

Response to Invitation to Bid
IFB STPD 12-001-B Refresh
State of California
Statewide Technology Procurement Division

BAFO

FINAL
VOLUME 2
Category 3, MAN Ethernet

Prepared for:
CALNET 3

By:
Level 3 Communications, LLC

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Table of Contents

TECHNICAL REQUIREMENTS	1
Category 3 – Metropolitan Area Network ETHERNET	1
3.1 OVERVIEW	1
3.1.1 BIDDER RESPONSE REQUIREMENTS	1
3.1.2 DESIGNATION OF REQUIREMENTS	1
3.1.3 PACIFIC TIME ZONE	2
3.2 ETHERNET SERVICES	3
3.2.1 METROPOLITAN AREA NETWORK ETHERNET (MAE) SERVICES	3
3.3 NETWORK DISASTER/OPERATIONAL RECOVERY	36
3.3.1 TELECOMMUNICATIONS SERVICE PRIORITY (TSP) PROGRAM	36
3.3.2 DATA NETWORK DISASTER/OPERATIONAL RECOVERY	36
3.4 OTHER SERVICES	37
3.4.1 HOURLY RATES FOR SERVICES	37
3.4.2 EXTENDED DEMARCATION WIRING SERVICES	37
3.4.3 SERVICES RELATED HOURLY SUPPORT	42
3.5 SERVICE LEVEL AGREEMENTS (SLA)	44
3.5.1 SERVICE LEVEL AGREEMENT FORMAT	44
3.5.2 TECHNICAL REQUIREMENTS VERSUS SLA OBJECTIVES	44
3.5.3 TWO METHODS OF OUTAGE REPORTING: CUSTOMER OR CONTRACTOR	45
3.5.4 BIDDER RESPONSE TO SERVICE LEVEL AGREEMENTS	45
3.5.5 CONTRACTOR SLA MANAGEMENT PLAN	45
3.5.6 TECHNICAL SLA GENERAL REQUIREMENTS	46
3.5.7 TROUBLE TICKET STOP CLOCK CONDITIONS	48
3.5.8 TECHNICAL SERVICE LEVEL AGREEMENTS	51

Technical Requirements

CATEGORY 3 – METROPOLITAN AREA NETWORK ETHERNET

3.1 OVERVIEW

This Category 3 IFB Refresh provides the State's solicitation for best value solutions for Metropolitan Area Network Ethernet (MAE) services. This IFB Refresh describes the CALNET 3 technical requirements necessary to support the CALNET 3 program requirements.

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

3.1.1 BIDDER RESPONSE REQUIREMENTS

Throughout this IFB Refresh, 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:"

3.1.2 DESIGNATION OF REQUIREMENTS

All Technical Requirements specified in this IFB Refresh Section are Mandatory and must be responded to as identified in IFB Refresh Section 3.3.2.5 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 Cost Worksheets. Items not listed in the Cost Worksheets will not be billable by the Contractor. If additional unsolicited items include the features described in the IFB Refresh and are not included as billable in the Cost Worksheets, the cost associated with the features shall not be included in the unsolicited price.

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

3.1.3 PACIFIC TIME ZONE

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

3.2 ETHERNET SERVICES

Contractors shall provide Ethernet network services in specific geographic locations throughout the state. The service shall provide for the transmission of digital signals in a dedicated high capacity channel. The service shall be available in multiple configurations, enabling Customers to connect two (2) or more Local Area Networks (LANs) at the native speed of the LAN backbone.

3.2.1 METROPOLITAN AREA NETWORK ETHERNET (MAE) SERVICES

Contractors shall provide switched Ethernet point-to-point and multipoint LAN services for use in a metropolitan area which allows Customers to connect two (2) or more locations.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1 General Requirements

3.2.1.1.1 Standards

Contractor's service shall provide Ethernet services that comply with all applicable standards as set by the following standard bodies:

1. Metro Ethernet Forum (MEF);
2. Internet Engineering Task Force;
3. International Telecommunications Union (ITU); and,
4. Institute of Electrical and Electronics Engineers, Inc. (IEEE).

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.2 End-to-End Ethernet Delivery

Contractors shall provide a seamless end-to-end service traversing from the Customer Premise Equipment (CPE) through the Contractor's network minimizing conversion of protocols.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.3 Ethernet Virtual Connections (EVC)

Contractor's service shall provide EVCs, which are used to define the association of two (2) or more User-to-Network Interfaces (UNI's).

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.4 Ethernet User-to-Network Interface (UNI)

Contractor's service shall provide delivery of the service via a User-to-Network Interface (UNI). The service shall provide bidirectional, full duplex transmission of Ethernet frames using a standard IEEE 802.3 Ethernet interface (UNI). Table 3.2.1.1.4 lists the UNI physical interfaces.

Table 3.2.1.1.4 – UNI Physical Interfaces

UNI Speed	UNI Physical Interface
10 Mbps	10BaseT
100 Mbps	100BaseT
1 Gbps	1000BaseT or 1000BaseSX

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.5 Multiple Classes of Service (CoS)

The service shall provide Class of Service (CoS) options that allow for differentiated service performance levels for different types of network traffic.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.6 Service Frame Delivery Options

Service Frame Delivery options supported shall include

1. Unicast Frame Delivery;
2. Multicast Frame Delivery as per RFC 11 12; and,
3. Broadcast Frame Delivery as per IEEE 802.3.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.7 Ethernet Service Frame Disposition

The service shall deliver all service frames associated with the EVC unconditionally across the network as specified in Table 3.2.1.1.7.

Table 3.2.1.1.7 –Service Frame Delivery Disposition

Service Frame Type	Service Frame Delivery
Unicast	All Frames delivered unconditionally

Service Frame Type	Service Frame Delivery
Multicast	All Frames delivered unconditionally
Broadcast	All Frames delivered unconditionally

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.8 VLAN Tag Preservation

The service shall support IEEE 802.1Q VLAN-tagged Customer packets. All Customer VLAN IDs and priority code points (IEEE 802.1p) for CoS shall be transmitted and received unaltered by the service. Untagged packets shall be mapped to the native VLAN specified by Customer. Customers may configure their own VLANs on their Customer owned CPE without coordination with the Contractor.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.9 Maximum Frame Size

The service shall support a Maximum Transmission Unit (MTU) packet size of 1600 bytes to support untagged or 802.1Q tagged packet sizes.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.1.10 Performance Monitoring

The Contractor shall conduct Performance Monitoring that includes the following:

1. Signal failure;
2. Signal degradation;
3. Connectivity or Loss of connectivity;
4. Frame loss;
5. Errored frames;
6. Looping;
7. Mis-inserted frames; and,
8. Maintenance parameters.

Bidder shall describe their Performance Monitoring (PM) that will be deployed for CALNET 3.

Bidder understands the requirements in Section 3.2.1.1.10 and shall meet or exceed them? Yes ☒ No ☐

Description:

Performance Monitoring

A Network Interface Device (NID) is deployed at each customer location. This device is used for a number of applications, including visibility monitoring and metrics, traffic shaping, enabling Class of Service markings, and other functions. The NID is a customer premise device owned and installed by Level 3.

The Contractor shall monitor all services on a 24x365 basis.

Bidder understands the Requirement and shall meet or exceed it? Yes ___X___ No___

3.2.1.1.11 Technical Support

Contractor shall provide technical support service issues via a toll-free telephone number that operates on a 24x365 basis.

Bidder understands the Requirement and shall meet or exceed it? Yes ___X___ No___

3.2.1.1.12 Maintenance

The Contractor shall perform maintenance during a set maintenance window. Maintenance shall be coordinated between the Contractor and the Customer. Contractor shall provide a minimum of 48 hour notice to the Customer for non-service impacting scheduled maintenance. Contractor shall provide a minimum of seven (7) days' notice for service impacting planned maintenance. Emergency maintenance shall be performed as needed.

Bidder understands the Requirement and shall meet or exceed it? Yes ___X___ No___

3.2.1.1.13 Equipment and Environment

The Contractor shall provide and install all network terminating Equipment (NTE) in Customer provided racking and utilize State provided AC power. The NTE shall connect to either a Customer router with an Ethernet blade or a Customer Ethernet switch equipped to support Ethernet located within fifty feet.

All Equipment shall adhere to the Telcordia Network Equipment Building System (NEBS).

Bidder understands the Requirement and shall meet or exceed it? Yes ___X___ No___

3.2.1.2 Ethernet Private Line (EPL) MAE Service

The Contractor shall provide Ethernet Private Line (EPL) MAE service. This service shall provide a logical Point-to-Point connection between two (2) Customer locations or a Customer location and an Internet Service Provider Point of Presence (POP), Interexchange Carrier POP, or another 3rd party location. EPL service shall enable Customers to use any VLANs or Ethernet control protocol across the service without coordination with the Contractor.

EPL service shall enable Customers to connect their Customer Premise Equipment (CPE) using an Ethernet interface and provide one (1) Ethernet Virtual Connection (EVC) between two (2) Customer locations.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.3 Ethernet Virtual Private Line (EVPL) MAE Service

The Contractor shall provide Ethernet Virtual Private Line (EVPL) MAE service. This service shall provide an Ethernet Virtual Connection (EVC) between two (2) Customer locations similar to Ethernet Private Line service but shall support the added flexibility to multiplex multiple services (EVCs) on a single UNI at a Customer's hub or aggregation site.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.4 EPL and EVPL MAE Service Multiplexing

The EPL MAE service shall enable Customers to multiplex multiple services (EVCs) on a given UNI eliminating the need for multiple ports on the Customer's router or Ethernet switch.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.2.1.5 EPL and EVPL MAE Classes of Service (CoS)

Contractor shall provide three (3) Classes of Service (CoS) options for the EPL/EVPL MAE service: BASIC, PRIORITY and PREMIUM. The CoS options shall allow for differentiated service performance levels for different types of network traffic. CoS options shall allow Customers to prioritize mission-critical traffic from lesser priority traffic in the network. The CoS shall be associated with the bandwidth usage rate Committed Information Rate (CIR) ordered by the Customer for each connection at the Customer locations. If the Customer requests multiple EVCs per location, then a CoS will be associated with each EVC.

3.2.1.5.1 BASIC CoS MAE

BASIC CoS supports data applications with more tolerance for delay and/or those with least priority. There are no service performance parameters associated with this Class of Service.

Bidders shall describe in detail their Basic CoS MAE service that will be deployed to satisfy this requirement.

Bidder understands the requirements in Section 3.2.1.5.1 and shall meet or exceed them?
Yes ___**X**___ No ___

Description:

This is the Lowest Class of Service (CoS) level marked as PBIT/EXP = 1, with a 4:1 oversubscription and supports data applications with more tolerance for delay and/or those with least priority and are best suited for use with non-critical traffic. This service meets MEF 23.1 implementation agreement of High-Med-Low. There are no service performance parameters associated with this Class of Service.

3.2.1.5.2 PRIORITY CoS MAE

PRIORITY CoS shall support data applications with more tolerance for delay and/or those that are lower in priority. The service parameters associated with this class of service are listed in Table 3.2.1.5.2.

Table 3.2.1.5.2 lists the service performance objectives for PRIORITY CoS for distances within 250 network miles.

Table 3.2.1.5.2 – PRIORITY CoS Performance Objectives

Performance Objective (≤ 250 miles)	PRIORITY CoS
Latency (one way)	<35ms
Jitter (one way)	<40ms
Packet Loss (one way)	<0.5%
Availability	>99.99%

Bidders shall describe in detail their Priority CoS MAE service that will be deployed to satisfy this requirement.

Bidder understands the requirements in Section 3.2.1.5.2 and shall meet or exceed them?
Yes ___**X**___ No ___

Description:

Enhanced (Priority) CoS

This is a mid-level CoS marked with PBIT/EXP = 3 (Mission Critical) and meets MEF 23.1 implementation agreement of High-Med-Low. Service is oversubscribed 4:1 and takes priority over Basic with a higher priority marking.

3.2.1.5.3 PREMIUM CoS MAE

PREMIUM CoS shall support applications that require minimal loss and low latency variation (i.e., jitter). The network will provision data in this class of service in a priority queue indicating that it is delay sensitive. The service parameters associated with this class of service are listed in Table 3.2.1.5.3.

Table 3.2.1.5.3 lists the service performance objectives for PREMIUM CoS for distances within 250 network miles.

Table 3.2.1.5.3 – Class of Service Options

Performance Objective (≤ 250 miles)	PREMIUM CoS
Latency (one way)	<25ms
Jitter (one way)	<25ms
Packet Loss (one way)	<0.1%
Availability	>99.99%

Bidders shall describe in detail their Premium CoS MAE service that will be deployed to satisfy this requirement.

Bidder understands the requirements in Section 3.2.1.5.3 and shall meet or exceed them?
Yes ___X___ No ___

Description:

Dedicated (Premium) CoS

This is the highest level of CoS, PBIT/EXP = 5, Dedicated Realtime 1:1 non-oversubscribed bandwidth allocation and meets MEF 23.1 implementation agreement of High-Med-Low.

3.2.1.6 EPL and EVPL MAE Service Feature Description

Contractor shall provide MAE services as described below.

3.2.1.6.1 EPL and EVPL MAE Service Connections

EPL and EVPL MAE Service Connections shall include the Network Interface and the Access Link from the Customer premises to the Ethernet network, a port on the Ethernet network, the assigned bandwidth usage and one (1) Ethernet Virtual Connection (EVC).

1. Network Interface (NI): The point that the Customer's data transmission enters the network. The point of interconnection between the Contractor's communication facility and your end-user's terminal equipment.

2. Access Link: Connects a Customer facility at the NI to an Ethernet port on the Metro Ethernet network with a standard optical or copper connection.
3. Port: An Ethernet port is the physical entry point to the shared Metro Ethernet Network. Virtual Local Area Networks (VLANs) Ethernet Virtual Connections (EVCs) originate and terminate on a Metro Ethernet Port.

3.2.1.6.2 Managed Router Service:

Contractor shall offer a managed router service that includes the components described in Section 3.2.1.6.1 in a bundled format which includes a Contractor owned, maintained and managed router as **identified in Table 3.2.1.6.a.**

The Contactor's managed router service shall include proactive Customer notification.

Bidder shall describe in detail all equipment, maintenance and management services that, as the awarded Contractor, will be deployed to satisfy this requirement.

Bidder understands the requirements in Section 3.2.1.6.2 and shall meet or exceed them?
Yes X No

Description:

Level 3 shall provide Managed Router Service at the speeds identified in Table 3.2.1.6.a. The service shall include all equipment, cabling and labor required. The Managed Router will be a Level 3 owned, maintained and managed router.

Level 3 Managed Router Service provides full-service as well as physical management. Physical management includes procurement, installation and maintenance of the router as well as notification, and acceptance testing.

Contractors shall provide the services and Features described Contractors shall provide the services and Features described in Table 3.2.1.6.a

Table 3.2.1.6.a –MAE Services and Features

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
1	EPL MAE Service Connection 10/100 Mbps	10/100 Mbps Ethernet port per location; Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The EPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	X		EPL-CA-0001
	Bidder's Product Description: EPL UNI Access, 10/100 Port, and NID				
2	EPL MAE Service Connection 10/100 Mbps with Managed Router	10/100 Mbps Ethernet port per location with managed router; Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The EPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	X		EPL-CA-0002
	Bidder's Product Description: EPL UNI Access, 10/100 Port, NID, and Managed Router				
3	EPL MAE Service Connection Gigabit Ethernet (1 Gbps)	1000 Mbps Ethernet port per location; Assessed per interface at bandwidths of 1Gbps Ethernet. The EPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	X		EPL-CA-0003
	Bidder's Product Description: EPL UNI Access, GigE Port, (1) EVC and NID.				
4	EPL MAE Service Connection Gigabit Ethernet (1 Gbps) with	1000 Mbps Ethernet port per location, with managed router; Assessed per interface at bandwidths of 1Gbps Ethernet. The EPL connection rate element includes the physical connection	X		EPL-CA-0004

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
	Managed Router	(Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.			
	Bidder's Product Description: EPL UNI Access, GigE Port, (1) EVC, NID, and Managed Router.				
5	EVPL MAE Service Connection 10/100 Mbps	Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	X		EPL-CA-0005
	Bidder's Product Description: EVPL UNI Access, 10/100 Port, (1) EVC, and NID				
6	EVPL MAE Service Connection 10/100 Mbps with Managed Router	Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T) with managed router. The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	X		EPL-CA-0006
	Bidder's Product Description: EVPL UNI Access, 10/100 Port, (1) EVC, NID, and Managed Router				
7	EVPL MAE Service Connection Gigabit Ethernet (1 Gbps)	Assessed per interface at bandwidths of 1Gbps Ethernet. The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	X		EPL-CA-0007
	Bidder's Product Description: EVPL UNI Access, GigE Port, (1) EVC, and NID				
8	EVPL MAE Service Connection Gigabit Ethernet (1	Assessed per interface at bandwidths of 1Gbps Ethernet with managed router. The EVPL connection rate element includes the physical connection (Access	X		EPL-CA-0008

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
	Gbps) with Managed Router	Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.			
	Bidder's Product Description: EVPL UNI Access, GigE Port, (1) EVC, NID, and Managed Router				
9	Additional MAE MAC Addresses (51-100)	MAC Address rate element is a data link layer protocol used for Layer 2 connectivity. Standard service allows up to 50 MAC addresses to be present per EPL/EVPL connection. This optional feature increases that limit to up to 100 MAC addresses per EPL/EVPL connection. A technical review will be necessary to determine if service can be provided and for approval to exceed the limit.	X		EPL-CA-0009
	Bidder's Product Description: Additional MAC addresses (51-100) above the 50 initially configured				
10	Ethernet Virtual Connection (EVC) MAE	EVC rate element. EVCs shall be assigned in 1 Mbps increments within each port range. Customer may order additional EVCs to establish additional virtual connections over the same physical connections. When additional EVCs are ordered, the Customer must designate the portion of the CIR bandwidth assigned to each EVC.	X		EPL-CA-0010
	Bidder's Product Description: Ethernet Virtual Connection per 1 Mbps				
11	CIR (BASIC CoS MAE):				
11a	BASIC CIR - 2 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0011
	Bidder's Product Description: Basic CoS Committed Information Rate – 2 Mbps				
11b	BASIC CIR MAE - 4 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0012

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N	Bidder's Product Identifier
	Bidder's Product Description: Basic CoS Committed Information Rate – 4 Mbps			
11c	BASIC CIR MAE - 8 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0013
	Bidder's Product Description: Basic CoS Committed Information Rate – 8 Mbps			
12	CIR (PRIORITY CoS):			
12a	PRIORITY CIR MAE - 2 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0014
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 2 Mbps			
12b	PRIORITY CIR MAE - 4 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0015
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 4 Mbps			
12c	PRIORITY CIR MAE - 5 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0016
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 5 Mbps			
12d	PRIORITY CIR MAE - 8 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0017
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 8 Mbps			
12e	PRIORITY CIR MAE - 10 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0018
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 10 Mbps			
12f	PRIORITY CIR MAE - 20 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0019
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 20 Mbps			
12g	PRIORITY CIR MAE - 50 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0020
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 50 Mbps			

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
12h	PRIORITY CIR MAE - 100 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0021
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 100 Mbps				
12i	PRIORITY CIR MAE - 150 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0022
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 150 Mbps				
12j	PRIORITY CIR MAE - 250 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0023
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 250 Mbps				
12k	PRIORITY CIR MAE - 500 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0024
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 500 Mbps				
12l	PRIORITY CIR MAE - 600 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0025
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 600 Mbps				
12m	PRIORITY CIR MAE - 1000 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0026
	Bidder's Product Description: Enhanced (Priority) CoS Committed Information Rate – 1,000 Mbps				
13	CIR (PREMIUM CoS):				
13a	PREMIUM CIR MAE - 2 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0027
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 2 Mbps				
13b	PREMIUM CIR MAE - 4 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0028

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N	Bidder's Product Identifier
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 4 Mbps			
13c	PREMIUM CIR MAE – 5 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0029
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 5 Mbps			
13d	PREMIUM CIR MAE – 8 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0030
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 8 Mbps			
13e	PREMIUM CIR MAE – 10 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0031
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 10 Mbps			
13f	PREMIUM CIR MAE – 20 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0032
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 20 Mbps			
13g	PREMIUM CIR MAE – 50 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0033
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 50 Mbps			
13h	PREMIUM CIR MAE – 100 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0034
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 100 Mbps			
13i	PREMIUM CIR MAE – 150 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0035
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 150 Mbps			
13j	PREMIUM CIR MAE – 250 Mbps	The guaranteed average bandwidth of the virtual circuit.	X	EPL-CA-0036
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 250 Mbps			

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
13k	PREMIUM CIR MAE – 500 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0037
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 500 Mbps				
13l	PREMIUM CIR MAE – 600 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0038
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 600 Mbps				
13m	PREMIUM CIR MAE – 1000 Mbps	The guaranteed average bandwidth of the virtual circuit.	X		EPL-CA-0039
	Bidder's Product Description: Dedicated (Premium) CoS Committed Information Rate – 1,000 Mbps				

The Contractor may offer additional unsolicited MAE services and features in Table 3.2.1.6.b.

Table 3.2.1.6.b Unsolicited MAE Services and Features

	Feature Name	Feature Description	Bidder's Product Identifier
1	EPL MAE Service Connection 10000Mbps	10G Ethernet interface port,. The EPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	EPL-CA 1047
	Bidder's Product Description: EPL UNI Access, 10G Port, (1) EVC, and NID		
2	EVPL MAE Service Connection 10000Mbps	10G Ethernet interface port., The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one (1) EVC and the NI.	EPL-CA 1031
	Bidder's Product Description: EVPL UNI Access, 10G Port, (1) EVC, and NID		

	Feature Name	Feature Description	Bidder's Product Identifier
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	Feature Name	Feature Description	Bidder's Product Identifier
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3.2.1.7 MAE Service Geographic Requirements

Bidders shall identify the locations where their Ethernet Services are available in Table 3.2.1.7.a. By indicating “X” in the table below, Commitment is subject to facility availability either through Contractor owned facilities or third-party agreements. Contractor’s rates for the MAE services shall be the same for all geographic locations. Bidders may reference Table 3.2.1.7.a or Table 3.2.1.7.b in their Catalog A, Geographic Availability response. Bidders Catalog A language shall not conflict with the requirements described herein.

Table 3.2.1.7.a – Bidder’s EVL and EVPL Services Available Areas

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
1	Adelanto	X	X	X	X
2	Agoura Hills	X	X	X	X
3	Alameda	X	X	X	X
4	Albany	X	X	X	X
5	Alhambra	X	X	X	X
6	Aliso Viejo	X	X	X	X
7	Alturas	X	X	X	X
8	Amador	X	X	X	X
9	American Canyon	X	X	X	X
10	Anaheim	X	X	X	X
11	Anderson	X	X	X	X
12	Angels Camp	X	X	X	X
13	Antioch	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
14	Apple Valley	X	X	X	X
15	Arcadia	X	X	X	X
16	Arcata	X	X	X	X
17	Arroyo Grande	X	X	X	X
18	Artesia	X	X	X	X
19	Arvin	X	X	X	X
20	Atascadero	X	X	X	X
21	Atherton	X	X	X	X
22	Atwater	X	X	X	X
23	Auburn	X	X	X	X
24	Avalon	X	X	X	X
25	Avenal	X	X	X	X
26	Azusa	X	X	X	X
27	Bakersfield	X	X	X	X
28	Baldwin Park	X	X	X	X
29	Banning	X	X	X	X
30	Barstow	X	X	X	X
31	Beaumont	X	X	X	X
32	Bell	X	X	X	X
33	Bell Gardens	X	X	X	X
34	Bellflower	X	X	X	X
35	Belmont	X	X	X	X
36	Belvedere	X	X	X	X
37	Benicia	X	X	X	X
38	Berkeley	X	X	X	X
39	Beverly Hills	X	X	X	X
40	Big Bear Lake	X	X	X	X
41	Biggs	X	X	X	X
42	Bishop	X	X	X	X
43	Blue Lake	X	X	X	X
44	Blythe	X	X	X	X
45	Bradbury	X	X	X	X
46	Brawley	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
47	Brea	X	X	X	X
48	Brentwood	X	X	X	X
49	Brisbane	X	X	X	X
50	Buellton	X	X	X	X
51	Buena Park	X	X	X	X
52	Burbank	X	X	X	X
53	Burlingame	X	X	X	X
54	Calabasas	X	X	X	X
55	Calexico	X	X	X	X
56	California City	X	X	X	X
57	Calimesa	X	X	X	X
58	Calipatria	X	X	X	X
59	Calistoga	X	X	X	X
60	Camarillo	X	X	X	X
61	Campbell	X	X	X	X
62	Canyon Lake	X	X	X	X
63	Capitola	X	X	X	X
64	Carlsbad	X	X	X	X
65	Carmel-By-The-Sea	X	X	X	X
66	Carpinteria	X	X	X	X
67	Carson	X	X	X	X
68	Cathedral City	X	X	X	X
69	Ceres	X	X	X	X
70	Cerritos	X	X	X	X
71	Chico	X	X	X	X
72	Chino	X	X	X	X
73	Chino Hills	X	X	X	X
74	Chowchilla	X	X	X	X
75	Chula Vista	X	X	X	X
76	Citrus Heights	X	X	X	X
77	Claremont	X	X	X	X
78	Clayton	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
79	Clearlake	X	X	X	X
80	Cloverdale	X	X	X	X
81	Coachella	X	X	X	X
82	Coalinga	X	X	X	X
83	Colfax	X	X	X	X
84	Colma	X	X	X	X
85	Colton	X	X	X	X
86	Colusa	X	X	X	X
87	Commerce	X	X	X	X
88	Compton	X	X	X	X
89	Concord	X	X	X	X
90	Corcoran	X	X	X	X
91	Corning	X	X	X	X
92	Corona	X	X	X	X
93	Coronado	X	X	X	X
94	Corte Madera	X	X	X	X
95	Costa Mesa	X	X	X	X
96	Cotati	X	X	X	X
97	Covina	X	X	X	X
98	Crescent City	X	X	X	X
99	Cudahy	X	X	X	X
100	Culver City	X	X	X	X
101	Cupertino	X	X	X	X
102	Cypress	X	X	X	X
103	Daly City	X	X	X	X
104	Dana Point	X	X	X	X
105	Danville	X	X	X	X
106	Davis	X	X	X	X
107	Del Mar	X	X	X	X
108	Del Rey Oaks	X	X	X	X
109	Delano	X	X	X	X
110	Desert Hot Springs	X	X	X	X
111	Diamond Bar	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
112	Dinuba	X	X	X	X
113	Dixon	X	X	X	X
114	Dorris	X	X	X	X
115	Dos Palos	X	X	X	X
116	Downey	X	X	X	X
117	Duarte	X	X	X	X
118	Dublin	X	X	X	X
119	Dunsmuir	X	X	X	X
120	East Palo Alto	X	X	X	X
121	El Cajon	X	X	X	X
122	El Centro	X	X	X	X
123	El Cerrito	X	X	X	X
124	El Monte	X	X	X	X
125	El Paso De Robles	X	X	X	X
126	El Segundo	X	X	X	X
127	Elk Grove	X	X	X	X
128	Emeryville	X	X	X	X
129	Encinitas	X	X	X	X
130	Escalon	X	X	X	X
131	Escondido	X	X	X	X
132	Etna	X	X	X	X
133	Eureka	X	X	X	X
134	Exeter	X	X	X	X
135	Fairfax	X	X	X	X
136	Fairfield	X	X	X	X
137	Farmersville	X	X	X	X
138	Ferndale	X	X	X	X
139	Fillmore	X	X	X	X
140	Firebaugh	X	X	X	X
141	Folsom	X	X	X	X
142	Fontana	X	X	X	X
143	Fort Bragg	X	X	X	X
144	Fort Jones	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
145	Fortuna	X	X	X	X
146	Foster City	X	X	X	X
147	Fountain Valley	X	X	X	X
148	Fowler	X	X	X	X
149	Fremont	X	X	X	X
150	Fresno	X	X	X	X
151	Fullerton	X	X	X	X
152	Galt	X	X	X	X
153	Garden Grove	X	X	X	X
154	Gardena	X	X	X	X
155	Gilroy	X	X	X	X
156	Glendale	X	X	X	X
157	Glendora	X	X	X	X
158	Goleta	X	X	X	X
159	Gonzales	X	X	X	X
160	Grand Terrace	X	X	X	X
161	Grass Valley	X	X	X	X
162	Greenfield	X	X	X	X
163	Gridley	X	X	X	X
164	Grover Beach	X	X	X	X
165	Guadalupe	X	X	X	X
166	Gustine	X	X	X	X
167	Half Moon Bay	X	X	X	X
168	Hanford	X	X	X	X
169	Hawaiian Gardens	X	X	X	X
170	Hawthorne	X	X	X	X
171	Hayward	X	X	X	X
172	Healdsburg	X	X	X	X
173	Hemet	X	X	X	X
174	Hercules	X	X	X	X
175	Hermosa Beach	X	X	X	X
176	Hesperia	X	X	X	X
177	Hidden Hills	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
178	Highland	X	X	X	X
179	Hillsborough	X	X	X	X
180	Hollister	X	X	X	X
181	Holtville	X	X	X	X
182	Hughson	X	X	X	X
183	Humboldt	X	X	X	X
184	Huntington Beach	X	X	X	X
185	Huntington Park	X	X	X	X
186	Huron	X	X	X	X
187	Imperial	X	X	X	X
188	Imperial Beach	X	X	X	X
189	Indian Wells	X	X	X	X
190	Indio	X	X	X	X
191	Industry	X	X	X	X
192	Inglewood	X	X	X	X
193	Inyo	X	X	X	X
194	Ione	X	X	X	X
195	Irvine	X	X	X	X
196	Irwindale	X	X	X	X
197	Isleton	X	X	X	X
198	Jackson	X	X	X	X
199	Kerman	X	X	X	X
200	Kern	X	X	X	X
201	King City	X	X	X	X
202	Kings	X	X	X	X
203	Kingsburg	X	X	X	X
204	La Canada Flintridge	X	X	X	X
205	La Habra	X	X	X	X
206	La Habra Heights	X	X	X	X
207	La Mesa	X	X	X	X
208	La Mirada	X	X	X	X
209	La Palma	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
210	La Puente	X	X	X	X
211	La Quinta	X	X	X	X
212	La Verne	X	X	X	X
213	Lafayette	X	X	X	X
214	Laguna Beach	X	X	X	X
215	Laguna Hills	X	X	X	X
216	Laguna Niguel	X	X	X	X
217	Laguna Woods	X	X	X	X
218	Lake	X	X	X	X
219	Lake Elsinore	X	X	X	X
220	Lake Forest	X	X	X	X
221	Lakeport	X	X	X	X
222	Lakewood	X	X	X	X
223	Lancaster	X	X	X	X
224	Larkspur	X	X	X	X
225	Lassen	X	X	X	X
226	Lathrop	X	X	X	X
227	Lawndale	X	X	X	X
228	Lemon Grove	X	X	X	X
229	Lemoore	X	X	X	X
230	Lincoln	X	X	X	X
231	Lindsay	X	X	X	X
232	Live Oak	X	X	X	X
233	Livermore	X	X	X	X
234	Livingston	X	X	X	X
235	Lodi	X	X	X	X
236	Loma Linda	X	X	X	X
237	Lomita	X	X	X	X
238	Lompoc	X	X	X	X
239	Long Beach	X	X	X	X
240	Loomis	X	X	X	X
241	Los Alamitos	X	X	X	X
242	Los Altos	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
243	Los Altos Hills	X	X	X	X
244	Los Angeles	X	X	X	X
245	Los Banos	X	X	X	X
246	Los Gatos	X	X	X	X
247	Loyalton	X	X	X	X
248	Lynwood	X	X	X	X
249	Madera	X	X	X	X
250	Malibu	X	X	X	X
251	Mammoth Lakes	X	X	X	X
252	Manhattan Beach	X	X	X	X
253	Manteca	X	X	X	X
254	Maricopa	X	X	X	X
255	Marina	X	X	X	X
256	Martinez	X	X	X	X
257	Marysville	X	X	X	X
258	Maywood	X	X	X	X
259	Mcfarland	X	X	X	X
260	Mendota	X	X	X	X
261	Menlo Park	X	X	X	X
262	Merced	X	X	X	X
263	Mill Valley	X	X	X	X
264	Millbrae	X	X	X	X
265	Milpitas	X	X	X	X
266	Mission Viejo	X	X	X	X
267	Modesto	X	X	X	X
268	Monrovia	X	X	X	X
269	Montague	X	X	X	X
270	Montclair	X	X	X	X
271	Monte Sereno	X	X	X	X
272	Montebello	X	X	X	X
273	Monterey	X	X	X	X
274	Monterey Park	X	X	X	X
275	Moorpark	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
276	Moraga	X	X	X	X
277	Moreno Valley	X	X	X	X
278	Morgan Hill	X	X	X	X
279	Morro Bay	X	X	X	X
280	Mount Shasta	X	X	X	X
281	Mountain View	X	X	X	X
282	Murrieta	X	X	X	X
283	Napa	X	X	X	X
284	National City	X	X	X	X
285	Needles	X	X	X	X
286	Nevada City	X	X	X	X
287	Newark	X	X	X	X
288	Newman	X	X	X	X
289	Newport Beach	X	X	X	X
290	Norco	X	X	X	X
291	Norwalk	X	X	X	X
292	Novato	X	X	X	X
293	Oakdale	X	X	X	X
294	Oakland	X	X	X	X
295	Oakley	X	X	X	X
296	Oceanside	X	X	X	X
297	Ojai	X	X	X	X
298	Ontario	X	X	X	X
299	Orange	X	X	X	X
300	Orange Cove	X	X	X	X
301	Orinda	X	X	X	X
302	Orland	X	X	X	X
303	Oroville	X	X	X	X
304	Oxnard	X	X	X	X
305	Pacific Grove	X	X	X	X
306	Pacifica	X	X	X	X
307	Palm Desert	X	X	X	X
308	Palm Springs	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
309	Palmdale	X	X	X	X
310	Palo Alto	X	X	X	X
311	Palos Verdes Estates	X	X	X	X
312	Paradise	X	X	X	X
313	Paramount	X	X	X	X
314	Parlier	X	X	X	X
315	Pasadena	X	X	X	X
316	Patterson	X	X	X	X
317	Perris	X	X	X	X
318	Petaluma	X	X	X	X
319	Pico Rivera	X	X	X	X
320	Piedmont	X	X	X	X
321	Pinole	X	X	X	X
322	Pismo Beach	X	X	X	X
323	Pittsburg	X	X	X	X
324	Placentia	X	X	X	X
325	Placerville	X	X	X	X
326	Pleasant Hill	X	X	X	X
327	Pleasanton	X	X	X	X
328	Plymouth	X	X	X	X
329	Point Arena	X	X	X	X
330	Pomona	X	X	X	X
331	Port Hueneme	X	X	X	X
332	Porterville	X	X	X	X
333	Portola	X	X	X	X
334	Portola Valley	X	X	X	X
335	Poway	X	X	X	X
336	Rancho Cordova	X	X	X	X
337	Rancho Cucamonga	X	X	X	X
338	Rancho Mirage	X	X	X	X
339	Rancho Palos Verdes	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
340	Rancho Santa Margarita	X	X	X	X
341	Red Bluff	X	X	X	X
342	Redding	X	X	X	X
343	Redlands	X	X	X	X
344	Redondo Beach	X	X	X	X
345	Redwood City	X	X	X	X
346	Reedley	X	X	X	X
347	Rialto	X	X	X	X
348	Richmond	X	X	X	X
349	Ridgecrest	X	X	X	X
350	Rio Dell	X	X	X	X
351	Rio Vista	X	X	X	X
352	Ripon	X	X	X	X
353	Riverbank	X	X	X	X
354	Riverside	X	X	X	X
355	Rocklin	X	X	X	X
356	Rohnert Park	X	X	X	X
357	Rolling Hills	X	X	X	X
358	Rolling Hills Estates	X	X	X	X
359	Rosemead	X	X	X	X
360	Roseville	X	X	X	X
361	Ross	X	X	X	X
362	Sacramento	X	X	X	X
363	Salinas	X	X	X	X
364	San Anselmo	X	X	X	X
365	San Bernardino	X	X	X	X
366	San Bruno	X	X	X	X
367	San Buenaventura	X	X	X	X
368	San Carlos	X	X	X	X
369	San Clemente	X	X	X	X
370	San Diego	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
371	San Dimas	X	X	X	X
372	San Fernando	X	X	X	X
373	San Francisco	X	X	X	X
374	San Gabriel	X	X	X	X
375	San Jacinto	X	X	X	X
376	San Joaquin	X	X	X	X
377	San Jose	X	X	X	X
378	San Juan Bautista	X	X	X	X
379	San Juan Capistrano	X	X	X	X
380	San Leandro	X	X	X	X
381	San Luis Obispo	X	X	X	X
382	San Marcos	X	X	X	X
383	San Marino	X	X	X	X
384	San Mateo	X	X	X	X
385	San Pablo	X	X	X	X
386	San Rafael	X	X	X	X
387	San Ramon	X	X	X	X
388	Sand City	X	X	X	X
389	Sanger	X	X	X	X
390	Santa Ana	X	X	X	X
391	Santa Barbara	X	X	X	X
392	Santa Clara	X	X	X	X
393	Santa Clarita	X	X	X	X
394	Santa Cruz	X	X	X	X
395	Santa Fe Springs	X	X	X	X
396	Santa Maria	X	X	X	X
397	Santa Monica	X	X	X	X
398	Santa Paula	X	X	X	X
399	Santa Rosa	X	X	X	X
400	Santee	X	X	X	X
401	Saratoga	X	X	X	X
402	Sausalito	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
403	Scotts Valley	X	X	X	X
404	Seal Beach	X	X	X	X
405	Seaside	X	X	X	X
406	Sebastopol	X	X	X	X
407	Selma	X	X	X	X
408	Shafter	X	X	X	X
409	Shasta Lake	X	X	X	X
410	Sierra Madre	X	X	X	X
411	Signal Hill	X	X	X	X
412	Simi Valley	X	X	X	X
413	Solana Beach	X	X	X	X
414	Soledad	X	X	X	X
415	Solvang	X	X	X	X
416	Sonoma	X	X	X	X
417	Sonora	X	X	X	X
418	South El Monte	X	X	X	X
419	South Gate	X	X	X	X
420	South Lake Tahoe	X	X	X	X
421	South Pasadena	X	X	X	X
422	South San Francisco	X	X	X	X
423	St Helena	X	X	X	X
424	Stanton	X	X	X	X
425	Stockton	X	X	X	X
426	Suisun City	X	X	X	X
427	Sunnyvale	X	X	X	X
428	Susanville	X	X	X	X
429	Sutter Creek	X	X	X	X
430	Taft	X	X	X	X
431	Tehachapi	X	X	X	X
432	Tehama	X	X	X	X
433	Temecula	X	X	X	X
434	Temple City	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
435	Thousand Oaks	X	X	X	X
436	Tiburon	X	X	X	X
437	Torrance	X	X	X	X
438	Tracy	X	X	X	X
439	Trinidad	X	X	X	X
440	Truckee	X	X	X	X
441	Tulare	X	X	X	X
442	Tulelake	X	X	X	X
443	Turlock	X	X	X	X
444	Tustin	X	X	X	X
445	Twentynine Palms	X	X	X	X
446	Ukiah	X	X	X	X
447	Union City	X	X	X	X
448	Upland	X	X	X	X
449	Vacaville	X	X	X	X
450	Vallejo	X	X	X	X
451	Vernon	X	X	X	X
452	Victorville	X	X	X	X
453	Villa Park	X	X	X	X
454	Visalia	X	X	X	X
455	Vista	X	X	X	X
456	Walnut	X	X	X	X
457	Walnut Creek	X	X	X	X
458	Wasco	X	X	X	X
459	Waterford	X	X	X	X
460	Watsonville	X	X	X	X
461	Weed	X	X	X	X
462	West Covina	X	X	X	X
463	West Hollywood	X	X	X	X
464	West Los Angeles	X	X	X	X
465	West Sacramento	X	X	X	X
466	Westlake Village	X	X	X	X

	Service Location	EPL MAE Service Connections		EVPL MAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
467	Westminster	X	X	X	X
468	Westmorland	X	X	X	X
469	Wheatland	X	X	X	X
470	Whittier	X	X	X	X
471	Williams	X	X	X	X
472	Willits	X	X	X	X
473	Willows	X	X	X	X
474	Windsor	X	X	X	X
475	Winters	X	X	X	X
476	Woodlake	X	X	X	X
477	Woodland	X	X	X	X
478	Woodside	X	X	X	X
479	Yorba Linda	X	X	X	X
480	Yountville	X	X	X	X
481	Yreka	X	X	X	X
482	Yuba City	X	X	X	X
483	Yucaipa	X	X	X	X
484	Yucca Valley	X	X	X	X

Bidders may identify additional unsolicited locations where their Ethernet Services are available in Table 3.2.1.7.b. By indicating “X” in the table below, Contractor commits to providing the Services identified in this section. Commitment is subject to facility availability either through Contractor owned facilities or third-party agreements. Contractor’s rates for the MAE services shall be the same for all geographic locations. Additional lines may be added as necessary. Bidders may reference Table 3.2.1.7.a or Table 3.2.1.7.b in their Catalog A, Geographic Availability response. Bidder’s Catalog A language shall not conflict with the requirements described herein.

If Bidder is unable to identify all service areas within Table 3.2.1.7.a, Bidder shall provide additional information in the form of a coverage map that includes unincorporated areas.

Table 3.2.1.7.b – Unsolicited Bidder’s EVL and EVPL Services Available Areas

	Service Location	EPL MAE Service Connections		EVPLMAE Service Connections	
		10/100 Mbps	1 Gbps	10/100 Mbps	1 Gbps
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

3.3 NETWORK DISASTER/OPERATIONAL RECOVERY

3.3.1 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 related CPUC and FCC requirements.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.3.2 DATA 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.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.4 OTHER SERVICES

3.4.1 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.

3.4.2 EXTENDED DEMARCATION WIRING SERVICES

The Contractor shall provide Extended Demarcation (Extended Demarc) wiring to support the services covered by this IFB Refresh 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 3.5.8.9 (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:

5. 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;

6. 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,
7. 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 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 Refresh 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 ☒ No ☐

The Contractor shall offer the wiring services for extended demarcation detailed in Table 3.4.2.a.

Table 3.4.2.a 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 RJ48s or equivalent jack.	X		OTH-CA-3401
	Bidder's Product Description: Extended Demarcation – Copper four-Pair – Regular Hours				

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
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 RJ48s or equivalent jack.	X		OTH-CA-3402
	Bidder's Product Description: Extended Demarcation – Copper four-Pair - Overtime Hours Mon-Fri 5:00 pm to 7:59 am and all day Saturday				
3	Extended Demarcation – Copper four-Pair – Sundays 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 RJ48s or equivalent jack.	X		OTH-CA-3403
	Bidder's Product Description: Extended Demarcation – Copper four-Pair - any hours worked on Sunday or State of California holidays				
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.	X		OTH-CA-3404
	Bidder's Product Description: Extended Demarcation – Copper 25 Pair – Regular Hours				

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
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.	X		OTH-CA-3405
	Bidder's Product Description: Extended Demarcation – Copper 25 Pair - Overtime Hours Mon-Fri 5:00 pm to 7:59 am and all day Saturday				
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.	X		OTH-CA-3406
	Bidder's Product Description: Extended Demarcation – Copper 25 Pair - any hours worked on Sunday or State of California holidays				

	Feature Name	Feature Description	Bidder Meets or Exceeds? Y N		Bidder's Product Identifier
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.	X		OTH-CA-3407
	Bidder's Product Description: Extended Demarcation – Optical Fiber Link– Regular Hours				
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.	X		OTH-CA-3408
	Bidder's Product Description: Extended Demarcation – Optical Fiber Link- Overtime Hours Mon-Fri 5:00 pm to 7:59 am and all day Saturday				
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.	X		OTH-CA-3409
	Bidder's Product Description: Extended Demarcation – Optical Fiber Link- any hours worked on Sunday or State of California holidays				

The Contractor may offer additional extended demarcation wiring services in Table 3.4.2.b.

Table 3.4.2.b Unsolicited Extended Demarcation Wiring Services

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

3.4.3 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 3.4.3 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 Cost Worksheet 3.4.3, 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 ☒ No ☐

The Contractor shall offer emergency restoration services as detailed in Table 3.4.3.

Table 3.4.3 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 service problem that turns out to be caused by factors outside the responsibility of the Contractor.	X		OTH-CA-3501
	Bidder's Product Description: Field Services Repair Technician Hours 8:00AM to 4:59PM, Monday through Friday.				
2	Field Service Repair Technician Overtime Hours	Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a service problem that turns out to be caused by factors outside the responsibility of the Contractor.	X		OTH-CA-3502
	Bidder's Product Description: Field Service Repair Technician Overtime Hours Mon-Fri 5:00 pm to 7:59 am and all day Saturday				
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 service problem that turns out to be caused by factors outside the responsibility of the Contractor.	X		OTH-CA-3503
	Bidder's Product Description: Field Services Technician any hours worked on Sunday or State of California holidays				

3.5 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 solicitation.

3.5.1 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 shall include source of data and define the points of measurement within the system, application, or network;
4. Service(s) - All applicable Categories or Subcategories 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 an invoice credit or refund when an 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 ☒ No ☐

3.5.2 TECHNICAL REQUIREMENTS VERSUS SLA OBJECTIVES

Sections 0 (Ethernet Services), 0 (Network Disaster/Operational Recovery) and 0 (Other Services) 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 ☒ No ☐

3.5.3 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 Refresh STPD 12-001-B Business Requirements Section B.9.4).

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 Refresh STPD 12-001-B Business Requirements Section B.9.4) and monitor and report to Customer until service is restored.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.5.4 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 them? Yes ☒ No ☐

3.5.5 CONTRACTOR SLA MANAGEMENT PLAN

Within 90 calendar days of Contract award, the Contractor shall provide CALNET 3 CMO with a detailed SLA Management Plan that describes how the Contractor will manage the Technical SLAs for services in this IFB Refresh. 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's 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;

3. Creation and delivery of SLA Reports (IFB STPD 12-001-B Refresh Business Requirements Section B.9.5). The Contractor shall include a sample report in accordance with IFB STPD 12-001-B Refresh Business Requirements Section B.9.5 (SLA Reports) for the following: SLA Service Performance Report (Section IFB STPD 12-001-B Refresh Business Requirements Section B.9.5.1), SLA Provisioning Report (Section IFB STPD 12-001-B Refresh Business Requirements Section B.9.5.2), and SLA Catastrophic Outage Reports (Section IFB STPD 12-001-B Refresh Business Requirements Section B.9.5.3). The Contractor shall commit to a monthly due date. The reports shall be provided to the CALNET 3 CMO via the Private Oversight Website (IFB STPD 12-001-B Refresh Business Requirements Section B.9.2);
4. SLA invoicing credit and refund process;
5. Contractor SLA problem resolution process for SLA management and SLA reporting. 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 SLA Manager contact information for SLA inquiries and issue resolution for Customer and CALNET 3 CMO.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.5.6 TECHNICAL SLA GENERAL REQUIREMENTS

The Contractor shall adhere to the following general requirements which apply to all CALNET 3 Technical SLAs (Section 3.5.8):

1. With the exception of the Provisioning SLA, 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). Services with usage charges shall apply the Average Daily Usage Charge (ADUC) in addition to any applicable TMRC rights and remedies;
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 Subcontractors and/or Affiliates;
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 Technical 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 for the Provisioning SLA;

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 the SLAs to CALNET 3 CMO for possible inclusion via amendments;
9. The Contractor shall apply CALNET 3 SLAs and remedies to services provided in all areas the Contractor provides service and/or open to competition (as defined by the CPUC). Any SLAs and remedies negotiated between Contractor and Incumbent Local Exchange Carriers in territories closed to competition shall be passed through to the CALNET 3 Customer;
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 Subcontractors, Affiliates or resellers under this Contract;
13. The Customer Escalation Process (IFB STPD 12-001-B Refresh Business Requirements Section B.3.4.2) and/or the CALNET 3 CMO Escalation Process (IFB STPD 12-001-B Refresh Business Requirements Section B.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 STPD 12-001-B Refresh Business Requirements Section B.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

3.5.7 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 3.5.7 and include start and stop time stamps in the Contractor's Trouble Ticket Reporting Tool (IFB STPD 12-001-B Refresh Business Requirements Section B.9.4) for each application of a SCC.

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 3.5.7.

Table 3.5.7 – 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 Service Request 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.
6	FACILITIES	Lack of building entrance Facilities or conduit structure that are the End-User's responsibility to provide.

#	Stop Clock Condition (SCC)	SCC Definition
7	ACCESS	<p>Limited access or contact with End-User provided the Contractor documents in the trouble ticket several efforts to contact End-User for the following:</p> <ul style="list-style-type: none"> 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 steps to obtain the correct information ; or, d. Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem. <p>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.</p>
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 Customer Premise Equipment (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.

#	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 Subcontractors and Affiliates 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 PMAC General Provisions - Telecommunications, Section 28 (Force Majeure).

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.5.8 TECHNICAL SERVICE LEVEL AGREEMENTS

The Contractor shall provide and manage the following Technical SLAs.

3.5.8.1 Availability (M-S)

SLA Name: Availability				
Definition: The percentage of time a CALNET 3 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 service (Per Circuit ID), 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.				
Services:				
MAE Service				
Objective(s): The objective shall be based on the UNI physical interface:				
		Basic (B)	Standard (S)	Premier (P)
				Bidders Objective Commitment (B, S or P)
EPL and EVPL MAE Service 10/100 Mbps	≥ 99.2%	≥ 99.5%	≥ 99.9%	P
EPL and EVPL MAE Service 1Gbps	≥ 99.2%	≥ 99.5%	≥ 99.9%	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. The second consecutive month the service fails to meet the committed SLA objective shall result in a 30 percent rebate of TMRC. Each additional consecutive month the 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

3.5.8.2 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 the failure of five (5) UNIs or any cumulative UNI failure equal to, or greater than, 10 Gbps.				
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 shall open a trouble ticket for each service (Circuit ID) affected by a common cause. Each End-User service is deemed out of service from the first notification until the Contractor determines the End-User 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):				
MAE Service				
Objective (s): The objective restoral time shall be:				
	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MAE Service	≤ 3 hours	≤ 2 hours	≤ 1 hour	B
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 ☒ No ☐

3.5.8.3 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 a 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):					
MAE Service					
Objective (s): The objective restoral time shall be:					
		Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
	MAE Service	≤ 1 hour	≤ 30 minutes	≤ 15 minutes	B
Rights and Remedies	Per Occurrence: 100 percent of the TMRC 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 ☒ No ☐

3.5.8.4 Catastrophic Outage 3 (CAT 3) (M-S)

SLA Name: Catastrophic Outage 3 (CAT 3)				
Definition: The total loss of one (1) or more CALNET 3 services 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 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 a common cause. Outage Duration shall be measured on a per-End-User service (Circuit ID) basis from information recorded from the network equipment/system or 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):				
MAE Service				
Objectives:				
The objective restoral time shall be:				
	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B or P)
MAE Service	≤ 30 minutes	N/A	≤ 15 minutes	B
Rights and Remedies	Per Occurrence: 100 percent of the TMRC for each End-User service not meeting the committed objective for each CAT 3 fault.			
	Monthly Aggregated Measurements: N/A			

Bidder understands the Requirement and shall meet or exceed it? Yes X No

3.5.8.5 Excessive Outage (M-S)

SLA Name: Excessive Outage				
Definition: A service failure that remains unresolved for more than the committed 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.				
Service(s):				
MAE Service				
Objective (s): The Unavailable Time objective shall not exceed:				
		Basic (B)	Standard (S)	Premier (P)
				Bidders Objective Commitment (B, S or P)
	MAE Service	16 hours	12 hours	8 hours
				B
Rights and Remedies	Per Occurrence: 100 percent of the TMRC 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 ☒ No ☐

3.5.8.6 Notification

SLA Name: Notification	
<p>Definition: The Contractor notification to CALNET 3 CMO and designated stakeholders in the event of a CAT 2 or CAT 3 failure, Contractor, Subcontractor or Affiliate network event, 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 regarding the nature of the outage may be limited.</p>	
<p>Measurement Process: The Contractor shall adhere to the Network Outage Response requirements (IFB STPD 12-001-B Refresh Business Requirements Section B.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 natural disaster, the Contractor shall notify CALNET 3 CMO and designated stakeholder when information is available.</p>	
Service(s): All Services	
<p>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 STPD 12-001-B Refresh Business Requirements Section B.3.3 (Network Outage Response).</p> <p>At 60 minute intervals, updates shall be given on the above mentioned failures via the method defined in Section IFB STPD 12-001-B Refresh Business Requirements Section B.3.3 (Network Outage Response).</p> <p>This objective is the same for Basic, Standard and Premier commitments.</p>	
Rights and Remedies	Per Occurrence: Senior Management Escalation
	Monthly Aggregated Measurements: N/A

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.5.8.7 Latency (M-S)

SLA Name: Latency				
Definition: Latency is the amount of time necessary for a typical Ethernet frame to traverse one way from the originating UNI, across the Contractor's, Affiliate, or Subcontractor's network, to the remote UNI(s) on each EVC identified by the Customer.				
<p>Measurement Process: End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the Latency exceeds the committed level. Latency shall be measured from the first bit of an Ethernet frame entering the ingress UNI to when the last bit of the same frame leaves the egress UNI. The problem requires timely verification, consistent with industry standards, by the Contractor. Tickets identified as a Latency 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.</p> <p>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.</p>				
Service(s):				
MAE Service				
Objective (s): The Unavailable Time objective shall not exceed:				
	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MAE Service	≤ 75ms	≤ 50ms	≤ 25ms	S
Rights and Remedies	<p>Per Occurrence: 15 percent of the TMRC for the reported service</p> <p>Next consecutive month to fail to meet the committed SLA objectives shall result in a 25 percent rebate of TMRC.</p> <p>Each additional consecutive month to fail to meet the committed SLA objective shall result in a 35 percent rebate of TMRC.</p>			
	Monthly Aggregated Measurements: N/A			

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.5.8.8 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 the difference between the number of packets transmitted at the ingress UNI and the total number of packets received at the egress UNI.				
<p>Measurement Process: End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the packet 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.</p> <p>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.</p>				
Service(s):				
MAE Service				
Objective (s): The Packet Loss objective shall not exceed:				
	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B, S or P)
MAE Service	≤ .7% packet loss	≤ .5% packet loss	≤ .2% packet loss	B
Rights and Remedies	<p>Per Occurrence: 15 percent of the TMRC for the reported service</p> <p>Next consecutive month to fail to meet the committed SLA objectives shall result in a 25 percent rebate of TMRC.</p> <p>Each additional consecutive month to fail to meet the committed SLA objective shall result in a 35 percent rebate of TMRC.</p>			
	Monthly Aggregated Measurements: N/A			

Bidder understands the Requirement and shall meet or exceed it? Yes X No

3.5.8.9 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 SOW in accordance with IFB STPD 12-001-B Refresh Section B.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 Request(s) meets the Coordinated or Managed Project criteria, negotiated due dates will be established and documented in the Project Schedule per IFB STPD 12-001-B Refresh -B Business Requirements Section B.6 (Contracted Service Project Work).

Provisioning SLAs have two (2) objectives:

Objective 1: Individual Service Request; and

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
MAE Service	30	Coordinated/Managed Project

Objective (s):

Objective 1: Individual Service Request: Service installed on or before the Committed Interval or negotiated due date.

Objective 2: Successful Install Monthly Percentage per Service:

	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (S or P)
MAE Service	N/A	≥ 90%	≥ 95%	S

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 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

3.5.8.10 Time to Repair (TTR) (M-S)

SLA Name: Time to Repair (TTR)														
Definition: A service outage that remains unresolved for more than the committed 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):														
MAE Service														
Objective (s): The Unavailable Time objective shall not exceed: <table border="1" data-bbox="527 793 1388 991"> <thead> <tr> <th>Service</th> <th>Basic (B)</th> <th>Standard (S)</th> <th>Premier (P)</th> <th>Bidders Objective Commitment (B or S)</th> </tr> </thead> <tbody> <tr> <td>MAE Service</td> <td>6 hours</td> <td>4 hours</td> <td>N/A</td> <td>B</td> </tr> </tbody> </table>					Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B or S)	MAE Service	6 hours	4 hours	N/A	B
Service	Basic (B)	Standard (S)	Premier (P)	Bidders Objective Commitment (B or S)										
MAE Service	6 hours	4 hours	N/A	B										
Rights and Remedies	Per Occurrence: 25 percent of the TMRC 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 ☒ No ☐

3.5.8.11 Managed Service Proactive Notification (M-S)

SLA Name: Managed Service Proactive Notification	
<p>Definition: The proactive outage notification provides credits if the Contractor fails to open a trouble ticket and notify Customer of an Outage for a managed router service. Notification to the Customer shall occur through means agreed to by Contractor and CALNET 3 CMO.</p> <p>An Outage is defined as an unscheduled period in which the managed router service is 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.</p>	
<p>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 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.</p>	
Service(s):	
MAE Services, with Managed Router	
Objective (s): 15 minutes	
Rights and Remedies	Per Occurrence: Customer will receive a credit equal to ten percent of the TMRC for Managed Internet 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

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐

3.5.8.12 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 ☒ No ☐

3.5.8.13 Proposed Unsolicited Offerings

The Contractor shall provide SLAs as defined in SLA Section 3.5 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 ☒ No ☐

3.5.8.14 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 3.5.8.

Bidder understands the Requirement and shall meet or exceed it? Yes ☒ No ☐