

INVITATION FOR BID
IFB C4DNCS19
Data Networks and Communications Services
CATEGORY 23 – METROPOLITAN AREA
NETWORK ETHERNET
NWN Corporation
Statement of Work
TECHNICAL REQUIREMENTS
January 14, 2020
Addendum #5
Issued by:
STATE OF CALIFORNIA
California Department of Technology Statewide
Procurement
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ADDENDUM LOG

Addendum #	Date	Addendum Description
2	11/22/19	Modified Stop Clock Condition Table to include Customer Environmental
3	12/5/19	Modified language in Table 23.2.1.7.a. Modified language in Section 23.5.8.9 Provisioning SLA.
5	1/14/20	Table 23.2.1.7 – Modified Table Header.

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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 1112;

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
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 Contractor'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.		ATS-B-EPL-100M	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.		ATS-B-EPL-100MR	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.		ATS-B-EPL-1G	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.		ATS-B-EPL-1GR	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.		ATS-B-EPL-10GE	Yes

Line Item	Feature Name	Feature Description	Bidder's Product 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.		ATS-B-EPL-10GER	Yes
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.		ATS-B-EVPL-100M	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
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.		ATS--B-EVPL-100MR	Yes
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.		ATS-B-EVPL-1G	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
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.		ATS-B-EVPL-1GR	Yes
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.		ATS-B-EVPL-10GE	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
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.		ATS-B-EVPL-10GER	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)	<p>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.</p>		ATS-AddMac-100	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.		ATS-Pro-EVC	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.		ATS-B-CIRB-2M	Yes
2	BASIC CIR MAE - 4 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-4M	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Restrictions and Limitations	Bidder's Product Identifier	Meets or Exceeds? Yes or No
3	BASIC CIR MAE - 5 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-5M	Yes
4	BASIC CIR MAE - 8 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-8M	Yes
5	BASIC CIR MAE - 10 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-10M	Yes
6	BASIC CIR MAE - 20 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-20M	Yes
7	BASIC CIR MAE - 50 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-50M	Yes
8	BASIC CIR MAE - 100 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-100M	Yes
9	BASIC CIR MAE - 150 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-150M	Yes
10	BASIC CIR MAE - 200 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-200M	Yes
11	BASIC CIR MAE - 250 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-250M	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	BASIC CIR MAE - 400 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-400M	Yes
13	BASIC CIR MAE - 500 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-500M	Yes
14	BASIC CIR MAE - 600 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-600M	Yes
15	BASIC CIR MAE - 1 Gbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-1G	Yes
16	BASIC CIR MAE - 10 Gbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRB-10G	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.		ATS-B-CIRPri-2M	Yes
2	PRIORITY CIR MAE - 4 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-4M	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Meets or Exceeds? Yes or No
3	PRIORITY CIR MAE - 5 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-5M	Yes
4	PRIORITY CIR MAE - 8 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-8M	Yes
5	PRIORITY CIR MAE - 10 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-10M	Yes
6	PRIORITY CIR MAE - 20 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-20M	Yes
7	PRIORITY CIR MAE - 50 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-50M	Yes
8	PRIORITY CIR MAE - 100 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-100M	Yes
9	PRIORITY CIR MAE - 150 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-150M	Yes
10	PRIORITY CIR MAE - 200 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-200M	Yes
11	PRIORITY CIR MAE - 250 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-250M	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.		ATS-B-CIRPri-400M	Yes
13	PRIORITY CIR MAE - 500 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-500M	Yes
14	PRIORITY CIR MAE - 600 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-600M	Yes
15	PRIORITY CIR MAE - 1 Gbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-1G	Yes
16	PRIORITY CIR MAE - 10 Gbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPri-10G	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.		ATS-B-CIRPre-2M	Yes
2	PREMIUM CIR MAE - 4 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-4M	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Meets or Exceeds? Yes or No
3	PREMIUM CIR MAE - 5 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-5M	Yes
4	PREMIUM CIR MAE - 8 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-8M	Yes
5	PREMIUM CIR MAE - 10 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-10M	Yes
6	PREMIUM CIR MAE - 20 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-20M	Yes
7	PREMIUM CIR MAE - 50 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-50M	Yes
8	PREMIUM CIR MAE - 100 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-100M	Yes
9	PREMIUM CIR MAE - 150 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-150M	Yes
10	PREMIUM CIR MAE - 200Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-200M	Yes
11	PREMIUM CIR MAE - 250 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-250M	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	PREMIUM CIR MAE - 400 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-400M	Yes
13	PREMIUM CIR MAE - 500 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-500M	Yes
14	PREMIUM CIR MAE - 600 Mbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-600M	Yes
15	PREMIUM CIR MAE -1 Gbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-1G	Yes
16	PREMIUM CIR MAE - 10 Gbps	The guaranteed average bandwidth of the virtual circuit.		ATS-B-CIRPre-10G	Yes

23.2.1.6.3 MAE Backup Options

The Contractor may provide LTE backup services for Managed Equipment in the unsolicited Section 23.2.1.6.4. The Contractors LTE service shall use current CALNET Cellular provider services through resale, teaming, partnership or other agreements. The Contractor may offer multiple Contractor options.

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
	Add-On Device to provide client with Internet Access from Core MAE Infrastructure - Procured with MAE Section 23.2.1.6 Services - (MRC is Annual Subscription)		

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
1	Bundled Internet Access - 5Mbps	ATS-B-Int-MPLS5M	NWN Support Services - (Annual Subscription)
2	Bundled Internet Access - 10Mbps	ATS-B-Int-MPLS10M	NWN Support Services - (Annual Subscription)
3	Bundled Internet Access - 20Mbps	ATS-B-Int-MPLS20M	NWN Support Services - (Annual Subscription)
4	Bundled Internet Access - 50Mbps	ATS-B-Int-MPLS50M	NWN Support Services - (Annual Subscription)
5	Bundled Internet Access - 100Mbps	ATS-B-Int-MPLS100M	NWN Support Services - (Annual Subscription)
6	Bundled Internet Access - 200Mbps	ATS-B-Int-MPLS200M	NWN Support Services - (Annual Subscription)
7	Bundled Internet Access - 500Mbps	ATS-B-Int-MPLS500M	NWN Support Services - (Annual Subscription)
8	Bundled Internet Access - 1Gbps	ATS-B-Int-MPLS1G	NWN Support Services - (Annual Subscription)
9	Bundled Internet Access - 2Gbps	ATS-B-Int-MPLS2G	NWN Support Services - (Annual Subscription)
10	Bundled Internet Access - 5Gbps	ATS-B-Int-MPLS5G	NWN Support Services - (Annual Subscription)
11	Bundled Internet Access - 10Gbps	ATS-B-Int-MPLS10G	NWN Support Services - (Annual Subscription)
12	NWN Provided Provisioning Services	ATS-Pro-Circuit-DIA-Pro	Installation of a Direct Internet Access Circuit, Validation of Carrier IP Addressing and Configuration, Confirmation of Traffic Transmittance across Circuit (if Procured after installation of MANe)
Network Assessments and Survey Services - Procured in conjunction with All MAE Services - Professional Services Performed during Regular Hours 8:00 to 5:00 PST			
13	NWN Advanced Professional Services	ATS-Pro-LAN-ADV-Services	Professional Services (CCIE-Level) for Network Health Projects Per Project Basis (1-week of Professional Services, Regular Hours)
14	Network Assessment, Custom Report - Basic Set	ATS-Pro-LAN-Assess	Network Assessment - Basic Set

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
15	Assessment (Circuit)	ATS-Pro-Circuit-Assess	Analyze Customer's Existing WAN, Provide Documentation including Alternative Options to Support Customer Network Health
16	Active Wireless Survey - Office	ATS-Pro-WLAN-Survey-Active-Office-LV	Up to 1800 square feet of Location or Voice Coverage
17	Active Wireless Survey - Education	ATS-Pro-WLAN-Survey-Active-Ed-LV	Up to 1800 square feet of Location or Voice Coverage
18	Active Wireless Survey - Healthcare/Medical	ATS-Pro-WLAN-Survey-Active-Med-LV	Up to 1800 square feet of Location or Voice Coverage
19	Active Wireless Survey - Warehouse	ATS-Pro-WLAN-Survey-Active-Whse-LV	Up to 1800 square feet of Location or Voice Coverage
20	Network Assessment - Custom Report	ATS-Support-LAN-Assess	Per SOW, as part of Support Enablement
Network Services for Customer Owned Equipment - Procured in conjunction with MAE Services - Professional Services performed during Regular Hours 8:00 to 5:00			
21	NWN Provided Setup Acceleration Services	ATS-Pro-Circuit-Setup	Simplify Communications Carrier and Customer to Complete installation (New direct internet access or MAE Circuit)
22	Router - Configuration & Installation Services (New)	ATS-Pro-LAN-RT-Config&Pro-Green	
23	Router - Configuration & Installation Services (Existing)	ATS-Pro-LAN-RT-Config&Pro-Brown	Includes Removal of Existing Router and Replacement of Customer Owned Router
24	Router - Enablement Services for NWN Customer Success Services	ATS-Enable-LAN-M-Router	for Customer Owned Router
25	Router - NWN Customer Success Services (Monitoring Only)	ATS-Support-LAN-M-Router	NWN Support Services - Monitoring Only (Annual Subscription) for Customer Owned Equipment Only

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
26	Router - NWN Customer Success Services (Monitor & Management)	ATS-Support-LAN-MM-Router	NWN Support Services - Monitor & Management (Annual Subscription) for Customer Owned Equipment Only
NWN SD-WAN Services Customer Owned - Procured in conjunction with MAE Services - Professional Services performed during Regular Hours 8:00 to 5:00			
27	SD-WAN Cloud Dashboard - Setup & Configuration Services	ATS-Pro-SDWAN-Cloud-Mgmt	
28	SD-WAN Cloud Dashboard - Enablement for NWN Customer Success Services	ATS-Enable-SDWAN-MM-CloudMgmt	
29	SD-WAN Cloud Dashboard - NWN Customer Success Services	ATS-Support-SDWAN-MM-CloudMgmt	NWN Support Services - (Annual Subscription)
30	On-Premise SD-WAN - Setup & Configuration Services	ATS-Pro-SDWAN-Prem-Mgmt	
31	On-Premise SD-WAN - Enablement for NWN Customer Success Services	ATS-Enable-SDWAN-MM-OnPremMgmt	
32	On-Prem SD-WAN - NWN Customer Success Services	ATS-Support-SDWAN-MM-OnPremMgmt	NWN Support Services - (Annual Subscription)
33	Edge Device - Installation & Configuration Services	ATS-Pro-SDWAN-Edge	
34	Edge Device - Enablement for NWN Customer Success Services	ATS-Enable-SDWAN-MM-Edge	
35	Edge Device - NWN Customer Success Services	ATS-Support-SDWAN-MM-Edge	NWN Support Services - (Annual Subscription)

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
36	Port Change Request for Circuit	ATS-P-Port-Change	
37	Port Expedite Request	ATS-P-Port-Exp	
38	One Static IP address	ATS-P-IPAddress1S	NWN Support Services - (Annual Subscription)
39	Five Static IP addresses	ATS-P-IPAddress5S	NWN Support Services - (Annual Subscription)
40	Twenty-nine Static IP addresses	ATS-P-IPAddress29S	NWN Support Services - (Annual Subscription)
41	Sixty-one Static IP addresses	ATS-P-IPAddress61S	NWN Support Services - (Annual Subscription)
42	One hundred twenty-five Static IP addresses	ATS-P-IPAddress125S	NWN Support Services - (Annual Subscription)
43	Two hundred fifty-three Static IP addresses	ATS-P-IPAddress253S	NWN Support Services - (Annual Subscription)
44	Mobile Connection 10M	ATS-P-MC10	NWN Support Services - (Annual Subscription)
45	Mobile Connection 20M	ATS-P-MC20	NWN Support Services - (Annual Subscription)
46	Mobile Connection 50M	ATS-P-MC50	NWN Support Services - (Annual Subscription)
47	Mobile Connection 100M	ATS-P-MC100	NWN Support Services - (Annual Subscription)
48	Mobile Connection 250M	ATS-P-MC250	NWN Support Services - (Annual Subscription)
49	Mobile Connection 500M	ATS-P-MC500	NWN Support Services - (Annual Subscription)
50	Setup for Mobile Connection	ATS-PRO-MC	
51	Upgrade from managed MPLS router to managed SD-WAN appliance - 10M or less	ATS-P-SDWAN-Add10M	NWN Support Services - (Annual Subscription)

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
52	Upgrade from managed MPLS router to managed SD-WAN appliance - 50M or less	ATS-P-SDWAN-Add50M	NWN Support Services - (Annual Subscription)
53	Upgrade from managed MPLS router to managed SD-WAN appliance - 100M or less	ATS-P-SDWAN-Add100M	NWN Support Services - (Annual Subscription)
54	Upgrade from managed MPLS router to managed SD-WAN appliance - 200M or less	ATS-P-SDWAN-Add200M	NWN Support Services - (Annual Subscription)
55	Upgrade from managed MPLS router to managed SD-WAN appliance - 500M or less	ATS-P-SDWAN-Add500M	NWN Support Services - (Annual Subscription)
56	Upgrade from managed MPLS router to managed SD-WAN appliance - 1GM or less	ATS-P-SDWAN-Add1G	NWN Support Services - (Annual Subscription)
NWN DDoS Services Customer Owned - Procured in conjunction with MAE Services - Professional Services performed in Regular Hours 8:00 to 5:00			
57	Bronze DDoS QuickStart Services	SEC-3PS-QS-Bronze	Basic Remote Installation and Training
58	Silver DDoS QuickStart Services	SEC-3PS-QS-Silver	On-site Installation, Consulting and Training
59	Gold DDoS QuickStart Services	SEC-3PS-QS-Gold	On-site Installation, Project Manager, Consulting and Custom Training
60	DDoS Behavioral Protection - 200Mbps	SEC-Partner-DPro-200M	for IoT Cloud Bot, NG DNS and Burst attacks; IPS, NBA and DoS Protection and IPS Appliance Bundle

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
61	DDoS Behavioral Protection - 500Mbps	SEC-Partner-DPro-500M	for IoT Cloud Bot, NG DNS and Burst attacks; IPS, NBA and DoS Protection and IPS Appliance Bundle
62	DDoS Behavioral Protection - 1Gbps	SEC-Partner-DPro-1G	for IoT Cloud Bot, NG DNS and Burst attacks; IPS, NBA and DoS Protection and IPS Appliance Bundle
63	DDoS Behavioral Protection - 2Gbps	SEC-Partner-DPro-2G	for IoT Cloud Bot, NG DNS and Burst attacks; IPS, NBA and DoS Protection and IPS Appliance Bundle
64	DDoS Behavioral Protection - 3Gbps	SEC-Partner-DPro-3G	for IoT Cloud Bot, NG DNS and Burst attacks; IPS, NBA and DoS Protection and IPS Appliance Bundle
65	DDoS Behavioral Protection - 5Gbps	SEC-Partner-DPro-5G	for IoT Cloud Bot, NG DNS and Burst attacks; IPS, NBA and DoS Protection and IPS Appliance Bundle
66	Silver Shield Training Package	SEC-3PS-Shield-Silver	Add-On Training Silver Shield Package - 64 Hours of Training and Workshops (Scope not Required)
67	Gold Shield Training Package	SEC-3PS-Shield-Gold	Add-On Training Gold Shield Package - 168 Hours of Training and Workshops (Scope not Required)
68	Platinum Shield Training Package	SEC-3PS-Shield-Platinum	Add-On Training Platinum Shield Package - 360 Hours of Training and Workshops (Scope not Required)
69	DDoS NWN Customer Success Services - 200Mbps	SEC-3PS-DProS-200M	NWN Support Services for DDoS Behavioral Protection and IPS - (Annual Subscription)
70	DDoS NWN Customer Success Services - 500Mbps	SEC-3PS-DProS-500M	NWN Support Services for DDoS Behavioral Protection and IPS - (Annual Subscription)
71	DDoS NWN Customer Success Services - 1Gbps	SEC-3PS-DProS-1G	NWN Support Services for DDoS Behavioral Protection and IPS - (Annual Subscription)

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
72	DDoS NWN Customer Success Services - 2Gbps	SEC-3PS-DProS-2G	NWN Support Services for DDoS Behavioral Protection and IPS - (Annual Subscription)
73	DDoS NWN Customer Success Services - 3Gbps	SEC-3PS-DProS-3G	NWN Support Services for DDoS Behavioral Protection and IPS - (Annual Subscription)
74	DDoS NWN Customer Success Services - 5Gbps	SEC-3PS-DProS-5G	NWN Support Services for DDoS Behavioral Protection and IPS - (Annual Subscription)
75	Emergency Response Team (ERT) Gold Protection Package - 200Mbps	SEC-3PS-GP-DP200	Add-On Annual Maintenance Subscription
76	Emergency Response Team (ERT) Gold Protection Package - 500Mbps	SEC-3PS-GP-DP500	Add-On Annual Maintenance Subscription
77	Emergency Response Team (ERT) Gold Protection Package - 1Gbps	SEC-3PS-GP-DP1	Add-On Annual Maintenance Subscription
78	Emergency Response Team (ERT) Gold Protection Package - 2Gbps	SEC-3PS-GP-DP2	Add-On Annual Maintenance Subscription
79	Emergency Response Team (ERT) Gold Protection Package - 3Gbps	SEC-3PS-GP-DP3	Add-On Annual Maintenance Subscription
80	Emergency Response Team (ERT) Gold Protection Package - 5Gbps	SEC-3PS-GP-DP5	Add-On Annual Maintenance Subscription
NWN Security "Firewall" Services Customer Owned - Procured in conjunction with MAE Services - Professional Services performed during Regular Hours 8:00 to 5:00			

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
81	Installation & Configuration - NextGen Firewall Standalone	SEC-Pro-NGFW-BASE	Installation & Configuration for Any of the Following: NextGen Firewall Standalone, Firewall Standalone, or Meraki MX
82	NextGen Firewall Standalone - Enablement Services	SEC-Enable-NGFW-FW-Standalone	Enablement Services for NWN Customer Success Support Services
83	NextGen Firewall Standalone - Customer Success Services	SEC-Support-NGFW-FW-Standalone	NWN Customer Success Support Services (Annual Subscription)
84	Firewall Standalone - Enablement	SEC-Enable-MSR-FW-Std	Enablement Services for NWN Customer Success Support Services
85	Firewall Standalone - Customer Success Service	SEC-Support-MSR-FW-Std	NWN Customer Success Support Services (Annual Subscription)
86	Firewall Standalone, Meraki MX - Enablement	SEC-Enable-MerakiMX-Standalone	Enablement Services for NWN Customer Success Support Services
87	Firewall Standalone, Meraki MX - Customer Success Services	SEC-Support-MerakiMX-Standalone	NWN Customer Success Support Services (Annual Subscription)
88	Management Console Standalone - Installation & Configuration	SEC-Pro-FMC-BASE	
89	Management Console Standalone - Enablement	SEC-Enable-NGFW-FMC-Standalone	Enablement Services for NWN Customer Success Support Services
90	Management Console Standalone - Customer Success Services	SEC-Support-NGFW-FMC-Standalone	NWN Customer Success Support Services (Annual Subscription)
91	NextGen Firewall Maintenance Bundle, Small	SEC-Partner-FW-S	Add-On Annual Maintenance - NextGen Firewall Appliance Bundle, Small (5 Year Threat Defense Subscription)

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
92	NextGen Firewall Maintenance Bundle, Medium	SEC-Partner-FW-M	Add-On Annual Maintenance - NextGen Firewall Appliance Bundle, Medium (5 Year Threat Defense Subscription)
93	NextGen Firewall Maintenance Bundle, Large	SEC-Partner-FW-L	Add-On Annual Maintenance - NextGen Firewall Appliance Bundle, Large (5 Year Threat Defense Subscription)
94	Installation & Configuration - HA Pair NextGen Firewall	SEC-Pro-NGFW-BASE-HA	Installation & Configuration for Any of the Following: HA Pair - NextGen Firewall Standalone, Firewall Standalone, or Meraki MX
95	NextGen Firewall HA Pair - Enablement	SEC-Enable-NGFW-FW-HAPair	Enablement Services for NWN Customer Success Support Services
96	NextGen Firewall HA Pair - Customer Success Services	SEC-Support-NGFW-FW-HAPair	NWN Customer Success Support Services (Annual Subscription)
97	Firewall HA Pair Meraki MX - Enablement	SEC-Enable-MerakiMX-HAPair	Enablement Services for NWN Customer Success Support Services
98	Firewall HA Pair Meraki MX - Customer Success Services	SEC-Support-MerakiMX-HAPair	NWN Customer Success Support Services (Annual Subscription)
99	Firewall HA Pair - Enablement	SEC-Enable-MSR-FW-HA	Enablement Services for NWN Customer Success Support Services
100	Firewall HA Pair - Customer Success Services	SEC-Support-MSR-FW-HA	NWN Customer Success Support Services (Annual Subscription)
101	Management Console HA Pair - Installation & Configuration	SEC-Pro-FMC-BASE-HA	
102	Management Console HA Pair - Enablement	SEC-Enable-NGFW-FMC-HAPair	Enablement Services for NWN Customer Success Support Services

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
103	Management Console HA Pair - Customer Success Services	SEC-Support-NGFW-FMC-HAPair	NWN Customer Success Support Services (Annual Subscription)
104	Firewall HA Pair Maintenance Bundle, Small	SEC-Partner-FWHA-S	Add-On Annual Maintenance - Firewall HA Pair Appliance Bundle, Small (5 Year Threat Defense Subscription)
105	Firewall HA Pair Maintenance Bundle, Medium	SEC-Partner-FWHA-M	Add-On Annual Maintenance - Firewall HA Pair Appliance Bundle, Medium (5 Year Threat Defense Subscription)
106	Firewall HA Pair Maintenance Bundle, Large	SEC-Partner-FWHA-L	Add-On Annual Maintenance - Firewall HA Pair Appliance Bundle, Large (5 Year Threat Defense Subscription)
107	Security Management Appliance - Installation & Configuration Services	SEC-Pro-SMA-BSE	Includes Install of Appliance or Virtual Machine, Licensing, Threat Response, Registration of WSA, if applicable. Customer responsible for Licensing and Hardware
108	Web Security Environment - Installation & Configuration Services	SEC-Pro-WSA-Base	For 2 Node
109	Policies - Installation & Configuration Services	SEC-Pro-WSA-Add-Policy	Installation & Configuration Services Policies to Environment and Testing
110	NWN Migration Services - ASA to NGFW	SEC-Pro-NGFW-Migration	Prepare Firewall Configure from ASA to NGFW
111	NWN Adoption Services - NextGen Firewall	SEC-Support-ADP-NGFW-1YR	NWN Adoption Services - Next Generation Firewall Deployment Per HA Pair (Annual Subscription)
112	Healthcheck Services - Existing H.A. Pair	SEC-Pro-HCK-NGFW	Healthcheck Services for Existing Next Gen Firewall Deployment - per H.A. Pair

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
113	Healthcheck Services HA Pair-Customer Success Services	SEC-Support-HCK-NGFW-1YR	Healthcheck Support Services - Next Gen Firewall Deployment Per HA Pair (Annual Subscription)
114	Management Center for Firewall - Customer Success Service	SEC-Partner-FWMC	NWN Customer Success Support Services (Annual Subscription)
115	Umbrella Security Appliance and Subscription - Customer Success Service	SEC-Partner-Umbrella	NWN Customer Success Support Services - Umbrella Only (Annual Subscription)
NWN Security Services (Customer Owned Equipment) - Professional Services performed during Regular Hours 8:00 to 5:00			
116	Healthcheck Services - Umbrella	SEC-Pro-HCK-UMB	Healthcheck Services for Umbrella Deployment
117	Healthcheck Services -ISE Deployment	SEC-Pro-HCK-ISE	Healthcheck Services for ISE Deployment
118	Healthcheck Services - WSA Deployment	SEC-Pro-HCK-WSA	Healthcheck Services for WSA Deployment
119	Router (Security) - Enablement	SEC-Enable-MSR-Router	Enablement Services for NWN Customer Success Support Services
120	Router (Security) - Customer Success Services	SEC-Support-MSR-Router	NWN Customer Success Support Services (Annual Subscription)
121	VPN Site to Site - Installation and Configuration Services	SEC-Pro-NGFW-S2SVPN	Single Site to Site VPN Profile on NGFW - Installation and Configuration Services
122	VPN Remote Access - Installation and Configuration	SEC-Pro-NGFW-RAVPN	Single Remote Access VPN Profile on NGFW - Installation and Configuration
123	ISE Wireless & VPN Deployment - Installation & Configuration Services	SEC-Pro-ISE-Base-WLAN-VPN	ISE Wireless & VPN Deployment for 2 Nodes up to 10 Policies/50 TACACS+ Switches + 1 Cutover/Support Day - Installation & Configuration Services

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
124	ISE Wireless & VPN Use Case - Enablement	SEC-Enable-ISE-WLAN-VPN	ISE Wireless & VPN Use Case, includes 2 Nodes - Enablement Services for NWN Customer Success Support Services
125	ISE Wireless & VPN Use Case - Customer Success Services (Annual Subscription)	SEC-Support-ISE-WLAN-VPN	ISE Wireless & VPN Use Case, 2 Nodes - NWN Customer Success Support Services (Annual Subscription)
126	Wired ISE - Configuration Services	SEC-Pro-ISE-Add-Wired-Base	Wired ISE to an existing WLAN/VPN ISE, 50 Switches/3 Cutover/Support Windows, 10 Profiles/Policies - Configuration Services
127	Node - Configuration Services	SEC-Pro-ISE-Add-Node	Configuration Services for 1 Node
128	Switches ISE - Configuration Services	SEC-Pro-ISE-Add-Switch-TACACS+	Configuration Services for 50 switches to an ISE TACACS+/SGT
129	Switches ISE 802.1x - Configuration Services	SEC-Pro-ISE-Add-Switch-WIRED	Configuration Services for 50 switches to an ISE 802.1x
130	Configuration and Testing Services - Authorization Policy	SEC-Pro-ISE-ADD-POLICY	Configuration and Testing Services for 1 Authorization Policy
131	Configuration and Testing Services - Custom Device Profile	SEC-Pro-ISE-ADD-PROFILE	Configuration and Testing Services for 1 Custom Device Profile
132	Configuration and Testing Services - Umbrella (Only)	SEC-Pro-UMB-ADD-API	Configuration and Testing Services for Umbrella Advanced Reporting and Enforcement API with 3rd Party (Umbrella Only)
133	MFA Portal and Administration - Basic	SEC-Pro-MFA-BSE	Basic Setup, Configuration, and Installation Services for MFA Portal and Administration
134	SSO Applications Integration Services	SEC-Pro-MFA-POLICY	Configuration and Installation Services for 3 SSO Applications and 1 x Directory Integration

Line Item	Feature Name	Bidder's Product Identifier	Bidder's Product Description, Restrictions and Limitations
135	Access Control Policies - Configuration and Installation Services	SEC-Pro-MFA-ACCESS	Configuration and Installation Services for Access Control Policies, Limit External and Internal Connectivity
136	Differentiated Services - Configuration and Installation Services	SEC-Pro-MFA-BYOD-DIFF	Configuration and Installation Services for BYOD and Differentiated Services, Policy for Securing Remote Access to SSH/Internal Hosts, and Policy to Secure remote access to AWS/Azure
137	Threat Defense Remote - Configuration and Installation Services	SEC-Pro-MFA-RAVPN-FTD	Configuration and Installation Services for Threat Defense Remote Access VPN
138	ASA Remote - Configuration and Installation Services	SEC-Pro-MFA-RAVPN-ASA	Configuration and Installation Services for MFA and Cisco ASA Remote Access VPN
139	Annual Yearly Optimization Certification Updates	SEC-Partner-QS-Annual	Annual Checkup for Yearly Optimization and Training Certification Updates (Annual Subscription)
140	Mobile Connection data usage - 5GB	ATS-P-MCUsage5Gb	Monthly data device usage up to 5GB for mobile backup connection
141	Mobile Connection data usage - 10GB	ATS-P-MCUsage10Gb	Monthly data device usage up to 10GB for mobile backup connection
142	Mobile Connection data usage - 1G Overage	ATS-P-MCOver1G	Pay per use data rate when exceeding monthly plan

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 - 692	Please see List Below	Yes	Yes	Yes	Yes	Yes	Yes

Line Item	Service Location – City or ZIP Code	Line Item	Service Location – City or ZIP Code	Line Item	Service Location – City or ZIP Code	Line Item	Service Location – City or ZIP Code	Line Item	Service Location – City or ZIP Code
1	Los Angeles	141	Chula Vista	281	Fountain Valley	421	Millbrae	561	Winton
2	West Hollywood	142	Imperial Beach	282	Tustin	422	Mountain View	562	Santa Rosa
3	Playa Vista	143	Jamul	283	Anaheim	423	Pacifica	563	Cazadero
4	Bell Gardens	144	La Mesa	284	Brea	424	Redwood City	564	Clearlake
5	Beverly Hills	145	Lemon Grove	285	Fullerton	425	San Bruno	565	Cloverdale
6	Compton	146	National City	286	Garden Grove	426	San Carlos	566	Forestville
7	Culver City	147	Spring Valley	287	Norco	427	South San Francisco	567	Fort Bragg
8	Downey	148	Tecate	288	Orange	428	Sunnyvale	568	Geyserville
9	El Segundo	149	Bonsall	289	Placentia	429	San Francisco	569	Glen Ellen
10	Gardena	150	Cardiff By The Sea	290	Corona	430	Palo Alto	570	Gualala
11	Hawthorne	151	Carlsbad	291	Yorba Linda	431	Stanford	571	Guerneville
12	Hermosa Beach	152	Del Mar	292	Ventura	432	San Mateo	572	Healdsburg
13	Huntington Park	153	El Cajon	293	Camarillo	433	Alameda	573	Kelseyville
14	Lawndale	154	Encinitas	294	Carpinteria	434	American Canyon	574	Kenwood
15	Lynwood	155	Escondido	295	Fillmore	435	Danville	575	Lakeport
16	Malibu	156	Fallbrook	296	Moorpark	436	Alamo	576	Lower Lake
17	Manhattan Beach	157	Julian	297	Oak View	437	Angwin	577	Middletown
18	Maywood	158	La Jolla	298	Ojai	438	Antioch	578	Monte Rio
19	Pacific Palisades	159	Lakeside	299	Oxnard	439	Benicia	579	Occidental
20	Palos Verdes Peninsula	160	Oceanside	300	Piru	440	Brentwood	580	Philo
21	Rancho Palos Verdes	161	Camp Pendleton	301	Port Hueneme	441	Byron	581	Hidden Valley Lake
22	Redondo Beach	162	Pala	302	Santa Paula	442	Calistoga	582	Redwood Valley

23	South Gate	163	Pauma Valley	303	Simi Valley	443	Concord	583	Sebastopol
24	Topanga	164	Poway	304	Brandeis	444	Pleasant Hill	584	Sonoma
25	Venice	165	Ramona	305	Somis	445	Crockett	585	Ukiah
26	Marina Del Rey	166	Rancho Santa Fe	306	Santa Barbara	446	El Cerrito	586	Upper Lake
27	Playa Del Rey	167	San Marcos	307	Goleta	447	Fairfield	587	Willits
28	Inglewood	168	Santa Ysabel	308	Armona	448	Fremont	588	Windsor
29	Santa Monica	169	Santee	309	Arvin	449	Hayward	589	Eureka
30	Torrance	170	Solana Beach	310	Avenal	450	Castro Valley	590	Mckinleyville
31	Whittier	171	Vista	311	Coalinga	451	Hercules	591	Arcata
32	Buena Park	172	Valley Center	312	Corcoran	452	Lafayette	592	Crescent City
33	La Palma	173	San Diego	313	Delano	453	Livermore	593	Fortuna
34	Cypress	174	Coronado	314	Ducor	454	Martinez	594	Garberville
35	La Habra	175	San Ysidro	315	Earlimart	455	Moraga	595	Loleta
36	La Mirada	176	Indio	316	Exeter	456	Napa	596	Redway
37	Montebello	177	Indian Wells	317	Pine Mountain Club	457	Newark	597	Scotia
38	Norwalk	178	Palm Desert	318	Farmersville	458	Oakley	598	Smith River
39	Pico Rivera	179	Banning	319	Frazier Park	459	Orinda	599	Trinidad
40	Santa Fe Springs	180	Beaumont	320	Hanford	460	Pinole	600	Auburn
41	Stanton	181	Blythe	321	Kettleman City	461	Pittsburg	601	West Sacramento
42	Artesia	182	Brawley	322	Lake Isabella	462	Pleasanton	602	Brooks
43	Cerritos	183	Cabazon	323	Lamont	463	Dublin	603	Carmichael
44	Avalon	184	Calexico	324	Lebec	464	Rio Vista	604	Citrus Heights
45	Bellflower	185	Calipatria	325	Lemoore	465	Rodeo	605	Clarksburg
46	Harbor City	186	Cathedral City	326	Lindsay	466	Rutherford	606	Coloma
47	Lakewood	187	Coachella	327	Mc Farland	467	Saint Helena	607	Davis
48	Hawaiian Gardens	188	Desert Hot Springs	328	Porterville	468	Deer Park	608	Diamond Springs
49	Lomita	189	El Centro	329	Richgrove	469	San Leandro	609	Dixon
50	Los Alamitos	190	Heber	330	Shafter	470	San Lorenzo	610	Elk Grove
51	Paramount	191	Holtville	331	Stratford	471	San Ramon	611	Fair Oaks
52	San Pedro	192	Imperial	332	Strathmore	472	Suisun City	612	Folsom
53	Seal Beach	193	Joshua Tree	333	Taft	473	Sunol	613	Galt
54	Sunset Beach	194	La Quinta	334	Three Rivers	474	Union City	614	Garden Valley
55	Wilmington	195	Mecca	335	Tulare	475	Vallejo	615	Georgetown
56	Carson	196	Niland	336	Visalia	476	Walnut Creek	616	Herald
57	Signal Hill	197	North Palm Springs	337	Wasco	477	Yountville	617	Ione
58	Long Beach	198	Palm Springs	338	Woodlake	478	Oakland	618	Jackson
59	Altadena	199	Rancho Mirage	339	Bakersfield	479	Emeryville	619	Lincoln
60	Arcadia	200	Thermal	340	San Luis Obispo	480	Berkeley	620	Loomis
61	Duarte	201	Salton City	341	Los Osos	481	Albany	621	McClellan
62	La Canada Flintridge	202	Thousand Palms	342	Arroyo Grande	482	Richmond	622	Madison
63	Monrovia	203	Twentynine Palms	343	Atascadero	483	El Sobrante	623	Mather
64	Montrose	204	Whitewater	344	Buellton	484	San Pablo	624	Newcastle

65	Sierra Madre	205	Winterhaven	345	Cambria	485	San Rafael	625	North Highlands
66	South Pasadena	206	Yucca Valley	346	Cayucos	486	Greenbrae	626	Roseville
67	Sunland	207	Adelanto	347	Grover Beach	487	Belvedere Tiburon	627	Orangevale
68	Tujunga	208	Apple Valley	348	Guadalupe	488	Corte Madera	628	Placerville
69	Pasadena	209	Baker	349	Lompoc	489	Rohnert Park	629	Pleasant Grove
70	San Marino	210	Barstow	350	Los Alamos	490	Dillon Beach	630	Rancho Cordova
71	Glendale	211	Grand Terrace	351	Los Olivos	491	Cotati	631	Rescue
72	La Crescenta	212	Big Bear Lake	352	Morro Bay	492	Larkspur	632	Rio Linda
73	Agoura Hills	213	Bloomington	353	Nipomo	493	Marshall	633	Rocklin
74	Calabasas	214	Blue Jay	354	Paso Robles	494	Mill Valley	634	Shingle Springs
75	Canoga Park	215	Calimesa	355	Pismo Beach	495	Novato	635	Sloughhouse
76	Winnetka	216	Cedar Glen	356	San Ardo	496	Nicasio	636	Vacaville
77	West Hills	217	Cedarpines Park	357	Santa Margarita	497	Petaluma	637	Wheatland
78	Chatsworth	218	Colton	358	Santa Maria	498	Point Reyes Station	638	Winters
79	Encino	219	Crestline	359	Santa Ynez	499	Ross	639	Woodland
80	Newbury Park	220	Daggett	360	Shandon	500	San Anselmo	640	Camino
81	Newhall	221	Essex	361	Solvang	501	Sausalito	641	Colfax
82	Northridge	222	Fontana	362	Templeton	502	Woodacre	642	Pollock Pines
83	Porter Ranch	223	Hesperia	363	Mojave	503	Alviso	643	Granite Bay
84	Pacoima	224	Highland	364	California City	504	Aptos	644	El Dorado Hills
85	Reseda	225	Lake Arrowhead	365	Acton	505	Boulder Creek	645	Sacramento
86	San Fernando	226	Loma Linda	366	Bishop	506	Campbell	646	Antelope
87	Sylmar	227	Lucerne Valley	367	Boron	507	Capitola	647	Marysville
88	North Hills	228	Lytle Creek	368	Bridgeport	508	Castroville	648	Beale Afb
89	Granada Hills	229	Mentone	369	Edwards	509	Cupertino	649	Alleghany
90	Mission Hills	230	Needles	370	Independence	510	Felton	650	Arbuckle
91	Santa Clarita	231	Nipton	371	Keene	511	Freedom	651	Chico
92	Canyon Country	232	Oro Grande	372	Lancaster	512	Gilroy	652	Colusa
93	Sun Valley	233	Phelan	373	Littlerock	513	Hollister	653	Dunnigan
94	Valencia	234	Redlands	374	Llano	514	Los Gatos	654	Durham
95	Tarzana	235	Rialto	375	Lone Pine	515	Milpitas	655	Grass Valley
96	Thousand Oaks	236	Skyforest	376	Mammoth Lakes	516	Morgan Hill	656	Penn Valley
97	Westlake Village	237	Victorville	377	Palmdale	517	San Juan Bautista	657	Gridley
98	Woodland Hills	238	Yermo	378	Ridgecrest	518	San Martin	658	Live Oak
99	Stevenson Ranch	239	Yucaipa	379	Rosamond	519	Santa Clara	659	Magalia
100	Castaic	240	San Bernardino	380	Tehachapi	520	Santa Cruz	660	Nevada City
101	Van Nuys	241	Riverside	381	Chowchilla	521	Scotts Valley	661	Olivehurst
102	Panorama City	242	March Air Reserve Base	382	Clovis	522	Saratoga	662	Orland
103	Sherman Oaks	243	Lake Elsinore	383	Cutler	523	Soquel	663	Oroville
104	Burbank	244	Aguanga	384	Dinuba	524	Watsonville	664	Paradise
105	North Hollywood	245	Anza	385	Dos Palos	525	San Jose	665	Princeton
106	Studio City	246	Hemet	386	Firebaugh	526	Stockton	666	Quincy

107	Valley Village	247	Moreno Valley	387	Five Points	527	Acampo	667	Sutter
108	Universal City	248	Murrieta	388	Fowler	528	Angels Camp	668	Williams
109	Rancho Cucamonga	249	Nuevo	389	Friant	529	French Camp	669	Willows
110	Azusa	250	Perris	390	Kerman	530	Linden	670	Yuba City
111	Baldwin Park	251	San Jacinto	391	Kingsburg	531	Lodi	671	Redding
112	Chino	252	Menifee	392	Los Banos	532	San Andreas	672	Anderson
113	Chino Hills	253	Sun City	393	Madera	533	Atwater	673	Burney
114	Claremont	254	Temecula	394	Orange Cove	534	Tracy	674	Canby
115	Covina	255	Wildomar	395	Parlier	535	Ceres	675	Corning
116	El Monte	256	Irvine	396	Fresno	536	Crows Landing	676	Fall River Mills
117	South El Monte	257	Foothill Ranch	397	Reedley	537	Delhi	677	Fort Jones
118	Glendora	258	Capistrano Beach	398	Riverdale	538	Escalon	678	Mcarthur
119	La Puente	259	Corona Del Mar	399	Sanger	539	Groveland	679	Mount Shasta
120	Hacienda Heights	260	Costa Mesa	400	Selma	540	Gustine	680	Red Bluff
121	Rowland Heights	261	Dana Point	401	Salinas	541	Hilmar	681	Weaverville
122	La Verne	262	Lake Forest	402	Big Sur	542	Hughson	682	Weed
123	Mira Loma	263	Laguna Woods	403	Carmel	543	Jamestown	683	Yreka
124	Monterey Park	264	Huntington Beach	404	Gonzales	544	Lathrop	684	Alturas
125	Ontario	265	Laguna Beach	405	Greenfield	545	Le Grand	685	Cedarville
126	Montclair	266	Laguna Hills	406	King City	546	Livingston	686	Markleeville
127	Diamond Bar	267	Midway City	407	Marina	547	Manteca	687	Susanville
128	Pomona	268	Aliso Viejo	408	Monterey	548	Mariposa	688	Tahoma
129	Rosemead	269	Newport Coast	409	Pacific Grove	549	Merced	689	Kings Beach
130	San Dimas	270	Newport Beach	410	Pebble Beach	550	Modesto	690	Tahoe City
131	San Gabriel	271	San Clemente	411	Seaside	551	Newman	691	South Lake Tahoe
132	Temple City	272	San Juan Capistrano	412	Soledad	552	Oakdale	692	Truckee
133	Upland	273	Silverado	413	Belmont	553	Patterson		
134	Walnut	274	Laguna Niguel	414	Brisbane	554	Ripon		
135	West Covina	275	Trabuco Canyon	415	Burlingame	555	Riverbank		
136	Alhambra	276	Westminster	416	Daly City	556	Salida		
137	Alpine	277	Rancho Santa Margarita	417	Los Altos	557	Sonora		
138	Bonita	278	Mission Viejo	418	Menlo Park	558	Tuolumne		
139	Boulevard	279	Ladera Ranch	419	Atherton	559	Turlock		
140	Campo	280	Santa Ana	420	Portola Valley	560	Waterford		

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.		ATS-3PS-DemarcCop	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.		ATS-3PS-DemarcCop-OT	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.		ATS-3PS-DemarcCop-Wkd	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.		ATS-3PS-DemarcCop25	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.		ATS-3PS-DemarcCop25-OT	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.		ATS-3PS-DemarcCop25-Wkd	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.		ATS-3PS-DemarcFIB	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.		ATS-3PS-DemarcFIB-OT	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.		ATS-3PS-DemarcFIB-Wkd	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 Contractor's 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.		ATS-Pro-ASE	Yes
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.		ATS-Pro-ASE-OT	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	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.		ATS-Pro-ASE-Wkd	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 (TRT)).

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.

Line Item	Stop Clock Condition (SCC)	SCC Definition
2	OBSERVATION	Time after a service has been restored but End-User request ticket is kept open for observation. If the service is later determined by the End-User to not have been restored, the Stop Clock shall continue until the time the End-User notifies the Contractor that the Service has not been restored.
3	END-USER NOT AVAILABLE	Time after a service has been restored but End-User is not available to verify that the Service is working. If the service is later determined by the End-User to not have been restored, the Stop Clock shall apply only for the time period between Contractor's reasonable attempt to notify the End-User that Contractor believes the service has been restored and the time the End-User notifies the Contractor that the Service has not been restored.
4	WIRING	Restoration cannot be achieved because the problem has been isolated to wiring that is not maintained by Contractor or any of its Subcontractors or Affiliates. If it is later determined the wiring is not the cause of failure, the SCC shall not apply.
5	POWER	Trouble caused by a power problem outside of the responsibility of the Contractor.
6	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:

Line Item	Stop Clock Condition (SCC)	SCC Definition
		<p>a. Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative;</p> <p>b. Site contact refuses access to technician who displays proper identification;</p> <p>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,</p> <p>d. Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem.</p> <p>If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply.</p>
8	STAFF	Any problem or delay to the extent caused by End-User's staff that prevents or delays Contractor's resolution of the problem. In such event, Contractor shall make a timely request to End-User staff to correct the problem or delay and document in trouble ticket.
9	APPLICATION	End-User software applications that interfere with repair of the trouble.
10	CPE	Repair/replacement of Customer Premise Equipment (CPE) not provided by Contractor if the problem has been isolated to the CPE. If determined later that the CPE was not the cause of the service outage, the CPE SCC will not apply.

Line Item	Stop Clock Condition (SCC)	SCC Definition
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.
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	P

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	P

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	P

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 an Ethernet frame entering the ingress UNI to when the last bit of the same frame leaves the egress UNI. The problem requires timely verification, consistent with industry standards, by the Contractor. Tickets identified as a Latency issue shall not count in Availability or Time-to-Repair measurements unless and until the End-User reports service as unusable for its intended uses.

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	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

23.5.8.8 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	P

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