INVITATION FOR BID

IFB C4DNCS19
Data Networks and Communications Services

# CATEGORY 23 – METROPOLITAN AREA NETWORK ETHERNET

Comcast Business Communications, LLC

Statement of Work

TECHNICAL REQUIREMENTS

March 5, 2020

BAFO

Issued by:

STATE OF CALIFORNIA

California Department of Technology Statewide Procurement

PO Box 1810

Rancho Cordova, CA 95741

# AMENDMENT LOG

| Amendment # | Date | Amendment Description |
|---|---|---|
| 3 | 03/08/2021 | Added Document Header<br>Table 23.2.1.6.b - Modified Bidder's Product Description, Restrictions and Limitations field Line Item #1<br>Table 23.2.1.6.4 - Updated Feature Names<br>Table 23.2.1.7.a - Updated Service Locations |

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# TECHNICAL REQUIREMENTS

# Category 23 – METROPOLITAN AREA NETWORK ETHERNET

## 23.1 OVERVIEW

The California Department of Technology (CDT), Statewide Telecommunications Procurement (STP) is requesting proposals from responsive vendors to provide Metropolitan Area Network (MAN) Ethernet services and features.

This Category 23 IFB C4DNCS19 (IFB) provides the State's solicitation for best value solutions for MAN Ethernet services. This IFB also describes the CALNET technical requirements necessary to support the CALNET program requirements.

This IFB will be awarded to Bidders that meet the award criteria as described in IFB C4DNCS19 Part 1, Bid Evaluation. The CALNET Data Network and Communications Services (DNCS) Contract(s) that result from the award of this IFB will be managed on a day-to-day basis by the CALNET Contractor Management Organization (CALNET CMO).

### 23.1.1 Bidder Response Requirements

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

1. Example A (for responses that require confirmation that the Bidder understands and accepts the requirement):

**"Bidder understands the requirements and shall meet or exceed them? Yes "**

Or,

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

**"Bidder understands the requirements and shall meet or exceed them? Yes "**

**Description:"**

Or,

3. Example C (for responses contained in Technical Feature and/or Service Tables):

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidders Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 1 | | | | | **Yes** |

### 23.1.2 Designation of Requirements

All Technical Requirements specified in this IFB C4DNCS19 are Mandatory and must be responded to as identified in IFB C4DNCS19 Part 1, SOW Mandatory Technical Requirements by the Bidder. Additionally, some Mandatory requirements are "Mandatory-Scorable" and are designated as "(M-S)".

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 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.

### 23.1.3 Pacific Time Zone

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.2 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 or more Local Area Networks (LANs) at the native speed of the LAN backbone.

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.2.1 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 or more locations.

**Bidder understands the requirements and shall meet or exceed them? Yes**

### 23.2.1.1 General Requirements

#### 23.2.1.1.1 Standards

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

2. Metro Ethernet Forum (MEF);

**Bidder understands the requirements and shall meet or exceed them? Yes**

3. Internet Engineering Task Force;

**Bidder understands the requirements and shall meet or exceed them? Yes**

4. International Telecommunications Union (ITU); and,

**Bidder understands the requirements and shall meet or exceed them? Yes**

5. Institute of Electrical and Electronics Engineers, Inc. (IEEE).

**Bidder understands the requirements and shall meet or exceed them? Yes**

#### 23.2.1.1.2 Security

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

#### 23.2.1.1.3 Data Breach Reporting

If Contractor determines that a breach of data has occurred that may involve CALNET Customer data, the nature and scope of the breach (as it affects Customer data) shall be reported to both the Customer and the CALNET CMO within 24 hours of that determination.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.4 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 requirements and shall meet or exceed them? Yes**

23.2.1.1.5 Ethernet Virtual Connections (EVC)

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.6 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 23.2.1.1.6 lists the UNI physical interfaces.

**Table 23.2.1.1.6 – UNI Physical Interfaces**

| UNI Speed | UNI Physical Interface |
|---|---|
| 10 Mbps | 10/100/1000Base-Tx |
| 100 Mbps | 10/100/1000Base-Tx or Sx |
| 1 Gbps | 1000Base-Tx or 1000Base-SX |
| 10 Gbps | 10GBase-SR or 10GBase-LR |

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.7 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 requirements and shall meet or exceed them? Yes**

23.2.1.1.8 Service Frame Delivery Options

Service Frame Delivery options supported shall include:

1. Unicast Frame Delivery;

**Bidder understands the requirements and shall meet or exceed them? Yes**

2. Multicast Frame Delivery as per RFC 11 12;

**Bidder understands the requirements and shall meet or exceed them? Yes**

3. IEEE 802.1 Bridging and Management Standards; and,

**Bidder understands the requirements and shall meet or exceed them? Yes**

4. Broadcast Frame Delivery as per IEEE 802.3.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.9 Ethernet Service Frame Disposition

The service shall deliver all service frames associated with the EVC unconditionally across the network as specified in Table 23.2.1.1.19.

**Table 23.2.1.1.9 –Service Frame Delivery Disposition**

| Service Frame Type | Service Frame Delivery |
|---|---|
| Unicast | All Frames delivered unconditionally |
| Multicast | All Frames delivered unconditionally |
| Broadcast | All Frames delivered unconditionally |

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.10 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 requirements and shall meet or exceed them? Yes**

23.2.1.1.11 Maximum Frame Size

The service shall support a Maximum Transmission Unit (MTU) packet size of 1,600 bytes to support untagged or 802.1Q tagged packet sizes.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.12 Jumbo Frames

The Contractor's network shall support Jumbo Frames.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.13 Performance Monitoring

The Contractor shall conduct Performance Monitoring that includes the following:

1. Signal failure;

**Bidder understands the requirements and shall meet or exceed them? Yes**

2. Signal degradation;

**Bidder understands the requirements and shall meet or exceed them? Yes**

3. Connectivity or Loss of connectivity;

**Bidder understands the requirements and shall meet or exceed them? Yes**

4. Frame loss;

**Bidder understands the requirements and shall meet or exceed them? Yes**

5. Errored frames;

**Bidder understands the requirements and shall meet or exceed them? Yes**

6. Looping;

**Bidder understands the requirements and shall meet or exceed them? Yes**

7. Mis-inserted frames; and,

**Bidder understands the requirements and shall meet or exceed them? Yes**

8. Maintenance parameters.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.14 Network Monitoring

The Contractor shall monitor all services on a 24x7 basis.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.15 Technical Support

Contractor shall provide technical support for service issues via a toll-free telephone number that operates on a 24x7 basis.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.16 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 days' notice for service impacting planned maintenance. Emergency maintenance shall be performed as needed.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.17 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.

**Bidder understands the requirements and shall meet or exceed them? Yes**

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.1.18 Contractor Wi-Fi Hotspot Service Offerings

The Contractor shall not configure services utilizing state-funded (or leased) infrastructure or resources to provide Contractor branded Wi-Fi hotspots for a fee/subscription to the general public. Use of any publicly funded power, facilities, or infrastructure in State leased or owned buildings to provide Contractor fee based Wi-Fi services is considered a gift of public funds.

The Contractor shall not provide Contractor branded Wi-Fi hotspot services for non-CALNET users by piggybacking onto CALNET Customer primary installations or by any other means that utilize publicly funded assets. This restriction includes but is not limited to installation of secondary equipment, circuits, or data channels both land based and wireless.

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.2.1.2 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 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 Ethernet Virtual Connection (EVC) between two Customer locations.

**Bidder understands the requirements and shall meet or exceed them? Yes**

### 23.2.1.3 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 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 requirements and shall meet or exceed them? Yes**

### 23.2.1.4 EVPL MAE Service Multiplexing

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

### 23.2.1.5 EPL and EVPL MAE Classes of Service (CoS)

Contractor shall provide three Classes of Service (CoS) options for the EPL/EVPL MAE services – 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.

**Bidder understands the requirements and shall meet or exceed them? Yes**

#### 23.2.1.5.1 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.

The Contractor shall offer CIR - BASIC CoS services and features detailed in Table 23.2.1.6.b.

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.5.2 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 23.2.1.5.2.

Table 23.2.1.5.2 lists the service performance objectives for PRIORITY CoS for distances within 250 network miles.

The Contractor shall offer CIR – PRIORITY CoS services and features detailed in Table 23.2.1.6.c.

**Table 23.2.1.5.2 – PRIORITY CoS Performance Objectives**

| Performance Objective (≤ 250 miles) | PRIORITY CoS |
|---|---|
| Latency (one way) | <25ms |
| Jitter (one way) | <15ms |
| Packet Loss (one way) | <0.5% |
| Availability | >99.99% |

**Bidder understands the requirements and shall meet or exceed them? Yes**

23.2.1.5.3 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 23.2.1.5.3.

Table 23.2.1.5.3 lists the service performance objectives for PREMIUM CoS for distances within 250 network miles.

The Contractor shall offer CIR - PREMIUM CoS services and features detailed in Table 23.2.1.6.d.

**Table 23.2.1.5.3 – PREMIUM CoS Performance Objectives**

| Performance Objective (≤ 250 miles) | PREMIUM CoS |
|---|---|
| Latency (one way) | <15ms |
| Jitter (one way) | <5ms |

| Performance Objective (≤ 250 miles) | PREMIUM CoS |
|---|---|
| Packet Loss (one way) | <0.1% |
| Availability | >99.99% |

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.2.1.6 EPL and EVPL MAE Service Feature Description

Contractor shall provide MAE services as described below.

### 23.2.1.6.1 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 Ethernet Virtual Connection (EVC).

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

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.

**Bidder understands the requirements and shall meet or exceed them? Yes**

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.

**Bidder understands the requirements and shall meet or exceed them? Yes**

### 23.2.1.6.2 Managed IP Enabled Routing Service:

1. Contractor shall offer a managed router or IP enabled routing device service that includes the components described in Section 23.2.1.6.1 in a bundled format which includes a Contractor owned, maintained and managed router or managed IP enabled routing device as identified in Table 23.2.1.6.a.

**Bidder understands the requirements and shall meet or exceed them? Yes**

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

**Bidder understands the requirements and shall meet or exceed them? Yes**

3. The Contractor shall provide customers full read only access to the managed router or managed IP enabled routing device.

**Bidder understands the requirements and shall meet or exceed them? Yes**

Contractors shall provide the services and Features described in Table 23.2.1.6.a

**Table 23.2.1.6.a – MAE Services and Features**

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 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 EVC and the NI. | None | EPLUNI100 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 2 | EPL MAE Service Connection 10/100 Mbps with Managed IP Enabled Routing Device | 10/100 Mbps Ethernet port per location with managed IP enabled routing device; 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 EVC and the NI. | None | NSX0697 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 3 | EPL MAE Service Connection Gigabit Ethernet (1 Gbps) | 1 Gbps Ethernet port per location; Assessed per interface at bandwidths of 1 Gbps 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 EVC and the NI. | None | EPLUNIGIG | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 4 | EPL MAE Service Connection Gigabit Ethernet (1 Gbps) with Managed IP Enabled Routing Device | 1 Gbps Ethernet port per location, with managed IP enabled routing device; Assessed per interface at bandwidths of 1 Gbps 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 EVC and the NI. | None | NSX0698 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 5 | EPL MAE Service Connection Gigabit Ethernet (10 GE) | 10 Gbps Ethernet port per location; Assessed per interface at bandwidths of 10 Gbps 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 EVC and the NI. | None | EPLUNI10G | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 6 | EPL MAE Service Connection Gigabit Ethernet (10 GE) with Managed IP Enabled Routing Device | 10 Gbps Ethernet port per location, with managed IP enabled routing device; Assessed per interface at bandwidths of 10 Gbps 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 EVC and the NI. | None | NSX0726 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 7 | 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 EVC and the NI. | None | EVPLUNI100 | **Yes** |
| 8 | EVPL MAE Service Connection 10/100 Mbps with Managed IP Enabled Routing Device | Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T) with managed IP enabled routing device. The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one EVC and the NI. | None | NSX0699 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 9 | EVPL MAE Service Connection Gigabit Ethernet (1 Gbps) | Assessed per interface at bandwidths of 1 Gbps 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 EVC and the NI. | None | EVPLUNIGIG | **Yes** |
| 10 | EVPL MAE Service Connection Gigabit Ethernet (1 Gbps) with Managed IP Enabled Routing Device | Assessed per interface at bandwidths of 1 Gbps Ethernet with managed IP Enabled routing device. The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one EVC and the NI. | None | NSX0700 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 11 | EVPL MAE Service Connection 10 Gigabit Ethernet (10 GE) | Assessed per interface at bandwidths of 10 GE. The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one EVC and the NI. | None | EVPLUNI10G | **Yes** |
| 12 | EVPL MAE Service Connection 10 Gigabit Ethernet (10 GE) with Managed IP Enabled Routing Device | Assessed per interface at bandwidths of 10 GE with managed IP Enabled routing device. The EVPL connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one EVC and the NI. | None | NSX0727 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 13 | 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 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. | None | NSX0001 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 14 | 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. | None | NSX0002 | **Yes** |

Contractor shall provide the Services and Features described in Table 23.2.1.6.b.

**Table 23.2.1.6.b – CIR Basic Class of Service MAE**

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 1 | BASIC CIR MAE - 2 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0002BAS | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 2 | BASIC CIR MAE - 4 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0004BAS | **Yes** |
| 3 | BASIC CIR MAE - 5 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0005BAS | **Yes** |
| 4 | BASIC CIR MAE - 8 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0008BAS | **Yes** |
| 5 | BASIC CIR MAE - 10 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0010BAS | **Yes** |
| 6 | BASIC CIR MAE - 20 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0020BAS | **Yes** |
| 7 | BASIC CIR MAE - 50 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0050BAS | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 8 | BASIC CIR MAE - 100 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0100BAS | **Yes** |
| 9 | BASIC CIR MAE - 150 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | NSX0733 | **Yes** |
| 10 | BASIC CIR MAE - 200 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0200BAS | **No** |
| 11 | BASIC CIR MAE - 250 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | NSX0735 | **Yes** |
| 12 | BASIC CIR MAE - 400 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0400BAS | **Yes** |
| 13 | BASIC CIR MAE - 500 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0500BAS | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 14 | BASIC CIR MAE - 600 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0600BAS | **Yes** |
| 15 | BASIC CIR MAE - 1 Gbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC1000BAS | **Yes** |
| 16 | BASIC CIR MAE - 10 Gbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC010GBAS | **Yes** |

Contractor shall provide the Services and Features described in Table 23.2.1.6.c.

**Table 23.2.1.6.c – CIR Priority Class of Service MAE**

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 1 | PRIORITY CIR MAE - 2 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0002PRI | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 2 | PRIORITY CIR MAE - 4 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0004PRI | **Yes** |
| 3 | PRIORITY CIR MAE - 5 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0005PRI | **Yes** |
| 4 | PRIORITY CIR MAE - 8 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0008PRI | **Yes** |
| 5 | PRIORITY CIR MAE - 10 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0010PRI | **Yes** |
| 6 | PRIORITY CIR MAE - 20 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0020PRI | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 7 | PRIORITY CIR MAE - 50 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0050PRI | **Yes** |
| 8 | PRIORITY CIR MAE - 100 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0100PRI | **Yes** |
| 9 | PRIORITY CIR MAE - 150 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | NSX0678 | **Yes** |
| 10 | PRIORITY CIR MAE - 200 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0200PRI | **Yes** |
| 11 | PRIORITY CIR MAE - 250 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | NSX0679 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 12 | PRIORITY CIR MAE - 400 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0400PRI | **Yes** |
| 13 | PRIORITY CIR MAE - 500 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0500PRI | **Yes** |
| 14 | PRIORITY CIR MAE - 600 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0600PRI | **Yes** |
| 15 | PRIORITY CIR MAE - 1 Gbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC1000PRI | **Yes** |
| 16 | PRIORITY CIR MAE - 10 Gbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC010GPRI | **Yes** |

Contractor shall provide the Services and Features described in Table 23.2.1.6.d.

**Table 23.2.1.6.d CIR – Premium Class of Service MAE**

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 1 | PREMIUM CIR MAE - 2 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0002PRE | **Yes** |
| 2 | PREMIUM CIR MAE - 4 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0004PRE | **Yes** |
| 3 | PREMIUM CIR MAE - 5 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0005PRE | **Yes** |
| 4 | PREMIUM CIR MAE - 8 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0008PRE | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 5 | PREMIUM CIR MAE - 10 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0010PRE | **Yes** |
| 6 | PREMIUM CIR MAE - 20 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0020PRE | **Yes** |
| 7 | PREMIUM CIR MAE - 50 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0050PRE | **Yes** |
| 8 | PREMIUM CIR MAE - 100 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0100PRE | **Yes** |
| 9 | PREMIUM CIR MAE - 150 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | NSX0691 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 10 | PREMIUM CIR MAE - 200Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0200PRE | **Yes** |
| 11 | PREMIUM CIR MAE - 250 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | NSX0692 | **Yes** |
| 12 | PREMIUM CIR MAE - 400 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0400PRE | **Yes** |
| 13 | PREMIUM CIR MAE - 500 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0500PRE | **Yes** |
| 14 | PREMIUM CIR MAE - 600 Mbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC0600PRE | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 15 | PREMIUM CIR MAE - 1 Gbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC1000PRE | **Yes** |
| 16 | PREMIUM CIR MAE - 10 Gbps | The guaranteed average bandwidth of the virtual circuit. | This service exceeds the requirements. EPL Private Line option available below | EVPLEVC010GPRE | **Yes** |

23.2.1.6.3 MAE Backup Options

If the Contractor provides LTE backup services for Managed Equipment the Contractor shall use current CALNET Cellular providers. All Bidders are required to indicate below that they understand the requirement regardless of their intent to provide LTE backup services.

**Bidder understands this requirement and shall meet or exceed it?** Yes

23.2.1.6.4 Additional Unsolicited MAE Services and Features

The Bidder may offer additional unsolicited MAE services and features in Table 23.2.1.6.4.

**Table 23.2.1.6.4 – Unsolicited MAE Services and Features**

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 1 | Managed Router Service - 10Mbps | MR00103 | Managed Router Service –- Cisco, Juniper, or equivalent for MAE Services purchased from Comcast. Supports up to 10Mbps throughput. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 2 | Managed Router Service - 50Mbps | MR00503 | Managed Router Service -– Cisco, Juniper, or equivalent for MAE Services purchased from Comcast. Supports up to 50Mbps throughput. |
| 3 | Managed Router Service - 100Mbps | MR01003 | Managed Router Service -– Cisco, Juniper, or equivalent for MAE Services purchased from Comcast. Supports up to 100Mbps throughput. |
| 4 | Managed Router Service - 300Mbps | MR03003 | Managed Router Service-– Cisco, Juniper, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 300Mbps throughput. |
| 5 | Managed Router Service - 500Mbps | MR05003 | Managed Router Service -– Cisco, Juniper, or equivalent for MAE Services purchased from Comcast. Configured to support up to 500Mbps throughput. |
| 6 | Managed Router Service - GigE | MR10003 | Managed Router Service-– Cisco, Juniper, or equivalent for MAE Services purchased from Comcast. Configured to support up to 1Gbps throughput. |
| 7 | Managed Router Service - 10 GigE | MR010G3 | Managed Router Service – Cisco, Juniper, or equivalent for MAE Services purchased from Comcast. Supports up to 10Gbps throughput |
| 8 | ENS MAE Service Connection Gigabit Ethernet (10/100 Mbps) | ENSUNI100 | Assessed per interface at bandwidths of 10/100 Mbps Ethernet. The ENS connection rate element includes the physical connection (Access Link) between the Customer's demarcation and |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| | | | the core Ethernet network, the port, one (1) EVC and the NI. |
| 9 | ENS MAE Service Connection Gigabit Ethernet (1 Gbps) | ENSUNIGIG | Assessed per interface at bandwidths of 1Gbps Ethernet. The ENS 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. |
| 10 | ENS MAE Service Connection Gigabit Ethernet (10 Gbps) | ENSUNI10G | Assessed per interface at bandwidths of 10Gbps Ethernet. The ENS 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. |
| 11 | ENS MAE Service Connection 100 Gbps | ENSUNI100G | 100 Gbps Ethernet Port assessed per interface at bandwidths of 100 Gbps Ethernet. The ENS connection rate element includes the physical connection (Access Link) between the Customer's demarcation and the core Ethernet network, the port, one EVC and the NI. |
| 12 | ENS BASIC CIR MAE - 1 Mbps | ENSEVC0001BAS | The guaranteed average bandwidth of the virtual circuit. |
| 13 | ENS BASIC CIR MAE- 2 Mbps | ENSEVC0002BAS | The guaranteed average bandwidth of the virtual circuit. |
| 14 | ENS BASIC CIR MAE - 3 Mbps | ENSEVC0003BAS | The guaranteed average bandwidth of the virtual circuit. |
| 15 | ENS BASIC CIR MAE - 4 Mbps | ENSEVC0004BAS | The guaranteed average bandwidth of the virtual circuit. |
| 16 | ENS BASIC CIR MAE - 5 Mbps | ENSEVC0005BAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 17 | ENS BASIC CIR MAE - 6 Mbps | ENSEVC0006BAS | The guaranteed average bandwidth of the virtual circuit. |
| 18 | ENS BASIC CIR MAE - 7 Mbps | ENSEVC0007BAS | The guaranteed average bandwidth of the virtual circuit. |
| 19 | ENS BASIC CIR MAE - 8 Mbps | ENSEVC0008BAS | The guaranteed average bandwidth of the virtual circuit. |
| 20 | ENS BASIC CIR MAE - 9 Mbps | ENSEVC0009BAS | The guaranteed average bandwidth of the virtual circuit. |
| 21 | ENS BASIC CIR MAE - 10 Mbps | ENSEVC0010BAS | The guaranteed average bandwidth of the virtual circuit. |
| 22 | ENS BASIC CIR MAE - 20 Mbps | ENSEVC0020BAS | The guaranteed average bandwidth of the virtual circuit. |
| 23 | ENS BASIC CIR MAE - 30 Mbps | ENSEVC0030BAS | The guaranteed average bandwidth of the virtual circuit. |
| 24 | ENS BASIC CIR MAE - 40 Mbps | ENSEVC0040BAS | The guaranteed average bandwidth of the virtual circuit. |
| 25 | ENS BASIC CIR MAE - 50 Mbps | ENSEVC0050BAS | The guaranteed average bandwidth of the virtual circuit. |
| 26 | ENS BASIC CIR MAE - 60 Mbps | ENSEVC0060BAS | The guaranteed average bandwidth of the virtual circuit. |
| 27 | ENS BASIC CIR MAE - 70 Mbps | ENSEVC0070BAS | The guaranteed average bandwidth of the virtual circuit. |
| 28 | ENS BASIC CIR MAE - 80 Mbps | ENSEVC0080BAS | The guaranteed average bandwidth of the virtual circuit. |
| 29 | ENS BASIC CIR MAE - 90 Mbps | ENSEVC0090BAS | The guaranteed average bandwidth of the virtual circuit. |
| 30 | ENS BASIC CIR MAE - 100 Mbps | ENSEVC0100BAS | The guaranteed average bandwidth of the virtual circuit. |
| 31 | ENS BASIC CIR MAE - 200 Mbps | ENSEVC0200BAS | The guaranteed average bandwidth of the virtual circuit. |
| 32 | ENS BASIC CIR MAE - 300 Mbps | ENSEVC0300BAS | The guaranteed average bandwidth of the virtual circuit. |
| 33 | ENS BASIC CIR MAE - 400 Mbps | ENSEVC0400BAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 34 | ENS BASIC CIR MAE - 500 Mbps | ENSEVC0500BAS | The guaranteed average bandwidth of the virtual circuit. |
| 35 | ENS BASIC CIR MAE - 600 Mbps | ENSEVC0600BAS | The guaranteed average bandwidth of the virtual circuit. |
| 36 | ENS BASIC CIR MAE - 700 Mbps | ENSEVC0700BAS | The guaranteed average bandwidth of the virtual circuit. |
| 37 | ENS BASIC CIR MAE - 800 Mbps | ENSEVC0800BAS | The guaranteed average bandwidth of the virtual circuit. |
| 38 | ENS BASIC CIR MAE - 900 Mbps | ENSEVC0900BAS | The guaranteed average bandwidth of the virtual circuit. |
| 39 | ENS BASIC CIR MAE - 1000 Mbps | ENSEVC1000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 40 | ENS BASIC CIR MAE - 2000 Mbps | ENSEVC2000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 41 | ENS BASIC CIR MAE - 3000 Mbps | ENSEVC3000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 42 | ENS BASIC CIR MAE - 4000 Mbps | ENSEVC4000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 43 | ENS BASIC CIR MAE - 5000 Mbps | ENSEVC5000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 44 | ENS BASIC CIR MAE - 6000 Mbps | ENSEVC6000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 45 | ENS BASIC CIR MAE - 7000 Mbps | ENSEVC7000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 46 | ENS BASIC CIR MAE - 8000 Mbps | ENSEVC8000BAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 47 | ENS BASIC CIR MAE- 9000 Mbps | ENSEVC9000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 48 | ENS BASIC CIR MAE- 10000 Mbps | ENSEVC010GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 49 | ENS BASIC CIR MAE – 20 Gbps | ENSEVC020GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 50 | ENS BASIC CIR MAE – 30 Gbps | ENSEVC030GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 51 | ENS BASIC CIR MAE – 40 Gbps | ENSEVC040GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 52 | ENS BASIC CIR MAE – 50 Gbps | ENSEVC050GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 53 | ENS BASIC CIR MAE – 60 Gbps | ENSEVC060GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 54 | ENS BASIC CIR MAE – 70 Gbps | ENSEVC070GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 55 | ENS BASIC CIR MAE – 80 Gbps | ENSEVC080GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 56 | ENS BASIC CIR MAE – 90 Gbps | ENSEVC090GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 57 | ENS BASIC CIR MAE – 100 Gbps | ENSEVC100GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 58 | ENS PRIORITY CIR MAE - 1 Mbps | ENSEVC0001PRI | The guaranteed average bandwidth of the virtual circuit. |
| 59 | ENS PRIORITY CIR MAE - 2 Mbps | ENSEVC0002PRI | The guaranteed average bandwidth of the virtual circuit. |
| 60 | ENS PRIORITY CIR MAE - 3 Mbps | ENSEVC0003PRI | The guaranteed average bandwidth of the virtual circuit. |
| 61 | ENS PRIORITY CIR MAE - 4 Mbps | ENSEVC0004PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 62 | ENS PRIORITY CIR MAE - 5 Mbps | ENSEVC0005PRI | The guaranteed average bandwidth of the virtual circuit. |
| 63 | ENS PRIORITY CIR MAE - 6 Mbps | ENSEVC0006PRI | The guaranteed average bandwidth of the virtual circuit. |
| 64 | ENS PRIORITY CIR MAE - 7 Mbps | ENSEVC0007PRI | The guaranteed average bandwidth of the virtual circuit. |
| 65 | ENS PRIORITY CIR MAE - 8 Mbps | ENSEVC0008PRI | The guaranteed average bandwidth of the virtual circuit. |
| 66 | ENS PRIORITY CIR MAE - 9 Mbps | ENSEVC0009PRI | The guaranteed average bandwidth of the virtual circuit. |
| 67 | ENS PRIORITY CIR MAE - 10 Mbps | ENSEVC0010PRI | The guaranteed average bandwidth of the virtual circuit. |
| 68 | ENS PRIORITY CIR MAE - 20 Mbps | ENSEVC0020PRI | The guaranteed average bandwidth of the virtual circuit. |
| 69 | ENS PRIORITY CIR MAE - 30 Mbps | ENSEVC0030PRI | The guaranteed average bandwidth of the virtual circuit |
| 70 | ENS PRIORITY CIR MAE - 40 Mbps | ENSEVC0040PRI | The guaranteed average bandwidth of the virtual circuit. |
| 71 | ENS PRIORITY CIR MAE - 50 Mbps | ENSEVC0050PRI | The guaranteed average bandwidth of the virtual circuit. |
| 72 | ENS PRIORITY CIR MAE - 60 Mbps | ENSEVC0060PRI | The guaranteed average bandwidth of the virtual circuit. |
| 73 | ENS PRIORITY CIR MAE - 70 Mbps | ENSEVC0070PRI | The guaranteed average bandwidth of the virtual circuit. |
| 74 | ENS PRIORITY CIR MAE - 80 Mbps | ENSEVC0080PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 75 | ENS PRIORITY CIR MAE - 90 Mbps | ENSEVC0090PRI | The guaranteed average bandwidth of the virtual circuit. |
| 76 | ENS PRIORITY CIR MAE - 100 Mbps | ENSEVC0100PRI | The guaranteed average bandwidth of the virtual circuit. |
| 77 | ENS PRIORITY CIR MAE - 200 Mbps | ENSEVC0200PRI | The guaranteed average bandwidth of the virtual circuit. |
| 78 | ENS PRIORITY CIR MAE - 300 Mbps | ENSEVC0300PRI | The guaranteed average bandwidth of the virtual circuit. |
| 79 | ENS PRIORITY CIR MAE - 400 Mbps | ENSEVC0400PRI | The guaranteed average bandwidth of the virtual circuit. |
| 80 | ENS PRIORITY CIR MAE - 500 Mbps | ENSEVC0500PRI | The guaranteed average bandwidth of the virtual circuit. |
| 81 | ENS PRIORITY CIR MAE - 600 Mbps | ENSEVC0600PRI | The guaranteed average bandwidth of the virtual circuit. |
| 82 | ENS PRIORITY CIR MAE - 700 Mbps | ENSEVC0700PRI | The guaranteed average bandwidth of the virtual circuit. |
| 83 | ENS PRIORITY CIR MAE - 800 Mbps | ENSEVC0800PRI | The guaranteed average bandwidth of the virtual circuit. |
| 84 | ENS PRIORITY CIR MAE - 900 Mbps | ENSEVC0900PRI | The guaranteed average bandwidth of the virtual circuit. |
| 85 | ENS PRIORITY CIR MAE - 1000 Mbps | ENSEVC1000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 86 | ENS PRIORITY CIR MAE - 2000 Mbps | ENSEVC2000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 87 | ENS PRIORITY CIR MAE - 3000 Mbps | ENSEVC3000PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 88 | ENS PRIORITY CIR MAE - 4000 Mbps | ENSEVC4000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 89 | ENS PRIORITY CIR MAE - 5000 Mbps | ENSEVC5000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 90 | ENS PRIORITY CIR MAE - 6000 Mbps | ENSEVC6000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 91 | ENS PRIORITY CIR MAE - 7000 Mbps | ENSEVC7000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 92 | ENS PRIORITY CIR MAE - 8000 Mbps | ENSEVC8000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 93 | ENS PRIORITY CIR MAE - 9000 Mbps | ENSEVC9000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 94 | ENS PRIORITY CIR MAE - 10000 Mbps | ENSEVC010GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 95 | ENS PRIORITY CIR MAE – 20 Gbps | ENSEVC020GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 96 | ENS PRIORITY CIR MAE – 30 Gbps | ENSEVC030GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 97 | ENS PRIORITY CIR MAE – 40 Gbps | ENSEVC040GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 98 | ENS PRIORITY CIR MAE – 50 Gbps | ENSEVC050GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 99 | ENS PRIORITY CIR MAE – 60 Gbps | ENSEVC060GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 100 | ENS PRIORITY CIR MAE – 70 Gbps | ENSEVC070GPRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 101 | ENS PRIORITY CIR MAE – 80 Gbps | ENSEVC080GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 102 | ENS PRIORITY CIR MAE – 90 Gbps | ENSEVC090GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 103 | ENS PRIORITY CIR MAE – 100 Gbps | ENSEVC100GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 104 | ENS PREMIUM CIR MAE - 1 Mbps | ENSEVC0001PRE | The guaranteed average bandwidth of the virtual circuit. |
| 105 | ENS PREMIUM CIR MAE - 2 Mbps | ENSEVC0002PRE | The guaranteed average bandwidth of the virtual circuit. |
| 106 | ENS PREMIUM CIR MAE - 3 Mbps | ENSEVC0003PRE | The guaranteed average bandwidth of the virtual circuit. |
| 107 | ENS PREMIUM CIR MAE - 4 Mbps | ENSEVC0004PRE | The guaranteed average bandwidth of the virtual circuit. |
| 108 | ENS PREMIUM CIR MAE - 5 Mbps | ENSEVC0005PRE | The guaranteed average bandwidth of the virtual circuit. |
| 109 | ENS PREMIUM CIR MAE - 6 Mbps | ENSEVC0006PRE | The guaranteed average bandwidth of the virtual circuit. |
| 110 | ENS PREMIUM CIR MAE - 7 Mbps | ENSEVC0007PRE | The guaranteed average bandwidth of the virtual circuit. |
| 111 | ENS PREMIUM CIR MAE - 8 Mbps | ENSEVC0008PRE | The guaranteed average bandwidth of the virtual circuit. |
| 112 | ENS PREMIUM CIR MAE - 9 Mbps | ENSEVC0009PRE | The guaranteed average bandwidth of the virtual circuit. |
| 113 | ENS PREMIUM CIR MAE - 10 Mbps | ENSEVC0010PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 114 | ENS PREMIUM CIR MAE - 20 Mbps | ENSEVC0020PRE | The guaranteed average bandwidth of the virtual circuit. |
| 115 | ENS PREMIUM CIR MAE - 30 Mbps | ENSEVC0030PRE | The guaranteed average bandwidth of the virtual circuit. |
| 116 | ENS PREMIUM CIR MAE - 40 Mbps | ENSEVC0040PRE | The guaranteed average bandwidth of the virtual circuit. |
| 117 | ENS PREMIUM CIR MAE - 50 Mbps | ENSEVC0050PRE | The guaranteed average bandwidth of the virtual circuit. |
| 118 | ENS PREMIUM CIR MAE - 60 Mbps | ENSEVC0060PRE | The guaranteed average bandwidth of the virtual circuit. |
| 119 | ENS PREMIUM CIR MAE - 70 Mbps | ENSEVC0070PRE | The guaranteed average bandwidth of the virtual circuit. |
| 120 | ENS PREMIUM CIR MAE - 80 Mbps | ENSEVC0080PRE | The guaranteed average bandwidth of the virtual circuit. |
| 121 | ENS PREMIUM CIR MAE - 90 Mbps | ENSEVC0090PRE | The guaranteed average bandwidth of the virtual circuit. |
| 122 | ENS PREMIUM CIR MAE - 100 Mbps | ENSEVC0100PRE | The guaranteed average bandwidth of the virtual circuit. |
| 123 | ENS PREMIUM CIR MAE - 200 Mbps | ENSEVC0200PRE | The guaranteed average bandwidth of the virtual circuit. |
| 124 | ENS PREMIUM CIR MAE - 300 Mbps | ENSEVC0300PRE | The guaranteed average bandwidth of the virtual circuit. |
| 125 | ENS PREMIUM CIR MAE - 400 Mbps | ENSEVC0400PRE | The guaranteed average bandwidth of the virtual circuit. |
| 126 | ENS PREMIUM CIR MAE - 500 Mbps | ENSEVC0500PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 127 | ENS PREMIUM CIR MAE - 600 Mbps | ENSEVC0600PRE | The guaranteed average bandwidth of the virtual circuit. |
| 128 | ENS PREMIUM CIR MAE - 700 Mbps | ENSEVC0700PRE | The guaranteed average bandwidth of the virtual circuit. |
| 129 | ENS PREMIUM CIR MAE - 800 Mbps | ENSEVC0800PRE | The guaranteed average bandwidth of the virtual circuit. |
| 130 | ENS PREMIUM CIR MAE - 900 Mbps | ENSEVC0900PRE | The guaranteed average bandwidth of the virtual circuit. |
| 131 | ENS PREMIUM CIR MAE - 1000 Mbps | ENSEVC1000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 132 | ENS PREMIUM CIR MAE - 2000 Mbps | ENSEVC2000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 133 | ENS PREMIUM CIR MAE - 3000 Mbps | ENSEVC3000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 134 | ENS PREMIUM CIR MAE - 4000 Mbps | ENSEVC4000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 135 | ENS PREMIUM CIR MAE - 5000 Mbps | ENSEVC5000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 136 | ENS PREMIUM CIR MAE - 6000 Mbps | ENSEVC6000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 137 | ENS PREMIUM CIR MAE - 7000 Mbps | ENSEVC7000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 138 | ENS PREMIUM CIR MAE - 8000 Mbps | ENSEVC8000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 139 | ENS PREMIUM CIR MAE - 9000 Mbps | ENSEVC9000PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 140 | ENS PREMIUM CIR MAE - 10000 Mbps | ENSEVC010GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 141 | ENS PREMIUM CIR MAE – 20 Gbps | ENSEVC020GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 142 | ENS PREMIUM CIR MAE – 30 Gbps | ENSEVC030GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 143 | ENS PREMIUM CIR MAE – 40 Gbps | ENSEVC040GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 144 | ENS PREMIUM CIR MAE – 50 Gbps | ENSEVC050GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 145 | ENS PREMIUM CIR MAE – 60 Gbps | ENSEVC060GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 146 | ENS PREMIUM CIR MAE – 70 Gbps | ENSEVC070GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 147 | ENS PREMIUM CIR MAE – 80 Gbps | ENSEVC080GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 148 | ENS PREMIUM CIR MAE – 90 Gbps | ENSEVC090GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 149 | ENS PREMIUM CIR MAE – 100 Gbps | ENSEVC100GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 150 | EPL MAE Service Connection 100 Gbps | EPLUNI100G | 100 Gbps Ethernet port per location; Assessed per interface at bandwidths of 100 Gbps 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 EVC and the NI. May be delivered as a Wavelength. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 151 | EPL BASIC CIR MAE - 1 Mbps | EPLEVC0001BAS | The guaranteed average bandwidth of the virtual circuit. |
| 152 | EPL BASIC CIR MAE - 2 Mbps | EPLEVC0002BAS | The guaranteed average bandwidth of the virtual circuit. |
| 153 | EPL BASIC CIR MAE - 3 Mbps | EPLEVC0003BAS | The guaranteed average bandwidth of the virtual circuit. |
| 154 | EPL BASIC CIR MAE - 4 Mbps | EPLEVC0004BAS | The guaranteed average bandwidth of the virtual circuit. |
| 155 | EPL BASIC CIR MAE - 5 Mbps | EPLEVC0005BAS | The guaranteed average bandwidth of the virtual circuit. |
| 156 | EPL BASIC CIR MAE - 6 Mbps | EPLEVC0006BAS | The guaranteed average bandwidth of the virtual circuit. |
| 157 | EPL BASIC CIR MAE - 7 Mbps | EPLEVC0007BAS | The guaranteed average bandwidth of the virtual circuit. |
| 158 | EPL BASIC CIR MAE - 8 Mbps | EPLEVC0008BAS | The guaranteed average bandwidth of the virtual circuit. |
| 159 | EPL BASIC CIR MAE - 9 Mbps | EPLEVC0009BAS | The guaranteed average bandwidth of the virtual circuit. |
| 160 | EPL BASIC CIR MAE - 10 Mbps | EPLEVC0010BAS | The guaranteed average bandwidth of the virtual circuit. |
| 161 | EPL BASIC CIR MAE - 20 Mbps | EPLEVC0020BAS | The guaranteed average bandwidth of the virtual circuit. |
| 162 | EPL BASIC CIR MAE - 30 Mbps | EPLEVC0030BAS | The guaranteed average bandwidth of the virtual circuit. |
| 163 | EPL BASIC CIR MAE - 40 Mbps | EPLEVC0040BAS | The guaranteed average bandwidth of the virtual circuit. |
| 164 | EPL BASIC CIR MAE - 50 Mbps | EPLEVC0050BAS | The guaranteed average bandwidth of the virtual circuit. |
| 165 | EPL BASIC CIR MAE - 60 Mbps | EPLEVC0060BAS | The guaranteed average bandwidth of the virtual circuit. |
| 166 | EPL BASIC CIR MAE - 70 Mbps | EPLEVC0070BAS | The guaranteed average bandwidth of the virtual circuit. |
| 167 | EPL BASIC CIR MAE - 80 Mbps | EPLEVC0080BAS | The guaranteed average bandwidth of the virtual circuit. |
| 168 | EPL BASIC CIR MAE - 90 Mbps | EPLEVC0090BAS | The guaranteed average bandwidth of the virtual circuit. |
| 169 | EPL BASIC CIR MAE - 100 Mbps | EPLEVC0100BAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 170 | EPL BASIC CIR MAE - 200 Mbps | EPLEVC0200BAS | The guaranteed average bandwidth of the virtual circuit. |
| 171 | EPL BASIC CIR MAE - 300 Mbps | EPLEVC0300BAS | The guaranteed average bandwidth of the virtual circuit. |
| 172 | EPL BASIC CIR MAE - 400 Mbps | EPLEVC0400BAS | The guaranteed average bandwidth of the virtual circuit. |
| 173 | EPL BASIC CIR MAE - 500 Mbps | EPLEVC0500BAS | The guaranteed average bandwidth of the virtual circuit. |
| 174 | EPL BASIC CIR MAE - 600 Mbps | EPLEVC0600BAS | The guaranteed average bandwidth of the virtual circuit. |
| 175 | EPL BASIC CIR MAE - 700 Mbps | EPLEVC0700BAS | The guaranteed average bandwidth of the virtual circuit. |
| 176 | EPL BASIC CIR MAE - 800 Mbps | EPLEVC0800BAS | The guaranteed average bandwidth of the virtual circuit. |
| 177 | EPL BASIC CIR MAE - 900 Mbps | EPLEVC0900BAS | The guaranteed average bandwidth of the virtual circuit. |
| 178 | EPL BASIC CIR MAE - 1000 Mbps | EPLEVC1000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 179 | EPL BASIC CIR MAE - 2000 Mbps | EPLEVC2000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 180 | EPL BASIC CIR MAE - 3000 Mbps | EPLEVC3000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 181 | EPL BASIC CIR MAE - 4000 Mbps | EPLEVC4000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 182 | EPL BASIC CIR MAE - 5000 Mbps | EPLEVC5000BAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 183 | EPL BASIC CIR MAE - 6000 Mbps | EPLEVC6000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 184 | EPL BASIC CIR MAE - 7000 Mbps | EPLEVC7000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 185 | EPL BASIC CIR MAE - 8000 Mbps | EPLEVC8000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 186 | EPL BASIC CIR MAE - 9000 Mbps | EPLEVC9000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 187 | EPL BASIC CIR MAE - 10000 Mbps | EPLEVC010GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 188 | EPL BASIC CIR MAE – 20 Gbps | EPLEVC020GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 189 | EPL BASIC CIR MAE – 30 Gbps | EPLEVC030GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 190 | EPL BASIC CIR MAE – 40 Gbps | EPLEVC040GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 191 | EPL BASIC CIR MAE – 50 Gbps | EPLEVC050GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 192 | EPL BASIC CIR MAE – 60 Gbps | EPLEVC060GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 193 | EPL BASIC CIR MAE – 70 Gbps | EPLEVC070GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 194 | EPL BASIC CIR MAE – 80 Gbps | EPLEVC080GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 195 | EPL BASIC CIR MAE – 90 Gbps | EPLEVC090GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 196 | EPL BASIC CIR MAE – 100 Gbps | EPLEVC100GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 197 | EPL PRIORITY CIR MAE - 1 Mbps | EPLEVC0001PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 198 | EPL PRIORITY CIR MAE - 2 Mbps | EPLEVC0002PRI | The guaranteed average bandwidth of the virtual circuit. |
| 199 | EPL PRIORITY CIR MAE - 3 Mbps | EPLEVC0003PRI | The guaranteed average bandwidth of the virtual circuit. |
| 200 | EPL PRIORITY CIR MAE - 4 Mbps | EPLEVC0004PRI | The guaranteed average bandwidth of the virtual circuit. |
| 201 | EPL PRIORITY CIR MAE - 5 Mbps | EPLEVC0005PRI | The guaranteed average bandwidth of the virtual circuit. |
| 202 | EPL PRIORITY CIR MAE - 6 Mbps | EPLEVC0006PRI | The guaranteed average bandwidth of the virtual circuit. |
| 203 | EPL PRIORITY CIR MAE - 7 Mbps | EPLEVC0007PRI | The guaranteed average bandwidth of the virtual circuit. |
| 204 | EPL PRIORITY CIR MAE - 8 Mbps | EPLEVC000PRI8 | The guaranteed average bandwidth of the virtual circuit. |
| 205 | EPL PRIORITY CIR MAE - 9 Mbps | EPLEVC0009PRI | The guaranteed average bandwidth of the virtual circuit. |
| 206 | EPL PRIORITY CIR MAE - 10 Mbps | EPLEVC0010PRI | The guaranteed average bandwidth of the virtual circuit. |
| 207 | EPL PRIORITY CIR MAE - 20 Mbps | EPLEVC0020PRI | The guaranteed average bandwidth of the virtual circuit. |
| 208 | EPL PRIORITY CIR MAE - 30 Mbps | EPLEVC0030PRI | The guaranteed average bandwidth of the virtual circuit. |
| 209 | EPL PRIORITY CIR MAE - 40 Mbps | EPLEVC0040PRI | The guaranteed average bandwidth of the virtual circuit. |
| 210 | EPL PRIORITY CIR MAE - 50 Mbps | EPLEVC0050PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 211 | EPL PRIORITY CIR MAE - 60 Mbps | EPLEVC0060PRI | The guaranteed average bandwidth of the virtual circuit. |
| 212 | EPL PRIORITY CIR MAE - 70 Mbps | EPLEVC0070PRI | The guaranteed average bandwidth of the virtual circuit. |
| 213 | EPL PRIORITY CIR MAE - 80 Mbps | EPLEVC0080PRI | The guaranteed average bandwidth of the virtual circuit. |
| 214 | EPL PRIORITY CIR MAE - 90 Mbps | EPLEVC0090PRI | The guaranteed average bandwidth of the virtual circuit. |
| 215 | EPL PRIORITY CIR MAE - 100 Mbps | EPLEVC0100PRI | The guaranteed average bandwidth of the virtual circuit. |
| 216 | EPL PRIORITY CIR MAE - 200 Mbps | EPLEVC0200PRI | The guaranteed average bandwidth of the virtual circuit. |
| 217 | EPL PRIORITY CIR MAE - 300 Mbps | EPLEVC0300PRI | The guaranteed average bandwidth of the virtual circuit. |
| 218 | EPL PRIORITY CIR MAE - 400 Mbps | EPLEVC0400PRI | The guaranteed average bandwidth of the virtual circuit. |
| 219 | EPL PRIORITY CIR MAE - 500 Mbps | EPLEVC0500PRI | The guaranteed average bandwidth of the virtual circuit. |
| 220 | EPL PRIORITY CIR MAE - 600 Mbps | EPLEVC0600PRI | The guaranteed average bandwidth of the virtual circuit. |
| 221 | EPL PRIORITY CIR MAE - 700 Mbps | EPLEVC0700PRI | The guaranteed average bandwidth of the virtual circuit. |
| 222 | EPL PRIORITY CIR MAE - 800 Mbps | EPLEVC0800PRI | The guaranteed average bandwidth of the virtual circuit. |
| 223 | EPL PRIORITY CIR MAE - 900 Mbps | EPLEVC0900PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 224 | EPL PRIORITY CIR MAE - 1000 Mbps | EPLEVC1000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 225 | EPL PRIORITY CIR MAE - 2000 Mbps | EPLEVC2000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 226 | EPL PRIORITY CIR MAE - 3000 Mbps | EPLEVC3000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 227 | EPL PRIORITY CIR MAE - 4000 Mbps | EPLEVC4000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 228 | EPL PRIORITY CIR MAE - 5000 Mbps | EPLEVC5000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 229 | EPL PRIORITY CIR MAE - 6000 Mbps | EPLEVC6000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 230 | EPL PRIORITY CIR MAE - 7000 Mbps | EPLEVC7000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 231 | EPL PRIORITY CIR MAE - 8000 Mbps | EPLEVC8000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 232 | EPL PRIORITY CIR MAE - 9000 Mbps | EPLEVC9000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 233 | EPL PRIORITY CIR MAE - 10000 Mbps | EPLEVC010GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 234 | EPL PRIORITY CIR MAE – 20 Gbps | EPLEVC020GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 235 | EPL PRIORITY CIR MAE – 30 Gbps | EPLEVC030GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 236 | EPL PRIORITY CIR MAE – 40 Gbps | EPLEVC040GPRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 237 | EPL PRIORITY CIR MAE – 50 Gbps | EPLEVC050GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 238 | EPL PRIORITY CIR MAE – 60 Gbps | EPLEVC060GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 239 | EPL PRIORITY CIR MAE – 70 Gbps | EPLEVC070GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 240 | EPL PRIORITY CIR MAE – 80 Gbps | EPLEVC080GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 241 | EPL PRIORITY CIR MAE – 90 Gbps | EPLEVC090GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 242 | EPL PRIORITY CIR MAE – 100 Gbps | EPLEVC100GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 243 | EPL PREMIUM CIR MAE - 1 Mbps | EPLEVC0001PRE | The guaranteed average bandwidth of the virtual circuit. |
| 244 | EPL PREMIUM CIR MAE - 2 Mbps | EPLEVC0002PRE | The guaranteed average bandwidth of the virtual circuit. |
| 245 | EPL PREMIUM CIR MAE - 3 Mbps | EPLEVC0003PRE | The guaranteed average bandwidth of the virtual circuit. |
| 246 | EPL PREMIUM CIR MAE - 4 Mbps | EPLEVC0004PRE | The guaranteed average bandwidth of the virtual circuit. |
| 247 | EPL PREMIUM CIR MAE - 5 Mbps | EPLEVC0005PRE | The guaranteed average bandwidth of the virtual circuit. |
| 248 | EPL PREMIUM CIR MAE - 6 Mbps | EPLEVC0006PRE | The guaranteed average bandwidth of the virtual circuit. |
| 249 | EPL PREMIUM CIR MAE - 7 Mbps | EPLEVC0007PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 250 | EPL PREMIUM CIR MAE - 8 Mbps | EPLEVC0008PRE | The guaranteed average bandwidth of the virtual circuit. |
| 251 | EPL PREMIUM CIR MAE - 9 Mbps | EPLEVC0009PRE | The guaranteed average bandwidth of the virtual circuit. |
| 252 | EPL PREMIUM CIR MAE - 10 Mbps | EPLEVC0010PRE | The guaranteed average bandwidth of the virtual circuit. |
| 253 | EPL PREMIUM CIR MAE - 20 Mbps | EPLEVC0020PRE | The guaranteed average bandwidth of the virtual circuit. |
| 254 | EPL PREMIUM CIR MAE - 30 Mbps | EPLEVC0030PRE | The guaranteed average bandwidth of the virtual circuit. |
| 255 | EPL PREMIUM CIR MAE - 40 Mbps | EPLEVC0040PRE | The guaranteed average bandwidth of the virtual circuit. |
| 256 | EPL PREMIUM CIR MAE - 50 Mbps | EPLEVC0050PRE | The guaranteed average bandwidth of the virtual circuit. |
| 257 | EPL PREMIUM CIR MAE - 60 Mbps | EPLEVC0060PRE | The guaranteed average bandwidth of the virtual circuit. |
| 258 | EPL PREMIUM CIR MAE - 70 Mbps | EPLEVC0070PRE | The guaranteed average bandwidth of the virtual circuit. |
| 259 | EPL PREMIUM CIR MAE - 80 Mbps | EPLEVC0080PRE | The guaranteed average bandwidth of the virtual circuit. |
| 260 | EPL PREMIUM CIR MAE - 90 Mbps | EPLEVC0090PRE | The guaranteed average bandwidth of the virtual circuit. |
| 261 | EPL PREMIUM CIR MAE - 100 Mbps | EPLEVC0100PRE | The guaranteed average bandwidth of the virtual circuit. |
| 262 | EPL PREMIUM CIR MAE - 200 Mbps | EPLEVC0200PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 263 | EPL PREMIUM CIR MAE - 300 Mbps | EPLEVC0300PRE | The guaranteed average bandwidth of the virtual circuit. |
| 264 | EPL PREMIUM CIR MAE - 400 Mbps | EPLEVC0400PRE | The guaranteed average bandwidth of the virtual circuit. |
| 265 | EPL PREMIUM CIR MAE - 500 Mbps | EPLEVC0500PRE | The guaranteed average bandwidth of the virtual circuit. |
| 266 | EPL PREMIUM CIR MAE - 600 Mbps | EPLEVC0600PRE | The guaranteed average bandwidth of the virtual circuit. |
| 267 | EPL PREMIUM CIR MAE - 700 Mbps | EPLEVC0700PRE | The guaranteed average bandwidth of the virtual circuit. |
| 268 | EPL PREMIUM CIR MAE - 800 Mbps | EPLEVC0800PRE | The guaranteed average bandwidth of the virtual circuit. |
| 269 | EPL PREMIUM CIR MAE - 900 Mbps | EPLEVC0900PRE | The guaranteed average bandwidth of the virtual circuit. |
| 270 | EPL PREMIUM CIR MAE - 1000 Mbps | EPLEVC1000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 271 | EPL PREMIUM CIR MAE - 2000 Mbps | EPLEVC2000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 272 | EPL PREMIUM CIR MAE - 3000 Mbps | EPLEVC3000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 273 | EPL PREMIUM CIR MAE - 4000 Mbps | EPLEVC4000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 274 | EPL PREMIUM CIR MAE - 5000 Mbps | EPLEVC5000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 275 | EPL PREMIUM CIR MAE - 6000 Mbps | EPLEVC6000PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 276 | EPL PREMIUM CIR MAE - 7000 Mbps | EPLEVC7000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 277 | EPL PREMIUM CIR MAE - 8000 Mbps | EPLEVC8000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 278 | EPL PREMIUM CIR MAE - 9000 Mbps | EPLEVC9000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 279 | EPL PREMIUM CIR MAE - 10000 Mbps | EPLEVC010GPRE | The guaranteed average bandwidth of the virtual circuit. Option: Can also be provisioned as a Wavelength. |
| 280 | EPL PREMIUM CIR MAE – 20 Gbps | EPLEVC020GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 281 | EPL PREMIUM CIR MAE – 30 Gbps | EPLEVC030GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 282 | EPL PREMIUM CIR MAE – 40 Gbps | EPLEVC040GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 283 | EPL PREMIUM CIR MAE – 50 Gbps | EPLEVC050GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 284 | EPL PREMIUM CIR MAE – 60 Gbps | EPLEVC060GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 285 | EPL PREMIUM CIR MAE – 70 Gbps | EPLEVC070GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 286 | EPL PREMIUM CIR MAE – 80 Gbps | EPLEVC080GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 287 | EPL PREMIUM CIR MAE – 90 Gbps | EPLEVC090GPRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 288 | EPL PREMIUM CIR MAE – 100 Gbps | EPLEVC100GPRE | The guaranteed average bandwidth of the virtual circuit. Option: Can also be provisioned as a Wavelength. |
| 289 | EVPL MAE Service Connection 100 Gbps | EVPLUNI100G | 100 Gbps Ethernet Port assessed per interface at bandwidths of 100 Gbps 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 EVC and the NI. |
| 290 | EVPL BASIC CIR MAE - 1 Mbps | EVPLEVC0001BAS | The guaranteed average bandwidth of the virtual circuit. |
| 291 | EVPL BASIC CIR MAE - 3 Mbps | EVPLEVC0003BAS | The guaranteed average bandwidth of the virtual circuit. |
| 292 | EVPL BASIC CIR MAE - 6 Mbps | EVPLEVC0006BAS | The guaranteed average bandwidth of the virtual circuit. |
| 293 | EVPL BASIC CIR MAE - 7 Mbps | EVPLEVC0007BAS | The guaranteed average bandwidth of the virtual circuit. |
| 294 | EVPL BASIC CIR MAE - 9 Mbps | EVPLEVC0009BAS | The guaranteed average bandwidth of the virtual circuit. |
| 295 | EVPL BASIC CIR MAE - 30 Mbps | EVPLEVC0030BAS | The guaranteed average bandwidth of the virtual circuit. |
| 296 | EVPL BASIC CIR MAE - 40 Mbps | EVPLEVC0040BAS | The guaranteed average bandwidth of the virtual circuit. |
| 297 | EVPL BASIC CIR MAE - 60 Mbps | EVPLEVC0060BAS | The guaranteed average bandwidth of the virtual circuit. |
| 298 | EVPL BASIC CIR MAE - 70 Mbps | EVPLEVC0070BAS | The guaranteed average bandwidth of the virtual circuit. |
| 299 | EVPL BASIC CIR MAE - 80 Mbps | EVPLEVC0080BAS | The guaranteed average bandwidth of the virtual circuit. |
| 300 | EVPL BASIC CIR MAE - 90 Mbps | EVPLEVC0090BAS | The guaranteed average bandwidth of the virtual circuit. |
| 301 | EVPL BASIC CIR MAE - 300 Mbps | EVPLEVC0300BAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 302 | EVPL BASIC CIR MAE - 700 Mbps | EVPLEVC0700BAS | The guaranteed average bandwidth of the virtual circuit. |
| 303 | EVPL BASIC CIR MAE - 800 Mbps | EVPLEVC0800BAS | The guaranteed average bandwidth of the virtual circuit. |
| 304 | EVPL BASIC CIR MAE - 900 Mbps | EVPLEVC0900BAS | The guaranteed average bandwidth of the virtual circuit. |
| 305 | EVPL BASIC CIR MAE - 2000 Mbps | EVPLEVC2000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 306 | EVPL BASIC CIR MAE - 3000 Mbps | EVPLEVC3000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 307 | EVPL BASIC CIR MAE - 4000 Mbps | EVPLEVC4000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 308 | EVPL BASIC CIR MAE - 5000 Mbps | EVPLEVC5000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 309 | EVPL BASIC CIR MAE - 6000 Mbps | EVPLEVC6000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 310 | EVPL BASIC CIR MAE - 7000 Mbps | EVPLEVC7000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 311 | EVPL BASIC CIR MAE - 8000 Mbps | EVPLEVC8000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 312 | EVPL BASIC CIR MAE - 9000 Mbps | EVPLEVC9000BAS | The guaranteed average bandwidth of the virtual circuit. |
| 313 | EVPL BASIC CIR MAE – 20 Gbps | EVPLEVC020GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 314 | EVPL BASIC CIR MAE – 30 Gbps | EVPLEVC030GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 315 | EVPL BASIC CIR MAE – 40 Gbps | EVPLEVC040GBAS | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 316 | EVPL BASIC CIR MAE – 50 Gbps | EVPLEVC050GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 317 | EVPL BASIC CIR MAE – 60 Gbps | EVPLEVC060GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 318 | EVPL BASIC CIR MAE – 70 Gbps | EVPLEVC070GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 319 | EVPL BASIC CIR MAE – 80 Gbps | EVPLEVC080GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 320 | EVPL BASIC CIR MAE – 90 Gbps | EVPLEVC090GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 321 | EVPL BASIC CIR MAE – 100 Gbps | EVPLEVC100GBAS | The guaranteed average bandwidth of the virtual circuit. |
| 322 | EVPL PRIORITY CIR MAE - 1 Mbps | EVPLEVC0001PRI | The guaranteed average bandwidth of the virtual circuit. |
| 323 | EVPL PRIORITY CIR MAE - 3 Mbps | EVPLEVC0003PRI | The guaranteed average bandwidth of the virtual circuit. |
| 324 | EVPL PRIORITY CIR MAE - 6 Mbps | EVPLEVC0006PRI | The guaranteed average bandwidth of the virtual circuit. |
| 325 | EVPL PRIORITY CIR MAE - 7 Mbps | EVPLEVC0007PRI | The guaranteed average bandwidth of the virtual circuit. |
| 326 | EVPL PRIORITY CIR MAE - 9 Mbps | EVPLEVC0009PRI | The guaranteed average bandwidth of the virtual circuit. |
| 327 | EVPL PRIORITY CIR MAE - 30 Mbps | EVPLEVC0030PRI | The guaranteed average bandwidth of the virtual circuit. |
| 328 | EVPL PRIORITY CIR MAE - 40 Mbps | EVPLEVC0040PRI | The guaranteed average bandwidth of the virtual circuit. |
| 329 | EVPL PRIORITY CIR MAE - 60 Mbps | EVPLEVC0060PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 330 | EVPL PRIORITY CIR MAE - 70 Mbps | EVPLEVC0070PRI | The guaranteed average bandwidth of the virtual circuit. |
| 331 | EVPL PRIORITY CIR MAE - 80 Mbps | EVPLEVC0080PRI | The guaranteed average bandwidth of the virtual circuit. |
| 332 | EVPL PRIORITY CIR MAE - 90 Mbps | EVPLEVC0090PRI | The guaranteed average bandwidth of the virtual circuit. |
| 333 | EVPL PRIORITY CIR MAE - 300 Mbps | EVPLEVC0300PRI | The guaranteed average bandwidth of the virtual circuit. |
| 334 | EVPL PRIORITY CIR MAE - 700 Mbps | EVPLEVC0700PRI | The guaranteed average bandwidth of the virtual circuit. |
| 335 | EVPL PRIORITY CIR MAE - 800 Mbps | EVPLEVC0800PRI | The guaranteed average bandwidth of the virtual circuit. |
| 336 | EVPL PRIORITY CIR MAE - 900 Mbps | EVPLEVC0900PRI | The guaranteed average bandwidth of the virtual circuit. |
| 337 | EVPL PRIORITY CIR MAE - 2000 Mbps | EVPLEVC2000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 338 | EVPL PRIORITY CIR MAE - 3000 Mbps | EVPLEVC3000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 339 | EVPL PRIORITY CIR MAE - 4000 Mbps | EVPLEVC4000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 340 | EVPL PRIORITY CIR MAE - 5000 Mbps | EVPLEVC5000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 341 | EVPL PRIORITY CIR MAE - 6000 Mbps | EVPLEVC6000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 342 | EVPL PRIORITY CIR MAE - 7000 Mbps | EVPLEVC7000PRI | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 343 | EVPL PRIORITY CIR MAE - 8000 Mbps | EVPLEVC8000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 344 | EVPL PRIORITY CIR MAE - 9000 Mbps | EVPLEVC9000PRI | The guaranteed average bandwidth of the virtual circuit. |
| 345 | EVPL PRIORITY CIR MAE – 20 Gbps | EVPLEVC020GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 346 | EVPL PRIORITY CIR MAE – 30 Gbps | EVPLEVC030GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 347 | EVPL PRIORITY CIR MAE – 40 Gbps | EVPLEVC040GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 348 | EVPL PRIORITY CIR MAE – 50 Gbps | EVPLEVC050GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 349 | EVPL PRIORITY CIR MAE – 60 Gbps | EVPLEVC060GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 350 | EVPL PRIORITY CIR MAE – 70 Gbps | EVPLEVC070GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 351 | EVPL PRIORITY CIR MAE – 80 Gbps | EVPLEVC080GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 352 | EVPL PRIORITY CIR MAE – 90 Gbps | EVPLEVC090GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 353 | EVPL PRIORITY CIR MAE – 100 Gbps | EVPLEVC100GPRI | The guaranteed average bandwidth of the virtual circuit. |
| 354 | EVPL PREMIUM CIR MAE - 1 Mbps | EVPLEVC0001PRE | The guaranteed average bandwidth of the virtual circuit. |
| 355 | EVPL PREMIUM CIR MAE - 3 Mbps | EVPLEVC0003PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 356 | EVPL PREMIUM CIR MAE - 6 Mbps | EVPLEVC0006PRE | The guaranteed average bandwidth of the virtual circuit. |
| 357 | EVPL PREMIUM CIR MAE - 7 Mbps | EVPLEVC0007PRE | The guaranteed average bandwidth of the virtual circuit. |
| 358 | EVPL PREMIUM CIR MAE - 9 Mbps | EVPLEVC0009PRE | The guaranteed average bandwidth of the virtual circuit. |
| 359 | EVPL PREMIUM CIR MAE - 30 Mbps | EVPLEVC0030PRE | The guaranteed average bandwidth of the virtual circuit. |
| 360 | EVPL PREMIUM CIR MAE - 40 Mbps | EVPLEVC0040PRE | The guaranteed average bandwidth of the virtual circuit. |
| 361 | EVPL PREMIUM CIR MAE - 60 Mbps | EVPLEVC0060PRE | The guaranteed average bandwidth of the virtual circuit. |
| 362 | EVPL PREMIUM CIR MAE - 70 Mbps | EVPLEVC0070PRE | The guaranteed average bandwidth of the virtual circuit. |
| 363 | EVPL PREMIUM CIR MAE - 80 Mbps | EVPLEVC0080PRE | The guaranteed average bandwidth of the virtual circuit. |
| 364 | EVPL PREMIUM CIR MAE - 90 Mbps | EVPLEVC0090PRE | The guaranteed average bandwidth of the virtual circuit. |
| 365 | EVPL PREMIUM CIR MAE - 300 Mbps | EVPLEVC0300PRE | The guaranteed average bandwidth of the virtual circuit. |
| 366 | EVPL PREMIUM CIR MAE - 700 Mbps | EVPLEVC0700PRE | The guaranteed average bandwidth of the virtual circuit. |
| 367 | EVPL PREMIUM CIR MAE - 800 Mbps | EVPLEVC0800PRE | The guaranteed average bandwidth of the virtual circuit. |
| 368 | EVPL PREMIUM CIR MAE - 900 Mbps | EVPLEVC0900PRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 369 | EVPL PREMIUM CIR MAE - 2000 Mbps | EVPLEVC2000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 370 | EVPL PREMIUM CIR MAE - 3000 Mbps | EVPLEVC3000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 371 | EVPL PREMIUM CIR MAE - 4000 Mbps | EVPLEVC4000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 372 | EVPL PREMIUM CIR MAE - 5000 Mbps | EVPLEVC5000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 373 | EVPL PREMIUM CIR MAE - 6000 Mbps | EVPLEVC6000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 374 | EVPL PREMIUM CIR MAE - 7000 Mbps | EVPLEVC7000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 375 | EVPL PREMIUM CIR MAE - 8000 Mbps | EVPLEVC8000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 376 | EVPL PREMIUM CIR MAE - 9000 Mbps | EVPLEVC9000PRE | The guaranteed average bandwidth of the virtual circuit. |
| 377 | EVPL PREMIUM CIR MAE – 20 Gbps | EVPLEVC020GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 378 | EVPL PREMIUM CIR MAE – 30 Gbps | EVPLEVC030GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 379 | EVPL PREMIUM CIR MAE – 40 Gbps | EVPLEVC040GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 380 | EVPL PREMIUM CIR MAE – 50 Gbps | EVPLEVC050GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 381 | EVPL PREMIUM CIR MAE – 60 Gbps | EVPLEVC060GPRE | The guaranteed average bandwidth of the virtual circuit. |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 382 | EVPL PREMIUM CIR MAE – 70 Gbps | EVPLEVC070GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 383 | EVPL PREMIUM CIR MAE – 80 Gbps | EVPLEVC080GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 384 | EVPL PREMIUM CIR MAE – 90 Gbps | EVPLEVC090GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 385 | EVPL PREMIUM CIR MAE – 100 Gbps | EVPLEVC100GPRE | The guaranteed average bandwidth of the virtual circuit. |
| 386 | Managed Router Service - Wireless Backup | MR00LTE | LTE Wireless Backup - Immediate and seamless wireless backup that fails over to a wireless connection in the case of a wireline failure. Can only be used with Comcast Managed Router Service |

### 23.2.1.7 MAE Service Geographic Service Areas

Bidder shall identify the locations where their EPL and EVPL MAE Services are available in Table 23.2.1.7.a. The Contractor shall provide the service where commercially available through Contractor owned facilities, third-party agreements, and as allowed by State or Federal regulations. Commitment to provide service is subject to facility availability as determined by the Bidder at time of bid submission and may be reassessed by Contractor at time of service order.

**Bidder understands the requirements and shall meet or exceed them? Yes**

Special construction charges that may be required to provide this service are not included in this offering or contained within the CALNET contracts and must be acquired by the customer directly through other procurement means.

**Bidder understands the requirements and shall meet or exceed them? Yes**

**Table 23.2.1.7.a – Bidder's MAE Services Service Locations**

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 1 | Adelanto | Yes | Yes | Yes | Yes | Yes | Yes |
| 2 | Agoura Hills | Yes | Yes | Yes | Yes | Yes | Yes |
| 3 | Alameda | Yes | Yes | Yes | Yes | Yes | Yes |
| 4 | Albany | Yes | Yes | Yes | Yes | Yes | Yes |
| 5 | Alhambra | Yes | Yes | Yes | Yes | Yes | Yes |
| 6 | Aliso Viejo | Yes | Yes | Yes | Yes | Yes | Yes |
| 7 | Amador | Yes | Yes | Yes | Yes | Yes | Yes |
| 8 | American Canyon | Yes | Yes | Yes | Yes | Yes | Yes |
| 9 | Anaheim | Yes | Yes | Yes | Yes | Yes | Yes |
| 10 | Angels Camp | Yes | Yes | Yes | Yes | Yes | Yes |
| 11 | Antioch | Yes | Yes | Yes | Yes | Yes | Yes |
| 12 | Apple Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 13 | Arcadia | Yes | Yes | Yes | Yes | Yes | Yes |
| 14 | Artesia | Yes | Yes | Yes | Yes | Yes | Yes |
| 15 | Atherton | Yes | Yes | Yes | Yes | Yes | Yes |
| 16 | Atwater | Yes | Yes | Yes | Yes | Yes | Yes |
| 17 | Auburn | Yes | Yes | Yes | Yes | Yes | Yes |
| 18 | Azusa | Yes | Yes | Yes | Yes | Yes | Yes |
| 19 | Baldwin Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 20 | Banning | Yes | Yes | Yes | Yes | Yes | Yes |
| 21 | Barstow | Yes | Yes | Yes | Yes | Yes | Yes |
| 22 | Beaumont | Yes | Yes | Yes | Yes | Yes | Yes |
| 23 | Bell | Yes | Yes | Yes | Yes | Yes | Yes |
| 24 | Bellflower | Yes | Yes | Yes | Yes | Yes | Yes |
| 25 | Belmont | Yes | Yes | Yes | Yes | Yes | Yes |
| 26 | Belvedere | Yes | Yes | Yes | Yes | Yes | Yes |
| 27 | Benicia | Yes | Yes | Yes | Yes | Yes | Yes |
| 28 | Berkeley | Yes | Yes | Yes | Yes | Yes | Yes |
| 29 | Beverly Hills | Yes | Yes | Yes | Yes | Yes | Yes |
| 30 | Big Bear Lake | Yes | Yes | Yes | Yes | Yes | Yes |
| 31 | Biggs | Yes | Yes | Yes | Yes | Yes | Yes |
| 32 | Bishop | Yes | Yes | Yes | Yes | Yes | Yes |
| 33 | Blue Lake | Yes | Yes | Yes | Yes | Yes | Yes |
| 34 | Blythe | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 35 | Brea | Yes | Yes | Yes | Yes | Yes | Yes |
| 36 | Brentwood | Yes | Yes | Yes | Yes | Yes | Yes |
| 37 | Brisbane | Yes | Yes | Yes | Yes | Yes | Yes |
| 38 | Buellton | Yes | Yes | Yes | Yes | Yes | Yes |
| 39 | Buena Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 40 | Burbank | Yes | Yes | Yes | Yes | Yes | Yes |
| 41 | Burlingame | Yes | Yes | Yes | Yes | Yes | Yes |
| 42 | Calabasas | Yes | Yes | Yes | Yes | Yes | Yes |
| 43 | Calexico | Yes | Yes | Yes | Yes | Yes | Yes |
| 44 | Calimesa | Yes | Yes | Yes | Yes | Yes | Yes |
| 45 | Camarillo | Yes | Yes | Yes | Yes | Yes | Yes |
| 46 | Campbell | Yes | Yes | Yes | Yes | Yes | Yes |
| 47 | Capitola | Yes | Yes | Yes | Yes | Yes | Yes |
| 48 | Carlsbad | Yes | Yes | Yes | Yes | Yes | Yes |
| 49 | Carson | Yes | Yes | Yes | Yes | Yes | Yes |
| 50 | Cathedral City | Yes | Yes | Yes | Yes | Yes | Yes |
| 51 | Ceres | Yes | Yes | Yes | Yes | Yes | Yes |
| 52 | Cerritos | Yes | Yes | Yes | Yes | Yes | Yes |
| 53 | Chico | Yes | Yes | Yes | Yes | Yes | Yes |
| 54 | Chino | Yes | Yes | Yes | Yes | Yes | Yes |
| 55 | Chino Hills | Yes | Yes | Yes | Yes | Yes | Yes |
| 56 | Chowchilla | Yes | Yes | Yes | Yes | Yes | Yes |
| 57 | Chula Vista | Yes | Yes | Yes | Yes | Yes | Yes |
| 58 | Claremont | Yes | Yes | Yes | Yes | Yes | Yes |
| 59 | Clayton | Yes | Yes | Yes | Yes | Yes | Yes |
| 60 | Cloverdale | Yes | Yes | Yes | Yes | Yes | Yes |
| 61 | Coachella | Yes | Yes | Yes | Yes | Yes | Yes |
| 62 | Coalinga | Yes | Yes | Yes | Yes | Yes | Yes |
| 63 | Colma | Yes | Yes | Yes | Yes | Yes | Yes |
| 64 | Colton | Yes | Yes | Yes | Yes | Yes | Yes |
| 65 | Colusa | Yes | Yes | Yes | Yes | Yes | Yes |
| 66 | Compton | Yes | Yes | Yes | Yes | Yes | Yes |
| 67 | Concord | Yes | Yes | Yes | Yes | Yes | Yes |
| 68 | Corcoran | Yes | Yes | Yes | Yes | Yes | Yes |
| 69 | Corning | Yes | Yes | Yes | Yes | Yes | Yes |
| 70 | Corona | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 71 | Coronado | Yes | Yes | Yes | Yes | Yes | Yes |
| 72 | Costa Mesa | Yes | Yes | Yes | Yes | Yes | Yes |
| 73 | Cotati | Yes | Yes | Yes | Yes | Yes | Yes |
| 74 | Covina | Yes | Yes | Yes | Yes | Yes | Yes |
| 75 | Culver City | Yes | Yes | Yes | Yes | Yes | Yes |
| 76 | Cupertino | Yes | Yes | Yes | Yes | Yes | Yes |
| 77 | Cypress | Yes | Yes | Yes | Yes | Yes | Yes |
| 78 | Daly City | Yes | Yes | Yes | Yes | Yes | Yes |
| 79 | Dana Point | Yes | Yes | Yes | Yes | Yes | Yes |
| 80 | Danville | Yes | Yes | Yes | Yes | Yes | Yes |
| 81 | Davis | Yes | Yes | Yes | Yes | Yes | Yes |
| 82 | Del Mar | Yes | Yes | Yes | Yes | Yes | Yes |
| 83 | Del Rey Oaks | Yes | Yes | Yes | Yes | Yes | Yes |
| 84 | Desert Hot Springs | Yes | Yes | Yes | Yes | Yes | Yes |
| 85 | Diamond Bar | Yes | Yes | Yes | Yes | Yes | Yes |
| 86 | Dinuba | Yes | Yes | Yes | Yes | Yes | Yes |
| 87 | Dos Palos | Yes | Yes | Yes | Yes | Yes | Yes |
| 88 | Downey | Yes | Yes | Yes | Yes | Yes | Yes |
| 89 | Duarte | Yes | Yes | Yes | Yes | Yes | Yes |
| 90 | Dublin | Yes | Yes | Yes | Yes | Yes | Yes |
| 91 | East Palo Alto | Yes | Yes | Yes | Yes | Yes | Yes |
| 92 | El Cajon | Yes | Yes | Yes | Yes | Yes | Yes |
| 93 | El Centro | Yes | Yes | Yes | Yes | Yes | Yes |
| 94 | El Cerrito | Yes | Yes | Yes | Yes | Yes | Yes |
| 95 | El Monte | Yes | Yes | Yes | Yes | Yes | Yes |
| 96 | El Segundo | Yes | Yes | Yes | Yes | Yes | Yes |
| 97 | Elk Grove | Yes | Yes | Yes | Yes | Yes | Yes |
| 98 | Emeryville | Yes | Yes | Yes | Yes | Yes | Yes |
| 99 | Encinitas | Yes | Yes | Yes | Yes | Yes | Yes |
| 100 | Escalon | Yes | Yes | Yes | Yes | Yes | Yes |
| 101 | Escondido | Yes | Yes | Yes | Yes | Yes | Yes |
| 102 | Fairfax | Yes | Yes | Yes | Yes | Yes | Yes |
| 103 | Fairfield | Yes | Yes | Yes | Yes | Yes | Yes |
| 104 | Firebaugh | Yes | Yes | Yes | Yes | Yes | Yes |
| 105 | Folsom | Yes | Yes | Yes | Yes | Yes | Yes |
| 106 | Fontana | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 107 | Fort Bragg | Yes | Yes | Yes | Yes | Yes | Yes |
| 108 | Foster City | Yes | Yes | Yes | Yes | Yes | Yes |
| 109 | Fountain Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 110 | Fowler | Yes | Yes | Yes | Yes | Yes | Yes |
| 111 | Fremont | Yes | Yes | Yes | Yes | Yes | Yes |
| 112 | Fresno | Yes | Yes | Yes | Yes | Yes | Yes |
| 113 | Fullerton | Yes | Yes | Yes | Yes | Yes | Yes |
| 114 | Galt | Yes | Yes | Yes | Yes | Yes | Yes |
| 115 | Garden Grove | Yes | Yes | Yes | Yes | Yes | Yes |
| 116 | Gardena | Yes | Yes | Yes | Yes | Yes | Yes |
| 117 | Glendale | Yes | Yes | Yes | Yes | Yes | Yes |
| 118 | Glendora | Yes | Yes | Yes | Yes | Yes | Yes |
| 119 | Goleta | Yes | Yes | Yes | Yes | Yes | Yes |
| 120 | Grand Terrace | Yes | Yes | Yes | Yes | Yes | Yes |
| 121 | Grass Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 122 | Gridley | Yes | Yes | Yes | Yes | Yes | Yes |
| 123 | Gustine | Yes | Yes | Yes | Yes | Yes | Yes |
| 124 | Half Moon Bay | Yes | Yes | Yes | Yes | Yes | Yes |
| 125 | Hanford | Yes | Yes | Yes | Yes | Yes | Yes |
| 126 | Hawaiian Gardens | Yes | Yes | Yes | Yes | Yes | Yes |
| 127 | Hawthorne | Yes | Yes | Yes | Yes | Yes | Yes |
| 128 | Hayward | Yes | Yes | Yes | Yes | Yes | Yes |
| 129 | Healdsburg | Yes | Yes | Yes | Yes | Yes | Yes |
| 130 | Hemet | Yes | Yes | Yes | Yes | Yes | Yes |
| 131 | Hercules | Yes | Yes | Yes | Yes | Yes | Yes |
| 132 | Hermosa Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 133 | Hesperia | Yes | Yes | Yes | Yes | Yes | Yes |
| 134 | Highland | Yes | Yes | Yes | Yes | Yes | Yes |
| 135 | Hillsborough | Yes | Yes | Yes | Yes | Yes | Yes |
| 136 | Hughson | Yes | Yes | Yes | Yes | Yes | Yes |
| 137 | Huntington Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 138 | Huntington Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 139 | Huron | Yes | Yes | Yes | Yes | Yes | Yes |
| 140 | Imperial Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 141 | Indian Wells | Yes | Yes | Yes | Yes | Yes | Yes |
| 142 | Indio | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 143 | Inglewood | Yes | Yes | Yes | Yes | Yes | Yes |
| 144 | Irvine | Yes | Yes | Yes | Yes | Yes | Yes |
| 145 | Isleton | Yes | Yes | Yes | Yes | Yes | Yes |
| 146 | Jackson | Yes | Yes | Yes | Yes | Yes | Yes |
| 147 | Kerman | Yes | Yes | Yes | Yes | Yes | Yes |
| 148 | Kingsburg | Yes | Yes | Yes | Yes | Yes | Yes |
| 149 | La Habra | Yes | Yes | Yes | Yes | Yes | Yes |
| 150 | La Mesa | Yes | Yes | Yes | Yes | Yes | Yes |
| 151 | La Mirada | Yes | Yes | Yes | Yes | Yes | Yes |
| 152 | La Palma | Yes | Yes | Yes | Yes | Yes | Yes |
| 153 | La Puente | Yes | Yes | Yes | Yes | Yes | Yes |
| 154 | La Quinta | Yes | Yes | Yes | Yes | Yes | Yes |
| 155 | La Verne | Yes | Yes | Yes | Yes | Yes | Yes |
| 156 | Lafayette | Yes | Yes | Yes | Yes | Yes | Yes |
| 157 | Laguna Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 158 | Laguna Hills | Yes | Yes | Yes | Yes | Yes | Yes |
| 159 | Laguna Niguel | Yes | Yes | Yes | Yes | Yes | Yes |
| 160 | Laguna Woods | Yes | Yes | Yes | Yes | Yes | Yes |
| 161 | Lake Elsinore | Yes | Yes | Yes | Yes | Yes | Yes |
| 162 | Lake Forest | Yes | Yes | Yes | Yes | Yes | Yes |
| 163 | Lakewood | Yes | Yes | Yes | Yes | Yes | Yes |
| 164 | Lancaster | Yes | Yes | Yes | Yes | Yes | Yes |
| 165 | Larkspur | Yes | Yes | Yes | Yes | Yes | Yes |
| 166 | Lathrop | Yes | Yes | Yes | Yes | Yes | Yes |
| 167 | Lawndale | Yes | Yes | Yes | Yes | Yes | Yes |
| 168 | Lemon Grove | Yes | Yes | Yes | Yes | Yes | Yes |
| 169 | Lemoore | Yes | Yes | Yes | Yes | Yes | Yes |
| 170 | Lincoln | Yes | Yes | Yes | Yes | Yes | Yes |
| 171 | Live Oak | Yes | Yes | Yes | Yes | Yes | Yes |
| 172 | Livermore | Yes | Yes | Yes | Yes | Yes | Yes |
| 173 | Lodi | Yes | Yes | Yes | Yes | Yes | Yes |
| 174 | Loma Linda | Yes | Yes | Yes | Yes | Yes | Yes |
| 175 | Lomita | Yes | Yes | Yes | Yes | Yes | Yes |
| 176 | Lompoc | Yes | Yes | Yes | Yes | Yes | Yes |
| 177 | Long Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 178 | Los Alamitos | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 179 | Los Altos | Yes | Yes | Yes | Yes | Yes | Yes |
| 180 | Los Altos Hills | Yes | Yes | Yes | Yes | Yes | Yes |
| 181 | Los Angeles | Yes | Yes | Yes | Yes | Yes | Yes |
| 182 | Los Banos | Yes | Yes | Yes | Yes | Yes | Yes |
| 183 | Los Gatos | Yes | Yes | Yes | Yes | Yes | Yes |
| 184 | Lynwood | Yes | Yes | Yes | Yes | Yes | Yes |
| 185 | Madera | Yes | Yes | Yes | Yes | Yes | Yes |
| 186 | Malibu | Yes | Yes | Yes | Yes | Yes | Yes |
| 187 | Manhattan | Yes | Yes | Yes | Yes | Yes | Yes |
| 188 | Manteca | Yes | Yes | Yes | Yes | Yes | Yes |
| 189 | Marina | Yes | Yes | Yes | Yes | Yes | Yes |
| 190 | Martinez | Yes | Yes | Yes | Yes | Yes | Yes |
| 191 | Marysville | Yes | Yes | Yes | Yes | Yes | Yes |
| 192 | Maywood | Yes | Yes | Yes | Yes | Yes | Yes |
| 193 | Mendota | Yes | Yes | Yes | Yes | Yes | Yes |
| 194 | Menlo Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 195 | Merced | Yes | Yes | Yes | Yes | Yes | Yes |
| 196 | Mill Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 197 | Millbrae | Yes | Yes | Yes | Yes | Yes | Yes |
| 198 | Milpitas | Yes | Yes | Yes | Yes | Yes | Yes |
| 199 | Mission Viejo | Yes | Yes | Yes | Yes | Yes | Yes |
| 200 | Modesto | Yes | Yes | Yes | Yes | Yes | Yes |
| 201 | Monrovia | Yes | Yes | Yes | Yes | Yes | Yes |
| 202 | Montclair | Yes | Yes | Yes | Yes | Yes | Yes |
| 203 | Monte Sereno | Yes | Yes | Yes | Yes | Yes | Yes |
| 204 | Montebello | Yes | Yes | Yes | Yes | Yes | Yes |
| 205 | Monterey | Yes | Yes | Yes | Yes | Yes | Yes |
| 206 | Monterey Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 207 | Moorpark | Yes | Yes | Yes | Yes | Yes | Yes |
| 208 | Moraga | Yes | Yes | Yes | Yes | Yes | Yes |
| 209 | Moreno Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 210 | Morgan Hill | Yes | Yes | Yes | Yes | Yes | Yes |
| 211 | Mountain View | Yes | Yes | Yes | Yes | Yes | Yes |
| 212 | Murrieta | Yes | Yes | Yes | Yes | Yes | Yes |
| 213 | Napa | Yes | Yes | Yes | Yes | Yes | Yes |
| 214 | National City | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 215 | Newark | Yes | Yes | Yes | Yes | Yes | Yes |
| 216 | Newman | Yes | Yes | Yes | Yes | Yes | Yes |
| 217 | Newport Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 218 | Norco | Yes | Yes | Yes | Yes | Yes | Yes |
| 219 | Norwalk | Yes | Yes | Yes | Yes | Yes | Yes |
| 220 | Novato | Yes | Yes | Yes | Yes | Yes | Yes |
| 221 | Oakdale | Yes | Yes | Yes | Yes | Yes | Yes |
| 222 | Oakland | Yes | Yes | Yes | Yes | Yes | Yes |
| 223 | Oakley | Yes | Yes | Yes | Yes | Yes | Yes |
| 224 | Oceanside | Yes | Yes | Yes | Yes | Yes | Yes |
| 225 | Ojai | Yes | Yes | Yes | Yes | Yes | Yes |
| 226 | Ontario | Yes | Yes | Yes | Yes | Yes | Yes |
| 227 | Orange | Yes | Yes | Yes | Yes | Yes | Yes |
| 228 | Orinda | Yes | Yes | Yes | Yes | Yes | Yes |
| 229 | Orland | Yes | Yes | Yes | Yes | Yes | Yes |
| 230 | Oroville | Yes | Yes | Yes | Yes | Yes | Yes |
| 231 | Oxnard | Yes | Yes | Yes | Yes | Yes | Yes |
| 232 | Pacific Grove | Yes | Yes | Yes | Yes | Yes | Yes |
| 233 | Pacifica | Yes | Yes | Yes | Yes | Yes | Yes |
| 234 | Palm Desert | Yes | Yes | Yes | Yes | Yes | Yes |
| 235 | Palm Springs | Yes | Yes | Yes | Yes | Yes | Yes |
| 236 | Palmdale | Yes | Yes | Yes | Yes | Yes | Yes |
| 237 | Palo Alto | Yes | Yes | Yes | Yes | Yes | Yes |
| 238 | Paradise | Yes | Yes | Yes | Yes | Yes | Yes |
| 239 | Paramount | Yes | Yes | Yes | Yes | Yes | Yes |
| 240 | Parlier | Yes | Yes | Yes | Yes | Yes | Yes |
| 241 | Pasadena | Yes | Yes | Yes | Yes | Yes | Yes |
| 242 | Patterson | Yes | Yes | Yes | Yes | Yes | Yes |
| 243 | Perris | Yes | Yes | Yes | Yes | Yes | Yes |
| 244 | Petaluma | Yes | Yes | Yes | Yes | Yes | Yes |
| 245 | Pico Rivera | Yes | Yes | Yes | Yes | Yes | Yes |
| 246 | Piedmont | Yes | Yes | Yes | Yes | Yes | Yes |
| 247 | Pinole | Yes | Yes | Yes | Yes | Yes | Yes |
| 248 | Pittsburg | Yes | Yes | Yes | Yes | Yes | Yes |
| 249 | Placentia | Yes | Yes | Yes | Yes | Yes | Yes |
| 250 | Placerville | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 251 | Pleasant Hill | Yes | Yes | Yes | Yes | Yes | Yes |
| 252 | Pleasanton | Yes | Yes | Yes | Yes | Yes | Yes |
| 253 | Plymouth | Yes | Yes | Yes | Yes | Yes | Yes |
| 254 | Pomona | Yes | Yes | Yes | Yes | Yes | Yes |
| 255 | Port Hueneme | Yes | Yes | Yes | Yes | Yes | Yes |
| 256 | Portola Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 257 | Poway | Yes | Yes | Yes | Yes | Yes | Yes |
| 258 | Rancho Cordova | Yes | Yes | Yes | Yes | Yes | Yes |
| 259 | Rancho Cucamonga | Yes | Yes | Yes | Yes | Yes | Yes |
| 260 | Rancho Mirage | Yes | Yes | Yes | Yes | Yes | Yes |
| 261 | Rancho Palos | Yes | Yes | Yes | Yes | Yes | Yes |
| 262 | Rancho Santa | Yes | Yes | Yes | Yes | Yes | Yes |
| 263 | Redlands | Yes | Yes | Yes | Yes | Yes | Yes |
| 264 | Redondo | Yes | Yes | Yes | Yes | Yes | Yes |
| 265 | Redwood City | Yes | Yes | Yes | Yes | Yes | Yes |
| 266 | Reedley | Yes | Yes | Yes | Yes | Yes | Yes |
| 267 | Rialto | Yes | Yes | Yes | Yes | Yes | Yes |
| 268 | Richmond | Yes | Yes | Yes | Yes | Yes | Yes |
| 269 | Rio Vista | Yes | Yes | Yes | Yes | Yes | Yes |
| 270 | Riverbank | Yes | Yes | Yes | Yes | Yes | Yes |
| 271 | Riverside | Yes | Yes | Yes | Yes | Yes | Yes |
| 272 | Rohnert Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 273 | Roseville | Yes | Yes | Yes | Yes | Yes | Yes |
| 274 | Ross | Yes | Yes | Yes | Yes | Yes | Yes |
| 275 | Sacramento | Yes | Yes | Yes | Yes | Yes | Yes |
| 276 | Salinas | Yes | Yes | Yes | Yes | Yes | Yes |
| 277 | San | Yes | Yes | Yes | Yes | Yes | Yes |
| 278 | San Anselmo | Yes | Yes | Yes | Yes | Yes | Yes |
| 279 | San Carlos | Yes | Yes | Yes | Yes | Yes | Yes |
| 280 | San Clemente | Yes | Yes | Yes | Yes | Yes | Yes |
| 281 | San Diego | Yes | Yes | Yes | Yes | Yes | Yes |
| 282 | San Dimas | Yes | Yes | Yes | Yes | Yes | Yes |
| 283 | San Fernando | Yes | Yes | Yes | Yes | Yes | Yes |
| 284 | San Francisco | Yes | Yes | Yes | Yes | Yes | Yes |
| 285 | San Gabriel | Yes | Yes | Yes | Yes | Yes | Yes |
| 286 | San Jacinto | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 287 | San Jose | Yes | Yes | Yes | Yes | Yes | Yes |
| 288 | San Juan Capistrano | Yes | Yes | Yes | Yes | Yes | Yes |
| 289 | San Leandro | Yes | Yes | Yes | Yes | Yes | Yes |
| 290 | San Marcos | Yes | Yes | Yes | Yes | Yes | Yes |
| 291 | San Mateo | Yes | Yes | Yes | Yes | Yes | Yes |
| 292 | San Pablo | Yes | Yes | Yes | Yes | Yes | Yes |
| 293 | San Rafael | Yes | Yes | Yes | Yes | Yes | Yes |
| 294 | San Ramon | Yes | Yes | Yes | Yes | Yes | Yes |
| 295 | Sand City | Yes | Yes | Yes | Yes | Yes | Yes |
| 296 | Sanger | Yes | Yes | Yes | Yes | Yes | Yes |
| 297 | Santa Ana | Yes | Yes | Yes | Yes | Yes | Yes |
| 298 | Santa Barbara | Yes | Yes | Yes | Yes | Yes | Yes |
| 299 | Santa Clara | Yes | Yes | Yes | Yes | Yes | Yes |
| 300 | Santa Clarita | Yes | Yes | Yes | Yes | Yes | Yes |
| 301 | Santa Cruz | Yes | Yes | Yes | Yes | Yes | Yes |
| 302 | Santa Fe Springs | Yes | Yes | Yes | Yes | Yes | Yes |
| 303 | Santa Maria | Yes | Yes | Yes | Yes | Yes | Yes |
| 304 | Santa Monica | Yes | Yes | Yes | Yes | Yes | Yes |
| 305 | Santa Paula | Yes | Yes | Yes | Yes | Yes | Yes |
| 306 | Santa Rosa | Yes | Yes | Yes | Yes | Yes | Yes |
| 307 | Santee | Yes | Yes | Yes | Yes | Yes | Yes |
| 308 | Saratoga | Yes | Yes | Yes | Yes | Yes | Yes |
| 309 | Sausalito | Yes | Yes | Yes | Yes | Yes | Yes |
| 310 | Scotts Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 311 | Seal Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 312 | Seaside | Yes | Yes | Yes | Yes | Yes | Yes |
| 313 | Sebastopol | Yes | Yes | Yes | Yes | Yes | Yes |
| 314 | Selma | Yes | Yes | Yes | Yes | Yes | Yes |
| 315 | Sierra Madre | Yes | Yes | Yes | Yes | Yes | Yes |
| 316 | Signal Hill | Yes | Yes | Yes | Yes | Yes | Yes |
| 317 | Simi Valley | Yes | Yes | Yes | Yes | Yes | Yes |
| 318 | Solana Beach | Yes | Yes | Yes | Yes | Yes | Yes |
| 319 | Solvang | Yes | Yes | Yes | Yes | Yes | Yes |
| 320 | Sonoma | Yes | Yes | Yes | Yes | Yes | Yes |
| 321 | Sonora | Yes | Yes | Yes | Yes | Yes | Yes |
| 322 | South El Monte | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 323 | South Gate | Yes | Yes | Yes | Yes | Yes | Yes |
| 324 | South Pasadena | Yes | Yes | Yes | Yes | Yes | Yes |
| 325 | South San Francisco | Yes | Yes | Yes | Yes | Yes | Yes |
| 326 | Stanton | Yes | Yes | Yes | Yes | Yes | Yes |
| 327 | Stockton | Yes | Yes | Yes | Yes | Yes | Yes |
| 328 | Suisun City | Yes | Yes | Yes | Yes | Yes | Yes |
| 329 | Sunnyvale | Yes | Yes | Yes | Yes | Yes | Yes |
| 330 | Temecula | Yes | Yes | Yes | Yes | Yes | Yes |
| 331 | Thousand Oaks | Yes | Yes | Yes | Yes | Yes | Yes |
| 332 | Tiburon | Yes | Yes | Yes | Yes | Yes | Yes |
| 333 | Torrance | Yes | Yes | Yes | Yes | Yes | Yes |
| 334 | Tracy | Yes | Yes | Yes | Yes | Yes | Yes |
| 335 | Tulare | Yes | Yes | Yes | Yes | Yes | Yes |
| 336 | Turlock | Yes | Yes | Yes | Yes | Yes | Yes |
| 337 | Tustin | Yes | Yes | Yes | Yes | Yes | Yes |
| 338 | Ukiah | Yes | Yes | Yes | Yes | Yes | Yes |
| 339 | Union City | Yes | Yes | Yes | Yes | Yes | Yes |
| 340 | Upland | Yes | Yes | Yes | Yes | Yes | Yes |
| 341 | Vacaville | Yes | Yes | Yes | Yes | Yes | Yes |
| 342 | Vallejo | Yes | Yes | Yes | Yes | Yes | Yes |
| 343 | Vernon | Yes | Yes | Yes | Yes | Yes | Yes |
| 344 | Victorville | Yes | Yes | Yes | Yes | Yes | Yes |
| 345 | Villa Park | Yes | Yes | Yes | Yes | Yes | Yes |
| 346 | Visalia | Yes | Yes | Yes | Yes | Yes | Yes |
| 347 | Vista | Yes | Yes | Yes | Yes | Yes | Yes |
| 348 | Walnut | Yes | Yes | Yes | Yes | Yes | Yes |
| 349 | Walnut Creek | Yes | Yes | Yes | Yes | Yes | Yes |
| 350 | Waterford | Yes | Yes | Yes | Yes | Yes | Yes |
| 351 | Watsonville | Yes | Yes | Yes | Yes | Yes | Yes |
| 352 | West Covina | Yes | Yes | Yes | Yes | Yes | Yes |
| 353 | West Hollywood | Yes | Yes | Yes | Yes | Yes | Yes |
| 354 | West Sacramento | Yes | Yes | Yes | Yes | Yes | Yes |
| 355 | Westlake Village | Yes | Yes | Yes | Yes | Yes | Yes |
| 356 | Westminster | Yes | Yes | Yes | Yes | Yes | Yes |
| 357 | Wheatland | Yes | Yes | Yes | Yes | Yes | Yes |
| 358 | Whittier | Yes | Yes | Yes | Yes | Yes | Yes |

| Line Item | Service Location – City or ZIP Code | EPL MAE Service 10/100 Mbps | EPL MAE Service 1 Gbps | EPL MAE Service 10 Gbps | EVPL MAE Service 10/100 Mbps | EVPL MAE Service 1 Gbps | EVPL MAE Service 10 Gbps |
|---|---|---|---|---|---|---|---|
| 359 | Williams | Yes | Yes | Yes | Yes | Yes | Yes |
| 360 | Willits | Yes | Yes | Yes | Yes | Yes | Yes |
| 361 | Willows | Yes | Yes | Yes | Yes | Yes | Yes |
| 362 | Windsor | Yes | Yes | Yes | Yes | Yes | Yes |
| 363 | Woodland | Yes | Yes | Yes | Yes | Yes | Yes |
| 364 | Woodside | Yes | Yes | Yes | Yes | Yes | Yes |
| 365 | Yorba | Yes | Yes | Yes | Yes | Yes | Yes |
| 366 | Yountville | Yes | Yes | Yes | Yes | Yes | Yes |
| 367 | Yuba City | Yes | Yes | Yes | Yes | Yes | Yes |
| 368 | Yucaipa | Yes | Yes | Yes | Yes | Yes | Yes |
| 369 | Yucca | Yes | Yes | Yes | Yes | Yes | Yes |

## 23.3 NETWORK DISASTER/OPERATIONAL RECOVERY

### 23.3.1 Telecommunications Service Priority (TSP) Program

When applicable, 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 requirements and shall meet or exceed them? Yes**

## 23.4 OTHER SERVICES

### 23.4.1 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.

When coordinated scheduling for projects between the State and the Contractor occurs, the State and the Contractor may mutually agree that hours worked between 5:00PM and 7:59AM, Monday through Friday and all day Saturday and any hours worked on Sunday or State of California holidays can be classified as Regular Hours in accordance with the State of California Department of Industrial Relations.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

### 23.4.2 Services Related Infrastructure (SRI)

The Contractor shall offer infrastructure service as defined below.

#### 23.4.2.1 Extended Demarcation Wiring Services

The Contractor shall provide Extended Demarcation (Extended Demarc) wiring to support the services covered by this IFB C4DNCS19 Category for all of the Customer occupied buildings where services under this Contract are being offered. Extended Demarc wiring includes wire/cable related activities required to extend the demarcation point to the Customer defined termination location or cross-connect point from the Contractor's Minimum Point of Entry (MPOE).

**Bidder understands this Requirement and shall meet or exceed it? Yes**

Extended Demarc wiring shall include the necessary wire/cable, connectors, jumpers, panel, and jack. Extended Demarc wiring shall also include associated trouble shooting, testing and labeling. 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; and,
4. Installation intervals shall be in accordance with the timeframes identified for the services that this cabling will support, and shall be subject to the SLAs associated with that service.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

The Contractor shall not be required to complete Extended Demarc wiring from the MPOE to the extended Demarc location if:

1. The wire/cable pathway is blocked, and cannot be cleared without significant effort or damage to the Customer site;
2. The wire/cable pathway is in an asbestos or other environment hazardous to the Contractor's personnel, or where such work would be hazardous to the public or to the Customer's staff; or,
3. Upon written release provided by either the Customer or by the CALNET Program.

The 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 Demarc extension as described herein. The Bidder shall provide one price for each media identified.

Wiring will be installed according to industry Standards and cabling recommendations published in the State Telecommunications Management Manual (STMM), Facilities Management Chapter, and Uniform Building Cabling/Wiring current at the time of this IFB and as periodically updated by the CALNET Program. Additionally, all wiring installation and maintenance activities will be in accordance with all applicable EIA/TIA, BICSI, and ITU-T recommended standards current at the time of installation or maintenance.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

Bidder shall provide the Extended Demarcation Wiring Services described in Table 23.4.2.1.

**Table 23.4.2.1 – Extended Demarcation Wiring Services**

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 1 | Extended Demarcation -Copper – 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. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack. | None | NSX0003 | **Yes** |
| 2 | Extended Demarcation -Copper – 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. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack. | None | NSX0004 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 3 | Extended Demarcation -Copper – 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. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack. | None | NSX0005 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 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. Includes 300 feet or less of Category 5 25-pair CMP cable, one patch panel and mounting hardware. Ten Category 5e, three meter jumpers; one 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. | None | NSX0006 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 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. Includes 300 feet or less of Category 5 25-pair CMP cable, one patch panel and mounting hardware. Ten Category 5e, three meter jumpers; one 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. | None | NSX0007 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 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. Includes 300 feet or less of Category 5 25-pair CMP cable, one patch panel and mounting hardware. Ten Category 5e, three meter jumpers; one 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. | None | NSX0008 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 7 | Extended Demarcation - Optical Fiber Link – Regular Hours | Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a fiber trunk or trunking equipment, Strand count required to provision one/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 SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling. | None | NSX0009 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 8 | Extended Demarcation - Optical Fiber Link – Overtime Hours | Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a fiber trunk or trunking equipment, Strand count required to provision one/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 SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling. | None | NSX0010 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 9 | Extended Demarcation - Optical Fiber Link – Sunday and Holiday Hours | Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a fiber trunk or trunking equipment, Strand count required to provision one/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 SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling. | None | NSX0011 | **Yes** |

## 23.4.2.2 Unsolicited Services Related Infrastructure

Bidder may offer additional unsolicited Services Related Infrastructure in Table 23.4.2.2.

**Table 23.4.2.2 – Unsolicited Services Related Infrastructure**

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |

## 23.4.3 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 Contractors responsibilities. Work performed under this Section 23.4.3 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.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

In Cost Worksheet 23.4.3, 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 hours per dispatch/occurrence.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

The Contractor shall offer emergency restoration services as detailed in Table 23.4.3.3.

**Table 23.4.3.3 – Services Related Hourly Support**

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 1 | Field Service Repair Technician Regular Hours | Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET DNCS service problem that turns out to be caused by factors outside the responsibility of the Contractor. | None | NSX0012 | **Yes** |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|---|---|---|---|---|---|
| 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 CALNET DNCS service problem that turns out to be caused by factors outside the responsibility of the Contractor. | None | NSX0013 | **Yes** |
| 3 | Field Service Repair Technician Sunday and Holiday Hours | Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET DNCS service problem that turns out to be caused by factors outside the responsibility of the Contractor. | None | NSX0014 | **Yes** |

## 23.5 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 Program 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.

### 23.5.1 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 should include source of data and define the points of measurement within the system, application, or network;
4. Service(s) - All applicable services will be listed in each SLA;
5. Objective(s) – Defines the SLA performance goal/parameters; and,
6. Rights and Remedies
7. Per Occurrence: Rights and remedies are paid on a per event basis during the bill cycle; and,
8. Monthly Aggregated Measurements: Rights and remedies are paid once during the bill cycle based on an aggregate of events over a defined period of time.

The Contractor shall proactively apply a credit or refund when a SLA objective is not met. CALNET SLA Rights and Remedies do not require the Customer to submit a request for credit or refund.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

### 23.5.2 Technical Requirements versus SLA Objectives

Sections 23.2 (Ethernet Services), 23.3 (Network Disaster/Operational Recovery) and 23.4 (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 this Requirement and shall meet or exceed it? Yes**

### 23.5.3 Methods of Outage Reporting: Customer or Contractor

There are two methods in which CALNET 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 (SOW Business Requirements Section G.10.4, Trouble Ticket Reporting Tool (TTRT)).

The second method of outage reporting occurs when the Contractor opens a trouble ticket as a result of network/system alarm or other method of service failure identification. In each instance the Contractor shall open a trouble ticket using the Trouble Ticket Reporting Tool (SOW Business Requirements Section G.10.4) and monitor and report to Customer until service is restored.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

### 23.5.4 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 specific objective level they are committing to for each service in space provided in the "Objective" section of each SLA description.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

### 23.5.5 Contractor SLA Management Plan

Within 90 calendar days of Contract award, the Contractor shall provide CALNET CMO with a detailed SLA Management Plan that describes how the Contractor will manage the Technical SLAs for services in this IFB. The SLA Management plan shall provide processes and procedures to be implemented by the Contractor. The SLA Management Plan shall define the following:

1. Contractor SLA Manager and supporting staff responsibilities;

2. Contractor'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 (SOW Business Requirements Section G.10.5). The Contractor shall include a sample report in accordance with SOW Business Requirements Section G.10.5, SLA Reports for the following: SLA Service Performance Report (SOW Business Requirements Section G.10.5.1), SLA Provisioning Report (SOW Business Requirements Section G.10.5.2), SLA Catastrophic Outage Reports (SOW Business Requirements Section G.10.5.3), and Trouble Ticket and Provisioning/SLA Credit Report (SOW Business Requirements Section G.10.5.4). The Contractor shall commit to a monthly due date. The reports shall be provided to the CALNET Program via the Private Oversight Website (SOW Business Requirements Section G.10.2);
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 Program; 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 Program.

**Bidder understands this Requirement and shall meet or exceed it? Yes**

## 23.5.6 Technical SLA General Requirements

The Contractor shall adhere to the following general requirements which apply to all CALNET Technical SLAs (Section 23.5.8):

1. With the exception of the Provisioning SLA (Section 23.5.8.9), the total SLA rights and remedies for any given month shall not exceed the sum of 100% 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 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 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; and,
5. TMRC rights and remedies shall include the service, option(s), and feature(s) charges.

**Bidder understands this requirement and shall meet or exceed it? Yes**

6. The Contractor shall proactively and continuously monitor and measure all Technical SLA objectives.

**Bidder understands this requirement and shall meet or exceed it? Yes**

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.

**Bidder understands this requirement and shall meet or exceed it? Yes**

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 Program for possible inclusion via amendments;
9. The Contractor shall apply CALNET DNCS 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 DNCS Customer;
10. The election by CALNET Program of any SLA remedy covered by this Contract shall not exclude or limit CALNET Program 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 and/or the CALNET CMO Escalation Process 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 24x7 for CALNET services;

**Bidder understands this requirement and shall meet or exceed it? Yes**

15. SLAs apply 24x7 unless SLA specifies an exception;
16. Contractor invoices shall clearly cross reference the SLA credit to the service Circuit ID in accordance with SOW Business Requirements Section G.6;

**Bidder understands this requirement and shall meet or exceed it? Yes**

17. The Contractor shall provide a CALNET DNCS SLA Manager responsible for CALNET DNCS SLA compliance. The SLA Manager shall attend regular meetings and be available upon request to address CALNET Program SLA oversight, report issues, and problem resolution concerns. The CALNET DNCS SLA Manager shall also coordinate SLA support for Customer SLA inquiries and issue resolution;
18. The Contractor shall provide Customer and CALNET Program 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 DNCS Customer.

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.7 Trouble Ticket Stop Clock Conditions

Only the following conditions shall be allowed to stop the duration of the Service Level Agreements. The Contractor shall document durations using the Stop Clock Condition (SCC) listed in Table 23.5.7, which must include start and stop time stamps in the Contractor's Trouble Ticket Reporting Tool (SOW Business Requirements Section G.10.4) or Customer provisioning Service Request for each application of an SCC.

**Bidder understands the requirements and shall meet or exceed them? Yes**

The Contractor shall not consider "cleared while testing" or "no trouble found" as a SCC.

**Bidder understands the requirements and shall meet or exceed them? Yes**

Contractor observation timeframes, not requested by End-User, after incident resolution shall not be included in Outage Duration reporting.

**Bidder understands the requirements and shall meet or exceed them? Yes**

Note: The Glossary (SOW Appendix A) defines term "End-User" as the "individual within an Entity that is receiving services and/or features provided under the Contract."

**Table 23.5.7 Stop Clock Conditions**

| Line Item | 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. |

| Line Item | Stop Clock Condition (SCC) | SCC Definition |
|---|---|---|
| 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 | CUSTOMER PROVISIONING DELAY | Delays to Provisioning caused by lack of Customer's building entrance Facilities, conduit structures that are the Customer's responsibilities or Extended demarcation wiring. If the Service Providing Contractor has been contracted by the Customer for extended demarcation, this SCC shall not apply to missed dates/times. The Customer Provisioning Delay SCC is restricted to Provisioning SLAs only. |
| 7 | ACCESS | Limited access or contact with End-User provided the Contractor documents in the trouble ticket several efforts to contact End-User for the following:<br><br>a. Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative;<br><br>b. Site contact refuses access to technician who displays proper identification;<br><br>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,<br><br>d. Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem. |

| Line Item | Stop Clock Condition (SCC) | SCC Definition |
|---|---|---|
| | | If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply. |
| 8 | STAFF | Any problem or delay to the extent caused by End-User's staff that prevents or delays Contractor's resolution of the problem. In such event, Contractor shall make a timely request to End-User staff to correct the problem or delay and document in trouble ticket. |
| 9 | APPLICATION | End-User software applications that interfere with repair of the trouble. |
| 10 | CPE | Repair/replacement of 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 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 DNCS 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. |

| Line Item | 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 eVAQ General Provisions - Telecommunications, Section 28 (Force Majeure). |
| 15 | CUSTOMER ENVIRONMENTAL | An outage directly caused by customer premise environmental conditions, which are outside the control and responsibility of the Contractor. This includes a non-secured location, excessive heat or lack of cooling. If determined later that the environmental conditions were not the cause of the service outage, or a result of the Contractor modifying Contractor provided equipment without Customer's approval, the Customer Environmental SCC will not apply. |

**Bidder understands the requirements and shall meet or exceed them? Yes**

The Contractor shall provide and manage the following Technical SLAs.

## 23.5.8 Technical Service Level Agreements (SLA)

### 23.5.8.1 Availability (M-S)

**SLA Name:** Availability

**Definition:**

The percentage of time a CALNET MAE 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 individual

affected service (per Circuit ID or Service 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 based on 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 Services

**Objectives:**

The objective will be based on the access type identified in the table below:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's 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 1 Gbps | ≥ 99.2% | ≥ 99.5% | ≥ 99.9% | P |
| EPL and EVPL MAE Service 10 Gbps | ≥ 99.2% | ≥ 99.5% | ≥ 99.9% | P |

**Rights and Remedies:**

1. Per Occurrence:
    - End-User Escalation Process
    - CALNET CMO Escalation Process
2. Monthly Aggregated Measurements:
    - First month to fail to meet the committed SLA objective shall result in a 15% credit or refund of the TMRC.
    - The second consecutive month to fail to meet the committed SLA objective shall result in a 30% credit or refund of TMRC.
    - Each additional consecutive month to fail to meet the committed SLA objective shall result in a 50% credit or refund of the TMRC.

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.2 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 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 or Service ID) affected by the 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 or Service ID) is restored minus SCC. Any service reported by a Customer as not having been restored shall have the outage time adjusted to the actual restoration time.

**Services:**

MAE Service

**Objectives:**

The objective restoral time will be:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---|---|---|---|---|
| MAE Service | ≤ 3 hours | ≤ 2 hours | ≤ 1 hour | S |

**Rights and Remedies:**

1. Per Occurrence:
    - 100% credit or refund of the TMRC for each End-User service not meeting the committed objective for each CAT 1 fault.
2. Monthly Aggregated Measurements:

- N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.3 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 the outage-causing event or the opening of a trouble ticket by the Customer or Contractor, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall compile a list for each End-User service affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID or Service ID) basis from information recorded from the network equipment/system or a Customer reported trouble ticket. Each End-User service (Circuit ID or Service 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.

**Services:**

MAE Service

**Objectives:**

The objective restoral time will be:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---|---|---|---|---|
| MAE Service | ≤ 1 Hour | ≤ 30 Minutes | ≤ 15 Minutes | S |

**Rights and Remedies:**

1. Per Occurrence:
    - 100% credit or refund of the for each End-User service not meeting the committed objective per occurrence objective for a single CAT 2 fault.
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.4 Catastrophic Outage 3 (CAT 3) (M-S)

**SLA Name:** Catastrophic Outage 3 (CAT 3)

**Definition:**

The total loss of more than one service type in central office, or the loss of any service type on a system wide basis.

**Measurement Process:**

The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by the Customer or the Contractor, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall open a trouble ticket and compile a list for each End-User service (Circuit ID or Service ID) affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID or Service ID) basis from information recorded from the network equipment/system or trouble ticket. Each End-User service (Circuit ID or Service 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.

**Services:**

MAE Service

**Objectives:**

The objective restoral time will be:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B or P) |
|---|---|---|---|---|
| MAE Service | ≤ 30 Minutes | N/A | ≤ 15 Minutes | P |

**Rights and Remedies:**

1. Per Occurrence:
    - 100% credit or refund of the TMRC for each service (Circuit ID or Service ID) not meeting the committed objective for each Cat 3 fault.
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.5 Excessive Outage (M-S)

**SLA Name:** Excessive Outage

**Definition:**

Any failure that prevents full functionality of the service 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 not fully functional during the time the trouble ticket is reported as opened until restoration of the service, minus SCC. If the Customer reports a partial or complete service that is not fully functional and remains unresolved after the closure of the trouble ticket by the Contractor, the Unavailable Time shall be adjusted to the actual restoration time.

**Services:**

MAE Service

**Objectives:**

The Unavailable Time objective shall not exceed:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---|---|---|---|---|
| MAE Service | ≤ 16 Hours | ≤ 12 Hours | ≤ 8 Hours | S |

**Rights and Remedies:**

1. Per Occurrence:
    - 100% credit or refund of the TMRC for each service (Circuit ID or Service ID) out of service for a period greater than the committed objective level.
    - Upon request from the Customer or the CALNET Program, the Contractor shall provide a briefing on the excessive outage restoration.
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.6 Notification

**SLA Name:** Notification

**Definition:**

The Contractor notification to the CALNET Program and designated stakeholders in the event of a CAT 2 or CAT 3 failure, terrorist activity, threat of natural disaster, or actual natural disaster which results in a significant loss of telecommunication services to CALNET DNCS End-Users or has the potential to impact services in a general or statewide area. The State understands initial information requiring the nature of the outage may be limited.

**Measurement Process:**

The Contractor shall adhere to the Network Outage Response requirements (SOW Business Requirements Section G.3.3, Network Outage Response) and notify the CALNET Program and designated stakeholders for all CAT 2 and CAT 3 Outages or for network outages resulting in a significant loss of service.

Notification objectives will be based on the start time of the outage failure determined by the opening of a trouble ticket or network alarm, whichever occurs first. For events based on information such as terrorist activity or threat of natural disaster, the Contractor shall notify the CALNET Program and designated stakeholder when information is available for dissemination to the Customers.

**Services:**

All services

**Objectives:**

Within 60 minutes of the above mentioned failures' start time, the Contractor shall notify the CALNET Program and designated stakeholders using a method defined in SOW Business Requirements, Network Outage Response.

At 60-minute intervals, updates shall be given on the above-mentioned failures via the method defined in SOW Business Requirements, Network Outage Response.

This objective is the same for Basic, Standard and Premier Commitments.

**Rights and Remedies:**

1. Per Occurrence:
    - Senior Management Escalation
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.7 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.

**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 and 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.

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.

**Services:**

MAE Service

**Objectives:**

The Unavailable Time objective shall not exceed:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---|---|---|---|---|
| MAE Service | ≤ 75ms | ≤ 50ms | ≤ 25ms | S |

**Rights and Remedies:**

1. Per Occurrence:
    - First month the service fails to meet the committed SLA objectives shall result in a 15% credit or refund of the TMRC for the reported service.
    - Next consecutive month to fail to meet the committed SLA objectives shall result in a 25% credit or refund of the TMRC.
    - Each additional consecutive month to fail to meet the committed SLA objective shall result in a 35% credit or refund of the TMRC.
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.8 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.

**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.

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.

**Services:**

MAE Service

**Objectives:**

The Unavailable Time objective shall not exceed:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---|---|---|---|---|
| MAE Service | ≤ .7% Packet Loss | ≤ .5% Packet Loss | ≤ .2% Packet Loss | P |

**Rights and Remedies:**

1. Per Occurrence:

- First month the service fails to meet the committed SLA objectives shall result in a 15% credit or refund of the TMRC for the reported service.
- Next consecutive month to fail to meet the committed SLA objectives shall result in a 25% credit or refund of the TMRC.
- Each additional consecutive month to fail to meet the committed SLA objective shall result in a 35% credit or refund of the TMRC.

2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.9 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 the Customer and the Contractor documented on the Contractor's order confirmation notification or Contracted Project Work SOW in accordance with SOW Business Requirements Section G.2.5.4, 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 Timeline per SOW Business Requirements Section G.8, Contracted Service Project Work.

**Provisioning SLAs have two objectives:**

Objective 1: Individual service installation; 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 Installations: Install intervals are based on the committed installation intervals established in this SLA or due dates negotiated between the Customer and the Contractor. This objective requires the Contractor to meet the due date for each individual service installation. This includes individual circuit/service level installations for Coordinated and Managed Projects.

Objective 2: Successful Install Monthly Percentage per Service Type: The Contractor shall sum all individual installations per service, as listed below, meeting the objective in the measurement period and divide by the sum of all individual service installations due per service in the measurement period and multiply by 100 to equal the percentage of service installations completed on time. The Contractor must meet or exceed the objective below in order to avoid the rights and remedies.

**Services:**

Features must be installed in conjunction with the service except when listed below:

| Service (Features must be installed with service except when listed below. | Committed Interval Days | Coordinated/Managed Project |
|---|---|---|
| MAE Service | 30 | Coordinated/Managed Project |

**Objectives:**

Objective 1: Individual service installation: Service provisioned on or before the due date per installation Service Request.
Objective 2: Monthly Average percent by service type:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B or P) |
|---|---|---|---|---|
| MAE Service | ≥ 90% | N/A | ≥ 95% | P |

**Rights and Remedies:**

1. Per Occurrence:
    - Objective 1: Individual service installations: 50% of installation fee credited to the Customer for any missed committed objective.

2. Monthly Aggregated Measurements:
    - Objective 2: 100% of the installation fee credited to the Customer for all service installations (per service type) that did not complete within the committed objective during the month if the Successful Install Monthly Percentage is below the committed objective.

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.10 Time to Repair (M-S)

**SLA Name:** Time to Repair

**Definition:**

Any failure that prevents full functionality of the service that remains unresolved for more than the committed objective level.

**Measurement Process:**

This SLA is based on trouble ticket Unavailable Time per service (Circuit ID or Service ID). The circuit or service is not fully functional during the time the trouble ticket is reported as opened until restoration of the service, minus SCC. If the Customer reports a service that is not fully functional and remains 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.

**Services:**

MAE Service

**Objectives:**

The Unavailable Time objective shall not exceed:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---|---|---|---|---|
| MAE Service | ≤ 6 Hours | ≤ 5 Hours | ≤ 4 Hours | B |

**Rights and Remedies:**

1. Per Occurrence:
    - 25% credit or refund of the TMRC for each service (Circuit ID or Service ID) out of service for a period greater than the committed objective level.
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

## 23.5.8.11 Managed Service Proactive Notification

**SLA Name:** Managed Service Proactive Notification

**Definition:**

The proactive outage notification SLA provides credits if the Contractor fails to open a trouble ticket and notify Customer of an Outage for a managed service. Notification to the Customer shall occur through means agreed to by Contractor and CALNET Program.

An Outage is defined as an unscheduled period in which the managed service interrupted and unavailable for use by Customer for 60 continuous seconds or more than 60 cumulative seconds within a 15-minute period measured by the Contractor.

**Measurement Process:**

The Outage Duration start shall be determined by the first Contractor network alarm resulting from the outage-causing event or the opening of a trouble ticket by the Customer, whichever occurs first. The Contractor has fifteen minutes (Notification Period) to open a trouble ticket and notify the Customer from the start point of the first network alarm. The Contractor is in compliance with the proactive outage notification SLA if the Customer opened the trouble ticket prior to the network alarm or Customer is notified by the Contractor within the Notification Period.

**Services:**

MAE Services with Managed Router or IP Enabled Routing Device

**Objectives:**

15 Minutes

**Rights and Remedies:**

1. Per Occurrence:
    - Customer will receive a credit or refund equal to 10% of the TMRC for each Contractor Managed Service (Circuit ID) that was impacted during an outage if the Customer was not proactively notified within the notification period
2. Monthly Aggregated Measurements:
    - N/A

**Bidder understands the requirements and shall meet or exceed them? Yes**

### 23.5.8.12 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 requirements and shall meet or exceed them? Yes**

### 23.5.8.13 Proposed Unsolicited Offerings

The Contractor shall provide SLAs as defined in SLA Section 23.5.8 for each unsolicited offering determined by the CALNET Program 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 requirements and shall meet or exceed them? Yes**

### 23.5.8.14 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 Section 23.5.8.

**Bidder understands the requirements and shall meet or exceed them? Yes**