

INVITATION FOR BID
IFB C4DNCS19
Data Networks and Communications Services
**CATEGORY 24 – FLAT RATE INTERNET
SERVICES**

Comcast Business Communications, LLC

Statement of Work

TECHNICAL REQUIREMENTS

March 5, 2020

BAFO

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STATE OF CALIFORNIA

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Procurement

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Disclaimer: The original PDF version and any subsequent addendums of the IFB released by the Procurement Official of this Bid remain the official version. In the event of any inconsistency between the Bidder's versions, articles, attachments, specifications or provisions which constitute the Contract, the official State version of the IFB in its entirety shall take precedence.

AMENDMENT LOG

Amendment #	Date	Amendment Description
2	10/31/2020	Administrative changes to terms to correct spelling and router type; Standardized product identifiers and available items.
3	03/08/2021	Updated Document Header Table 24.2.5.1.c Updated Bidder's Product Description, Restrictions and Limitations.
4	05/10/2022	Updated Document Header Table 24.2.5.1.c Updated Bidder's Product Description, Restrictions and Limitations.
5	11/10/2022	Table 24.4.4.a - Updated Bidder's Product Description, Restrictions and Limitations. Table 24.4.4.b – Updated table content.

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TECHNICAL REQUIREMENTS

CATEGORY 24 – Flat Rate Internet Services

24.1 OVERVIEW

This Category 24 IFB C4DNCS19 (IFB) provides the State's solicitation for best value solutions for Flat Rate Internet Services. This IFB also describes the 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 Networks and Communications (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).

24.1.1 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 this requirement and shall meet or exceed it?”

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? ”

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	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No.
1					Yes

24.1.2 Designation of Requirements

All Technical Requirements specified in this IFB are Mandatory and must be responded to as identified in IFB 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 Category Cost Worksheets.

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

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

24.1.3 Pacific Time Zone

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

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

24.2 FLAT RATE INTERNET SERVICE

The Contractor shall provide dedicated Internet access service that provides high-speed Internet access through communications facilities managed by the Contractor.

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

24.2.1 Internet Services General Requirements

The Contractor's network shall connect a Customer's Local Area Network (LAN) or application to the Internet by providing highly reliable transport and Internet Protocol (IP) connectivity. The service shall use the Transmission Control Protocol/Internet Protocol (TCP/IP) to interconnect customer premise equipment (CPE) to the public Internet Service Provider (ISP) networks.

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

24.2.2 Network Capabilities

The Contractor's network shall have:

1. Established public peering arrangements from the Contractor's network to the Internet.

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

2. Private peering arrangements established from the Contractor's network with redundant links to connect to its private peering partners.

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

3. Support for Customer assigned and Internet Corporation for Assigned Names and Numbers (ICANN) registered IP addresses and domain names.

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

4. Primary and Secondary Domain Name Service (DNS) to provide an authoritative name server for the Customer.

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

5. The Contractor shall provide support for the border gateway protocol (BGP) for Customers with registered Autonomous System (AS) numbers, if applicable.

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

24.2.2.1 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 Requirement and shall meet or exceed it? Yes

24.2.3 Standards

Dedicated Internet Services shall comply with the following standards, as applicable, and when commercially available by the Contractor:

1. Internet Engineering Task Force (IETF) Requests for Comments (RFCs);

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

2. ANSI T1;

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

3. ATM Forum

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

4. ITU TSS Recommendations;

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

5. Frame Relay Forum implementation agreements;

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

6. North American ISDN Users Forum (NIUF);

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

7. IEEE 802.3 Ethernet Standards;

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

8. Metro Ethernet Forum (MEF);

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

9. IETF RFCs for IPv6 when offered commercially by the Contractor;

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

10. All new versions, amendments, and modifications to the above documents and standards as they become commercially available.

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

24.2.4 Network Operations and Management

24.2.4.1 General Description

The Contractor's data network(s) shall meet established industry standards.

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

24.2.4.2 Network Operations Center

The Contractor shall maintain a Network Operations Center (NOC) that is staffed 24x7 that coordinates and manages all data traffic.

The NOC shall perform the following services:

1. Network surveillance;

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

2. Fault management (trouble identification, isolation and notification); and,

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

3. Monitor network performance in near real-time to identify capacity blockages and implement controls to optimize network health and performance immediately.

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

24.2.4.3 Security

24.2.4.3.1 Physical Access

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 Requirement and shall meet or exceed it? Yes

24.2.4.3.2 Network Security

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

1. The Contractor's network equipment locations and data centers shall use carrier grade platforms; and,
2. All equipment shall be in a hardened facility and all unnecessary services shall be disabled or removed.

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

24.2.4.3.3 Security Incident Notifications

Upon discovery, the Contractor shall provide the Customer and designated State representatives with Security Incident notifications that impact CALNET Customers, via telephonic means and email. For purposes of this section, Security Incident is defined in the State Administrative Manual (SAM), Section 5300.4.

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

24.2.4.3.4 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 Requirement and shall meet or exceed it? Yes

24.2.5 Dedicated Internet Flat Rate Services Technical Requirements

The service shall connect a Customer's LAN or application to the Internet by providing highly reliable transport and IP connectivity to the internet.

The speeds in the Feature Names in Table 24.2.5.1 b indicate download speeds. Bidder shall indicate the upload speeds in the Bidder's Product Description in Tables 24.2.5.1.b, 24.2.5.2.a, 24.2.5.3.b.

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

24.2.5.1 Internet Flat Rate Service (InFRa)

The Contractor shall provide Internet Flat Rate Service (InFRa) at the speeds identified in Table 24.2.5.1.b. The services shall consist of a dedicated Internet port and transport, on the Contractor's private network, from the Customer site to the nearest Contractor Point-of-Presence (POP). The service shall include all equipment, cabling and labor required to provide a

User-to-Network Interface (UNI) at the Customer premise Minimum Point of Entry (MPOE).

The Bidder shall describe the User-to-Network Interface characteristics in the Bidder's Product Description, Features, Limitations and Restrictions column row provided in Table 24.2.4.1.b using Table 24.2.4.1.a below, which is provided only as a guide. Contractors shall follow the format as closely as possible if the guide content does not align with a particular Contractor technology or offering.

The Bidder's Product Description shall include the following at a minimum:

1. Interface/Access Type(s);
2. Network-Side Interface, if applicable;
3. Protocol(s) applicable to each speed; and,
4. Upload Speed.

Table 24.2.5.1.a – InFRA UNI Guide

Line Item	Interface/Access Type	Network-Side Interface	Protocol
1	Cable High Speed Access	DOCSISx	Point-to-Point Protocol, IPv4/v6
2	Ethernet Interface	1 Mbps up to 1 GbE (Gigabit Ethernet) 10 GbE	Point-to-Point Protocol, IPv4/v6
3	IP over SONET Service	OC-3c OC-12c OC-48c OC-192c	IP/PPP over SONET
4	Private Line Service (PLS)	T1 Fractional T3 T3 OC-3c OC-12c OC-48c OC-192c	IPv4/v6 over PLS
5	DSL Service	xDSL Access	Point-to-Point Protocol IPv4/v6
6	Other		

Bidders must provide at least one service/solution for each InFRa speed listed in Table 24.2.5.1.b. Additional Internet Flat Rate Services that utilize different UNI's with different product identifiers and associated costs should be listed in an Unsolicited table in the same fashion as Table 24.2.5.1.b.

Table 24.2.5.1.b – Internet Flat Rate Service

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
1	InFRa @ 1.544 Mbps	Internet Flat Rate Service (InFRa) at 1.544 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:1.544 Mbps Product Description: Internet Flat Rate Service (InFRa) at 1.544 Mbps.	EDI100B01P5	Yes
2	InFRa @ 5 Mbps	Internet Flat Rate Service (InFRa) at 5 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:5 Mbps Product Description: Internet Flat Rate Service (InFRa) at 5 Mbps.	EDI100B0005	Yes
3	InFRa @ 10 Mbps	Internet Flat Rate Service (InFRa) at 10 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:10 Mbps Product Description: Internet Flat Rate Service (InFRa) at 10 Mbps.	EDI100B0010	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
4	InFRa @ 15 Mbps	Internet Flat Rate Service (InFRa) at 15 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:15 Mbps Product Description: Internet Flat Rate Service (InFRa) at 15 Mbps.	EDI100B0015	Yes
5	InFRa @ 20 Mbps	Internet Flat Rate Service (InFRa) at 20 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:20 Mbps Product Description: Internet Flat Rate Service (InFRa) at 20 Mbps.	EDI100B0020	Yes
6	InFRa @ 25 Mbps	Internet Flat Rate Service (InFRa) at 25 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:25 Mbps Product Description: Internet Flat Rate Service (InFRa) at 25 Mbps.	EDI100B0025	Yes
7	InFRa @ 30 Mbps	Internet Flat Rate Service (InFRa) at 30 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:30 Mbps Product Description: Internet Flat Rate Service (InFRa) at 30 Mbps.	EDI100B0030	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
8	InFRa @ 35 Mbps	Internet Flat Rate Service (InFRa) at 35 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:35 Mbps Product Description: Internet Flat Rate Service (InFRa) at 35 Mbps.	EDI100B0035	Yes
9	InFRa @ 40 Mbps	Internet Flat Rate Service (InFRa) at 40 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:40 Mbps Product Description: Internet Flat Rate Service (InFRa) at 40 Mbps.	EDI100B0040	Yes
10	InFRa @ 45 Mbps	Internet Flat Rate Service (InFRa) at 45 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:45 Mbps Product Description: Internet Flat Rate Service (InFRa) at 45 Mbps.	EDI100B0045	Yes
11	InFRa @ 50 Mbps	Internet Flat Rate Service (InFRa) at 50 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:50 Mbps Product Description: Internet Flat Rate Service (InFRa) at 50 Mbps.	EDIEVC0050	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
12	InFRa @ 55 Mbps	Internet Flat Rate Service (InFRa) at 55 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:55 Mbps Product Description: Internet Flat Rate Service (InFRa) at 55 Mbps.	EDIEVC0055	Yes
13	InFRa @ 60 Mbps	Internet Flat Rate Service (InFRa) at 60 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:60 Mbps Product Description: Internet Flat Rate Service (InFRa) at 60 Mbps.	EDI100B0060	Yes
14	InFRa @ 100 Mbps	Internet Flat Rate Service (InFRa) at 100 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type:10/100 Ethernet or 1 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:100 Mbps Product Description: Internet Flat Rate Service (InFRa) at 100 Mbps.	EDIEVC0100	Yes
15	InFRa @ 150 Mbps	Internet Flat Rate Service (InFRa) at 150 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 1 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:150 Mbps	EDIGIGB0150	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
			Product Description: Internet Flat Rate Service (InFRa) at 150 Mbps.		
16	InFRa @ 200 Mbps	Internet Flat Rate Service (InFRa) at 200 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 1 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:200 Mbps Product Description: Internet Flat Rate Service (InFRa) at 200 Mbps.	EDIEVC0 200	Yes
17	InFRa @ 500 Mbps	Internet Flat Rate Service (InFRa) at 500 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 1 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:500 Mbps Product Description: Internet Flat Rate Service (InFRa) at 500 Mbps.	EDIEVC0 500	Yes
18	InFRa @ 1 Gbps	Internet Flat Rate Service (InFRa) at 1 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 1 Gbps Ethernet or 10 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:1 Gbps Product Description: Internet Flat Rate Service (InFRa) at 1 Gbps.	EDIEVC1 000	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
19	InFRa @ 10 Gbps	Internet Flat Rate Service (InFRa) at 10 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 10 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 10 Gbps Product Description: Internet Flat Rate Service (InFRa) at 10 Gbps.	EDIEVC0 10G	Yes

The Contractor may offer Unsolicited Flat Rate Internet Service or features in Table 24.2.5.1.c.

Table 24.2.5.1.c – Unsolicited Internet Flat Rate Service Offering

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
1	InFRa @ 622Mbps	Internet Flat Rate Service (InFRa) at 622 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 622 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 622 Mbps Product Description: Internet Flat Rate Service (InFRa) at 622 Mbps.	EDIGIGB06 22
2	InFRa @ 2.45Gbps	Internet Flat Rate Service (InFRa) at 2.45 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 2.45 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 2.45 Gbps Product Description: Internet Flat Rate Service (InFRa) at 2.45 Gbps.	EDI10GB24 50

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
3	InFRa @ t 1Mbps	Internet Flat Rate Service (InFRa) at 1 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 1 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 1 Mbps Product Description: Internet Flat Rate Service (InFRa) at 1 Mbps.	EDIEVC000 1
4	InFRa @ 11Mbps	Internet Flat Rate Service (InFRa) at 11 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 11 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 11 Mbps Product Description: Internet Flat Rate Service (InFRa) at 11 Mbps.	EDIEVC001 1
5	InFRa @ 13Mbps	Internet Flat Rate Service (InFRa) at 13 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 13 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 13 Mbps Product Description: Internet Flat Rate Service (InFRa) at 13 Mbps.	EDIEVC001 3
6	InFRa @ 70Mbps	Internet Flat Rate Service (InFRa) at 70 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 70 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 70 Mbps Product Description: Internet Flat Rate Service (InFRa) at 70 Mbps.	EDIEVC007 0
7	InFRa @ 80Mbps	Internet Flat Rate Service (InFRa) at 80 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 80 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 80 Mbps Product Description: Internet Flat Rate Service (InFRa) at 80 Mbps.	EDIEVC008 0

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
8	InFRa @ 90Mbps	Internet Flat Rate Service (InFRa) at 90 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 90 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 90 Mbps Product Description: Internet Flat Rate Service (InFRa) at 90 Mbps.	EDIEVC0090
9	InFRa @ 300Mbps	Internet Flat Rate Service (InFRa) at 300 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 300 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 300 Mbps Product Description: Internet Flat Rate Service (InFRa) at 300 Mbps.	EDIEVC0300
10	InFRa @ 400Mbps	Internet Flat Rate Service (InFRa) at 400 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 400 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 400 Mbps Product Description: Internet Flat Rate Service (InFRa) at 400 Mbps.	EDIEVC0400
11	InFRa @ 600Mbps	Internet Flat Rate Service (InFRa) at 600 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 600 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 600 Mbps Product Description: Internet Flat Rate Service (InFRa) at 600 Mbps.	EDIEVC0600

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
12	InFRa @ 700Mbps	Internet Flat Rate Service (InFRa) at 700 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 700 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 700 Mbps Product Description: Internet Flat Rate Service (InFRa) at 700 Mbps.	EDIEVC0700
13	InFRa @ 800Mbps	Internet Flat Rate Service (InFRa) at 800 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 800 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 800 Mbps Product Description: Internet Flat Rate Service (InFRa) at 800 Mbps.	EDIEVC0800
14	InFRa @ 900Mbps	Internet Flat Rate Service (InFRa) at 900 Mbps. Includes dedicated Internet port and transport.	Interface/Access Type: 900 Mbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 900 Mbps Product Description: Internet Flat Rate Service (InFRa) at 900 Mbps.	EDIEVC0900
15	InFRa @ 2Gbps	Internet Flat Rate Service (InFRa) at 2 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 2 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 2 Gbps Product Description: Internet Flat Rate Service (InFRa) at 2 Gbps.	EDIEVC2000
16	InFRa @ 3Gbps	Internet Flat Rate Service (InFRa) at 3 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 3 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed: 3 Gbps Product Description: Internet Flat Rate Service (InFRa) at 3 Gbps.	EDIEVC3000

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
17	InFRa @ 4Gbps	Internet Flat Rate Service (InFRa) at 4 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 4 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:4 Gbps Product Description: Internet Flat Rate Service (InFRa) at 4 Gbps.	EDIEVC4000
18	InFRa @ 5Gbps	Internet Flat Rate Service (InFRa) at 5 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 5 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:5 Gbps Product Description: Internet Flat Rate Service (InFRa) at 5 Gbps.	EDIEVC5000
19	InFRa @ 6Gbps	Internet Flat Rate Service (InFRa) at 6 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 6 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:6 Gbps Product Description: Internet Flat Rate Service (InFRa) at 6 Gbps.	EDIEVC6000
20	InFRa @ 7Gbps	Internet Flat Rate Service (InFRa) at 7 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 7 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:7 Gbps Product Description: Internet Flat Rate Service (InFRa) at 7 Gbps.	EDIEVC7000
21	InFRa @ 8Gbps	Internet Flat Rate Service (InFRa) at 8 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 8 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:8 Gbps Product Description: Internet Flat Rate Service (InFRa) at 8 Gbps.	EDIEVC8000

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
22	InFRa @ 9Gbps	Internet Flat Rate Service (InFRa) at 9 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 9 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:9 Gbps Product Description: Internet Flat Rate Service (InFRa) at 9 Gbps.	EDIEVC9000
23	InFRa @ 20Gbps	Internet Flat Rate Service (InFRa) at 20 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 20 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:20 Gbps Product Description: Internet Flat Rate Service (InFRa) at 20 Gbps.	EDIEVC020G
24	InFRa @ 30Gbps	Internet Flat Rate Service (InFRa) at 30 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 30 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:30 Gbps Product Description: Internet Flat Rate Service (InFRa) at 30 Gbps.	EDIEVC030G
25	InFRa @ 40Gbps	Internet Flat Rate Service (InFRa) at 40 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 40 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:40 Gbps Product Description: Internet Flat Rate Service (InFRa) at 40 Gbps.	EDIEVC040G
26	InFRa @ 50Gbps	Internet Flat Rate Service (InFRa) at 50 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 50 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:50 Gbps Product Description: Internet Flat Rate Service (InFRa) at 50 Gbps.	EDIEVC050G

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
27	InFRa @ 60Gbps	Internet Flat Rate Service (InFRa) at 60 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 60 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:60 Gbps Product Description: Internet Flat Rate Service (InFRa) at 60 Gbps.	EDIEVC060 G
28	InFRa @ 70Gbps	Internet Flat Rate Service (InFRa) at 70 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 70 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:70 Gbps Product Description: Internet Flat Rate Service (InFRa) at 70 Gbps.	EDIEVC070 G
29	InFRa @ 80Gbps	Internet Flat Rate Service (InFRa) at 80 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 80 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:80 Gbps Product Description: Internet Flat Rate Service (InFRa) at 80 Gbps.	EDIEVC080 G
30	InFRa @ 90Gbps	Internet Flat Rate Service (InFRa) at 90 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 90 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:90 Gbps Product Description: Internet Flat Rate Service (InFRa) at 90 Gbps.	EDIEVC090 G
31	InFRa @ 100Gbps	Internet Flat Rate Service (InFRa) at 100 Gbps. Includes dedicated Internet port and transport.	Interface/Access Type: 100 Gbps Ethernet Network-side Interface: Protocol: Ethernet Upload Speed:100 Gbps Product Description: Internet Flat Rate Service (InFRa) at 100 Gbps.	EDIEVC100 G

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
32	Managed Router Service - 10Mbps	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to 10Mbps throughput	None	MR00105
33	Managed Router Service - 50Mbps	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to 50Mbps throughput	None	MR00505
34	Managed Router Service - 100Mbps	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to 100Mbps throughput	None	MR01005

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
35	Managed Router Service - 300Mbps	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to 300Mbps throughput	None	MR03005
36	Managed Router Service - 500Mbps	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to 500Mbps throughput	None	MR05005
37	Managed Router Service - GigE	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to GigE throughput	None	MR10005

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
38	Managed Router Service - 10 GigE	Router upgrade option for InFRa (24.2.5.1) services. Cisco, Juniper, or equivalent for managed internet service purchased from Comcast. Supports up to 10GigE throughput	None	MR010G5
39	1 Static IP Address	1 Static/statically assigned IP address	None	IPv40001
40	5 Static IP Addresses	5 Static/statically assigned IP address	None	IPv40005
41	13 Static IP Addresses	13 Static/statically assigned IP address	None	IPv40013
42	29 Static IP Addresses	29 Static/statically assigned IP address	None	IPv40029
43	61 Static IP Addresses	61 Static/statically assigned IP address	None	IPv40061
44	125 Static IP Addresses	125 Static/statically assigned IP address	None	IPv400125
45	253 Static IP Addresses	253 Static/statically assigned IP address	None	IPv400253

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
46	Managed Firewall Service - 50Mbps	Managed Router Service –Meraki, Fortinet, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 50Mbps throughput.	None	MF00505
47	Managed Firewall Service - 100Mbps	Managed Router Service –Meraki, Fortinet, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 100Mbps throughput.	None	MF01005
48	Managed Firewall Service - 300Mbps	Managed Router Service –Meraki, Fortinet, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 300Mbps throughput.	None	MF03005

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
49	Managed Firewall Service - 500Mbps	Managed Router Service –Meraki, Fortinet, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 500Mbps throughput.	None	MF05005
50	Managed Firewall Service - GigE	Managed Router Service –Meraki, Fortinet, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 1Gbps throughput.	None	MF10005
51	Managed Firewall Service - 10 GigE	Managed Router Service –Meraki, Fortinet, or equivalent for Managed Internet Service purchased from Comcast. Supports up to 10Gbps throughput.	None	MF010G5
52	Managed Router Service - Wireless Backup	LTE Wireless Backup - Immediate and seamless wireless backup that fails over to a wireless connection in the case of a wireline failure.	Can only be used with Comcast Managed Router Service	MR00LTE

24.2.5.2 Internet Flat Rate with Managed Router Service (InFRaM)

The Contractor shall provide Internet Flat Rate with Managed IP Enabled Routing Device Service at the speeds identified in Table 24.2.5.2.a. The services shall consist of a dedicated Internet Port and Transport from the Customer site to the nearest contractor POP. The service shall include all equipment, cabling and labor required to provide a UNI at the Customer premise MPOE and a Contractor owned, maintained and managed IP enabled routing device.

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

The service shall include a Contractor owned, maintained and managed IP enabled routing device. Bidder shall provide a description of the type of equipment, maintenance and management services that the Contractor will deploy to satisfy this requirement.

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

All Bidder equipment, tasks and services required for provisioning of the services described in Table 24.2.5.2.a will be included in the charges for the features/services listed in those tables unless specifically identified as not part of the mandatory service and proposed in Table 24.2.5.2.b.

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

The Contractor's managed IP enabled routing device service shall include proactive Customer notification as identified in the Service Level Agreements.

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

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

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

The Contractor shall offer the InFRaM Services detailed in Table 24.2.5.2.a.

The Bidder shall describe the User-to-Network Interface characteristics in the Bidder's Product Description, Restrictions, and Limitations column row provided in Table 24.2.5.2.a using Table 24.2.5.1.a, which is provided only as

a guide. Contractors shall follow the format as closely as possible if the guide content does not align with a particular Contractor technology or offering.

The Bidder's Product Description shall include the following at a minimum:

1. Interface/Access Type(s);
2. Network-Side Interface, if applicable;
3. Protocol(s) applicable to each speed; and,
4. Upload Speed.

Table 24.2.5.2.a – Internet Flat Rate with Managed Router Service

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
1	InFRaM @ 1.544 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 1.544 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 1.544 Mbps	NSX0701	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
2	InFRaM @ 5 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 5 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 5 Mbps	NSX0706	Yes
3	InFRaM @ 10 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 10 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 10 Mbps	NSX0712	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
4	InFRaM @ 15 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 15 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 15 Mbps	NSX0715	Yes
5	InFRaM @ 20 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 20 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 20 Mbps	NSX0716	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
6	InFRaM @ 25 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 25 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 25 Mbps	NSX0717	Yes
7	InFRaM @ 30 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 30 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 30 Mbps	NSX0718	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
8	InFRaM @ 35 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 35 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 35 Mbps	NSX0719	Yes
9	InFRaM @ 40 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 40 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 40 Mbps	NSX0720	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
10	InFRaM @ 45 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 45 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 45 Mbps	NSX0721	Yes
11	InFRaM @ 50 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 50 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 50 Mbps	NSX0747	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
12	InFRaM @ 55 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 55 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 55 Mbps	NSX0748	Yes
13	InFRaM @ 60 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 60 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 60 Mbps	NSX0722	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
14	InFRaM @ 100 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 100 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 100 Mbps	NSX0749	Yes
15	InFRaM @ 150 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 150 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 150 Mbps	NSX0750	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
16	InFRaM @ 200 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 200 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 200 Mbps	NSX0751	Yes
17	InFRaM @ 500 Mbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 500 Mbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 500 Mbps	NSX0752	Yes

Line Item #	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes/No
18	InFRaM @ 1 Gbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 1 Gbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 1 Gbps	NSX0753	Yes
19	InFRaM @ 10 Gbps	Internet Flat Rate Service with Managed IP Enabled Routing Device (InFRaM) at 10 Gbps. Includes dedicated Internet port, transport, and a Contractor owned, maintained and managed IP enabled routing device.	Interface/Access Type: Ethernet Network-side Interface: Ethernet Protocol: Internet (IP) Upload Speed: 10 Gbps	NSX0754	Yes

The Contractor may offer Unsolicited Flat Rate Internet Service or features in Table 24.2.5.2.b.

Table 24.2.5.2.b – Unsolicited Internet Flat Rate with Managed Router Service

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

24.2.5.3 LTE Backup Service Options

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

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

24.2.6 Internet Service Geographic Service Areas

Bidder shall identify the locations where their InFRa, InFRaM, BHIS and BHIMS Internet Services are available in Table 24.2.6.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 Requirement and shall meet or exceed it? 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 Requirement and shall meet or exceed it? Yes

Bidders may reference Table 24.2.6.a in their Catalog A.

Table 24.2.6.a – Bidder's Flat Rate Internet Service Locations

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
1	Adelanto	Yes	Yes
2	Agoura Hills	Yes	Yes
3	Alameda	Yes	Yes
4	Albany	Yes	Yes
5	Alhambra	Yes	Yes
6	Aliso Viejo	Yes	Yes
7	Amador	Yes	Yes
8	American Canyon	Yes	Yes
9	Anaheim	Yes	Yes
10	Angels Camp	Yes	Yes
11	Antioch	Yes	Yes
12	Apple Valley	Yes	Yes
13	Arcadia	Yes	Yes
14	Artesia	Yes	Yes
15	Atherton	Yes	Yes
16	Atwater	Yes	Yes
17	Auburn	Yes	Yes
18	Azusa	Yes	Yes
19	Baldwin Park	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
20	Banning	Yes	Yes
21	Barstow	Yes	Yes
22	Beaumont	Yes	Yes
23	Bell	Yes	Yes
24	Bellflower	Yes	Yes
25	Belmont	Yes	Yes
26	Belvedere	Yes	Yes
27	Benicia	Yes	Yes
28	Berkeley	Yes	Yes
29	Beverly Hills	Yes	Yes
30	Big Bear Lake	Yes	Yes
31	Biggs	Yes	Yes
32	Bishop	Yes	Yes
33	Blue Lake	Yes	Yes
34	Blythe	Yes	Yes
35	Brea	Yes	Yes
36	Brentwood	Yes	Yes
37	Brisbane	Yes	Yes
38	Buellton	Yes	Yes
39	Buena Park	Yes	Yes
40	Burbank	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
41	Burlingame	Yes	Yes
42	Calabasas	Yes	Yes
43	Calexico	Yes	Yes
44	Calimesa	Yes	Yes
45	Camarillo	Yes	Yes
46	Campbell	Yes	Yes
47	Capitola	Yes	Yes
48	Carlsbad	Yes	Yes
49	Carson	Yes	Yes
50	Cathedral City	Yes	Yes
51	Ceres	Yes	Yes
52	Cerritos	Yes	Yes
53	Chico	Yes	Yes
54	Chino	Yes	Yes
55	Chino Hills	Yes	Yes
56	Chowchilla	Yes	Yes
57	Chula Vista	Yes	Yes
58	Claremont	Yes	Yes
59	Clayton	Yes	Yes
60	Cloverdale	Yes	Yes
61	Coachella	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
62	Coalinga	Yes	Yes
63	Colma	Yes	Yes
64	Colton	Yes	Yes
65	Colusa	Yes	Yes
66	Compton	Yes	Yes
67	Concord	Yes	Yes
68	Corcoran	Yes	Yes
69	Corning	Yes	Yes
70	Corona	Yes	Yes
71	Coronado	Yes	Yes
72	Costa Mesa	Yes	Yes
73	Cotati	Yes	Yes
74	Covina	Yes	Yes
75	Culver City	Yes	Yes
76	Cupertino	Yes	Yes
77	Cypress	Yes	Yes
78	Daly City	Yes	Yes
79	Dana Point	Yes	Yes
80	Danville	Yes	Yes
81	Davis	Yes	Yes
82	Del Mar	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
83	Del Rey Oaks	Yes	Yes
84	Desert Hot Springs	Yes	Yes
85	Diamond Bar	Yes	Yes
86	Dinuba	Yes	Yes
87	Dos Palos	Yes	Yes
88	Downey	Yes	Yes
89	Duarte	Yes	Yes
90	Dublin	Yes	Yes
91	East Palo Alto	Yes	Yes
92	El Cajon	Yes	Yes
93	El Centro	Yes	Yes
94	El Cerrito	Yes	Yes
95	El Monte	Yes	Yes
96	El Segundo	Yes	Yes
97	Elk Grove	Yes	Yes
98	Emeryville	Yes	Yes
99	Encinitas	Yes	Yes
100	Escalon	Yes	Yes
101	Escondido	Yes	Yes
102	Fairfax	Yes	Yes
103	Fairfield	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
104	Firebaugh	Yes	Yes
105	Folsom	Yes	Yes
106	Fontana	Yes	Yes
107	Fort Bragg	Yes	Yes
108	Foster City	Yes	Yes
109	Fountain Valley	Yes	Yes
110	Fowler	Yes	Yes
111	Fremont	Yes	Yes
112	Fresno	Yes	Yes
113	Fullerton	Yes	Yes
114	Galt	Yes	Yes
115	Garden Grove	Yes	Yes
116	Gardena	Yes	Yes
117	Glendale	Yes	Yes
118	Glendora	Yes	Yes
119	Goleta	Yes	Yes
120	Grand Terrace	Yes	Yes
121	Grass Valley	Yes	Yes
122	Gridley	Yes	Yes
123	Gustine	Yes	Yes
124	Half Moon Bay	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
125	Hanford	Yes	Yes
126	Hawaiian Gardens	Yes	Yes
127	Hawthorne	Yes	Yes
128	Hayward	Yes	Yes
129	Healdsburg	Yes	Yes
130	Hemet	Yes	Yes
131	Hercules	Yes	Yes
132	Hermosa Beach	Yes	Yes
133	Hesperia	Yes	Yes
134	Highland	Yes	Yes
135	Hillsborough	Yes	Yes
136	Hughson	Yes	Yes
137	Huntington Beach	Yes	Yes
138	Huntington Park	Yes	Yes
139	Huron	Yes	Yes
140	Imperial Beach	Yes	Yes
141	Indian Wells	Yes	Yes
142	Indio	Yes	Yes
143	Inglewood	Yes	Yes
144	Irvine	Yes	Yes
145	Isleton	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
146	Jackson	Yes	Yes
147	Kerman	Yes	Yes
148	Kingsburg	Yes	Yes
149	La Habra	Yes	Yes
150	La Mesa	Yes	Yes
151	La Mirada	Yes	Yes
152	La Palma	Yes	Yes
153	La Puente	Yes	Yes
154	La Quinta	Yes	Yes
155	La Verne	Yes	Yes
156	Lafayette	Yes	Yes
157	Laguna Beach	Yes	Yes
158	Laguna Hills	Yes	Yes
159	Laguna Niguel	Yes	Yes
160	Laguna Woods	Yes	Yes
161	Lake Elsinore	Yes	Yes
162	Lake Forest	Yes	Yes
163	Lakewood	Yes	Yes
164	Lancaster	Yes	Yes
165	Larkspur	Yes	Yes
166	Lathrop	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
167	Lawndale	Yes	Yes
168	Lemon Grove	Yes	Yes
169	Lemoore	Yes	Yes
170	Lincoln	Yes	Yes
171	Live Oak	Yes	Yes
172	Livermore	Yes	Yes
173	Lodi	Yes	Yes
174	Loma Linda	Yes	Yes
175	Lomita	Yes	Yes
176	Lompoc	Yes	Yes
177	Long Beach	Yes	Yes
178	Los Alamitos	Yes	Yes
179	Los Altos	Yes	Yes
180	Los Altos Hills	Yes	Yes
181	Los Angeles	Yes	Yes
182	Los Banos	Yes	Yes
183	Los Gatos	Yes	Yes
184	Lynwood	Yes	Yes
185	Madera	Yes	Yes
186	Malibu	Yes	Yes
187	Manhattan Beach	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
188	Manteca	Yes	Yes
189	Marina	Yes	Yes
190	Martinez	Yes	Yes
191	Marysville	Yes	Yes
192	Maywood	Yes	Yes
193	Mendota	Yes	Yes
194	Menlo Park	Yes	Yes
195	Merced	Yes	Yes
196	Mill Valley	Yes	Yes
197	Millbrae	Yes	Yes
198	Milpitas	Yes	Yes
199	Mission Viejo	Yes	Yes
200	Modesto	Yes	Yes
201	Monrovia	Yes	Yes
202	Montclair	Yes	Yes
203	Monte Sereno	Yes	Yes
204	Montebello	Yes	Yes
205	Monterey	Yes	Yes
206	Monterey Park	Yes	Yes
207	Moorpark	Yes	Yes
208	Moraga	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
209	Moreno Valley	Yes	Yes
210	Morgan Hill	Yes	Yes
211	Mountain View	Yes	Yes
212	Murrieta	Yes	Yes
213	Napa	Yes	Yes
214	National City	Yes	Yes
215	Newark	Yes	Yes
216	Newman	Yes	Yes
217	Newport Beach	Yes	Yes
218	Norco	Yes	Yes
219	Norwalk	Yes	Yes
220	Novato	Yes	Yes
221	Oakdale	Yes	Yes
222	Oakland	Yes	Yes
223	Oakley	Yes	Yes
224	Oceanside	Yes	Yes
225	Ojai	Yes	Yes
226	Ontario	Yes	Yes
227	Orange	Yes	Yes
228	Orinda	Yes	Yes
229	Orland	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
230	Oroville	Yes	Yes
231	Oxnard	Yes	Yes
232	Pacific Grove	Yes	Yes
233	Pacifica	Yes	Yes
234	Palm Desert	Yes	Yes
235	Palm Springs	Yes	Yes
236	Palmdale	Yes	Yes
237	Palo Alto	Yes	Yes
238	Paradise	Yes	Yes
239	Paramount	Yes	Yes
240	Parlier	Yes	Yes
241	Pasadena	Yes	Yes
242	Patterson	Yes	Yes
243	Perris	Yes	Yes
244	Petaluma	Yes	Yes
245	Pico Rivera	Yes	Yes
246	Piedmont	Yes	Yes
247	Pinole	Yes	Yes
248	Pittsburg	Yes	Yes
249	Placentia	Yes	Yes
250	Placerville	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
251	Pleasant Hill	Yes	Yes
252	Pleasanton	Yes	Yes
253	Plymouth	Yes	Yes
254	Pomona	Yes	Yes
255	Port Hueneme	Yes	Yes
256	Portola Valley	Yes	Yes
257	Poway	Yes	Yes
258	Rancho Cordova	Yes	Yes
259	Rancho Cucamonga	Yes	Yes
260	Rancho Mirage	Yes	Yes
261	Rancho Palos Verdes	Yes	Yes
262	Rancho Santa Margarita	Yes	Yes
263	Redlands	Yes	Yes
264	Redondo Beach	Yes	Yes
265	Redwood City	Yes	Yes
266	Reedley	Yes	Yes
267	Rialto	Yes	Yes
268	Richmond	Yes	Yes
269	Rio Vista	Yes	Yes
270	Riverbank	Yes	Yes
271	Riverside	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
272	Rohnert Park	Yes	Yes
273	Roseville	Yes	Yes
274	Ross	Yes	Yes
275	Sacramento	Yes	Yes
276	Salinas	Yes	Yes
277	San Anselmo	Yes	Yes
278	San Bernardino	Yes	Yes
279	San Carlos	Yes	Yes
280	San Clemente	Yes	Yes
281	San Diego	Yes	Yes
282	San Dimas	Yes	Yes
283	San Fernando	Yes	Yes
284	San Francisco	Yes	Yes
285	San Gabriel	Yes	Yes
286	San Jacinto	Yes	Yes
287	San Jose	Yes	Yes
288	San Juan Capistrano	Yes	Yes
289	San Leandro	Yes	Yes
290	San Marcos	Yes	Yes
291	San Mateo	Yes	Yes
292	San Pablo	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
293	San Rafael	Yes	Yes
294	San Ramon	Yes	Yes
295	Sand City	Yes	Yes
296	Sanger	Yes	Yes
297	Santa Ana	Yes	Yes
298	Santa Barbara	Yes	Yes
299	Santa Clara	Yes	Yes
300	Santa Clarita	Yes	Yes
301	Santa Cruz	Yes	Yes
302	Santa Fe Springs	Yes	Yes
303	Santa Maria	Yes	Yes
304	Santa Monica	Yes	Yes
305	Santa Paula	Yes	Yes
306	Santa Rosa	Yes	Yes
307	Santee	Yes	Yes
308	Saratoga	Yes	Yes
309	Sausalito	Yes	Yes
310	Scotts Valley	Yes	Yes
311	Seal Beach	Yes	Yes
312	Seaside	Yes	Yes
313	Sebastopol	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
314	Selma	Yes	Yes
315	Sierra Madre	Yes	Yes
316	Signal Hill	Yes	Yes
317	Simi Valley	Yes	Yes
318	Solana Beach	Yes	Yes
319	Solvang	Yes	Yes
320	Sonoma	Yes	Yes
321	Sonora	Yes	Yes
322	South El Monte	Yes	Yes
323	South Gate	Yes	Yes
324	South Pasadena	Yes	Yes
325	South San Francisco	Yes	Yes
326	Stanton	Yes	Yes
327	Stockton	Yes	Yes
328	Suisun City	Yes	Yes
329	Sunnyvale	Yes	Yes
330	Temecula	Yes	Yes
331	Thousand Oaks	Yes	Yes
332	Tiburon	Yes	Yes
333	Torrance	Yes	Yes
334	Tracy	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
335	Tulare	Yes	Yes
336	Turlock	Yes	Yes
337	Tustin	Yes	Yes
338	Ukiah	Yes	Yes
339	Union City	Yes	Yes
340	Upland	Yes	Yes
341	Vacaville	Yes	Yes
342	Vallejo	Yes	Yes
343	Vernon	Yes	Yes
344	Victorville	Yes	Yes
345	Villa Park	Yes	Yes
346	Visalia	Yes	Yes
347	Vista	Yes	Yes
348	Walnut	Yes	Yes
349	Walnut Creek	Yes	Yes
350	Waterford	Yes	Yes
351	Watsonville	Yes	Yes
352	West Covina	Yes	Yes
353	West Hollywood	Yes	Yes
354	West Sacramento	Yes	Yes
355	Westlake Village	Yes	Yes

Line Item	Service Location – City or ZIP Code	InFRa	InFRaM
356	Westminster	Yes	Yes
357	Wheatland	Yes	Yes
358	Whittier	Yes	Yes
359	Williams	Yes	Yes
360	Willits	Yes	Yes
361	Willows	Yes	Yes
362	Windsor	Yes	Yes
363	Woodland	Yes	Yes
364	Woodside	Yes	Yes
365	Yorba Linda	Yes	Yes
366	Yountville	Yes	Yes
367	Yuba City	Yes	Yes
368	Yucaipa	Yes	Yes
369	Yucca Valley	Yes	Yes

24.2.7 Additional Unsolicited Internet Services

All Bidder equipment, tasks and services required for provisioning of the services shall be identified in Table 24.2.7.

Table 24.2.7 – Additional Unsolicited Internet Services

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
1				

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

24.3 NETWORK DISASTER/OPERATIONAL RECOVERY

24.3.1 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 Requirement and shall meet or exceed it? Yes

24.4 DISTRIBUTED DENIAL OF SERVICE MITIGATION SERVICES

The Contractor shall provide a network based Distributed Denial of Service (DDoS) detection and mitigation service, in support of Contractor's Internet services. All hardware/software necessary to provide service shall reside in the Contractor's network and shall be maintained, monitored and supported by the Contractor. Mitigation shall occur in the Contractor IP Network before traffic reaches Customer edge router. Contractor shall establish User and Entity Behavior Analytical (UEBA) traffic patterns to minimize false positives during the detection/mitigation process and perform periodic "tuning" of normal traffic patterns established. The Contractor shall analyze, identify, report and alert on anomalies in Customer traffic under DDoS attacks. Upon detection of a DDoS attack, Contractor shall reroute traffic to a network based mitigation center where DDoS attack packets are identified and dropped. Valid packets shall be routed to the Customer edge router. Upon Contractor determination that the DDoS attack has subsided, Contractor shall restore the normal routing of Customer traffic.

The Bidder's DDoS solution shall mitigate volumetric, protocol or resource, and application layer (Layers 3, 4 & 7) attacks.

Bidder's DDoS offering shall defend against the following threats/attacks at a minimum:

1. Network flood attacks (SYN, SYN-ACK, TCP, UDP, IP, ICMP, etc.);

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

2. Address, port scanning and sniffing attacks;

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

3. DNS attacks;

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

4. Web application attacks (HTTP flood attacks, etc.); and,

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

5. Protocol abuse attacks.

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

24.4.1 DDoS Initiation

The Contractor shall support the initiation of DDoS mitigation described below:

1. Customer identifies the DDoS attack and initiates the mitigation; or,
2. Contractor identifies the DDoS attack and Customer authorizes the mitigation.

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

24.4.2 DDoS Activities

The Contractor shall perform the following activities at a minimum:

1. Monitoring of Customer traffic patterns;
2. Establish network traffic baselines;
3. Detection of Customer traffic anomalies;
4. Scrubbing of Customer traffic by dropping DDoS attack packets;
5. Perform detection and anomaly analysis;
6. Develop and provide access to a strategy for identifying and mitigating real time attacks;
7. Issuance of email alert and a verbal person-to-person telephone call to authorized users within 15 minutes when an anomaly or attack is detected;

8. Issuance of email alert and a verbal person-to-person telephone call to authorized users within 15 minutes of when mitigation services commence; and,
9. Analyze attack patterns throughout Contractor IP backbone and alerting authorized users of IP threats, provide authorized users the information via secure portal for addressing/mitigating IP threats.

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

24.4.2.1 U.S. Based DDoS Mitigation Services Waiver

The provisions detailed in eVAQ General Provisions Section 92, U.S. Based Services, will not apply to the Contractor's DDoS mitigation efforts under the following conditions:

1. Attacks where malicious traffic originates outside of the U.S. and is mitigated outside of the U.S.;
2. Contractor personnel located outside the U.S. may access public information (including Public IP address information) only to the extent necessary to mitigate a DDoS attack; and,
3. CPNI shall not be provided to individuals outside of the U.S.

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

24.4.3 DDoS Detection and Mitigation Web Portal and Reporting

Contractor shall provide a secure web based portal for authorized users.

Contractor's portal shall provide authorized users the following at a minimum:

1. A view of their traffic patterns;

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

2. A view of the real time attack and mitigation strategy;

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

3. IP threat alerts;

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

4. Information for addressing and mitigating IP threats; and,

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

Contractor's portal shall provide authorized users access to the following reports:

1. Traffic anomaly detection;

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

2. TCP and UDP protocol summary; and,

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

3. Top IP "talkers" summary.

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

24.4.4 DDoS Detection and Mitigation Features

The Contractor shall offer the DDoS Detection and Mitigation Service detailed in Table 24.4.4.a.

Table 24.4.4.a – DDoS Detection and Mitigation Service

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	DDoS Mitigation 1.544–10 Mbps	DDoS Mitigation Services for 1.544–10 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast – Unlimited, where Bandwidth (BW) is 1Mbps < BW <10Mbps	NSX0755	Yes
2	DDoS Mitigation 15 Mbps	DDoS Mitigation Services for 15 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service	NSX0756	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
			purchased from Comcast – Unlimited, where Bandwidth (BW) is 1Mbps < BW <15Mbps		
3	DDoS Mitigation 25 Mbps	DDoS Mitigation Services for 25 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast – Unlimited, where Bandwidth (BW) is 1Mbps < BW <25Mbps	NSX0757	Yes
4	DDoS Mitigation 50 Mbps	DDoS Mitigation Services for 50 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast – Unlimited, where Bandwidth (BW) is 1Mbps < BW <50Mbps	TMU0050	Yes
5	DDoS Mitigation 100 Mbps	DDoS Mitigation Services for 100 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not	TMU0100	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
			Broadband Internet service purchased from Comcast – Unlimited, where Bandwidth (BW) is 50Mbps < BW ≤ 100Mbps		
6	DDoS Mitigation 250 Mbps	DDoS Mitigation Services for 250 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast – Unlimited, where Bandwidth (BW) is 100Mbps < BW ≤ 250Mbps	TMU0250	Yes
7	DDoS Mitigation 500 Mbps	DDoS Mitigation Services for 500 Mbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast – Unlimited, where Bandwidth (BW) is 100Mbps < BW ≤ 500Mbps	TMU0500	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	DDoS Mitigation 1 Gbps	DDoS Mitigation Services for 1 Gbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast– Unlimited, where Bandwidth (BW) is 500Mbps < BW ≤ 1000Mbps	TMU1000	Yes
9	DDoS Mitigation 5 Gbps	DDoS Mitigation Services for 5 Gbps of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet service purchased from Comcast– Unlimited, where Bandwidth (BW) is 1000Mbps < BW ≤ 5000Mbps	TMU5000	Yes

The Contractor may offer Unsolicited DDoS Detection and Mitigation features in Table 24.4.4.b.

Table 24.4.4.b – Unsolicited DDoS Detection and Mitigation Service and Features

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier
1	DDoS Mitigation 10 Gbps Plus	DDoS Mitigation Services for 10 Gbps Plus of traffic flow.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet Service purchased from Comcast – Unlimited, where Bandwidth (BW) is 5000Mbps < BW ≤ 100000Mbps	TMU010G
2	DDoS Multi-Carrier Mitigation	DDoS Multi-Carrier Mitigation Services for BW 1 Mbps to BW ≤ 100000 Mbps.	DDoS Mitigation Services for Managed Internet Service but not Broadband Internet Service purchased from non-Comcast carriers – Unlimited, where Bandwidth (BW) is 1 Mbps < BW ≤ 100000 Mbps. This service must be ordered in conjunction with one of the DDoS Mitigation service options in table 24.4.4.a, or table 24.4.4.b to enable the ability for Comcast to provide DDoS mitigation for other carrier circuits.	TMU002

24.5 OTHER SERVICES

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

24.5.2 Services Related Infrastructure (SRI)

The Contractor shall offer infrastructure service as defined below.

24.5.2.1 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 MPOE.

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

Bidder shall provide the Extended Demarcation Wiring Services described in Table 24.5.2.1

Table 24.5.2.1 – Extended Demarcation Wiring Services

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
1	Extended Demarcation -Copper – Regular Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack.	None	NSX0003	Yes
2	Extended Demarcation -Copper – Overtime Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack.	None	NSX0004	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
3	Extended Demarcation -Copper – Sunday and Holiday Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment. Includes 300 feet of four-pair cable and an RJ48 or equivalent jack.	None	NSX0005	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
4	Extended Demarcation -Copper 25 Pair – Regular Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment. Includes 300 feet or less of Category 5 25-pair CMP cable, one patch panel and mounting hardware. Ten Category 5e, three meter jumpers; one 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling.	None	NSX0006	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
5	Extended Demarcation -Copper 25 Pair – Overtime Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment. Includes 300 feet or less of Category 5 25-pair CMP cable, one patch panel and mounting hardware. Ten Category 5e, three meter jumpers; one 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling.	None	NSX0007	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
6	Extended Demarcation -Copper 25 Pair – Sunday and Holiday Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a copper trunk or trunking equipment. Includes 300 feet or less of Category 5 25-pair CMP cable, one patch panel and mounting hardware. Ten Category 5e, three meter jumpers; one 24-port patch panel to be provided in the MPOE and Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling.	None	NSX0008	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
7	Extended Demarcation - Optical Fiber Link – Regular Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a fiber trunk or trunking equipment, Strand count required to provision one/each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling.	None	NSX0009	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
8	Extended Demarcation - Optical Fiber Link – Overtime Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a fiber trunk or trunking equipment, Strand count required to provision one/each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling.	None	NSX0010	Yes

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
9	Extended Demarcation - Optical Fiber Link – Sunday and Holiday Hours	Wiring services to extend Facilities from the Customer's MPOE to the Customer's point of utilization from a fiber trunk or trunking equipment, Strand count required to provision one/each service only. Includes up to 1,000 feet of 62.5/125 – or 50/125 – micron, two-strand CMP fiber drop cable with adapters, enclosures, connectors, and two SC-SC duplex patch cords for each single circuit extension. Includes associated troubleshooting, testing and labeling.	None	NSX0011	Yes

24.5.2.2 Unsolicited Services Related Infrastructure

Bidder may offer additional unsolicited Services Related Infrastructure in Table 24.5.2.2.

Table 24.5.2.2 – Unsolicited Services Related Infrastructure

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

24.5.3 Services Related Hourly Support

The Contractor shall provide labor for the diagnosis and/or repair of services listed in this Contract and all costs for repair are the responsibility of the service provider unless it is specifically determined that the cause of service failure is outside the scope of the Contractors responsibilities. Work performed under this Section 24.5.3 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 the Requirement and shall meet or exceed it? Yes

In Cost Worksheet 24.5.3, 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 the Requirement and shall meet or exceed it? Yes

The Contractor shall offer emergency restoration services as detailed in Table 24.5.3.

Table 24.5.3 – Services Related Hourly Support

Line Item	Feature Name	Feature Description	Bidder's Product Description, Restrictions and Limitations	Bidder's Product Identifier	Bidder Meets or Exceeds? Yes or No
1	Field Service Repair Technician Regular Hours	Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET DNCS service problem that turns out to be caused by factors outside the responsibility of the Contractor.	None	NSX0012	Yes
2	Field Service Repair Technician Overtime Hours	Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET DNCS service problem that turns out to be caused by factors outside the responsibility of the Contractor.	None	NSX0013	Yes

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.	None	NSX0014	Yes

24.6 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.

24.6.1 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 an SLA objective is not met. CALNET SLA Rights and Remedies do not require the Customer to submit a request for credit or refund.

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

24.6.2 Technical Requirements versus SLA Objectives

Sections 24.2 (Flat Rate Internet Services), 24.3 (Network Disaster/Operational Recovery), 24.4 (DDoS Mitigation Services), and 24.5 (Other Services) define the technical requirements for each service. These requirements are the minimum parameters each Bidder must meet in order to qualify for Contract award. Upon Contract award the committed technical requirements will be maintained throughout the remainder of the Contract.

Committed SLA objectives are minimum parameters which the Contractor shall be held accountable for all rights and remedies throughout Contract Term.

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

24.6.3 Methods of Outage Reporting: Customer or Contractor

There are two methods in which CALNET service failures or quality of service issues may be reported and Contractor trouble tickets opened: Customer reported or Contractor reported.

The first method of outage reporting results from a Customer reporting service trouble to the Contractor's Customer Service Center via phone call or opening of a trouble ticket using the on-line Trouble Ticket Reporting Tool

(SOW Business Requirements Section G.10.4, Trouble Ticket Reporting Tool (TTRT)).

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

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

24.6.4 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 the Requirement and shall meet or exceed it? Yes

24.6.5 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 the Requirement and shall meet or exceed it? Yes

24.6.6 Technical SLA General Requirements

The Contractor shall adhere to the following general requirements which apply to all CALNET Technical SLAs (Section 24.6.8):

1. With the exception of the Provisioning SLA (Section 24.6.8.9), 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 the Requirement and shall meet or exceed it? Yes

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

Bidder understands the 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 the 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;

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

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;

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

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 the 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 the 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 Requirement and shall meet or exceed it? Yes

24.6.7 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 24.6.7.a, 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 Requirement and shall meet or exceed it? Yes

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

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

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

Bidder understands the Requirement and shall meet or exceed it? 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 24.6.7 – Stop Clock Conditions

Line Item	Stop Clock Condition (SCC)	SCC Definition
1	END-USER REQUEST	Periods when a restoration or testing effort is delayed at the specific request of the End-User. The SCC shall exist during the period the Contractor was delayed, provided that the End-User’s request is documented and time stamped in the Contractor’s trouble ticket or Service Request system and shows efforts are made to contact the End-User during the applicable Stop Clock period.
2	OBSERVATION	Time after a service has been restored but End-User request ticket is kept open for observation. If the service is later determined by the End-User to not have been restored, the Stop Clock shall continue until the time the End-User notifies the Contractor that the Service has not been restored.
3	END-USER NOT AVAILABLE	Time after a service has been restored but End-User is not available to verify that the Service is working. If the service is later determined by the End-User to not have been restored, the Stop Clock shall apply only for the time period between Contractor’s reasonable attempt to notify the End-User that Contractor believes the service has been restored and the time the End-User notifies the Contractor that the Service has not been restored.
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.

Line Item	Stop Clock Condition (SCC)	SCC Definition
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	<p>Limited access or contact with End-User provided the Contractor documents in the trouble ticket several efforts to contact End-User for the following:</p> <ul style="list-style-type: none"> a. Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative; b. Site contact refuses access to technician who displays proper identification; c. Customer provides incorrect site contact information which prevents access, provided that Contractor takes reasonable steps to notify End-User of the improper contact information and takes steps to obtain the correct information; or, d. Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem. <p>If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply.</p>

Line Item	Stop Clock Condition (SCC)	SCC Definition
8	STAFF	Any problem or delay to the extent caused by End-User's staff that prevents or delays Contractor's resolution of the problem. In such event, Contractor shall make a timely request to End-User staff to correct the problem or delay and document in trouble ticket.
9	APPLICATION	End-User software applications that interfere with repair of the trouble.
10	CPE	Repair/replacement of Customer Premise Equipment (CPE) not provided by Contractor if the problem has been isolated to the CPE. If determined later that the CPE was not the cause of the service outage, the CPE SCC will not apply.
11	NO RESPONSE	Failure of the trouble ticket originator or responsible End-User to return a call from Contractor's technician for on-line close of trouble tickets after the Service has been restored as long as Contractor can provide documentation in the trouble ticket substantiating the communication from Contractor's technician.
12	MAINTENANCE	An outage directly related to any properly performed scheduled maintenance or upgrade scheduled for CALNET DNCS service. Any such stop clock condition shall not extend beyond the scheduled period of the maintenance or upgrade. SLAs shall apply for any maintenance caused outage beyond the scheduled maintenance period. Outages occurring during a scheduled maintenance or upgrade period and not caused by the scheduled maintenance shall not be subject to the Maintenance SCC.
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.

Line Item	Stop Clock Condition (SCC)	SCC Definition
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 Requirement and shall meet or exceed it? Yes

The Contractor shall provide and manage the following Technical SLAs.

24.6.8 Technical Service Level Agreements (SLA)

24.6.8.1 Availability (M-S)

SLA Name: Availability

Definition:

The percentage of time a CALNET DNCS 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:

Flat Rate Internet Service

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)
InFRa	≥ 99.2%	≥ 99.5%	≥ 99.9%	P
InFRaM	≥ 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 service fails 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 Requirement and shall meet or exceed it? Yes

24.6.8.2 Catastrophic Outage 1 (CAT 1) (M-S)

SLA Name: Catastrophic Outage 1 (CAT 1)

Definition:

The total loss of service at a single site resulting in the loss of service to five or more circuits or any single service at 500Mbps or greater.

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:

Flat Rate Internet Service

Objectives:

The objective restoral time will be:

Service Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Internet Flat Rate Service	≤ 3 hours	≤ 2 hours	≤ 1 hour	S

Rights and Remedies:

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

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

24.6.8.3 Catastrophic Outage 2 (CAT 2) (M-S)

SLA Name: Catastrophic Outage 2 (CAT 2)

Definition:

A total failure of a service type in a central office (or equivalent facility), other than access, that results in a CALNET DNCS service failure. Or, a backbone failure or failure of any part of the equipment associated with the backbone that causes a CALNET DNCS service failure.

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:

Flat Rate Internet Service

Objectives:

The objective restoral time will be:

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

Rights and Remedies:

1. Per Occurrence:

- 100% credit or refund of the TMRC 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 Requirement and shall meet or exceed it? Yes

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

SLA Name: Catastrophic Outage 3 (CAT 3)

Definition:

The total loss of Internet Service 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:

Flat Rate Internet Service

Objectives:

The objective restoral time will be:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B or P)
Internet Flat Rate 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 Requirement and shall meet or exceed it? Yes

24.6.8.5 DDoS Mitigation (M-S)

SLA Name: DDoS Time to Initiate Mitigation

Definition:

The time to initiate DDoS mitigation upon the identification of an attack.

Measurement Process:

The amount of time between the detection via Customer or Contractor identification of an anomaly or attack, and the initiation of the mitigation process.

Services:

DDoS Mitigation

Objectives:

Mitigation shall begin within:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
DDoS Mitigation	≤ 45 Minutes	≤ 30 Minutes	≤ 15 Minutes	P

Rights and Remedies:

1. Per Occurrence:

Basic Time to Initiate Mitigation Minutes	Standard Time to Initiate Mitigation Minutes	Premier Time to Initiate Mitigation Minutes	Credit or Refund Percentage of TMRC for all components of DDoS feature per event
46 – 75	31 – 45	16 – 30	25%
76 – 135	46 – 75	31 – 45	50%
136 and over	76 and over	46 and over	100%

2. Monthly Aggregated Measurements:

- N/A

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

24.6.8.6 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:

Flat Rate Internet 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)
Internet Flat Rate Service	16 Hours	12 Hours	8 Hours	S

Rights and Remedies:

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

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

24.6.8.7 Managed Service Proactive Notification (M-S)

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 is interrupted and unavailable for use by Customer for 60 continuous seconds or more than 60 cumulative seconds within a 15-minute period measured by the Contractor.

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:

Flat Rate Internet Service 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 Requirement and shall meet or exceed it? Yes

24.6.8.8 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 stakeholders when information is available for dissemination to the Customers.

Services:

Internet Flat Rate Service

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 Requirement and shall meet or exceed it? Yes

24.6.8.9 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	Committed Interval Days	Coordinated/Managed Project
InFRa	30	Coordinated/Managed Project
InFRaM	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)
InFRa	≥ 90%	N/A	≥ 95%	P
InFRaM	≥ 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 Requirement and shall meet or exceed it? Yes

24.6.8.10 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:

Flat Rate Internet Service

Objectives:

The Unavailable Time objective shall not exceed:

Service Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Internet Flat Rate Service	6 Hours	5 Hours	4 Hours	B

Rights and Remedies:

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

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

24.6.8.11 Unsolicited Service Enhancement SLAs

All unsolicited service enhancements shall be considered a feature of the service, and therefore shall be included as such under the SLAs as defined in this section.

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

24.6.8.12 Proposed Unsolicited Offerings

The Contractor shall provide SLAs as defined in SLA Section 24.6.8 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 Requirement and shall meet or exceed it? Yes

24.6.8.13 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 24.6.8.

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