

INVITATION FOR BID
IFB C4DNCS19
Data Networks and Communications Services
CATEGORY 29 – CONVERGED VOIP
NWN Corporation
Statement of Work
TECHNICAL REQUIREMENTS
September 14, 2020
BAFO
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Procurement
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Rancho Cordova, CA 95741

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AMENDMENT LOG

| Amendment # | Date | Amendment Description |
|-------------|----------|--|
| 8 | 01/20/21 | Added Header Table 29.2.4.3.b – deleted items, updated Bidder's Product Identifier, and added items Table 29.2.5.b - deleted items and added items Table 29.2.6.3.b - deleted items and updated Bidder's Product Identifier Table 29.2.6.4.b – deleted items Table 29.2.7.b - deleted items and updated Bidder's Product Identifier Table 29.2.8.2 – rows deleted Table 29.3.2.2 – rows deleted Table 29.3.4.b – deleted items |

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TECHNICAL REQUIREMENTS

CATEGORY 29 – Converged VoIP

29.1 OVERVIEW

This Category 29 IFB C4DNCS19 (IFB) provides the State's solicitation for best value solutions for Converged VoIP. 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).

29.1.1 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? Yes”

Or,

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

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

Bidder's 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 |

29.1.2 Designation of Requirements

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

Costs associated with services shall be included in the prices provided by the Bidder for the individual items included in the 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.

29.1.3 Pacific Time Zone

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

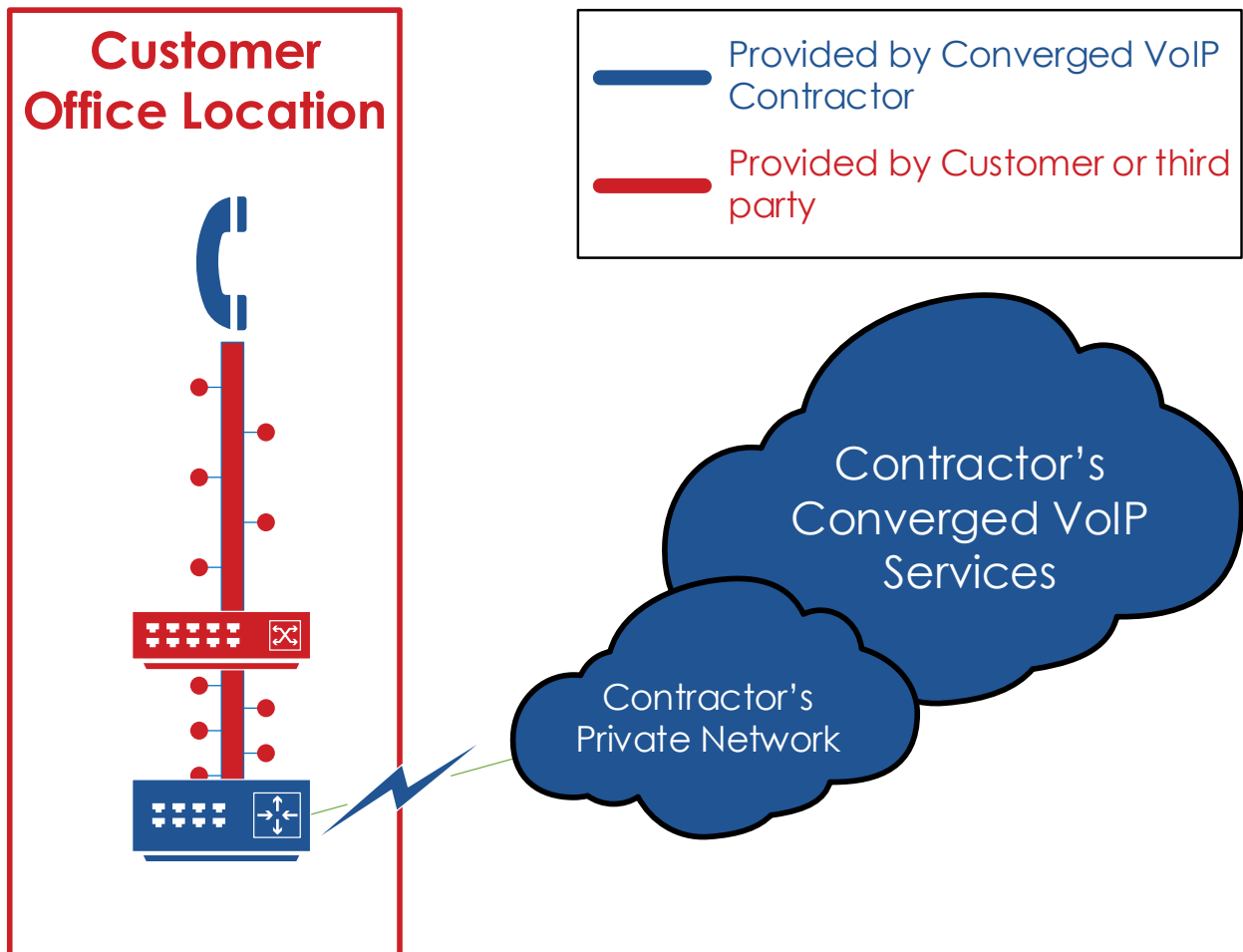
Bidder understands the Requirement and shall meet or exceed it? Yes

29.2 CONVERGED VOICE OVER INTERNET PROTOCOL

29.2.1 Converged Voice over Internet Protocol Minimum Network Requirements

The Contractor shall provide a Voice over Internet Protocol (VoIP) solution that utilizes the Contractor's private network services available on another CALNET category.

Converged VoIP Topography Example:



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

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

29.2.1.1 Converged VoIP Network Designs and Diagrams

The Bidder shall provide network designs and diagrams for the network and converged VoIP services.

The Bidder shall provide electronic drawings with their proposal. The electronic drawings shall be in .dwg, .dxf, .vsd, .pdf, or any mutually agreed format.

Network designs and diagrams shall include physical and logical representations of all critical network elements, including geographic locations, and detail how the Contractor's network(s) for each Service will address the following:

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

The Contractor shall provide revisions upon CALNET CMO request.

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

29.2.1.2 Public Switched Telephone Network Interoperability

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

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

29.2.1.3 Number Portability

The Contractor must comply with the Local Number Portability (LNP) regulations set forth by the Federal Communications Commission (FCC).

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

29.2.1.5 Network Based

1. The Converged VoIP solution shall be network based with all call control components residing in the Contractor's network, including network gatekeepers and gateways.

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

2. The Contractor shall not use State property for the deployment, collocation, or supplementation of the Contractor's network signaling and management, call control and setup, or access to other PSTN or VoIP network providers with the exception of

equipment required to provide Site Survivability Network Failure as described in Section 29.2.5.1.

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

29.2.1.6 Private VoIP Network (M)

The Contractor shall not allow voice traffic to route through the public internet. All voice traffic will traverse the Contractor's private network. If remote access is needed for mobility solutions, voice traffic may securely traverse the public internet to route back into the Contractor's private VoIP network.

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

29.2.1.7 Open Architecture Based on Session Initiation Protocol

The Contractor's Converged VoIP solution shall be non-proprietary and utilize open architecture based on Session Initiation Protocol (SIP) standards.

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

29.2.1.8 Directory Redundancy and Addressing

The Converged VoIP network shall include redundant network-based directory or gatekeeper functionality to prevent call set up failure. The network shall partition call addressing in such a manner that failure of gatekeepers will not result in a VoIP network failure for all Customers.

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

29.2.1.9 Technical Measurement Metrics

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

1. Mean Opinion Score ITU-T P.800 – 3.6 or above (or equivalent industry standard measurement).

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

2. Dial Tone Delay – Not to exceed 300 ms for any call.

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

3. Call Setup Time – Not to exceed three seconds for any call.

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

29.2.1.10 Standards Conformance

Bidders shall confirm that the Contractor's CALNET Converged VoIP services meet all applicable International Telecommunication Union (ITU-T) standards, International Engineering Task Force (IETF) standards and Request for Comments (RFC's).

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

29.2.1.11 Voice Compression

The VoIP network solution shall include voice compression that will:

1. Pass all applicable ITU test vectors.

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

2. Support configurable packetization for maximum flexibility; and,

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

3. Not degrade when all channels are active.

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

29.2.1.12 Network Operations Center

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

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

The Contractor shall be responsible for the following:

1. Fault management (trouble identification, isolation, and notification).

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

2. Monitor network performance to identify capacity blockages and implement controls to optimize network health and performance.

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

29.2.1.13 VoIP Security

The Contractor shall implement security measures that detect and prevent unauthorized access to the network for Denial of Service (DoS), Telephony Denial of Service (TDoS), and Man-in-the-Middle (MITM) attacks.

29.2.1.13.1 Physical Access

The Contractor shall comply with the physical security controls of NIST SP 800-53, ISO/IEC 27001, or equivalent standards.

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

29.2.1.13.2 Network Security

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

1. All core network equipment shall be in a hardened, secure facility.

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

2. All unnecessary services shall be disabled or removed.

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

3. Access control policies shall be used to deny suspicious traffic.

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

4. Administrators shall be required to log into a central server to access any other server on the network.

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

29.2.1.13.3 Client Authentication

1. The Contractor shall utilize the SIP Digest Authentication scheme to authenticate users.

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

2. The Contractor shall set passwords on VoIP handsets before shipping.

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

3. The Contractor shall disable Telnet to all VoIP handsets.

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

29.2.1.14 Service Restoration

29.2.1.14.1 Telecommunications Service Priority Program

When Applicable, the Contractor shall comply with the Telecommunications Service Priority (TSP) program, an FCC mandate for prioritizing service requests by identifying those services critical to National Security and Emergency Preparedness (NS/EP) comply with all California Public Utilities Commission (CPUC) and FCC requirements.

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

29.2.2 Emergency Services

The Contractor shall comply with Federal Communications Commission (FCC) emergency service requirements, including Enhanced 911 (E911), Kari's Law, and the Ray Baum's Act, to identify the location of an originating station and route the call to the appropriate Public Safety Answering Point (PSAP).

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

29.2.2.1 Enhanced 911 Database Updates

The Contractor shall be responsible for updating the E911 database when notified End-User equipment is moving to a new location with a different street address and Local Area Network.

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

29.2.2.1.1 Dynamic Location Mapping

The Contractor shall provide Customers with a solution to map logical network attributes (e.g. port, subnet, VLAN, Wireless AP, etc.) to dispatchable locations. Dispatchable locations shall include the street address and additional information such as room number, floor number, or other information necessary to identify the location of the calling party.

The Bidder shall describe their Dynamic Location Mapping solution in the Bidder's Description. The Bidder's Description shall be no more than three pages and must include a technical description of the following items.

1. How the Bidder's solution will allow a Customer to configure dispatchable locations. This description should include the level of

detail that can be configured in terms of dispatchable locations and network attributes.

2. How the Bidder's solution will provide a dispatchable location to the PSAP when an End-User dials 911.

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

Bidder's Description: NWN has two Dynamic Location Mapping (DLM) solutions in its service offering. The NWN Standard E911 DLM solution, used for customers who do not have any non-premise-based users (i.e. no mobile or remote workers), routes 911 calls through NWN's SIP providers (e.g. Bandwidth.com) using a traditional Emergency Response Location (ERL)/Emergency Location Identification Number (ELIN) methodology. NWN automatically tracks and updates phone moves and changes throughout the Customer premise network, and provides local onsite notification through several methods, including phone alert, web portal alert, email, and text alert.

A Customer configures a dispatchable location by defining a unique IP subnet range for the voice VLAN for each dispatchable location. The Customer controls the granularity of the dispatchable location by means of appropriate segmentation of the voice network VLANs and setting DHCP scopes accordingly. For VoIP endpoint devices that may connect to the Customer's local network via wireless LAN, each access point's BSSID can also define a unique dispatchable location.

For each defined dispatchable location, the Customer provides NWN with the location details in the form of an Address_Line_1 and an Address_Line_2 field. This information is the basis of the Automatic Location Information (ALI) used by the PSAP. The first field contains the civic address and is geocoded, validated and converted for downstream display on 911 Call Taker screens. The second field is "free form" and can contain floor, suite, room or "zone" information as desired by the Customer. The second field has a standard allowed length of 60 characters. However, often the PSAP equipment only displays the first 20 characters. NWN recommends prudent use of common acronyms as a result.

NWN uses the Customer-provided dispatchable location information (e.g. IP subnet/BSSID, Address_Line_1 and Address_Line_2) to create ERL database records in its internal E911 database. Each ERL consists of the ALI, the associated IP Subnet/BSSID, and the ELIN. The ELIN is a unique DID assigned by NWN to the ERL for use as the outbound calling party number for all 911 calls made by phones in that ERL. NWN then registers the ELIN/ALI information with the SIP carrier for input into the ALI databases used by PSAPs.

1. End user at x305 on the third floor makes a 911 call

2. **NWN routes the call to its internal E911 database for that Customer**
3. **The NWN internal E911 database uses the IP subnet/BSSID information for the caller's phone handset to determine the ERL for that phone, then modifies the calling number (CN) to the ELIN for that ERL. The call is also logged to facilitate PSAP callback to the end user should they be disconnected**
4. **NWN then routes the call to the SIP Service Provider**
5. **The SIP Service Provider connects the call to the appropriate PSAP using a selective routing process based on the ELIN**
6. **The PSAP uses the ELIN to find the dispatchable location information in the AII database.**

29.2.2.1.2 Remote End-User Location Mapping

The Contractor may provide mobility solutions as part of their Converged VoIP service or as unsolicited items.

All mobility solutions provided by the Contractor shall automatically locate remote End-Users based on the most accurate location data available. Location data sources may include, but are not limited to, GPS, Wi-Fi, Bluetooth, and mobile networks.

In situations where location data is not available, the Contractor's solution shall require the End-User to immediately designate their physical location upon connecting to an unknown network.

The Bidder shall describe their Remote End-User Location Mapping solution in the Bidder's Description. The Bidder's Description shall be no more than three pages and must include a technical description of the following items.

1. How the Bidder's solution will determine the most accurate location data available. The Bidder must include device-specific detail if determining location varies across different types of devices.
2. How the Bidder's solution will require the End-User to immediately designate their physical location. The Bidder must demonstrate how End-Users are able to designate their physical location within the softphone application. Requiring an End-User to call in or use a

separate portal to designate their location is not an acceptable solution.

3. Any other means used to pass the End-User's dispatchable location to the PSAP.

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

Bidder's Description: For Customers who have a requirement to support both mobile and remote users, NWN also offers a Premium Dynamic Location Mapping solution. This solution uses the same IP subnet/BSSID on-premise network attributes as the Standard NWN E911 service to assign unique ERLs. However, instead of routing calls to NWN's standard SIP Service Providers, in the Premium solution NWN routes the 911 calls to the RedSky E911 Anywhere cloud-based solution. This solution provides the Customer with a greater capability for self-administration of location information, as well as a more configurable set of alerting options when a user makes a 911 call. However, the main advantage of the premium solution is the ability to support dynamic location mapping for remote and mobile users. In situations where location data is not available, the End-User is required to immediately designate their physical location upon connecting to an unknown network.

The section below describes the operation of the NWN Premium DLM solution for Customer premise IP phones:

The location of all IP phones within Customer premise locations are tracked in the same manner as the NWN Standard solution. NWN automatically updates the ELIN/ERL location records to RedSky E911 Anywhere. RedSky validates and stores the information in a Dynamic ALI database.

When a premise IP phone places a 9-1-1 call, NWN performs the ERL lookup based on the IP phone's network attributes, converts the party's calling number (CN) to the ELIN configured for that ERL, and routes the call to E911 Anywhere.

E911 Anywhere retrieves the location record of the calling number, determines the correct PSAP, creates routing instructions and sends the call to the PSAP.

Simultaneously, E911 Anywhere dynamically populates the ALI record in the LEC PS-ALI database with the emergency caller's location and

callback number (ELIN). The PSAP retrieves this information with a data query to the LEC PS-ALI database.

The section below describes the operation of the NWN Premium DLM solution for remote users:

Remote End-Users of the NWN Converged VoIP Service use a NWN-provided soft client. Determining the location of a remote soft client End-User on a non-cellular device (e.g. soft clients on a PC or tablet) requires the installation of the RedSky MyE911 application alongside the soft client on the device. MyE911 has a feature that hides the NWN soft client off-screen when the End-User starts the NWN soft client, while MyE911 verifies the End-User's location using network parameters such as IP address, wireless LAN BSSID, and LLDP chassis/port ID. If the End-User's network parameters are a definitive match to a previously registered ERL, MyE911 will minimize to the system tray and bring the soft client back into focus. However, if the network parameters are NOT a definitive match, MyE911 will require the End-User to immediately designate their physical location upon connecting to the unknown network. That location will include street address, room and floor fields. RedSky E911 Anywhere validates the End-User-provided location information to ensure the address is routable to a PSAP, and then stores it in the Dynamic ALI database.

If the remote End-Users are using the NWN-provided soft client on an iOS or Android smartphone, NWN configures the soft client application to use the device's native cellular calling service to place the 911 call, even when dialed from within the soft client interface. This method ensures the use of the cellular service provider's telemetry information to determine 911 PSAP routing and location information.

29.2.3 Converged VoIP Services

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

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

- 2. The proposed design shall be network based where all major components reside at a central office or off-premises location.**

Bandwidth requirements shall be determined by the ITU compression mechanisms defined by the Contractor's network design.

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

3. The handsets shall be provided by the Contractor as part of the service package and per-seat pricing structure but will connect directly to the Customer's LAN.

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

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

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

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

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

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

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

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

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

8. The Converged VoIP service shall be provisioned in conjunction with the Contractor's private network services available on another CALNET category.

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

9. Additional service or feature components required to comply with the requirements of this section shall be bundled into the service components identified.

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

29.2.4 Converged VoIP Minimum Requirements

The Converged VoIP service shall include all equipment, hardware, software, training and ongoing administration, maintenance and upgrades in the per-seat pricing structure.

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

29.2.4.1 Converged VoIP Equipment and Hardware

1. Unless otherwise noted in the detailed product listing below, the Contractor shall furnish and install all equipment and hardware required to deliver the service to the workstation handset excluding Customer LAN components.

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

2. Horizontal closet racks, raceway, environmental components and AC electrical power will be acquired separately.

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

3. Horizontal station cabling will be the responsibility of the Customer and will be acquired separately.

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

4. All LAN functionality, components, cabling, and equipment shall be the responsibility of the Customer and shall be acquired separately.

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

29.2.4.1.1 Converged VoIP Software

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

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

The Contractor shall provide all configuration and programming.

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

29.2.4.1.2 Converged VoIP Administration

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

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

The Contractor shall provide the Customer with the option to perform selected on-site administrative functions in lieu of the Contractor's obligation, at the sole discretion of the Customer.

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

29.2.4.1.3 Converged VoIP Handset Power Supplies

The Contractor shall provide ancillary handset power supplies with the handset when requested by the Customer.

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

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

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

29.2.4.2 Converged VoIP Basic Feature Package

The Contractor shall provide a basic feature package for all handset configurations. The basic feature package shall include the call features described below.

1. 9XX Blocking – No calls to or from 9xx-xxx-xxxx will be processed.

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

2. Auto Attendant – A service that automatically answers incoming calls within a predefined number of rings without assistance from a live attendant.

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

3. Call Forward (Busy Don't Answer) – Allows an End-User to choose to reroute incoming calls to another specified telephone number. This shall be available for all incoming calls on a busy or ring-no-answer condition.

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

4. Call Forward (All Calls) – Allows the End-User to choose to reroute all incoming calls to another specified telephone number. The feature shall have the capability to restrict call forwarding to internal, local or long distance numbers.

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

5. Call Hold – Allows the called party to put a caller on hold and retrieve them from the hold state.

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

6. Call Notify - Enables a subscriber to define criteria that causes certain incoming calls to initiate an email notification.

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

7. Call Transfer – Allows an End-User to transfer any call in progress to another telephone number.

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

8. Call Pickup – Allows an End-User to answer any calls directed to another station line within his or her own predefined call pickup group.

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

9. Call Park – Allows a call to be parked at an End-User's number for retrieval by another End-User's line.

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

10. Conference – Allows an End-User to establish a multiparty conference connection of a minimum of three conferees including themselves without attendant assistance.

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

11. Call Waiting - When a second call is received while an End-User is engaged in a call, the End-User is informed via an audible tone.

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

12. Caller ID – Phone number of the calling party is displayed on the terminal equipment.

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

13. Conference Bridge – Allows callers from diverse locations/platforms to dial in to a specified telephone number to participate in a conference call.

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

14. DID - Direct Inward Dial phone number including Single Line appearance.

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

15. Directory Phone Display – Directory of Customer's VoIP subscribers via the phone display.

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

16. Extension Dialing – All on-net numbers can be reached by dialing the fewest number of digits, taking into account size of deployment, number contention, and E911 emergency requirements.

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

17. Group Pickup – Allows an incoming call to be picked up from any one of a predefined group of phones.

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

18. Hunt Groups – Route inbound calls to a predetermined sequence of telephone numbers until it is answered.

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

19. Message Waiting Indicator – Visual indication on phone that a message is in queue for review.

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

20. Multi-Line Appearance – Provide the ability for multiple line appearances on an End-User's phone.

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

21. Redial – Allow an End-User to automatically originate a call to the last number dialed from the End-User's phone.

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

22. Speed Dial – Allows abbreviated digit dialing capability on a per station basis.

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

The Bidder shall identify any additional features available at no additional charge.

Bidder's Description: NWN Corporation meets all of the Converged VoIP Basic Feature Package requirements. There are no additional features available at no additional charge.

29.2.4.3 Converged VoIP Handsets

The Contractor shall provide the Converged VoIP service in five specific handset configurations as defined below.

29.2.4.3.1 Standard Converged VoIP Handset Features

Standard Converged VoIP handsets shall include the following features:

1. Single line.

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

2. LCD Display.

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

3. Full Duplex Hands-Free Speakerphone.

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

4. Visual message waiting indicator.

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

5. Ring volume control.

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

6. Minimum three programmable function keys or a soft key interface.

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

7. Single Ethernet port.

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

8. Lightweight Directory Access Protocol (LDAP) and/or Active Directory (AD) integration.

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

9. Compliant with Section 508 of the Rehabilitation Act.

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

29.2.4.3.2 Midrange Converged VoIP Handset Features

Midrange Converged VoIP handsets shall include the following features in addition to the standard Converged VoIP handset features described in Section 29.2.4.3.1:

1. Minimum three lines.

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

2. Intercom feature.

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

3. Two Ethernet Ports.

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

4. End-User Configurable Contact Directory.

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

29.2.4.3.3 Attendant Converged VoIP Handset Features

Attendant Converged VoIP handsets shall include the following features in addition to the midrange Converged VoIP handset features described in Section 29.2.4.3.2:

1. Minimum Six Lines.

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

2. Expansion Module(s) Capability.

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

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

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

29.2.4.3.4 Standard Converged VoIP Conference Room Speakerphone Features and Functionality

Standard Converged VoIP conference room speakerphones shall include the following features:

1. Full duplex.

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

2. Expansion microphone compatible.

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

3. Ethernet connection.

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

4. LCD display.

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

5. LDAP and/or AD integration.

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

29.2.4.3.5 Executive Converged VoIP Conference Room Speakerphone Features and Functionality

Executive Converged VoIP conference room speakerphones shall include the following features in addition to the standard Converged VoIP conference room speakerphone features described in Section 29.2.4.3.4:

1. Integration with video conferencing systems.

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

2. Wideband audio.

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

3. Multi-unit connectivity.

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

4. Two expansion microphones included.

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

Bidders shall provide the Converged VoIP Handset Service Packages described in Table 29.2.4.3.a.

Table 29.2.4.3.a – Converged VoIP Handset Service Packages

| 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 | Standard Converged VoIP Handset Service Package | Service Package with Standard Converged VoIP Handset. | | UC-BUN-CDNCS29-STNDHAND | Yes |
| 2 | Midrange Converged VoIP Handset Service Package | Service Package with Midrange Converged VoIP Handset. | | UC-BUN-CDNCS29-MIDHAND | 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 | Attendant Converged VoIP Handset Service Package | Service Package with Attendant Converged VoIP Handset. | | UC-BUN-CDNCS29-ATTHAND | Yes |
| 4 | Standard Converged VoIP Conference Room Speakerphone | Service Package with Standard Conference Room Converged VoIP Speakerphone with no external speakers. | | UC-BUN-CDNCS29-STNDCONF | Yes |
| 5 | Executive Converged VoIP Conference Room Speakerphone | Service Package with Executive Conference Room Converged VoIP Speakerphone with two external speakers. | | UC-BUN-CDNCS29-EXECHAND | Yes |

The Contractor may offer additional unsolicited Converged VoIP Handset Service Packages in Table 29.2.4.3.b.

Table 29.2.4.3.b – Unsolicited Converged VoIP Handset Service Packages

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|---|------------------------------------|---|
| 1 | Voice Gateway Support Service | UC-MSR-PRIVATE-AGW | Voice Gateway Support Service |
| 2 | UC Private Standard Voice Recording User | UC-AAS-PRIVATE-ARCRDU | UC Private Standard Voice Recording User |
| 3 | UC Private Advanced Voice Recording User | UC-AAS-PRIVATE-SCR | UC Private Advanced Voice Recording User |
| 4 | UC Hybrid/Private Distance Learning Training - Full Day | UC-3PN-TRAIN-FULLDAY | UC Hybrid/Private Distance Learning Training - Full Day |
| 5 | Attendant Console - Advanced | UC-AAS-PRIVATE-ADVATCON | Attendant Console - Advanced |
| 6 | High Capacity Analog Service (48 ports) | UC-MSN-PRIVATE-AGWY48 | High Capacity Analog Service (48 ports) |
| 7 | Low Capacity Analog Service (4 ports) | UC-MSN-PRIVATE-AGWY4 | Low Capacity Analog Service (4 ports) |
| 8 | Fax Over IP Service | UC-AAS-PRIVATE-FOIP | Fax Over IP Service |
| 9 | Work From Home Standard Bundle | UC-BUN-WFH-STND | Work From Home Standard Bundle |
| 10 | Work From Home Executive Bundle | UC-BUN-WFH-EXEC | Work From Home Executive Bundle |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|---------------------------------------|-----------------------------|--|
| 11 | Work From Home Executive Video Bundle | UC-BUN-WFH-EXECV | Work From Home Executive Video Bundle |
| 12 | Emergency Notification and Paging | UC-AAS-ENT-PAGING | Emergency Notification and Paging |
| 13 | Power Management | UC-AAS-PRIVATE-PWRMGMT | Power Management |
| 14 | E911 Dynamic Mobile | UC-AAS-CIR-E911M | E911 Dynamic Mobile |
| 15 | E911 Location | UC-PRO-PRIVATE-CERL | E911 Location |
| 16 | FedRAMP Compliance | UC-AAS-ENT-FEDRAMP | FedRAMP Compliance |
| 17 | HWaaS Cisco 6841 MPP Phone | UC-AAS-HAAS-3PW6841 | HWaaS Cisco 6841 MPP Phone |
| 18 | HWaaS Cisco 6851 MPP Phone | UC-AAS-HAAS-3PW6851 | HWaaS Cisco 6851 MPP Phone |
| 19 | HWaaS Cisco 6861 MPP Phone | UC-AAS-HAAS-3PW6861 | HWaaS Cisco 6861 MPP Phone |
| 20 | HWaaS Cisco KEM for 6800 Series MPP | UC-AAS-HAAS-3PW68KEM | HWaaS Cisco KEM for 6800 Series MPP |
| 21 | HWaaS Cisco IP 7811 MPP Phone | UC-AAS-HAAS-3PW7811 | HWaaS Cisco IP 7811 MPP Phone |
| 22 | HWaaS Cisco IP 7821 MPP Phone | UC-AAS-HAAS-3PW7821 | HWaaS Cisco IP 7821 MPP Phone |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|--|------------------------------------|---|
| 23 | HWaaS Cisco IP 7811 MPP Conference Phone | UC-AAS-HAAS-3PW7832 | HWaaS Cisco IP 7811 MPP Conference Phone |
| 24 | HWaaS Cisco IP 7841 MPP Phone | UC-AAS-HAAS-3PW7841 | HWaaS Cisco IP 7841 MPP Phone |
| 25 | HWaaS Cisco IP 7861 MPP Phone | UC-AAS-HAAS-3PW7861 | HWaaS Cisco IP 7861 MPP Phone |
| 26 | HWaaS Cisco 8800 Series KEM for Audio IP Phone, MPP firmware | UC-AAS-HAAS-3PW88KEM | HWaaS Cisco 8800 Series KEM for Audio IP Phone, MPP firmware |
| 27 | HWaaS Cisco IP 8811 MPP Phone | UC-AAS-HAAS-3PW8811 | HWaaS Cisco IP 8811 MPP Phone |
| 28 | HWaaS Cisco 8832 MPP Phone | UC-AAS-HAAS-3PW8832 | HWaaS Cisco 8832 MPP Phone |
| 29 | HWaaS Cisco IP 8841 MPP Phone | UC-AAS-HAAS-3PW8841 | HWaaS Cisco IP 8841 MPP Phone |
| 30 | HWaaS Cisco IP 8845 MPP Phone | UC-AAS-HAAS-3PW8845 | HWaaS Cisco IP 8845 MPP Phone |
| 31 | HWaaS Cisco IP 8851 MPP Phone | UC-AAS-HAAS-3PW8851 | HWaaS Cisco IP 8851 MPP Phone |
| 32 | HWaaS Cisco IP 8861 MPP Phone | UC-AAS-HAAS-3PW8861 | HWaaS Cisco IP 8861 MPP Phone |
| 33 | HWaaS Cisco IP 8865 MPP Phone | UC-AAS-HAAS-3PW8865 | HWaaS Cisco IP 8865 MPP Phone |
| 34 | HWaaS Cisco Webex DX80 | UC-AAS-HAAS-DX80 | HWaaS Cisco Webex DX80 |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|------------------------------------|------------------------------------|---|
| 35 | HWaaS Cisco Webex Board 70 | UC-AAS-HAAS-BOARD70 | HWaaS Cisco Webex Board 70 |
| 36 | HWaaS Cisco Webex Board 55 | UC-AAS-HAAS-BOARD55 | HWaaS Cisco Webex Board 55 |
| 37 | HWaaS Cisco Webex Board 85 | UC-AAS-HAAS-BOARD85 | HWaaS Cisco Webex Board 85 |
| 38 | HWaaS Cisco Webex Room Kit | UC-AAS-HAAS-RK | HWaaS Cisco Webex Room Kit |
| 39 | HWaaS Cisco Room Kit Mini | UC-AAS-HAAS-RKM | HWaaS Cisco Room Kit Mini |
| 40 | HWaaS Cisco Room Kit Mini Plus P60 | UC-AAS-HAAS-RKMP60 | HWaaS Cisco Room Kit Mini Plus P60 |
| 41 | HWaaS Cisco Room Kit Mini Plus | UC-AAS-HAAS-RKMP | HWaaS Cisco Room Kit Mini Plus |
| 42 | HWaaS Cisco Room Kit PRO (P60) | UC-AAS-HAAS-RKPRO | HWaaS Cisco Room Kit PRO (P60) |
| 43 | HWaaS Cisco Webex Room 55 | UC-AAS-HAAS-WBX55 | HWaaS Cisco Webex Room 55 |
| 44 | HWaaS Cisco Webex Room 55 Dual | UC-AAS-HAAS-WBX55D | HWaaS Cisco Webex Room 55 Dual |
| 45 | HWaaS Cisco Webex Room 70 Single | UC-AAS-HAAS-WBX70 | HWaaS Cisco Webex Room 70 Single |
| 46 | HWaaS Cisco Webex Room 70 Dual | UC-AAS-HAAS-WBX70D | HWaaS Cisco Webex Room 70 Dual |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|--|------------------------------------|---|
| 47 | HWaaS Cisco IP 7811 Phone (spare) | UC-AAS-HAAS-7811 | HWaaS Cisco IP 7811 Phone (spare) |
| 48 | HWaaS Cisco IP 7821 Phone | UC-AAS-HAAS-7821 | HWaaS Cisco IP 7821 Phone |
| 49 | HWaaS Cisco IP 7811 Conference Phone | UC-AAS-HAAS-7832 | HWaaS Cisco IP 7811 Conference Phone |
| 50 | HWaaS Cisco IP 7841 Phone | UC-AAS-HAAS-7841 | HWaaS Cisco IP 7841 Phone |
| 51 | HWaaS Cisco IP 7861 Phone | UC-AAS-HAAS-7861 | HWaaS Cisco IP 7861 Phone |
| 52 | HWaaS Cisco 8800 Series KEM for Audio IP Phone, firmware | UC-AAS-HAAS-88KEM | HWaaS Cisco 8800 Series KEM for Audio IP Phone, firmware |
| 53 | HWaaS Cisco IP 8811 Phone | UC-AAS-HAAS-8811 | HWaaS Cisco IP 8811 Phone |
| 54 | HWaaS Cisco 8832 Phone | UC-AAS-HAAS-8832 | HWaaS Cisco 8832 Phone |
| 55 | HWaaS Cisco IP 8841 Phone | UC-AAS-HAAS-7881 | HWaaS Cisco IP 8841 Phone |
| 56 | HWaaS Cisco IP 8845 Phone | UC-AAS-HAAS-8845 | HWaaS Cisco IP 8845 Phone |
| 57 | HWaaS Cisco IP 8851 Phone | UC-AAS-HAAS-8851 | HWaaS Cisco IP 8851 Phone |
| 58 | HWaaS Cisco IP 8861 Phone | UC-AAS-HAAS-8861 | HWaaS Cisco IP 8861 Phone |
| 59 | HWaaS Cisco IP 8865 Phone | UC-AAS-HAAS-8865 | HWaaS Cisco IP 8865 Phone |
| 60 | 562 Wireless Dual Headset, Multi Base Station US,CA | UC-AAS-HAAS-HS562M | 562 Wireless Dual Headset, Multi Base Station US,CA |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|--|------------------------------------|--|
| 61 | 561 Wireless Single Headset, Multi Base Station US,CA | UC-AAS-HAAS-HS561M | 561 Wireless Single Headset, Multi Base Station US,CA |
| 62 | 562 Wireless Dual Headset, Standard Base Station US,CA | UC-AAS-HAAS-HS562S | 562 Wireless Dual Headset, Standard Base Station US,CA |
| 63 | 561 Wireless Single Headset, Standard Base Station US,CA | UC-AAS-HAAS-HS561S | 561 Wireless Single Headset, Standard Base Station US,CA |
| 64 | Headset 531 Wired Single + USB Headset Adapter | UC-AAS-HAAS-HS531 | Headset 531 Wired Single + USB Headset Adapter |
| 65 | Headset 532 Wired Dual + USB Headset Adapter | UC-AAS-HAAS-HS532 | Headset 532 Wired Dual + USB Headset Adapter |
| 66 | Network Assessment using the RISC Tool to deliver a Custom Report | ATS-MSR-LAN-ASSESS | Network Assessment using the RISC Tool to deliver a Custom Report |
| 67 | Network Healthcheck for Device Configuration Analysis and Recommendations (includes documentation) | ATS-MSR-LAN-HCKCON | Network Healthcheck for Device Configuration Analysis and Recommendations (includes documentation) |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|--|-----------------------------|---|
| 68 | Network Healthcheck for an Data Center Rack (include walk-thru, documentation , and Visio) | ATS-MSR-LAN-HCKDCRK | Network Healthcheck for an Data Center Rack (include walk-thru, documentation, and Visio) |
| 69 | Network Healthcheck for an Edge Closet (include walk-thru, documentation , and Visio) | ATS-MSR-LAN-HCKEDGE | Network Healthcheck for an Edge Closet (include walk-thru, documentation, and Visio) |
| 70 | Cisco DNA Center High Availability Core Support | ATS-MSR-LAN-MMDNAC HA | Cisco DNA Center High Availability Core Support |
| 71 | Cisco DNA Center Standalone Core Support | ATS-MSR-LAN-MMDNACS | Cisco DNA Center Standalone Core Support |
| 72 | Router Core Support | ATS-MSR-LAN-MMR | Router Core Support |
| 73 | Switch Chassis Core Support | ATS-MSR-LAN-MMSWC | Switch Chassis Core Support |
| 74 | Switch Fixed Port Core Support | ATS-MSR-LAN-MMSWF | Switch Fixed Port Core Support |
| 75 | Router Essentials Support | ATS-MSR-LAN-MR | Router Essentials Support |
| 76 | Switch Chassis Essentials Support | ATS-MSR-LAN-MSWC | Switch Chassis Essentials Support |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|---|------------------------------------|---|
| 77 | Switch Fixed Port Essentials Support | ATS-MSR-LAN-MSWF | Switch Fixed Port Essentials Support |
| 78 | Hardware as a Service Switch | ATS-AAS-HAAS-SWITCH | Hardware as a Service Switch |
| 79 | Hardware as a Service Midrange Phone | UC-MSN-HAAS-8800 | Hardware as a Service Midrange Phone |
| 80 | Hardware as a Service Conf Phone | UC-MSN-HAAS-CONF88 | Hardware as a Service Conf Phone |
| 81 | Hardware as a Service Headset 1 | UC-MSN-HAAS-HSET1 | Hardware as a Service Headset 1 |
| 82 | Hardware as a Service Headset 2 | UC-MSN-HAAS-HSET2 | Hardware as a Service Headset 2 |
| 83 | Hardware as a Service Headset 3 | UC-MSN-HAAS-HSET3 | Hardware as a Service Headset 3 |
| 84 | Emergency Notification Board Support Service | UC-BUN-HAAS-ENBSS | Emergency Notification Board Support Service |
| 85 | Emergency Notification Board Service - Small | UC-BUN-HAAS-ENBSS | Emergency Notification Board Service - Small |
| 86 | Emergency Notification Board Service - Medium | UC-BUN-HAAS-ENBSM | Emergency Notification Board Service - Medium |
| 87 | Emergency Notification Board Service - Large | UC-BUN-HAAS-ENBSL | Emergency Notification Board Service - Large |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|--|------------------------------------|--|
| 88 | Emergency Notification Board Service - XL | UC-BUN-HAAS-ENBSXL | Emergency Notification Board Service - XL |
| 89 | Emergency Notification Board Service - Outdoor | UC-BUN-HAAS-ENBSO | Emergency Notification Board Service - Outdoor |
| 90 | Video Room Setup Small | UC-3PN-VIDEO-RRS | Video Room Setup Small |
| 91 | Room Ready Medium | UC-3PN-VIDEO-RRM | Room Ready Medium |
| 92 | Room Ready Large | UC-3PN-VIDEO-RRL | Room Ready Large |
| 93 | Room Ready XL | UC-3PN-VIDEO-RRXL | Room Ready XL |
| 94 | IP Paging and Notification Server | UC-AAS-PRIVATE-PAGSVR | IP Paging and Notification Server |
| 95 | IP Speaker registered to calling server support service | UC-AAS-PRIVATE-IPSPK | IP Speaker registered to calling server support service |
| 96 | IP Wall Mount Speaker registered to calling server support service | UC-AAS-PRIVATE-IPSPKW | IP Wall Mount Speaker registered to calling server support service |
| 97 | IP Ceiling Speaker registered to calling server support service | UC-AAS-PRIVATE-IPSPKC | IP Ceiling Speaker registered to calling server support service |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|--|---|-----------------------------|--|
| 98 | IP Outdoor Speaker registered to calling server support service | UC-AAS-PRIVATE-IPSPKO | IP Outdoor Speaker registered to calling server support service |
| 99 | IP Speaker registered to calling server | UC-MSN-PRIVATE-IPSPK | IP Speaker registered to calling server |
| 100 | IP Wall Mount Speaker registered to calling server | UC-MSN-PRIVATE-IPSPKW | IP Wall Mount Speaker registered to calling server |
| 101 | IP Ceiling Speaker registered to calling server | UC-MSN-PRIVATE-IPSPKC | IP Ceiling Speaker registered to calling server |
| 102 | IP Outdoor Speaker registered to calling server | UC-MSN-PRIVATE-IPSPKO | IP Outdoor Speaker registered to calling server |
| 103 | Advanced Service Assurance - Network Monitoring | UC-AAS-LAN-REPLYMM | Advanced Service Assurance - Network Monitoring |
| 104 | Mobile Edge | UC-AAS-PRIVATE-MOBEDGE | Mobile Edge |
| 105 | AI Assistant | UC-AAS-PRIVATE-AIA | AI Assistant |
| NWN Unbundled Services from Table 29.2.4.3.a | | | |
| 106 | Standard Converged VoIP Handset Service Package (NRC) | UC-MSN-CDNCS29-STNDHAND | Unbundled - Standard Converged VoIP Handset Service Package NRC for Solicited SKU # UC-BUN-CDNCS29-STNDHAND |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|--|-----------------------------|---|
| 107 | Standard Converged VoIP Handset Service Package (MRC) | UC-MSR-CDNCS29-STNDHAND | Unbundled - Standard Converged VoIP Handset Service Package MRC for Solicited SKU # UC-BUN-CDNCS29-STNDHAND |
| 108 | Midrange Converged VoIP Handset Service Package (NRC) | UC-MSN-CDNCS29-MIDHAND | Unbundled - Midrange Converged VoIP Handset Service Package NRC for Solicited SKU # UC-BUN-CDNCS29-MIDHAND |
| 109 | Midrange Converged VoIP Handset Service Package (MRC) | UC-MSR-CDNCS29-MIDHAND | Unbundled - Midrange Converged VoIP Handset Service Package MRC for Solicited SKU # UC-BUN-CDNCS29-MIDHAND |
| 110 | Attendant Converged VoIP Handset Service Package (NRC) | UC-MSN-CDNCS29-ATTHAND | Unbundled - Attendant Converged VoIP Handset Service Package NRC for Solicited SKU # UC-BUN-CDNCS29-ATTHAND |
| 111 | Attendant Converged VoIP Handset Service Package (MRC) | UC-MSR-CDNCS29-ATTHAND | Unbundled - Attendant Converged VoIP Handset Service Package MRC for Solicited SKU # UC-BUN-CDNCS29-ATTHAND |
| 112 | Standard Converged VoIP Conference Room Speakerphone (NRC) | UC-MSN-CDNCS29-STNDCONF | Unbundled - Standard Converged VoIP Conference Room Speakerphone NRC for Solicited SKU # UC-BUN-CDNCS29-STNDCONF |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------------|---|-----------------------------|--|
| 113 | Standard Converged VoIP Conference Room Speakerphone (MRC) | UC-MSR-CDNCS29-STNDCONF | Unbundled - Standard Converged VoIP Conference Room Speakerphone MRC for Solicited SKU # UC-BUN-CDNCS29-STNDCONF |
| 114 | Executive Converged VoIP Conference Room Speakerphone (NRC) | UC-MSN-CDNCS29-EXECHAND | Unbundled - Executive Converged VoIP Conference Room Speakerphone NRC for Solicited SKU # UC-BUN-CDNCS29-EXECHAND |
| 115 | Executive Converged VoIP Conference Room Speakerphone (MRC) | UC-MSR-CDNCS29-EXECHAND | Unbundled - Executive Converged VoIP Conference Room Speakerphone MRC for Solicited SKU # UC-BUN-CDNCS29-EXECHAND |
| Microsoft Integrations | | | |
| 116 | Microsoft Platform | UC-PRO-MT-PLAT | |
| 117 | Microsoft Headset 1 | UC-3PN-MT-HEAD1 | |
| 118 | Microsoft Headset 2 | UC-3PN-MT-HEAD2 | |
| 119 | Microsoft Headset 3 | UC-3PN-MT-HEAD3 | |
| 120 | Microsoft Handset 1 | UC-3PN-MT-HAND1 | |
| 121 | Microsoft Handset 2 | UC-3PN-MT-HAND2 | |
| 122 | Microsoft Handset 3 | UC-3PN-MT-HAND3 | |
| 123 | Microsoft Handset 4 | UC-3PN-MT-HAND4 | |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|---|-----------------------------|--|
| 124 | FedRAMP Compliance Seat | UC-AAS-ENT-FEDRAMPS | |
| 125 | NWN Managed Teams Room Standard Bundle | UC-AAS-MT-RS | |
| 126 | NWN Managed Teams Room Premium Bundle | UC-AAS-MT-RP | |
| 127 | NWN Managed Teams Storage Add-on | UC-AAS-MT-STG-ADD | |
| 128 | Microsoft Teams Integration with Cisco Calling Setup | UC-PRO-MT-CCI | |
| 129 | Microsoft Teams Calling Direct Routing (SBCaaS) Calling Plan Tier 1 (250-1499) | UC-AAS-MT-CPT1 | |
| 130 | Microsoft Teams Calling Direct Routing (SBCaaS) Calling Plan Tier 2 (1500 - 4999) | UC-AAS-MT-CPT2 | |
| 131 | Microsoft Teams Calling Direct Routing (SBCaaS) Calling Plan Tier 3 (5000+) | UC-AAS-MT-CPT3 | |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|---|-----------------------------|--|
| 132 | Microsoft Teams Calling Site/Location Setup | UC-PRO-MT-SITE | |
| 133 | Microsoft Teams Calling User Setup Tier 1 (250 - 1499) | UC-PRO-MT-UT1 | |
| 134 | Microsoft Teams Calling User Setup Tier 2 (1500 - 4999) | UC-PRO-MT-UT2 | |
| 135 | Microsoft Teams Calling User Setup Tier 3 (5000+) | UC-PRO-MT-UT3 | |
| 136 | Microsoft Teams Integration with Cisco Calling Support | UC-MSR-MT-CCI | |

29.2.4.4 Converged VoIP Site Survey

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

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

The completed Converged VoIP site survey shall identify the steps required to facilitate a successful implementation of the Converged VoIP services. Upon completion of the survey, the Contractor shall provide the Customer a copy of the completed Converged site survey. The survey shall identify

potential deficiencies found at the location and the necessary steps required to correct them so that the Customer can order and implement Converged VoIP services.

The Contractor shall confirm existing cabling and provide the Customer with a list of all cabling requirements that must be met.

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

29.2.4.5 Converged VoIP Network LAN Assessment

The Contractor shall perform a network LAN Assessment, at no charge. The LAN Assessment shall identify any issues related to the following:

1. Health of the network;
2. Bandwidth;
3. Power;
4. Firewall; and,
5. E911.

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

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

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

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

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

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

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

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

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

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

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

The Contractor shall develop a Scope of Work (SOW) for each location as described in the SOW Business Requirements, Section G.8, Contracted Service Project Work Section.

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

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

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

29.2.4.6 Converged VoIP Site Design

The Contractor shall complete site designs that include engineering and documentation of all components required for proper implementation of the Standalone VoIP services. These site designs will occur after a Customer has placed an order for Standalone VoIP services, but before implementation.

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

The Contractor shall provide diagram(s) to the Customer that detail the Converged VoIP design for each location and shall include:

1. Customer Premise Equipment.

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

2. VoIP transport bandwidth.

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

3. Number of simultaneous calls to meet a P.01 Grade of Service.

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

4. Proposed CODECs.

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

29.2.4.7 Converged VoIP Site Implementation

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

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

The Contractor shall install all equipment, hardware, and cabling required to deliver the end-to-end service to the workstation handset, excluding LAN components.

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

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

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

29.2.4.8 Converged VoIP Account Codes

The Contractor's system shall allow the Customer to utilize Account Codes, which enable the tracking of calls made outside of the location by prompting End-Users for an Account Code.

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

29.2.4.9 Converged VoIP Authorization Codes

The Contractor's system shall allow the Customer to utilize Authorization Codes. This feature allows Customers to enable a prompt for an Authorization Code when making calls outside of the location. When utilized, calls will not connect without a valid Authorization Code.

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

29.2.5 Additional Converged VoIP Services and Features

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

29.2.5.1 Converged VoIP Site Survivability Network Failure

The Contractor shall provide Converged VoIP Site Survivability in the event of a network failure. The Contractor's Site Survivability options shall maintain station-to-station calling functionality for all handsets on premises. The Contractor's Site Survivability options shall be configured to allow the number of concurrent calls to outside lines specified by the Feature Descriptions in Table 29.2.5.a.

The Contractor shall include the backup circuit or wireless connection in their Site Survivability options.

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

Failure of a Customer to select this option does not release the Contractor from its SLA obligations as described in the Availability SLAs Section, 29.4.8.1.

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

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

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

The Contractor shall only route traffic originating from the locally served Customer of record.

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

The Converged VoIP Site Survivability Network Failure solution shall provide automatic alarm notification by electronic means to the CALNET CMO whenever traffic is routed through the site survivability option.

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

This service is exempt from the provisions of the Network Based Section, 29.2.1.5.

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

Any additional Bidder proposed unsolicited site survivability solutions must conform to these requirements and will fall under the SLA's established in the Service Level Agreements Section.

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

Bidder's Description: The NWN Converged VoIP Solution will provide Network Failure Site Survivability as an option to provide support in the event of WAN network failure. In the NWN Converged VoIP Solution, telephony survivability is accomplished with standard SRST (Survivable Remote Site Telephony) configurations on the customer's premise equipment (CPE).

SRST has two parts:

SRST uses the existing remote site network to provide call-processing redundancy for the NWN Converged VoIP environment. In the event that the WAN link to the remote location fails and the connection to the NWN Converged VoIP environment is lost, the phones are automatically redirected to the local SRST router, which takes over and provides the basic call processing functions of the NWN VoIP Solution that originate from the locally served Customer of record. When the disrupted WAN link is restored, the phones automatically re-register with NWN Converged VoIP environment - no manual intervention is required.

NWN configures the cloud-based VoIP Solution to point the phones at a particular site only to the SRST device that supports that site.

SRST is configured at the customer premises. An example of a SRST solution deployment is shown below:

NWN utilizes monitoring tools to notify the customer of a WAN failure. NWN notifies the customer upon remediation of the WAN failure. NWN SRST can support over 1000 phones at a remote site, dependent on router model.

An optional SRST enhancement available through NWN is an additional local server configured as a Subscriber node to the Publisher node hosted in the NWN data center. This optional enhancement is appropriate for very large facilities, as well as sites that have critical life-safety application integrations or ultra-high-availability requirements

29.2.5.2 Converged VoIP Network LAN Assessment Retest

If required, the Contractor shall perform a network LAN Assessment Retest in accordance with the provisions of the Converged VoIP Network LAN Assessment Section, 29.3.3.5 to validate corrective actions have been completed that allow for proper operation of the service.

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

29.2.5.3 Converged VoIP Block of 20 Additional Direct Inward Dialing Number Reservation

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

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

29.2.5.4 Converged VoIP Web Based Attendant Console

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

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

29.2.5.5 Converged VoIP Additional Line Appearance

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

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

29.2.5.6 Converged VoIP Analog Support

The Contractor shall provide analog device support services.

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

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

Contractor shall offer the Converged VoIP service features detailed in Table 29.2.5.a.

Table 29.2.5.a – Converged VoIP Service Features

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|------------------|--|--|---|------------------------------------|---|
| 1 | Converged VoIP Small Site Survivability Network Failure | Site survivability option for a site with 100 Desktop Handsets and 15 concurrent calls to outside lines. | | UC-BUN-CDNCS29-SRSTS | Yes |
| 2 | Converged VoIP Medium Site Survivability Network Failure | Site Survivability option for a site with 500 Desktop Handsets and 75 concurrent calls to outside lines. | | UC-BUN-CDNCS29-SRSTM | Yes |
| 3 | Converged VoIP Large Site Survivability Network Failure | Site Survivability option for a site with 1000 Desktop Handsets and 150 concurrent calls to outside lines. | | UC-BUN-CDNCS29-SRSTL | 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 | Converged VoIP Network LAN Assessment Retest | Additional test beyond the initial LAN Assessment test as identified in the Converged VoIP Network LAN Assessment Section. | | UC-PRO-CDNCS-CABTEST | Yes |
| 5 | Converged VoIP Block of 20 Additional Direct Inward Dialing Number Reservation | Block of 20 DID numbers held in reservation. | | UC-AAS-CDNCS-DID20 | Yes |
| 6 | Converged VoIP Web-Based Attendant Console | Enables an End-User (e.g., receptionist) to monitor a configurable set of End-Users | | UC-AAS-CDNCS29-ACHS | Yes |
| 7 | Converged VoIP Additional Line Appearance | Additional line appearances for multi-line handsets. | | UC-AAS-CDNCS29-LINEAPP | Yes |
| 8 | Converged VoIP Analog Support | Analog device support | | UC-BUN-CDNCS29-ANLOGSU | Yes |

The Contractor may offer additional unsolicited Converged VoIP service features in Table 29.2.5.b.

Table 29.2.5.b – Unsolicited Converged VoIP Service Features

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|--|---|------------------------------------|---|
| 16 | UC Private SIP/PRI Gateway Setup | UC-PRO-PRIVATE-SPGW | UC Private SIP/PRI Gateway Setup |
| 17 | Global Plan, Unlimited | UC-MSN-CDNCS-UNINTLY | |
| 18 | Onsite Day-1 Support – Full Day | UC-PRO-ENT-DAY1SUP | |
| 19 | On-Site Phone Deployment up to 50 devices | UC-PRO-ENT-SITED | |
| NWN Unbundled Services from Table 29.2.5.a | | | |
| 18 | Converged VoIP Small Site Survivability Network Failure (NRC) | UC-MSN-CDNCS29-SRSTS | Unbundled - Converged VoIP Small Site Survivability Network Failure NRC for Solicited SKU # UC-BUN-CDNCS29-SRSTS |
| 19 | Converged VoIP Small Site Survivability Network Failure (MRC) | UC-MSR-CDNCS29-SRSTS | Unbundled - Converged VoIP Small Site Survivability Network Failure MRC for Solicited SKU # UC-BUN-CDNCS29-SRSTS |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|--|-----------------------------|--|
| 21 | Converged VoIP Medium Site Survivability Network Failure (NRC) | UC-MSN-CDNCS29-SRSTM | Unbundled - Converged VoIP Medium Site Survivability Network Failure NRC for Solicited SKU # UC-BUN-CDNCS29-SRSTM |
| 22 | Converged VoIP Medium Site Survivability Network Failure (MRC) | UC-MSR-CDNCS22-SRSTM | Unbundled - Converged VoIP Medium Site Survivability Network Failure MRC for Solicited SKU # UC-BUN-CDNCS29-SRSTM |
| 24 | Converged VoIP Large Site Survivability Network Failure (NRC) | UC-MSN-CDNCS29-SRSTL | Unbundled - Converged VoIP Large Site Survivability Network Failure NRC for Solicited SKU # UC-BUN-CDNCS29-SRSTL |
| 25 | Converged VoIP Large Site Survivability Network Failure (MRC) | UC-MSR-CDNCS29-SRSTL | Unbundled - Converged VoIP Large Site Survivability Network Failure MRC for Solicited SKU # UC-BUN-CDNCS29-SRSTL |

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|-----------|-------------------------------------|-----------------------------|--|
| 27 | Converged VoIP Analog Support (NRC) | UC-MSN-CDNCS29-ANLOGSUP | Unbundled - Converged VoIP Analog Support NRC for Solicited SKU # UC-BUN-CDNCS29-ANLOGSUP |
| 28 | Converged VoIP Analog Support (MRC) | UC-MSR-CDNCS29-ANLOGSUP | Unbundled - Converged VoIP Analog Support MRC for Solicited SKU # UC-BUN-CDNCS29-ANLOGSUP |

29.2.6 Converged VoIP Calling Requirements

29.2.6.1 Converged VoIP On-Net Calling

The Contractor shall provide a Converged VoIP service that provides unlimited on-net calling for both domestic and international calls at no additional charge. On-net calling is defined as calling from a Converged VoIP Customer Site that uses the Contractor's VoIP network and terminates at another of the Contractor's Converged VoIP site. If the Contractor offers SIP Trunking, Standalone VoIP, or Cloud-Hosted VoIP Services under another CALNET contract, Converged VoIP calls terminating at such a site shall be considered on-net.

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

29.2.6.2 Converged VoIP Off-Net Calling

The Contractor shall provide off-net calling at no additional charge. The Converged VoIP service will route call traffic off the VoIP network within the

50 United States, the District of Columbia, the Virgin Islands, and Puerto Rico. This will be accomplished using network based PSTN gateways.

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

29.2.6.3 Converged VoIP Off-Net Toll-Free Services

The Contractor shall provide Converged VoIP off-net toll-free services that shall only be provided by the Converged VoIP Contractor and not by a third party. This service shall only be utilized in conjunction with the awarded Contractor's Converged VoIP service. The Converged VoIP Off-Net Toll-Free service allows Customers to receive off-net toll-free calls from the 50 United States, the District of Columbia, the U.S. Virgin Islands, and Puerto Rico.

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

Contractor shall offer the Converged VoIP Off-Net Toll-Free service detailed in Table 29.2.6.3.a.

Table 29.2.6.3.a – Converged VoIP Off-Net Toll-Free

| 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 | Converged VoIP Off-Net Toll-Free | Allows a Customer to receive off-net toll-free calls from the 50 United States, the District Of Columbia, the Virgin Islands, and Puerto Rico. | | UC-MSN-CDNCS-TF1 | Yes |

The Contractor may offer additional Converged VoIP Off-Net Toll-Free features in Table 29.2.6.3.b.

Table 29.2.6.3.b – Unsolicited Converged VoIP Off-Net Toll-Free Features

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|------------------|---------------------|------------------------------------|---|
| 1 | Toll-Free DID | UC-AAS-CIR-TFDID | Toll-Free DID |
| 2 | Port Charge | UC-PRO-DID-ACT | Port Charge |
| 3 | CNAM for Toll-Free | UC-AAS-CDNCS-TFCNAM | CNAM for Toll-Free |

29.2.6.4 Converged International Off-Net Calling

The Contractor shall provide Converged VoIP International Off-Net Calling to the countries listed in Table 29.2.6.4.a. The Bidder's rates as provided in the Category Cost Worksheets shall be based on time of day ("Peak Time" or "Off-Peak Time"). Peak Time is between 8:00 a.m. and 4:59 p.m., Monday through Friday based on the time at the CALNET caller's location. Off-Peak time is for all calls where Peak Time rates do not apply.

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

All usage shall be billed in accordance with the SOW Business Requirements Section G.6.1 (Billing and Invoicing Requirements) except Mexico which shall be billed in 60 second increments with a 60 second minimum.

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

29.2.6.4.1 International Mobile Termination Charges (IMTC)

The Contractor shall provide the ability to terminate international calls on wireless devices. The Contractor shall charge International Mobile Termination Charge (IMTC) as an additional per minute rate that is applied to international calls (direct dial business or credit card calls) originating in the U.S. and terminating in certain countries to either wireless communications devices or to a portable telephone number where a forwarding, tracking or other type of location service is used.

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

29.2.6.4.2 U.S. Based Services Waiver

The provisions detailed in General Provisions – eVAQ, Section 92, (U.S. Based Services) will not apply to Contractor's International Long Distance Calling services.

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

The Contractor shall offer the Converged VoIP International Peak Time Off-Net Calling configurations detailed in Table 29.2.6.4.a.

Table 29.2.6.4.a – Converged VoIP International Peak Time Off-Net Calling

| Line Item | Country | Bidder meets or exceeds? | Product Identifier |
|-----------|-----------------|--------------------------|---------------------|
| 1 | Brazil: | Yes | UC-MSN-CDNCS-INTLG0 |
| 2 | Canada: | Yes | UC-MSN-CDNCS-INTLG0 |
| 3 | China: | Yes | UC-MSN-CDNCS-INTLG0 |
| 4 | France: | Yes | UC-MSN-CDNCS-INTLG0 |
| 5 | Germany: | Yes | UC-MSN-CDNCS-INTLG0 |
| 6 | Israel: | Yes | UC-MSN-CDNCS-INTLG0 |
| 7 | Italy: | Yes | UC-MSN-CDNCS-INTLG0 |
| 8 | Japan: | Yes | UC-MSN-CDNCS-INTLG0 |
| 9 | Korea: | Yes | UC-MSN-CDNCS-INTLG0 |
| 10 | Mexico: | Yes | UC-MSN-CDNCS-INTLG0 |
| 11 | Spain: | Yes | UC-MSN-CDNCS-INTLG0 |
| 12 | Switzerland: | Yes | UC-MSN-CDNCS-INTLG0 |
| 13 | United Kingdom: | Yes | UC-MSN-CDNCS-INTLG0 |

Bidder may offer the Converged VoIP International Peak Time Off-Net Calling to unsolicited countries listed in Table 29.2.6.4.b.

Table 29.2.6.4.b – Unsolicited Converged VoIP International Peak Time Off-Net Calling

| Line Item | Country | Product Identifier |
|-----------|-------------|--------------------|
| 1 | Global Plan | UC-MSN-CDNCS-INTL1 |
| 2 | | |

The Contractor shall offer the Converged VoIP International Off-Peak Off-Net Calling configurations detailed in Table 29.2.6.4.c.

Table 29.2.6.4.c – Converged VoIP International Off-Peak Off-Net Calling

| Line Item | Country | Bidder meets or exceeds? | Product Identifier |
|-----------|----------|--------------------------|---------------------|
| 1 | Brazil: | Yes | UC-MSN-CDNCS-INTLG0 |
| 2 | Canada: | Yes | UC-MSN-CDNCS-INTLG0 |
| 3 | China: | Yes | UC-MSN-CDNCS-INTLG0 |
| 4 | France: | Yes | UC-MSN-CDNCS-INTLG0 |
| 5 | Germany: | Yes | UC-MSN-CDNCS-INTLG0 |
| 6 | Israel: | Yes | UC-MSN-CDNCS-INTLG0 |
| 7 | Italy: | Yes | UC-MSN-CDNCS-INTLG0 |
| 8 | Japan: | Yes | UC-MSN-CDNCS-INTLG0 |
| 9 | Korea: | Yes | UC-MSN-CDNCS-INTLG0 |
| 10 | Mexico: | Yes | UC-MSN-CDNCS-INTLG0 |
| 11 | Spain: | Yes | UC-MSN-CDNCS-INTLG0 |

| Line Item | Country | Bidder meets or exceeds? | Product Identifier |
|-----------|-----------------|--------------------------|---------------------|
| 12 | Switzerland: | Yes | UC-MSN-CDNCS-INTLG0 |
| 13 | United Kingdom: | Yes | UC-MSN-CDNCS-INTLG0 |

Bidder may offer the Converged VoIP International Off-Peak Off-Net Calling to unsolicited countries listed in Table 29.2.6.4.d.

Table 29.2.6.4.d – Unsolicited Converged VoIP International Off-Peak Off-Net Calling

| Line Item | Country | Product Identifier |
|-----------|---------|--------------------|
| 1 | | |
| 2 | | |
| 3 | | |

The Contractor shall offer the Converged VoIP International IMTC Off-Net Calling configurations detailed in Table 29.2.6.4.e.

Table 29.2.6.4.e – Converged VoIP International IMTC Off-Net Calling

| Line Item | Country | Bidder meets or exceeds? | Product Identifier |
|-----------|----------|--------------------------|---------------------|
| 1 | Brazil: | Yes | UC-MSN-CDNCS-INTLG0 |
| 2 | Canada: | Yes | UC-MSN-CDNCS-INTLG0 |
| 3 | China: | Yes | UC-MSN-CDNCS-INTLG0 |
| 4 | France: | Yes | UC-MSN-CDNCS-INTLG0 |
| 5 | Germany: | Yes | UC-MSN-CDNCS-INTLG0 |
| 6 | Israel: | Yes | UC-MSN-CDNCS-INTLG0 |
| 7 | Italy: | Yes | UC-MSN-CDNCS-INTLG0 |

| Line Item | Country | Bidder meets or exceeds? | Product Identifier |
|-----------|-----------------|--------------------------|---------------------|
| 8 | Japan: | Yes | UC-MSN-CDNCS-INTLG0 |
| 9 | Korea: | Yes | UC-MSN-CDNCS-INTLG0 |
| 10 | Mexico: | Yes | UC-MSN-CDNCS-INTLG0 |
| 11 | Spain: | Yes | UC-MSN-CDNCS-INTLG0 |
| 12 | Switzerland: | Yes | UC-MSN-CDNCS-INTLG0 |
| 13 | United Kingdom: | Yes | UC-MSN-CDNCS-INTLG0 |

Bidder may offer the Converged VoIP International IMTC Off-Net Calling to unsolicited countries listed in Table 29.2.6.4.f.

Table 29.2.6.4.f – Unsolicited Converged VoIP International IMTC Off-Net Calling

| Line Item | Country | Product Identifier |
|-----------|---------|--------------------|
| 1 | | |
| 2 | | |
| 3 | | |

29.2.7 Converged VoIP Voice Mail Services

The Contractor shall provide Converged VoIP Voice Mail services that are interoperable and work with the Converged VoIP service. The Converged Voice Mail service shall allow callers to leave a message for End-Users to retrieve later.

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

29.2.7.1 Converged VoIP Voice Mail Service Features

Contractors shall provide the Converged VoIP Voice Mail services feature requirements as listed below.

1. A variety of message lengths with a minimum message length of at least two minutes.

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

2. Message review, including skip back or ahead.

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

3. Message saving and erasing.

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

4. Erased message retrieval before call is ended.

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

5. Messaging forwarding to another voice mailbox in the system with the ability to append additional comments.

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

6. Password protection.

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

7. Personalized greetings (both permanent and temporary).

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

8. Message waiting indicator signal received at workstation within one minute.

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

9. Remote access capability from any telephone location on or off net.

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

10. Creation of Group Distribution Lists - Allow an administrator to define voice mail distribution lists to forward and reply to an individual or to a group of predefined recipients.

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

11. Web based End-User administration software.

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

12. Ability to integrate with Unified Messaging applications with no hardware modification.

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

Table 29.2.7.a – Converged VoIP Voice Mail Services and Features

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|-----------|-----------------------------------|--|--|-----------------------------|------------------------------------|
| 1 | Converged VoIP Voice Mail Service | Converged VoIP Voice Mail Service with the minimum feature requirements. | | UC-BUN-CDNCS29-VM | Yes |

The Contractor may offer additional unsolicited Converged VoIP Voice Mail features in Table 29.2.7.b.

Table 29.2.7.b – Unsolicited Converged VoIP Voice Mail Services and Features

| Line Item | Feature Name | Bidder's Product Identifier | Bidder's Product Description, Restrictions and Limitations |
|--|---|-----------------------------|--|
| 1 | Speech Recognition | UC-AAS-ENT-SPEECH | Speech Recognition |
| 2 | UC Private Voicemail Transcription User | UC-AAS-PRIVATE-VMU | UC Private Voicemail Transcription User |
| 3 | Additional Call Handlers - 2x5 options | UC-PRO-ENT-CH2 | Additional Call Handlers - 2x5 options |
| 4 | Additional Call Handlers - 4x5 options | UC-PRO-ENT-CH4 | Additional Call Handlers - 4x5 options |
| NWN Unbundled Services from Table 29.2.7.a | | | |
| 5 | Voice Mail (NRC) | UC-MSN-CDNCS29-VM | |
| 6 | Voice Mail (MRC) | UC-MSR-CDNCS29-VM | |

29.2.8 Converged VoIP and Voice Mail Geographic Requirements

29.2.8.1 Converged VoIP and Voice Mail Specific Service Areas

The Contractor shall provide Converged VoIP and VoIP Voice Mail services in the cities specified below. The servicing area is defined as within the city limits for each location identified.

1. Sacramento;
2. Oakland;
3. San Francisco;
4. Los Angeles;
5. San Diego; and,
6. San Jose.

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

29.2.8.2 Additional Commercially Available Areas

The Contractor shall provide Converged VoIP and VoIP Voice Mail services where services are currently commercially available.

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

Bidder may identify additional locations where their Converged VoIP and VoIP Voice Mail Services are currently commercially available in Table 29.2.8.2.

If Bidder is unable to identify all service areas within Table 29.2.8.2, Bidder shall provide additional information in the form of a coverage map that includes unincorporated areas.

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

Table 29.2.8.2 – Additional Bidder's Converged VoIP and VoIP Voice Mail Services Commercially Available Areas

| Line Item | Service Location | Converged VoIP | VoIP Voice Mail |
|-----------|------------------|----------------|-----------------|
| 1 | Sacramento Area | Yes | Yes |

| Line Item | Service Location | Converged VoIP | VoIP Voice Mail |
|-----------|------------------|----------------|-----------------|
| 2 | | Yes | Yes |
| 3 | | Yes | Yes |

29.3 OTHER SERVICES

29.3.1 Hourly Rates for Services

The hourly classifications of hours worked for services described in this Section will be as follows:

1. Regular Hours – Hours worked between 8:00AM and 4:59PM, Monday through Friday.
2. Overtime Hours – Hours worked between 5:00PM and 7:59AM, Monday through Friday and all day Saturday.
3. Sunday and Holiday Hours – Any hours worked on Sunday or State of California holidays.

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

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

29.3.2 Services Related Infrastructure (SRI)

The Contractor shall offer infrastructure service as defined below.

29.3.2.1 Extended Demarcation Wiring Services

The Contractor shall provide Extended Demarcation (Extended Demarc) wiring to support the services covered by this IFB Category for all of the Customer occupied buildings where services under this Contract are being offered. Extended Demarc wiring includes wire/cable related activities required to extend the demarcation point to the Customer defined

termination location or cross-connect point from the Contractor's Minimum Point of Entry (MPOE).

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

Extended Demarc wiring shall include the necessary wire/cable, connectors, jumpers, panel, and jack. Extended Demarc wiring shall also include associated trouble shooting, testing and labeling. Extended Demarc wiring is limited to the following:

1. Installation of cabling for extending services from the MPOE location to the Customer's point of utilization;
2. Installation of cross-connects or rearrangement of existing jumpers;
3. Identification and testing of existing cabling beyond the MPOE to the Customer's Equipment location; and,
4. Installation intervals shall be in accordance with the timeframes identified for the services that this cabling will support, and shall be subject to the SLAs associated with that service.

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

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

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

The Bidder shall provide a price in the Cost Worksheets for all labor and materials required for Extended Demarc wiring necessary to complete the provisioning of one Demarc extension as described herein. The Bidder shall provide one price for each media identified.

Wiring will be installed according to industry Standards and cabling recommendations published in the State Telecommunications Management Manual (STMM), Facilities Management Chapter, and

Uniform Building Cabling/Wiring current at the time of this IFB and as periodically updated by the CALNET Program. Additionally, all wiring installation and maintenance activities will be in accordance with all applicable EIA/TIA, BICSI, and ITU-T recommended standards current at the time of installation or maintenance.

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

Bidder shall provide the Extended Demarcation Wiring Services described in Table 29.3.2.1

Table 29.3.2.1 – 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. | | UC-3PN-CDNCS29-DMCC | 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 | | UC-3PN-CDNCS29-DMCCAH | 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 |
|-----------|---|--|--|-----------------------------|------------------------------------|
| | | and an RJ48 or equivalent jack. | | | |
| 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. | | UC-3PN-CDNCS29-DMCCAH | Yes |
| 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 | | UC-3PN-CDNCS29-DMCC25 | 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 |
|-----------|---|---|--|-----------------------------|------------------------------------|
| | | Intermediate Distribution Frame (IDF) for all circuits being extended. Includes associated troubleshooting, testing, and labeling. | | | |
| 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 | | UC-3PN-CDNCS29-DMCC25AH | 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 |
|-----------|---|---|--|-----------------------------|------------------------------------|
| | | troubleshooting, testing, and labeling. | | | |
| 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. | | UC-3PN-CDNCS29-DMCC25AH | Yes |
| 7 | Extended Demarcation - Optical | Wiring services to extend Facilities from the | | UC-3PN-CDNCS29-DMCF | 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 |
|-----------|--|--|--|-----------------------------|------------------------------------|
| | Fiber Link – Regular Hours | 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. | | | |
| 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, | | UC-3PN-CDNCS29-DMCFAH | 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 |
|-----------|--|---|--|-----------------------------|------------------------------------|
| | | 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. | | | |
| 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 | | UC-3PN-CDNCS29-DMCFAH | 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 |
|-----------|--------------|--|--|-----------------------------|------------------------------------|
| | | 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. | | | |

29.3.2.2 Unsolicited Services Related Infrastructure

Bidder may offer additional unsolicited Services Related Infrastructure in Table 29.3.2.2.

Table 29.3.2.2 – Unsolicited Services Related Infrastructure

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

29.3.3 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 is authorized only for situations where the Contractor has dispatched personnel to diagnose a service problem that is discovered to be caused by factors outside the responsibility of the Contractor or no trouble is found.

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

In Cost Worksheet 29.3.3, the Contractor shall provide a fixed hourly rate schedule for the labor classifications required to diagnose and/or repair the contracted services. The rates identified shall only be used for the diagnosis and/or repair of contracted services and no materials shall be included in the rates. The total amount of labor hours permitted to be performed is ten hours per dispatch/occurrence.

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

The Contractor shall offer emergency restoration services as detailed in Table 29.3.3

Table 29.3.3 – Services Related Hourly Support

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's Product Identifier | Bidder Meets or Exceeds? Yes or No |
|-----------|---|--|--|-----------------------------|------------------------------------|
| 1 | Field Service Repair Technician Regular Hours | Field technician properly trained to an expert level for the service being dispatched to diagnose and/or repair a CALNET DNCS service problem that turns out to be caused by factors outside the responsibility of the Contractor. | | UC-PRO-ASE-S | Yes |
| 2 | Field Service | Field technician properly trained | | UC-PRO-ASE-AH | 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 |
|-----------|--|--|--|-----------------------------|------------------------------------|
| | Repair Technician Overtime Hours | 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. | | | |
| 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. | | UC-PRO-ASE-AH | Yes |

29.3.4 Migration Professional Services

The Contractor shall provide Professional Services that support the migration of Customer telephone services. This service is limited to efforts related to the migration from one CALNET service to another CALNET service. Some

examples are assistance with Customer telephone data, number porting, site surveys, site audits, inventory, and record management.

The Contractor shall offer the Migration Professional Services detailed in Table 29.4.4.a

Table 29.3.4.a – Migration Professional Services

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's CALNET Product Identifier | Bidder Meets or Exceeds? Yes or No |
|------------------|---|--|---|---|---|
| 1 | Migration Technical Services Support I - Standard Regular Hours | Technical Services Support I for Central Office Exchange Migration only – Regular Hours | | UC-PRO-ASE-S | Yes |
| 2 | Migration Technical Services Support I - Overtime Hours | Technical Services Support I for Central Office Exchange Migration only - Overtime Hours | | UC-PRO-ASE-AH | Yes |
| 3 | Migration Technical Services Support I – Sunday and Holiday Hours | Technical Services Support I for Central Office Exchange Migration only – Sunday and Holiday Hours | | UC-PRO-ASE-AH | Yes |
| 4 | Migration Technical Services Support II - Regular Hours | Technical Services Support II for Central Office Exchange Migration only – Regular Hours | | UC-PRO-SE-S | Yes |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's CALNET Product Identifier | Bidder Meets or Exceeds? Yes or No |
|------------------|--|---|---|---|---|
| 5 | Migration Technical Services Support II - Overtime Hours | Technical Services Support II for Central Office Exchange Migration only – Overtime Hours | | UC-PRO-SE-AH | Yes |
| 6 | Migration Technical Services Support II – Sunday and Holiday Hours | Technical Services Support II for Central Office Exchange Migration only – Sunday and Holiday Hours | | UC-PRO-SE-AH | Yes |
| 7 | Migration Network Engineer – Regular Hours | Network Engineer for Central Office Exchange Migration only – Regular Hours | | ATS-PRO-SE-S | Yes |
| 8 | Migration Network Engineer – Overtime Hours | Network Engineer for Central Office Exchange Migration only – Overtime Hours | | ATS-PRO-SE-AH | Yes |
| 9 | Migration Network Engineer – Sunday and Holiday Hours | Network Engineer for Central Office Exchange Migration only – Sunday and Holiday Hours | | ATS-PRO-SE-AH | Yes |
| 10 | Migration Professional Services - | Professional Services - Senior Engineer for | | UC-PRO-SE-S | Yes |

| Line Item | Feature Name | Feature Description | Bidder's Product Description, Restrictions and Limitations | Bidder's CALNET Product Identifier | Bidder Meets or Exceeds? Yes or No |
|-----------|--|---|--|------------------------------------|------------------------------------|
| | Senior Engineer – Regular Hours | Central Office Exchange Migration only – Regular Hours | | | |
| 11 | Migration Professional Services Principle Architect I – Regular Hours | Professional Services Principle Architect I for Central Office Exchange Migration only – Regular Hours | | UC-PRO-SRSE-S | Yes |
| 12 | Migration Professional Services - Principal Architect II – Regular Hours | Professional Services - Principal Architect II for Central Office Exchange Migration only – Regular Hours | | UC-PRO-CON-S | Yes |

Bidder may offer additional unsolicited Migration Professional Services in Table 29.3.4.b

Table 29.3.4.b – Unsolicited Migration Professional Services

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

29.4 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.

29.4.1 Service Level Agreement Format

The Contractor shall adhere to the following format and include the content as described below for each Technical SLA added by the Contractor throughout the Term of the Contract:

1. SLA Name – Each SLA Name must be unique;
2. Definition - Describes what performance metric will be measured;
3. Measurements Process - Provides instructions how the Contractor will continuously monitor and measure SLA performance to ensure compliance. The Contractor shall provide details describing how and what will be measured. Details should include source of data and define the points of measurement within the system, application, or network;
4. Service(s) - All applicable services will be listed in each SLA;
5. Objective(s) – Defines the SLA performance goal/parameters; and,
6. Rights and Remedies
7. Per Occurrence: Rights and remedies are paid on a per event basis during the bill cycle; and,
8. Monthly Aggregated Measurements: Rights and remedies are paid once during the bill cycle based on an aggregate of events over a defined period of time.

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

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

29.4.2 Technical Requirements versus SLA Objectives

Sections 29.2 (Converged VoIP) and 29.3 (Other Services) define the technical requirements for each service. These requirements are the minimum parameters each Bidder must meet in order to qualify for Contract award. Upon Contract award the committed technical requirements will be maintained throughout the remainder of the Contract.

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

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

29.4.3 Methods of Outage Reporting: Customer or Contractor

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

The first method of outage reporting results from a Customer reporting service trouble to the Contractor's Customer Service Center via phone call or opening of a trouble ticket using the on-line Trouble Ticket Reporting Tool (SOW Business Requirements Section G.10.4, Trouble Ticket Reporting Tool (TTRT)).

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

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

29.4.4 Bidder Response to Service Level Agreements

Many of the Service Level Agreements described below include multiple objective levels – Basic, Standard and Premier. Bidders shall indicate one specific objective level they are committing to for each service in space provided in the "Objective" Section of each SLA description.

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

29.4.5 Contractor SLA Management Plan

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

1. Contractor SLA Manager and supporting staff responsibilities;
2. Contractor's process for measuring objectives for each SLA. The process shall explain how the Contractor will continuously monitor and measure SLA performance to ensure compliance. The Contractor shall provide details describing how and what will be measured. Details should include source of data and define the points of measurement within the system, application, or network;
3. Creation and delivery of SLA Reports (SOW Business Requirements Section G.10.5). The Contractor shall include a sample report in accordance with SOW Business Requirements Section G.10.5, SLA Reports for the following: SLA Service Performance Report (SOW Business Requirements Section G.10.5.1), SLA Provisioning Report (SOW Business Requirements Section G.10.5.2), SLA Catastrophic Outage Reports (SOW Business Requirements Section G.10.5.3), and Trouble Ticket and Provisioning/SLA Credit Report (SOW Business Requirements Section G.10.5.4). The Contractor shall commit to a monthly due date. The reports shall be provided to the CALNET Program via the Private Oversight Website (SOW Business Requirements Section G.10.2);
4. SLA invoicing credit and refund process;
5. Contractor SLA problem resolution process for SLA management and SLA reporting. The Contractor shall provide a separate process for Customers and CALNET Program; and,
6. Contractor SLA Manager to manage all SLA compliance and reporting. The Contractor shall include SLA Manager contact information for SLA inquiries and issue resolution for Customer and CALNET Program.

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

29.4.6 Technical SLA General Requirements

The Contractor shall adhere to the following general requirements which apply to all CALNET Technical SLAs (Section 29.4.8):

1. With the exception of the Provisioning SLA (Section 29.4.8.10), the total SLA rights and remedies for any given month shall not exceed the sum of 100% of the Total Monthly Recurring Charges (TMRC). Services with usage charges shall apply the Average Daily Usage

Charge (ADUC) in addition to any applicable TMRC rights and remedies;

2. If a circuit or service fails to meet one or more of the performance objectives, only the SLA with the largest monthly Rights and Remedies will be credited to the Customer, per event;
3. The Contractor shall apply CALNET SLAs and remedies for services provided by Subcontractors and/or Affiliates;
4. The Definition, Measurement Process, Objectives, and Rights and Remedies shall apply to all services identified in each SLA. If a Category or Subcategory is listed in the SLA, then all services under that Category or Subcategory are covered under the SLA. Exceptions must be otherwise stated in the SLA; and,
5. TMRC rights and remedies shall include the service, option(s), and feature(s) charges.

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

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

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

7. The Contractor shall proactively credit all rights and remedies to the Customer within 60 calendar days of the trouble resolution date on the trouble ticket or within 60 calendar days of the Due Date on the Service Request for the Provisioning SLA.

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

8. To the extent that Contractor offers additional SLAs, or SLAs with more advantageous rights and/or remedies for same or similar services offered through tariffs, online service guides, or other similarly situated government contracts (Federal, State, County, City), The State will be entitled to the same rights and/or remedies therein. The Contractor shall present the SLAs to CALNET Program for possible inclusion via amendments;
9. The Contractor shall apply CALNET DNCS SLAs and remedies to services provided in all areas the Contractor provides service and/or open to competition (as defined by the CPUC). Any SLAs and remedies negotiated between Contractor and Incumbent

Local Exchange Carriers in territories closed to competition shall be passed through to the CALNET DNCS Customer;

10. The election by CALNET Program of any SLA remedy covered by this Contract shall not exclude or limit CALNET Program or any Customer's rights and remedies otherwise available within the Contract or at law or equity;
11. The Contractor shall apply rights and remedies when a service fails to meet the SLA objective even when backup or protected services provide Customer with continuation of services;
12. The Contractor shall act as the single point of contact in coordinating all entities to meet the State's needs for provisioning, maintenance, restoration and resolution of service issues or that of their Subcontractors, Affiliates or resellers under this Contract;
13. The Customer Escalation Process and/or the CALNET CMO Escalation Process shall be considered an additional right and remedy if the Contractor fails to resolve service issues within the SLA objective(s);
14. Trouble reporting and restoration shall be provided 24x7 for CALNET services;

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

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

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

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

coordinate SLA support for Customer SLA inquiries and issue resolution;

18. The Contractor shall provide Customer and CALNET Program support for SLA inquiries and issue resolution; and,

19. Any SLAs and remedies negotiated between Contractor and third party service provider in territories closed to competition shall be passed through to the CALNET DNCS Customer.

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

29.4.7 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 29.4.7.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 this 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 this 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 this 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 29.4.7.a – 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 |

| Line Item | Stop Clock Condition (SCC) | SCC Definition |
|-----------|-----------------------------|---|
| | | Request system and shows efforts are made to contact the End-User during the applicable Stop Clock period. |
| 2 | OBSERVATION | Time after a service has been restored but End-User request ticket is kept open for observation. If the service is later determined by the End-User to not have been restored, the Stop Clock shall continue until the time the End-User notifies the Contractor that the Service has not been restored. |
| 3 | END-USER NOT AVAILABLE | Time after a service has been restored but End-User is not available to verify that the Service is working. If the service is later determined by the End-User to not have been restored, the Stop Clock shall apply only for the time period between Contractor's reasonable attempt to notify the End-User that Contractor believes the service has been restored and the time the End-User notifies the Contractor that the Service has not been restored. |
| 4 | WIRING | Restoration cannot be achieved because the problem has been isolated to wiring that is not maintained by Contractor or any of its Subcontractors or Affiliates. If it is later determined the wiring is not the cause of failure, the SCC shall not apply. |
| 5 | POWER | Trouble caused by a power problem outside of the responsibility of the Contractor. |
| 6 | CUSTOMER PROVISIONING DELAY | Delays to Provisioning caused by lack of Customer's building entrance Facilities, conduit structures that are the Customer's responsibilities or Extended demarcation wiring. If the Service Providing Contractor has been contracted by the Customer for extended demarcation, this SCC shall not apply to missed dates/times. The Customer Provisioning Delay SCC is restricted to Provisioning SLAs only. |
| 7 | ACCESS | Limited access or contact with End-User provided the Contractor documents in the trouble ticket |

| Line Item | Stop Clock Condition (SCC) | SCC Definition |
|-----------|----------------------------|---|
| | | <p>several efforts to contact End-User for the following:</p> <ul style="list-style-type: none"> a. Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative; b. Site contact refuses access to technician who displays proper identification; c. Customer provides incorrect site contact information which prevents access, provided that Contractor takes reasonable steps to notify End-User of the improper contact information and takes steps to obtain the correct information; or, d. Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem. <p>If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply.</p> |
| 8 | STAFF | Any problem or delay to the extent caused by End-User's staff that prevents or delays Contractor's resolution of the problem. In such event, Contractor shall make a timely request to End-User staff to correct the problem or delay and document in trouble ticket. |
| 9 | APPLICATION | End-User software applications that interfere with repair of the trouble. |
| 10 | CPE | Repair/replacement of Customer Premise Equipment (CPE) not provided by Contractor if the problem has been isolated to the CPE. If determined later that the CPE was not the cause of the service outage, the CPE SCC will not apply. |

| Line Item | Stop Clock Condition (SCC) | SCC Definition |
|-----------|----------------------------|--|
| 11 | NO RESPONSE | Failure of the trouble ticket originator or responsible End-User to return a call from Contractor's technician for on-line close of trouble tickets after the Service has been restored as long as Contractor can provide documentation in the trouble ticket substantiating the communication from Contractor's technician. |
| 12 | MAINTENANCE | An outage directly related to any properly performed scheduled maintenance or upgrade scheduled for CALNET DNCS service. Any such stop clock condition shall not extend beyond the scheduled period of the maintenance or upgrade. SLAs shall apply for any maintenance caused outage beyond the scheduled maintenance period. Outages occurring during a scheduled maintenance or upgrade period and not caused by the scheduled maintenance shall not be subject to the Maintenance SCC. |
| 13 | THIRD PARTY | Any problem or delay caused by a third party not under the control of Contractor, not preventable by Contractor, including, at a minimum, cable cuts not caused by the Contractor. Contractor's Subcontractors and Affiliates shall be deemed to be under the control of Contractor with respect to the equipment, services, or Facilities to be provided under this Contract. |
| 14 | FORCE MAJEURE | Force Majeure events, as defined in the eVAQ General Provisions - Telecommunications, Section 28 (Force Majeure). |
| 15 | CUSTOMER ENVIRONMENTAL | An outage directly caused by customer premise environmental conditions, which are outside the control and responsibility of the Contractor. This includes a non-secured location, excessive heat or lack of cooling. If determined later that the environmental conditions were not the cause of the service outage, or a result of the Contractor modifying Contractor provided equipment without Customer's approval, the Customer Environmental SCC will not apply. |

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

The Contractor shall provide and manage the following Technical SLAs.

29.4.8 Technical Service Level Agreements (SLAs)

29.4.8.1 Availability (M-S)

SLA Name: Availability

Definition:

The percentage of time a Converged VoIP 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:

Converged VoIP
Converged VoIP Voice Mail

Objective:

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

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---------------------------|-----------|--------------|-------------|---|
| Converged VoIP | ≥ 98.9% | ≥ 99.2% | ≥ 99.5% | P |
| Converged VoIP Voice Mail | ≥ 98.9% | ≥ 99.2% | ≥ 99.5% | P |

Rights and Remedies:

1. Per Occurrence:
 - N/A
2. Monthly Aggregated Measurements:
 - First month to fail to meet the committed SLA objective shall result in a 15% credit or refund of the TMRC and two Business Days of the ADUC, when usage applies.
 - The second consecutive month to fail to meet the committed SLA objective shall result in a 30% credit or refund of TMRC and two Business Days of the ADUC, when usage applies.
 - Each additional consecutive month to fail to meet the committed SLA objective shall result in a 50% credit or refund of the TMRC and two Business Days of the ADUC, when usage applies.

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

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

SLA Name: Catastrophic Outage 1 (CAT 1)

Definition:

The total loss of service at a single address based on a common cause resulting in one or more of the following:

Failure of two or more service types, or

Failure of 50 or more End-User VoIP service package or VoIP voice mail service (seat).**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:

Converged VoIP
VoIP Voice Mail

Objectives:

The objective restoral time will be:

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

Rights and Remedies:

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

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

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

SLA Name: Catastrophic Outage 2 (CAT 2)

Definition:

Any service affecting failure in the Contractor's (or Subcontractor's or Affiliate's) network up to and including the Provider Edge (PE) equipment.

Measurement Process:

The Outage Duration begins when a network alarm is received by the Contractor from the outage-causing event or the opening of a trouble ticket by the Customer or Contractor, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall compile a list for each End-User service affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID or Service ID) basis from information recorded from the network equipment/system or a Customer reported trouble ticket. Each End-User service (Circuit ID or Service ID) is deemed out of service from the first notification until the Contractor determines the End-User service is restored. Any End-User service reported by the End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time.

Services:

Converged VoIP
Converged VoIP Voice Mail

Objectives:

The objective restoral time will be:

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

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

Rights and Remedies:

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

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

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

SLA Name: Catastrophic Outage 3 (CAT 3)

Definition:

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

Measurement Process:

The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by the Customer 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:

Converged VoIP
Converged VoIP Voice Mail

Objectives:

The objective restoral time will be:

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

Rights and Remedies:

1. Per Occurrence:
 - 100% credit or refund of the TMRC and ten Business Days ADUC 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 this requirement and shall meet or exceed it? Yes

29.4.8.5 Delay – Round Trip Transmission for Converged VoIP Services (M-S)

SLA Name: Delay – Round Trip Transmission for Converged VoIP Services

Definition:

Average one-way transfer delay measured from Customer Equipment (CE) to the remote CE.

Measurement Process:

End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the Customer suspects the VoIP delay is not meeting the committed level. The problem requires timely verification, consistent with industry Standards, by the Contractor. Tickets opened as VoIP Delay One-Way Transmission SLA shall not count in availability or Time to Repair measurements unless and until the End-User reports service as unusable.

Service(s):

Converged VoIP

Objective(s):

Based on a 1,000 byte ping:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B or P) |
|----------------|-----------|--------------|-------------|--|
| Converged VoIP | ≤ 170ms | ≤ 130ms | ≤ 90ms | P |

Rights and Remedies:

1. Per Occurrence:
 - N/A
2. Monthly Aggregated Measurements:
 - 25% credit or refund of the TMRC per occurrence for the reported service.
 - The second consecutive month service fails to meet the committed SLA objectives shall result in a 35% credit or refund of TMRC.
 - Each additional consecutive month service fails to meet the committed SLA objective shall result in a 50% credit or refund of the TMRC.

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

29.4.8.6 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:

Converged VoIP
Converged VoIP Voice Mail

Objectives:

The Unavailable Time objective shall not exceed:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---------------------------|--------------|-----------------|----------------|--|
| Converged VoIP | 16 Hours | 12 Hours | 8 Hours | P |
| Converged VoIP Voice Mail | 16 Hours | 12 Hours | 8 Hours | P |

Rights and Remedies:

1. Per Occurrence:

- 100% credit or refund of the TMRC and ten Business Days ADUC 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 this requirement and shall meet or exceed it? Yes

29.4.8.7 Excessive Usage of Site Survivability Network Failure Service (M-S)

SLA Name: Excessive Usage of Site Survivability Network Failure Service

Definition:

The usage of Site Survivability Network Failure Service shall not exceed the objective commitment identified below in a month, per site.

Measurement Process:

The monthly usage duration shall be based on the accumulated total of all service activation events during a given month. A service usage event shall begin from alarm or activation of service and ending when a Site Survivability Network Failure Service resumes to a standby state and no traffic traverses the PSTN on the back-up circuit.

Service(s):

Converged VoIP Site Survivability Network Failure

Objective(s):

The Unavailable Time objective shall not exceed:

| Service | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|--|----------------------|-------------------------|------------------------|--|
| Converged VoIP Site Survivability Network Failure | 240 Hours | 120 Hours | 72 Hours | P |

Rights and Remedies:

1. Per Occurrence:

- First month the service fails to meet the committed SLA objective shall result in a 15% credit or refund of the TMRC and two Business Days of the ADUC of all usage charges as a result of the activation of the Site Survivability Network Failure Service.
- The second consecutive month the service fails to meet the committed SLA objective shall result in a 30% credit or refund of TMRC and five Business Days of ADUC of all usage charges as a result of the activation of Site Survivability Network Failure Service.
- Each additional consecutive month the service fails to meet the Committed SLA objective shall result in a 50% credit or refund of the TMRC, and ten Business Days of the ADUC of all usage charges as a result of the activation of Site Survivability Network Failure Service.

2. Monthly Aggregated Measurements:

- N/A

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

29.4.8.8 Jitter (M-S)

SLA Name: Jitter

Definition:

Variations in transfer delay measured from the Customer Edge (CE) to the remote CE.

Measurement Process:

End-User/Customer is responsible for opening a trouble ticket with the Contractor's Customer Service Center (helpdesk) when the Jitter exceeds the committed level. The problem requires timely verification, consistent with industry Standards, by the Contractor. Tickets identified as a jitter issue shall not count in availability or Time-to-Repair measurements unless and until the End-User reports service as unusable for its intended uses. This measurement applies to local loop transport (1) under the control of the Contractor or (2) not under the control of Contractor that do not exceed 70% peak utilization for three consecutive Business Days.

Service(s):

Converged VoIP

Objective(s):

Based on a 1,000 byte ping:

| Service | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B or P) |
|----------------|----------------------|-------------------------|------------------------|---|
| Converged VoIP | ≤ 30ms | N/A | ≤ 15ms | P |

Rights and Remedies:

1. Per Occurrence:

- First month the service fails to meet the committed SLA objective shall result in a 25% credit or refund of TMRC and two Business Days of the ADUC per occurrence for the reported service.
- Second month service fails to meet the committed SLA objectives shall result in a 35% credit or refund of TMRC and two Business Days of ADUC.
- Each additional consecutive month service fails to meet the committed SLA objective shall result in a 50% credit or refund of the TMRC and two Business Days of the ADUC.

2. Monthly Aggregated Measurements:

- N/A

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

29.4.8.9 Notification

SLA Name: Notification

Definition:

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

Measurement Process:

The Contractor shall adhere to the Network Outage Response requirements (SOW Business Requirements Section G.3.3, Network Outage Response) and notify the CALNET Program and designated stakeholders for all CAT 2 and CAT 3 Outages or for network outages resulting in a significant loss of service. Notification objectives will be based on the start time of the outage failure determined by the opening of a trouble ticket or network alarm, whichever occurs first. For events based on information such as terrorist activity or threat of natural disaster, the Contractor shall notify the CALNET Program and designated stakeholder when information is available for dissemination to the Customers.

Services:

All services

Objectives:

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

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

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

Rights and Remedies:

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

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

29.4.8.10 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/seat level installations for Coordinated and Managed Projects.

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

Services:

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

| Service (Features must be installed with service except when listed below. | Committed Interval Days | Coordinated/Managed Project |
|---|--------------------------------|------------------------------------|
| Converged VoIP | 45 | Coordinated/Managed Project |
| Converged VoIP Voice Mail | 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) |
|---------------------------|-----------|--------------|-------------|--|
| Converged VoIP | ≥ 90% | N/A | ≥ 95% | P |
| Converged VoIP Voice Mail | ≥ 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 this requirement and shall meet or exceed it? Yes

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

SLA Name: Time to Repair (TTR)

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:

Converged VoIP
Converged VoIP Voice Mail

Objectives:

The Unavailable Time objective shall not exceed:

| Access Type | Basic (B) | Standard (S) | Premier (P) | Bidder's Objective Commitment (B, S or P) |
|---------------------------|----------------------|-------------------------|------------------------|--|
| Converged VoIP | 6 Hours | 5 Hours | 4 Hours | P |
| Converged VoIP Voice Mail | 6 Hours | 5 Hours | 4 Hours | P |

Rights and Remedies:

1. Per Occurrence:

- First month the service fails to meet the committed SLA objective shall result in a 25% credit or refund of 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 this requirement and shall meet or exceed it? Yes

29.4.8.12 Unsolicited Service Enhancement SLAs

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

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

29.4.8.13 Proposed Unsolicited Offerings

The Contractor shall provide SLAs as defined in SLA Section 29.4.8 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 this requirement and shall meet or exceed it? Yes

29.4.8.14 Contract Amendment Service Enhancement SLAs

All Contract amendment service enhancements shall be considered a feature of the service, therefore included as such under the SLAs as defined in Section 29.4.8.

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