshooting and reporting. Utilizing Application Flows, Active Testing, and Deep Packet Inspection, this service provides comprehensive visibility of application and network performance and reliability. Application Assurance provides the following distinct Feature Sets: Application Flow Analysis is a standard feature offered by Application Assurance. This feature is available by enabling NetFlow (Cisco NetFlow v5, v7, v9; J-Flow; sFlow v2, v4, v5; IPFIX) on the customer's routers and switches. The NetFlow records must be forwarded by the customer's network devices to a Collector hosted by Verizon. The NetFlow is utilized to discover all network traffic, provide Application and Network utilization metrics, identify top talkers per network connection, and show bandwidth consumption, class of service settings, protocols, port addresses, source and destination IP addresses for all traffic. Active Testing is a standard feature supported by the deployment of Windows based Test Agents that simulate end user actions for voice and data applications. The Test Agents can measure application accessibility, end user experience, and transaction response times. The Test Agents forward their performance metrics to the Verizon hosted Application Assurance Server. Advanced Analysis is an extended feature offered through the Application Assurance hardware option. This feature is supported by the deployment of VMware based soft-probes that are deployed at strategic locations within the customer's network. The probes can be installed on customer provided hardware that must be certified by Verizon or on specially designed Analysis Service Elements (ASE's), which are purpose-built devices that can be connected inline or via SPAN ports to network routers and switches. This feature provides deep packet inspection with the ability to measure application response times and VoIP call quality with full analysis of call details and identification of the root cause of call degradation factors. With the additional ability to capture and save raw packet data, the Advanced Analysis probe can act as a remotely controlled packet sniffer to identify even the most complex application performance issues. The Customer Care Option can be added to new or existing Application Assurance customer sites to reduce the burden on existing IT staff, while improving overall responsiveness. Verizon will provide expertise to collect, organize and analyze each customer's application performance data in order to provide monthly utilization summaries, performance benchmarks, trending and recommendations for improvement. This feature supplements the customer's		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	resources with a Verizon operational team, providing access to additional expertise when it's needed most. This option can be added to all sites being monitored by Application Assurance or to only the most troublesome locations. Managed Application Assurance (MAAS) Customer Setup Fee - This a one-time setup charge required for all new Application Assurance customers. This fee includes the setup of the customer's domain, user logins, reports, alarms and alerts, dashboards, etc.		
444	**MAAS ≤2Mbps**	MAAS ≤2Mbps features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MAAS0002**
	Bidder's Product Description: Managed Application Assurance Service ≤ 2 Mbps - Provides NetFlow collection and active testing for sites with less than 3 Mbps WAN connectivity. This service includes the basic monitoring and troubleshooting dashboards, reports, and alert threshold notifications that are available with Application Assurance.		
445	**MAAS 3-14 Mbps**	MAAS 3-14 Mbps features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MAAS0003**
	Bidder's Product Description: Managed Application Assurance Service 3-14 Mbps – Provides everything provided by Application Assurance Service ≤2 Mbps for WAN connectivity greater than or equal to 3 Mbps and less than 15 Mbps.		
446	**MAAS 15-24 Mbps**	MAAS 15-24 Mbps features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MAAS0014**
	Bidder's Product Description: Managed Application Assurance Service 15-24 Mbps – Provides everything provided by Application Assurance Service 3-14 Mbps for WAN connectivity greater than or equal to 15 Mbps and less than 25 Mbps.		
447	**MAAS 25-39 Mbps**	MAAS 25-39 Mbps features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MAAS0025**
	Bidder's Product Description: Managed Application Assurance Service 25-39 Mbps - Provides everything provided by Application Assurance Service 15-24 Mbps for WAN connectivity greater than or equal to 25 Mbps and less than 40 Mbps.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
448	**MAAS 40-60 Mbps**	MAAS 40-60 Mbps features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MAAS0040**
	Bidder's Product Description: Managed Application Assurance Service 40-60 Mbps - Provides everything provided by Application Assurance Service 25-39 Mbps for WAN connectivity greater than or equal to 40 Mbps and less than 61 Mbps.		
449	**MAAS 61-100 Mbps**	MAAS 61-100 Mbps features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MAAS0060**
	Bidder's Product Description: Managed Application Assurance Service 61 - 100 Mbps - Provides everything provided by Application Assurance Service 40-60 Mbps for WAN connectivity greater than or equal to 61 Mbps and less than or equal to 100 Mbps.		
450	**MAAS Probe Monitoring**	MAAS Probe Monitoring features include: Application Flow Analysis, Active Testing, Advanced Application Analysis and Visual Performance Manager	**MASP0000**
	Bidder's Product Description: Managed Application Assurance Service Probe Monitoring - Provides the ability to collect Layers 3-7 IP Packet Data from the network for Advanced Analysis. The Advanced Analysis feature set includes one second granularity of network and application performance with deep packet inspection and remote packet capture. Additional benefits include client and server application response times, VoIP metrics (including MOS, Jitter, Packet Loss, and Round Trip Delay), Burst Analysis, and IP Data Captures that can be saved in PCAP format for additional analysis. Hardware is required to support this option. The customer may provide their own compatible hardware certified by Verizon or may select from any of the listed ASE device options.		
451	**MAAS Customer Care 10 Sites**	MAAS Customer Care 10 Sites features include: Professional Review and Analysis of Network Performance	**MACC0010**
	Bidder's Product Description: Managed Application Assurance Service Customer Care 10 Sites - Provides Customer Care for 1-10 Application Assurance sites. The Customer Care Option can be added to new or existing Application Assurance customers to reduce the burden on existing IT staff, while improving overall responsiveness. Verizon will provide monthly utilization summaries, performance benchmarks, trending and recommendations for improvement. This feature supplements the customer's resources with a Verizon operational team, providing access to additional expertise when it's needed most. This option can only be added to sites being monitored by Application Assurance. The customer can choose to include all sites or only the		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	most troublesome locations.		
452	**MAAS Customer Care 20 Sites**	MAAS Customer Care 20 Sites features include: Professional Review and Analysis of Network Performance	**MACC0020**
	Bidder's Product Description: Managed Application Assurance Service Customer Care 20 Sites– Provides the same services as Application Assurance Service Customer Care 10 except scaled 11-20 Application Assurance sites.		
453	**MAAS Customer Care 400 Sites**	MAAS Customer Care 400 Sites features include: Professional Review and Analysis of Network Performance	**MACC0400**
	Bidder's Product Description: Managed Application Assurance Service Customer Care 400 - Provides the same services as Application Assurance Service Customer Care 10 except scaled for 21-400 Application Assurance sites.		
454	**MAAS Customer Care 800 Sites**	MAAS Customer Care 800 Sites features include: Professional Review and Analysis of Network Performance	**MACC0800**
	Bidder's Product Description: Managed Application Assurance Service Customer Care 800 - Provides the same services as Application Assurance Service Customer Care 10 except scaled for 401-800 Application Assurance sites.		
455	**MAAS Probe – T1/E1**	MAAS Probe – T1/E1 - Select T1/E1 G703 Inline ASE Model 807-0113 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0001**
	Bidder's Product Description: Managed Application Assurance Service Probe T1/E1 - Select T1/E1 G703 Inline ASE Model 807-0113 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for inline T1 or E1 connections. This device is deployed inline on a customer's WAN connection and monitors performance of Layers 1-7 of the network. Automatic "SafeLink" feature insures that the connection stays open in the event of a device failure, so the data circuit is never interrupted. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
456	**MAAS Probe - 10/100 Ethernet**	MAAS Probe - 10/100 Ethernet - Select 10/100 Ethernet Inline ASE Model 807-0122 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0002**
	Bidder's Product Description: Managed Application Assurance Service Probe 10/100 Ethernet - Select 10/100 Ethernet Inline ASE Model 807-0122 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for inline 10/100 Ethernet connections or SPAN connections. This device is deployed inline or via a SPAN port on a customer's WAN connection and monitors performance of Layers 1-7 of the network. Automatic "SafeLink" feature insures that the connection stays open in the event of a device failure, so the data circuit is never interrupted. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		
457	**MAAS Probe - DS3/E3**	MAAS Probe - DS3/E3- Select DS3/E3 Inline ASE Model 807-0204 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0003**
	Bidder's Product Description: Managed Application Assurance Service Probe - DS3/E3- Select DS3/E3 Inline ASE Model 807-0204 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for inline DS3 or E3 connections. This device is deployed inline on a customer's WAN connection and monitors performance of Layers 1-7 of the network. Automatic "SafeLink" feature insures that the connection stays open in the event of a device failure, so the data circuit is never interrupted. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		
458	**MAAS Probe - 100/1000 Ethernet - 4 Port SFP**	MAAS Probe - 100/1000 Ethernet - 4 Port SFP - Select 4 Port 100/1000 SFP ASE Model 807-0410 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0004**
	Bidder's Product Description: Managed Application Assurance Service 100/1000 Ethernet – 4 Port SFP - Select 4 Port 100/1000 SFP ASE Model 807-0410 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for up to 4 SPAN Gigabit Ethernet connections. This device is deployed via SPAN ports on a customer WAN device and monitors performance of Layers 1-7 of the network. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
459	**MAAS Probe - 1 GBPS - RJ45**	MAAS Probe - 1 GBPS - RJ45- Select 1 GBPS RJ45 Inline ASE Model 807-0401 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0005**
	Bidder's Product Description: Managed Application Assurance Service Probe - 1 GBPS - RJ45- Select 1 GBPS RJ45 Inline ASE Model 807-0401 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for an inline or SPAN RJ45 based Gigabit Ethernet connection. This device is deployed inline or via a SPAN port on a customer's WAN connection and monitors performance of Layers 1 7 of the network. Automatic "SafeLink" feature insures that the connection stays open in the event of a device failure, so the data circuit is never interrupted. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		
460	**MAAS Probe - 1 GBPS - SFP**	MAAS Probe - 1 GBPS - SFP- Select 1 GBPS SFP ASE Model 807-0411 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0006**
	Bidder's Product Description: Managed Application Assurance MAAS Probe - 1 GBPS - SFP- Select 1 GBPS SFP ASE Model 807-0411 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for a single Gigabit Ethernet SPAN connection. This device is deployed via a SPAN port on a customer WAN device and monitors performance of Layers 1-7 of the network. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		
461	**MAAS Probe - OC3/OC12 - SFP**	MAAS Probe - OC3/OC12 - SFP- Select POS, Optical SFP, Single Mode OC3/OC12 Inline ASE Model 807-0420 features include: Deep Packet Inspection, Remote Packet Capture	**MASP0007**
	Bidder's Product Description: Managed Application Assurance Service MAAS Probe - OC3/OC12 - SFP - Select POS, Optical SFP, Single Mode OC3/OC12 Inline ASE Model 807-0420 - Analysis Service Element (ASE) Device that supports the Application Assurance Hardware Option with additional Layer 1 and Layer 2 network connectivity monitoring for an inline Single Mode Fiber OC3 or OC12 connection. This device is deployed inline on a customer's WAN connection and monitors performance of Layers 1-7 of the network. Built-in power capacitors provide a "Last Cry" feature that notifies the Application Assurance Platform when power is lost to the ASE unit. This feature can be setup for automatic customer notification for remote locations that may be prone to power failures.		

Managed WAN (MWAN)

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
462	**MWAN Monitor and Notify - Small**	Managed Wide Area Network (MWAN) Monitor and Notify – Small features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWMS0000**
	Bidder's Product Description: Verizon is proposing Managed Wide Area Network (MWAN) Service as an Unsolicited Service Offering in section 1.2. MWAN Service supports the agencies ability to successfully implement MPLS service on customer provided routers. Smaller agencies require additional technical support to provide this assistance configuring and manging the implemention of MPLS service. Managing router configuration and routes would be an example of this type of intregration support. **Managed WAN Services general description** applies to the following Managed WAN line items. Verizon's Managed WAN Services represents a comprehensive network management service. Verizon's Managed WAN Services provides monitoring, fault isolation, trouble resolution, and proactive outage notification service for a variety of WAN routers. All equipment under management must but be certified by Verizon for Managed WAN Services and must not be identified as End of Life by the manufacture. Certified equipment and corresponding size (Small, Medium, and Large) are updated on a regular basis; the current list of Verizon Certified CPE will be provided on request. With the exception of the Monitor and Notify level of service, all equipment must have a means for Out-of-Band (OOB) management, enabled with a customer provided modem and POTS line, and must have a maintenance agreement in place. **Managed WAN Monitor & Notify - Small** provides the monitoring of Small managed device. The device is polled on a regular basis, and a repeated failure of the device to respond to polls will indicate a fault condition and will generate alarms. The fault will be isolated to access, transport, or CPE and a trouble ticket will be opened on the customer's behalf, and the customer will be proactively notified of the outage. Verizon will own the resolution of the access and transport issues related to the fault. The customer retains responsibility for resolving all physical and logical CPE issues.		
463	**MWAN Monitor and Notify - Medium**	MWAN Monitor and Notify – Medium features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWMM0000**
	Bidder's Product Description: Managed WAN Monitor & Notify - Medium provides everything provided by Managed WAN Monitor & Notify Small except for a Medium class device.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
464	**MWAN Monitor and Notify - Large**	MWAN Monitor and Notify – Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWML0000**
	Bidder's Product Description: Managed WAN Monitor & Notify - Large provides everything provided by Managed WAN Monitor & Notify Small except for a Large class device.		
465	**MWAN Physical - Small**	MWAN Physical – Small features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWPH0000**
	Bidder's Product Description: Managed WAN Physical - Small provides all of the monitoring features of Managed WAN Monitory & Notify Small as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
466	**MWAN Physical - Medium**	MWAN Physical - Medium features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWPM0000**
	Bidder's Product Description: Managed WAN Physical - Medium provides all of the monitoring features of Managed WAN Monitory & Notify Medium as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
467	**MWAN Physical - Large**	MWAN Physical - Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWPL0000**
	Bidder's Product Description: Managed WAN Physical - Large provides all of the monitoring features of Managed WAN Monitory & Notify Large as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
468	**MWAN Full - Small**	MWAN Full - Small Full features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWFS0000**
	Bidder's Product Description: Managed WAN Full - Small provides all of the monitoring features of Managed WAN Physical - Small as well as Verizon owning the resolution of any logical CPE issues.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
469	**MWAN Full - Medium**	MWAN Full - Medium features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWFM0000**
	Bidder's Product Description: Managed WAN Full - Medium provides all of the monitoring features of Managed WAN Physical - Medium as well as Verizon owning the resolution of any logical CPE issues.		
470	**MWAN Full - Large**	MWAN Full - Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MWFL0000**
	Bidder's Product Description: MWAN Full - Large provides all of the monitoring features of Managed WAN Physical – Large as well as Verizon owning the resolution of any logical CPE issues.		
471	**MWAN Device Installation**	MWAN Device Installation features include: Installation of a device to be managed at turn up.	**MWND0001**
	Bidder's Product Description: Managed WAN Device Installation provides for the process of installing, implementing, and activating a new device under management		
472	**MWAN Takeover of Existing Device**	MWAN Takeover of Existing Device features include: Takeover of existing device for management.	**MWTO0001**
	Bidder's Product Description: Managed WAN Takeover of Existing Device provides for the takeover process of previously installed and working device for management.		
473	**MWAN Order Expedite**	MWAN Order Expedite: Add-on service for expediting installation of WAN device.	**MROX0000**
	Bidder's Product Description: MWAN Order Expedite provides for an expedited process for activating a WAN device in fifteen (15) days or less. . This service is solely for the purposes of expediting the CPE installation process and does not affect circuit installation and activation.		
474	**MWAN Report - Threshold Proactive Performance Monitoring**	MWAN Report - Threshold Proactive Performance Monitoring features include: Add-on service to Managed WAN for proactively monitoring specific predefined performance thresholds.	**MWER0000**
	Bidder's Product Description: Managed WAN Reporting general description applies to the following line items 16 – 22.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Managed WAN Reporting provides optional reporting capabilities that are in addition to the standard reporting included with Managed WAN Services. Managed WAN Threshold Proactive Performance Monitoring - This feature uses a standard performance profile to monitor and analyze a managed network for subtle performance problems. Performance related threshold alerts result in automatic trouble ticket generation and notifies Managed Network Service engineers of performance exceptions. This service is not a stand-alone service and does not provide for any graphical reports. It is in addition to the standard reporting (included with the basic service) or any of the enhanced reporting features such as Managed WAN Analysis – ETM Reporting and Managed WAN Analysis – ETM Select with Netflow.		
475	**MWAN - Analysis – ETM Reporting**	MWAN - Analysis – ETM Reporting features include: Enhanced Traffic Management reports of QoS, NBAR, and response times	**MWAE0001**
	Bidder's Product Description: Managed WAN Analysis – ETM Reporting – This feature includes all of the benefits from the basic reporting included with the managed service. ETM reporting adds the ability to report on QoS, CE-CE path performance, and high-level application data. CE-CE path performance allows reports of information, such as latency, for up to ten (10) paths per managed device. CE network performance allows for monitoring and detailed reporting on traffic volumes for up to twenty (20) Customer defined and selected network protocols. QoS performance reports can be generated on the quality and performance of DSCP and CoS on managed devices. Customer may generate At-a-Glance, Top-N, and Trend reports with PE elements.		
476	**MWAN Reporting Analysis ETM Select w/Netflow≤100Mb**	MWAN Reporting Analysis ETM Select w/Netflow≤100Mb features include: Live Health reporting and collection and reporting from netflow data.	**MWAE0002**
	Bidder's Product Description: Managed WAN Analysis – ETM Select With Netflow ≤ 100Mb – This feature includes all of the benefits from Managed WAN Analysis – ETM reporting. ETM Select with Netflow adds near real-time CE performance exceptions and alarms, near real-time trending, and CE network status maps as well as data collection and reporting from IPFIX/NetFlow/j-Flow/sFlow (collectively known as "netflow"). Live Status provides a single console for viewing performance exceptions and performance related faults for key CPE elements. Live Status provides drill down to Live Exceptions, Live Trend, and historical reports. Live Exceptions is a live interface that provides near real-time display of exceptions as they are detected and can be customized to monitor many different logical arrangements of CPE devices. Live Exceptions Notification can provide e-mail notifications for a limited subset of exceptions. Live Trend provides near real-time monitoring and charting of statistical data as it is collected. The netflow feature enables reporting on which hosts, protocols, and conversations are consuming bandwidth and on what interfaces and when. Configuration of the CE device may be required to enable this service and is not include. Any CPE configuration or remediation activity would be provided as an Optional Change Management Activity. This feature allows for the collection and analysis of netflow data collected from interface/device/site speeds up to and including 100Mb/s.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
477	**MWAN Reporting – Analysis ETM Select w/Netflow 101Mb<500Mb**	MWAN Reporting – Analysis ETM Select w/Netflow 101Mb<500Mb features include: Live Health reporting and collection and reporting from netflow data.	**MWAE0003**
	Bidder's Product Description: Managed WAN Analysis – ETM Select With Netflow 101Mb < 500Mb – This feature is identical to Managed WAN Analysis – ETM Select With Netflow ≤ 100Mb except for interface/device/site speeds greater than 100Mb/s and less than 500Mb/s.		
478	**MWAN Reporting - Analysis – ETM Select w/Netflow 500Mb<1Gb**	MWAN Reporting - Analysis – ETM Select w/Netflow 500Mb<1Gb features include: Live Health reporting and collection and reporting from netflow data.	**MWAE0004**
	Bidder's Product Description: Managed WAN Analysis – ETM Select With Netflow 500Mb/s < 1Gb/s – This feature is identical to Managed WAN Analysis – ETM Select With Netflow ≤ 100Mb except for interface/device/site speeds equal to and greater than 500Mb/s and less than 1Gb/s.		
479	**MWAN Reporting - Analysis ETM Select w/Netflow 1Gb≤10Gb**	MWAN Reporting - Analysis ETM Select w/Netflow 1Gb≤10Gb features include: Live Health reporting and collection and reporting from netflow data.	**MWAE0005**
	Bidder's Product Description: Managed WAN Analysis – ETM Select With Netflow 1Gb ≤ 10Gb – This feature is identical to Managed WAN Analysis – ETM Select With Netflow ≤ 100Mb except for interface/device/site speeds equal to and greater than 1Gb/s and up to and including 10Gb/s.		
480	**MWAN Reporting - Network Analysis**	MWAN Reporting - Network Analysis features include: Analysis, summarization, and recommendations for resolution of network issues discovered through Managed Services reporting tools.	**MWNA0000**
	Bidder's Product Description: Managed WAN Network Analysis - Is an optional service that provides for a Verizon Analysis Professional to review the Customer entitled reports and provides a monthly summarization of issues and provides recommendations to improve network performance. The analyst will analyze the network performance based on key variables such as, but not limited to, utilization, queue drops, and error conditions from the perspective of the Verizon managed device. With a preliminary report established, the analyst has the capability to utilize other Verizon tools and reporting systems, as required, to validate finds and further clarify the nature of the identified issue in finalizing the report. This service also includes a monthly review of the post monthly network performance report with Customer and Verizon account team as well as notification to Customer and/or the appropriate Verizon organization to isolate and resolve performance anomalies discovered outside of the reporting cycle. The monthly report will include up to thirty (30) performance affecting issues as well as volume		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	statistics for the Verizon managed network. The monthly report is based on the prior month's performance data, further investigation of any indentified issues, incorporation of relevant and factual information, and recommendation to resolve identified issues. The target date of the first monthly report, upon initiation of the service, is between 60-90 days. A prearranged and schedule conference call will be held between the Verizon Analyst, Verizon Account Team, and Customer to review each month's report. The Verizon Analyst is available between the hours of 8:00 AM to 5:00 PM Pacific Time Monday through Friday. For consistent support, this service should be applied to all sites/devices under management. A minimum of twenty (20) devices under any of the Managed xAN Network Analysis support is required for this service.		
481	**MWAN Network Engineering – Small Router**	MWAN Network Engineering – Small Router	**MWNS0000**
	Bidder's Product Description: Managed WAN Network Engineering Services general description applies to the following line items 23 – 25. Verizon's Managed WAN Network Engineering (NE) Services provide additional support and on-going engineering advice, and is a premium architecture and engineering service that augments the services provided by Verizon's Managed WAN services. Network Engineering is an offering that includes on-going supplemental architectural, design, and engineering support for Managed Services with a minimum of twenty (20) devices under the Full level of service. The Verizon NE will assist with design planning based on customer provided network reports as well as reports from the optional Managed WAN Network Analysis service. The NE will act as a technical adviser for issues related to the customer's network. At the customer's request, the NE will assess the current managed devices (under NE support) and evaluate the benefit and compatibility of new software or hardware releases consistent with the customer's current architecture and business requirements. Additionally, the NE can recommend end-of-life remediation solutions for managed devices as well as evaluate and recommend technology upgrades fitting with the customer's design goals and requirements. Along with reviewing change management requirements against the on-going network requirements, the Verizon NE can represent, via conference call, scheduled changes at the customer's internal change management meetings. The Verizon NE will work with the customer to define requirements, design, document, and work with Verizon Operations to implement changes on managed devices. In many cases the Verizon NE can perform Optional Change Management (OCM) activities as a part of the NE service. The Verizon NE service allows for one (1) OCM per two (2) managed devices per year. In addition to the device types listed below, additional devices type can be placed under NE support on an individual case bases (ICB). In addition to additional device types, custom NE activities and support for other managed services can also be provided under an ICB. Managed WAN Network Engineering – Small Router – Places a small sized router under NE support.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
482	**MWAN Network Engineering – Medium Router**	MWAN Network Engineering – Medium Router features include: Design Planning, Support Services, and Change Management Support.	**MWNM0000**
	Bidder's Product Description: Managed WAN Network Engineering – Medium Router – Places a medium sized router under NE support.		
483	**MWAN Network Engineering – Large Router**	MWAN Network Engineering – Large Router	**MWNL0000**
	Bidder's Product Description: Managed WAN Network Engineering – Large Router – Places a large sized router under NE support.		
484	**MWAN – Opt Change Mgmt - DHCP IP Helper Configuration**	MWAN – Opt Change Mgmt - DHCP IP Helper Configuration – Add, modify, and/or delete Dynamic Host Configuration Protocol (DHCP) Internet Protocol (IP) Helper configuration.	**IPMW0012**
	Bidder's Product Description: Verizon Managed WAN– Optional Change Management Activities general description applies to the following line items 26 – 43. Optional change management activities are available for configuration changes on devices under Managed WAN. Managed WAN Optional Change Management - DHCP IP Helper Configuration - This optional service provides configuration on an existing fully managed WAN device for adding, deleting, or modifying DHCP IP Helper information. This service is performed remotely.		
485	**MWAN – Opt Change Mgmt - IP NAT Configuration**	MWAN – Opt Change Mgmt - IP NAT Configuration – Add, modify, and/or delete IP Network Address Translation (NAT) configuration	**IPMW0013**
	Bidder's Product Description: Managed WAN Optional Change Management IP NAT Configuration - This optional service provides router configuration on an existing fully managed WAN device for adding, deleting, or modifying IP NAT configurations entries. This service is performed remotely.		
486	**MWAN – Opt Change Mgmt Network Routed Protocol Configuration**	MWAN – Opt Change Mgmt Network Routed Protocol Configuration - Add, modify, and/or delete a routed protocol configuration	**IPMW0014**
	Bidder's Product Description: Managed WAN Optional Change Management Network Routed Protocol Configuration - This optional service provides router configuration on an existing fully managed router for adding, deleting, or modifying routed protocol entries such as IPX, DLSW, RTP, SIP, HSRP, etc. This service is performed remotely.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
487	**MWAN – Opt Change Mgmt - MSO IP Address Chg**	MWAN – Opt Change Mgmt - MSO IP Address Chg – Add, modify, and/or delete IP addressing information.	**IPMW0015**
	Bidder's Product Description: Managed WAN Optional Change Management MSO IP Address Change – This optional service provides router configuration on an existing fully managed router for adding, deleting, or modifying IP Address and/or Mask per the Managed Services Operations (MSO) approved IP addressing plan. This service is performed remotely.		
488	**MWAN – Opt Change Mgmt - Virtual Circuit Chg**	MWAN – Opt Change Mgmt - Virtual Circuit Chg – Add, modify, and/or delete virtual circuits.	**IPMS0016**
	Bidder's Product Description: Managed WAN Optional Change Management Virtual Circuit Change – This optional service provides router configuration on an existing fully managed router for adding, deleting, or modifying virtual circuit configurations. This service is performed remotely.		
489	**MWAN – Opt Change Mgmt- Routing Protocol Chg**	MWAN – Opt Change Mgmt- Routing Protocol Chg – Add, modify, and/or delete routing protocol information.	**IPMS0017**
	Bidder's Product Description: Managed WAN Optional Change Management Routing Protocol Change – This optional service provides router configuration on an existing fully managed router for adding, deleting, or modifying routing protocol configuration and entries (static, EIGRP, OSPF, RIP, BGP, etc.). This service is performed remotely.		
490	**MWAN – Opt Change Mgmt - VPN Tunnel Change**	MWAN – Opt Change Mgmt - VPN Tunnel Change – Add, modify, and/or delete a VPN tunnel configuration	**IPMW0018**
	Bidder's Product Description: Managed WAN Optional Change Management VPN Tunnel Change – This optional service provides router configuration on an existing fully managed router for adding, deleting, or modifying Virtual Private Network (VPN) tunnel configuration. This service is performed remotely.		
491	**MWAN – Opt Change Mgmt- Bandwidth Change-Physical**	MWAN – Opt Change Mgmt- Bandwidth Change-Physical – A configuration change of a router to support an increase or decrease in bandwidth.	**IPMW0001**
	Bidder's Product Description: Managed WAN Optional Change Management Bandwidth Change-Physical – This on-site service is for changing out a CSU/DSU or router module required to support a change in physical bandwidth on an existing router.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
492	**MWAN – Opt Change Mgmt - Hardware Module Upgrade**	MWAN – Opt Change Mgmt - Hardware Module Upgrade – The addition, swap, or removal of a hardware module	**IPMW0002**
	Bidder's Product Description: Managed WAN Optional Change Management Hardware Module Upgrade – This on-site service is for the addition of or swapping of a hardware module on an existing router.		
493	**MWAN – Opt Change Mgmt - Device Move**	MWAN – Opt Change Mgmt - Device Move – Relocation of a WAN device between two different locations.	**IPMX0004**
	Bidder's Product Description: Managed WAN Optional Change Management Device Move – This on-site service provides for the relocation of an existing router between two different buildings up to thirty (30) miles apart. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design changes.		
494	**MWAN – Opt Change Mgmt - Memory Upgrade**	MWAN – Opt Change Mgmt - Memory Upgrade – Upgrade memory on an existing router	**IPMW0005**
	Bidder's Product Description: Managed WAN Optional Change Management Memory Upgrade – This on-site service is for upgrading memory capacity on an existing router by adding or swapping flash or RAM modules.		
495	**MWAN – Opt Change Mgmt - Device Exchange**	MWAN – Opt Change Mgmt - Device Exchange – Substitute a router for another at a given site	**IPMW0006**
	Bidder's Product Description: Managed WAN Optional Change Management Device Exchange – This on-site service provides for swapping out an existing router for another.		
496	**MWAN – Opt Change Mgmt - IOS Change Support New Features**	MWAN – Opt Change Mgmt - IOS Change Support New Features – Install a different version and/or IOS feature set.	**IPMW0007**
	Bidder's Product Description: Managed WAN Optional Change Management IOS Change Support New Features – This service provides for the installation of a new version or feature set of router software in order to support a new feature.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
497	**MWAN – Opt Change Mgmt- Traffic Shaping & Queuing Config**	MWAN – Opt Change Mgmt- Traffic Shaping & Queuing Config – Add, delete, and/or modify traffic shaping, policing and queuing policies.	**IPMW0008**
	Bidder's Product Description: Managed WAN Optional Change Management Traffic Shaping & Queuing Configuration – This service provides for the addition, deletion, and/or modification of traffic shaping, policing and queuing policies on an existing router. All policies and classification maps will be built on customer provided specification.		
498	**MWAN – Opt Change Mgmt - Traffic Filter Design**	MWAN – Opt Change Mgmt - Traffic Filter Design – Add, delete, or modify traffic filters	**IPMW0009**
	Bidder's Product Description: Managed WAN Optional Change Management Traffic Filter Design – This service provides for the addition, deletion, and/or modification of traffic filters on an existing router.		

Managed WAN Optimization (MWOpt)

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
499	**MWOpt Accelerator Monitor & Notify - Small**	Managed WAN Optimization (MWOpt) Accelerator Monitor & Notify – Small features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification	**OPMS0000**
	Bidder's Product Description: Verizon is proposing Managed WAN Optimization (MWOpt) to compliment the Managed Wide Area Network (MWAN) Service as an Unsolicited Service Offering in section 1.2. MWOpt Service supports the agencies ability to implement optimization and application accelerators over the MPLS network. State agenices require additional technical support to provide this level of efficency over the MPLS network to maximize data throughput. **Managed WAN Optimization general description applies to the following Managed WAN Optimization line items.** Managed WAN Optimization Services (MWOpt) is an enhancement to Managed WAN Services and is a managed service supporting CPE based application accelerator solutions. Verizon's MWOpt provides monitoring, fault isolation, trouble resolution, and proactive outage notification service for a variety of application accelerators and management consoles. All equipment under management must but be certified by Verizon for MWOpt and must not be identified as End of Life by the manufacture. Certified equipment and corresponding size (Small, Medium, Large, XLarge) are updated on a regular basis; the current list of Verizon Certified CPE will be provided on request. With the exception of the Monitor and Notify level of service, all equipment must have a means for Out-of-Band (OOB) management, enabled with a customer provided modem and POTS line, and must have a maintenance agreement in place. **MWOpt Accelerator Monitor & Notify - Small** provides for the monitoring of a Small sized managed WAN accelerator. The device is polled on a regular basis, and a repeated failure of the device to respond to polls will indicate a fault condition and will generate alarms. The fault will be isolated to access, transport, or CPE and a trouble ticket will be opened on the customer's behalf, and the customer will be proactively notified of the outage. Verizon will own the resolution of the access and transport issues related to the fault. The customer retains responsibility for resolving all physical and logical CPE issues. This service is for the Small class of WAN accelerators.		
500	**MWOpt Accelerator Monitor & Notify - Medium**	MWOpt Accelerator Monitor & Notify - Medium	**OPMM0000**
	Bidder's Product Description: MWOpt Accelerator Monitor & Notify - Medium provides everything provided bay MWOpt Accelerator Monitor & Notify - Small except for a Medium class of WAN accelerators.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
501	**MWOpt Accelerator Monitor & Notify - Large**	MWOpt Accelerator Monitor & Notify - Large	**OPML0000**
	Bidder's Product Description: MWOpt Accelerator Monitor & Notify – Large provides everything provided bay MWOpt Accelerator Monitor & Notify - Small except for a Large class of WAN accelerators.		
502	**MWOpt Accelerator Monitor & Notify – X Large**	MWOpt Accelerator Monitor & Notify – X Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification	**OPMX0000**
	Bidder's Product Description: MWOpt Accelerator Monitor & Notify - X Large provides everything provided bay MWOpt Accelerator Monitor & Notify - Small except for an X Large class of WAN accelerators.		
503	**MWOpt Accelerator Physical - Small**	MWOpt Accelerator Physical – Small features include: Device Availability and Health Monitoring, Fault Isolation, Physical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification	**OPPS0000**
	Bidder's Product Description: MWOpt Accelerator Physical – Small provides all of the monitoring features of MWOpt Monitory & Notify - Small as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
504	**MWOpt Accelerator Physical - Medium**	MWOpt Accelerator Physical – Medium features include: Device Availability and Health Monitoring, Fault Isolation, Physical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification	**OPPM0000**
	Bidder's Product Description: MWOpt Accelerator Physical – Medium provides all of the monitoring features of MWOpt Monitory & Notify - Medium as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
505	**MWOpt Accelerator Physical - Large**	MWOpt Accelerator Physical – Large features include: Device Availability and Health Monitoring, Fault Isolation, Physical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification	**OPPL0000**
	Bidder's Product Description: MWOpt Accelerator Physical – Large provides all of the monitoring features of Managed WAN Monitory & Notify - Large as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
506	**MWOpt Accelerator Physical – X Large**	MWOpt Accelerator Physical – X Large features include: Device Availability and Health Monitoring, Fault Isolation, Physical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification	**OPPX0000**
	Bidder's Product Description: MWOpt Accelerator Physical – X Large provides all of the monitoring features of MWOpt Monitory & Notify - X Large as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
507	**MWOpt Accelerator Full – Small**	MWOpt Accelerator Full – Small features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, Proactive Outage Notification, and Application Analysis.	**OPFS0000**
	Bidder's Product Description: MWOpt Accelerator Full – Small provides all of the monitoring features of MWOpt Physical - Small as well as Verizon owning the resolution of any logical CPE issues.		
508	**MWOpt Accelerator Full – Medium**	MWOpt Accelerator Full – Medium features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, Proactive Outage Notification, and Application Analysis.	**OPFM0000**
	Bidder's Product Description: MWOpt Accelerator Full – Medium provides all of the monitoring features of MWOpt Physical - Medium as well as Verizon owning the resolution of any logical CPE issues.		
509	**MWOpt Accelerator Full – Large**	MWOpt Accelerator Full – Large features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, Proactive Outage Notification, and Application Analysis.	**OPFL0000**
	Bidder's Product Description: MWOpt Accelerator Full – Large provides all of the monitoring features of MWOpt Physical - Large as well as Verizon owning the resolution of any logical CPE issues.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
510	**MWOpt Accelerator Full – X Large**	MWOpt Accelerator Full – X Large features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, Proactive Outage Notification, and Application Analysis.	**OPFX0000**
	Bidder's Product Description: MWOpt Accelerator Full – X Large provides all of the monitoring features of MWOpt Physical – X Large as well as Verizon owning the resolution of any logical CPE issues.		
511	**MWOpt Management Console - Small**	MWOpt Management Console - Small features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification.	**OPCS0000**
	Bidder's Product Description: MWOpt Management Console - Small provides management of Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification.		
512	**MWOpt Management Console – Medium**	MWOpt Management Console - Medium features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification.	**OPCM0000**
	Bidder's Product Description: MWOpt Management Console - Medium provides management of Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification.		
513	**MWOpt Management Console – Large**	MWOpt Management Console - Large features include: Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification.	**OPCL0000**
	Bidder's Product Description: MWOpt Management Console - Large provides management of Device Availability and Health Monitoring, Fault Isolation, Physical and Logical Fault Resolution, Trouble Ticket Generation, and Proactive Outage Notification.		
514	**MWOpt Managed Implementation**	MWOpt Managed Implementation provides customers implementation of new networks to be managed by Verizon.	**OPMI0000**
	Bidder's Product Description: MWOpt Managed Implementation provides customers implementation of new networks to be		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	managed by Verizon and who 1) do not have existing equipment, and will need to procure new hardware or 2) have existing equipment and want Verizon to reuse existing equipment, re-configure equipment and provide a design. Customers are required to have their own hardware maintenance agreement.		
515	**MWOpt Managed Take-Over**	MWOpt Managed Take-Over	**OPTO0000**
	Bidder's Product Description: MWOpt Managed Take-Over		
516	**MWOpt Order Expedite**	MWOpt Order Expedite is an add-on service for expediting installation of MWOpt device.	**OPOX0000**
	Bidder's Product Description: MWOpt Order Expedite provides for an expedited process for activating a MWOpt Full Management option only device in Forty Five (45) days or less.		
517	**MWOpt OS Change Support New Features**	MWOpt OS Change Support New Features – Upgrade OS for supporting new features	**OPOS0000**
	Bidder's Product Description: MWOpt OS Change Support New Features - This optional service provides resources on an existing fully managed WLAN device for changing or upgrading OS for new features. This service is performed remotely.		
518	**MWOpt Intra-building Move**	MWOpt Intra-building Move – Relocation of a WAN accelerator or management console within a building	**OPIB0000**
	Bidder's Product Description: MWOpt Intra-building Move - This optional service provides resources on an existing fully managed MWOpt device for relocating an existing WAN accelerator or management console within a given building. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		
519	**MWOpt Device Move**	MWOpt Device Move – Relocation of a WAN accelerator or management console between buildings	**OPDM0000**
	Bidder's Product Description: MWOpt Device Move - This optional service provides resources on an existing fully managed MWOpt device for relocating the WAN accelerator or management console between buildings up to thirty (30) miles apart. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
520	**MWOpt Device Exchange**	MWOpt Device Exchange – Swapping out of an existing WAN accelerator or management console	**OPDX0000**
	Bidder's Product Description: MWOpt Device Exchange - This optional service provides resources on an existing fully managed MWOpt device for swapping the WAN accelerator or management console with a substitute device. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		
521	**MWOpt Field Services Dispatch Normal**	MWOpt Field Services Dispatch Normal – An hourly service for on-site services during normal business hours.	**OPDN0000**
	Bidder's Product Description: MWOpt Field Services Dispatch Normal - In lieu of the optional change management per occurrence services described with on premise activities for truck rolls, customers have the option to utilize the established hourly rate. Labor charges will commence upon arrival at customer site. Only the highest single NRC will be charged per device. This optional service provides for dispatch a technician to perform on-site managed services on a time basis at the level of a journeyman during normal business hours. Exclusive of Verizon recognized holidays, Normal Business hours are defined as M-F 8:00 AM to 5:00 PM Pacific Time.		
522	**MWOpt Field Services Dispatch Off Hours**	MWOpt Field Services Dispatch Off Hours – An hourly service for on-site services outside of normal business hours.	**OPDO0000**
	Bidder's Product Description: MWOpt Field Services Dispatch Off Hours - In lieu of the optional change management per occurrence services described with on premise activities for truck rolls, customers have the option to utilize the established hourly rate. Labor charges will commence upon arrival at customer site. Only the highest single NRC will be charged per device. This optional service provides for dispatch a technician to perform on-site managed services on a time basis at the level of a journeyman outside of normal business hours. Exclusive of Verizon recognized holidays, outside of Normal Business hours defined as M-F 8:00 AM to 5:00 PM Pacific Time.		

Support Services

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
523	**MPLS Technical Junior Analyst**	MPLS Technical Junior Analyst will assist the senior analyst in delivery of all aspects of computing (Layer 4 through Layer 7) to Layer 3 MPLS service. MPLS Technical Junior Analyst will provide specific scope of work to cover the specific requirements as requested by the State.	**SSJC0000**
	Bidder's Product Description: MPLS Technical Junior Analyst will assist the senior analyst in delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Junior Analyst will provide specific scope of work to cover the specific requirements as requested by the State. The MPLS Technical Junior Analyst will have 1-3 years' related work experience and 1 or more years of technical experience.		
524	**MPLS Technical Analyst**	MPLS Technical Analyst will assist the senior analysis in delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Analysis will provide specific scope of work to cover the specific requirements as requested by the State.	**SSCN0000**
	Bidder's Product Description: MPLS Technical Analyst will assist the senior analysis in delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Analyst will provide specific scope of work to cover the specific requirements as requested by the State. The MPLS Technical Analyst will have 2-5 years' related work experience and 3 or more years of technical experience.		
525	**MPLS Technical Senior Analyst**	MPLS Technical Sr Analyst will assist the senior analyst in delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Sr Analyst will provide specific scope of work to cover the specific requirements as requested by the State.	**SSSC0000**
	Bidder's Product Description: MPLS Technical Sr Analyst will assist the senior analysis in delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Sr Analyst will provide specific scope of work to cover the specific requirements as requested by the State. The MPLS Technical Sr Analyst will have 5 years' related work experience and 8 or more years of technical experience.		

Table 1.2.2.8.3.b Unsolicited MPLS Port, Access and Router Bundled Transport Speeds (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
526	**MPLS Technical Executive Analyst**	MPLS Technical Executive Analyst will lead delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Executive Analyst will provide specific scope of work to cover the specific requirements as requested by the State.	**SSEC0000**
	Bidder's Product Description: MPLS Technical Executive Analyst will lead delivery of all aspects of computing (Layer 4 thru Layer 7) to Layer 3 MPLS service. MPLS Technical Executive Analyst will provide specific scope of work to cover the specific requirements as requested by the State. The MPLS Technical Executive Analyst will have 10+ years' of technical experience.		

1.2.2.8.4 MPLS Port, Access and Router Bundled On-Net Transport Speeds

Table 1.2.2.8.4.a, MPLS Port, Access and Router Bundled On-Net Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS port, access and router on-net Transport service at minimum line rate of 155 Mbps (OC3)	Y		**MONN0155**
	Bidder's Product Description: Verizon's MPLS network will provide an On-Net transport services at a minimum line rate of 155 Mbps (OC3). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
2	MPLS port, access and router on-net Transport service at minimum line rate of 625 Mbps (OC12	Y		**MONN0625**
	Bidder's Product Description: Verizon's MPLS network will provide an On-Net transport services at a minimum line rate of 625 Mbps (OC12). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.4.a, MPLS Port, Access and Router Bundled On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
3	MPLS port, access and router on-net Transport service at minimum line rate of 2.5 Gbps (OC48)	**Y**		**MONN2500**
	Bidder's Product Description: Verizon's MPLS network will provide an On-Net transport services at a minimum line rate of 2.5 Gbps (OC48). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
4	MPLS port, access and router on-net Transport service at minimum line rate of 10 Gbps (OC192)	**Y**		**MONN1000**
	Bidder's Product Description: Verizon's MPLS network will provide an On-Net transport services at a minimum line rate of 10 Gbps (OC192). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

The Contractor may offer additional unsolicited MPLS Port, Access and Router Bundled On-Net Transport Speeds in Table 1.2.2.8.4.b.

Table 1.2.2.8.4.b Unsolicited MPLS Port, Access and Router Bundled On-Net Transport Speeds

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.2.8.5 MPLS Port, Access and Router Bundled Off-Net Transport Speeds

Table 1.2.2.8.5.a, MPLS Port, Access and Router Bundled Off-Net Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS port, access and router off-net Transport service at minimum line rate of 155 Mbps (OC3)	Y		MOFN0155
	Bidder's Product Description: Verizon's MPLS network will provide an Off-Net transport services at a minimum line rate of 155 Mbps (OC3). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
2	MPLS port, access and router off-net Transport service at minimum line rate of 625 Mbps (OC12)	Y		MOFN0625
	Bidder's Product Description: Verizon's MPLS network will provide an Off-Net transport services at a minimum line rate of 625 Mbps (OC12). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
3	MPLS port, access and router off-net Transport service at minimum line rate of 2.5 Gbps (OC48)	Y		MOFN2500
	Bidder's Product Description: Verizon's MPLS network will provide an Off-Net transport services at a minimum line rate of 2.5 Gbps (OC48). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.5.a, MPLS Port, Access and Router Bundled Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
4	MPLS port, access and router off-net Transport service at minimum line rate of 10 Gbps (OC192)	**Y**		**MOFN1000**
	Bidder's Product Description: Verizon's MPLS network will provide an Off-Net transport services at a minimum line rate of 10 Gbps (OC192). Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

The Contractor may offer additional unsolicited MPLS Port, Access and Router Bundled Off-Net Transport Speeds in Table 1.2.2.8.5.b.

Table 1.2.2.8.5.b Unsolicited MPLS Port, Access and Router Bundled Off-Net Transport Speeds

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.2.8.6 MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of one (1) Mbps	Y		**MONT0001**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one (1) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
2	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of two (2) Mbps	Y		**MONT0002**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of two (2) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
3	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of three (3) Mbps	Y		**MONT0003**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of three (3) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
4	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of four (4) Mbps	**Y**		**MONT0004**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of four (4) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
5	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of five (5) Mbps	**Y**		**MONT0005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of five (5) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
6	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of six (6) Mbps	**Y**		**MONT0006**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of six (6) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
7	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of seven (7) Mbps	**Y**		**MONT0007**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of seven (7) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
8	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of eight (8) Mbps	**Y**		**MONT0008**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of eight (8) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
9	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of nine (9) Mbps	**Y**		**MONT0009**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of nine (9) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
10	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 10 Mbps	**Y**		**MONT0010**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 10 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
11	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 20 Mbps	**Y**		**MONT0020**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 20 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
12	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 30 Mbps	**Y**		**MONT0030**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 30 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
13	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 40 Mbps	**Y**		**MONT0040**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 40 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
14	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 50 Mbps	**Y**		**MONT0050**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 50 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
15	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 60 Mbps	**Y**		**MONT0060**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 60 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
16	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 70 Mbps	**Y**		**MONT0070**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 70 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
17	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 80 Mbps	**Y**		**MONT0080**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 80 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
18	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 90 Mbps	**Y**		**MONT0090**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate 90 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
19	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 100 Mbps	**Y**		**MONT0100**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 100 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
20	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 150 Mbps	**Y**		**MPAE0150**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 150 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
21	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 200 Mbps	**Y**		**MONT0200**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 200 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
22	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 250 Mbps	**Y**		**MPAE0250**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 250 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
23	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 300 Mbps	**Y**		**MONT0300**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 300 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
24	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 400 Mbps	**Y**		**MONT0400**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 400 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
25	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 450 Mbps	**Y**		**MPAE0450**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 450 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
26	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 500 Mbps	**Y**		**MONT0500**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 500 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
27	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 600 Mbps	**Y**		**MONT0600**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 600 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
28	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 700 Mbps	**Y**		**MONT0700**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 700 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
29	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 800 Mbps	**Y**		**MPAE0800**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 800 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
30	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 900 Mbps	**Y**		**MONT0900**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of 900 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
31	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of one (1) Gbps	**Y**		**MONT1000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one (1) Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
32	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 2 Gbps	**Y**		**MPRE2000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 2 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
33	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 2.5 Gbps	**Y**		**MPRE2005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 2.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
34	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 3 Gbps	**Y**		**MPRE3000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 3 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
35	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 3.5 Gbps	**Y**		**MPRE3005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 3.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
36	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 4 Gbps	**Y**		**MPRE4000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 4 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
37	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 4.5 Gbps	**Y**		**MPRE4005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 4.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
38	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 5 Gbps	**Y**		**MPRE5000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
39	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 5.5 Gbps	**Y**		**MPRE5005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 5.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
40	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 6 Gbps	**Y**		**MPRE6000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 6 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
41	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 6.5 Gbps	**Y**		**MPRE6005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 6.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
42	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 7 Gbps	**Y**		**MPRE7000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 7 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
43	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 7.5 Gbps	**Y**		**MPRE7005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 7.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
44	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 8 Gbps	**Y**		**MPRE8000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 8 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
45	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 8.5 Gbps	**Y**		**MPRE8005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 8.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
46	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 9 Gbps	**Y**		**MPRE9000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 9 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.6.a, MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
47	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 9.5 Gbps	**Y**		**MPRE9005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 9.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
48	MPLS port, access and router Ethernet on-net Transport service at minimum line rate of 10 Gbps	**Y**		**MPEO1000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet on-net Transport service at a minimum line rate of one 10 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

The Contractor may offer additional unsolicited MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds in Table 1.2.2.8.6.b.

Table 1.2.2.8.6.b Unsolicited MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.2.8.7 MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
1	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one (1) Mbps	Y		**MOFT0001**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one (1) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
2	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of two (2) Mbps	Y		**MOFT0002**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of two (2) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
3	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of three (3) Mbps	Y		**MOFT0003**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of three (3) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
4	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of four (4) Mbps	**Y**		**MOFT0004**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of four (4) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
5	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of five (5) Mbps	**Y**		**MOFT0005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of five (5) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
6	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of six (6) Mbps	**Y**		**MOFT0006**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of six (6) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
7	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of seven (7) Mbps	**Y**		**MOFT0007**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of seven (7) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
8	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of eight (8) Mbps	**Y**		**MOFT0008**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of eight (8) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
9	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of nine (9) Mbps	**Y**		**MOFT0009**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of nine (9) Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
10	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 10 Mbps	**Y**		**MOFT0010**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 10 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
11	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 20 Mbps	**Y**		**MOFT0020**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 20 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
12	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 30 Mbps	**Y**		**MOFT0030**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 30 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
13	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 40 Mbps	**Y**		**MOFT0040**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 40 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
14	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 50 Mbps	**Y**		**MOFT0050**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 50 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
15	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 60 Mbps	**Y**		**MOFT0060**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 60 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
16	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 70 Mbps	**Y**		**MOFT0070**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 70 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
17	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 80 Mbps	**Y**		**MOFT0080**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 80 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
18	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 90 Mbps	**Y**		**MOFT0090**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 90 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
19	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 100 Mbps	**Y**		**MOFT0100**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 100 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
20	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 150 Mbps	**Y**		**MPBO0150**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 150 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
21	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 200 Mbps	**Y**		**MOFT0200**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 200 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
21a	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 250 Mbps	**Y**		**MOFT0250**
	Bidder's Product Description: MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 250 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
22	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 300 Mbps	**Y**		**MOFT0300**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 300 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
23	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 400 Mbps	**Y**		**MOFT0400**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 400 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
24	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 450 Mbps	**Y**		**MPBO0450**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 450 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
25	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 500 Mbps	**Y**		**MOFT0500**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 500 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
26	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 600 Mbps	**Y**		**MOFT0600**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 600 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
27	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 700 Mbps	**Y**		**MOFT0700**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 700 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
28	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 800 Mbps	**Y**		**MPBO0800**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 800 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
29	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of 900 Mbps	**Y**		**MOFT0900**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of 900 Mbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
30	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one (1) Gbps	**Y**		**MOFT1000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one (1) Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
31	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 2 Gbps	**Y**		**MPBO2000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 2 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
32	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 2.5 Gbps	**Y**		**MPBO2005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 2.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
33	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 3 Gbps	**Y**		**MPBO3000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 3 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
34	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 3.5 Gbps	**Y**		**MPBO3005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 3.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
35	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 4 Gbps	**Y**		**MPBO4000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 4 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
36	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 4.5 Gbps	**Y**		**MPBO4005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 4.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
37	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 5 Gbps	**Y**		**MPBO5000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
38	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 5.5 Gbps	**Y**		**MPBO5005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 5.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
39	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 6 Gbps	**Y**		**MPBO6000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 6 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
40	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 6.5 Gbps	**Y**		**MPBO6005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 6.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
41	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 7 Gbps	**Y**		**MPBO7000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 7 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
42	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 7.5 Gbps	**Y**		**MPBO7005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 7.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

Table 1.2.2.8.7.a, MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (continued)

	Requirement	Bidder Agrees? Y	N	Bidder's Product Identifier
43	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 8 Gbps	**Y**		**MPBO8000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 8 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
44	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 8.5 Gbps	**Y**		**MPBO8005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 8.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
45	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 9 Gbps	**Y**		**MPBO9000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 9 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
46	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 9.5 Gbps	**Y**		**MPBO9005**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 9.5 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			
47	MPLS port, access and router Ethernet off-net Transport service at minimum line rate of one 10 Gbps	**Y**		**MPEB1000**
	Bidder's Product Description: Verizon's MPLS will provide an Ethernet off-net Transport service at a minimum line rate of one 10 Gbps. Verizon will provide the required bundled router, management of the router, MPLS Port and Access.			

The Contractor may offer additional unsolicited MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds in Table 1.2.2.8.7.b.

Table 1.2.2.8.7.b Unsolicited MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds

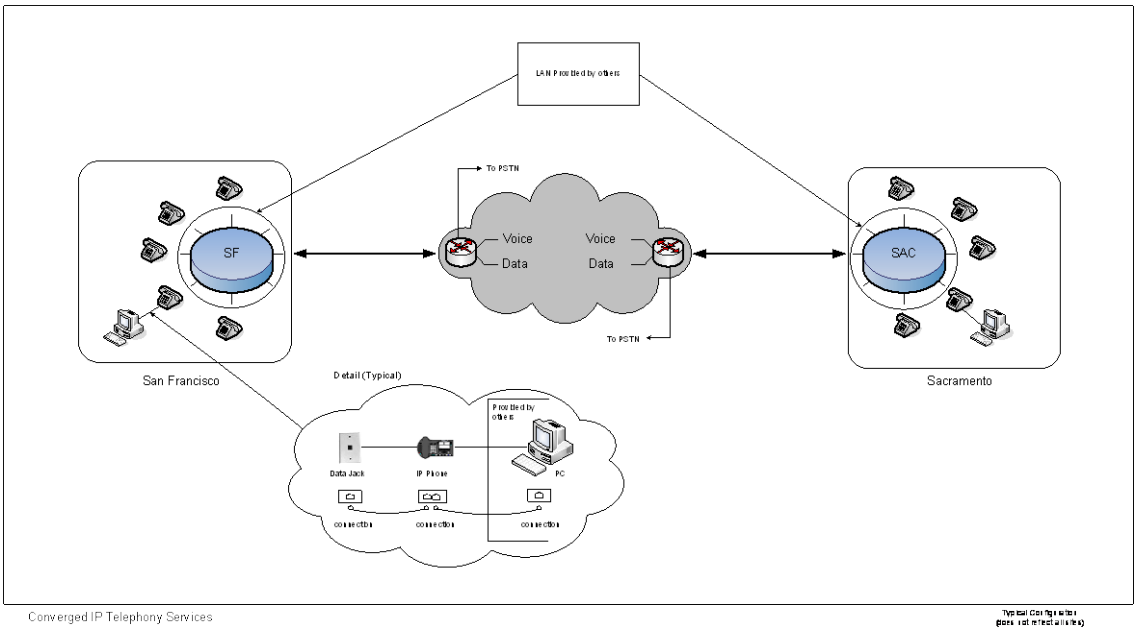
	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.3 CONVERGED VOICE OVER INTERNET PROTOCOL (VOIP)

1.2.3.1 CONVERGED VOIP MINIMUM NETWORK REQUIREMENTS

The Contractor shall provide a VoIP network in Converged configurations that is provisioned in conjunction with the Contractor's MPLS services identified in this Subcategory. The Converged VoIP service shall utilize the MPLS circuit to access Converged VoIP calling services.

Converged VoIP Topography Example:



The VoIP network shall deliver business-class features that support standard business lines, direct inward dial (DID) lines, gateway services to local Public Switched Telephone Networks (PSTNs), and least cost (monetary) routing.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.1 Converged VoIP Network Designs and Diagrams

Bidders shall provide network designs and diagrams for the network and Converged VoIP services.

Bidders shall provide two (2) hard copies and one (1) electronic copy with their proposal. Electronic drawings shall be in .dwg, .dfx, .vsd or any mutually agreed format. Hard copy drawings shall be provided in standard D size.

Drawings must include a thorough presentation of how the Contractor's network(s) deployed for each service type will address the following:

1. ***Redundancy – Having one (1) or more circuits/systems deployed in case of failure of the main circuits/systems, and;***
2. ***Diversity – Backbone network paths and infrastructure offered in such a way as to minimize the chance of a single point of failure.***

The Contractor shall provide revisions upon CALNET 3 CMO request. Drawings shall include both topology and logical representations of all critical network backbone elements to include but not be limited to the following:

1. ***Geographic location of equipment;***
2. ***Type and capacity of equipment at each location including any backup systems;***
3. ***Service type; and,***
4. ***Unique identifier for each element.***

Bidder understands the requirements in Section 1.2.3.1.1 and shall meet or exceed them?
Yes X No_____

Embedded Soft Copy of Drawing (Optional): Verizon has provided hard and soft copies.

1.2.3.1.1 Verizon Converged VoIP Netwi

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CALNET 3

1.2.3.1.1 Verizon's Converged VoIP Network

Multiprotocol Support

Verizon uses SIP as its convergence signaling protocol. The Converged VoIP Network supports multiple Codecs. Supported Codecs are G.711 uncompressed voice, G.729 and G.729A Codec compressed voice.

The MPLS Network supports multiple protocols.
Encapsulation Methods: Frame Relay, Packet Over SONET, Multi-Link PPP
Routing Protocols: Static, RIPv2, BGP
Routed Protocols: IP
The Multi-Protocol Label Switched (MPLS) Network has Multi-Protocol support over a single interface. The MPLS Network supports Multiple Protocols within a single broadcast domain between geographically dispersed sites. The broadcast domain on the MPLS Network is referred to as a Virtual Private Network (VPN). The VPNs define the individual CALNET 3 customer networks across the MPLS Network.

Survivability/Diversity/Redundancy

The Edge of the MPLS network is built on the Cisco ASR, ESR and GSR and Juniper M320 Provider Edge (PE) routers. All equipment utilizes redundant components that provide high reliability and availability.
The transport design, as indicated in the diagram, is very diverse and redundant. Every PE has at minimum two diverse route paths; one route to another PE and one route to a Core (P) router. In addition, each P Core router is fully meshed with all other Core routers throughout the domestic US network.
All PE / P Core routers are NEBS Level Three compliant (temperature extremes, vibration, earthquake, EMI, fire safety, ESD resistance, etc).
All California Verizon switching centers meet or exceed all state, local and Federal seismic earthquake zone requirements. All Verizon switching centers are Zone 4 compliant.
All Verizon switching centers in the State of California are served by two discreet commercial power feeds and have on-site back-up diesel generators which have at least enough fuel to run their diesel generators for a minimum of 48 hours. Typical sites such as Rialto and Sacramento have enough fuel for 5-7 days of continuous operation.
All Verizon switching centers in the United States have at least dual diverse fiber entrance facilities.
All of the above noted facility, equipment, & topology aspects provides the State a network environment that is extremely resilient which greatly minimizes single points of failure in the network.

Ubiquity

The MPLS Network is available Internationally as well as throughout the US and at all of the current and future CALNET III customer locations.
VoIP Services are available throughout the US and at all of the current and future CALNET 3 customer locations.
Flexible access methods are available including traditional TDM DS0, DS1, DS3, OC3, OC12, as well as Ethernet access.
Within the State of California the Converged VoIP network is supported by ten node locations. The Provider Edge (PE) routers are Cisco ESR, GSR, and ASR series devices and Juniper M and MX series devices. The Provider Core (P Core) routers are Cisco GSR series and Juniper T series routers.
VoIP partitions have been installed in Verizon's Class 5 switches to allow direct VoIP access from all California LATAs. Fax and modems are supported on the Verizon VoIP network. E911 is available wherever VoIP service is provided.

Traffic Engineering and QoS

The Intelligent Network Call Processors (INCPs) used for routing call terminations are located in West Orange New Jersey, Irving Texas and Dominguez Hills, California. All voice switches have access to all three INCPs. All three INCP points are identical. The Network switches randomly make their queries to all three INCPs.

Verizon uses echo cancellation that meets or exceeds ITU G.165/ G.168. Verizon utilizes packet play-out algorithms which compensate for packet loss, delay and jitter. Verizon's MOS score will be 3.6 or above using the ITU-T G.107 model.

Quality of Service (QoS) on the MPLS Network is a key element in the design. There are six queue's and ten classes of service in the MPLS Network. QoS is maintained through the entire network, edge to edge.

The six queues are EF – Expedited Forwarding, AF4 – Assured Forwarding 4, AF3 – Assured Forwarding 3, AF2 – Assured Forwarding 2, Assured forwarding 1, and BE – Best Effort.
There are ten priority service classes which are EF, AF41, AF42 or AF43, AF31, AF32 or AF33, AF21, AF22 or AF23, AF11, AF12 or AF13, and BE.

Scalability

All local VoIP switches are currently operating at less than 36% capacity.

The MPLS Network provides CALNET 3 customers with true scalability. Bandwidth will scale as IP requirements increase. As CALNET 3 customers add more IP phones, or a new call application is deployed, additional bandwidth can be added to meet the new demand.

Customer access can grow from 128kbps through 622Mbps.

All current MPLS Backbone core routes have been upgraded to 10Gbps.

QoS Interoperability

Session Initiation Protocol (SIP) is the signaling protocol utilized by Verizon's IP Telephony Service. SIP is an open standard protocol, it is also an application layer protocol, which can use either TCP or UDP as its transport over IP.
IP Packets that are marked with Quality of Service (QoS) tags on a LAN can be mapped to WAN QoS using either Differentiated Services Code Points or IP Precedence Bits. The managed Customer Edge (CE) router located at the CALNET 3 customer site will be configured to map the priority of the IP packet from the LAN to the designated Class of Service on the WAN Provider Edge (PE) router. The priority associated will be maintained throughout traversal of the MPLS Network, and will be handed off intact to the receiving CALNET 3 managed customer router and mapped back to the LAN QoS.

Unified Network Management

Verizon offers Computer Associates eHealth, that permits CALNET 3 customers to evaluate the end-to-end performance of their converged IP network.

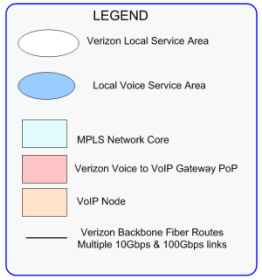
Managed Services is a 24/7 operation supported by the Network Operation Center (NOC). The NOC has connections to the MPLS Backbone Network through redundant network connections. There are several NOC facilities located around the world.

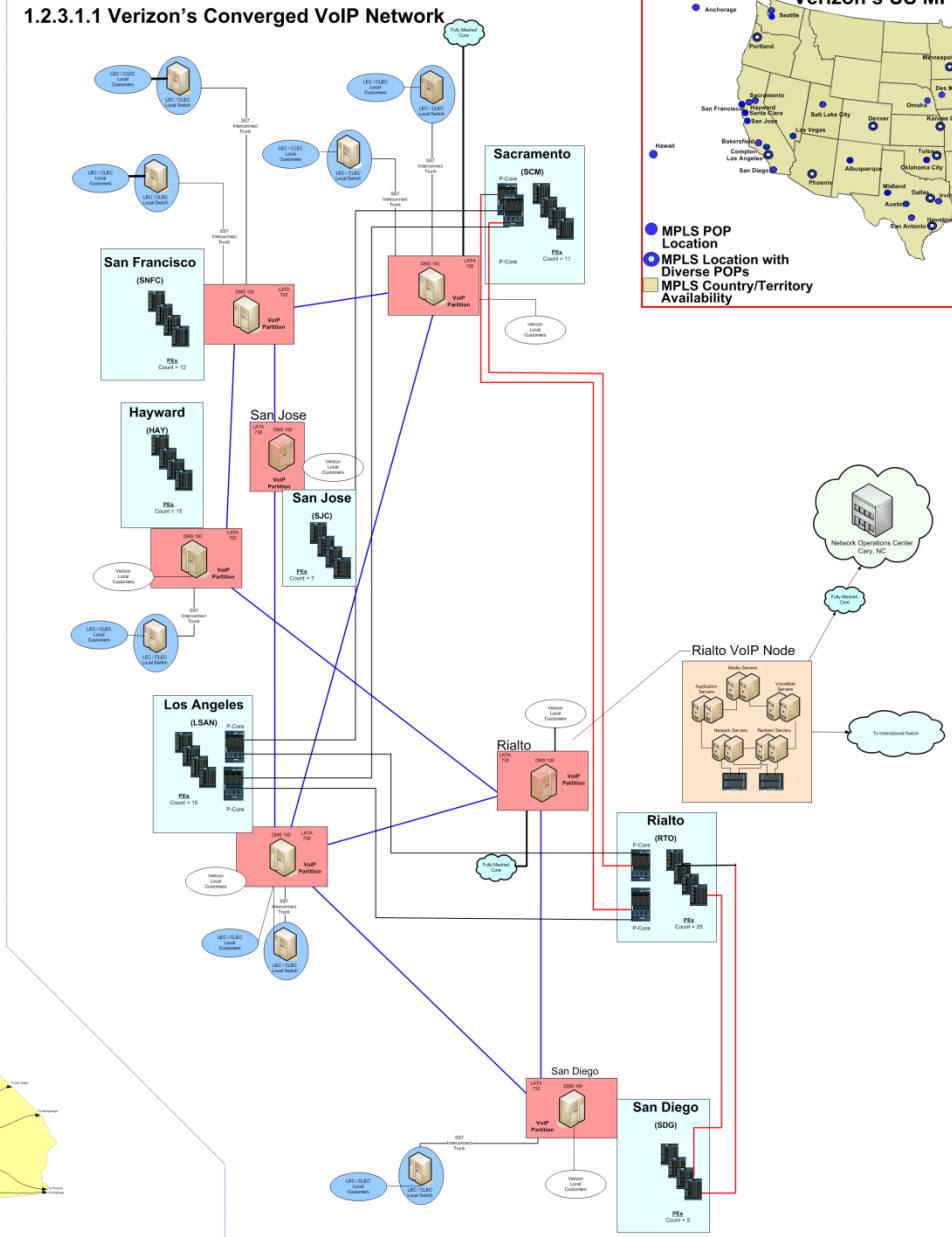
Fully managed services will allow CALNET 3 customers to leverage our technical expertise in design, planning, implementation, and network management.

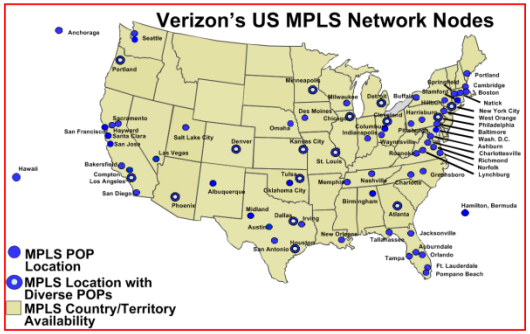
Through managed services, CALNET 3 customers will be able to monitor their networks by viewing online performance reports.

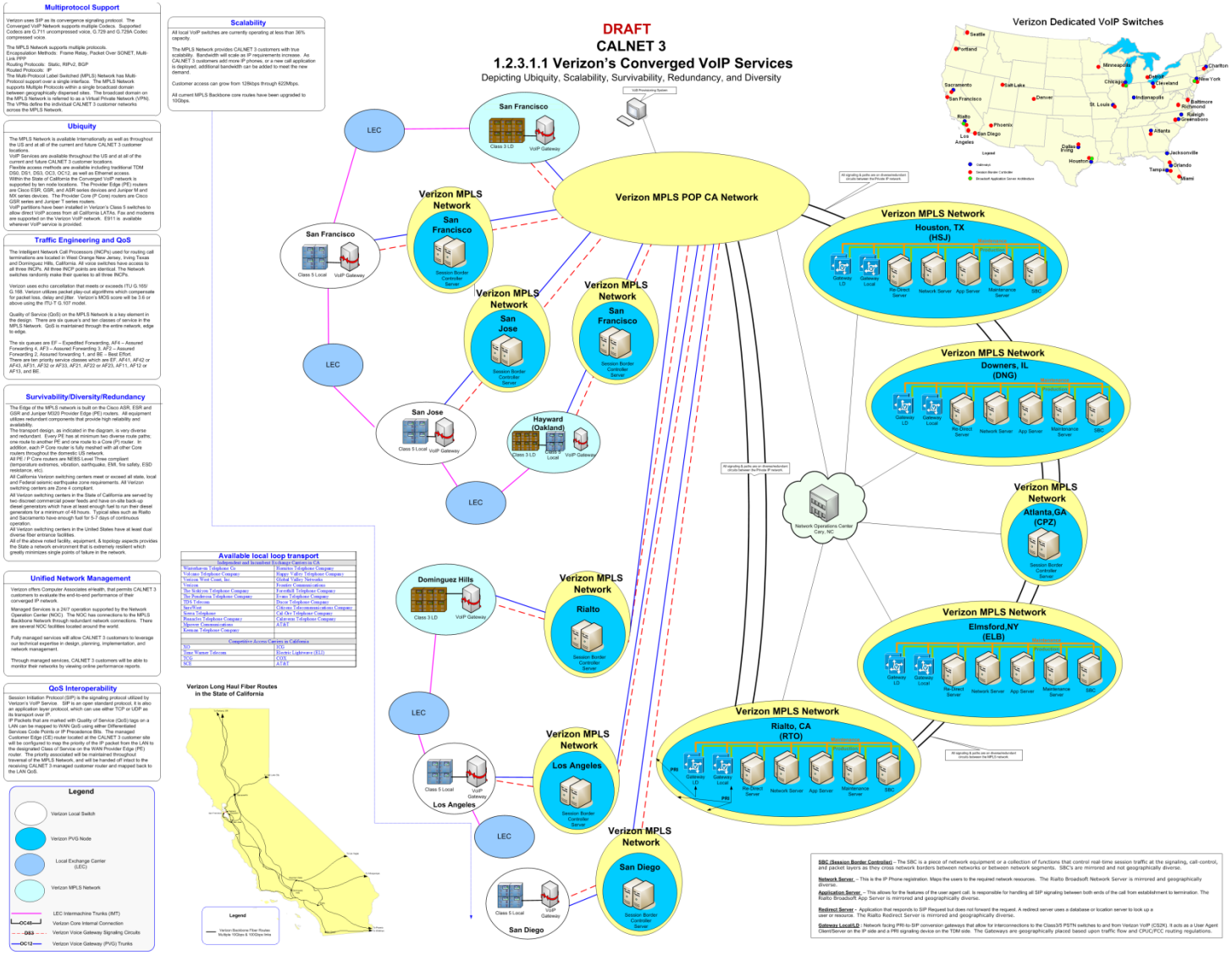
Available local loop transport

Independent and Incumbent Exchange Carriers in CA	
Winterhaven Telephone Co	Hinsdale Telephone Company
Volcano Telephone Company	Happy Valley Telephone Company
Verizon West Coast, Inc.	Global Valley Networks
Verizon	Frontier Communications
The Siskiyou Telephone Company	Foresthill Telephone Company
The Pinnacles Telephone Company	Evans Telephone Company
TDS Telecom	Ducor Telephone Company
SureWest	Citizens Telecommunications Company
Sierra Telephone	Cal-Ore Telephone Company
Pinnacles Telephone Company	Calaveras Telephone Company
Mpower Communications	AT&T
Kerman Telephone Company	
Competitive Access Carriers in California	
XO	ICO
Time Warner Telecom	Electric Lightwave (ELI)
TCG	COX
SCE	AT&T





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CALNET 3
1.2.3.1.1 Verizon's Converged VoIP Services
Depicting Ubiquity, Scalability, Survivability, Redundancy, and Diversity
Multiprotocol Support
Scalability
Ubiquity
Traffic Engineering and QoS
Survivability/Diversity/Redundancy
Unified Network Management
QoS Interoperability
Available local loop transport
Verizon Long Haul Fiber Routes in the State of California
Legend
Verizon Local Switch
Verizon PVG Node
Local Exchange Carrier (LEC)
Verizon MPLS Network
LEC Intermachine Trunks (IMT)
Verizon Core Internal Connection
Verizon Voice Gateway Signaling Circuits
Verizon Voice Gateway (PVG) Trunks
LEC
San Francisco
Class 3 LD
VoIP Gateway
Class 5 Local
Verizon MPLS Network
San Francisco
Session Border Controller Server
Verizon MPLS POP CA Network
Verizon MPLS Network
San Jose
Verizon MPLS Network
San Francisco
San Jose
Hayward (Oakland)
Dominguez Hills
Verizon MPLS Network
Rialto
Los Angeles
Verizon MPLS Network
Los Angeles
Verizon MPLS Network
San Diego
Verizon Dedicated VoIP Switches
Verizon MPLS Network
Houston, TX
(HSJ)
Verizon MPLS Network
Downers, IL
(DNG)
Verizon MPLS Network
Atlanta,GA
(CPZ)
Verizon MPLS Network
Elmsford,NY
(ELB)
Verizon MPLS Network
Rialto, CA
(RTO)
Network Operations Center
Cary, NC
Gateway LD
Gateway Local
Re-Direct Server
Network Server
App Server
Maintenance Server
SBC

1.2.3.1.2 Intentionally Deleted

1.2.3.1.3 Public Switched Telephone Network Interoperability

The VoIP solution shall be interoperable with the Public Switched Telephone Network (PSTN).

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.4 Number Portability

The Contractor shall comply with the local number portability regulations.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.5 E9 1 1 Database Updates

The Contractor shall comply with FCC emergency service requirements including E9 1 1 services to identify the location of an originating station and route the call to the appropriate Public Safety Answering Point (PSAP).

The Contractor shall be responsible for updating the E9 1 1 database when End-User equipment is moved to a location with a different street address.

The Bidder shall describe the method(s) that will be deployed to accomplish this requirement and identify any conditions that the Customer must comply with.

Bidder understands the requirements in Section 1.2.3.1.5 and shall meet or exceed them?
Yes X No_____

Description:

Verizon will comply with FCC emergency service requirements including E9-1-1 services to identify the location of an originating station and route the call to the appropriate Public Safety Answering Point (PSAP) based upon site address and suite information of the access facility. Customer is responsible for PS ALI database station level information.

1.2.3.1.6 Network Based

The system shall be network based with all call control components residing in the Contractor's network including network gatekeepers and network gateways.

The Contractor shall not be permitted to use State property for the deployment, collocation or supplementation of the Contractors' network signaling and management equipment, call control and setup equipment, or access to other PSTN or VoIP network providers.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.7 Private VoIP Network

No voice traffic will be routed through the public Internet. All voice traffic will traverse the Contractor's private MPLS network.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.8 SIP Based Open Architecture

The VoIP network deployed for CALNET 3 shall be non-proprietary. The system shall use Session Initiation Protocol (SIP) standards based open architecture.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.9 Intentionally Deleted

1.2.3.1.10 Directory Redundancy and Addressing

The VoIP network shall include redundant network-based directory or gatekeeper functionality to prevent call set up failure.

The VoIP network shall partition call addressing in such a manner that failure of gatekeepers will not result in a VoIP network failure for all State facilities. At its sole discretion, the CALNET 3 CMO may direct the partitioning and physical location of Customer or department directories to diverse gatekeepers within the VoIP network

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.11 Technical Measurement Metrics

The VoIP network shall meet the technical measurement metrics listed below.

Table 1.2.3.1.11 Technical Measurement Metrics

	Metric	Bidder Meets or Exceeds? Y	N
1	Mean Opinion Score ITU P.800 – 3.6 or above (or equivalent industry standard measurement)	Y	
2	Dial Tone Delay – Not to exceed 300 ms for any call	Y	
3	Call Setup Time – Not to exceed three (3) seconds for any call	Y	

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.12 Standards Conformance

The VoIP Network and associated services shall conform to the Standards described in Table 1.2.3.1.12 as applicable.

Table 1.2.3.1.12 VoIP Standards

	Standard	Bidder Meets or Exceeds? Y	N
1	IETF RFC 3261 SIP (Session Initiation Protocol) and all subsequent RFC's	**Y**	
2	IETF RFC 2132 for DHCP 4703, 6355	**Y**	
3	IETF RFC's 2916 ENUM, 2806, 6116, 6117	**Y**	
4	IPv4	**Y**	
5	IPv6 when and where offered commercially by the Contractor	**Y**	
6	IETF RFC 1349 ToS, 2474, 2475 DiffServ 3260	**Y**	
7	ITU-T E.164	**Y**	
8	ITU G.165/G.168 and subsequent standards for echo cancellation	**Y**	
9	ITU-T G.711, G.723.x, G.726, G.728, or G.729.x	**Y**	
10	ITU-T H.248.1 (MEGACO), H.323, H.350 when and where offered commercially by the Contractor	**Y**	
11	ITU-T P.800 series of Standards for telephone transmission quality. ITU-T P.910	**Y**	
12	ITU-T T.30, T.37 and T.38, Group III fax	**Y**	
13	Media Gateway Control Protocol (MGCP) IETF RFC 3435 when and where offered commercially by the Contractor	**Y**	
14	IETF RFC 3550 Real-Time Transport Protocol (RTP) 5506, 5761, 6015, 6222	**Y**	
15	IETF RFC 2205 Resource Reservation Protocol (RSVP) 2750, 4495, 5946, 6437	**Y**	
16	IETF RFC 768 User Datagram Protocol (UDP)	**Y**	

1.2.3.1.13 Class of Service

The network shall be configured with the appropriate Class of Service (CoS) required for the proper operation of the service. The CoS shall be included in the per seat price and shall not be charged separately.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.14 Voice Compression

The VoIP network shall include Voice Compression that will:

1. Pass all applicable ITU test vectors;

2. Support configurable packetization for maximum flexibility; and,

3. Not degrade when all channels are active.

Bidder shall list the voice compression CODEC(s) that will be used with the VoIP network.

Bidder understands the requirements in Section 1.2.3.1.14 and shall meet or exceed them?
Yes X No_____

Description:

Verizon's Converged VoIP Service supports Voice Compression. The supported Voice Compression will pass all applicable International Telecommunications Union (ITU) tests and support configurable packetization for maximum flexibility.

During the Network Design the proper grade of service will be engineered and bandwidth allocated to allow all simultaneous channels to be active with no degradation of service. The Network Design will indicate the Voice Compression CODEC that will be used, the number of simultaneous calls for the P.01 grade of service and the total IP Transport bandwidth that will be available at the location.

Compression reduces the bandwidth needed per voice call, which saves transmission time or capacity. Compression is a function of the type of codec used. The codec is essentially a software algorithm used to compress/decompress speech or audio signals. The codecs currently configured in the VoIP architecture support G.711 and G.729a and G.722 standards.

Feature	Description	Benefit
G. 711 Codec Support	Uncompressed voice (includes the bandwidth needed for frame or IP headers).	Full uncompressed bandwidth for Voice Traffic and Fax Modem Traffic.
G.729 and G.729A Codec Support	Compressed voice using the G.729 and G.729A codec (includes IP headers).	Requires less bandwidth per call, (approx. 38K per call vs. 88-100K for G.711) while maintaining call quality.
T.38 Fax	T38 is the delivery of Fax over Internet Protocol (FoIP) utilizing ITU recommendation that T.38 as the delivery method.	Provides a more cost-effective solution for the customer as T.38 provides greater compression for fax traffic – 64k.
H.264 Video / G722 HD Audio	Supports video and enhanced voice applications,	Supports video and enhanced voice applications.

1.2.3.1.15 Network Operations Center

The Contractor shall maintain a Network Operations Center (NOC) that is staffed 24x365 that coordinates and manages all voice traffic.

The NOC shall perform network surveillance, traffic analysis, control of access and egress traffic, and fault management (trouble identification, isolation and notification).

The NOC shall monitor network performance in near real-time to identify capacity blockages and implement controls to optimize the VoIP network health and performance immediately.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.16 VoIP Security

The Contractor shall implement security measures that detect and prevent unauthorized access to the network for the following types of security breaches:

1. Denial of Service (DoS);

1.2. Invasion of Privacy;

1.3. Man-in-the-Middle (MITM) attacks; and,

1.4. Protocol specific security vulnerabilities

The Contractor shall ensure security practices and policies are updated and audited every six (6) months.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.3.1.16.1 Physical Access

Contractor shall physically secure all data and networking facilities through which data traverses Contractor's VoIP network complying with the physical security controls of NIST SP 800-53, ISO/IEC 27001, or equivalent standards.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.3.1.16.2 Network Security

The Contractor's network security solution shall incorporate the following features:

1. The Contractor's VoIP Network equipment locations shall use carrier grade platforms;

2. All network equipment shall be in a hardened, secure facility;

3. All unnecessary services shall be disabled or removed;

4. Access control policies shall be used to deny suspicious traffic;

5. Core servers shall be accessed through an authentication server;

6. Administrators shall be required to log into a central server to access any other server on the network; and,

7. Proxy servers shall be protected by redundant firewalls which include features such as:

a. Network attack detection;

b. Denial of Service (DoS) and Distributed Denial of Service (DDOS) protections;

c. Transmission Control Protocol (TCP) reassembly for fragmented packet protection;

d. Malformed packet protections;

e. Deep inspection firewall;

f. Protocol anomaly; and,

g. Stateful protocol signatures.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.1.16.3 Client Authentication

The Contractor shall provide SIP Digest Authentication for Customer VoIP handsets

The Contractor shall set passwords on VoIP handsets before they are shipped.

Telnet shall be disabled to the VoIP handsets.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2 CONVERGED VOIP SERVICES

The Contractor shall provide Converged VoIP that will connect to a Customer's Local Area Network (LAN). This service will allow for the ordering and provisioning of hosted voice and data over a single VoIP network interface. This service shall be interoperable with and traverse successfully across the subscribing Customer's firewalls and security layers.

The proposed design shall be network based where all major components reside at a central office or off-premises location. Bandwidth requirements shall be determined by the ITU compression mechanisms defined by the Contractor's network design.

The handsets shall be provided by the Contractor as part of the service package and per-seat price (Table 1.2.3.2.4) but will connect directly to the Customer's infrastructure/network.

In the event at Contractor is awarded a CALNET 3 Contract for Standalone VoIP services, this service shall be interoperable and the State shall not incur any charges to place calls between the two (2) services.

The Converged VoIP service shall be charged on a per-seat basis. The Contractor's per-seat price shall include all handsets, network gatekeepers, gateways, call control components, labor and materials to make the service fully operational on a Customer provided LAN.

Converged VoIP service shall provide dial tone and full functionality of features to the on-site telephone.

No additional chargeable service or feature components required to comply with the requirements of this Section 1.2.3.2 shall be allowed and all costs shall be bundled into the service components identified.

All LAN functionality, components, cabling, and equipment shall be the responsibility of the Customer and shall be acquired elsewhere. Remediation of the LAN shall be the Customers responsibility and shall be acquired elsewhere.

Any service provided by this Subcategory shall only be used for Converged VoIP and shall not be used for traditional LAN installations.

The Converged VoIP service shall be provisioned in conjunction with MPLS Transport Services.

The Bidder shall describe its Converged VoIP network architecture, components and services that will be deployed for CALNET 3 to provide a VoIP solution for the application described.

Bidder understands the requirements in Section 1.2.3.2 and shall meet or exceed them?
Yes X No____

Description:

Verizon will provide a Converged VoIP service that connects to a Customer's Local Area Network (LAN), as well as for the ordering and provisioning of hosted voice and data over a single VoIP network interface. This service will be interoperable with and capable of successfully traversing the subscribing Customer's firewalls and security layers.

Verizon's Converged VoIP network architecture provides connectivity to the customer's existing LAN, allowing for delivery of VoIP voice and data traffic over a secure, QoS-enabled Verizon MPLS WAN connection. The service will ensure interoperability with existing customer security devices, including firewalls.

Verizon's Converged VoIP design is a network-based service with all major components residing in Verizon's VoIP nodes, located in Verizon premium data center facilities. Bandwidth requirements will be determined by the ITU compression mechanisms G.729 and G.711, as defined for Verizon's VoIP network design.

Verizon will provide handsets that will connect directly to the Customer's LAN infrastructure/network as part of the service package, as well as a per-seat price (see Table 1.2.3.2.4).

If Verizon is awarded the CALNET 3 contract for both the Converged VoIP services and the Standalone VoIP services, the VoIP services will be interoperable with each other and calling between the two services will be free of charge. The state will not incur any charges to place calls between the two services.

Verizon's Converged VoIP service will be charged on a per-seat basis. Verizon's service will be fully operational on a customer-provided LAN, and the per-seat pricing will include all handsets, network gatekeepers, gateways, call control components, labor and materials.

Verizon's Converged VoIP service will provide dial tone and full functionality of VoIP features to the onsite telephone.

Verizon's Converged VoIP service will require no additional chargeable service or feature components to comply with the requirements of Section 1.2.3.2; all costs will be bundled into the identified service components.

Implementation of Verizon's Converged VoIP service will not include LAN functionality, components, cabling and equipment, which will be the responsibility of the customer. Remediation of the LAN will also be the customer's responsibility and will be acquired elsewhere.

Verizon services for this subcategory will be used only Converged VoIP and will not be used for traditional LAN installations.

Verizon's Converged VoIP service will be provisioned in conjunction with Verizon's MPLS Transport Services.

1.2.3.2.1 Converged VoIP Minimum Requirements

The Converged VoIP service shall include all equipment, hardware, software, training and ongoing administration, maintenance and upgrades in the "per-seat per-month" cost. These requirements are described in detail below.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.1.1 Converged VoIP Equipment and Hardware

Unless otherwise noted in the detailed product listing below, the Contractor shall furnish and install all equipment and hardware required to deliver the service to the workstation handset including routers, wire management, cross-connects, patch and device cords, and the workstation handset.

Horizontal closet racks, raceway, environmental components and AC electrical power will be acquired through other procurement vehicles.

Horizontal station cabling will be the responsibility of the Customer and will be acquired through other procurement vehicles.

As stated in Section 1.2.3.2, all LAN functionality, components, cabling, and equipment shall be the responsibility of the Customer and shall be acquired elsewhere.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.1.2 Converged VoIP Software

The Contractor shall provide all software and ongoing software patches or upgrades required to deliver the Converged VoIP service to the workstation handset.

Contractor shall provide all configuration and programming.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.1.3 Converged VoIP Administration

The Contractor shall perform all initial and ongoing administrative functions to deliver the Converged VoIP service to the workstation handset.

The Contractor shall provide the Customer with the option to perform selected on-site administrative functions.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.1.4 Converged VoIP Maintenance

The Contractor shall provide all maintenance (including software upgrades and patches) required for continuous delivery of the Converged VoIP service to the workstation handset.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.1.5 Converged VoIP Handset Power Supplies

The Contractor shall provide ancillary handset power supplies with the handset.

The Customer will have the option of providing Power Over Ethernet (PoE) switches in lieu of ancillary handset power supplies.

The Contractor shall provide handsets that utilize POE at the Customer's request.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.1.6 Converged VoIP Class of Service (CoS)

The network shall be configured with the appropriate class of service (CoS) required for the proper operation of the Converged VoIP service.

The CoS shall be included in the per-seat price and shall not be charged separately.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.2 Interoperability of Converged VoIP with Other CALNET 3 Technologies

The Contractor's Converged VoIP services shall be interoperable with the Contractor's SIP Trunking services (Section 1.2.5) and the State shall not incur any charges for calls between these two (2) services.

In the event at Contractor is awarded a CALNET 3 Contract for Standalone VoIP services (Subcategory 1.3), this Converged VoIP service shall be interoperable with the Contractor's Standalone VoIP services and the State shall not incur any charges for calls between these two (2) services.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.3 Converged VoIP Basic Feature Package

The Contractor shall provide a basic feature package for all handset configurations listed in Section 1.2.3.2.4 (Converged VoIP Handsets). The basic feature package shall include the call features described in Table 1.2.3.2.3.

Table 1.2.3.2.3 Converged VoIP Basic Feature Package

	Converged VoIP Basic Call Package Features	Bidder Meets or Exceeds? Y	N
1	**900 Blocking** – No calls from 900-xxx-xxxx will be processed to any subscribers	**Y**	
2	**Auto Attendant** – A service that automatically answers incoming calls within a predefined number of rings without assistance from a live attendant. It prompts callers with a series of choices and actions to perform. Based on selected action, the caller may listen to a recorded announcement, leave a message, place a call, activate another voice service or be routed to a particular service. Customers with Administrative authority shall have the ability to perform Auto Attendant configuration and modifications through a web interface.	**Y**	
3	**Call Forward – Busy Don't Answer** – Allows a station End-User to choose to reroute incoming calls to another specified telephone number. This shall be available for all incoming calls on a busy or ring-no-answer condition.	**Y**	
4	**Call Forward – All Calls** – Allows the station End-User to choose to reroute all incoming calls to another specified telephone number. The feature shall have the capability to restrict call forwarding to internal, local or long distance numbers.	**Y**	
5	**Call Hold** – Allows the called party to put a caller on hold and retrieve them from the hold state.	**Y**	
6	**Call Notify -** Enables a subscriber to define criteria that causes certain incoming calls to initiate an email notification.	**Y**	
7	**Call Transfer** – Allows a station End-User to transfer any call in progress to another telephone number without the assistance of an operator	**Y**	
8	**Call Pickup** – Allows a subscriber to answer any calls directed to another station line within his or her own predefined call pickup group	**Y**	
9	**Call Park** – Allows a call to be parked at a subscriber's number for retrieval by another subscriber line. The capability shall be administered on an individual station basis according to the subscribing Agencies needs	**Y**	
10	**Conference** – Allows a voice station End-User to establish a multiparty conference connection of a minimum of three (3) conferees including themselves without attendant assistance.	**Y**	

Table 1.2.3.2.3 Converged VoIP Basic Feature Package (continued)

	Converged VoIP Basic Call Package Features	Bidder Meets or Exceeds? Y	N
11	**Call Waiting -** When a second call is received while a subscriber is engaged in a call, the subscriber is informed via an audible tone.	**Y**	
12	**Caller ID** – Phone number of the calling party is displayed on the terminal equipment	**Y**	
13	**Class of Service** - The CoS configured on the transport required for the proper operation of the service.	**Y**	
14	**Conference Bridge** – Allows callers from diverse locations/platforms to dial in to a specified telephone number to participate in a conference call	**Y**	
15	**DID** - Direct inward dial phone number including Single Line appearance.	**Y**	
16	**Directory Phone Display** – Directory of Customer's VoIP subscribers via the phone display	**Y**	
17	**Four-digit Extension Dialing** – All 'on-net' numbers can be reached by dialing the 4-digit extension from 'on-net' phones	**Y**	
18	**Group Pickup** – Allows an incoming call to be picked up from any one (1) of a predefined group of phones	**Y**	
19	**Hunt Groups** – Route inbound calls to a predetermined sequence of telephone numbers until it is answered	**Y**	
20	**Message Waiting Indicator** – Visual indication on phone that a message is in queue for review	**Y**	
21	**Multi-Line Appearance** – Provide the ability for multiple line appearances on a subscriber's phone	**Y**	
22	**Redial** – Allow a station End-User to automatically originate a call to the last number dialed from the station End-User's phone	**Y**	
23	**Speed Dial** – Allows abbreviated digit dialing capability on a per station basis	**Y**	

Bidders shall identify any additional features available at no additional charge.

Bidder understands the requirements in Section 1.2.3.2.3 and shall meet or exceed them?
Yes X No_____

Description:

Verizon will provide the following additional features at no additional charge as part of the standard feature package. Features can be managed by the user/administrator.

End User Additional Features

Feature Name	Feature Description
Anonymous Call Rejection	**Anonymous Call Rejection** - Enables a subscriber to reject calls from anonymous parties who have explicitly restricted their Caller ID. By activating the service via the end-user Communication Manager web interface, callers without available caller identification are informed that the subscriber is not accepting calls at that time. The subscriber's phone does not ring and the subscriber sees or hears no indication of the attempted call. This service does not apply to intra-location calls. Only deliberate anonymous numbers are rejected. Callers whose numbers are unavailable are not rejected. Callers that are rejected are informed that the called party is not accepting calls from unidentified callers. ("The party you are trying to reach is not accepting calls at this time.")
Alternate Numbers	**Alternate Numbers** - Enables an administrator to configure up to two additional phone numbers and/or extensions to a subscriber. Normal ringing is provided for incoming calls to the primary phone number and subscribers have the option of enabling a distinctive ring for calls to their second and third phone numbers. If distinctive ringing is enabled, distinctive call waiting tone will also apply. For outgoing calls from the subscriber, the subscriber's primary phone number is the calling line identity.
Automatic Callback	**Automatic Callback** - Allows users to monitor a busy party and automatically establish a call when the busy party becomes idle. Upon reaching a valid ACB busy condition, the user will hear an announcement asking if they would like to monitor the line and be called back when it is idle. To activate ACB, the subscriber enters the digit prompted for then goes on hook. As soon as the called party becomes idle again, ACB attempts to re-establish the call between the subscriber and the previous busy party.
Blind Call Transfer	**Blind Call Transfer** - Enables a subscriber to transfer a call unattended before or after the call is answered. Subscribers can only execute blind call transfer from the Communication Manager.
Call Blast Personal	**Call Blast Personal** - Enables subscribers to have multiple phones ring simultaneously when any calls are received on their VoIP phone number. The first phone to be answered is connected. Caller can also select to have simultaneous devices not ring while already on a call or ring on all incoming calls.
Call Forwarding – Multi-Phone	**Call Forwarding - Multi-Phone -** Multi-Phone call forwarding allows an end-user to specify a different forwarding number for each entry of Selective Call Forwarding. Call Forward Selective sets the criteria to make this feature work.

Feature Name	Feature Description
Call Pickup Directed	**Call Pickup Directed** - Enables a subscriber to answer a call directed to another phone in their pick-up group by dialing the respective feature access code followed by the extension of the ringing phone.
Call Pickup – Directed with Barge-in	**Call Pickup Directed with Barge-in** - Directed Call Pickup with Barge-in (DPUBI) allows users to dial a feature access code (FAC) followed by an extension to pick-up (answer) a call directed to another user in the same customer group, or barge-in on the call if the call was already answered. When a barge-in occurs, a three-way call is established between the parties with the DPUBI user as the controller. Subscribers can configure themselves as barge-in exempt so their calls cannot be barged in on.
Call Return	**Call Return** - To call back the last party that called, the subscriber dials the call return feature code. The system stores the number of the last party to call, and connects the subscriber to that party.
Call Transfer with 3-Way Consultation	**Call Transfer with 3-Way Consultation** - Enables a subscriber to make a three-way call with the caller and add-on party before transferring the caller.
Calling Line ID Blocking	**Calling Line ID Blocking** - Subscribers can block delivery of his/her identity when they make all outbound calls. The subscriber controls the service via the Communication Manager, which provides the ability to activate and deactivate the service. If activated, all calls made by the subscriber have the subscriber's identity blocked. Calling Line ID Delivery Blocking allows subscribers to block their number from being shown when calling other numbers except for intra-site calls which will always display the calling line ID. The feature can be enabled for all calls or it can be enabled selectively using the feature access codes.
Calling Line ID Blocking per Call	**Calling Line ID Blocking per Call** - In addition to being able to block the presentation of their Calling Line ID on all outgoing calls, subscribers also have the option of blocking on a per-call basis by dialing a feature code before making the call.
Cancel Call Waiting/Call Waiting per Call	**Cancel Call Waiting/Call Waiting per Call** - Allows subscribers with Call Waiting to deactivate/activate the operation of Call Waiting via the Communication Manager interface. In addition to being able to cancel call waiting for all incoming calls, subscribers also have the option of canceling their call waiting on a per-call basis by dialing a feature code before making the call, or after a switch-hook flash during the call.
Communication Manager	**Communication Manager** - The following features are included: ▪ Click-to-Dial Enables subscriber to input and dial a number, dial directly from a drop-down Phone List (Personal, location directory or Call Log) or Outlook tab, or click the Redial button. ▪ Talk Enables subscriber, who is already engaged in call, to answer another waiting call. When available, Calling Line ID is displayed with caller's name (if available Dependent on names in the contact list and on-net status) and number. ▪ Call Hold/Retrieve Enables subscriber to place an existing call on hold

Feature Name	Feature Description
	for an extended period of time, and then retrieve the call to resume conversation. While the calling party is held, the subscriber may choose to make a consultation call to another party. ▪ Call Transfer Enables subscriber to redirect a ringing, active, or held call to another number or directly to voicemail. Before transferring the caller, the subscriber may choose to consult with the third party first or establish a three-way consultation. ▪ Conference Enables subscriber to establish a three-way call involving two other parties. ▪ Hang up Call Enables subscriber to disconnect a call that has been answered. ▪ Configure Services Buttons are provided to enable subscriber to turn on/off frequently used services such as Call Forwarding Always and Do Not Disturb.
Communication Manager Express	**Communication Manager Express** - Enables users to pre-configure multiple profiles for managing incoming calls differently based on the subscriber's status: ▪ Available In the Office ▪ Available Out of the Office ▪ Busy ▪ Unavailable Each profile includes preferences for managing the relevant incoming call functions (e.g., Call Forwarding (busy, no answer, always, selective), Simultaneous Ringing, Call Notify, which can be configured through a single easy-to-use web page or via the telephony user interface.
Consultation Hold	**Consultation Hold** - Enables a subscriber to put the caller on hold, and make a consultation call to another party. To initiate consultation hold, the subscriber depresses the flash hook and dials the add-on party. When the call is answered, the subscriber can consult with the add-on party. To drop the add-on party and reconnect to the original party, the subscriber depresses the flash hook twice. Subscribers can also execute consultation hold from the Communication Manager.
Distinctive Alert/Ringing	**Distinctive Alert/Ringing** - Provides a different call waiting tone (i.e., alert) or a different ringing cadence for Priority Alert and Alternate Numbers calls. This is a feature of the Priority Alert and Alternate Number capabilities. When setting the Priority Alert capability on, a distinctive ring will be given to those priority numbers. Likewise, when the Alternate Number feature is enabled, the user has the option of requesting a Distinctive Ringing when receiving a call from one of the Alternate Numbers.

Feature Name	Feature Description
Do Not Disturb	**Do Not Disturb** - Subscribers can choose to receive no incoming calls during the time when their "do not disturb" functionality is activated. Allows subscribers to set their station as unavailable so that incoming calls are given a busy treatment. Subscribers have the option to activate and deactivate the service by dialing a feature code or configuring the service via the Subscriber Web Interface. A status indicator on the Communication Manager identifies whether this service is enabled.
Extension Dialing	**Extension Dialing** - Subscribers can more easily contact other subscribers at their site. Enables subscribers to dial extensions via their Communication Manager or phone to call other Subscribers at their location.
Find Me – Personal	**Find Me - Personal** - Subscribers who prefer to have the system find them in a priority order may prefer this service over call blast. This is a feature that used to be supported and is now available again. This service sequentially attempts up to five phone numbers (in addition to, optionally, the base location) to reach the user. Upon triggering the Sequential Ring service, the callers are played an announcement stating to hold while the system is attempting to reach the user. The callers are then provided with ringback and comfort announcements, in sequence. The service sequentially tries the configured numbers until an answer is received, at which point the call is connected as usual. If all numbers are tried without receiving an answer, the caller is redirected to an overflow destination like voice mail. There is also an option to allow the caller to press a key to skip the search process.
Flash Call Hold	**Flash Call Hold** - Subscribers can use call hold functionality from any phone; even one without robust call control functionality. Enables subscribers to hold a call for any length of time by flashing the switch-hook on their phone and dialing the respective feature activation code. Parties are reconnected again when the switch-hook is flashed and the feature activation code is dialed again.
Inbound Caller ID	**Inbound Caller ID** - Subscribers can choose to take a call when they see the caller's identity via the Communication Manager and phone (if capable). Delivered information includes the caller's phone number. The information is delivered to the Communication Manager and the phone (if capable) only if the information is available and has not been blocked by the caller. Enables subscribers with Calling Line ID Blocking enabled to allow the delivery of their Calling Line ID on a specific call by entering the respective feature code (*65 default). Once the call is over, Calling Line ID Blocking is restored. Calling Party Name Delivery is available for On-Net calls to a SIP phone from another on-net SIP device.

Feature Name	Feature Description
Last Number Redial	**Last Number Redial** - Easy-to-use last number redial. Enables Subscribers to redial the last number they called by clicking the 'Redial' button on their Communication Manager or by dialing a feature code (e.g., *66).
Malicious Call Trace	**Malicious Call Trace (MCT)** - enables a trace to identify the originator of an obscene or harassing call. When MCT is assigned and active, a call originating from and/or terminating to a user will generate an alarm. Provided the information is available at the moment the alarm is generated, data such as originating number can often be determined. This subscriber service must be configured and administered by the corporate level administrator.
Multi-Path Forwarding	**Multi-Path Forwarding** - Enables a subscriber to have more than one forwarded call active at a time. There are no limitations on the number of simultaneous calls a subscriber can forward. Calls are specified for forwarding via the web portal interface.
Multi-Forward to Phone Number in Call Forward Selective	**Multi-Forward to Phone Number in Call Forward Selective** - Enables end-users to be more selective on how they can be reached by specific people. Call Forward Selective allows users to forward to a different phone number for each entry of the Call Forwarding Selective service. During call processing, if the incoming number matches a predefined call forwarding criteria, the call will terminate to the specified forward-to-number. For example, a user can now dictate that all calls from his supervisor forward to his mobile phone number, whereas all calls from a particular client forward to a colleague's phone number. If a new forwarding number is not configured for a particular Call Forwarding Selective entry, incoming calls will forward to the default destination number.
Outbound Caller ID	**Outbound Caller ID** - Originator ensures that receiver can identify caller and will not reject the call. Originating location sends Billing Telephone Number (BTN) of caller. Currently, station level Automatic Number Identification (ANI) is not available.

Feature Name	Feature Description
Outlook Integration	**Outlook Integration** - Subscribers can leverage their office tools-VoIP and Outlook-for easier contact management. This service enables subscribers to integrate their personal contacts in Microsoft Outlook with their Communication Manager. Using the Outlook Contacts tab in the Communication Manager, subscribers can perform a search of their personal Outlook contacts by name or company. Once the desired contact is located, subscribers may click-to-dial one of the contact's phone numbers or the subscriber may choose to display the contact's v-card by clicking their name. All the Outlook contact information is pulled directly from the subscriber's personal Outlook files. Essentially the Communication Manager, a java-based program, pulls all the appropriate information from the Subscriber's Microsoft Exchange server or personal computer (PC) each time they log onto Communication Manager. The Outlook contact info is automatically refreshed when the Communication Manager is accessed. Subscribers can also manually refresh it with a simple point and click on the Communication Manager screen. Verizon suggests less than 1000 contacts in any single folder for optimal performance.
Personalized Name Recording	**Personalized Name Recording** - Enables subscribers to record their name to be played back to incoming callers. Name recording in conjunction with Auto Attendant. A .WAV file is recorded via phone and then uploaded via the Verizon Customer Center Personal Dashboard web screen. Users can use any application to record the .wav file. The format should be a CCITT u-Law, 8.000 kHz, 8 bit Mono .wav file.
Phone List Group	**Phone List Group -** This phone list enables subscribers to dial other member of their enterprise by selecting from a list of names on their Communication Manager. The list also serves as a searchable company directory, listing names, numbers and e-mail addresses. Each subscriber added to the location is automatically added to this group list. Also included are the extensions for reaching the Auto Attendant(s), and Hunt Group(s), when applicable. Using the common Phone List Feature, the administrator can add additional phone numbers to the Group List by either adding them individually via their web portal or by importing them from a file. This flexibility would allow the administrator to create a directory that lists all subscribers in the entire enterprise.
Phone List Personal	**Phone List Personal** - Enables subscribers to dial frequently called numbers by selecting from a searchable list of names on their Communication Manager. Each subscriber can add, delete, edit and re-order numbers in their Personal Phone List, which serves as a personal speed dial list. Subscribers can add multiple numbers to this list by uploading them from a flat file.

Feature Name	Feature Description
Phone List Call Log	**Phone List Call Log** - The Call Log enables subscribers to view and dial from the following lists of stored numbers: missed, received, and dialed. The call log is accessed through the Communication Manager and includes the most recent numbers registered for each category, as well as the respective call times and dates.
Printable Group Directory	**Printable Group Directory** - Enables subscribers to view and print a directory listing of all the enterprise members included in the group directory that was set up by their administrator. All their respective contact information (e.g., extension, mobile phone number, e-mail address) would be included. The business group and contact information is displayed in one of two formats: Summary or Detailed. The Group Directory is accessible from the Verizon Customer Center Administrator Dashboard Portal or via each Subscribers Communication Manager.
Private Dial Plans	**Private Dial Plans** - Companies can create their own virtual phone network for ease of use and long distance cost savings. Many customers depend on private dial plans to facilitate intra-enterprise communications. The customer can assign their own private number plan between locations. VoIP can support private numbers up to 32 digits or can utilize an existing DAP-based dial plan.
Ring Splash	**Ring Splash** - Enables subscribers to have a short ring burst played on their phone when the following services are triggered: Call Forwarding Always, Call Forwarding Selective, and Do Not Disturb. Ring Splash can be enabled for each of these services individually and serves as a reminder that the respective service is active.
Send to Voicemail Feature Access Code	**Send to Voicemail Feature Access Code** - Offers end-users an alternative to handling a call after it is answered. Enables a user to transfer a post-answer call directly to voicemail via a new feature access code (FAC). A user will be able to place a caller on hold, enter the FAC (*55), and follow a series of simple prompts to transfer the held party to the user's voicemail or to another party's voicemail. Experienced users will be able to dial through and perform the transfer without waiting for the prompts.
Telephony User Interface	**Telephony User Interface** - Enables administrators and Subscribers to customize select features when they do not have Internet access. Enables subscribers to call from any phone and modify their call forwarding features, their Communication Manager Express features, or their Auto Attendant greeting. Administrators may also use the Telephony User Interface to record Auto Attendant greetings remotely.

Feature Name	Feature Description
Telephony User Interface – Calling	**Telephony User Interface – Calling** - This feature is particularly useful for traveling users that already access the Telephony User Interface to retrieve voice messages and configure services. Traveling users typically access the Telephony User Interface using a toll-free number and this feature allows them to originate calls that eventually get charged against their account. For similar reasons, this feature can be useful for the employee working at home that needs to make long distance or international calls on behalf of the company. Dialing in to the Telephony User Interface first allows the subsequent long distance call to be charged to the company instead of the user's home line. This feature enhances the Communication Manager Telephony User Interface by allowing an authenticated user to originate calls. Once the Telephony User Interface authenticates the user, the user makes calls as if they were originated from their normal location. This means that services such as OCP, account/auth code and voice VPN will apply on the outgoing calls made from the Telephony User Interface. This also means that accounting records will be generated against the user's account. The user can make as many calls as desired. The user can either wait for the remote party to hang up, or hit an escape sequence to originate a new call from the Telephony User Interface.
Three-Way Calling	**Three-Way Calling -** Enables a subscriber to make a three-way call with two parties, where all parties can communicate with each other.
Time Schedule	**Time Schedule** - Eliminates the need to set schedules for individual features. Administrators and subscribers can now build predefined time schedules that can be applied to several incoming calling features including Call Forwarding Selective, Call Notify, Selective Call Acceptance and Selective Call Rejection. The time schedules can contain up to 20 date and time ranges per week. Time schedules created by an administrator are visible to both groups and users; schedules created by an individual subscriber are specific to the subscriber.

Administrative and Enterprise Network Features:

Feature Name	Feature Description
Administrator Web Dashboard (Verizon Customer Center Enterprise Dashboard)	**Administrator Web Dashboard (Verizon Customer Center Enterprise Dashboard) -** Allows administrator easy access to configure, manage and monitor features and settings. Web portal that empowers an administrator to provision services for subscribers, a location or the entire enterprise.
Call Blast Hunt Group	**Call Blast Hunt Group** - Hunt Groups can receive incoming calls at all possible locations and without having to set up routing to different devices. Enables all of the phones in a hunt group to ring simultaneously when

Feature Name	Feature Description
	calls are received on a virtual number. The first phone to be answered is connected. This function is a routing capability of the Hunt Group feature.
Call Intercept	**Call Intercept** - Administrators can ensure that calls coming into non-working lines are not lost. Enables administrators to intercept calls routed to a non-working internal line with informative announcements and alternate routing options. Administrators can use a default intercept message that says, "The number you are trying to reach is out of service." If they prefer, administrators can opt to add language that says callers can press "0" to speak with an operator or they can provide callers with the new telephone number. The message can also be customized by the administrator. The service may be assigned to an individual subscriber's phone number (e.g., when they have left the company) or it can be assigned to all subscribers at a location.
Call Trace – Malicious	**Call Trace – Malicious** - Such a trace can then be used to identify the originator of obscene or harassing calls. Malicious Call Trace (MCT) is a user service administered by a system level administrator. When assigned and active, calls originating from and/or terminating to a user generate an alarm. The alarm contains a large subset of information listed in a Call Detail Record (e.g. calling, called, and redirecting numbers, answer time, etc.) provided the information is available at the moment the alarm is generated. MCT can be configured in one of three ways: ▪ Answered: an alarm is generated for all calls terminating on the user only when answered by the user. ▪ Altering: an alarm is generated for all calls terminating on the user (answered or not, rejected or not). ▪ All: an alarm is generated for all of the user's calls (originating and terminating), including originations resulting from a redirection done by the user (such as call forward).
Calling Location ID Delivery	**Calling Location ID Delivery** - Gives call recipient location-level information. Provides number of the location (or company) for outgoing calls from subscribers in the location, rather than providing the subscribers own name and number. The location number may be defined on a per subscriber basis.
Calling Line ID Configuration	**Calling Line ID Configuration** - Administrators can manage the appearance of all calling line IDs. Enables the administrator to suppress the presentation of Calling Party Identification on outbound calls. This feature is enabled if you do not want the number displayed on Caller ID when making outbound calls.
Calling Plan Incoming	**Calling Plan Incoming** - Enables administrators to block specified incoming calls to their company and/or individual subscribers. For example, some subscribers may be prevented from receiving calls from

Feature Name	Feature Description
	outside the company. For example, subscribers may be prevented from receiving calls from a competitor's number or a particular area code or country code. The Incoming Calling Plan is configured via the Verizon Customer Center Location Dashboard web interface (the administrative GUI). In addition to being able to configure which types of calls each subscriber is restricted from receiving (e.g., intra-location), administrators may regulate incoming calling by restricting specific digit patterns. This is done with the Digit String feature in the administrator web portal. If a profile has not been configured for a particular subscriber, the default set of incoming call privileges for the location is applied. Use of the Custom Check Box on the administrator screen allows that subscriber to use their own call settings which can override location restrictions. The Incoming Calling Plan also enables administrators to reject the following types of incoming calls: ▪ Collect calls ▪ Calls from within the location ▪ Calls from outside the location
Calling Plan Outgoing	**Calling Plan Outgoing** - Enables administrators to block subscribers from making certain types of outgoing calls, such as long distance, toll, or premium numbers. For example, subscribers may be prevented from calling a competitors number or a particular area code or country code. The Outgoing Calling Plan is configured via the Verizon Customer Center Administrator Dashboard web interface. In addition to being able to configure which types of calls each subscriber is restricted from making, administrators may regulate outgoing calling by restricting specific digit patterns. This is done with the Digit String feature in Administrator web portal. If a profile has not been configured for a particular subscriber, the default set of outgoing call privileges for the location is applied. Use of the Custom Check Box allows that subscriber to have separate call settings which can override the location level restrictions.
Calling Plan Outgoing Enhanced	**Calling Plan Outgoing Enhanced** - Provides administrators with even greater degree of control over outgoing calls made from within their location. ▪ Administrators can choose from different types of call restrictions including: ▪ Location Calls from within the subscriber's location. ▪ Local Calls within the same geographic region. ▪ Toll Free calls to numbers beginning with 1, usually followed by 800, 877, or 888. ▪ Toll Chargeable calls within the same geographic region. ▪ International Chargeable calls to other countries. ▪ Operator Assisted Calls made with the chargeable assistance of an operator.

Feature Name	Feature Description
	▪ Chargeable Directory Assistance Chargeable calls made to Directory Assistance such as 411 or 555-1212. ▪ Special Services I Calls to 700 numbers. These calls may or may not be chargeable. ▪ Special Services II (Reserved for system administrators discretion.) ▪ Premium Services I Chargeable calls to 900 numbers. ▪ Premium Services II Chargeable calls to 976 numbers. ▪ Casual 1010XXX chargeable calls, such as 1010321. ▪ URL Dialing Calls made to URLs, which are outside of the location (for example, to an e-mail address outside of the location). This call type is reserved for future VoIP product enhancements. In addition to blocking or allowing given call types and digit strings, administrators have the following options for configuring the outgoing calling profile of their location and individual subscribers: Authorization Codes Selected-subscribers can be prompted for an authorization code to allow specified call types or digit strings. Administrators can pre-configure one or multiple authorization codes to be entered by subscribers. Use of this feature within the Enhanced Outgoing Calling Plan takes precedence over the standalone Authorization Code service. Call Transfer Specified outgoing call types and digit strings can be automatically transferred to one of up to three transfer destinations that Administrators can pre-configure. For example, international calls made from a conference room may be transferred to a company operator who will validate the Subscribers identity and their purpose for making an international call. Existing configurations are retained when the Enhanced Outgoing Calling plan is assigned to replace the basic version of the service. Provides Subscribers with the option to enter a Sustained Authorization Code to unlock calling from their phone. When the feature is enabled, subscribers will not be prompted for an authorization code every time they make a call that requires an authorization code, as defined by the Enhanced Operations Channel (EOCP). Separate feature access codes are used to turn this feature on and off.
Calling Plan Forwarded/Transferred	**Calling Plan Forwarded/Transferred** - Enables administrators to prevent fraudulent calling, such as company employees calling their office number at night or on the weekend to make personal calls to international destinations. Enables administrators to prevent specified subscribers from forwarding or transferring calls to certain types of numbers, such as long distance, toll, or premium numbers. Calling plans are configured via the Verizon Customer Center Administrator Dashboard web interface. If a profile has not been configured for a particular subscriber, the default set of incoming call privileges for the location is applied.
Configurable	**Configurable Extension Dialing** - Provides the ability to map directory

Feature Name	Feature Description
Extension Dialing	numbers (DNs) within a location to unique extensions. The extensions can be of any length (2 to 6 digits) as defined by the administrator and dialed via the Administrator Web Interface or by phone. All extensions within a location must be of the same length.
Configurable Feature Codes	**Configurable Feature Codes** - Enables Administrators to control feature code commands. Provides each location administrator with the option to specify the feature codes (a.k.a., star codes) associated with their services (e.g., Last Number Redial, Call Return) via the Verizon Customer Center Administrator Dashboard web portal. Subscribers can see, but not edit, the star code associated with each service at any time by referencing their Verizon Customer Center Personal Dashboard web portal. Enables Administrators to configure two different feature access codes for the same service. For example, *69 and #81 could both be used to enable Call Return.
Configurable Feature Code Prefix	**Configurable Feature Code Prefix** - Enables administrators to control feature code commands. Enables the administrator to define up to two different prefixes to precede their feature codes. Each prefix may include 1-2 characters, with the default being a single star (*).
Configurable Time Zones	**Configurable Time Zones** - Subscribers have the option of individually change their own effective time zone in cases where it differs from their locations default. A default time zone is specified for each location. The respective time zone is used for all services requiring date/time stamps, such as Auto Attendant and Selective Call Forwarding.
Device Inventory	**Device Inventory** - Enables administrators to more effectively manage stock. Enables administrators to inventory their equipment including premise gateways and IP phones via their Verizon Customer Center Administrator Dashboard web interface. Devices may be easily added, deleted and modified. In addition, administrators can assign subscribers directly to a device and/or a port on a device.
E911 Support Enhancement	**E911 Support Enhancement** - Provides 911 support in case of emergency. Enables routing of emergency calls to the correct tandem switch based on the caller's phone number. The system ignores subscriber disconnects and disallows features to be used when an emergency number (i.e., 911) is dialed.
Enhanced Business Hours Support for Auto Attendant	**Enhanced Business Hours Support for Auto Attendant** - The feature offers a company the flexibility to accommodate varying business hours within the work week.
Hunt Groups	**Hunt Groups** - Allows users to be included in a specified hunt group to handle incoming calls received by an assigned Hunt Group phone number. This is a virtual number not a specific subscriber telephone

Feature Name	Feature Description
	number. Administrators can choose from any of the following hunt schemes, each of which rings the specified phones in a different manner: Circular sends calls in a fixed order. The call is sent to the first available person on the list, beginning where the last call left off. The Circular option tries the agent after the last agent to take a call. The search continues including looping around the list until it reaches the agent it started with. Regular sends calls to users in the order listed by an administrator. Incoming calls go to the first available person on the list, always starting with the first person on the list. Call Blast all of the users in the group simultaneously; the first user to pick up the ringing phone is connected. With Uniform, as a call is completed, the user moves to the bottom of the call queue in a shuffling fashion. The next incoming call goes to the user who has been idle for the longest. If a user receives a call that was not directed to them through the hunt group, the call will not be included in the receiving order for Uniform calls. No Answer Timeout enables calls that have been distributed to a phone, but not answered in a specific number of rings, to be redirected to the next available phone. If all idle phones have been visited once without answer, there are two options for handling the call: forward call to an external number, or give the call a Temporarily Unavailable treatment, which can trigger a service such as voicemail. There is no limit to the number of users that can be included in a hunt group.
Music on Hold	**Music on Hold** - Provides opportunity to play music and messages to enhance customer calling experience. **Description**: Enables administrators to upload an audio file onto the system to be played to parties on hold. Users can use any application to record the .wav file. The format should be a CCITT u-Law, 8.000 kHz, 8 bit Mono .WAV file. There is a 10 minute maximum threshold or approximately (4.7 meg).
Origination Fully Restricted	**Origination Fully Restricted -** Offers additional screening criteria for administrators Provides additional restrictions that can be enabled by an administrator in the Outgoing Calling Plan. The new functionality provides a new screening criterion that will prevent a specified user from being transferred to a party outside of his or her location.
Priority Alert for Hunt Groups	**Priority Alert for Hunt Groups** - Identifies incoming calls as part of the hunt group vs. another type of call. Assigns a distinctive ring tone to calls that meet a predefined criterion, can now be assigned to a hunt group. Previously the feature could only be assigned to individual users. The administrator has the ability to create a set of criteria at the hunt group level which then impacts the ring pattern for all of the agents within the hunt group.

Feature Name	Feature Description
Series Completion	**Series Completion** - Supports key system functionality. The Series Completion service can be assigned to a selected series of lines to forward calls on a busy condition. It is a form of hunting in which the next line in the series completion group is tried in a prearranged order, without any limit on the number of sequential forwards. Unlike hunt group functionality, the lead number for a series completion is associated with a specific subscriber. The call is only forwarded if the subscriber's line is busy. If the user's line is not busy then the network will route the call according to the rules that have been configured for a "no answer" condition. This service is used to support Key System functionality. Key systems typically ring all available lines in a specified order for incoming calls, regardless of the number dialed to reach the company. For example, when calling a tech support hotline, the subscriber dials (800) 555-HELP. That number attempts to ring line 1 of company. If line 1 is busy, it will attempt to ring line 2. If line 2 is busy and so on. If all lines are busy, the call can be sent to or another assigned service of the series completion group. Similarly, if all lines or subscribers of this company were assigned to a Series Completion group, Verizon VoIP acts just like a key system.
Termination Fully Restricted	**Termination Fully Restricted** - Provides distinctions for calls from outside the location found within the Incoming Calling Plan. The screening criterion allows a distinction among the three following criteria: allow calls from outside the location, allow calls from outside of the location only if transferred by specific users (partial), and block calls from outside the location. The feature also provides support of Incoming Calling Plan over city-wide Centrex locations. This will allow any city-wide Centrex call between different hosting applications servers to be treated as an intra-group call.

Management Features:

Feature Name	Feature Description
Call reporting details via web screen	**Call reporting details via web screen** - Ease of administrative management. Billing reports can be generated daily, weekly, monthly for call detail and printable via website.
Feature Reporting	**Feature Reporting** - Provides usage information by code and by user. Feature reports can be generated for Accounting and Authorization Code usage.
Administrative site management via web screen	**Administrative site management via web screen** - Ease of administrative management and timely access to information. Via the Verizon Customer Center, VoIP provides administrator accounts on a central website for setting up default feature classes for a range of users.
User self-provisioning and management via	**User self-provisioning and management via web screen** - Allows users the ability to manage their voice application needs including call

Feature Name	Feature Description
web screen	forwarding and find-me, follow-me lists. Via the Verizon Customer Center, VoIP provides web access for users to set up their phones and administer features and calling treatments.

1.2.3.2.4 Converged VoIP Handsets

The Contractor shall provide the Converged VoIP service in six (6) specific handset configurations as defined below.

1.2.3.2.4.1 Standard Converged VoIP Handset Features

1. ***Single line;***
2. ***LCD Display;***
3. ***Full Duplex Hands Free Speakerphone;***
4. ***Shared call / bridged line appearance;***
5. ***Visual message waiting indicator;***
6. ***Ring volume control;***
7. ***Minimum six (6) Programmable function keys or a soft key interface;***
8. ***Single 10/100 Ethernet port;***
9. ***Power over Ethernet; and,***
10. ***ADA Compliant section 508.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.4.2 Midrange Converged VoIP Handset Features

Standard Converged VoIP handset features plus:

1. ***Minimum three (3) lines;***
2. ***Intercom feature;***
3. ***Two-Port 10/100 Ethernet Port 802.3af;***
4. ***3 Way conferencing; and,***
5. ***User Configurable Contact Directory.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.4.3 Executive Converged VoIP Handset Features

Midrange Converged VoIP handset features plus:

1. Minimum four (4) lines; and,

2. Two-Port 10/100/1000 Mbps Port.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.4.4 Attendant Converged VoIP Handset Features

Executive Converged VoIP handset features Plus

1. Minimum Six (6) Lines;

2. Expansion Module(s) Capability;

3. USB port for call recording function; and,

4. XML API functionality.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.4.5 Standard Conference Room Converged VoIP Speakerphone Features and Functionality

1. IEEE 802.3af functionality;

2. IEEE 1329 full duplex standards;

3. RFC 3261 & companion RFCs (SIP);

4. IEEE 802.1 p/Q tagging;

5. Expansion microphone compatible;

6. Audio compression standards: G.711, G.729, G.722;

7. Ethernet 10/100Mbps connection;

8. Visual time & display;

9. Lightweight Directory Access Protocol (LDAP) corporate directory integration; and,

10. Layer 3 Type of Service (ToS) and Differentiated Services Code Point (DSCP).

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.4.6 Converged VoIP Executive Conference Room Speakerphone Features and Functionality

All Converged VoIP Standard Conference Room Speakerphone features and functionality, plus:

1. Integration with video conferencing systems;

2. High Definition Voice functionality;

3. Cell phone connection port;

4. 255x128 pixel display;

5. Multi-unit connectivity; and,

6. 2 expansion microphones included.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

Bidders shall provide the Converged VoIP Handset Service Packages described in Table 1.2.3.2.4.a

Table 1.2.3.2.4.a Converged VoIP Handset Service Packages

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	**Standard Converged VoIP Handset Service Package**	Service Package with Standard Converged VoIP Handset Service Package as described in 1.2.3.2.4.1 and the Basic Feature Package as described in 1.2.3.2.3	**Y**		**VHSP0001**
	Bidder's Product Description: Verizon will provide Service Package with Standard Converged VoIP Handset Service Package as described in 1.2.3.2.4.1 and the Basic Feature Package as described in 1.2.3.2.3 Service Package: ▪ LCD Display; ▪ Full Duplex Hands Free Speakerphone; ▪ Shared call / bridged line appearance; ▪ Visual message waiting indicator; ▪ Ring volume control; ▪ Minimum six (6) Programmable function keys or a soft key interface; ▪ Single 10/100 Ethernet port; ▪ Power over Ethernet; and, ADA Compliant section 508.				

Table 1.2.3.2.4.a Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
2	**Midrange Converged VoIP Handset Service Package**	Service Package with Midrange Converged VoIP Handset Service Package as described in 1.2.3.2.4.2 and the Basic Feature Package as described in 1.2.3.2.3	**Y**		**VHSP0002**
	Bidder's Product Description: Verizon will provide Service Package with Mid-ranged Converged VoIP Handset Service as described in 1.2.3.2.4.2 and the Basic Feature Package as described in 1.2.3.2.3. Service Package: Standard Converged VoIP handset features plus: ▪ Minimum three (3) lines; ▪ Intercom feature; ▪ Two-Port 10/100 Ethernet Port 802.3af; ▪ 3 Way conferencing; and, ▪ User Configurable Contact Directory.				

Table 1.2.3.2.4.a Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
3	**Executive Converged VoIP Handset Service Package**	Service Package with Executive Converged VoIP Handset as described in 1.2.3.2.4.3 and the Basic Feature Package as described in 1.2.3.2.3	Y		**VHSP0003**
	Bidder's Product Description: Verizon will provide Service Package with Executive Converged VoIP Handset Service Package as described in 1.2.3.2.4.3 and the Basic Feature Package as described in 1.2.3.2.3 Service Package: Midrange Converged VoIP handset features plus: ▪ Minimum four (4) lines; and, ▪ Two-Port 10/100/1000 Mbps Port.				
4	**Attendant Converged VoIP Handset Service Package**	Service Package with Attendant Converged VoIP Handset Service Package as described in 1.2.3.2.4.4 and the Basic Feature Package as described in 1.2.3.2.3	Y		**VHSP0004**
	Bidder's Product Description: Verizon will provide Service Package with Attendant Converged VoIP Handset Service Package as described in 1.2.3.2.4.4 and the Basic Feature Package as described in 1.2.3.2.3. Service Package: Executive Converged VoIP handset features Plus: ▪ Minimum Six (6) Lines; ▪ Expansion Module(s) Capability; ▪ USB port for call recording function; and, ▪ XML API functionality.				
5	**Converged VoIP Standard Conference Room Speakerphone Service Package**	Service Package with Converged VoIP conference phone Service Package with no external speakers as described in 1.2.3.2.4.5 and the Basic Feature Package as described in 1.2.3.2.3	Y		**VHSP0005**
	Bidder's Product Description: Verizon will provide Service Package with Standard Conference Room Speakerphone Converged VoIP Handset Service Package as described in 1.2.3.2.4.5 and the Basic				

Table 1.2.3.2.4.a Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
	Feature Package as described in 1.2.3.2.3. **Service Package:** Features and Functionality ▪ IEEE 802.3af functionality; ▪ IEEE 1329 full duplex standards; ▪ RFC 3261 & companion RFCs (SIP); ▪ IEEE 802.1 p/Q tagging; ▪ Expansion microphone compatible; ▪ Audio compression standards: G.711, G.729, G.722; ▪ Ethernet 10/100Mbps connection; ▪ Visual time & display; ▪ Lightweight Directory Access Protocol (LDAP) corporate directory integration; and, ▪ Layer 3 Type of Service (ToS) and **Differentiated Services Code Point (**DSCP).				
6	**Converged VoIP Executive Conference Room Speakerphone Service Package**	Converged VoIP conference phone Service Package with two (2) external speakers as described in 1.2.3.2.4.6 and the Basic Feature Package as described in 1.2.3.2.3	**Y**		**VHSP0006**
	Bidder's Product Description: Verizon will provide Service Package with Executive Conference Room Speakerphone Converged VoIP Handset Service Package as described in 1.2.3.2.4.6 and the Basic Feature Package as described in 1.2.3.2.3. Service Package: All Converged VoIP Standard Conference Room Speakerphone features and functionality, plus: ▪ Integration with video conferencing systems ▪ High Definition Voice functionality ▪ Cell phone connection port ▪ 255x128 pixel display ▪ Multi-unit connectivity ▪ 2 expansion microphones included.				

The Contractor may offer additional unsolicited Converged VoIP Handset Service Packages in Table 1.2.3.2.4.b.

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages

	Feature Name	Feature Description	**Bidder's Product Identifier**
1	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Package Aastra 6731i Service**	This is an Aastra 6731i handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features. .	**ASTR6731**
	Bidder's Product Description: This is an Aastra 6731i handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. The handset specifications also includes the following features: 3 line LCD display, supports up to 6 lines with call appearances, offers advanced XML capability, has two 10/100 Ethernet ports, handset, handset cord, installation guide, Ethernet cable, and wall mounting kit included. This phone provides a lower cost alternative which excludes a power supply and works only with PoE.		
3	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra 6755i Service**	This is an Aastra 6755i handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset service . Package owned and maintained by Verizon to provide enhanced features.	**ASTR6755**
	Bidder's Product Description: This is an Aastra 6755i handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. The handset specifications also include the following features: 6 programmable keys with LEDs and 6 customizable soft keys with LEDs, full duplex speakerphone, white backlit graphical display (144 X 75),, supports headset use, and has built in dual switched 10/100 Ethernet ports. The 6755i can support up to 3 expansion modules (560M). This phone provides a lower cost alternative which includes a power supply and works with PoE.		
4	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra 6757i Service**	This is an Aastra 6757i handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features..	**ASTR6751**
	Bidder's Product Description: This is an Aastra 6757i handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: 9 Line Telephone,12 Programmable soft keys offering up to 30 functions, One Touch Feature codes, HD Audio. Hearing Aid Compatible (HAC)Handset,Security-Users & admin Passwords, Encryption, HTTPS Configuration Downloads and Web Mgmt, Secure Real-Time Protocol (SRTP),Transport Layer Security (TLS). Multi-Lingual support. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
5	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra M675 Expansion Module Service**	This is an Aastra M675 Expansion Module substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**ASTE6751**
	Bidder's Product Description: This is an Aastra M675 Expansion Module substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: Expandability thatsupports up to 3 expansion modules and supporting 36 keys per module with LED indicators or 60 keys per module with a screen based LED display and System. This phone provides a lower cost alternative to the base package.		
6	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra 6735i Service**	This is an Aastra 6735i handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**ASTR6735**
	Bidder's Product Description: This is an Aastra 6735i handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. The handset specifications also include the following features: 9 Line GigE Telephone,12 Programmable soft keys offering up to 30 functions, One Touch Feature codes, HD Audio. Hearing Aid Compatible (HAC)Handset, Security-Users & admin Passwords, Encryption, HTTPS Configuration Downloads and Web Mgmt, Secure Real-Time Protocol (SRTP),Transport Layer Security (TLS), and Multi-Lingual support. This phone provides a lower cost alternative to the base package.		
7	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra 6737i Service**	This is an Aastra 6737i handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**ASTR6737**
	Bidder's Product Description: This is an Aastra 6737i handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 9 Line GigE Telephone,12 Programmable soft keys offering up to 30 functions. One Touch Feature codes. Expandability that support up to 3 expansion modules-supporting 36 keys per module with LED indicators or 60 keys per module with a screen based LED display and System. HD Audio. Hearing Aid Compatible (HAC)Handset. Security-Users & admin Passwords, Encryption, HTTPS Configuration Downloads and Web Mgmt, Secure Real-Time Protocol (SRTP),Transport Layer Security (TLS) and. Multi-Lingual support. This phone provides a lower cost alternative to the base package..		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
8	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra 612d DECT Kit Service**	This is an Aastra 612d DECT Kit handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**ASDH0612**
	Bidder's Product Description: This is an Aastra 612d DECT Kit handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: Color TFT display (2", 176 x 220 dots, 65,536 colors).Telephone book with 200 contacts, with 8 possible entries each: office, private, and mobile number; email address, fax, quick dial, ringing tone* and name assignment. Ambient noise filter for loud environments.44 polyphone ring tones (Midi type), 8 normal ring tones and 7 alarm tones with automatic volume control can be assigned. Up to 5 user profiles for e.g. headset use or meeting usage can be configured. Hands free operation. Headset connector (2.5 mm jack).2 programmable navigation keys.2 programmable soft keys. Intelligent battery management.3 color multi-purpose LED, which can be set for visualization of functions. Support of message & alerting applications. This phone provides a lower cost alternative to the base package.		
9	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra 622d DECT Kit Service**	This is an Aastra 622d DECT Kit handset substitution upgrade option to the handset identified in the Standard Converged VoIP Service Package owned and maintained by Verizon to provide enhanced features.	**ASDH0622**
	Bidder's Product Description: This is an Aastra 622d DECT Kit handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package. owned and maintained by Verizon to provide enhanced handset features. The handset specifications also includes the following features: Color TFT display (2", 176 x 220 dots, 65,536 colors).Telephone book with 200 contacts*, with 8 possible entries each: (office, private and mobile number; email address, fax, quick dial, ringing tone and name assignment)VIP phonebook with 6 entries. Ambient noise filter for loud environments. 44 polyphone ring tones (Midi type), 29 normal ring tones and 7 alarm tones with automatic volume control can be assigned. Up to 5 user profiles for e.g. headset use or meeting usage can be configured. Hands free operation. Headset connector (2.5 mm jack) and Bluetooth (hands free profile) headset support,1 programmable hotkey, 2 programmable navigation keys, 2 programmable soft keys, 3 programmable side keys, . Intelligent battery management, Mini USB PC interface, 3 color multi-purpose LED, which can be set for visualization of functions and support of message & alerting applications. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
10	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra Antenna Indoor RFP L35 Service**	This is an Aastra Antenna Indoor RFP L35 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**AAIR0035**
	Bidder's Product Description: This is an Aastra Antenna Indoor RFP L35 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: all 60 DECT channels supported for maximum use of the DECT capacity.8 simultaneous voice channels per RFP.4 additional channels for switching purposes, GAP standard supported, Connection handover in line with the GAP standard, DSAA authentication between base and handset, Support of DECT encryption, Cordless system telephones can use all features offered by the OpenCom 100, 1000 and SIP-DECT Integrated DECT dipole antenna DECT XQ for minimization of interferences in reflecting environments.		
11	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Aastra Antenna Outdoor RFP L36 Service**	This is an Aastra Antenna Outdoor RFP L36 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Service Package owned and maintained by Verizon to provide enhanced features.	**AAIR0036**
	Bidder's Product Description: This is an Aastra Antenna Outdoor RFP L36 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: all 60 DECT channels supported for maximum use of the DECT capacity, 8 simultaneous voice channels per RFP, 4 additional channels for switching purposes, GAP standard supported, Connection handover in line with the GAP standard, DSAA authentication between base and handset, Support of DECT encryption, Cordless system telephones can use all features offered by the Open Com 100,1000 and SIP-DECT Integrated DECT dipole antenna, and DECT XQ for minimization of interferences in reflecting environments. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
12	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint IP 321 Service**	This is a Polycom SoundPoint 321 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLY0321**
	Bidder's Product Description: This is a Polycom SoundPoint 321 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package . owned and maintained by Verizon to provide enhanced handset features. The handset specifications also include the following features: 2-line SIP phone with full duplex speaker & single 10/100 port with integrated PoE, 102 x 33 pixel-graphical LCD, MWI, and LAN Cable. This phone provides a lower cost alternative to the base package.		
13	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint IP 331 Service**	This is a Polycom SoundPoint 331 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLY0331**
	Bidder's Product Description: This is a Polycom SoundPoint 331 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: 2 lines with up to 2 calls per line. Feature keys include 3 context-sensitive "soft" keys, 2 line keys with bi-color (red/green) LED, 2 feature keys ("Menu" and "Dial"), 4-way navigation key cluster with center "Select" key, 2 volume control keys, Dedicated hold key, Dedicated headset key, Dedicated hands-free speakerphone key, Dedicated microphone mute key, Interoperability with Microsoft® LCS 2005 for telephony and presence. Compatibility with Microsoft Office Communicator and Windows® Messenger 5.1 Clients include Enabled for Polycom Productivity Suite, Local feature-rich GUI, Wave file support for call progress tones, Unicode UTF-8 character support, Multilingual user interface, LED backlight with custom intensity control. This phone provides a lower cost alternative to the base package.		
14	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom -SoundPoint Service**	This is a Polycom SoundPoint 335 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLY0335**
	Bidder's Product Description: This is a Polycom SoundPoint 335 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 2 lines with up to 8 simultaneous calls total. Feature keys include 3 context-sensitive "soft" keys, 2 line keys with bi-color (red/green) LED, 2 feature keys ("Menu" and "Dial"), 4-way navigation key cluster with center "Select" key, 2 volume control keys, Dedicated hold key, Dedicated headset key, Dedicated hands-free speakerphone key, Dedicated microphone mute key, Optional Messages Key, and Remote missed call notification		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	feature. This phone provides a lower cost alternative to the base package.		
15	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 450 Service**	This is a Polycom SoundPoint 450 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLY0450**
	Bidder's Product Description: This is a Polycom SoundPoint 450 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: 3 lines with up to 8 concurrent calls per line. Feature Keys include 4 context-sensitive "soft" keys, 17 dedicated "hard" keys, 3 line keys with bi-color (red/green) LED, 3 feature keys, 5 display/menu navigation keys, and 2 volume control keys. Windows® Messenger 5.1 Clients features include Enabled for Polycom Productivity Suite , Local feature-rich GUI, Time and date display, User-configurable contact directory and call history (missed, placed and received), Wave file support for call progress tones, Unicode UTF-8 character support and Multilingual user interface.		
16	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 550 Service**	Polycom Phone CPE offers additional enhanced service elements to Verizon's Converged VoIP services. This is a Polycom SoundPoint 550 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLY0550**
	Bidder's Product Description: This is a Polycom SoundPoint 550 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 3-line SIP phone with Polycom HD Voice, full duplex speaker, dual 10/100 ports with integrated PoE, 256 x 116 pixel-graphical LCD, MWI, and LAN Cable. This phone provides a lower cost alternative which excludes a power supply.		
17	**Handset Substitute Upgrade Standard Converged VoIP Handset**	This is a Polycom SoundPoint 560 handset substitution upgrade option to the handset	**IPLY0560**

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Service Pkg Polycom SoundPoint 560 Service	identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	
	Bidder's Product Description: This is a Polycom SoundPoint 560 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: 4 context-sensitive "soft" keys, 26 dedicated "hard" keys 6 line keys with bi-color (red/green) LED, 8 feature keys,and 6 display/menu. Navigation keys feature include 2 volume control keys, Illuminated mute key, Illuminated headset key, Illuminated hands-free speakerphone key and Dedicated hold key. Integration with Microsoft LCS 2005 for telephone and presence3 include Compatibility with Microsoft Office Communicator and Windows® Messenger 5.1 Clients Universal Serial Bus (USB), Full Host Controller, Compliant with OHCI 1.1 specification, Support for Full-speed and Low-speed peripherals, Type-A receptacle interface, Local feature-rich GUI, Customizable call progress tones, Wave file support for call progress tones, Unicode UTF-8 character support, Multilingual user interface, Security-Transport Layer Security-TLS, Secure Real-time Transport Protocol (SRTP), Encrypted configuration files, Digest authentication, Support for URL syntax with password for boot server, HTTPS secure provisioning, FTP/TFTP/HTTP/HTTPS4 server-based central provisioning for mass deployments, and Provisioning server redundancy supported Web portal for individual unit configuration. This phone provides a lower cost alternative to the base package.		
18	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 650 Service**	This is a Polycom SoundPoint 650 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**ILCD0650**
	Bidder's Product Description: This is a Polycom SoundPoint 650 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: - High performance IP phone with Polycom HD Voice and advanced feature set with Universal power adapter. This phone provides a lower cost alternative to the base package.		
19	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 670 Service**	This is a Polycom SoundPoint 670 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLY0670**
	Bidder's Product Description: This is a Polycom SoundPoint 670 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features keys to include 4 context-sensitive "soft" keys, 26 dedicated "hard" keys, 6 line keys with bi-color (red/green) LED, 8 feature keys,and 6 display/menu. Navigation keys include 2 volume control keys, Illuminated mute key, Illuminated		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	headset key, Illuminated hands-free speakerphone key and Dedicated hold key. Integration with Microsoft LCS 2005 for telephone and presence3 include Compatibility with Microsoft Office Communicator and Windows® Messenger 5.1 Clients Universal Serial Bus (USB), Full Host Controller, Compliant with OHCI 1.1 specification, Support for Full-speed and Low-speed peripherals, Type-A receptacle interface, Local feature-rich GUI, Customizable call progress tones, Wave file support for call progress tones, Unicode UTF-8 character support, Multilingual user interface, Security-Transport Layer Security-TLS, Secure Real-time Transport Protocol (SRTP), Encrypted configuration files, Digest authentication, Support for URL syntax with password for boot server. HTTPS secure provisioning, FTP/TFTP/HTTP/HTTPS4 server-based central provisioning for mass deployments, and Provisioning server redundancy supported Web portal for individual unit configuration. This phone provides a lower cost alternative to the base package.		
20	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint Color Expansion Module - SoundPoint IP Color Expansion Module for SoundPoint IP 670 Service**	This is a Polycom SoundPoint Color Expansion Module 670 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**SNDP0670**
	Bidder's Product Description: This is a Polycom SoundPoint 670 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. The handset specifications also include the following features: 14 illuminated multifunctional line keys, PoE supports one Color Expansion Module, PSU version supports up to three Color Expansion Modules, Flexibility-hot swappable, Robust Call Handling–34 line registrations, 24concurrent calls, Caller IDs, and Shared call appearances. This phone provides a lower cost alternative to the base package.		
21	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint Backlit Expansion Module - Polycom SoundPoint IP Backlit Expansion Module 650 Service**	This is a Polycom SoundPoint Backlit Expansion Module 650 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**SNDP0650**
	Bidder's Product Description: This is a Polycom SoundPoint 650 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. . The handset specifications also include the following features: 14 illuminated keys configurable as a line appearance or a speed dial with busy lamp field (BLF), Feature-rich GUI with animation and Multilingual user interface. This phone provides a lower cost alternative to the base package.		
22	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint**	This is a Polycom SoundPoint 5000 handset substitution upgrade option to the handset identified in the Standard	**PSND5000**

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	5000 Service	Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	
	Bidder's Product Description: This is a Polycom SoundPoint 5000 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: Standard 12-key keypad, Context-dependent 4 soft keys 4, On-hook/Off-hook, redial, mute, volume up/down, and 5-way navigation. Menu Audio features Loudspeaker, Frequency: 250 – 7,000 HZ, Volume: Adjustable to peak volume, 84 dB at 1/2 meter distance, Voice activity detection, Comfort noise fill, DTMF tone generation / DTMF event RTP payload. Low-delay audio packet transmission includes Adaptive jitter buffers, Packet loss concealment, Acoustic echo cancellation and Background noise suppression. This phone provides a lower cost alternative to the base package.		
23	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom - SoundPoint 6000 Service**	This is a Polycom SoundPoint 6000 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**PSND6000**
	Bidder's Product Description: This is a Polycom SoundPoint 6000 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. The handset specifications also includes the following features: Standard 12-key keypad and Context-dependent 3 soft keys. Loudspeaker includes Frequency: 220-14,000 Hz, Volume: Adjustable to 86 dB at 1/2 meter peak volume, Individual volume settings with visual feedback for each audio path, Voice activity detection, Comfort noise fill, DTMF tone generation / DTMF event RTP payload, Low-delay audio packet transmission, Adaptive jitter buffers, Packet loss concealment, Acoustic echo cancellation, Background noise suppression, Wave file support for call progress tones, Unicode UTF-8 character support and Multilingual user interface. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
24	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 7000 Service**	This is a Polycom SoundPoint 7000 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**PSND7000**
	Bidder's Product Description: This is a Polycom SoundPoint 7000 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features. The handset specifications also include the following features: Standard 12-key keypad, . Context-dependent 4 soft keys, On-hook/Off-hook, redial, mute, volume adjustable to 88 dB at 1/2 meter peak volume, , Remote missed call notification, Automatic off-hook call placement, Do not disturb function, Local feature-rich GUI, Wave file support for call progress tones, Unicode UTF-8 character support, Multilingual user interface and Web portal for individual unit configuration. Network Address Translation (NAT) support include RTCP support (RFC 1889), Event logging, Local digit map, Hardware diagnostics, Status and statistics, User selectable ringer tones, Convenient volume adjustment keys and Automatic Gain Control intelligently. This phone provides a lower cost alternative to the base package.		
25	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 6000 EX Microphone Service**	This is a Polycom SoundPoint 6000 EX Microphone handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPMI60000**
	Bidder's Product Description: This is a Polycom SoundPoint 6000 EX Microphone handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 2 expansion MICS and 2.1M-7ft connection cables for expanded room coverage.This phone provides a lower cost alternative to the base package.		
26	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Polycom SoundPoint 7000 EX Microphone Service**	This is a Polycom SoundPoint 7000 EX Microphone handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**IPLS7000**
	Bidder's Product Description: This is a Polycom SoundPoint 7000 EX Microphone handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: TWO 2 EXPANSION MICS AND 2.1M-7FT CONNECTION CABLES for expanded room coverage. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
27	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Cisco 3905 Service**	This is a Cisco 3905 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**CSCP3900**
	Bidder's Product Description: This is a Cisco 3905 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package . owned and maintained by Verizon to provide enhanced handset features. The handset specifications also include the following features: Two lines, Fixed keys for redial, transfer, hold/resume, full-duplex speakerphone and two-line display. Web server for configuration and statistics. Real-Time Control Protocol (RTCP) support and monitoring. Support for online firmware upgrades using Trivial File Transfer Protocol (TFTP). This phone provides a lower cost alternative to the base package.		
28	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Cisco 6961 Service**	This is a Cisco 6961 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**CSCP6900**
	Bidder's Product Description: This is a Cisco 6961 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 12 lines, Four soft key buttons and a scroll toggle bar. Multi-call per-line appearance. Power savings option- cycling power by time of day and day of week. Co-Branding button allows customers to include their logo on the Cisco Unified IP Phone 6900 Series phones and Cisco has approved third-party vendors to produce the buttons. This phone provides a lower cost alternative to the base package.		
29	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Cisco 7965G 7965G Service**	This is a Cisco Cisco 7965G handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**CSCP7900**
	Bidder's Product Description: This is a Cisco 7965G handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: Six telephone lines. Four interactive soft keys that guide you through call features and functions, an intuitive four-way (plus Select key) navigation cluster. Hands-free speakerphone and handset designed for high-fidelity wideband audio. 24 defined user-selectable ring tones are available. Ring tones may also be personalized through use of the Cisco Unified Phone Application Suite. Online Help button gives users information about the phone keys, buttons, and features. Positive device identity through X.509v3 Certificates, digitally signed images, cryptographically secure provisioning, and secure signaling and secure media with AES-128. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
30	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Cisco 8945 Service**	This is a Cisco 8945 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**CSCP8900**
	Bidder's Product Description: This is a Cisco 8945 handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also includes the following features: 5 lines expanding to 41 with 1 Key Expansion Module,Internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000 BASE-T Ethernet network through an RJ-45 interface with single LAN connectivity for both the phone and a collocated PC. System administrator can designate separate VLANs (802.1Q) for the PC and phone, providing improved security and reliability of voice and data traffic. VGA presentation for calling and applications. 5-inch (10 cm) graphical TFT color display, 24-bit color depth, 640 x 480 effective pixel resolutions, (with backlight). Display also supports localization requiring double-byte Unicode encoding for fonts This phone provides a lower cost alternative to the base package.		
31	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Cisco 9971 Service**	This is a Cisco 9971 handset substitution upgrade option to the handset identified in the Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**CSCP9900**
	Bidder's Product Description: This is a Cisco 9971 Video handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 6 Lines Expanding to 114 with 3 Key Expansion Modules, Bluetooth-Mobility- supports the Hands-free and Headset Bluetooth profiles for headset users within 30 feet of their desktop. 2 USB ports accelerate the usability of call handling and applications by enabling accessories such as the Cisco Unified IP Camera, wired and wireless headsets. Supports an on-board wi-fi radio and antenna that enables connectivity to a wi-fi access point. VGA presentation for calling, video calling and applications, 5.6-inch (14 cm) graphical TFT color touch screen display, 24-bit color depth, 640 x 480 effective pixel resolution, (with backlight), And display also supports localization requiring double-byte Unicode encoding for fonts. This phone provides a lower cost alternative to the base package.		

Table 1.2.3.2.4.b Unsolicited Converged VoIP Handset Service Packages (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
32	**Handset Substitute Upgrade Standard Converged VoIP Handset Service Pkg Cisco SPA508G Service**	Standard Converged VoIP Handset Service Package owned and maintained by Verizon to provide enhanced features.	**CSCI0500**
	Bidder's Product Description: This is a Cisco SPA508G handset substitution upgrade option to the handset identified in the Standard Converged VOIP Handset Service Package owned and maintained by Verizon to provide enhanced handset features.. The handset specifications also include the following features: 8 lines. Eight independent SIP Registrations. Line status- active line indication, with name and number. Menu-driven user interface, Anonymous caller blocking, Group paging, andPixel-based display: 128 x 64 monochrome LCD graphical display with backlight. Dedicated illuminated buttons include Audio mute on/off, Headset on/off, Speakerphone on/off, 4-way rocking directional knob for menu navigation, Settings button for access to feature, setup, and configuration menus, Standard 12-button dialing pad, High-quality handset and cradle. Two Ethernet ports with integrated Ethernet switch: 10/100BASE-T RJ-45, Optional 5 VDC universal (100-240V) switching; power supply is ordered separately (Cisco PA100) Syslog, debug, report generation, and event logging, Highly secure call encrypted voice communications support, Built-in web server for administration and configuration with multiple security levels. Automated remote provisioning, multiple methods, and up to 256-bit encryption (HTTP, HTTPS, Trivial File Transfer Protocol [TFTP]). This phone provides a lower cost alternative to the base package.		

1.2.3.2.5 Converged VoIP Site Survey

The Contractor shall provide site survey, design, and implementation of Converged VoIP services which shall be included in the nonrecurring per seat price.

The Contractor shall perform an assessment of the environment to identify all required components and tasks needed for implementation of this service.

The Site Survey will include the completion of the Contractor's Site Survey Assessment form that will identify the steps required to facilitate a successful implementation of the Converged VoIP services. Upon completion of the survey, the Contractor shall provide the Customer a copy of the completed Site Survey Assessment form. The Site Survey Assessment form will identify potential deficiencies found at the location and the necessary steps that will be required to correct them so that the Customer can order and implement Converged VoIP services.

The Contractor shall certify existing cabling. The Bidder shall describe in detail and list all cabling requirements that must be met by the Customer to certify existing horizontal cabling for Converged VoIP services.

Bidder understands the requirements in Section 1.2.3.2.5 and shall meet or exceed them?
Yes X No_____

Description:

Verizon will provide site surveys, design, and implementation of Converged VoIP services, which will be included in the nonrecurring per seat price.

Verizon will perform an assessment of the environment to identify all required components and tasks needed for implementation of this service.

The Site Survey will include the completion of the Verizon's Site Survey Assessment form that will identify the steps required to facilitate a successful implementation of the Converged VoIP services. Upon completion of the survey, Verizon will provide the Customer with a copy of the completed Site Survey Assessment form. The Assessment form will identify potential environmental deficiencies found at the location and the necessary steps that will be required to correct them so that the Customer can order and implement the Converged VoIP services.

Verizon will confirm that the customer has met cabling requirements to certify existing horizontal cabling for Converged VoIP Services. The requirements include customers' existing communication cabling, patch cordage and connectors, are at a minimum of Category 5 complaint as defined in ANSI/TIA/EIA-568-A, with clarification in TSB-95. These documents specify performance characteristics and test requirements for frequencies of up to 100 MHz. Cable types, connector types and cabling topologies are defined by TIA/EIA-568-B and are nearly always, 8P8C modular connectors, often referred to as RJ45, are used for connecting category 5 cable. The cable can be terminated in either the T568A scheme or the T568B scheme. Confirm maximum cable segment length of 100M has not been exceeded. The maximum length for a cable segment is 100m per TIA/EIA 568-5-A. The specifications for 10BASE-T networking specify a 100 meter length between active devices. This allows for 90 meters of solid-core permanent wiring, two connectors and two stranded patch cables of 5 meters, one at each end.

1.2.3.2.6 Converged VoIP Network LAN Assessment

The Contractor shall perform a network LAN Assessment to address the following at no charge:

1. ***Health of the network;***
2. ***Bandwidth requirements;***
3. ***Power requirements;***
4. ***Firewall requirements; and,***
5. ***E9-1-1 requirements.***

The Contractor shall perform a network VoIP LAN Assessment for Customer locations to determine the readiness of the network infrastructure to support VoIP traffic. The VoIP LAN Assessment shall identify network and equipment impairments that would cause VoIP to fail.

The Contractor shall measure network infrastructure performance by electronically passing the amount of simulated traffic expected under a VoIP implementation and measuring network infrastructure performance under the increased traffic load.

The Contractor shall provide a corrective action plan that identifies any corrective actions required by the Customer for the Customer's LAN to support the Converged VoIP service.

Upon written confirmation from Customer that the specifically identified corrective actions have been completed, Contractor shall perform any additional LAN Assessments to identify corrective actions required to insure proper operation of the service.

The Contractor shall provide an option for retesting the LAN as described within this Section.

The Contractor shall develop a Scope of Work (SOW) for each location as described in IFB Section A.6 (Contracted Service Project Work).

This service shall only be used for the purposes of determining Customer's site readiness for provisioning of the Contractor's Converged VoIP services under this Contract.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.7 Converged Site Design

The Contractor shall perform design services for each VoIP deployment. The design services shall include engineering and Documentation of all components required for proper implementation of the VoIP service. The site design service will be provided after a Customer has placed an order for Converged VoIP services and before implementation.

The Contractor shall complete a network design for implementation of Converged VoIP service for each Customer location.

The Contractor shall provide Visio Diagram(s) that details the Converged VoIP design for each location including the Customer Premise Equipment (CPE) and VoIP Transport bandwidth that will be installed.

During the network design, the proper grade of service will be engineered and bandwidth allocated to allow all simultaneous channels to be active with no degraded service.

The network design will indicate the Voice Compression CODEC that will be used, the number of simultaneous calls that the network will be able to handle for the P.01 grade of service and the total VoIP transport bandwidth that will be available at the location.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.8 Converged VoIP Site Implementation

The Contractor shall install all on-site equipment at the Customer location implementing a Converged VoIP service. The installation will commence after Customer approval following completion of the Site Survey, and network Design phase.

The Contractor shall install all appropriate components detailed in Section 1.2.3.2.1 (Converged VoIP Minimum Requirements). This includes, but is not limited to, software, a router, firewall, VoIP handsets and required analog phone adapters. The Customer shall be responsible for the required LAN components.

The Contractor shall test the complete system, all phones and associated equipment. The Contractor shall provide written test results to the Customer to assist Customer in determination of the final acceptance.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.9 Converged VoIP Account Codes

The Contractor's system shall allow the Customer to utilize account codes which enable the tracking of calls made outside of the location by prompting subscribers for an account code.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.2.10 Converged VoIP Authorization Codes

The Contractor's system shall allow the Customer to utilize Authorization Codes. This feature allows Customers to enable a prompt for an Authorization Code when making calls outside of the location. Calls will not be connected unless a valid code is entered.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.3 ADDITIONAL CONVERGED VOIP SERVICES AND FEATURES

The Contractor shall provide the additional Converged VoIP services and features described below.

1.2.3.3.1 Converged VoIP Site Survivability Network Failure

The Contractor shall provide an option for Converged VoIP site survivability in the event of a network failure. Site Survivability Network Failure is an option where, in the event of a network failure, calling functionality is maintained for all handsets on premise. The installation of an on premise gateway to connect to the PSTN is an acceptable solution.

Failure of a Customer to select this option does not release the Contractor from its SLA obligations as described in Section 1.2.9.8.1 (Availability SLAs).

This solution is for backup purposes only. The Contractor shall not promote, design or offer this service as a standalone primary service and it shall only be used in conjunction with the Converged VoIP Service. Connections to the PSTN shall only be used in the event of Converged VoIP Service failure.

The Contractor shall only route traffic originating from the locally served Customer of record. No other traffic is permitted.

The Converged VoIP Site Survivability Network Failure solution shall provide automatic alarm notification by electronic means to the CALNET 3 CMO whenever traffic is routed through the gateway to the PSTN via locally connected circuits.

This service is exempt from the provisions of Section 1.2.3.1.6 (Network Based).

Bidder shall describe their CALNET 3 Network Failure Site Survivability solution.

Any Bidder proposed additional unsolicited local gateway site survivability solutions must conform to these requirements and will fall under the SLA's established in Section 1.2.9*Error! Reference source not found.* ***(Service Level Agreements).***

Bidder understands the requirements in Section 1.2.3.3.1 and shall meet or exceed them? Yes X No_____

Description:

Verizon's Network Failure Site Survivability Option for Converged VoIP

Verizon will provide an option for Converged VoIP site survivability in the event of a network failure. Site Survivability Network Failure is an option where, in the event of a network failure, calling functionality is maintained for all handsets on premise. This Survivability Network Failure option will include the installation of an on-premise gateway to connect to the PSTN.

Verizon understands that failure of a Customer to select this option does not release Verizon from its SLA obligations, as described in Section 1.2.9.8.1 (Availability SLAs).

The Converged VoIP Site Survivability Network Failure solution will provide automatic alarm notification by electronic means to the CALNET 3 CMO whenever traffic is routed through the gateway to the PSTN via locally connected circuits.

1.2.3.3.2 Converged VoIP Network LAN Assessment Retest

If required, Contractor shall perform a network LAN Assessment retest in accordance with the provisions of Section 1.2.3.2.6 (Converged VoIP Network LAN Assessment) to validate corrective actions have been completed that allow for proper operation of the service.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.3.3 Converged VoIP Block of 20 Additional Direct Inward Dialing (DID) Number Reservation

Contractor shall provide an option that allows the Customer to purchase an additional block of 20 DID numbers. This block will be used to reserve additional blocks of DID numbers for future requirements (20 per block) this charge shall only apply for the reservation of the block of numbers. Upon utilization of all 20 DIDs, this charge shall be terminated.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.3.3.4 Converged VoIP Web Based Attendant Console

The Contractor shall provide a Converged VoIP web-based Attendant Console that enables a subscriber (e.g., receptionist) to monitor a configurable set of subscribers at the same location as the Attendant. The Attendant Console shall graphically display subscribers' status (busy, idle, do not disturb), as well as detailed call information. The Attendant Console window shall allow the attendant to perform click-to-transfer or click-to-dial.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.3.3.5 Converged VoIP Additional Line Appearance

The Contractor shall provide additional line appearances for multi-line phones.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.3.6 Converged VoIP Analog and Facsimile Support

The Contractor shall provide analog device or facsimile support services that will:

1. ***Provide Auto Detection of voice or fax;***
2. ***Provide Facsimile over TCP/IP; and,***
3. ***Provide Fax Messaging.***

The network will automatically detect a voice or fax call and use the correct compression code.

The Contractor shall furnish, install and support all equipment for proper operation of the Customer analog device.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

Contractor shall offer the Converged VoIP service features detailed in Table 1.2.3.3.a.

Table 1.2.3.3.a Converged VoIP Service Features

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	**Converged VoIP Site Survivability Network Failure**	Site survivability option	Y		**CVSS0000**
	Bidder's Product Description: Verizon will provide Converged VoIP - Site Survivability Network Failure Site survivability option - Verizon will provide an option for Converged VoIP site survivability in the event of a network failure. Site Survivability Network Failure is an option where, in the event of a network failure, calling functionality is maintained for all handsets on premise. This Survivability Network Failure option will include the installation of an on premise gateway to connect to the PSTN. Failure of a Customer to select this option does not release Verizon from its SLA obligations as described in Section 1.2.8.8.1 (Availability SLAs). The Converged VoIP Site Survivability Network Failure solution will provide automatic alarm notification by electronic means to the CALNET 3 CMO whenever traffic is routed through the gateway to the PSTN via locally connected circuits.				
2	**Converged VoIP Network LAN Assessment Retest**	Additional test beyond the initial LAN Assessment test as identified in Section1.2.3.2.6) Converged VoIP Network LAN Assessment. [per seat]	Y		**CVNL0000**
	Bidder's Product Description: Verizon will provide Converged VoIP Network LAN Assessment Retest - Additional test beyond the initial LAN Assessment test as identified in Section1.2.3.2.6) Converged VoIP Network LAN Assessment. [per seat].				
3	**Converged VoIP Block of 20 Additional Direct Inward Dialing (DID) Number Reservation**	Block of 20 DID numbers held in reservation.	Y		**IDID0000**
	Bidder's Product Description: Verizon will provide Converged VoIP Block of 20 Additional Direct Inward Dialing (DID) Number Reservation - Block of 20 DID numbers held in reservation.				
4	**Converged VoIP Web-Based Attendant Console**	Enables a subscriber (e.g., receptionist) to monitor a configurable set of subscribers	Y		**CVAC0000**
	Bidder's Product Description: Verizon will provide Converged VoIP Web-Based Attendant Console that enables a subscriber (e.g., receptionist) to monitor a configurable set of subscribers.				

Table 1.2.3.3.a Converged VoIP Service Features (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
5	**Converged VoIP Additional Line Appearance**	Additional line appearances for multi-line handsets.	**Y**		**CVAL0000**
	Bidder's Product Description: Verizon will provide Converged VoIP - Additional Line Appearance Additional line appearances for multi-line handsets.				
6	**Converged VoIP Analog and Facsimile Support**	Analog device or facsimile support	**Y**		**CVAF0000**
	Bidder's Product Description: Verizon will provide Converged VoIP - Analog and Facsimile Support Analog device or facsimile support.				

The Contractor may offer additional unsolicited Converged VoIP service features in Table 1.2.3.3.b.

Table 1.2.3.3.b Unsolicited Converged VoIP service features

	Feature Name	Feature Description	Bidder's Product Identifier
1	**Account Codes**	Enables the tracking of calls made outside of the location by prompting subscribers for an account code.	**ACTC0000**
	Bidder's Product Description: Enables the tracking of calls made outside of the location by prompting subscribers for an account code.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
2	**Additional Auto Attendant Levels**	For each Additional Auto Menu Level.	**AATL0000**
	Bidder's Product Description: Additional Auto Attendant serves as an automated receptionist that answers the phone and provides a personalized message to callers with options for connecting to the operator, dialing by name or extension, or connecting to up to six configurable extensions. Configuration via the Verizon Customer Center Administrator Dashboard web interface also allows for hours of operation to be modified, with different options available for hours that the company is open or closed.		
3	**Remote Office**	Enables subscribers to access and use their VoIP service from any end point, on-net or off-net (e.g., home office, mobile phone).	**RMTO0000**
	Bidder's Product Description: Enables subscribers to access and use their VoIP service from any end point, on-net or off-net (e.g., home office, mobile phone). This service is especially useful for tele-workers and mobile workers, as it enables them to use all of their Communication Manager features while working remotely (e.g., extension dialing, transfers, conference calls, Outlook Integration, directories, etc.). In addition, since calls are still originated from VoIP, the service provides an easy mechanism for separating personal and business phone expenses, as well as keeping alternate phone numbers private. This service must be set-up by the administrator.		
4	**Deviceless Subscriber**	Deviceless Subscriber is an optional feature available to installed HIPC locations that allows an additional HIPC user line without an assigned SIP end point.	**DVCS0000**
	Bidder's Product Description: Deviceless Subscriber is an optional feature available to installed HIPC locations that allows an additional HIPC user line without an assigned SIP end point. Deviceless Subscriber requires at least one of the following optional features which includes Remote Office or Voice Mail. This also excludes the required DID number charge. The following features are included with Deviceless Subscriber as follows: Anonymous Call Rejection to reject callers who have blocked their caller ID, Call Forwarding to redirect incoming calls, Call log to view missed or received, Call Notify to provide text or e-mail notification of incoming calls, Do Not Disturb to appear busy and send calls to an alternate location, Selective Call Acceptance/Call Rejection to screen incoming calls, Caller ID to view caller identification, Voice Messaging to send calls to voicemail (requires voicemail), Locate Me "Find Me Follow Me" to ring multiple phones sequentially and Simultaneous Ring "Call Blast" to ring multiple phones simultaneously.		
5	**Directory Assistance**	Directory Assistance	**DRAC0000**
	Bidder's Product Description: Directory Assistance will be provided by the traditional method of dialing 1-Area code + 555-1212 or by dialing 00 and asking Directory Assistance to find any listed number whether it is local or long distance.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
6	**Operator Service**	Operator Services include collect, third party and person-to-person calls.	**OPAC0000**
	Bidder's Product Description: Operator Services include collect, third party and person-to-person calls. Collect Calls are call that are not directly dialed and are placed as collect to the called party using an operator. Calls not directly dialed and placed as collect to the called party, using an operator. Third-Party Calls are calls that are not directly dialed and are requesting third party be billed, using an operator. Calls not directly dialed and request third-party billing, using an operator. Person-to-Person Calls include calls that are completed using an operator (Station-to-Station and Person-to-Person). Calls not directly dialed, using an operator, between stations.		

Managed Local Access Network (MLAN) Service

	Feature Name	Feature Description	Bidder's Product Identifier
7	**MLAN - Monitor and Notify - Small**	MLAN - Monitor and Notify – Small features include: Device Availability and Health Monitoring, Trouble Ticket Generation, and Proactive Outage Notification.	**MLMN0001**
	Bidder's Product Description: Verizon is proposing Managed Local Access Network (MLAN) Service as an Unsolicited Service Offering in section 1.2. MLAN Service supports the agencies ability to successfully implement Converged VoIP service on the customer LAN. Smaller agencies require additional technical support to provide this assistance implementing the Converged VoIP service. Managing VLAN traffic (i.e. VLAN queuing/tagging) would be an example of this type of intregration support. **Managed LAN general description applies to the following Managed LAN line items.** Verizon's Managed LAN Services represents a comprehensive network management service, providing monitoring, fault isolation, trouble resolution, and proactive outage notification service for a variety of LAN switches. All equipment under management must be certified by Verizon for Managed LAN Services and must not be identified as End of Life by the manufacture. Certified equipment and corresponding size (Small, Medium, and Large) are updated on a regular basis; the current list of Verizon Certified CPE will be provided on request. With the exception of the Monitor and Notify level of service, all equipment must have a means for Out-of-Band (OOB) management, enabled with a customer provided modem and POTS line, and must have a maintenance agreement in place. Managed LAN - Monitor & Notify - Small provides the monitoring of a Small managed device. The device is polled on a regular basis, and a repeated failure of the device to respond to polls will indicate a fault condition and will generate alarms. The fault will be isolated to access, transport, or CPE and a trouble ticket will be opened on the customer's behalf, and the customer will be proactively notified of the outage. Verizon will own the resolution of the access and transport issues related to the fault. The customer retains responsibility for resolving all physical and logical CPE issues.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
8	**MLAN - Monitor and Notify - Medium**	MLAN - Monitor and Notify – Medium features include: Device Availability and Health Monitoring, Trouble Ticket Generation, and Proactive Outage Notification.	**MLMN0002**
	Bidder's Product Description: Managed LAN - Monitor & Notify - Medium provides everything provided by Managed LAN Monitor & Notify - Small except this service is for LAN equipment classified as a Medium sized device.		
9	**MLAN - Monitor and Notify - Large**	MLAN - Monitor and Notify – Large features include: Device Availability and Health Monitoring, Trouble Ticket Generation, and Proactive Outage Notification.	**MLMN0003**
	Bidder's Product Description: Managed LAN - Monitor & Notify - Large provides everything provided by Managed LAN Monitor & Notify - Small except this service is for LAN equipment classified as a Large sized device.		
10	**MLAN - Physical - Small**	MLAN - Physical – Small features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MLPH0001**
	Bidder's Product Description: Managed LAN - Physical - Small provides all of the monitoring features of Managed LAN Monitor and Notify – Small as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
11	**MLAN - Physical - Medium**	MLAN - Physical - Medium features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MLPH0002**
	Bidder's Product Description: Managed LAN - Physical - Medium provides all of the monitoring features of Managed LAN Monitor and Notify – Medium as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		
12	**MLAN - Physical - Large**	MLAN - Physical - Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MLPH0003**
	Bidder's Product Description: Managed LAN - Physical - Large provides all of the monitoring features of Managed LAN Monitor and Notify – Large as well as Verizon owning the resolution of any physical CPE issues. The customer retains responsibility for resolving all logical CPE issues.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
13	**MLAN - Full - Small**	MLAN - Full - Small features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MLFL0001**
	Bidder's Product Description: Managed LAN - Full - Small provides all of the monitoring features of Managed LAN Physical - Small as well as Verizon owning the resolution of any logical CPE issues.		
14	**MLAN -Full - Medium**	MLAN - Full - Medium features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MLFL0002**
	Bidder's Product Description: Managed LAN - Full - Medium provides all of the monitoring features of Managed LAN Physical - Medium as well as Verizon owning the resolution of any logical CPE issues.		
15	**MLAN - Full - Large**	MLAN - Full - Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, and Proactive Outage Notification.	**MLFL0003**
	Bidder's Product Description: Managed LAN - Full - Large provides all of the monitoring features of Managed LAN Physical - Large as well as Verizon owning the resolution of any logical CPE issues.		
16	**MLAN -Takeover of Existing Device**	MLAN -Takeover of Existing Device: Takeover of existing device for management.	**MTOI0001**
	Bidder's Product Description: Managed LAN - Takeover of Existing Device provides for the takeover process of previously installed and working device for management.		
17	**MLAN -Device Installation**	MLAN -Device Installation: Installation of a device to be managed at turn up.	**MIIO0002**
	Bidder's Product Description: Managed LAN - Device Installation provides for the process of installing, implementing, and activating a new device under management		
18	**MLAN -Order Expedite**	MLAN -Order Expedite: Add-on service for expediting installation of LAN device.	**MLEX0000**
	Bidder's Product Description: Managed LAN - Order Expedite provides for an expedited process for activating a LAN device in fifteen (15) days or less. This service is solely for the purposes of expediting the CPE installation process and does not affect circuit installation and activation.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
19	**MLAN - UPS Monitoring**	Managed LAN - UPS Monitoring features include: UPS Mode, Battery State	**MLUM0000**
	Bidder's Product Description: Managed LAN - UPS Monitoring is a *custom* Managed LAN option for monitoring the state of an Uninterruptible Power Supply (UPS). Features will vary based on capability of the UPS but will generally revolve around the current state of facility power, UPS mode, and battery state.		
20	**MLAN - Reporting Threshold Proactive Perform Monitor**	MLAN - Reporting Threshold Proactive Perform Monitor - Managed LAN Threshold Proactive Performance Monitoring (PPM) features include: Add-on service to Managed LAN for proactively monitoring specific predefined performance thresholds.	**MTHP0000**
	Bidder's Product Description: Managed LAN - Services Reporting general description applies to the following Managed LAN - Services Reporting line items. Verizon's Managed LAN Services Reporting provides optional reporting capabilities that are in addition to the standard reporting included with Verizon's Managed LAN Services.		
21	**MLAN - Reporting - Analysis – ETM Reporting**	MLAN - Reporting - Analysis – ETM Reporting features include: Enhanced Traffic Management reports of QoS, NBAR, and response times	**METR0000**
	Bidder's Product Description: Managed LAN - Reporting Analysis – Enhanced Traffic Management (ETM) Reporting – This feature includes all of the benefits from the basic reporting included with the managed service. ETM reporting adds the ability to report on QoS, CE-CE path performance, and high-level application data. CE-CE path performance allows reports of information, such as latency, for up to ten (10) paths per managed device. CE network performance allows for monitoring and detailed reporting on traffic volumes for up to twenty (20) Customer defined and selected network protocols. QoS performance reports can be generated on the quality and performance of DSCP and CoS on managed devices. Customer may generate At-a-Glance, Top-N, and Trend reports with PE elements.		
22	**MLAN - Reporting Analysis ETM Select Netflow≤100Mb**	MLAN - Reporting Analysis ETM Select Netflow≤100Mb features include: Live Health reporting and collection and reporting from netflow data.	**METM0001**
	Bidder's Product Description: Managed LAN – Reporting Analysis – Enhanced Traffic Management (ETM) Select With Netflow ≤ 100Mb – This feature includes all of the benefits from Managed LAN Analysis – ETM reporting. ETM Select with Netflow adds near real-time CPE performance exceptions and alarms, near real-time trending, and CPE network status maps as well as data collection and reporting from IPFIX/NetFlow/j-Flow/sFlow (collectively known as "netflow"). Live Status provides a single console for viewing performance exceptions and performance related faults for key CPE elements. Live Status provides drill down to Live Exceptions, Live Trend, and historical reports. Live Exceptions is a live interface that provides near real-time display of		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	exceptions as they are detected and can be customized to monitor many different logical arrangements of CPE devices. Live Exceptions Notification can provide e-mail notifications for a limited subset of exceptions. Live Trend provides near real-time monitoring and charting of statistical data as it is collected. The netflow feature enables reporting on which hosts, protocols, and conversations are consuming bandwidth and on what interfaces and when. Configuration of the CPE device may be required to enable this service and is not include. Any CPE configuration or remediation activity would be provided as an Optional Change Management Activity. This feature allows for the collection and analysis of netflow data collected from interface/device/site speeds up to and including 100Mb/s.		
23	**MLAN - Reporting Analysis ETM Select Netflow 101<500Mb**	MLAN - Reporting Analysis ETM Select Netflow 101<500Mb features include: Live Health reporting and collection and reporting from netflow data.	**METM0002**
	Bidder's Product Description: Managed LAN – Reporting Analysis – Enhanced Traffic Management (ETM) Select With Netflow 101Mb < 500Mb – This feature is identical to Managed LAN Analysis – ETM Select with Netflow ≤ 100Mb except for interface/device/site speeds greater than 100Mb/s and less than 500Mb/s.		
24	**MLAN – Reporting Analysis ETM Select w/Netflow 500Mb<1Gb**	MLAN - Reporting - Analysis ETM Select w/Netflow 500Mb<1Gb features include: Live Health reporting and collection and reporting from netflow data.	**METM0003**
	Bidder's Product Description: Managed LAN – Reporting Analysis – Enhanced Traffic Management (ETM) Select With Netflow 500Mb/s < 1Gb/s – This feature is identical to Managed LAN Analysis – ETM Select With Netflow ≤ 100Mb except for interface/device/site speeds equal to and greater than 500Mb/s and less than 1Gb/s.		
25	**MLAN – Reporting Analysis ETM Select w/Netflow 1Gb≤10Gb**	MLAN – Reporting Analysis ETM Select w/Netflow 1Gb≤10Gb features include: Live Health reporting and collection and reporting from netflow data.	**METM0004**
	Bidder's Product Description: Managed LAN - Reporting Analysis – Enhanced Traffic Management (ETM) Select With Netflow 1Gb ≤ 10Gb – This feature is identical to Managed LAN Analysis – ETM Select With Netflow ≤ 100Mb except for interface/device/site speeds equal to and greater than 1Gb/s and up to and including 10Gb/s.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
26	**MLAN - Reporting Network Analysis**	MLAN - Reporting Network Analysis features include: Analysis, summarization, and recommendations for resolution of network issues discovered through Managed Services reporting tools.	**MLNA0000**
	Bidder's Product Description: Managed LAN - Reporting Network Analysis is an optional service that provides for a Verizon Analysis Professional to review the Customer entitled reports and provides a monthly summarization of issues and provides recommendations to improve network performance. The analyst will analyze the network performance based on key variables such as, but not limited to, utilization, queue drops, and error conditions from the perspective of the Verizon managed device. With a preliminary report established, the analyst has the capability to utilize other Verizon tools and reporting systems, as required, to validate finds and further clarify the nature of the identified issue in finalizing the report. This service also includes a monthly review of the post monthly network performance report with Customer and Verizon account team as well as notification to Customer and/or the appropriate Verizon organization to isolate and resolve performance anomalies discovered outside of the reporting cycle.		
27	**MLAN - Network Engineering – Small Switch**	MLAN - Network Engineering – Small Switch features include: Design Planning, Support Services, and Change Management Support.	**MLNE0001**
	Bidder's Product Description: Managed LAN - Network Engineering Services general description applies to the following Managed LAN - Network Engineering Services line items. Verizon's Managed LAN Network Engineering (NE) Services provide additional support and on-going engineering advice, and is a premium architecture and engineering service that augments the services provided by Verizon's Managed WAN, Managed LAN, and Managed Wireless LAN services. Network Engineering is an offering that includes on-going supplemental architectural, design, and engineering support for Managed Services with a minimum of twenty (20) devices under the Full level of service.		
28	**MLAN - Network Engineering – Medium Switch**	MLAN - Network Engineering – Medium Switch features include: Design Planning, Support Services, and Change Management Support.	**MLNE0002**
	Bidder's Product Description: Managed LAN - Network Engineering – Medium Switch – Places a medium switch under NE support.		
29	**MLAN – Optional Change Mgmt - Intra-LAN Routing Turn-up**	MLAN – Optional Change Mgmt - Intra-LAN Routing Turn-up features include: Activation of Layer-3 switch/routing support.	**MLRT0000**
	Bidder's Product Description: **Managed LAN - Optional Change Management Intra-LAN Routing Turn-up** – This optional service provides for configuration on a fully managed LAN device of LAN based Layer-3 switching/routing. This service is performed remotely.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
30	**MLAN – Optional Change Mgmt - Intra-LAN Routing Support**	MLAN – Optional Change Mgmt - Intra-LAN Routing Support features include: Management of LAN device with Layer-3 switch/routing.	**MLRS0000**
	Bidder's Product Description: Managed LAN – Optional Change Management Intra-LAN Routing Support – This optional service provides for the additional management and support of LAN based Layer-3 switching/routing on a fully managed LAN device. This fee is in addition to the Managed LAN Full – (Small, Medium, Large) management fee.		
31	**MLAN – Optional Change Mgmt -DHCP IP Helper Configure**	MLAN – Optional Change Mgmt -DHCP IP Helper Configure features include: Adding, modifying, and/or deleting Dynamic Host Configuration Protocol (DHCP) Internet Protocol (IP) Helper configuration.	**LDFM0000**
	Bidder's Product Description: Managed LAN - Optional Change Management Dynamic Host Configuration Protocol (DHCP) IP Helper Configuration - This optional service provides configuration on an existing fully managed LAN device for adding, deleting, or modifying DHCP IP Helper information. This service is performed remotely.		
32	**MLAN – Optional Change Mgmt - IP Address Change**	MLAN – Optional Change Mgmt - IP Address Change features include: Adding, modifying, and/or deleting IP addressing information.	**IAFM0000**
	Bidder's Product Description: Managed LAN - Optional Change Management IP Address Change – This optional service provides configuration on an existing fully managed LAN device for adding, deleting, or modifying and IP address or network mask. This service is performed remotely.		
33	**MLAN – Optional Change Mgmt - Hostname Change**	MLAN – Optional Change Mgmt - Hostname Change features include: Changing of a LAN device hostname.	**HCFM0000**
	Bidder's Product Description: Managed LAN - Optional Change Management Hostname Change – This optional service provides configuration on an existing fully managed LAN device for modifying the hostname. This service is performed remotely.		
34	**MLAN – Optional Change Mgmt - VLAN Add/Delete**	MLAN – Optional Change Mgmt - VLAN Add/Delete features include: Adding or deleting a VLAN	**VLFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management Virtual LAN Add/Delete - This optional service provides configuration on an existing fully managed LAN device for creating a new VLAN or deleting and existing VLAN. This service is performed remotely.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
35	**MLAN - Optional Change Mgmt - Trunking Configuration**	MLAN - Optional Change Mgmt - Trunking Configuration features include: Enabling or disabling trunking features.	**TCFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Trunking Configuration - This optional service provides configuration on an existing fully managed LAN device for enabling or disabling trunking. This service includes configuration of Dynamic Trunk Protocol (DTP) and configuration of trunking encapsulation mode. This service is performed remotely.		
36	**MLAN - Optional Change Mgmt - Spanning Tree Add/Delete**	MLAN - Optional Change Mgmt - Spanning Tree Add/Delete features include: Enabling or disabling Spanning Tree Protocol (STP).	**STFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Spanning Tree Add/Delete – This optional service provides configuration on an existing fully managed LAN device for enabling or disabling STP. This service includes configuring port costs, priority, root bridge, etc when enabling SPT. This service is performed remotely.		
37	**MLAN - Optional Change Mgmt - Storm Control Add/Delete**	MLAN - Optional Change Mgmt - Spanning Tree Add/Delete features include: Enabling or disabling storm control	**SCFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Storm Control Add/Delete - This optional service provides configuration on an existing fully managed LAN device for enabling or disabling storm control for broadcast, multicast, and unicast traffic. Applicable thresholds will be configured when enabling storm control. This service is performed remotely.		
38	**MLAN - Optional Change Mgmt - EtherChannel Add/Delete**	MLAN - Optional Change Mgmt - EtherChannel Add/Delete - Enable or disable EtherChannel	**ECFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - EtherChannel Add/Delete - This optional service provides configuration on an existing fully managed LAN device for enabling or disabling link aggregation (e.g. Cisco EtherChannel). Enabling link aggregation will include configuring port modes and aggregation protocols. This service is performed remotely.		
39	**MLAN - Optional Change Mgmt - UDLD Add/Delete**	MLAN - Optional Change Mgmt - UDLD Add/Delete - Enable or disable Unidirectional Link Detection (UDLD) protocol	**UCFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Unidirectional Link Detection (UDLD) Add/Delete - This optional service provides configuration on an existing fully managed LAN device for enabling or disabling UDLD and associated modes. This service is performed remotely.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
40	**MLAN - Optional Change Mgmt - Multicast Configuration**	MLAN - Optional Change Mgmt - Multicast Configuration – Configure multicast features	**MCFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Multicast Configuration - This optional service provides configuration on an existing fully managed LAN device for configuration of Internet Group Management Protocol (IGMP) snooping, GARP Multicast Registration Protocol (GMRP), and Router-Port Group Management Protocol (RGMP). This service is performed remotely.		
41	**MLAN - Optional Change Mgmt - VTP Configuration**	MLAN - Optional Change Mgmt - VTP Configuration – Configure VLAN Trunking Protocol (VTP)	**VTPC0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - VLAN Trunking Protocol (VTP) Configuration - This optional service provides configuration on an existing fully managed LAN device for configuration of VTP and all associated parameters (e.g. mode, password, domain, pruning, version). This service is performed remotely.		
42	**MLAN - Optional Change Mgmt - Memory Upgrade**	MLAN - Optional Change Mgmt - Memory Upgrade – Upgrade memory on an existing switch	**MEMU0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Memory Upgrade - This optional service provides resources on an existing fully managed LAN device for installing customer provided RAM and/or flash memory. This includes dispatching a technician for the installation or swapping of memory modules and remote management and configuration support.		
43	**MLAN - Optional Change Mgmt - IOS Support New Features**	MLAN - Optional Change Mgmt - IOS Support New Features – Upgrade IOS for supporting new features	**DOFM0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - IOS Support New Features - This optional service provides resources on an existing fully managed LAN device for changing or upgrading IOS for new features. This includes dispatching a technician for on-site support and remote management and configuration support.		
44	**MLAN - Optional Change Mgmt - Intra-building Move**	MLAN - Optional Change Mgmt - Intra-building Move – Relocation of a LAN device within a building	**IBSM0001**
	Bidder's Product Description: Managed LAN - Optional Change Management - Intra-building Move - This optional service provides resources on an existing fully managed LAN device for relocating an existing switch within a given building. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
45	**MLAN - Optional Change Mgmt - Hardware Module Upgrade**	MLAN - Optional Change Mgmt - Hardware Module Upgrade - Upgrade modular features of an existing LAN device.	**HRDU0001**
	Bidder's Product Description: Managed LAN – Optional Change Management - Hardware Module Upgrade - This optional service provides resources on an existing fully managed LAN device for adding or swapping a modular component. This includes dispatching a technician for on-site support and remote management and configuration support.		
46	**MLAN - Optional Change Mgmt - Device Move**	MLAN - Optional Change Mgmt - Device Move – Relocation of a LAN device between buildings	**LNIB0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Device Move - This optional service provides resources on an existing fully managed LAN device for relocating the device between buildings up to thirty (30) miles apart. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		
47	**MLAN - Optional Change Mgmt - Device Exchange**	MLAN - Optional Change Mgmt - Device Move – Swapping out of an existing LAN device	**LERS0001**
	Bidder's Product Description: Managed LAN – Optional Change Management - Device Exchange - This optional service provides resources on an existing fully managed LAN device for swapping the device with a substitute device. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		
48	**MLAN - Optional Change Mgmt - Field Services Dispatch Normal**	MLAN - Optional Change Mgmt - Field Services Dispatch Normal – An hourly service for on-site services during normal business hours.	**DDON0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Field Services Dispatch Normal - In lieu of the optional change management per occurrence services described with on premise activities for truck rolls, customers have the option to utilize the established hourly rate. Labor charges will commence upon arrival at customer site. Only the highest single NRC will be charged per device. This optional service provides for dispatch a technician to perform on-site managed services on a time basis at the level of a journeyman during normal business hours. Exclusive of Verizon recognized holidays, Normal Business hours are defined as M-F 8:00 AM to 5:00 PM Pacific Time .		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	**Bidder's Product Identifier**
49	**MLAN - Optional Change Mgmt - Field Svcs Dispatch Off Hours**	MLAN - Optional Change Mgmt - Field Svcs Dispatch Off Hours – An hourly service for on-site services outside of normal business hours.	**LAFT0000**
	Bidder's Product Description: Managed LAN – Optional Change Management - Field Services Dispatch Off Hours - In lieu of the optional change management per occurrence services described with on premise activities for truck rolls, customers have the option to utilize the established hourly rate. Labor charges will commence upon arrival at customer site. Only the highest single NRC will be charged per device. This optional service provides for dispatch a technician to perform on-site managed services on a time basis at the level of a journeyman outside of normal business hours. Exclusive of Verizon recognized holidays, outside of Normal Business hours defined as M-F 8:00 AM to 5:00 PM Pacific Time .		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

Managed Wireless LAN (MWLAN)

	Feature Name	Feature Description	Bidder's Product Identifier
50	**MWLAN -Controller Full - Small**	MWLAN - Controller Full – Small features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, Proactive Outage Notification and Fault Resolution.	**MGSM0000**
	Bidder's Product Description: Verizon is proposing Managed Wireless LAN (MWLAN) Service as an Unsolicited Service Offering in section 1.2. MWLAN Service supports the agencies ability to successfully implement Converged VoIP service on the customer LAN. Smaller agencies require additional technical support to provide this assistance implementing the Converged VoIP service. Managing VLAN traffic (i.e. VLAN queuing/tagging) would be an example of this type of intregration support. **Managed Wireless LAN Services general description** applies to the following Managed Wireless LAN Services line items. Verizon's Managed Wireless LAN Services represents a comprehensive network management service. Verizon's Managed Wireless LAN Services provides fault management, proactive outage notification service, configuration management and backup, and performance management for a variety of WLAN devices based on the "lightweight" architecture. Managed Wireless LAN Services requires at least one (1) Verizon managed router and circuit at the site. All equipment under management must but be certified by Verizon for Managed Wireless LAN Services and must not be identified as End of Life by the manufacture. The list of certified equipment is updated on a regular basis; the current list of Verizon Certified CPE will be provided on request. All WLAN Controllers must have a means for Out-of-Band (OOB) management either through a dedicated OOB modem and POTS line; terminal server, dedicated modem, and POTS line; or a serial cable connection to an unused AUX port interface on a router. **Managed Wireless LAN - Controller Full - Small** provides for the monitoring of a Small sized managed WLAN controller. The WLAN controller is polled on a regular basis, and a repeated failure of the device to respond to polls will indicate a fault condition and will generate alarms. The fault will be isolated to a physical CPE issue or logical issue and a trouble ticket will be opened on the customer's behalf, and the customer will be proactively notified of the outage. Verizon will remedy CPE physical and logical faults. A Small WLAN controller can support up to twenty-five (25) access points.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
51	**MWLAN -Controller Full - Medium**	MWLAN - Controller Full - Medium features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, Proactive Outage Notification and Fault Resolution.	**MWMD0000**
	Bidder's Product Description: Managed Wireless LAN Controller Full - Medium provides for the monitoring of a Medium sized managed WLAN controller. The WLAN controller is polled on a regular basis, and a repeated failure of the device to respond to polls will indicate a fault condition and will generate alarms. The fault will be isolated to a physical CPE issue or logical issue and a trouble ticket will be opened on the customer's behalf, and the customer will be proactively notified of the outage. Verizon will remedy CPE physical and logical faults. A Medium WLAN controller can support between twenty-six (26) and fifty (50) access points.		
52	**MWLAN -Controller Full - Large**	MWLAN - Controller Full - Large features include: Device Availability and Health Monitoring, Fault Isolation, Trouble Ticket Generation, Proactive Outage Notification and Fault Resolution.	**MWLG0000**
	Bidder's Product Description: Managed Wireless LAN - Controller Full – Large provides for the monitoring of a Large sized managed WLAN controller. The WLAN controller is polled on a regular basis, and a repeated failure of the device to respond to polls will indicate a fault condition and will generate alarms. The fault will be isolated to a physical CPE issue or logical issue and a trouble ticket will be opened on the customer's behalf, and the customer will be proactively notified of the outage. Verizon will remedy CPE physical and logical faults. A Large WLAN controller can support fifty-one (51) access points and greater.		
53	**MWLAN - Takeover of Existing Controller**	MWLAN - Takeover of Existing Controller features include: Takeover of existing device/network for management.	**TWLN0000**
	Bidder's Product Description: Managed Wireless LAN - Takeover of Existing Controller provides for the takeover process of previously installed and working network for management. Customer will provide site specific information, detailed network information, and interviews for Verizon's design review. Verizon will generate a Statement of Requirements (SOR) detailing the inventory of Customer's network, indentifying any physical and logical activities required to bring the network under management, and identifying any additional associated costs to Customer for the necessary upgrades in order to bring the device/network under management. Verizon will provide this service in accordance to the terms and conditions of a SOR as agreed upon by both parties.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
54	**MWLAN - Controller Installation**	MWLAN - Controller Installation features include: Installation of a device/network to be managed at turn up.	**NDWC0000**
	Bidder's Product Description: Managed Wireless LAN - Controller Installation provides for the installation, configuration, and management of a new WLAN network. Verizon will provide a design based on Customer provided information (e.g. system requirement, application requirements, end-user requirements) that will include a detailed logical design and physical equipment requirements. Verizon will implement the solution, provide project management, and hand-off to Verizon's Managed Services Operations center. Verizon will provide this service in accordance to the terms and conditions of a SOR as agreed upon by both parties.		
55	**MWLAN - Access Point Full**	MWLAN - Access Point Full features include: Fault resolution for logical and physical CPE issues.	**MAPW0000**
	Bidder's Product Description: Managed Wireless LAN - Access Point Full provides for monitoring of access points with logical and physical fault resolution.		
56	**MWLAN - Takeover of Existing Access Point**	MWLAN - Takeover of Existing Access Point features include: Takeover of existing device/network for management.	**TWLP0000**
	Bidder's Product Description: Managed Wireless LAN - Takeover of Existing Access Point provides all of the features of Managed WLAN Takeover of Existing Controller for the AP component of the network.		
57	**MWLAN - Access Point Installation**	MWLAN - Access Point Installation features include: Installation of a device/network to be managed at turn up.	**MAPI0000**
	Bidder's Product Description: Managed Wireless LAN - Access Point Installation provides all of the features of Managed WLAN Controller Installation for the AP component of the network. Mounting of APs and/or antennas outdoors is not included and may be available as an ICB.		
58	**MWLAN - PoE Midspan Full**	MWLAN - PoE Midspan Full features include: Fault resolution for logical and physical CPE issues.	**MPWE0000**
	Bidder's Product Description: Managed Wireless LAN – Power over Ethernet (PoE) Midspan Full provides for logical and physical fault resolution as well as any applicable remote monitoring of a PoE Midspan device.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
59	**MWLAN - Takeover of Existing PoE Midspan Device**	MWLAN - PoE Midspan Full features include: Takeover of existing device/network for management.	**TWPO0000**
	Bidder's Product Description: Managed Wireless LAN - Takeover of Existing Power over Ethernet (PoE) Midspan Device provides all of the features of Managed WLAN Takeover of Existing Controller for the PoE Midspan component of the network.		
60	**Managed WLAN -PoE Midspan Device Installation**	Managed WLAN -PoE Midspan Device Installation features include: Installation of a device/network to be managed at turn up.	**NDWP0000**
	Bidder's Product Description: Managed Wireless LAN – Power over Ethernet (PoE) Midspan Device Installation provides all of the features of Managed WLAN Controller Installation for the PoE Midspan component of the network.		
61	**MWLAN - Authentication Appliance Full**	MWLAN - Authentication Appliance Full features include: Fault resolution for logical and physical CPE issues.	**MAPF0000**
	Bidder's Product Description: Managed Wireless LAN - Authentication Appliance Full provides for monitoring of an authentication appliance with logical and physical fault resolution.		
62	**MWLAN - Takeover of Existing Authentication Appliance**	MWLAN - Takeover of Existing Authentication Appliance features include: Takeover of existing device/network for management.	**TWAA0000**
	Bidder's Product Description: Managed Wireless LAN - Takeover of Existing Authentication Appliance provides all of the features of Managed WLAN Takeover of Existing Controller for the authentication appliance component of the network.		
63	**MWLAN -Authentication Appliance Installation**	MWLAN -Authentication Appliance Installation features include: Installation of a device/network to be managed at turn up.	**NDWS0000**
	Bidder's Product Description: Managed Wireless LAN - Authentication Appliance Installation provides all of the features of Managed WLAN Controller Installation for the Authentication Appliance component of the network.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
64	**MWLAN - Order Expedite**	MWLAN - Order Expedite provides add-on service for expediting installation of WLAN device.	**MWEX0000**
	Bidder's Product Description: Managed Wireless LAN - Order Expedite provides for an expedited process for activating a WLAN device in fifteen (15) days or less . This service is solely for the purposes of expediting the CPE installation process and does not affect circuit installation and activation.		
65	**MWLAN - Network Engineering Controller (S, M, L)**	MWLAN - Network Engineering Controller (S, M, L)	**MWLC0000**
	Bidder's Product Description: Network Engineering WLAN Services general description applies to the following Network Engineering WLAN Services line items. Verizon's Network Engineering (NE) WLAN Services provide additional support and on-going engineering advice, and is a premium architecture and engineering service that augments the services provided by Managed Wireless LAN services. Network Engineering is an offering that includes on-going supplemental architectural, design, and engineering support for Managed Services with a minimum of twenty (20) devices under the Full level of service.		
66	**MWLAN - Network Engineering – Managed -– Access Point**	MWLAN - Network Engineering – Managed -– Access Point features include: Design Planning, Support Services, and Change Management Support.	**MWAP0000**
	Bidder's Product Description: Managed Wireless LAN Network Engineering – Access Point – Places an access point under NE support.		
67	**MWLAN - Network Engineering Opt Chg Mgmt - IP Address Change**	MWLAN - Network Engineering Opt Chg Mgmt - IP Address Change features include: Adding, modifying, and/or deleting IP addressing information.	**MWIP0000**
	Bidder's Product Description: Managed Wireless LAN - Network Engineering – Optional Change Management Services general description applies to the following line items 21 – 31. Optional change management activities are available for configuration changes on devices under Managed Wireless LAN (MWLAN). Managed Wireless LAN – Optional Change Management - IP Address Change – This optional service provides configuration on an existing fully managed WLAN device for adding, deleting, or modifying and IP address or network mask. This service is performed remotely.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
68	**MWLAN - Network Engineering Opt Chg Mgmt- Hostname Change**	MWLAN - Network Engineering Opt Chg Mgmt- Hostname Change features include: Changing of a LAN device hostname.	**MWHC0000**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management - Hostname Change – This optional service provides configuration on an existing fully managed WLAN device for modifying the hostname. This service is performed remotely.		
69	**MWLAN - Network Engineering Opt Chg Mgmt- VLAN Add/Delete**	MWLAN - Network Engineering Opt Chg Mgmt- VLAN Add/Delete features include: Adding or deleting a VLAN	**MWAD0000**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management – Virtual LAN Add/Delete - This optional service provides configuration on an existing fully managed WLAN device for creating a new VLAN or deleting and existing VLAN. This service is performed remotely.		
70	**MWLAN - Network Engineering Opt Chg Mgmt - WLAN HW Upgrade**	MWLAN - Network Engineering Opt Chg Mgmt - WLAN HW Upgrade - Upgrade modular features of an existing WLAN device.	**MWHU0000**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management - Hardware Module Upgrade is an optional service provides resources on an existing fully managed WLAN device for adding or swapping a modular component. This includes dispatching a technician for on-site support and remote management and configuration support.		
71	**MWLAN - Network Engineering Opt Chg Mgmt - Span Tree Add/Del**	MWLAN - Network Engineering Opt Chg Mgmt - Span Tree Add/Del features include: Enabling or disabling Spanning Tree Protocol (STP).	**MWST0000**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management - Spanning Tree Add/Delete if an optional service provides configuration on an existing fully managed WLAN device for enabling or disabling STP. This service is performed remotely.		
72	**MWLAN - Network Engineer Opt Chg Mgmt OS Support New Feature**	MWLAN - Network Engineer Opt Chg Mgmt OS Support New Feature – Upgrade OS for supporting new features	**MWLN1101**
	Bidder's Product Description: Managed Wireless LAN – Operating System Change Support New Features - This optional service provides resources on an existing fully managed WLAN device for changing or upgrading OS for new features. This service is performed remotely.		

Table 1.2.3.3.b Unsolicited Converged VoIP service features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
73	**MWLAN - Network Engineer Opt Chg Mgmt - MLAN Intra-build Mov**	MWLAN - Network Engineer Opt Chg Mgmt - MLAN Intra-build Mov – Relocation of a WLAN device within a building	**MWLN1201**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management – Wireless LAN Intra-building Move - This optional service provides resources on an existing fully managed WLAN device for relocating an existing wireless device within a given building. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		
74	**MWLAN - Network Engineer Opt Chg Mgmt - WLAN Device Move**	MWLAN - Network Engineer Opt Chg Mgmt - WLAN Device Move – Relocation of a WLAN device between buildings	**MWLN1202**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management – Wireless LAN Device Move - This optional service provides resources on an existing fully managed LAN device for relocating the wireless device between buildings up to thirty (30) miles apart. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		
75	**MWLAN - Network Engineer Opt Chg Mgmt - WLAN Device Exchange**	MWLAN - Network Engineer Opt Chg Mgmt - WLAN Device Exchange – Swapping out of an existing wireless device	**MWLN1203**
	Bidder's Product Description: Managed Wireless LAN – Optional Change Management – Wireless LAN Device Exchange - This optional service provides resources on an existing fully managed WLAN device for swapping the wireless device with a substitute device. This includes dispatching a technician for on-site support and remote management and configuration support and assumes no design change.		

1.2.3.4 CONVERGED VOIP CALLING REQUIREMENTS

The Contractor shall provide the Converged VoIP calling solutions described below.

1.2.3.4.1 Converged VoIP On-Net Calling

The Contractor shall provide a Converged VoIP service that provides unlimited on-net calling for both domestic and international calls at no additional charge. On-net calling is defined as calling from a Converged VoIP Customer Site that uses the Contractors VoIP network and terminates at another Converged VoIP site. If the Contractor offers SIP Trunking or Standalone VoIP under another CALNET contract, Converged VoIP calls terminating at such a site shall be considered on-net.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.4.2 Converged VoIP Off-Net Calling

The Contactor shall provide off-net calling at no additional charge. The Converged VoIP service will route call traffic off the VoIP network within the 50 United States, the District of Columbia, the Virgin Islands, and Puerto Rico. This will be accomplished using network based PSTN gateways.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.4.3 On-Net Enterprise Calling

The Contractor shall treat the State of California as a single enterprise for the purpose of on-net calling. On-net calling from one (1) State of California Agency/Department to another shall be treated the same as on-net calling within a State of California Agency or Department.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.4.4 Converged Off-Net Toll-Free

The Contractor shall provide Converged off-net toll-free services that shall only be provided by the Converged VoIP Contractor and shall not be provided by a third party. This service shall only be utilized in conjunction with the awarded Contractor's VoIP service. The Converged VoIP service allows Customers to receive off-net toll-free calls from the 50 United States, the District of Columbia, the U.S. Virgin Islands, and Puerto Rico. The Contractor's CALNET 3 approved applicable rates shall apply.

Table 1.2.3.4.4.a, Converged VoIP Off-Net Toll-Free

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	**Converged VoIP Off-Net Toll-Free**	Allows a Customer to receive off-net toll-free calls from the 50 United States, the District Of Columbia, the Virgin Islands, and Puerto Rico.	**Y**		CVOT0000
	Bidder's Product Description: Verizon will provide Converged VoIP Off-Net Toll-Free - Allows a Customer to receive off-net toll-free calls from the 50 United States, the District Of Columbia, the Virgin Islands, and Puerto Rico.				

The Contractor may offer additional Converged VoIP Off-Net Toll-Free features in Table 1.2.3.4.4.b.

Table 1.2.3.4.4.b Unsolicited Converged VoIP Off-Net Toll-Free Features

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.3.4.5 Converged International Off-Net Calling

The Contractor shall provide Converged VoIP international off-net calling to the countries listed in Table 1.2.3.3.5. Bidder's rates as provided in the Subcategory Cost Worksheets shall be based on time of day ("Peak Time" or "Off–Peak Time"). Peak Time is between 8:00 a.m. and 4:59 p.m., Monday through Friday based on the time at the CALNET caller's location. Off-Peak time is for all calls where Peak Time rates do not apply.

All usage shall be billed in accordance with the Business Requirements Section A.5.1 (Billing and Invoicing Requirements #11) except Mexico which shall be billed in 60 second increments with a 60 second minimum.

Note: If the Bidder charges the same rate for both Peak Time and Off-Peak time, Bidder may use the same Product Identifier for both products.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.4.5.1 International Mobile Termination Charges (IMTC)

Contractor shall provide the ability to terminate international calls on wireless devices. Contractor shall charge International Mobile Termination Charge (IMTC) as an additional per minute rate that is applied to international calls (direct dial business or credit card calls) originating in the U.S. and terminating in certain countries to either wireless communications devices including mobile telephones, pagers, personal computers, and personal digital assistants, or to a portable telephone number where a forwarding, tracking or other type of location service is used.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.4.5.2 U.S. Based Services Waiver

The provisions detailed in IFB-A Section A.2.4.4 (U.S. Based Services) will not apply to Contractor's International Long Distance Calling services.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

The Contractor shall offer the Converged VoIP International Off-Net Calling configurations detailed in Table 1.2.3.4.5.a

Table 1.2.3.4.5.a Converged VoIP International Off-Net Calling

	Country	Bidders Meets or Exceeds? Y	N	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
1	Brazil:	Y		VBRZ0000	VBRZ0001	MBRZ0000
2	Canada:	Y		VCAN0000	VCAN0001	MBCN0000
3	China:	Y		VCHN0000	VCHN0001	MBCH0000
4	France:	Y		VFRN0000	VFRN0001	MFRN0000
5	Germany:	Y		VGRM0000	VGRM0001	MGRM0000
6	Israel:	Y		VISR0000	VISR0001	MISL0000
7	Italy:	Y		VITL0000	VITL0001	MIVC0000
8	Japan:	Y		VJPN0000	VJPN0001	MJPN0000
9	Korea:	Y		VKOR0000	VKOR0001	MKSR0000
10	Mexico:	Y		VMXC0000	VMXC0001	MMXC0010
11	Spain:	Y		VSPN0000	VSPN0001	MSWS0000
12	Switzerland:	Y		VSWZ0000	VSWZ0001	MSWL0000
13	United Kingdom:	Y		VUKN0000	VUKN0001	MUNK0000

Bidder's may offer the Converged VoIP International Off-Net Calling to unsolicited countries listed in Table 1.2.3.4.5.b.

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
1	Afghanistan	AFGH0001	AFGH0001	MAFG0000
2	Albania	ALBA0001	ALBA0001	MALB0000
3	Algeria	ALGR0001	ALGR0001	MALG0000
4	Andorra	ANDR0001	ANDR0001	MAND0000
5	Angola	ANGO0001	ANGO0001	MANG0000
6	Anguilla	ANGU0001	ANGU0001	MAGL0000
7	Antarctica (Casey)	ANTA0001	ANTA0001	MACS0000
8	Antarctica (Scott)	ANSB0001	ANSB0001	MATS0000
9	Antigua and Barbuda	ANTG0001	ANTG0001	MATG0000
10	Argentina	ARGN0001	ARGN0001	MARG0000
11	Armenia	ARMN0001	ARMN0001	MARM0000
12	Aruba	ARUB0001	ARUB0001	MARB0000
13	American Samoa	ASMA0001	ASMA0001	MASM0000
14	Ascension Island	ASCN0001	ASCN0001	MASI0000
15	Australia	ASTR0001	ASTR0001	MAUS0000
16	Austria	AUST0001	AUST0001	MAST0000
17	Azerbaijan	AZER0001	AZER0001	MAZR0000
18	Bahamas	BAHM0001	BAHM0001	MBAH0000
19	Bahrain	BAHR0001	BAHR0001	MBHR0000
20	Bangladesh	BNGL0001	BNGL0001	MBNG0000
21	Barbados	BARB0001	BARB0001	MBRD0000
22	Belarus	BELA0001	BELA0001	MBLR0000
23	Belgium	BELG0001	BELG0001	MBLG0000
24	Belize	BELZ0001	BELZ0001	MBLZ0000
25	Benin	BENN0001	BENN0001	MBNN0000
26	Bermuda	BERM0001	BERM0001	MBRM0000
27	Bhutan	BHUT0001	BHUT0001	MBHT0000
28	Bolivia	BOLV0001	BOLV0001	MBLV0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
29	Bosnia and Herzegovina	BASH0001	BASH0001	MBSH0000
30	Botswana	BTSW0001	BTSW0001	MBTS0000
31	Brunei	BRNI0001	BRNI0001	MBRN0000
32	Bulgaria	BULG0001	BULG0001	MBUL0000
33	Burkina Faso	BRKN0001	BRKN0001	MBRK0000
34	Burundi	BRND0001	BRND0001	MBUR0000
35	British Virgin Islands	BVRG0001	BVRG0001	MBVI0000
36	Central African Republic	CAFR0001	CAFR0001	MCAR0000
37	Cambodia	CMBD0001	CMBD0001	MCMB0000
38	Cameroon	CMRN0001	CMRN0001	MCMR0000
39	Cape Verde	CAPV0001	CAPV0001	MCPV0000
40	Cayman Islands	CYMN0001	CYMN0001	MCMI0000
41	Chad	CHAD0001	CHAD0001	MCHD0000
42	Chile	CHLE0001	CHLE0001	MCHL0000
43	Christmas and Cocos Islands	CHCO0001	CHCO0001	MCHC0000
44	Colombia	CLMB0001	CLMB0001	MCLM0000
45	Comoros	CMYI0001	CMYI0001	MCOM0000
46	Congo	CNGO0001	CNGO0001	MCNG0000
47	Cook Islands	CKIS0001	CKIS0001	MCKI0000
48	Costa Rica	CSTA0001	CSTA0001	MCSR0000
49	Croatia	CROA0001	CROA0001	MCRT0000
50	Cuba	CGBA0001	CGBA0001	MCBA0000
51	Cyprus	CPRS0001	CPRS0001	MCPR0000
52	Czech Republic	CZCR0001	CZCR0001	MCZR0000
53	Diego Garcia	DGRC0001	DGRC0001	MCDG0000
54	Djibouti	DJBT0001	DJBT0001	MDJB0000
55	Denmark	DNMK0001	DNMK0001	MDNM0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
56	Dominica	DMNC0001	DMNC0001	MDMN0000
57	Dominican Republic	DMCR0001	DMCR0001	MDMR0000
58	Ecuador	ECDR0001	ECDR0001	MECD0000
59	Egypt	EGPT0001	EGPT0001	MEGP0000
60	El Salvador	ELSV0001	ELSV0001	MESV0000
61	Equatorial Guinea	EQTG0001	EQTG0001	MEQG0000
62	Eritrea	ERTR0001	ERTR0001	MERT0000
63	Estonia	ESTN0001	ESTN0001	MEST0000
64	Ethiopia	ETHP0001	ETHP0001	METP0000
65	East Timor	ETMR0001	ETMR0001	METM0000
66	Faeroe Islands	FRIS0001	FRIS0001	MFRI0000
67	Falkland Islands	FLKI0001	FLKI0001	MFLI0000
68	Fiji Islands	FIJI0001	FIJI0001	MFJI0000
69	Finland	FNLD0001	FNLD0001	MFNL0000
70	French Antilles	FAMR0001	FAMR0001	MFAM0000
71	French Guiana	FRNG0001	FRNG0001	MFRG0000
72	French Polynesia	FRNP0001	FRNP0001	MFRP0000
73	Gabon Republic	GBON0001	GBON0001	MGBN0000
74	Gambia	GMBA0001	GMBA0001	MGMB0000
75	Georgia	GRGA0001	GRGA0001	MGRG0000
76	Ghana	GANA0001	GANA0001	MGHN0000
77	Gibraltar	GBRL0001	GBRL0001	MGBR0000
78	Greece	GREC0001	GREC0001	MGRC0000
79	Greenland	GRNL0001	GRNL0001	MGRN0000
80	Grenada	GRND0001	GRND0001	MGRD0000
81	Guadeloupe	GDLP0001	GDLP0001	MGDL0000
82	Guantanamo	GNTM0001	GNTM0001	MGNB0000
83	Guatemala	GTML0001	GTML0001	MGTM0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
84	Guinea-Bissau	GNBA0001	GNBA0001	MGBS0000
85	Guinea, People's Revolutionary Republic	GNEA0001	GNEA0001	MGPR0000
86	Guyana	GYNA0001	GYNA0001	MGYN0000
87	Haiti	HATI0001	HATI0001	MHTI0000
88	Hong Kong	HNKG0001	HNKG0001	MHNK0000
89	Honduras	HNDR0001	HNDR0001	MHND0000
90	Hungary	HNGR0001	HNGR0001	MHNG0000
91	Iceland	ICLN0001	ICLN0001	MICL0000
92	India	NDIA0001	NDIA0001	MIND0000
93	Indonesia	NDNS0001	NDNS0001	MNDS0000
94	Iran	IRAN0001	IRAN0001	MIRN0000
95	Iraq	IRAQ0001	IRAQ0001	MIRQ0000
96	Ireland	IRLN0001	IRLN0001	MIRL0000
97	Ivory Coast	ICST0001	ICST0001	MICT0000
98	Jamaica	JMCA0001	JMCA0001	MJMC0000
99	Jordan	JRDN0001	JRDN0001	MJRD0000
100	Kazakhstan	KZKH0001	KZKH0001	MKZK0000
101	Kenya	KNYA0001	KNYA0001	MKNY0000
102	Kiribati	KRBT0001	KRBT0001	MKRB0000
103	Korea, North	NKRE0001	NKRE0001	MKND0000
104	Kuwait	KWAT0001	KWAT0001	MKWT0000
105	Kyrgyzstan	KRYG0001	KRYG0001	MKRG0000
106	Laos	LAOS0001	LAOS0001	MLAS0000
107	Latvia	LTVA0001	LTVA0001	MLTV0000
108	Lebanon	LBNN0001	LBNN0001	MLBN0000
109	Lesotho	LSTH0001	LSTH0001	MLST0000
110	Liberia	LBRA0001	LBRA0001	MLBR0000
111	Libya	LBYA0001	LBYA0001	MLBY0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
112	Liechtenstein	LCHN0001	LCHN0001	MLCH0000
113	Lithuania	LTHN0001	LTHN0001	MLTH0000
114	Luxembourg	LXMB0001	LXMB0001	MLXB0000
115	Macao	MCAU0001	MCAU0001	MMCA0000
116	Macedonia	MCDN0001	MCDN0001	MMCD0000
117	Madagascar	MDSC0001	MDSC0001	MMDG0000
118	Malawi	MLWI0001	MLWI0001	MMLW0000
119	Malaysia	MLYS0001	MLYS0001	MMLY0000
120	Maldives	MLDV0001	MLDV0001	MMLD0000
121	Mali	MALI0001	MALI0001	MMLI0000
122	Malta	MLTA0001	MLTA0001	MMLT0000
123	Marshall Islands	MSHI0001	MSHI0001	MMIS0000
124	Mauritius	MAUR0001	MAUR0001	MMTS0000
125	Mauritania	MRIT0001	MRIT0001	MMRT0000
126	Mayotte Island	MYTE0001	MYTE0001	MYTI0000
127	Micronesia	MCRN0001	MCRN0001	MMCN0000
128	Moldova	MOLV0001	MOLV0001	MMLV0000
129	Monaco	MNCO0001	MNCO0001	MMNC0000
130	Mongolian People's Republic	MNGL0001	MNGL0001	MMGL0000
131	Montserrat	MNTS0001	MNTS0001	MMTR0000
132	Morocco	MRCC0001	MRCC0001	MMRC0000
133	Mozambique	MZMB0001	MZMB0001	MMZB0000
134	Myanmar	MYBR0001	MYBR0001	MMBR0000
135	Namibia	NMBA0001	NMBA0001	MNMB0000
136	Nauru	NURU0001	NURU0001	MNRU0000
137	New Caledonia	NCLD0001	NCLD0001	MNWC0000
138	Nepal	NPAL0001	NPAL0001	MNPL0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
139	Netherlands	NTHR0001	NTHR0001	MNTH0000
140	Nevis	NEVS0001	NEVS0001	MNVS0000
141	Nigeria	NGRI0001	NGRI0001	MNGA0000
142	Nicaragua	NCRG0001	NCRG0001	MNCG0000
143	Niger	NGER0001	NGER0001	MNGR0000
144	Niue	NIUE0001	NIUE0001	MNIS0000
145	Norfolk Island	NRFK0001	NRFK0001	MNFI0000
146	Norway	NRWY0001	NRWY0001	MNRW0000
147	Netherlands Antilles	NTHA0001	NTHA0001	MNTA0000
148	New Zealand	NZLN0001	NZLN0001	MNZA0000
149	Oman	OMAN0001	OMAN0001	MOMN0000
150	Pakistan	PKST0001	PKST0001	MPKS0000
151	Palau	PLIS0001	PLIS0001	MPLI0000
152	Panama	PLST0001	PLST0001	MPNM0000
153	Papua New Guinea	PNMA0001	PNMA0001	MPNG0000
154	Paraguay	PRGY0001	PRGY0001	MPRG0000
155	Peru	PERU0001	PERU0001	MPRU0000
156	Philippines	PHLP0001	PHLP0001	MPHL0000
157	Poland	PLND0001	PLND0001	MPLN0000
158	Portugal	PTGL0001	PTGL0001	MPRT0000
159	Qatar	QTAR0001	QTAR0001	MQTR0000
160	Reunion	RUNI0001	RUNI0001	MRUI0000
161	Romania	RMAN0001	RMAN0001	MRMN0000
162	South Africa	SAFR0001	SAFR0001	MSAF0000
163	Russia	RUSS0001	RUSS0001	MRUS0000
164	Rwanda	RWND0001	RWND0001	MRWN0000
165	Samoa	SAMO0001	SAMO0001	MSOM0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
166	Sao Tome	SAOT0001	SAOT0001	MSTO0000
167	Saudi Arabia	SARB0001	SARB0001	MSDA0000
168	Senegal Republic	SNGL0001	SNGL0001	MSNG0000
169	Seychelles Islands	SYCH0001	SYCH0001	MSYC0000
170	Sierra Leone	SRLN0001	SRLN0001	MSRL0000
171	Singapore	SNGP0001	SNGP0001	MSNP0000
172	Slovakia	SLVK0001	SLVK0001	MSLV0000
173	Slovenia	SLVN0001	SLVN0001	MSVN0000
174	San Marino	SMAR0001	SMAR0001	MSNM0000
175	Solomon Islands	SLMN0001	SLMN0001	MSIS0000
176	Somali Republic	SMLA0001	SMLA0001	MSMR0000
177	Sri Lanka	SRLK0001	SRLK0001	MSLK0000
178	St. Helena	STHL0001	STHL0001	MSTH0000
179	St. Kitts	SKTS0001	SKTS0001	MSKT0000
180	St. Lucia	SLUC0001	SLUC0001	MSTL0000
181	St. Pierre and Miquelon	STPR0001	STPR0001	MSPM0000
182	St. Vincent and The Grenadines	STVN0001	STVN0001	MSVG0000
183	Sudan	SUDN0001	SUDN0001	MSDN0000
184	Suriname	SRNM0001	SRNM0001	MSRN0000
185	Swaziland	SWZL0001	SWZL0001	MSWZ0000
186	Sweden	SWDN0001	SWDN0001	MSWD0000
187	Syrian Arab Republic	SRIA0001	SRIA0001	MSRY0000
188	Taiwan	TWAN0001	TWAN0001	MTWN0000
189	Tajikistan	TDJK0001	TDJK0001	MTJK0000
190	Tanzania	TNZN0001	TNZN0001	MTNZ0000
191	Thailand	THLN0001	THLN0001	MTHL0000
192	Turks and Caicos Islands	TCAC0001	TCAC0001	MTCI0000

Table 1.2.3.4.5.b Unsolicited Converged VoIP International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
193	Togo	TOGO0001	TOGO0001	MTGO0000
194	Tonga Islands	TNGA0001	TNGA0001	MTNG0000
195	Trinidad and Tobago	TRND0001	TRND0001	MTRT0000
196	Turkmenistan	TRKM0001	TRKM0001	MTRK0000
197	Tunisia	TNSA0001	TNSA0001	MTNS0000
198	Turkey	TRKY0001	TRKY0001	MTKY0000
199	Tuvalu	TVLU0001	TVLU0001	MTVL0000
200	United Arab Emirates	UAEM0001	UAEM0001	MUAE0000
201	Uganda	UGND0001	UGND0001	MUGN0000
202	Ukraine	UKRN0001	UKRN0001	MUKR0000
203	Uruguay	URGY0001	URGY0001	MURG0000
204	Uzbekistan	UZBK0001	UZBK0001	MUZK0000
205	Vanuatu	VNTU0001	VNTU0001	MVNT0000
206	Vatican City	VTCN0001	VTCN0001	MVTC0000
207	Venezuela	VNZL0001	VNZL0001	MVNZ0000
208	Vietnam	VTNM0001	VTNM0001	MVTN0000
209	Wallis and Fortuna Islands	WLSF0001	WLSF0001	MWLF0000
210	Yemen	YMNA0001	YMNA0001	MYMN0000
211	Yugoslavia (Federal Republic)	YGSL0001	YGSL0001	MYGS0000
212	Zaire	ZARE0001	ZARE0001	MZAR0000
213	Zambia	ZMBA0001	ZMBA0001	MZBA0000
214	Zimbabwe	ZMBW0001	ZMBW0001	MZBW0000

1.2.3.5 CONVERGED VOIP VOICE MAIL SERVICES

The Contractor shall provide Converged VoIP Voice Mail services that are interoperable and work with Converged VoIP service. The Converged Voice Mail services will include the capability for End-Users to have callers leave a message to be retrieved at a later time.

The service shall allow VoIP Voice Mail End-Users to forward messages to other End-Users in the same VoIP Voice Mail network.

The service shall offer a variety of message length capabilities, greeting and delivery options, broadcast messaging and the ability to transfer to an attendant.

Contractors shall provide the Converged VoIP Voice Mail services feature requirements are listed in Table 1.2.3.5.a.

Table 1.2.3.5.a Converged VoIP Voice Mail Service Features

	Converged VoIP Basic Call Package Features	Bidder Meets or Exceeds? Y	N
1	Minimum message length will be at least two (2) minutes each	Y	
2	Message review, including skip back or ahead	Y	
3	Message saving and erasing	Y	
4	Erased message retrieval before call is ended	Y	
5	Messaging forwarding to another voice mailbox in the system with the ability to append additional comments	Y	
6	Message sending	Y	
7	Password protection	Y	
8	Personalized greetings (both permanent and temporary)	Y	
9	Message waiting indicator signal received at workstation within one (1) minute	Y	
10	Remote access capability from any telephone location on or off net	Y	
11	Creation of Group Distribution Lists - Allow an administrator to define voice mail distribution lists to forward and reply to an individual or to a group of predefined recipients	Y	
12	Web based End-User administration software	Y	
13	Ability to integrate with Unified Messaging applications with no hardware modification	Y	

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

Contractor shall offer the VoIP Voice Mail services and features detailed in Table 1.2.3.5.b.

Table 1.2.3.5.b – VoIP Voice Mail Services and Features

	Feature	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Unique Identifier
1	**Converged VoIP Voice Mail**	Minimum feature requirements as listed in Table 1.2.3.5.a	Y		CVVM000
	Bidder's Product Description: Verizon will provide Converged VoIP Voice Mail minimum feature requirements as listed in Table 1.2.3.5.a				

The Contractor may offer additional unsolicited VoIP Voice Mail features in Table 1.2.3.5.c.

Table 1.2.3.5.c Unsolicited VoIP Voice Mail Features

	Feature Name	Feature Description	Bidder's Product Identifier
1			
	Bidder's Product Description:		
2			
	Bidder's Product Description:		
3			
	Bidder's Product Description:		

1.2.3.6 CONVERGED VOIP AND VOICE MAIL GEOGRAPHIC REQUIREMENTS

1.2.3.6.1 Converged VoIP and Voice Mail Specific Service Areas

The Contractor shall provide Converged VoIP and VoIP Voice Mail services in the cities specified below. Serving area is defined as within the city limits for each location identified.

1. ***Sacramento;***
2. ***Oakland;***
3. ***San Francisco;***
4. ***Los Angeles;***
5. ***San Diego; and,***
6. ***San Jose.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.3.6.2 Additional Commercially Available Areas

The Contractor shall provide Converged VoIP and VoIP Voice Mail services where services are currently commercially available by the Bidder.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

Bidder shall identify the locations where their Converged VoIP and VoIP Voice Mail Services are currently commercially available in Table 1.2.3.6.2.a. Bidders shall indicate the locations where the Contractor provides Converged VoIP and VoIP Voice Mail service. By answering "Yes", the Bidder commits to provide service in that specific location. Bidders shall answer "No" for all locations where service will not be available.

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas

	Service Location	Converged IP		VoIP Voice Mail	
		Yes	No	Yes	No
1	Adelanto	Y		Y	
2	Agoura Hills	Y		Y	
3	Alameda	Y		Y	
4	Albany	Y		Y	
5	Alhambra	Y		Y	
6	Aliso Viejo	Y		Y	
7	Alturas	Y		Y	
8	Amador	Y		Y	
9	American Canyon	Y		Y	
10	Anaheim	Y		Y	
11	Anderson	Y		Y	
12	Angels Camp	Y		Y	
13	Antioch	Y		Y	
14	Apple Valley	Y		Y	
15	Arcadia	Y		Y	
16	Arcata	Y		Y	
17	Arroyo Grande	Y		Y	
18	Artesia	Y		Y	
19	Arvin	Y		Y	
20	Atascadero	Y		Y	
21	Atherton	Y		Y	
22	Atwater	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
23	Auburn	Y		Y	
24	Avalon	Y		Y	
25	Avenal	Y		Y	
26	Azusa	Y		Y	
27	Bakersfield	Y		Y	
28	Baldwin Park	Y		Y	
29	Banning	Y		Y	
30	Barstow	Y		Y	
31	Beaumont	Y		Y	
32	Bell	Y		Y	
33	Bell Gardens	Y		Y	
34	Bellflower	Y		Y	
35	Belmont	Y		Y	
36	Belvedere	Y		Y	
37	Benicia	Y		Y	
38	Berkeley	Y		Y	
39	Beverly Hills	Y		Y	
40	Big Bear Lake	Y		Y	
41	Biggs	Y		Y	
42	Bishop	Y		Y	
43	Blue Lake	Y		Y	
44	Blythe	Y		Y	
45	Bradbury	Y		Y	
46	Brawley	Y		Y	
47	Brea	Y		Y	
48	Brentwood	Y		Y	
49	Brisbane	Y		Y	
50	Buellton	Y		Y	
51	Buena Park	Y		Y	
52	Burbank	Y		Y	
53	Burlingame	Y		Y	
54	Calabasas	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
55	Calexico	Y		Y	
56	California City	Y		Y	
57	Calimesa	Y		Y	
58	Calipatria	Y		Y	
59	Calistoga	Y		Y	
60	Camarillo	Y		Y	
61	Campbell	Y		Y	
62	Canyon Lake	Y		Y	
63	Capitola	Y		Y	
64	Carlsbad	Y		Y	
65	Carmel-By-The-Sea	Y		Y	
66	Carpinteria	Y		Y	
67	Carson	Y		Y	
68	Cathedral City	Y		Y	
69	Ceres	Y		Y	
70	Cerritos	Y		Y	
71	Chico	Y		Y	
72	Chino	Y		Y	
73	Chino Hills	Y		Y	
74	Chowchilla	Y		Y	
75	Chula Vista	Y		Y	
76	Citrus Heights	Y		Y	
77	Claremont	Y		Y	
78	Clayton	Y		Y	
79	Clearlake	Y		Y	
80	Cloverdale	Y		Y	
81	Coachella	Y		Y	
82	Coalinga	Y		Y	
83	Colfax	Y		Y	
84	Colma	Y		Y	
85	Colton	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
86	Colusa	Y		Y	
87	Commerce	Y		Y	
88	Compton	Y		Y	
89	Concord	Y		Y	
90	Corcoran	Y		Y	
91	Corning	Y		Y	
92	Corona	Y		Y	
93	Coronado	Y		Y	
94	Corte Madera	Y		Y	
95	Costa Mesa	Y		Y	
96	Cotati	Y		Y	
97	Covina	Y		Y	
98	Crescent City	Y		Y	
99	Cudahy	Y		Y	
100	Culver City	Y		Y	
101	Cupertino	Y		Y	
102	Cypress	Y		Y	
103	Daly City	Y		Y	
104	Dana Point	Y		Y	
105	Danville	Y		Y	
106	Davis	Y		Y	
107	Del Mar	Y		Y	
108	Del Rey Oaks	Y		Y	
109	Delano	Y		Y	
110	Desert Hot Springs	Y		Y	
111	Diamond Bar	Y		Y	
112	Dinuba	Y		Y	
113	Dixon	Y		Y	
114	Dorris	Y		Y	
115	Dos Palos	Y		Y	
116	Downey	Y		Y	
117	Duarte	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
118	Dublin	Y		Y	
119	Dunsmuir	Y		Y	
120	East Palo Alto	Y		Y	
121	El Cajon	Y		Y	
122	El Centro	Y		Y	
123	El Cerrito	Y		Y	
124	El Monte	Y		Y	
125	El Paso De Robles	Y		Y	
126	El Segundo	Y		Y	
127	Elk Grove	Y		Y	
128	Emeryville	Y		Y	
129	Encinitas	Y		Y	
130	Escalon	Y		Y	
131	Escondido	Y		Y	
132	Etna	Y		Y	
133	Eureka	Y		Y	
134	Exeter	Y		Y	
135	Fairfax	Y		Y	
136	Fairfield	Y		Y	
137	Farmersville	Y		Y	
138	Ferndale	Y		Y	
139	Fillmore	Y		Y	
140	Firebaugh	Y		Y	
141	Folsom	Y		Y	
142	Fontana	Y		Y	
143	Fort Bragg	Y		Y	
144	Fort Jones	Y		Y	
145	Fortuna	Y		Y	
146	Foster City	Y		Y	
147	Fountain Valley	Y		Y	
148	Fowler	Y		Y	
149	Fremont	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
150	Fresno	Y		Y	
151	Fullerton	Y		Y	
152	Galt	Y		Y	
153	Garden Grove	Y		Y	
154	Gardena	Y		Y	
155	Gilroy	Y		Y	
156	Glendale	Y		Y	
157	Glendora	Y		Y	
158	Goleta	Y		Y	
159	Gonzales	Y		Y	
160	Grand Terrace	Y		Y	
161	Grass Valley	Y		Y	
162	Greenfield	Y		Y	
163	Gridley	Y		Y	
164	Grover Beach	Y		Y	
165	Guadalupe	Y		Y	
166	Gustine	Y		Y	
167	Half Moon Bay	Y		Y	
168	Hanford	Y		Y	
169	Hawaiian Gardens	Y		Y	
170	Hawthorne	Y		Y	
171	Hayward	Y		Y	
172	Healdsburg	Y		Y	
173	Hemet	Y		Y	
174	Hercules	Y		Y	
175	Hermosa Beach	Y		Y	
176	Hesperia	Y		Y	
177	Hidden Hills	Y		Y	
178	Highland	Y		Y	
179	Hillsborough	Y		Y	
180	Hollister	Y		Y	
181	Holtville	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
182	Hughson	Y		Y	
183	Humboldt	Y		Y	
184	Huntington Beach	Y		Y	
185	Huntington Park	Y		Y	
186	Huron	Y		Y	
187	Imperial	Y		Y	
188	Imperial Beach	Y		Y	
189	Indian Wells	Y		Y	
190	Indio	Y		Y	
191	Industry	Y		Y	
192	Inglewood	Y		Y	
193	Inyo	Y		Y	
194	Ione	Y		Y	
195	Irvine	Y		Y	
196	Irwindale	Y		Y	
197	Isleton	Y		Y	
198	Jackson	Y		Y	
199	Kerman	Y		Y	
200	Kern	Y		Y	
201	King City	Y		Y	
202	Kings	Y		Y	
203	Kingsburg	Y		Y	
204	La Canada Flintridge	Y		Y	
205	La Habra	Y		Y	
206	La Habra Heights	Y		Y	
207	La Mesa	Y		Y	
208	La Mirada	Y		Y	
209	La Palma	Y		Y	
210	La Puente	Y		Y	
211	La Quinta	Y		Y	
212	La Verne	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
213	Lafayette	Y		Y	
214	Laguna Beach	Y		Y	
215	Laguna Hills	Y		Y	
216	Laguna Niguel	Y		Y	
217	Laguna Woods	Y		Y	
218	Lake	Y		Y	
219	Lake Elsinore	Y		Y	
220	Lake Forest	Y		Y	
221	Lakeport	Y		Y	
222	Lakewood	Y		Y	
223	Lancaster	Y		Y	
224	Larkspur	Y		Y	
225	Lassen	Y		Y	
226	Lathrop	Y		Y	
227	Lawndale	Y		Y	
228	Lemon Grove	Y		Y	
229	Lemoore	Y		Y	
230	Lincoln	Y		Y	
231	Lindsay	Y		Y	
232	Live Oak	Y		Y	
233	Livermore	Y		Y	
234	Livingston	Y		Y	
235	Lodi	Y		Y	
236	Loma Linda	Y		Y	
237	Lomita	Y		Y	
238	Lompoc	Y		Y	
239	Long Beach	Y		Y	
240	Loomis	Y		Y	
241	Los Alamitos	Y		Y	
242	Los Altos	Y		Y	
243	Los Altos Hills	Y		Y	
244	Los Angeles	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
245	Los Banos	Y		Y	
246	Los Gatos	Y		Y	
247	Loyalton	Y		Y	
248	Lynwood	Y		Y	
249	Madera	Y		Y	
250	Malibu	Y		Y	
251	Mammoth Lakes	Y		Y	
252	Manhattan Beach	Y		Y	
253	Manteca	Y		Y	
254	Maricopa	Y		Y	
255	Marina	Y		Y	
256	Martinez	Y		Y	
257	Marysville	Y		Y	
258	Maywood	Y		Y	
259	Mcfarland	Y		Y	
260	Mendota	Y		Y	
261	Menlo Park	Y		Y	
262	Merced	Y		Y	
263	Mill Valley	Y		Y	
264	Millbrae	Y		Y	
265	Milpitas	Y		Y	
266	Mission Viejo	Y		Y	
267	Modesto	Y		Y	
268	Monrovia	Y		Y	
269	Montague	Y		Y	
270	Montclair	Y		Y	
271	Monte Sereno	Y		Y	
272	Montebello	Y		Y	
273	Monterey	Y		Y	
274	Monterey Park	Y		Y	
275	Moorpark	Y		Y	
276	Moraga	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
277	Moreno Valley	Y		Y	
278	Morgan Hill	Y		Y	
279	Morro Bay	Y		Y	
280	Mount Shasta	Y		Y	
281	Mountain View	Y		Y	
282	Murrieta	Y		Y	
283	Napa	Y		Y	
284	National City	Y		Y	
285	Needles	Y		Y	
286	Nevada City	Y		Y	
287	Newark	Y		Y	
288	Newman	Y		Y	
289	Newport Beach	Y		Y	
290	Norco	Y		Y	
291	Norwalk	Y		Y	
292	Novato	Y		Y	
293	Oakdale	Y		Y	
294	Oakland	Y		Y	
295	Oakley	Y		Y	
296	Oceanside	Y		Y	
297	Ojai	Y		Y	
298	Ontario	Y		Y	
299	Orange	Y		Y	
300	Orange Cove	Y		Y	
301	Orinda	Y		Y	
302	Orland	Y		Y	
303	Oroville	Y		Y	
304	Oxnard	Y		Y	
305	Pacific Grove	Y		Y	
306	Pacifica	Y		Y	
307	Palm Desert	Y		Y	
308	Palm Springs	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
309	Palmdale	Y		Y	
310	Palo Alto	Y		Y	
311	Palos Verdes Estates	Y		Y	
312	Paradise	Y		Y	
313	Paramount	Y		Y	
314	Parlier	Y		Y	
315	Pasadena	Y		Y	
316	Patterson	Y		Y	
317	Perris	Y		Y	
318	Petaluma	Y		Y	
319	Pico Rivera	Y		Y	
320	Piedmont	Y		Y	
321	Pinole	Y		Y	
322	Pismo Beach	Y		Y	
323	Pittsburg	Y		Y	
324	Placentia	Y		Y	
325	Placerville	Y		Y	
326	Pleasant Hill	Y		Y	
327	Pleasanton	Y		Y	
328	Plymouth	Y		Y	
329	Point Arena	Y		Y	
330	Pomona	Y		Y	
331	Port Hueneme	Y		Y	
332	Porterville	Y		Y	
333	Portola	Y		Y	
334	Portola Valley	Y		Y	
335	Poway	Y		Y	
336	Rancho Cordova	Y		Y	
337	Rancho Cucamonga	Y		Y	
338	Rancho Mirage	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
339	Rancho Palos Verdes	Y		Y	
340	Rancho Santa Margarita	Y		Y	
341	Red Bluff	Y		Y	
342	Redding	Y		Y	
343	Redlands	Y		Y	
344	Redondo Beach	Y		Y	
345	Redwood City	Y		Y	
346	Reedley	Y		Y	
347	Rialto	Y		Y	
348	Richmond	Y		Y	
349	Ridgecrest	Y		Y	
350	Rio Dell	Y		Y	
351	Rio Vista	Y		Y	
352	Ripon	Y		Y	
353	Riverbank	Y		Y	
354	Riverside	Y		Y	
355	Rocklin	Y		Y	
356	Rohnert Park	Y		Y	
357	Rolling Hills	Y		Y	
358	Rolling Hills Estates	Y		Y	
359	Rosemead	Y		Y	
360	Roseville	Y		Y	
361	Ross	Y		Y	
362	Sacramento	Y		Y	
363	Salinas	Y		Y	
364	San Anselmo	Y		Y	
365	San Bernardino	Y		Y	
366	San Bruno	Y		Y	
367	San Buenaventura	Y		Y	
368	San Carlos	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
369	San Clemente	Y		Y	
370	San Diego	Y		Y	
371	San Dimas	Y		Y	
372	San Fernando	Y		Y	
373	San Francisco	Y		Y	
374	San Gabriel	Y		Y	
375	San Jacinto	Y		Y	
376	San Joaquin	Y		Y	
377	San Jose	Y		Y	
378	San Juan Bautista	Y		Y	
379	San Juan Capistrano	Y		Y	
380	San Leandro	Y		Y	
381	San Luis Obispo	Y		Y	
382	San Marcos	Y		Y	
383	San Marino	Y		Y	
384	San Mateo	Y		Y	
385	San Pablo	Y		Y	
386	San Rafael	Y		Y	
387	San Ramon	Y		Y	
388	Sand City	Y		Y	
389	Sanger	Y		Y	
390	Santa Ana	Y		Y	
391	Santa Barbara	Y		Y	
392	Santa Clara	Y		Y	
393	Santa Clarita	Y		Y	
394	Santa Cruz	Y		Y	
395	Santa Fe Springs	Y		Y	
396	Santa Maria	Y		Y	
397	Santa Monica	Y		Y	
398	Santa Paula	Y		Y	
399	Santa Rosa	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
400	Santee	Y		Y	
401	Saratoga	Y		Y	
402	Sausalito	Y		Y	
403	Scotts Valley	Y		Y	
404	Seal Beach	Y		Y	
405	Seaside	Y		Y	
406	Sebastopol	Y		Y	
407	Selma	Y		Y	
408	Shafter	Y		Y	
409	Shasta Lake	Y		Y	
410	Sierra Madre	Y		Y	
411	Signal Hill	Y		Y	
412	Simi Valley	Y		Y	
413	Solana Beach	Y		Y	
414	Soledad	Y		Y	
415	Solvang	Y		Y	
416	Sonoma	Y		Y	
417	Sonora	Y		Y	
418	South El Monte	Y		Y	
419	South Gate	Y		Y	
420	South Lake Tahoe	Y		Y	
421	South Pasadena	Y		Y	
422	South San Francisco	Y		Y	
423	St Helena	Y		Y	
424	Stanton	Y		Y	
425	Stockton	Y		Y	
426	Suisun City	Y		Y	
427	Sunnyvale	Y		Y	
428	Susanville	Y		Y	
429	Sutter Creek	Y		Y	
430	Taft	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
431	Tehachapi	Y		Y	
432	Tehama	Y		Y	
433	Temecula	Y		Y	
434	Temple City	Y		Y	
435	Thousand Oaks	Y		Y	
436	Tiburon	Y		Y	
437	Torrance	Y		Y	
438	Tracy	Y		Y	
439	Trinidad	Y		Y	
440	Truckee	Y		Y	
441	Tulare	Y		Y	
442	Tulelake	Y		Y	
443	Turlock	Y		Y	
444	Tustin	Y		Y	
445	Twentynine Palms	Y		Y	
446	Ukiah	Y		Y	
447	Union City	Y		Y	
448	Upland	Y		Y	
449	Vacaville	Y		Y	
450	Vallejo	Y		Y	
451	Vernon	Y		Y	
452	Victorville	Y		Y	
453	Villa Park	Y		Y	
455	Visalia	Y		Y	
456	Vista	Y		Y	
457	Walnut	Y		Y	
458	Walnut Creek	Y		Y	
459	Wasco	Y		Y	
460	Waterford	Y		Y	
461	Watsonville	Y		Y	
462	Weed	Y		Y	
463	West Covina	Y		Y	

Table 1.2.3.6.2.a Bidder's Converged VoIP and VoIP Voice Mail Services are Commercially Available Areas (continued)

	Service Location	Converged IP		VoIP Voice Mail	
464	West Hollywood	Y		Y	
465	West Los Angeles	Y		Y	
466	West Sacramento	Y		Y	
467	Westlake Village	Y		Y	
468	Westminster	Y		Y	
469	Westmorland	Y		Y	
470	Wheatland	Y		Y	
471	Whittier	Y		Y	
472	Williams	Y		Y	
473	Willits	Y		Y	
474	Willows	Y		Y	
475	Windsor	Y		Y	
476	Winters	Y		Y	
477	Woodlake	Y		Y	
478	Woodland	Y		Y	
479	Woodside	Y		Y	
480	Yorba Linda	Y		Y	
481	Yountville	Y		Y	
482	Yreka	Y		Y	
483	Yuba City	Y		Y	
484	Yucaipa	Y		Y	
485	Yucca Valley	Y		Y	

Bidder may identify additional locations where their Converged VoIP and VoIP Voice Mail Services are currently commercially available in Table 1.2.3.6.2.b.

If Bidder is unable to identify all service areas within Table 1.2.3.6.2.a, Bidder shall provide additional information in the form of a coverage map that includes unincorporated areas.

Table 1.2.3.6.2.b Additional Bidder's Converged VoIP and VoIP Voice Mail Services Commercially Available Areas

	Service Location	Standalone IP		VoIP Voice Mail	
		Yes	No	Yes	No

1.2.4 AUDIO CONFERENCING

The Contractor shall provide Audio Conferencing which shall consist of a multiple port, reserved and reservationless, conferencing bridge.

Basic Audio Conferencing shall include the following:

1. ***International Access - Callers have the ability to participate in a conference from an international location;***
2. ***Host Controlled Question and Answer Service - The host of a conference can control a question and answer session on a conference call; and,***
3. ***Voting and Polling Service - The capability for participants to vote via touchtone keys and for the host to poll votes.***

All Audio Conferencing services shall be available and functional to all subscribers.

Contractor shall support Toll-Free Dial-in and Caller Paid Dial-in conferencing services.

Audio Conferencing services shall support users who are connected via IP and the Public Switched Telephone Network (PSTN).

Contractor shall provide gateway services to support calls through the PSTN.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.4.1 AUDIO CONFERENCING FEATURES

Contractor shall offer the Audio Conferencing features detailed in Table 1.2.4.1.a.

Table 1.2.4.1.a Audio Conferencing Service and Features

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	Caller Paid Dial-in Reservation-less Service	Also known as "Meet-Me" service, participants dial a pre-established number and access code to join the conference call.	**Y**		OIMM0000
	Bidder's Product Description: Verizon will provide Caller Paid Dial-in Reservation-less Service, also known as "Meet-Me" service. Participants access the call through a long distance or local number and access code to join the conference call.				
2	Toll-Free Dial-in Reservation-less Service	Also known as "Meet-Me" service, participants dial a pre-established toll-free number and access code to join the conference call.	**Y**		IIMM0000
	Bidder's Product Description: Verizon will provide Toll-Free Dial-in Reservation-less Service, also known as "Meet-Me" service, where participants dial a pre-established toll-free number and access code to join the conference call.				

Table 1.2.4.1.a Audio Conferencing Service and Features (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
3	Caller Paid Dial-in Reserved Service	Host reserves a conference session in advance and receives a temporary dial-in number and access code. Participants dial the number and enter the access code to join the call.	**Y**		ISMM0000
	Bidder's Product Description: Verizon will provide Caller Paid Dial-in Reserved Service. The host reserves a conference session in advance and receives a temporary dial-in number and access code. Participants dial the number and enter the access code to join the call.				
4	Toll-Free Dial-in Reserved Service	Host reserves a conference session in advance and receives a temporary toll-free dial-in number and access code. Participants dial the toll-free number and enter the access code to join the call.	**Y**		ITFR0000
	Bidder's Product Description: Verizon will provide Toll-Free Dial-in Reserved Service in which the Host reserves a conference session in advance and receives a temporary toll-free dial-in number and access code. Participants dial the toll-free number and enter the access code to join the call.				
5	Operator-Dialed Service	An operator sets up the conference call by placing calls to each of the participants.	**Y**		IPMM0000
	Bidder's Product Description: Verizon will provide an Operator-Dialed Service in which An operator sets up the conference call by placing calls to each of the participants. Participants are notified of the conference date and time. Minutes prior to the schedule conference call, the Verizon Conferencing Center will dial out and connect participants.				
6	Operator-Assisted Dial-in Service	Participants dial in to the conference number and the operator screens the callers for information such as password, name or location.	**Y**		IOPR0000
	Bidder's Product Description: Verizon will provide Operator-Assisted Dial-in Service in which Participants dial in to the conference number and the operator screens the callers for information such as password, name or location. Participants dial into the conference number, and a Conference Coordinator screens callers by name, passcode, location or other information, joins the callers for the conference call. The Conference Coordinator will monitor the call periodically for quality and is available for assistance as needed.				

Table 1.2.4.1.a Audio Conferencing Service and Features (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
7	Recording Service	The capability to record to various media including CD, audiocassette or the Digitized Replay option below.	**Y**		IRWF0000
	Bidder's Product Description: Verizon will provide Recording Service with the capability to record to various media including CD, audiocassette or the Digitized Replay option below.				
8	Digitized Replay	A user can listen to a conference call at their convenience by dialing an access number/code. During replay the caller can control the session utilizing telephone keypad entries.	**Y**		IIRP0000
	Bidder's Product Description: Verizon will provide Digitized Replay. A user can listen to a conference call at their convenience by dialing an access number/code. During replay the caller can control the session utilizing telephone keypad entries. This service is available after a call for the duration of time indicated by the customer.				
9	Transcription	Contractor provided transcribing a conference call	**Y**		ICTR0000
	Bidder's Product Description: Verizon will provide transcription services for conference calls.				
10	Language Interpretation/ Translation	Real-time interpretation and translation services	**Y**		VCTS0000
	Bidder's Product Description: Verizon will provide Language Interpretation/ Translation as real-time interpretation and translation services for 120 languages or dialects.				
11	Security List Screening	Host specifies a list of participants who may dial into the conference call. Conference Attendant screens callers against the list.	**Y**		IRPN0000
	Bidder's Product Description: Verizon will provide Security List Screening in which a host specifies a list of participants who may dial into the conference call. The Conference Attendant screens callers against the list, compiling the data requested.				

Table 1.2.4.1.a Audio Conferencing Service and Features (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
12	Participant List	Conference Attendant captures up to three (3) caller attributes and distributes a list of conference participants to the host immediately following the call.	**Y**		IRPL0000
	Bidder's Product Description: Verizon will a Participant list for which the Conference Attendant captures up to three (3) caller attributes and distributes a list of conference participants to the host immediately following the call.				

The Contractor may offer additional unsolicited Audio Conferencing features in Table 1.2.4.1.b.

Table 1.2.4.1.b Unsolicited Audio Conferencing Features

	Feature Name	Feature Description	Bidder's Product Identifier
1	**Global Access Toll Band A**	Global Access Toll Band A Transport	**ATBA0000**
	Bidder's Product Description: Global Access Toll Band A allows call participants to access a call via a non-U.S. local exchange number. Each participating caller calls the non-U.S. Local exchange number. The following countries are based on availability of service, zone and origination type. Austria, Belgium, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Spain, Sweden, Switzerland, UK, and Denmark.		
2	**Global Access Toll Band C**	Global Access Toll Band C Transport	**ATBC0000**
	Bidder's Product Description: Global Access Toll Band C allows call participants to access a call via a non-U.S. local exchange number. Each participating caller calls the non-U.S. Local exchange number. The following countries are based on availability of service, zone and origination access type. Australia, Hong Kong, Japan, Romania, South Korea, and New Zealand.		
3	**Global Access Toll Band D**	Global Access Toll Band D Transport	**ATBD0000**
	Bidder's Product Description: Global Access Toll Band D allows call participants to access a call via a non-U.S. local exchange number. Each participating caller calls the non-U.S. Local exchange number. The following countries are based on availability of service, zone and origination access type. Singapore and Taiwan.		

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
4	**Global Access Toll Band E**	Global Access Toll Band E Transport	**ATBE0000**
	Bidder's Product Description: Global Access Toll Band E allows call participants to access a call via a non-U.S. local exchange number. Each participating caller calls the non-U.S. Local exchange number. The following countries are based on availability of service, zone and origination access type. Greece, Finland, Norway, Czech, and Slovakia.		
5	**Global Access Toll Band F**	Global Access Toll Band F Transport	**ATBF0000**
	Bidder's Product Description: Global Access Toll Band F allows call participants to access a call via a non-U.S. local exchange number. Each participating caller calls the non-U.S. Local exchange number. The following countries are based on availability of service, zone and origination access type. Brazil, Hungary, and Mexico.		
6	**Global Access Toll Band G**	Global Access Toll Band G Transport	**ATBG0000**
	Bidder's Product Description: Global Access Toll Band G allows call participants to access a call via a non-U.S. local exchange number. Each participating caller calls the non-U.S. Local exchange number. The following countries are based on availability of service, zone and origination access type. China, India, and Philippines.		
7	**Global Access Freephone Band A**	Global Access Freephone Band A Transport	**AFBA0000**
	Bidder's Product Description: Global Access Freephone Band A allows call participants to access a call via a Local Toll Free number. Each participating caller calls the designated Freephone number. Local Freephone access is available via an in-country Freephone number. The Local Freephone number and corresponding passcode will allow direct dial access to the call. The following countries are based on availability of service, zone and origination type. Austria, Belgium, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Spain, Sweden, Switzerland, UK, and Denmark.		
8	**Global Access Freephone Band C**	Global Access Freephone Band C Transport	**AFBC0000**
	Bidder's Product Description: Global Access Freephone Band C allows call participants to access a call via a Local Toll Free number. Each participating caller calls the designated Freephone number. Local Freephone access is available via an in-country Freephone number. The Local Freephone number and corresponding passcode will allow direct dial access to the call. The following countries are based on availability of service, zone and origination access type. Australia, Hong Kong, Japan, South Korea, and New Zealand.		

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

9	**Global Access Freephone Band D**	Global Access Freephone Band D Transport	**AFBD0000**
	Bidder's Product Description: Global Access Freephone Band D allows call participants to access a call via a Local Toll Free number. Each participating caller calls the designated Freephone number. Local Freephone access is available via an in-country Freephone number. The Local Freephone number and corresponding passcode will allow direct dial access to the call. The following countries are based on availability of service, zone and origination access type. Singapore, Malaysia, Slovenia, Turkey, and Taiwan.		
10	**Global Access Freephone Band E**	Global Access Freephone Band E Transport	**AFBE0000**
	Bidder's Product Description: Global Access Freephone Band E allows call participants to access a call via a Local Toll Free number. Each participating caller calls the designated Freephone number. Local Freephone access is available via an in-country Freephone number. The Local Freephone number and corresponding passcode will allow direct dial access to the call. The following countries are based on availability of service, zone and origination access type. Estonia, Greece, Finland, Norway, Czech, and Slovakia.		
11	**Global Access Freephone Band F**	Global Access Freephone Band F Transport	**AFBF0000**
	Bidder's Product Description: Global Access Freephone Band F allows call participants to access a call via a Local Toll Free number. Each participating caller calls the designated Freephone number. Local Freephone access is available via an in-country Freephone number. The Local Freephone number and corresponding passcode will allow direct dial access to the call. The following countries are based on availability of service, zone and origination access type. Argentina, Brazil, Costa Rica, Croatia, Hungary, Israel, Mexico, Panama, Poland, Portugal, Russia, South Africa, and Uruguay.		
12	**Global Access Freephone Band G**	Global Access Freephone Band G Transport	**AFBG0000**
	Bidder's Product Description: Global Access Freephone Band G allows call participants to access a call via a Local Toll Free number. Each participating caller calls the designated Freephone number. Local Freephone access is available via an in-country Freephone number. The Local Freephone number and corresponding passcode will allow direct dial access to the call. The following countries are based on availability of service, zone and origination access type. Chile, China, Colombia, India, Indonesia, Latvia, Peru, Philippines, Saudi Arabia, Thailand, United Arab Emirates and Venezuela.		

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

Managed Video Conferencing

	Feature Name	Feature Description	Bidder's Product Identifier
13	**Managed Video Conferencing - Standard Session Support 384K**	Managed Video Conferencing - Standard Session Support 384K provides Video Conference session support with assistance of a live Conferencing Attendant.	**ISSS0000**
	Bidder's Product Description: Verizon is proposing Managed Video Conferencing Service as an Unsolicited Service Offering in section 1.2 Conferencing service. Managed Video Conferencing Service supports the agencies ability to successfully implement MPLS service on customer provided Video Conferencing equipment. Smaller agencies require additional technical support to provide this assistance configuring and manging the implemention of Video Conferencing service. Managing video configurations on the equipment over the MPLS network would be an example of this type of intregration support. Managed Video Conferencing - Standard Session Support 384K provides Standard Session Support with a connection at 384K. A Conferencing Attendant to greet each caller; assist participants in connecting, perform a roll call of all participants and notify the conference leader when all participants are present. At the completion of the roll call, the Conferencing Specialist will disconnect from the call. If technical assistance is needed during the conference, the Customer can contact a Conferencing Attendant for assistance.		
14	**Managed Video Conferencing - Enhanced Session Support**	Managed Video Conferencing - Enhanced Session Support provides Video Conference session support with assistance of a live Conferencing Attendant for the duration of the conference.	**IESS0000**
	Bidder's Product Description: Managed Video Conferencing - Enhanced Session Support provides Standard Session Support. A Conferencing Attendant to greet each caller; assist participants in connecting, perform a roll call of all participants and notify the conference leader when all participants are present. At the completion of the roll call, the Conferencing Attendant shall remain online and provide technical assistance until the end of the conference.		
15	**Managed Video Conferencing - Session Support Cancellation fee**	Managed Video Conferencing - Session Support Cancellation fee is a fee that is applied if the Session Support is cancelled less than 1 hour prior to the scheduled conference.	**ISCF0000**
	Bidder's Product Description: Managed Video Conferencing - Session Support Cancellation fee is a fee that is applied if the Session Support is cancelled less than 1 hour prior to the scheduled conference.		

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
16	**Managed Video Conferencing - Network MCU Less than 385K**	Managed Video Conferencing - Network MCU Less than 385K allows for a single session IP based video and audio conferencing in a multipoint arrangement.	**IMCU0000**
	Bidder's Product Description: Managed Video Conferencing - Network MCU Services (Port) Less than 385K provides Multipoint Control Unit (MCU) services that allow for a single session IP based video and audio conferencing in a multipoint arrangement. This is accomplished through a centralized system of provider based equipment and software. The Network MCU Service is up to 384K connection.		
17	**Managed Video Conferencing - Enhanced Network MCU 385-768K**	Managed Video Conferencing - Enhanced Network MCU 385K to 768Kbs allows for a single session IP based video and audio conferencing in a multipoint arrangement.	**IMCU0512**
	Bidder's Product Description: Managed Video Conferencing - Enhanced Network MCU Services (Port) 385K to 768K Enhanced Network MCU Services (385kbps-768kbps) allow for a single session IP based video and audio conferencing in a multipoint arrangement. This is accomplished through a centralized system of provider based equipment and software at 512K. The Enhanced Network MCU Service is from 512K to 768K connection.		
18	**Managed Video Conferencing - IP Access Port Bridge - 768K-T1**	Managed Video Conferencing - IP Access Port Bridge - 768K to T1 allows for a single session IP based video and audio conferencing in a multipoint arrangement.	**ICSP0015**
	Bidder's Product Description: Managed Video Conferencing - IP Access Port Bridge - 768K to T1 provides Multipoint Control Unit (MCU) services that allow for a single session IP based video and audio conferencing in a multipoint arrangement. This is accomplished through a centralized system of provider based equipment and software. The Network MCU Service is up to 384K connection.		
19	**Managed Video Conferencing - MCU Cascading 384K**	Managed Video Conferencing - MCU Cascading Services (Port 384K) allows for distributed videoconferencing arrangements using a Blended Network and Premise MCUs 384K	**ICAS0000**
	Bidder's Product Description: Managed Video Conferencing - MCU Cascading Services (Port 384K) allows for distributed videoconferencing arrangements utilizing a combination of customer owned and network based MCUs. The MCU Cascading Service is up to 384K connection.		
20	**Managed Video Conferencing - Enhanced MCU Cascading 512-768K**	Managed Video Conferencing - Enhanced MCU Cascading Service (512K to 768K) allows for distributed videoconferencing arrangements using a Blended Network and Premise MCUs 512K to 768K	**ICAS0512**

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Bidder's Product Description: Managed Video Conferencing - Enhanced MCU Cascading Service (512K to 768K) allows for distributed videoconferencing arrangements using a Blended Network and Premise MCUs 512K to 768K		
21	**Managed Video Conferencing - Gateway Services (384K)**	Managed Video Conferencing - Gateway Services (384K) provides PSTN Interconnection 384K	**IGYS0000**
	Bidder's Product Description: Managed Video Conferencing - Gateway Services (384K) allows for the interconnection of IP based videoconference sessions with Integrated Services Digital Network (ISDN) based videoconferencing sessions connecting via the Public Switched Telephone Network (PSTN). This is accomplished through use of a specific number to call where parties can join. The MCU Cascading Service is up to 384K connection.		
22	**Managed Video Conferencing - Enhanced Gateway 512-768K**	Managed Video Conferencing - Enhanced Gateway Services (512K to 768K) provides PSTN Interconnection between 512K and 768K	**IGYS0512**
	Bidder's Product Description: Managed Video Conferencing - Enhanced Gateway Services (512K to 768K) Enhanced Gateway Services allows for the interconnection of IP based videoconference sessions with ISDN based videoconferencing sessions connecting via the PSTN. This is accomplished through use of a specific number to call where parties can join. The MCU Cascading Service is from 512K to 768K connections.		
23	**Managed Video Conferencing - Transcoding Services**	Managed Video Conferencing - Transcoding Services Per Session enables translation between Network CODECs	**ITRN0000**
	Bidder's Product Description: Managed Video Conferencing - Transcoding Services Per Session enables a participant to take part in a conference even though they communicate via unlike compression methods or dissimilar codec speeds. Converts the Customer's CODEC algorithm or speed to match with the other participants in the videoconference.		
24	**Managed Video Conferencing - Conference Scheduling Services**	Managed Video Conferencing - Conference Scheduling Services allows scheduling of video/audio conferencing sessions.	**ICSS0000**
	Bidder's Product Description: Managed Video Conferencing - Conference Scheduling Services Conference Scheduling Services is a network wide scheduling of video/audio conferencing sessions shall be available through any combination of web-based, e-mail or phone initiated methods.		
25	**Managed Video Conferencing Enhanced Session Powerpoint Push**	Managed Video Conferencing - Enhanced Session Powerpoint Pushes enables document sharing over the network.	**ISPP0000**

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Bidder's Product Description: Managed Video Conferencing - Enhanced Session Powerpoint Pushes supports H.239 standard for document sharing, or the customer can use Verizon's Net Conferencing solution in conjunction with the video. The H.239 feature enables both video and graphical data to be transmitted over a single network connection and displayed in the video conference simultaneously using a single monitor, using the H.239 industry standard protocol.		
26	**Managed Video Conferencing Enhanced Content Manipulation**	Managed Video Conferencing - Enhanced Session Content Manipulation enables Combined Video and Graphical Content Delivery	**ISCM0000**
	Bidder's Product Description: Managed Video Conferencing - Enhanced Session Content Manipulation supports H.239 standard for document sharing, or the customer can use Verizon's Net Conferencing solution in conjunction with the video. The H.239 feature enables both video and graphical data to be transmitted over a single network connection and displayed in the video conference simultaneously using a single monitor, using the H.239 industry standard protocol.		
27	**Managed Video Conferencing - Enhanced Session Q&A Moderation**	Managed Video Conferencing - Enhanced Session Q&A Moderation provides a Session Moderator for a Q&A session.	**ISQA0000**
	Bidder's Product Description: Managed Video Conferencing - Enhanced Session Q&A Moderation is supported in Verizon's Premier Level service. When using Verizon's Premier Level service, Verizon's video coordinators will moderate a formal Question and Answer (Q&A) session.		

Open Video Communications

	Feature Name	Feature Description	Bidder's Product Identifier
28	**OVC Instant Service Level Usage up to 6Mbs**	Open Video Communications (OVC) Instant Service Level Usage up to 6Mbs is multi-party video conferencing with usage level suitable for Smartphones, Small Clients, Desktop Single Purpose devices.	**OVCI0006**
	Bidder's Product Description: Verizon is proposing Open Video Communications (OVC) Service as an Unsolicited Service Offering in section 1.2 Conferencing service. OVC Service supports the agencies ability to successfully implement MPLS service on customer provided Video Conferencing equipment on both the private and public MPLS network. State agencies require additional technical support to provide ubiquitious connections over a Video Conference system. Video Connections between two State agenices over different network solutions (one being MPLS) would be an example of this type of intregration support. Open Video Communications (OVC) Standard Service Level Usage up to 6Mbs is multi-party video conferencing with usage level suitable for Smartphones, Small Clients, Desktop Single Purpose devices.		

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
29	**OVC Instant Service Level Usage 6Mbs to 12Mbs**	OVC Instant Service Level Usage 6Mbs to 12Mbs is multi-party video conferencing with usage level suitable for Single Screen Telepresence rooms.	**OVCI0012**
	Bidder's Product Description: Open Video Communications (OVC) Standard Service Level Usage 6Mbs to 12Mbs is multi-party video conferencing with usage level suitable for Single Screen Telepresence rooms.		
30	**OVC Instant Service Level Usage 12Mbs to 18Mbs**	OVC Instant Service Level Usage 12Mbs to 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms.	**OVCI0018**
	Bidder's Product Description: Open Video Communications (OVC) Instant Service Level Usage 12Mbs to 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms.		
31	**OVC Instant Service Level Usage Over 18Mbs**	OVC Instant Service Level Usage Over 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms with Document Sharing.	**OVCI0019**
	Bidder's Product Description: Open Video Communications (OVC) Instant Service Level Usage Over 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms with Document Sharing.		
32	**OVC Standard Service Level Usage up to 6Mbs**	OVC Standard Service Level Usage up to 6Mbs is multi-party video conferencing with usage level suitable for Smartphones, Small Clients, Desktop Single Purpose devices.	**OVCS0006**
	Bidder's Product Description: Open Video Communications (OVC) Standard Service Level Usage up to 6Mbs is multi-party video conferencing with usage level suitable for Smartphones, Small Clients, Desktop Single Purpose devices.		
33	**OVC Standard Service Level Usage 6Mbs to 12Mbs**	OVC Standard Service Level Usage 6Mbs to 12Mbs is multi-party video conferencing with usage level suitable for Single Screen Telepresence rooms.	**OVCS0012**
	Bidder's Product Description: Open Video Communications (OVC) Standard Service Level Usage 6Mbs to 12Mbs is multi-party video conferencing with usage level suitable for Single Screen Telepresence rooms.		
34	**OVC Standard Service Level Usage 12Mbs to 18Mbs**	OVC Standard Service Level Usage 12Mbs to 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms.	**OVCS0018**

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	Bidder's Product Description: Open Video Communications (OVC) Standard Service Level Usage 12Mbs to 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms.		
35	**OVC Standard Service Level Usage Over 18Mbs**	OVC Standard Service Level Usage Over 18Mbs is multi-party video conferencing with usage suitable for Multi-Screen Telepresence rooms with Document Sharing.	**OVCS0019**
	Bidder's Product Description: Open Video Communications (OVC) Standard Service Level Usage Over 18Mbs is multi-party video conferencing with usage suitable for Multi-Screen Telepresence rooms with Document Sharing.		
36	**OVC Premier Service Level Usage up to 6Mbs**	OVC Premier Service Level Usage up to 6Mbs is multi-party video conferencing	**OVCP0006**
	Bidder's Product Description: Open Video Communications (OVC) Premier Service Level Usage up to 6Mbs is multi-party video conferencing with usage level suitable for Smartphones, Small Clients, Desktop Single Purpose devices.		
37	**OVC Premier Service Level Usage 6Mbs to 12Mbs**	OVC Premier Service Level Usage 6Mbs to 12Mbs is multi-party video conferencing with usage level suitable for Single Screen Telepresence rooms.	**OVCP0012**
	Bidder's Product Description: Open Video Communications (OVC) Premier Service Level Usage 6Mbs to 12Mbs is multi-party video conferencing with usage level suitable for Single Screen Telepresence rooms.		
38	**OVC Premier Service Level Usage 12Mbs to 18Mbs**	OVC Premier Service Level Usage 12Mbs to 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms.	**OVCP0018**
	Bidder's Product Description: Open Video Communications (OVC) Premier Service Level Usage 12Mbs to 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms.		
39	**OVC Premier Service Level Usage Over 18Mbs**	OVC Premier Service Level Usage Over 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms with Document Sharing.	**OVCP0019**
	Bidder's Product Description: Open Video Communications (OVC) Premier Service Level Usage Over 18Mbs is multi-party video conferencing with usage level suitable for Multi-Screen Telepresence rooms with Document Sharing.		

Table 1.2.4.1.b Unsolicited Audio Conferencing Features (continued)

	Feature Name	Feature Description	**Bidder's Product Identifier**
40	**OVC Endpoint Management Non-Cisco Telepresence**	OVC Endpoint Management Non-Cisco Telepresence Endpoint Management Service	**OVPE0000**
	Bidder's Product Description: Open Video Communications (OVC) Endpoint Management Non-Cisco Telepresence is Monthly Management of Customer Videoconferencing Endpoints.		
41	**OVC Endpoint Management Cisco Telepresence, Single CODEC**	OVC Endpoint Management Cisco Telepresence, Single CODEC Endpoint Management Service	**OVSC0000**
	Bidder's Product Description: Open Video Communications (OVC) Endpoint Management Cisco Telepresence, Single CODEC is Monthly Management of Customer Videoconferencing Endpoints.		
42	**OVC Endpoint Management Cisco Telepresence, Multiple CODECs**	OVC Endpoint Management Cisco Telepresence, Multiple CODECs Endpoint Management Service	**OVMC0000**
	Bidder's Product Description: Open Video Communications (OVC) Endpoint Management Cisco Telepresence, Multiple CODECs is Monthly Management of Customer Videoconferencing Endpoints.		

1.2.5 SESSION INITIATED PROTOCOL (SIP) TRUNKING

The Contractor shall provide a network based trunk service using Session Initiated Protocol (SIP) that includes the functionality described below. The SIP trunk service shall allow a Customer to utilize a connection to the contractors MPLS network provided under this section to access the Public Switched Telephone Network from an end-user device such as an IP PBX, Call Manager or Unified Communications and Collaboration device.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.1 SIP SUPPORTED CALLING

Contractor shall provide access to the PSTN via SIP trunking that supports local, long distance and inbound toll-free calling.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.2 CONCURRENT SIP CALLS

The Contractor shall engineer the SIP trunk service to support the number of concurrent calls requested by the End-User. The SIP trunk service shall support G.711 and G.729a voice compression.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.3 ON-NET SIP CALLING

The Contractor shall provide SIP Trunk service that provides unlimited on-net calling. On-net calling is defined as calling from a SIP Trunk site that uses the contractors MPLS network and terminates at a SIP Trunk site or a Converged VoIP site. The Converged VoIP service is that offered by the contractor under this section. If the contractor offers Standalone VoIP under another CALNET contract, a SIP Trunk call terminating at such a site shall be considered on-net. Off-net calling is any call that is not on-net. Off-net calling consists of local, long distance (United States) and international.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.4 ON-NET ENTERPRISE CALLING

The Contractor shall treat the State of California as a single enterprise for the purpose of on-net calling. On-net calling from one (1) State of California Agency/Department to another shall be treated the same as on-net calling within a State of California Agency or Department.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.5 INTEROPERABILITY OF SIP TRUNK WITH OTHER CALNET 3 TECHNOLOGIES

The Contractor's SIP Trunk services shall be interoperable with the Contractor's Converged VoIP services (Section 1.2.3.2) and the State shall not incur any charges to call between these two (2) services.

In the event at Contractor is awarded a CALNET 3 Contract for Standalone VoIP services (Subcategory 1.3), this IP Trunking service shall be interoperable with the Contractor's Standalone VoIP services and the State shall not incur any charges to call between these two (2) services.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.6 SIP CALLING FEATURES

The SIP trunk service shall support the following calling features:

1. ***Direct Inward Dialing (DID);***
2. ***Direct Outward Dialing (DOD);***
3. ***Local Number Portability;***
4. ***4-1-1 Directory Assistance;***

5. 7-1-1 Telecommunications Relay Service;

6. 9-1-1 and E9-1-1 Emergency Calling;

7. Operator Services; and,

8. ITU T.38 Standard for transmission over IP networks between Group 3 fax terminals.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.7 SIP TRUNKING GEOGRAPHIC AVAILABILITY

The Contractor shall provide SIP Trunking at all locations where Contractor is required to provide MPLS service.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.8 SIP CALLING PLANS

The Contractor shall provide the SIP calling plans identified in Table 1.2.5.8

Table 1.2.5.8, SIP Calling Plans

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	**SIP Calling Plan A**	Unlimited Local Calling (inbound/outbound) with unlimited off-net long distance calling (United States). The plan shall include a rate for off-net international and shall not include any other rates. There shall be no charges for on-net calling.	**Y**		**SIPA0000**
	Bidder's Product Description: Verizon will provide Unlimited Local Calling (inbound/outbound) with unlimited off-net long distance calling (United States). The Verizon plan will include a rate for off-net international and will not include any other rates. There will be no charges for on-net calling.				

Table 1.2.5.8, SIP Calling Plans (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
2	**SIP Calling Plan B**	Unlimited local calling with off-net long distance (Unites State) usage. The plan shall include a rate for off-net long distance (United State) and a rate for off-net international and shall not include any other rates. There shall be no charges for on-net calling.	**Y**		**SIPB0000**
	Bidder's Product Description: Verizon will provide Unlimited local calling with off-net long distance (Unites State) usage. The plan shall include a rate for off-net long distance (United State) and a rate for off-net international and shall not include any other rates. There shall be no charges for on-net calling.				
3	**U.S. Off-Net Calling for Calling Plan B**	Domestic Off-Net calling for Calling Plan B Customers	**Y**		**UCOB0000**
	Bidder's Product Description: Verizon will provide Domestic Off-Net calling for Calling Plan B Customers.				
4	**SIP Calling Plan C**	Unlimited off-net long distance calling (United States) with no local calling. There shall be no rates associated with this plan. There shall be no charges for on-net calling.	**Y**		**SIPC0000**
	Bidder's Product Description: Verizon will provide unlimited off-net long distance calling (United States) with no local calling. There shall be no rates associated with this plan. There shall be no charges for on-net calling.				

Table 1.2.5.8, SIP Calling Plans (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
5	**SIP Calling Plan D**	United States Inbound toll-free calling. The plan shall contain a rate for United States inbound toll-free calling and shall not include any other rates.	**Y**		**SIPD0000**
	Bidder's Product Description: Verizon will provide United States Inbound toll-free calling. The plan shall contain a rate for United States inbound toll-free calling and shall not include any other rates.				
6	**Inbound Toll-Free Calling for Calling Plan D**	Inbound Toll-Free calling for SIP Calling Plan D Customers.	**Y**		**ITFD0000**
	Bidder's Product Description: Verizon will provide Inbound Toll-Free calling for SIP Calling Plan D Customers.				

The Contractor may offer additional unsolicited SIP Calling Plans in Table 1.2.5.8.b.

Table 1.2.5.8.b Unsolicited SIP Trunking Features

	Feature Name	Feature Description	Bidder's Product Identifier
1	**SIP Calling Plan E**	SIP Calling Plan E VoIP Simultaneous Call Package Unlimited Local and 250 LD.	**IPTT1250**
	Bidder's Product Description: SIP Calling Plan E VoIP Simultaneous Call Package service (IP Trunking) routes call traffic both on and off the IP Network. Verizon IP Trunking uses PSTN gateways hosted within the network, further enabling the converged VoIP service for calls outside of the Customer Enterprise/Agency. Each IP Trunk includes unlimited calling between Intra/Inter Agency IP Trunks/HIPC, unlimited local calling (within 17 miles of the address) and 250 minutes per month (50 United States, the District of Columbia, the Virgin Islands and Puerto Rico). Tiered overage charges that exceed 250 minutes per month will apply on a per minute bases. Minutes cannot be shared between service locations nor can they be rolled over from month to month. MPLS Access for IP Trunking and DID numbers are required and are not included in this line item. Customer responsible for SIP integration between IP PBX and Verizon demark.		
2	**SIP Calling Plan F**	SIP Calling Plan F provides VoIP Simultaneous Call Package Unlimited Local and 750 LD.	**IPTT1750**
	Bidder's Product Description: SIP Calling Plan F VoIP Simultaneous Call Package routes call traffic both on and off the IP Network. Verizon IP Trunking uses PSTN gateways hosted within the network, further enabling the converged VoIP service for calls outside of the Customer Enterprise/Agency. Each IP Trunk includes unlimited calling between Intra/Inter Agency IP Trunks/HIPC, unlimited local calling (within 17 miles of the address) and 750 minutes per month (50 United States, the District of Columbia, the Virgin Islands and Puerto Rico). Tiered overage charges that exceed 750 minutes per month will apply on a per minute bases. Minutes cannot be shared between service locations nor can they be rolled over from month to month. MPLS Access for IP Trunking and DID numbers are required and are not included in this line item. Customer responsible for SIP integration between IP PBX and Verizon demark.		
3	**SIP Calling Plan G**	SIP Calling Plan G VoIP Simultaneous Call Package 250 LD ONLY.	**SPCG0000**
	Bidder's Product Description: SIP Calling Plan G VoIP Simultaneous Call Package 250 LD ONLY service (IP Trunking) routes call traffic both on and off the IP Network. Verizon IP Trunking uses PSTN gateways hosted within the network, further enabling the converged VoIP service for calls outside of the Customer Enterprise/Agency. Each IP Trunk includes unlimited calling between Intra/Inter Agency IP Trunks/HIPC and 250 LD minutes per month (50 United States, the District of Columbia, the Virgin Islands and Puerto Rico). Tiered overage charges that exceed 250 minutes per month will apply on a per minute bases. Minutes cannot be shared between service locations nor can they be rolled over from month to month. MPLS Access for IP Trunking and DID numbers are required and are not included in this line item. Customer responsible for SIP integration between IP PBX and Verizon demark.		

Table 1.2.5.8.b Unsolicited SIP Trunking Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
4	**SIP Calling Plan H**	SIP Calling Plan H VoIP simultaneous Call Package 750 LD ONLY.	**SPCH0000**
	Bidder's Product Description: SIP Calling Plan H VoIP Simultaneous Call Package 750 LD ONLY service (IP Trunking) routes call traffic both on and off the IP Network. Verizon IP Trunking uses PSTN gateways hosted within the network, further enabling the converged VoIP service for calls outside of the Customer Enterprise/Agency. Each IP Trunk includes unlimited calling between Intra/Inter Agency IP Trunks/HIPC and 750 LD minutes per month (50 United States, the District of Columbia, the Virgin Islands and Puerto Rico). Tiered overage charges that exceed 750 minutes per month will apply on a per minute bases. Minutes cannot be shared between service locations nor can they be rolled over from month to month. MPLS Access for IP Trunking and DID numbers are required and are not included in this line item. Customer responsible for SIP integration between IP PBX and Verizon demark.		
5	**SIP Calling Plan Overage**	SIP Calling Plan Overage for VoIP Simultaneous Call Package.	**SPOV0000**
	Bidder's Product Description: SIP Calling Plan Overage for VoIP Simultaneous Call Package (IP Trunking) Metered Usage charges apply on a per minute basis to Long Distance calls (IntraLATA, Intrastate and Interstate in the 50 United States, the District of Columbia, the Virgin Islands and Puerto Rico) per IP Trunk, per location when the SIP Calling Plan LD minutes have been exceeded.		
6	**VoIP BEST Feature**	VoIP BEST enables customers to use idle trunk capacity in one location to accommodate an increase in traffic at another location.	**IPTB0000**
	Bidder's Product Description: VoIP BURSTABLE ENTERPRISE SHARED TRUNK (BEST) requires a VoIP Simultaneous Call Package. This feature cannot be ordered by itself. BEST allows for IP Trunks to be shared across the customers multi-site enterprise network. Total number of BEST IP Trunks must be equal to or exceed total number of physical sites and is subject to bursting to an additional maximum of fifty (50) simultaneous calls in addition to what is provisioned at any single location. Verizon is not responsible for the design or configuration recommendations specific to an IP PBX platform. BEST includes a sharing of simultaneous call capacity, not minutes. If Customer uses BEST to share simultaneous call capacity between sites billed on tiered pricing models, the included number of LD minutes per concurrent call will not be shared between sites.		
7	**VARRS**	VoIP Alternate Route Recovery Service (VARRS) Feature provides Session Boarder Controller geo-redundancy option for VoIP Trunking enterprises that require additional protection against geographically-isolated network events or outages.	**VARR0000**
	Bidder's Product Description: VARRS provide Session Boarder Controller geo-redundancy option for VoIP Trunking enterprises that require additional protection against geographically-isolated network events or outages. Enables to re-route inbound traffic and customers to re-route outbound traffic through		

Table 1.2.5.8.b Unsolicited SIP Trunking Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
	a geographically diverse secondary SBC pair in the event of a network SBC outage or Customer element failure. MRC for VARRS is based on number of simultaneous calling units at each location, if customer elects to receive VARRS, it will be applied and provisioned for all simultaneous calling units at all customer locations receiving VoIP Trunking service.		
8	**Direct Inward Dial (DID) Blocks of 20**	DID Number Block of 20 allows users to assign a public phone number to their SIP phone or a PBX phone behind an Enterprise gateway.	**IDID0001**
	Bidder's Product Description: Users can have a Direct Inward Dialing (DID) number (public phone number) assigned to their SIP phone or a PBX phone behind an Enterprise gateway. Local number portability will also be supported. Users are assigned a 10-digit directory number that can be used to place or receive calls directly to this phone, without forcing access via a central number. These are ordered in blocks of 20 numbers.		
9	**Redirect to Telephone Number**	Redirect to Telephone Number is provisioned on a PBX group. All numbers in that group will be provisioned and billed with the feature.	**RDTN0000**
	Bidder's Product Description: Redirect to Telephone Number in a configured PBX group. A PBX group is defined by groupings of numbers. When Redirect to Telephone Number (PBX Group Unreachable) is provisioned on a PBX group, all numbers in that group will be provisioned and billed with the feature. MRC charges per DID apply when this feature is activated under any of the calling plans.		
10	**Operator Service**	Operator Services include collect, third party and person-to-person calls.	**OPAC0001**
	Bidder's Product Description: Operator Services include collect, third party and person-to-person calls. Collect Calls are call that are not directly dialed and are placed as collect to the called party using an operator. Calls not directly dialed and placed as collect to the called party, using an operator. Third-Party Calls are calls that are not directly dialed and are requesting third party be billed, using an operator. Calls not directly dialed and request third-party billing, using an operator. Person-to-Person Calls include calls that are completed using an operator (Station-to-Station and Person-to-Person). Calls not directly dialed, using an operator, between stations.		
11	**Directory Assistance**	Directory Assistance	**DRAC0001**
	Bidder's Product Description: Directory Assistance will be provided by the traditional method of dialing 1-Area code + 555-1212 or by dialing 00 and asking Directory Assistance to find any listed number whether it is local or long distance.		

Table 1.2.5.8.b Unsolicited SIP Trunking Features (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
12	**Caller ID with Name (inbound)**	Caller ID with Name (inbound)	**CLID0000**
	Bidder's Product Description: Caller ID number will be populated for inbound calls. This is billed per month, per concurrent call.		

1.2.5.9 SIP TRUNK INTERNATIONAL OFF-NET CALLING

The Contractor shall provide SIP Trunk international off-net calling to the countries listed in Table 1.2.5.9. Bidder's rates as provided in the Subcategory Cost Worksheets shall be based on time of day ("Peak Time" or "Off–Peak Time"). Peak Time is between 8:00 a.m. and 4:59 p.m., Monday through Friday based on the time at the CALNET caller's location. Off-Peak time is for all calls where Peak Time rates do not apply.

Note: If the Bidder charges the same rate for both Peak Time and Off-Peak time, Bidder may use the same Product Identifier for both products.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.9.1 International Mobile Termination Charges (IMTC)

Contractor shall provide the ability to terminate international calls on wireless devices. Contractor shall charge International Mobile Termination Charge (IMTC) as an additional per minute rate that is applied to international calls (direct dial business or credit card calls) originating in the U.S. and terminating in certain countries to either wireless communications devices including mobile telephones, pagers, personal computers, and personal digital assistants, or to a portable telephone number where a forwarding, tracking or other type of location service is used.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.5.9.2 U.S. Based Services Waiver

The provisions detailed in IFB Business Requirements Section A.2.4.4 (U.S. Based Services) will not apply to Contractor's International Long Distance Calling services.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

The Contractor shall offer the SIP Trunk Off-Net International Long Distance Calling configurations detailed in Table 1.2.5.9.a

Table 1.2.5.9.a SIP Trunk Off-Net International Long Distance Calling

	Country	Bidders Meets or Exceeds? Y	N	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
1	Brazil:	Y		VBRZ0002	VBRZ0003	MBRZ0001
2	Canada:	Y		VCAN0002	VCAN0003	MBCN0001
3	China:	Y		VCHN0002	VCHN0003	MBCH0001
4	France:	Y		VFRN0002	VFRN0003	MFRN0001
5	Germany:	Y		VGRM0002	VGRM0003	MGRM0001
6	Israel:	Y		VISR0002	VISR0003	MISL0001
7	Italy:	Y		VITL0002	VITL0003	MIVC0001
8	Japan:	Y		VJPN0002	VJPN0003	MJPN0001
9	Korea:	Y		VKOR0002	VKOR0003	MKSR0001
10	Mexico:	Y		VMXC0002	VMXC0003	MMXC0011
11	Spain:	Y		VSPN0002	VSPN0003	MSWS0001
12	Switzerland:	Y		VSWZ0002	VSWZ0003	MSWL0001
13	United Kingdom	Y		VUKN0002	VUKN0003	MUNK0001

Bidder's may offer the SIP Trunk International Off-Net Calling to unsolicited countries listed in Table 1.2.5.9.b.

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
1	Afghanistan	AFGH0001	AFGH0002	MAFG0001
2	Albania	ALBA0001	ALBA0002	MALB0001
3	Algeria	ALGR0001	ALGR0002	MALG0001
4	Andorra	ANDR0001	ANDR0002	MAND0001
5	Angola	ANGO0001	ANGO0002	MANG0001
6	Anguilla	ANGU0001	ANGU0002	MAGL0001
7	Antarctica (Casey)	ANTA0001	ANTA0002	MACS0001
8	Antarctica (Scott)	ANSB0001	ANSB0002	MATS0001
9	Antigua and Barbuda	ANTG0001	ANTG0002	MATG0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
10	Argentina	ARGN0001	ARGN0002	MARG0001
11	Armenia	ARMN0001	ARMN0002	MARM0001
12	Aruba	ARUB0001	ARUB0002	MARB0001
13	American Samoa	ASMA0001	ASMA0002	MASM0001
14	Ascension Island	ASCN0001	ASCN0002	MASI0001
15	Australia	ASTR0001	ASTR0002	MAUS0001
16	Austria	AUST0001	AUST0002	MAST0001
17	Azerbaijan	AZER0001	AZER0002	MAZR0001
18	Bahamas	BAHM0001	BAHM0002	MBAH0001
19	Bahrain	BAHR0001	BAHR0002	MBHR0001
20	Bangladesh	BNGL0001	BNGL0002	MBNG0001
21	Barbados	BARB0001	BARB0002	MBRD0001
22	Belarus	BELA0001	BELA0002	MBLR0001
23	Belgium	BELG0001	BELG0002	MBLG0001
24	Belize	BELZ0001	BELZ0002	MBLZ0001
25	Benin	BENN0001	BENN0002	MBNN0001
26	Bermuda	BERM0001	BERM0002	MBRM0001
27	Bhutan	BHUT0001	BHUT0002	MBHT0001
28	Bolivia	BOLV0001	BOLV0002	MBLV0001
29	Bosnia and Herzegovina	BASH0001	BASH0002	MBSH0001
30	Botswana	BTSW0001	BTSW0002	MBTS0001
31	Brunei	BRNI0001	BRNI0002	MBRN0001
32	Bulgaria	BULG0001	BULG0002	MBUL0001
33	Burkina Faso	BRKN0001	BRKN0002	MBRK0001
34	Burundi	BRND0001	BRND0002	MBUR0001
35	British Virgin Islands	BVRG0001	BVRG0002	MBVI0001
36	Central African Republic	CAFR0001	CAFR0002	MCAR0001
37	Cambodia	CMBD0001	CMBD0002	MCMB0001
38	Cameroon	CMRN0001	CMRN0002	MCMR0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
39	Cape Verde	CAPV0001	CAPV0002	MCPV0001
40	Cayman Islands	CYMN0001	CYMN0002	MCMI0001
41	Chad	CHAD0001	CHAD0002	MCHD0001
42	Chile	CHLE0001	CHLE0002	MCHL0001
43	Christmas and Cocos Islands	CHCO0001	CHCO0002	MCHC0001
44	Colombia	CLMB0001	CLMB0002	MCLM0001
45	Comoros	CMYI0001	CMYI0002	MCOM0001
46	Congo	CNGO0001	CNGO0002	MCNG0001
47	Cook Islands	CKIS0001	CKIS0002	MCKI0001
48	Costa Rica	CSTA0001	CSTA0002	MCSR0001
49	Croatia	CROA0001	CROA0002	MCRT0001
50	Cuba	CGBA0001	CGBA0002	MCBA0001
51	Cyprus	CPRS0001	CPRS0002	MCPR0001
52	Czech Republic	CZCR0001	CZCR0002	MCZR0001
53	Diego Garcia	DGRC0001	DGRC0002	MCDG0001
54	Djibouti	DJBT0001	DJBT0002	MDJB0001
55	Denmark	DNMK0001	DNMK0002	MDNM0001
56	Dominica	DMNC0001	DMNC0002	MDMN0001
57	Dominican Republic	DMCR0001	DMCR0002	MDMR0001
58	Ecuador	ECDR0001	ECDR0002	MECD0001
59	Egypt	EGPT0001	EGPT0002	MEGP0001
60	El Salvador	ELSV0001	ELSV0002	MESV0001
61	Equatorial Guinea	EQTG0001	EQTG0002	MEQG0001
62	Eritrea	ERTR0001	ERTR0002	MERT0001
63	Estonia	ESTN0001	ESTN0002	MEST0001
64	Ethiopia	ETHP0001	ETHP0002	METP0001
65	East Timor	ETMR0001	ETMR0002	MEAS0001
66	Faeroe Islands	FRIS0001	FRIS0002	MFRI0001
67	Falkland Islands	FLKI0001	FLKI0002	MFLI0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
68	Fiji Islands	FIJI0001	FIJI0002	MFJI0001
69	Finland	FNLD0001	FNLD0002	MFNL0001
70	French Antilles	FAMR0001	FAMR0002	MFAM0001
71	French Guiana	FRNG0001	FRNG0002	MFRG0001
72	French Polynesia	FRNP0001	FRNP0002	MFRP0001
73	Gabon Republic	GBON0001	GBON0002	MGBN0001
74	Gambia	GMBA0001	GMBA0002	MGMB0001
75	Georgia	GRGA0001	GRGA0002	MGRG0001
76	Ghana	GANA0001	GANA0002	MGHN0001
77	Gibraltar	GBRL0001	GBRL0002	MGBR0001
78	Greece	GREC0001	GREC0002	MGRC0001
79	Greenland	GRNL0001	GRNL0002	MGRN0001
80	Grenada	GRND0001	GRND0002	MGRD0001
81	Guadeloupe	GDLP0001	GDLP0002	MGDL0001
82	Guantanamo	GNTM0001	GNTM0002	MGNB0001
83	Guatemala	GTML0001	GTML0002	MGTM0001
84	Guinea-Bissau	GNBA0001	GNBA0002	MGBS0001
85	Guinea, People's Revolutionary Republic	GNEA0001	GNEA0002	MGPR0001
86	Guyana	GYNA0001	GYNA0002	MGYN0001
87	Haiti	HATI0001	HATI0002	MHTI0001
88	Hong Kong	HNKG0001	HNKG0002	MHNK0001
89	Honduras	HNDR0001	HNDR0002	MHND0001
90	Hungary	HNGR0001	HNGR0002	MHNG0001
91	Iceland	ICLN0001	ICLN0002	MICL0001
92	India	NDIA0001	NDIA0002	MIND0001
93	Indonesia	NDNS0001	NDNS0002	MNDS0001
94	Iran	IRAN0001	IRAN0002	MIRN0001
95	Iraq	IRAQ0001	IRAQ0002	MIRQ0001
96	Ireland	IRLN0001	IRLN0002	MIRL0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
97	Ivory Coast	ICST0001	ICST0002	MICT0001
98	Jamaica	JMCA0001	JMCA0002	MJMC0001
99	Jordan	JRDN0001	JRDN0002	MJRD0001
100	Kazakhstan	KZKH0001	KZKH0002	MKZK0001
101	Kenya	KNYA0001	KNYA0002	MKNY0001
102	Kiribati	KRBT0001	KRBT0002	MKRB0001
103	Korea, North	NKRE0001	NKRE0002	MKND0001
104	Kuwait	KWAT0001	KWAT0002	MKWT0001
105	Kyrgyzstan	KRYG0001	KRYG0002	MKRG0001
106	Laos	LAOS0001	LAOS0002	MLAS0001
107	Latvia	LTVA0001	LTVA0002	MLTV0001
108	Lebanon	LBNN0001	LBNN0002	MLBN0001
109	Lesotho	LSTH0001	LSTH0002	MLST0001
110	Liberia	LBRA0001	LBRA0002	MLBR0001
111	Libya	LBYA0001	LBYA0002	MLBY0001
112	Liechtenstein	LCHN0001	LCHN0002	MLCH0001
113	Lithuania	LTHN0001	LTHN0002	MLTH0001
114	Luxembourg	LXMB0001	LXMB0002	MLXB0001
115	Macao	MCAU0001	MCAU0002	MMCA0001
116	Macedonia	MCDN0001	MCDN0002	MMCD0001
117	Madagascar	MDSC0001	MDSC0002	MMDG0001
118	Malawi	MLWI0001	MLWI0002	MMLW0001
119	Malaysia	MLYS0001	MLYS0002	MMLY0001
120	Maldives	MLDV0001	MLDV0002	MMLD0001
121	Mali	MALI0001	MALI0002	MMLI0001
122	Malta	MLTA0001	MLTA0002	MMLT0001
123	Marshall Islands	MSHI0001	MSHI0002	MMIS0001
124	Mauritius	MAUR0001	MAUR0002	MMTS0001
125	Mauritania	MRIT0001	MRIT0002	MMRT0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
126	Mayotte Island	MYTE0001	MYTE0002	MYTI0001
127	Micronesia	MCRN0001	MCRN0002	MMCN0001
128	Moldova	MOLV0001	MOLV0002	MMLV0001
129	Monaco	MNCO0001	MNCO0002	MMNC0001
130	Mongolian People's Republic	MNGL0001	MNGL0002	MMGL0001
131	Montserrat	MNTS0001	MNTS0002	MMTR0001
132	Morocco	MRCC0001	MRCC0002	MMRC0001
133	Mozambique	MZMB0001	MZMB0002	MMZB0001
134	Myanmar	MYBR0001	MYBR0002	MMBR0001
135	Namibia	NMBA0001	NMBA0002	MNMB0001
136	Nauru	NURU0001	NURU0002	MNRU0001
137	New Caledonia	NCLD0001	NCLD0002	MNWC0001
138	Nepal	NPAL0001	NPAL0002	MNPL0001
139	Netherlands	NTHR0001	NTHR0002	MNTH0001
140	Nevis	NEVS0001	NEVS0002	MNVS0001
141	Nigeria	NGRI0001	NGRI0002	MNGA0001
142	Nicaragua	NCRG0001	NCRG0002	MNCG0001
143	Niger	NGER0001	NGER0002	MNGR0001
144	Niue	NIUE0001	NIUE0002	MNIS0001
145	Norfolk Island	NRFK0001	NRFK0002	MNFI0001
146	Norway	NRWY0001	NRWY0002	MNRW0001
147	Netherlands Antilles	NTHA0001	NTHA0002	MNTA0001
148	New Zealand	NZLN0001	NZLN0002	MNZA0001
149	Oman	OMAN0001	OMAN0002	MOMN0001
150	Pakistan	PKST0001	PKST0002	MPKS0001
151	Palau	PLIS0001	PLIS0002	MPLI0001
152	Panama	PLST0001	PLST0002	MPNM0001
153	Papua New Guinea	PNMA0001	PNMA0002	MPNG0001
154	Paraguay	PRGY0001	PRGY0002	MPRG0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
155	Peru	PERU0001	PERU0002	MPRU0001
156	Philippines	PHLP0001	PHLP0002	MPHL0001
157	Poland	PLND0001	PLND0002	MPLN0001
158	Portugal	PTGL0001	PTGL0002	MPRT0001
159	Qatar	QTAR0001	QTAR0002	MQTR0001
160	Reunion	RUNI0001	RUNI0002	MRUI0001
161	Romania	RMAN0001	RMAN0002	MRMN0001
162	South Africa	SAFR0001	SAFR0002	MSAF0001
163	Russia	RUSS0001	RUSS0002	MRUS0001
164	Rwanda	RWND0001	RWND0002	MRWN0001
165	Samoa	SAMO0001	SAMO0002	MSOM0001
166	Sao Tome	SAOT0001	SAOT0002	MSTO0001
167	Saudi Arabia	SARB0001	SARB0002	MSDA0001
168	Senegal Republic	SNGL0001	SNGL0002	MSNG0001
169	Seychelles Islands	SYCH0001	SYCH0002	MSYC0001
170	Sierra Leone	SRLN0001	SRLN0002	MSRL0001
171	Singapore	SNGP0001	SNGP0002	MSNP0001
172	Slovakia	SLVK0001	SLVK0002	MSLV0001
173	Slovenia	SLVN0001	SLVN0002	MSVN0001
174	San Marino	SMAR0001	SMAR0002	MSNM0001
175	Solomon Islands	SLMN0001	SLMN0002	MSIS0001
176	Somali Republic	SMLA0001	SMLA0002	MSMR0001
177	Sri Lanka	SRLK0001	SRLK0002	MSLK0001
178	St. Helena	STHL0001	STHL0002	MSTH0001
179	St. Kitts	SKTS0001	SKTS0002	MSKT0001
180	St. Lucia	SLUC0001	SLUC0002	MSTL0001
181	St. Pierre and Miquelon	STPR0001	STPR0002	MSPM0001
182	St. Vincent and The Grenadines	STVN0001	STVN0002	MSVG0001
183	Sudan	SUDN0001	SUDN0002	MSDN0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
184	Suriname	SRNM0001	SRNM0002	MSRN0001
185	Swaziland	SWZL0001	SWZL0002	MSWZ0001
186	Sweden	SWDN0001	SWDN0002	MSWD0001
187	Syrian Arab Republic	SRIA0001	SRIA0002	MSRY0001
188	Taiwan	TWAN0001	TWAN0002	MTWN0001
189	Tajikistan	TDJK0001	TDJK0002	MTJK0001
190	Tanzania	TNZN0001	TNZN0002	MTNZ0001
191	Thailand	THLN0001	THLN0002	MTHL0001
192	Turks and Caicos Islands	TCAC0001	TCAC0002	MTCI0001
193	Togo	TOGO0001	TOGO0002	MTGO0001
194	Tonga Islands	TNGA0001	TNGA0002	MTNG0001
195	Trinidad and Tobago	TRND0001	TRND0002	MTRT0001
196	Turkmenistan	TRKM0001	TRKM0002	MTRK0001
197	Tunisia	TNSA0001	TNSA0002	MTNS0001
198	Turkey	TRKY0001	TRKY0002	MTKY0001
199	Tuvalu	TVLU0001	TVLU0002	MTVL0001
200	United Arab Emirates	UAEM0001	UAEM0002	MUAE0001
201	Uganda	UGND0001	UGND0002	MUGN0001
202	Ukraine	UKRN0001	UKRN0002	MUKR0001
203	Uruguay	URGY0001	URGY0002	MURG0001
204	Uzbekistan	UZBK0001	UZBK0002	MUZK0001
205	Vanuatu	VNTU0001	VNTU0002	MVNT0001
206	Vatican City	VTCN0001	VTCN0002	MVTC0001
207	Venezuela	VNZL0001	VNZL0002	MVNZ0001
208	Vietnam	VTNM0001	VTNM0002	MVTN0001
209	Wallis and Fortuna Islands	WLSF0001	WLSF0002	MWLF0001
210	Yemen	YMNA0001	YMNA0002	MYMN0001
211	Yugoslavia (Federal Republic)	YGSL0001	YGSL0002	MYGS0001
212	Zaire	ZARE0001	ZARE0002	MZAR0001

Table 1.2.5.9.b Unsolicited SIP Trunk International Off-Net Calling (continued)

	Country	Peak Time Product Identifier	Off-Peak Product Identifier	IMTC Product Identifier
213	Zambia	ZMBA0001	ZMBA0002	MZBA0001
214	Zimbabwe	ZMBW0001	ZMBW0002	MZBW0001

1.2.6 SERVICE RESTORATION

1.2.6.1 TELECOMMUNICATIONS SERVICE PRIORITY (TSP) PROGRAM

The Contractor shall comply with the Telecommunications Service Priority (TSP) Program, a Federal Communications Commission (FCC) mandate for prioritizing Service Requests by identifying those services critical to National Security and Emergency Preparedness (NS/EP) and be in compliance with all CPUC and FCC Requirements.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.6.2 NETWORK DISASTER/OPERATIONAL RECOVERY

Public safety agencies, major data centers, agencies with supporting roles during disaster or emergency operations, and agencies with significant roles in post-disaster recovery have mission-critical needs to maintain network availability during disasters or emergencies.

It is essential that service be restored as soon as possible, and the services most critical to State operations remain operational during efforts to achieve full service recovery.

The Contractor shall implement processes that will assure the continuity of services for critical operations, producing the greatest benefit from remaining limited resources and achieving a systematic and orderly resumption of all contracted services.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.7 DATA NETWORK MONITORING APPLICATION (DNMA)

The Contractor shall provide a web based Data Network Monitoring Application (DNMA) to provide near real-time and historical network performance and fault detection information to Customers. The DNMA shall identify the availability and performance of contracted MPLS services. Only CALNET 3 services will appear in the DNMA. The Contractor's DNMA shall provide the following features:

1. ***Dynamic GUI views that show the relationship between devices providing data network services;***
2. ***Alarm indicators for adversely effected network components;***
3. ***Immediate real-time network availability, throughput, congestion, utilization, and error statistics through inquiry responses;***

4. ***Historical network availability, throughput, congestion, error statistics shall be available for a rolling six (6) month period;***

5. ***Notification or indicators when components are in an administrative/ maintenance status;***

6. ***Real-time event log showing network activity;***

7. ***Views shall be partitioned by Customer and Customers will have access only to their department's network components and information. The level of access shall be determined by the Customer department management or Customer administrators;***

8. ***The Contractor shall provide CALNET 3 CMO with an authorization level that provides access to all CALNET Customer network components and information. The Contractor shall provide single sign-on access to view any Customer network;***

9. ***This tool shall provide the capability to run customized reports for the six (6) months of stored data;***

10. ***The statistical information shall be in a data extractable format; and,***

11. ***Contractor shall provide standard and customized reports as determined by CALNET 3 CMO.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

1.2.8 OTHER SERVICES

1.2.8.1 HOURLY RATES FOR SERVICES

The hourly classifications of hours worked for services described in this section will be as follows:

1. ***Regular Hours – Hours worked between 8:00AM and 4:59PM, Monday through Friday.***
2. ***Overtime Hours – Hours worked between 5:00PM and 7:59AM, Monday through Friday and all day Saturday.***
3. ***Sunday and Holiday Hours – Any hours worked on Sunday or State of California holidays.***

1.2.8.2 EXTENDED DEMARCATION WIRING SERVICES

The Contractor shall provide Extended Demarcation (Extended Demarc) wiring to support the services covered by this IFB for all Customer occupied buildings where services under this Contract are being offered. Extended Demarc wiring includes wiring and cable related activities required to extend the service demarcation point to the Customer defined termination location or cross-connect point from the Contractor's Minimum Point of Entry (MPOE).

Extended Demarc wiring shall include all necessary hardware including wire and/or cable, connectors, jumpers, patch panels, minor materials and jacks. Extended Demarc wiring shall also include all necessary labor required to complete the provisioning of service including installation, testing, trouble shooting, labeling and documentation.

Extended Demarc wiring is limited to the following:

1. ***Installation of cabling for extending services from the MPOE location to the Customer's point of utilization;***

2. ***Installation of cross-connects or rearrangement of existing jumpers;***

3. ***Identification and testing of existing cabling beyond the MPOE to the Customer's equipment location; or,***

4. ***Testing, trouble shooting, labeling and completing documentation.***

The Contractor shall provide installations in accordance with the timeframes identified for the services that this cabling will support, and shall be subject to the SLAs detailed in Section 1.2.9.8.11 (Provisioning SLAs) associated with that service.

The Contractor shall not be required to complete Extended Demarc wiring from the MPOE to the extended Demarc location if:

1. ***The wire/cable pathway is blocked and cannot be cleared in less than 20 minutes or if the Contractor would cause damage to the Customer site or existing cabling in clearing the pathway;***

2. ***The wire/cable pathway is in an asbestos environment or other environment hazardous to the Contractor's personnel, or where such work would be hazardous to the public or to the Customer's staff; or,***

3. ***Written release of the responsibility to provide the Extended Demarc is provided by either the Customer or by CALNET 3 CMO.***

Bidder shall provide a price in the Subcategory Cost Worksheets for all labor and materials required for Extended Demarc wiring necessary to complete the provisioning of one (1) Demarc extension as described above. Bidder shall provide one (1) price for each media identified.

The Contractor shall install wiring according to industry standards and cabling recommendations published in the State Telecommunications Management Manual (STMM), Facilities Management Chapter, Uniform Building Cabling/Wiring current at the time of this IFB and as periodically updated by CALNET 3 CMO. Additionally, the Contractor shall install and maintain all wiring in accordance with all applicable EIA/TIA, BICSI, and ITU-T recommended standards current at the time of installation or maintenance.

The Contractor shall provide extended Demarcation Services limited to one (1) occurrence or installation for the specific telecommunications service the cabling is meant to support and must be ordered in conjunction with the service being provisioned. All other cabling will be the responsibility of the Customer and will be acquired through other procurement vehicles.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

The Contractor shall offer the wiring services for extended demarcation detailed in Table 1.2.8.2.a.

Table 1.2.8.2a Extended Demarcation Wiring Services

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	**Extended Demarcation – Copper four-Pair – Regular Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment as described above. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack.	**Y**		IEXR0000
	Bidder's Product Description: Verizon will provide Extended Demarcation Copper Four Pair Wiring as described above that will include all necessary hardware including 300 feet of four-pair cable, connectors, jumpers, patch panels, minor materials and jacks. Extended Demarcation wiring will also include all necessary labor required to complete the provisioning of service including installation, testing, trouble shooting, labeling and documentation. Verizon assumes customer to have a clear pathway for cable installations.				
2	**Extended Demarcation – Copper four-Pair – Overtime Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment as described above. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack.	Y		IEXO0004
	Bidder's Product Description: Verizon will provide **Extended Demarcation – Copper four-Pair – Overtime Hours** as described above that will include all necessary hardware including 300 feet of four-pair cable, connectors, jumpers, patch panels, minor materials and jacks. Extended Demarcation wiring will also include all necessary labor required to complete the provisioning of service including installation, testing, trouble shooting, labeling and documentation. Verizon assumes customer to have a clear pathway for cable installations.				
3	**Extended Demarcation – Copper four-Pair – Sunday and Holiday Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment as described above. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack.	Y		IEXD0004
	Bidder's Product Description: Verizon will provide **Extended Demarcation – Copper four-Pair – Sunday and Holiday Hours** as described above that will include all necessary hardware including 300 feet of four-pair cable, connectors, jumpers, patch panels, minor materials and jacks. Extended Demarcation wiring will also include all necessary labor required to complete the provisioning of service including installation, testing, trouble shooting, labeling and documentation. Verizon assumes customer to have a clear pathway for cable installations.				

Table 1.2.8.2a Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
4	**Extended Demarcation – Copper 25 Pair – Regular Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment as described above. Includes 300 feet or less of Category 5 25-pair CMP cable, one (1) patch panel and mounting hardware. Ten (10) Category 5e, three (3) meter jumpers; one (1) 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling.	Y		IEXR0025
	Bidder's Product Description: Verizon will provide Extended Demarcation Copper 25 Pair Wiring services as described above. The station cabling provided to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment is up to 300 feet, will include ten (10) Category 5e, three (3) meter jumpers; one (1) 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. This includes associated troubleshooting, testing, and labeling. To provide this service, Verizon assumes customer to have a clear pathway for cable installations.				
5	**Extended Demarcation – Copper 25 Pair – Overtime Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment as described above. Includes 300 feet or less of Category 5 25-pair CMP cable, one (1) patch panel and mounting hardware. Ten (10) Category 5e, three (3) meter jumpers; one (1) 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling.	Y		IEXO0025
	Bidder's Product Description: Verizon will provide **Extended Demarcation – Copper 25 Pair – Overtime Hours** Wiring services as described above. The station cabling provided to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment is up to 300 feet, will include ten (10) Category 5e, three (3) meter jumpers; one (1) 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. This includes associated troubleshooting, testing, and labeling. To provide this service, Verizon assumes customer to have a clear pathway for cable installations.				

Table 1.2.8.2a Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
6	**Extended Demarcation – Copper 25 Pair – Sunday and Holiday Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment as described above. Includes 300 feet or less of Category 5 25-pair CMP cable, one (1) patch panel and mounting hardware. Ten (10) Category 5e, three (3) meter jumpers; one (1) 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling.	Y		IEXH0025
	Bidder's Product Description: Verizon will provide **Extended Demarcation – Copper 25 Pair – Sunday and Holiday Hours** services as described above. The station cabling provided to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment is up to 300 feet, will include ten (10) Category 5e, three (3) meter jumpers; one (1) 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. This includes associated troubleshooting, testing, and labeling. To provide this service, Verizon assumes customer to have a clear pathway for cable installations.				
7	**Extended Demarcation – Optical Fiber Link – Regular Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customers point of utilization from a fiber trunk or trunking equipment as described above with strand count required to provision one (1) each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two (2) SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling.	**Y**		IEXF0000
	Bidder's Product Description: Verizon will provide an Extended Demarcation Optical Fiber Link wiring to extend Facilities from the Customer's MPOE to the Customers point of utilization from a fiber trunk or trunking equipment as described above with strand count required to provision one-each service only. Verizon will include one (1) each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two (2) SC-SC duplex patch cords for each single circuit extension. This includes associated troubleshooting, testing and labeling. To provide this service, Verizon assumes customer to have a clear pathway.				

Table 1.2.8.2a Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
8	**Extended Demarcation – Optical Fiber Link – Overtime Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customers point of utilization from a fiber trunk or trunking equipment as described above with strand count required to provision one (1) each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two (2) SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling.	**Y**		IEFO0000
	Bidder's Product Description: Verizon will provide an **Extended Demarcation – Optical Fiber Link – Overtime Hours** wiring to extend Facilities from the Customer's MPOE to the Customers point of utilization from a fiber trunk or trunking equipment as described above with strand count required to provision one-each service only. Verizon will include one (1) each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two (2) SC-SC duplex patch cords for each single circuit extension. This includes associated troubleshooting, testing and labeling. To provide this service, Verizon assumes customer to have a clear pathway. Wiring services to extend Facilities from the Customers MPOE to the Customers point of utilization to include wiring installation and testing are available Overtime Hours – Hours worked between 5:00PM and 7:59AM, Monday through Friday and all day Saturday.			

Table 1.2.8.2a Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
9	**Extended Demarcation – Optical Fiber Link – Sunday and Holiday Hours**	Wiring services to extend Facilities from the Customer's MPOE to the Customers point of utilization from a fiber trunk or trunking equipment as described above with strand count required to provision one (1) each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two (2) SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling.	**Y**		IEXT0000
	Bidder's Product Description: Verizon will provide an **Extended Demarcation – Optical Fiber Link – Sunday and Holiday Hours** wiring to extend Facilities from the Customer's MPOE to the Customers point of utilization from a fiber trunk or trunking equipment as described above with strand count required to provision one-each service only. Verizon will include one (1) each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two (2) SC-SC duplex patch cords for each single circuit extension. This includes associated troubleshooting, testing and labeling. To provide this service, Verizon assumes customer to have a clear pathway. Wiring services to extend Facilities from the Customers MPOE to the Customers point of utilization to include wiring installation and testing are available Sunday and Holiday Hours – Any hours worked on Sunday or State of California holidays.			

The Contractor may offer additional unsolicited Extended Demarcation Wiring Services in Table 1.2.8.2.b.

Table 1.2.8.2.b Unsolicited Extended Demarcation Wiring Services

	Feature Name	Feature Description	Bidder's Product Identifier
1	**Pathway Components Services - Inner-duct CMP 300' package furnish and installed.**	Extended Demarcation Wiring Services Pathway Components Services - Inner-duct CMP 300' package furnish and installed.	**PTHI0000**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services - Inner-duct Orange Corrugated CMP 300' package furnish and installed. Inner-duct to be used for routing fiber cable in the intra building environment. To provide this service, Verizon assumes customer to have a clear pathway, and that the supporting structure is acceptable for Inner-duct installations. Labor rate is based upon working normal business hours.		
2	**Pathway Component Service J-Hook and Hangers 300' package furnish and installed.**	Extended Demarcation Wiring Services Pathway Components Services - Standard J Hook. Verizon will Furnish and Install Standard J Hooks and Hangers in support of 300' cable package and Installation.	**PTJH0000**
	Bidder's Product Description: Pathway Components Services - Standard J Hook Extended Demarcation Wiring Services will furnish and install Standard J Hooks and hangers in support of 300' cable package and Installation. Labor rate is based upon working normal business hours.		
3	**Pathway Components Services - 4" Core**	Extended Demarcation Wiring Services Pathway Components Services - 4" Core Verizon will provide labor and material to install a 4" Core, sleeve and firestop accordingly.	**PTHC0004**
	Bidder's Product Description: Pathway Components Services - 4" Core Extended Demarcation Wiring Services Labor and material to provide up to a 4" Core, sleeved and Firestopped accordingly, through Gypsum wall. Labor rate is based upon working normal business hours.		

Table 1.2.8.2.b Unsolicited Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
4	**Pathway Components Services - 2" Core**	Extended Demarcation Wiring Services Pathway Components Services - 2" Core Verizon will provide labor and material to install a 2" Core, sleeve and firestop accordingly.	**PTHC0002**
	Bidder's Product Description: Pathway Components Services - 2" Core Extended Demarcation Wiring Services Labor and material to provide up to a 4" Core, sleeved and Firestopped accordingly, through Gypsum wall. Labor rate is based upon working normal business hours.		
5	**Pathway Components Services - 1" Core**	Extended Demarcation Wiring Services Pathway Components Services - 1" Core Verizon will provide labor and material to install a 1" Core, sleeve and firestop accordingly.	**PTHC0001**
	Bidder's Product Description: Pathway Components Services - 1" Core Extended Demarcation Wiring Services Labor and material to provide up to a 1" Core, sleeved and Firestopped accordingly, through Gypsum wall. Labor rate is based upon working normal business hours.		
6	**Pathway Components Services – Standard 1" Electrical Metallic Tubing (EMT) 10' package.**	Extended Demarcation Wiring Services Pathway Components Services – Standard 1" Electrical Metallic Tubing (EMT – conduit) Intra Building EMT Furnish and Install 10' package.	**PTHS0001**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services – Standard 1" EMT (conduit) Intra Building Furnish and Install EMT in support of Station Wiring Services Copper or Fiber. Labor rate is based upon working normal business hours.		
7	**Pathway Components Services – Standard 2" Electrical Metallic Tubing (EMT) 10' package.**	Extended Demarcation Wiring Services Pathway Components Services – Standard 2" Electrical Metallic Tubing (EMT – conduit) Intra Building EMT Furnish and Install 10' package.	**PTHS0002**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services – Standard 2" EMT (conduit) Intra Building Furnish and Install EMT in support of Station Wiring Services Copper or Fiber. Labor rate is based upon working normal business hours.		

Table 1.2.8.2.b Unsolicited Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
8	**Pathway Components Services – National Electrical Manufacturers Association (NEMA) 1 Pull Box 12"X12"X6"**	Extended Demarcation Wiring Services Pathway Components Services – National Electrical Manufacturers Association (NEMA) 1 Pull Box 12"X12"X6" Furnish and Install.	**PCSN0001**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services – Furnish and Install NEMA 1 12"X12"X6" Pull box in support of Station Wiring Services Copper or Fiber. Labor rate is based upon working normal business hours.		
9	**Pathway Components Services – National Electrical Manufacturers Association (NEMA) 3 Pull Box 12"X12"X8".**	Extended Demarcation Wiring Services Pathway Components Services – National Electrical Manufacturers Association (NEMA) 3 Pull Box 12"X12"X8" Furnish and Install.	**PCSN0003**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services –Furnish and Install NEMA 3 12"X12"X8" Pull box in support of Station Wiring Services Copper or Fiber. Labor rate is based upon working normal business hours.		
10	**Pathway Components Services – National Electrical Manufacturers Association (NEMA) 1 Pull Box 8"X8"X6".**	Extended Demarcation Wiring Services Pathway Components Services – National Electrical Manufacturers Association (NEMA) 1 Pull Box 8"X8"X6" Furnish and Install.	**PCNE0001**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services –Furnish and Install NEMA 1 8"X8"X6" Pull box in support of Station Wiring Services Copper or Fiber. Labor rate is based upon working normal business hours.		

Table 1.2.8.2.b Unsolicited Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
11	**Pathway Components Services – National Electrical Manufacturers Association (NEMA) 3 Pull Box 8"X8"X6".**	Extended Demarcation Wiring Services Pathway Components Services – National Electrical Manufacturers Association (NEMA) 3 Pull Box 8"X8"X6" Furnish and Install.	**PCNE0003**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services –Furnish and Install NEMA 3 8"X8"X6" Pull box in support of Station Wiring Services Copper or Fiber. Labor rate is based upon working normal business hours.		
12	**Pathway Components Services - Surface Raceway 1" Top and Base with End Caps Non-Metallic 10' package.**	Extended Demarcation Wiring Services Pathway Components Services - Surface Raceway 1" Top and Base with End Caps Non-Metallic 10' package.	**PCSR0001**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services – Surface Raceway Surface Raceway 1" Top and Base with End Caps Non-Metallic 10' package. Labor rate is based upon working normal business hours.		
13	**Pathway Components Services - Surface Raceway 2" Top and Base with End Caps Non-Metallic 10' package.**	Extended Demarcation Wiring Services Pathway Components Services - Surface Raceway 2" Top and Base with End Caps Non-Metallic 10' package.	**PCSR0002**
	Bidder's Product Description: Extended Demarcation Wiring Services Pathway Components Services – Surface Raceway Surface Raceway 2" Top and Base with End Caps Non-Metallic 10' package. Labor rate is based upon working normal business hours.		
14	**MDF/IDF Components Services – Cable Ladder Rack 12" and Installation (10' package).**	Extended Demarcation Wiring Services MDF/IDF Components Services – Cable Ladder Rack 12" and Installation (10' package) includes associated mounting hardware.	**MIDE0001**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services – MDF/IDF Cable Ladder Rack 12" and Installation (10' package) includes associated mounting hardware. Labor rate is based upon working normal business hours.		

Table 1.2.8.2.b Unsolicited Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
15	**MDF/IDF Components Services – Standard 2 Post Equipment Rack 7', 19" Rack Mountable and Installation.**	Extended Demarcation Wiring Services MDF/IDF Components Services – Standard 2 Post Equipment Rack 7', 19" Rack Mountable and Installation. Includes associated mounting hardware.	**MIDE0002**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services – Standard 2 Post Equipment Rack 7, 19" Rack mountable and Installation. Includes associated mounting hardware. Labor rate is based upon working normal business hours.		
16	**MDF/IDF Components Services - Wire Management 6"X7' Horizontal and Installation.**	Extended Demarcation Wiring Services MDF/IDF Components Services - Wire Management 6"X7' Horizontal and Installation for horizontal hardware.	**MIDE0003**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services - Wire Management 6"X7' Horizontal and Installation. Labor rate is based upon working normal business hours.		
17	**MDF/IDF Components Services - Wire Management Vertical and Installation.**	Extended Demarcation Wiring Services MDF/IDF Components Services - Wire Management Vertical and Installation for vertical hardware.	**MIDE0004**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services - Wire Management Vertical and Installation. Labor rate is based upon working normal business hours.		
18	**MDF/IDF Components Services - Fire Rated Back Board and Installation, minimum 8'X8'.**	Extended Demarcation Wiring Services MDF/IDF Components Services - Fire Rated Back Board -Minimum size 8'X8' FRACX and Installation.	**MIDE0005**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services - Fire Rated Back Board -Minimum size 8'X8' FRACX and Installation. Labor rate is based upon working normal business hours.		

Table 1.2.8.2.b Unsolicited Extended Demarcation Wiring Services (continued)

	Feature Name	Feature Description	Bidder's Product Identifier
19	**MDF/IDF Components Services - Cabinet and Installation of a Generic 36" high.**	Extended Demarcation Wiring Services MDF/IDF Components Services - Cabinet and Installation of a Generic 36" high.	**MIDE0006**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services - Cabinet and Installation of a Generic 36" high. Labor rate is based upon working normal business hours.		
20	**MDF/IDF Components Services Grounding and Bonding – Installation of Telecommunications Main Ground Busbar (TMGB)**	Extended Demarcation Wiring Services MDF/IDF Components Services Grounding and Bonding – Installation of Telecommunications Main Ground Busbar (TMGB).	**MIDE0007**
	Bidder's Product Description: Extended Demarcation Wiring Services MDF/IDF Components Services - MDF/IDF Components Services Grounding and Bonding – Installation of Telecommunications Main Ground Busbar (TMGB). Installation of the TMGB from an approved building ground includes up to 75' of ground wire, ground busbar, busbar mounting hardware, and (2) connectors. Verizon assumes that appropriate, approved building ground is available within 75' of the installation location with free and clear access. Labor rate is based upon working normal business hours.		

1.2.8.3 SERVICES RELATED HOURLY SUPPORT

The Contractor shall provide labor for the diagnosis and/or repair of services listed in this Contract and all costs for repair are the responsibility of the service provider unless it is specifically determined that the cause of service failure is outside the scope of the Contractor's responsibilities. Work performed under this Section 1.2.8.3 is authorized only for situations where the Contractor has dispatched personnel to diagnose a service problem that is discovered to be caused by factors outside the responsibility of the Contractor or no trouble is found.

In Subcategory Cost Worksheet 1.2.8.3, the Contractor shall provide a fixed hourly rate schedule for the labor classifications required to diagnose and/or repair the contracted services. The rates identified shall only be used for the diagnosis and/or repair of contracted services and no materials shall be included in the rates. The total amount of labor hours permitted to be performed is ten (10) hours per dispatch/occurrence.

Bidder understands the Requirement and shall meet or exceed it? Yes X No_____

The Contractor shall offer Services Related Hourly Support as detailed in Table 1.2.8.3.

Table 1.2.8.3 Services Related Hourly Support

	Labor Classification Name	Classification Description	Bidder Meets or Exceeds? Y	N	Bidder's Product Identifier
1	**Field Service Repair Technician Regular Hours**	Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET 3 service problem that turns out to be caused by factors outside the responsibility of the Contractor.	Y		**FTRH0000**
	Bidder's Product Description: Verizon will provide a Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET 3 service problem that turns out to be caused by factors outside the responsibility of the Contractor.				
2	**Field Service Repair TechnicianOvertime Hours**	Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET 3 service problem that turns out to be caused by factors outside the responsibility of the Contractor.	Y		**FTOT0000**
	Bidder's Product Description: Verizon will provide a Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET 3 service problem that turns out to be caused by factors outside the responsibility of the Contractor.				
3	**Field Service Repair Technician Sunday and Holiday Hours**	Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET 3 service problem that turns out to be caused by factors outside the responsibility of the Contractor.	Y		**FTSH0000**
	Bidder's Product Description: Verizon will provide a Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET 3 service problem that turns out to be caused by factors outside the responsibility of the Contractor.				

1.2.8.4 Intentionally Deleted

1.2.9 SERVICE LEVEL AGREEMENTS (SLA)

The Contractor shall provide Service Level Agreements (SLAs) as defined below. The intent of this section is to provide Customers, CALNET 3 CMO and the Contractor with requirements that define and assist in the management of the SLAs. This section includes the SLA formats, general requirements, stop clock conditions, and the Technical SLAs for the services identified in this Category solicitation.

1.2.9.1 SERVICE LEVEL AGREEMENT FORMAT

The Contractor shall adhere to the following format and include the content as described below for each Technical SLA added by the Contractor throughout the Term of the Contract:

1. ***SLA Name – Each SLA Name must be unique;***
2. ***Definition - Describes what performance metric will be measured;***
3. ***Measurements Process - Provides instructions how the Contractor will continuously monitor and measure SLA performance to ensure compliance. The Contractor shall provide details describing how and what will be measured. Details should include source of data and define the points of measurement within the system, application, or network;***
4. ***Service(s) - All applicable services will be listed in each SLA;***
5. ***Objective(s) – Defines the SLA performance goal/parameters; and,***
6. ***Rights and Remedies***
    a. ***Per Occurrence: Rights and remedies are paid on a per event basis during the bill cycle; and,***
    b. ***Monthly Aggregated Measurements: Rights and remedies are paid once during the bill cycle based on an aggregate of events over a defined period of time.***

The Contractor shall proactively apply a credit or refund when a SLA objective is not met. CALNET SLA Rights and Remedies do not require the Customer to submit a request for credit or refund.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.2 TECHNICAL REQUIREMENTS VERSUS SLA OBJECTIVES

Sections 1.2.2 through 1.2.7 define the technical requirements for each service. These requirements are the minimum parameters each Bidder must meet in order to qualify for Contract award. Upon Contract award the committed technical requirements will be maintained throughout the remainder of the Contract.

Committed SLA objectives are minimum parameters which the Contractor shall be held accountable for all rights and remedies throughout Contract Term.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.3 TWO METHODS OF OUTAGE REPORTING: CUSTOMER OR CONTRACTOR

There are two (2) methods in which CALNET 3 service failures or quality of service issues may be reported and Contractor trouble tickets opened: Customer reported or Contractor reported.

The first method of outage reporting results from a Customer reporting service trouble to the Contractor's Customer Service Center via phone call or opening of a trouble ticket using the on-line Trouble Ticket Reporting Tool (IFB-A Business Requirements Section A.9.4., Trouble Ticket Reporting Tool (TTRT)).

The second method of outage reporting occurs when the Contractor opens a trouble ticket as a result of network/system alarm or other method of service failure identification. In each instance the Contractor shall open a trouble ticket using the Trouble Ticket Reporting Tool (IFB-A Business Requirements Section A.9.4, Trouble Ticket Reporting Tool (TTRT) and monitor and report to Customer until service is restored.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.4 BIDDER RESPONSE TO SERVICE LEVEL AGREEMENTS

Many of the Service Level Agreements described below include multiple objective levels – Basic, Standard and Premier. Bidders shall indicate one (1) specific objective level they are committing to for each service in space provided in the "Objective" section of each SLA description.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.5 CONTRACTOR SLA MANAGEMENT PLAN

Within 90 calendar days of Contract award, the Contractor shall provide CALNET 3 CMO with one (1) SLA Management Plan that describes how the Contractor will monitor and manage the Technical SLAs for services in this IFB. The SLA Management plan shall provide processes and procedures to be implemented by the Contractor. The SLA Management Plan shall define the following:

1. ***Contractor SLA Manager and supporting staff responsibilities;***

2. ***Contractor process for measuring objectives for each SLA. The process shall explain how the Contractor will continuously monitor and measure SLA performance to ensure compliance. The Contractor shall provide details describing how and what will be measured. Details should include source of data and define the points of measurement within the system, application, or network. Process may differ per service type;***

3. ***Creation and delivery of SLA Reports (IFB-A Business Requirements SectionA.9.5). The Contractor shall include a sample report in accordance with the SLA Reports (IFB-A Business Requirements Section A.9.5) for the following: SLA Service Performance Report (IFB-A Business Requirements Section A.9.5.1), SLA Provisioning Report (IFB-A Business Requirements Section A.9.5.2), and SLA Catastrophic Outage Reports (IFB-A Business Requirements Section A.9.5.3). The Contractor shall commit to a monthly due date that reports shall be provided to the CALNET 3 CMO via the Private Oversight Website (IFB-A Business Requirements Section A.9.2);***

4. ***SLA invoicing credit and refund process;***

5. ***Contractor SLA problem resolution process for Customer SLA and SLA reporting issues. The Contractor shall provide a separate process for Customers and CALNET 3 CMO; and,***

6. ***Contractor SLA Manager to manage all SLA compliance and reporting. The Contractor shall include the SLA Manager contact information for SLA inquiries and issues resolution for Customer and CALNET 3 CMO.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.6 TECHNICAL SLA GENERAL REQUIREMENTS

The Contractor shall adhere to the following general requirements which apply to all CALNET 3 Technical SLAs (Section 1.2.9.8):

1. ***With the exception of Provisioning SLA (Section 1.2.9.8.11), the total SLA rights and remedies for any given month shall not exceed the sum of 100 percent of the Total Monthly Recurring Charges (TMRC);***

2. ***If a circuit or service fails to meet one (1) or more of the performance objectives, only the SLA with the largest monthly Rights and Remedies will be credited to the Customer, per event;***

3. ***The Contractor shall apply CALNET 3 SLAs and remedies for services provided by Affiliates and/or Subcontractors under this Contract;***

4. ***The Definition, Measurement Process, Objectives, and Rights and Remedies shall apply to all services identified in each SLA. If a Category or Subcategory is listed in the SLA, then all services under that Category or Subcategory are covered under the SLA. Exceptions must be otherwise stated in the SLA;***

5. ***TMRC rights and remedies shall include the service, option(s), and feature(s) charges.***

6. ***The Contractor shall proactively and continuously monitor and measure all SLA objectives;***

7. ***The Contractor shall proactively credit all rights and remedies to the Customer within 60 calendar days of the trouble resolution date on the trouble ticket or within 60 calendar days of the Due Date on the Service Request form for the Provisioning SLA (Section 1.2.9.8.11);***

8. ***To the extent that Contractor offers additional SLAs, or SLAs with more advantageous rights and/or remedies for same or similar services offered through tariffs, online service guides, or other similarly situated government contracts (Federal, State, County, City), the State will be entitled to the same rights and/or remedies therein. The Contractor shall present SLAs to CALNET 3 CMO for possible inclusion via amendments;***

9. ***The Contractor shall apply CALNET 3 SLAs and remedies to services provided in geographic areas which the Contractor is required to provide service;***

10. ***The election by CALNET 3 CMO of any SLA remedy covered by this Contract shall not exclude or limit CALNET 3 CMO's or any Customer's rights and remedies otherwise available within the Contract or at law or equity;***

11. ***The Contractor shall apply rights and remedies when a service fails to meet the SLA objective even when backup or protected services provide Customer with continuation of services;***

12. ***The Contractor shall act as the single point of contact in coordinating all entities to meet the State's needs for provisioning, maintenance, restoration and resolution of service issues or that of their Affiliates, Subcontractors or resellers under this Contract;***

13. ***The Customer Escalation Process (IFB-A Business Requirements Section A.3.4.2) and/or the CALNET 3 CMO Escalation Process (IFB-A Business Requirements Section A.3.4.1) shall be considered an additional right and remedy if the Contractor fails to resolve service issues within the SLA objective(s);***

14. ***Trouble reporting and restoration shall be provided 24x365 for CALNET 3 services;***

15. ***SLAs apply 24x365 unless SLA specifies an exception;***

16. ***Contractor invoices shall clearly cross reference the SLA credit to the service Circuit ID in accordance with IFB-A Business Requirements Section A.5.1 (Billing and Invoicing Requirements, #14);***

17. ***The Contractor shall provide a CALNET 3 SLA Manager responsible for CALNET 3 SLA compliance. The SLA Manager shall attend regular meetings and be available upon request to address CALNET 3 CMO SLA oversight, report issues, and problem resolution concerns. The CALNET 3 SLA Manager shall also coordinate SLA support for Customer SLA inquiries and issue resolution;***

18. ***The Contractor shall provide Customer and CALNET 3 CMO support for SLA inquiries and issue resolution; and,***

19. ***Any SLAs and remedies negotiated between Contractor and third party service provider in territories closed to competition shall be passed through to the CALNET 3 Customer.***

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.7 TROUBLE TICKET STOP CLOCK CONDITIONS

The following conditions shall be allowed to stop the trouble ticket outage duration for CALNET 3 Contractor trouble tickets. The Contractor shall document the trouble ticket outage duration using the Stop Clock Condition (SCC) listed in Table 1.2.9.7 and include start and stop time stamps in the Contractor's Trouble Ticket Reporting Tool (IFB-A Business Requirements Section A.9.4) for each application of a SCC. The Contractor shall not consider "cleared while testing" or "no trouble found" as a SCC unless cause is ultimately determined to have been the fault of a third party outside the control of the Contractor.

Note: The Glossary (SOW Appendix A) defines term "End-User" as the "individual within an Entity that is utilizing the feature or service provided under the Contract."

Stop Clock Conditions are limited to the conditions listed in Table 1.2.9.7.

Table 1.2.9.7 – Stop Clock Conditions (SCC)

#	Stop Clock Condition (SCC)	SCC Definition
1	**END-USER REQUEST**	Periods when a restoration or testing effort is delayed at the specific request of the End-User. The SCC shall exist during the period the Contractor was delayed, provided that the End-User's request is documented and time stamped in the Contractor's trouble ticket or order system and shows efforts are made to contact the End-User during the applicable Stop Clock period.
2	**OBSERVATION**	Time after a service has been restored but End-User request ticket is kept open for observation. If the service is later determined by the End-User to not have been restored, the Stop Clock shall continue until the time the End-User notifies the Contractor that the Service has not been restored.
3	**END-USER NOT AVAILABLE**	Time after a service has been restored but End-User is not available to verify that the Service is working. If the service is later determined by the End-User to not have been restored, the Stop Clock shall apply only for the time period between Contractor's reasonable attempt to notify the End-User that Contractor believes the service has been restored and the time the End-User notifies the Contractor that the Service has not been restored.
4	**WIRING**	Restoration cannot be achieved because the problem has been isolated to wiring that is not maintained by Contractor or any of its Subcontractors or Affiliates. If it is later determined the wiring is not the cause of failure, the SCC shall not apply.
5	**POWER**	Trouble caused by a power problem outside of the responsibility of the Contractor. Power is a stop clock condition for a Customer owned LAN switch and router, but not a stop clock condition for a Contractor owned router when used for Converged VoIP.
6	**FACILITIES**	Lack of building entrance Facilities or conduit structure that are the End-User's responsibility to provide.
7	**ACCESS**	Limited access or contact with End-User provided the Contractor documents in the trouble ticket several efforts to contact End-User for the following: ***a.*** Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative; ***b.*** Site contact refuses access to technician who displays proper identification; ***c.*** Customer provides incorrect site contact information which prevents access, provided that Contractor takes reasonable steps to notify End-User of the improper contact information and takes reasonable steps to obtain the correct information; and, ***d.*** Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem. If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply.

Table 1.2.9.7 – Stop Clock Conditions (SCC) (continued)

#	Stop Clock Condition (SCC)	SCC Definition
7	**ACCESS**	Limited access or contact with End-User provided the Contractor documents in the trouble ticket several efforts to contact End-User for the following: ***e.*** Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative; ***f.*** Site contact refuses access to technician who displays proper identification; ***g.*** Customer provides incorrect site contact information which prevents access, provided that Contractor takes reasonable steps to notify End-User of the improper contact information and takes reasonable steps to obtain the correct information; and, ***h.*** Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem. If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply.
8	**STAFF**	Any problem or delay to the extent caused by End-User's staff that prevents or delays Contractor's resolution of the problem. In such event, Contractor shall make a timely request to End-User staff to correct the problem or delay and document in trouble ticket.
9	**APPLICATION**	End-User software applications that interfere with repair of the trouble.
10	**CPE**	Repair/replacement of CPE not provided by Contractor if the problem has been isolated to the CPE. If determined later that the CPE was not the cause of the service outage, the CPE SCC will not apply.
11	**NO RESPONSE**	Failure of the trouble ticket originator or responsible End-User to return a call from Contractor's technician for on-line close-out of trouble tickets after the Service has been restored as long as Contractor can provide documentation in the trouble ticket substantiating the communication from Contractor's technician.
12	**MAINTENANCE**	An outage directly related to any properly performed scheduled maintenance or upgrade scheduled for CALNET 3 service. Any such stop clock condition shall not extend beyond the scheduled period of the maintenance or upgrade. SLAs shall apply for any maintenance caused outage beyond the scheduled maintenance period. Outages occurring during a scheduled maintenance or upgrade period and not caused by the scheduled maintenance shall not be subject to the Maintenance SCC.

Table 1.2.9.7 – Stop Clock Conditions (SCC) (continued)

#	Stop Clock Condition (SCC)	SCC Definition
13	**THIRD PARTY**	Any problem or delay caused by a third party not under the control of Contractor, not preventable by Contractor, including, at a minimum, cable cuts not caused by the Contractor. Contractor's Affiliates and Subcontractors shall be deemed to be under the control of Contractor with respect to the equipment, services, or Facilities to be provided under this Contract.
14	**FORCE MAJEURE**	Force Majeure events, as defined in the terms and conditions of the PMAC General Provisions - Telecommunications, Section 28 (Force Majeure).

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8 TECHNICAL SERVICE LEVEL AGREEMENTS

The Contractor shall provide and manage the following Technical SLAs.

1.2.9.8.1 Availability (M-S)

SLA Name: Availability

Definition: The percentage of time a CALNET service is fully functional and available for use each calendar month.

Measurement Process: The monthly Availability Percentage shall be based on the accumulative total of all Unavailable Time derived from all trouble tickets closed, for the affected Circuit ID (as defined in the Data Dictionary), per calendar month. The monthly Availability Percentage equals the Scheduled Uptime per month less Unavailable Time per month divided by Scheduled Uptime per month multiplied by 100. Scheduled Uptime is 24 x number of days in the month. All Unavailable Time applied to other SLAs, which results in a remedy, will be excluded from the monthly accumulated total.

Objective(s) A applies to the following Services:

- Converged VoIP Service (1.2.3.2)
- Converged VoIP Voice Mail Service (1.2.3.5)
- Audio Conferencing (1.2.4)
- SIP Trunk
- Secure Gateway
- Managed Application Assurance (MAAS)
- Managed WAN (MWAN)
- Managed LAN (MLAN)
- Managed Video Conferencing

Objective(s) A:

	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
Converged VoIP Service	≥ 98.7%	≥ 99.2%	≥ 99.5%	**P**
Converged VoIP Voice Mail Service	≥ 98.9%	≥ 99.2%	≥ 99.5%	**P**
SIP Trunk	≥ 98.9%	≥ 99.2%	≥ 99.5%	**P**
Secure Gateway			≥ 99.5%	**P**
MAAS			≥ 99.5%	**P**
MWAN			≥ 99.5%	**P**
MLAN			≥ 99.5%	**P**
Managed Video Conferencing			≥ 99.5%	**P**

1.2.9.8.1 Availability (M-S) (continued)

Objective(s) B applies to the following Service(s):

- MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)

Objective(s) B:
The objectives will be based on the transport type. The speeds appear in ranges.

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
DS1	≥ 99.2%	≥ 99.5%	≥ 99.8%	**P**
DS3	≥ 99.7%	≥ 99.8%	≥ 99.9%	**P**
OCx	≥ 99.7%	≥ 99.8%	≥ 99.9%	**P**
Ethernet	≥ 99.2%	≥ 99.5%	≥ 99.8%	**P**

Rights and Remedies

Per Occurrence: N/A

Monthly Aggregated Measurements:
First month the service fails to meet the committed SLA objective shall result in a 15 percent rebate of the TMRC and two (2) Business Days of the ADUC, when usage applies.

The second consecutive month the service fails to meet the committed SLA objective shall result in a 30 percent rebate of TMRC and two (2) Business Days of the ADUC, when usage applies.

Each additional consecutive month the service fails to meet the Committed SLA objective shall result in a 50 percent rebate of the TMRC, and two (2) Business Days of the ADUC, when usage applies.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.2 Catastrophic Outage 1 (CAT 1) (M-S)

SLA Name: Catastrophic Outage 1 (CAT 1)	
Definition: The total loss of service at a single address based on a common cause resulting in one (1) or more of the following: • Failure of two (2) or more service types, or • Failure of ten (10) access circuits, or • Failure of 50 or more End-User VoIP service package or VoIP voice mail service (seat) • Failure of a single MPLS port or access circuit with a transport speed greater than or equal to 200 Mbps	
Measurement Process: The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by a Customer, or the Contractor, whichever occurs first. The Contractor open a trouble ticket for each service (Circuit ID) affected by the common cause. Each End-User service is deemed out of service from the first notification until the Contractor determines End-User the service (Circuit ID) is restored, minus SCC. Any service reported by Customer as not having been restored shall have the outage time adjusted to the actual restoration time.	
Service(s):	
Converged VoIP Service (1.2.3.2)	
VoIP Voice Mail Service (1.2.3.5)	MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)
Secure Gateway	Managed Application Assurance (MAAS)
Managed WAN (MWAN)	Managed LAN (MLAN)
Managed Video Conferencing	

1.2.9.8.2 Catastrophic Outage 1 (CAT 1) (M-S) (continued)

Objective (s):
The objective restoral time shall be:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MPLS	≤ 3 hours	≤2 hours	≤1 hour	**P**
Secure Gateway			≤1 hour	**P**
MAAS			≤1 hour	**P**
MWAN			≤1 hour	**P**
MLAN			≤1 hour	**P**
Managed Video Conferencing			≤1 hour	**P**
VoIP Voice Mail	≤ 3 hours	≤2 hours	≤1 hour	**P**
Converged VoIP Service	≤ 8 hours	≤2 hours	≤1 hour	**P**

Rights and Remedies	**Per Occurrence:** 100 percent of the TMRC for each End-User service not meeting the committed objective for each CAT 1 fault
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.3 Catastrophic Outage 2 (CAT 2) (M-S)

SLA Name: Catastrophic Outage 2 (CAT 2)

Definition:
Any service affecting failure in the Contractor's (or subcontractor's or Affiliate's) network up to and including the Provider Edge (PE) equipment.

Measurement Process: The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by the Customer or Contractor, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall compile a list for each End-User service affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID) basis from information recorded from the network equipment/system or Customer reported trouble ticket. Each End-User service (Circuit ID) is deemed out of service from the first notification until the Contractor determines the End-User service is restored. Any End-User service reported by the End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time.

Service(s):

MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)	
Converged VoIP Service (1.2.3.2)	Audio Conferencing (1.2.4)
VoIP Voice Mail Service (1.2.3.5)	SIP Trunking (1.2.5)
Secure Gateway	Managed Application Assurance (MAAS)
Managed WAN (MWAN)	Managed LAN (MLAN)
Managed Video Conferencing	

Objective (s):
The objective restoral time shall be:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MPLS:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
Secure Gateway			≤ 15 minutes	**P**
MAAS			≤ 15 minutes	**P**
MWAN			≤ 15 minutes	**P**
MLAN			≤ 15 minutes	**P**
Managed Video Conferencing			≤ 15 minutes	**P**
Converged VoIP Service:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
VoIP Voice Mail Service:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
Aud□o Conferencing:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
SIP Trunking	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**

1.2.9.8.3 Catastrophic Outage 2 (CAT 2) (M-S) (continued)

Objective (s):
The objective restoral time shall be:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MPLS:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
Secure Gateway			≤ 15 minutes	**P**
MAAS			≤ 15 minutes	**P**
MWAN			≤ 15 minutes	**P**
MLAN			≤ 15 minutes	**P**
Managed Video Conferencing			≤ 15 minutes	**P**
Converged VoIP Service:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
VoIP Voice Mail Service:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
Aud□o Conferencing:	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**
SIP Trunking	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	**P**

Rights and Remedies	**Per Occurrence:** 100 percent of the TMRC and ten (10) Business Days of the ADUC (when applicable) for each End-User service not meeting the committed objective for each CAT 2 fault.
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.4 Catastrophic Outage 3 (CAT 3) (M-S)

SLA Name: Catastrophic Outage 3 (CAT 3)	
Definition: The total loss of more than one (1) CALNET 3 service type in a central office, or the loss of any service type on a system wide basis	
Measurement Process: The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by the Customer, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall open a trouble ticket and compile a list of each End-User service (Circuit ID) affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID) basis from information recorded from the network switches or trouble ticket. Each End-User service (Circuit ID) is deemed out of service from the first notification until the Contractor determines service is restored. Any service reported by End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time.	
Service(s):	
MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7))	
Converged VoIP Service (1.2.3.2)	Converged VoIP Service (1.2.3.2)
Audio Conferencing (1.2.4)	Audio Conferencing (1.2.4)
Secure Gateway	Managed Application Assurance (MAAS)
Managed WAN (MWAN)	Managed LAN (MLAN)
Managed Video Conferencing	

1.2.9.8.4 Catastrophic Outage 3 (CAT 3) (M-S) (continued)

Objective (s):
The objective restoral time shall be:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B or P)
MPLS	≤ 30 minutes	N/A	≤ 15 minutes	**P**
Secure Gateway			≤ 15 minutes	**P**
MAAS			≤ 15 minutes	**P**
MWAN			≤ 15 minutes	**P**
MLAN			≤ 15 minutes	**P**
Managed Video Conferencing			≤ 15 minutes	**P**
Converged VoIP Service	≤ 30 minutes	N/A	≤ 15 minutes	**P**
VoIP Voice Mail Service	≤ 30 minutes	N/A	≤ 15 minutes	**P**
Audio Conferencing	≤ 30 minutes	N/A	≤ 15 minutes	**P**
SIP Trunking	≤ 30 minutes	N/A	≤ 15 minutes	**P**

Rights and Remedies	**Per Occurrence:** 100 percent of the TMRC and ten (10) Business Days of the ADUC (when applicable) for each End-User service not meeting the committed occurrence objective for each Cat 3 fault.
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.5 Delay - Round Trip Transmission for MPLS Services (M-S)

SLA Name: Delay – Round Trip Transmission for MPLS Services

Definition: the average round trip transfer delay measured from the Customer Edge (CE) to the remote CE back to CE (Site A to Site Z to Site A) within the geographic confines of the state of California.

Measurement Process: The End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the Customer suspects the delay is not meeting the committed level. CALNET 3 CMO shall determine the sample interval, provided that a minimum of 100 pings or more shall constitute test. The Contractor shall provide timely verification, consistent with industry standards. Trouble tickets opened as Delay – Round Trip Transmission for MPLS Services shall not count in availability or Time to Repair measurements unless and until the End-User reports service as unusable.

Service(s):

MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)	
Secure Gateway	Managed Video Conferencing

Objective (s): based on a 1,000 byte ping:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (S or P)
MPLS ≥ 128 Kbps to < 1.536 Mbps	N/A	<400ms	<340ms	**P**
MPLS ≥ 1.536 Mbps to < 40 Mbps	N/A	<120ms	<95ms	**P**
Secure Gateway ≥ 128 Kbps to < 1.536 Mbps			<340ms	**P**
Secure Gateway ≥ 1.536 Mbps to < 40 Mbps			<95ms	**P**
Secure Gateway ≥ 40 Mbps			<90ms	**P**
Managed Video Conferencing ≥ 128 Kbps to < 1.536 Mbps			<340ms	**P**
Managed Video Conferencing ≥ 1.536 Mbps to < 40 Mbps			<95ms	**P**
Managed Video Conferencing ≥ 40 Mbps			<90ms	**P**
MPLS ≥ 40 Mbps	N/A	<110ms	<90ms	**P**

1.2.9.8.5 Delay - Round Trip Transmission for MPLS Services (M-S) (continued)

Rights and Remedies	**Per Occurrence:** N/A
	Monthly Aggregated Measurements: 25 percent of TMRC per occurrence for the reported service. The second consecutive month service fails to meet the committed SLA objectives shall result in a 35 percent rebate of TMRC. Each additional consecutive month service fails to meet the committed SLA objective shall result in a 50 percent rebate of the TMRC.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.6 VoIP Delay, One-Way Transmission (M-S)

SLA Name: VoIP Delay – One-Way Transmission

Definition: Average one-way transfer delay measured from Customer Equipment (CE) to the remote CE

Measurement Process: End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the Customer suspects the VoIP delay is not meeting the committed level. The problem requires timely verification, consistent with industry Standards, by the Contractor. Tickets opened as VoIP Delay One-Way Transmission SLA shall not count in availability or Time to Repair measurements unless and until the End-User reports service as unusable.

Service(s):

Converged VoIP Service (1.2.3.2)	

Objective (s):

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
Converged VoIP Service	≤ 170 ms	≤ 130 ms	≤ 90 ms	**P**

Rights and Remedies	**Per Occurrence:** N/A
	Monthly Aggregated Measurements: 25 percent of TMRC per occurrence for the reported service. The second month service fails to meet the committed SLA objectives shall result in a 35 percent rebate of TMRC. Each additional consecutive month service fails to meet the committed SLA objective shall result in a 50 percent rebate of the TMRC.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.7 Excessive Outage (M-S)

SLA Name: Excessive Outage

Definition: A Service failure that remains unresolved for more than the committed objective,.

Measurement Process: This SLA is based on the trouble ticket Unavailable Time. The circuit or service is unusable during the time the trouble ticket is reported as opened until restoration of the service, minus SCC. If Customer reports a service failure as unresolved after the closure of the trouble ticket by the Contractor, the Unavailable Time shall be adjusted to the actual restoration time.

Service(s):

MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)	Audio Conferencing (1.2.4)
Converged VoIP Service (1.2.3.2)	SIP Trunking (1.2.5)
VoIP Voice Mail Service (1.2.3.5)	
Secure Gateway	Managed Application Assurance (MAAS)
Managed WAN (MWAN)	Managed LAN (MLAN)
Managed Video Conferencing	

Objective (s):

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MPLS	16 hours	12 hours	8 hours	**P**
Secure Gateway			8 hours	**P**
MAAS			8 hours	**P**
MWAN			8 hours	**P**
MLAN			8 hours	**P**
Managed Video Conferencing			8 hours	**P**
Converged VoIP Service	16 hours	12 hours	8 hours	**P**
VoIP Voice Mail Service	16 hours	12 hours	8 hours	**P**
Audio Conferencing	16 hours	12 hours	8 hours	**P**
SIP Trunking	16 hours	12 hours	8 hours	**P**

1.2.9.8.7 Excessive Outage (M-S) (continued)

Rights and Remedies	**Per Occurrence:** 100 percent of the TMRC and ten (10) Business Days of the ADUC (when applicable) per occurrence for each service (Circuit ID) out of service for a period greater than the committed objective level. Upon request from the Customer or the CALNET 3 CMO, the Contractor shall provide a briefing on the excessive outage restoration.
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.8 Jitter (M-S)

SLA Name: Jitter

Definition: Variations in transfer delay measured from the Customer Edge (CE) to the remote CE

Measurement Process: End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the Jitter exceeds the committed level. The problem requires timely verification, consistent with industry Standards, by the Contractor. Tickets identified as a jitter issue shall not count in availability or Time-to-Repair measurements unless and until the End-User reports service as unusable for its intended uses. This measurement applies to local loop transport (1) under the control of the Contractor or (2) not under the control of Contractor that do not exceed 70% peak utilization for three (3) consecutive Business Days.

Service(s):

Converged VoIP Service (1.2.3.2)

Objective (s):

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B or S)
Converged VoIP Service	≤ 30ms	≤ 15ms	N/A	**S**

Rights and Remedies	**Per Occurrence:** 25 percent of TMRC and two (2) Business Days of the ADUC per occurrence for the reported service. Second month service fails to meet the committed SLA objectives shall result in a 35 percent rebate of TMRC and two (2) Business Days of ADUC. Each additional consecutive month service fails to meet the committed SLA objective shall result in a 50 percent rebate of the TMRC and two (2) Business Days of the ADUC.
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.9 Notification

SLA Name: Notification	
Definition: The Contractor notification to CALNET 3 CMO and designated stakeholders in the event of a CAT 2 or CAT 3 failure, terrorist activity, threat of natural disaster, or actual natural disaster which results in a significant loss of telecommunication services to CALNET 3 End-Users or has the potential to impact services in a general or statewide area. The State understands initial information requiring the nature of the outage may be limited.	
Measurement Process: The Contractor shall adhere to the Network Outage Response requirements (IFB-A Business Requirements Section A.3.3) and notify the CALNET 3 CMO and designated stakeholders for all CAT 2 and CAT 3 Outages or for network outages resulting in a significant loss of service. Notification objectives will be based on the start time of the outage failure determined by the opening of a trouble ticket or network alarm, whichever occurs first. For events based on information such as terrorist activity or threat of natural disaster, the Contractor shall notify CALNET 3 CMO and designated stakeholder when information is available for dissemination to Customers.	
Service(s): All services	
Objective (s): Within 60 minutes of the above mentioned failures' start time, the Contractor shall notify CALNET 3 CMO and designated stakeholders using a method defined in IFB-A Business Requirements Section A.3.3 (Network Outage Response). At 60 minute intervals, updates shall be given on the above mentioned failures via the method defined in IFB-A Business Requirements Section A.3.3 (Network Outage Response). This objective is the same for Basic, Standard and Premium commitments	
Rights and Remedies	**Per Occurrence:** Senior Management Escalation
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.10 Packet Loss (M-S)

SLA Name: Packet Loss

Definition: A measurement of lost or dropped packet traveling across the Contractor's, Affiliate's or Subcontractor's network. Packet loss is measured from Contractor's handoff to the Customer at each end of the data channel measured port to port.

Measurement Process: End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the data loss exceeds the committed level. The problem requires timely verification, consistent with industry standards, by the Contractor. Tickets identified as a packet loss issue shall not count in availability or Time-to-Repair measurements unless and until the End-User reports service as unusable for its intended uses.

This measurement includes the local loop transport under the control of the Contractor and any local loops acquired from a third party by the Contractor .

Service(s):

MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)	Secure Gateway
Converged VoIP Service (1.2.3.2)	Managed Video Conferencing

Objective (s):

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MPLS	≤ .75% packet loss	≤ .5% packet loss	≤ .25% packet loss	**P**
Secure Gateway			≤ .25% packet loss	**P**
Managed Video Conferencing			≤ .25% packet loss	**P**
Converged VoIP Service	≤ .75% packet loss	≤ .5% packet loss	≤ .25% packet loss	**P**

Rights and Remedies

Per Occurrence: 25 percent of TMRC per occurrence for the reported service.

Next consecutive month to fail to meet the committed SLA objectives shall result in a 35 percent rebate of TMRC.

Each additional consecutive month to fail to meet the committed SLA objective shall result in a 50 percent rebate of the TMRC.

Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.11 Provisioning (M-S)

SLA Name: Provisioning

Definition: Provisioning shall include new services, moves, adds and changes, completed by the Contractor on or before the due dates. The Provisioning SLA shall be based on committed installation intervals established in this SLA or due dates negotiated between Customer and Contractor documented on the Contractor's order confirmation notification or Contracted Service Project Work Scope of Work in accordance with Section A.2.5.4 #7 (Provisioning and Implementation). The Contractor shall meet the committed interval dates or due date negotiated with the Customer. If the Customer agrees to a negotiated due date, the negotiated due date supersedes the committed interval. At the Customer's discretion, if the scope of the Service Requests(s) meets the Coordinated or Managed Project criteria, negotiated due dates will be established and documented in the Project Timeline per IFB-
A Business Requirements Section A.6 (Contracted Service Project Work).

Provisioning SLAs have two (2) objectives:

Objective 1: Individual Service Request

Objective 2: Successful Install Monthly Percentage by Service Type

Note: Provisioning timelines include extended demarcation wiring, when appropriate.

Measurement Process:

Objective 1: Individual Service Request: Install intervals are based on the committed installation intervals established in this SLA or due dates negotiated between Customer and Contractor. This objective requires the Contractor to meet the due date for each individual Service Request.

Objective 2: Successful Install Monthly Percentage per Service Type: The Contractor shall sum all individual Service Requests per service, as listed below, meeting the objective in the measurement period (per month) and divide by the sum of all individual Service Requests due per service in the measurement period and multiply by 100 to equal the percentage of Service Requests installed on time. The Contractor must meet or exceed the objective below in order to avoid the rights and remedies.

Service (Features must be installed in conjunction with the service except when listed below)	Committed Interval Calendar Days	Coordinated/Managed Project
MPLS Port Transport (1.2.2.8.1)	35	Coordinated/Managed Project
MPLS Port and Access Bundle Transport (1.2.2.8.2)	35	Coordinated/Managed Project
MPLS Port, Access and Router Transport (1.2.2.8.3)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled On-Net Transport Speeds (1.2.2.8.4)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled Off-Net Transport Speeds (1.2.2.8.5)	45	Coordinated/Managed Project
MPLS Port, Access and Router Bundled Ethernet On-Net Transport (1.2.2.8.6)	45	Coordinated/Managed Project

1.2.9.8.11 Provisioning (M-S) (continued)

Service (Features must be installed in conjunction with the service except when listed below)	Committed Interval Calendar Days	Coordinated/Managed Project
MPLS Port, Access and Router Bundled Ethernet Off-Net Transport (1.2.2.8.7)	45	Coordinated/Managed Project
Converged VoIP Service (1.2.3.2)	45	Coordinated/Managed Project
VoIP Voice Mail Services (1.2.3.5)	30	Coordinated/Managed Project
Audio Conferencing (1.2.4)	30	Coordinated/Managed Project
SIP Trunking (1.2.5)	35	Coordinated/Managed Project
Secure Gateway	Managed Project	Coordinated/Managed Project
Managed Application Assurance (MAAS)	Managed Project	Coordinated/Managed Project
Managed WAN (MWAN)	45	Coordinated/Managed Project
Managed LAN (MLAN)	45	Coordinated/Managed Project
Managed Video Conferencing	Managed Project	Coordinated/Managed Project

1.2.9.8.11 Provisioning (M-S) (continued)

Objective (s):
Individual Service Requests: Service installed on or before the committed or negotiated due date.
Successful Install Monthly Percentage per Service:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MPLS Port Transport:	N/A	≥ 90%	≥ 95%	**P**
MPLS Port and Access Bundle Transport:	N/A	≥ 90%	≥ 95%	**P**
MPLS Port, Access and Router Transport:	N/A	≥ 90%	≥ 95%	**P**
Converged VoIP Service:	N/A	≥ 90%	≥ 95%	**P**
VoIP Voice Mail Service:	N/A	≥ 90%	≥ 95%	**P**
Audio Conferencing:	N/A	≥ 90%	≥ 95%	**P**
SIP Trunking	N/A	≥ 90%	≥ 95%	**P**
MPLS Port, Access and Router Bundled On-Net Transport Speeds	N/A	≥ 90%	≥ 95%	**P**
MPLS Port, Access and Router Bundled Off-Net Transport Speeds	N/A	≥ 90%	≥ 95%	**P**
MPLS Port, Access and Router Bundled Ethernet On-Net Transport	N/A	≥ 90%	≥ 95%	**P**
MPLS Port, Access and Router Bundled Ethernet Off-Net Transport	N/A	≥ 90%	≥ 95%	**P**
Secure Gateway			≥ 95%	**P**
Managed Application Assurance (MAAS)			≥ 95%	**P**
Managed WAN (MWAN)			≥ 95%	**P**
Managed LAN (MLAN)			≥ 95%	**P**
Managed Video Conferencing			≥ 95%	**P**

Rights and Remedies	**Per Occurrence:** Objective 1: Individual Service Requests: 50 percent of installation fee credited to Customer for any missed committed objective.
	Monthly Aggregated Measurements: Objective 2: 100 percent of the installation fee credited to Customer for all Service Requests (per same service type) that did not complete on time during the month if the successful install monthly percentage is below the committed objective.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.12 Time to Repair (TTR) (M-S)

SLA Name: Time to Repair (TTR)

Definition: A service outage that remains unresolved for more than the objective level.

Measurement Process: This SLA is based on trouble ticket Unavailable Time. The circuit or service is unusable during the time the trouble ticket is reported as opened until restoration of the service, minus SCC. If Customer reports a service failure as unresolved after the closure of the trouble ticket by the Contractor, the Unavailable Time shall be adjusted to the actual restoration time. This SLA is applied per occurrence.

Service(s):

MPLS (1.2.2) (Includes 1.2.2.8.1 through1.2.2.8.7)	
Converged VoIP Service (1.2.3.2)	Audio Conferencing (1.2.4)
VoIP Voice Mail Service (1.2.3.5)	SIP Trunking (1.2.5)
Secure Gateway	Managed Application Assurance (MAAS)
Managed WAN (MWAN)	Managed LAN (MLAN)
Managed Video Conferencing	

Objective (s):
The Unavailable Time objective shall not exceed:

Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B or S)
MPLS:	6 hours	4 hours	N/A	**S**
Secure Gateway		4 hours		**S**
MAAS		4 hours		**S**
MWAN		4 hours		**S**
MLAN		4 hours		**S**
Managed Video Conferencing		4 hours		**S**
Converged VoIP Service:	8 hours	4 hours	N/A	**S**
VoIP Voice Mail Service:	6 hours	4 hours	N/A	**S**
Audio Conferencing:	6 hours	4 hours	N/A	**S**
SIP Trunking	6 hours	4 hours	N/A	**S**

Rights and Remedies	**Per Occurrence:** 25 percent of the TMRC three (3) Business Days ADUC, when applicable per occurrence for each service (Circuit ID) out of service for a period greater than the committed objective level.
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.13 Managed Service Proactive Notification

SLA Name: Managed Service Proactive Notification	
Definition: The proactive outage notification SLA provides credits if the Contractor fails to open a trouble ticket and notify Customer of an Outage for a managed service. Notification to the Customer shall occur through means agreed to by Contractor and CALNET 3 CMO. An Outage is defined as an unscheduled period in which the managed service interrupted and unavailable for use by Customer for 60 continuous seconds or more than 60 cumulative seconds within a 15-minute period measured by the Contractor.	
Measurement Process: The Outage Duration start shall be determined by the first Contractor network alarm resulting from the outage-causing event or the opening of a trouble ticket by the Customer, whichever occurs first. The Contractor has fifteen (15) minutes (Notification Period) to open a trouble ticket and notify the Customer from the start point of the first network alarm. The Contractor is in compliance with the proactive outage notification SLA if the Customer opened the trouble ticket prior to the network alarm or Customer is notified by the Contractor within the Notification Period.	
Service(s):	
MPLS Port, Access and Router Bundled Transport Speeds (Section 1.2.2.8.3)	
MPLS Port, Access and Router Bundled On-Net Transport Speeds (Section 1.2.2.8.4)	
MPLS Port, Access and Router Bundled Off-Net Transport Speeds (Section 1.2.2.8.5)	
MPLS Port, Access and Router Bundled Ethernet On-Net Transport Speeds (Section 1.2.2.8.6)	
MPLS Port, Access and Router Bundled Ethernet Off-Net Transport Speeds (Section 1.2.2.8.6)	
Managed WAN (MWAN)	
Managed LAN (MLAN)	
Objective (s): 15 Minutes	
Rights and Remedies	**Per Occurrence:** Customer will receive a credit equal to ten percent (10%) of the TMRC for each Contractor Managed Service (Circuit ID) that was impacted during an outage if the Customer was not proactively notified within the notification period.
	Monthly Aggregated Measurements: N/A

1.2.9.8.14 Excessive Usage of Site Survivability Network Failure Service (M-S)

SLA Name: Excessive Usage of Site Survivability Network Failure Service

Definition: The usage of Site Survivability Network Failure Service shall not exceed the objective commitment identified below in a month, per site.

Measurement Process: The monthly usage duration shall be based on the accumulated total of all service activation events during a given month. A service usage event shall begin from alarm or activation of service and ending when a Site Survivability Network Failure Service resumes to a standby state and no traffic traverses the PSTN on the back-up circuit.

Objective (s) applied to the following Services:

- Converged VoIP Site Survivability Network Failure

Objective(s):

Service	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Converged VoIP Site Survivability Network Failure	240 hours	120 hours	72 hours	**P**

Rights and Remedies

Per Occurrence: N/A

Monthly Aggregated Measurements:
First month the service fails to meet the committed SLA objective shall result in a 15 percent rebate of the TMRC and two (2) Business Days of the ADUC of all usage charges as a result of the activation of the Site Survivability Network Failure Service.

The second consecutive month the service fails to meet the committed SLA objective shall result in a 30 percent rebate of TMRC and five (5) Business Days of ADUC of all usage charges as a result of the activation of Site Survivability Network Failure Service.

Each additional consecutive month the service fails to meet the Committed SLA objective shall result in a 50 percent rebate of the TMRC, and ten (10) Business Days of the ADUC of all usage charges as a result of the activation of Site Survivability Network Failure Service.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.15 Unsolicited Service Enhancement SLAs

All unsolicited service enhancements shall be considered a feature of the service, and therefore shall be included as such under the SLAs as defined in this Section.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.16 Proposed Unsolicited Offerings

The Contractor shall provide SLAs as defined throughout SLA Section 1.2.9 (Availability, Catastrophic Outage, Provisioning etc.) for each unsolicited offering determined by the CALNET 3 CMO not to be a feature of a service or a component of an unbundled service identified in the

technical requirements. SLA tables shall be amended after Contract award to include all new unsolicited services.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____

1.2.9.8.17 Contract Amendment Service Enhancement SLAs

All Contract amendment service enhancements shall be considered a feature of the service, therefore included as such under the SLAs as defined in this Section 1.2.9.8.

Bidder understands the Requirement and shall meet or exceed it? Yes X No____