**Master Services Agreement 23-XXX**

**Addendum 06 – Session Initiation Protocol (“SIP”) Voice Services**

This Addendum sets forth the terms governing all Session Initiation Protocol (“SIP”) Voice Services provided pursuant to an awarded Statement of Work (SOW). The Vendor represents that the Services provided under such SOW shall be performed consistent with the following terms. This Addendum incorporates by reference the Master Service Agreement.

# Definition of Terms

“**900**” means a premium rate area code that is charged at a higher rate than normal.

“**911** **/** **E911**” means functionality that allows End Users to contact emergency services.

“**911 Services**” means functionality that allows end users to contact emergency services by dialing the digits 9-1-1.

“**976**” means a premium rate exchange that is charged at a higher rate than normal.

“**Automatic** **Location Identification**” or “**ALI**” means the automatic display at the PSAP of the caller’s TN, the address/location of the telephone and, in some cases, supplementary emergency services information.

“**Automatic Number Identification**” or “**ANI**” means the TN associated with the access line or its equivalent from which an E911 emergency services call originates. The ANI must be (i) ten-digits, and (ii) follow the North American Numbering Plan Administration (NANPA) numbering guidelines.

“**Basic 911 Service**” shall mean the ability to route an emergency call to the designated entity authorized to receive such calls serving the Customer’s Registered Address. With basic 911, the emergency operator answering the phone will not have access to the caller’s telephone number or address information unless the caller provides such information verbally during the emergency call.

“**Call Back Number**” means the 10 digit TN which may be used by the PSAP to call back the End User making an E911 call in the event that the caller is disconnected. The Call Back Number must be (i) ten-digits in the NPA-NXX-xxxx format, and (ii) follow the North American Numbering Plan Administrator (NANPA) numbering guidelines.

“**CNAM**” means Caller ID with Name.

“**Collect** **Calling**” means a service in which calling party is able to place a call at the called party's expense.

“**Concurrent Call Session**” means mean one (1) Concurrent Call Channel.

“**Concurrent Call**” or “**Concurrent Call Channel**” or **“Session”** means the number of active calls at any given moment which may be supported by Customer service as contracted depending upon number of channels ordered.

 “**DID**” means Direct Inward Dial or a telephone number assigned by Vendor to Customer for use by a Subscriber with Vendor Unlimited Two-Way SIP Trunk service. DID types which may be used with Unlimited Two-Way SIP Trunk Service is restricted to Enhanced Local Service (ELS) and Toll Free (TF or TFN).

“**Directory Listing**” means the inclusion of Customer’s activated TN in the United States or Canada and associated subscriber name in a relevant public database for directory listing.

“**E911 Authority**” shall mean a municipality or other state or local government unit, or an authorized agent of one or more municipalities or other state or local government units to whom authority has been lawfully delegated to respond to public emergency telephone calls, at a minimum, for emergency police and fire services through the use of one TN, 911. For clarity, an E911 Authority may be an individual PSAP, or an entity responsible for the management and operation of multiple PSAPs within a given geographic area.

“**E911 Service**” (also referred to as “E911” or “Enhanced 911 Service”) shall mean a telephone exchange communications service whereby a Public Safety Answering Point (PSAP) answers telephone calls placed by End Users dialing the number 911. E911 Service includes the service provided by the lines and equipment associated with the service arrangement for the selective routing, transfer, and delivery of public emergency telephone calls dialed to 911 with ANI and ALI. E911 Service provides completion of a call for E911 Emergency Services via dedicated ESGW facilities to a Selective Router for routing purposes, and, then, to equipment located at the PSAP.

“**End** **User**” means an entity or individual receiving service from Customer.

“**Enhanced 911 Services**” shall mean the ability to route an emergency call to the designated entity authorized to receive such calls, which in many cases is a Public Safety Answering Point (“PSAP), serving the Customer’s Registered Address or user-provided address and to deliver the Subscriber’s telephone number and Registered Address information automatically to the emergency operator answering the call.

“**ESGW**” facility means an Emergency Services Gateway which is the signaling and media interworking point between the Customer’s PBX, switch or IP domain and conventional trunks to the E9-1-1 Selective Router.

“**Interstate**” means a call which is originated and terminated in different states.

“**Intrastate**” means a call which is originated and terminated in the same state.

“**IP**” means Internet Protocol.

“**Next Generation 911**” refers to an initiative to update the 911 service infrastructure to improve public emergency communications services and may be compromised of hardware, software, data, policies and procedures to: (i) provide standardized interfaces from call and messaging services; (ii) process all types of emergency calls and messages, including non-voice messages; (iii) acquire and integrate additional data useful to call and message routing and handling; (iv) deliver calls, messages and other data to appropriate PSAPs or E911 Authority; (v) support data and communication needs for coordinated incident response and management; and (vi) provide a secure environment for emergency communications.

 “**North American Numbering Plan (NANP)**” shall mean a three-digit area (Numbering Plan Area) code and a seven-digit telephone number made up of a three-digit Central Office code plus a four-digit station number.

“**Operator Assisted Call**” means a telephone call during which an operator places a call for the caller.

**“PRI” Primary Rate Interface ISDN** shall meana T1 line consisting of 23 [bearer (B) channels](https://en.wikipedia.org/wiki/B_channel) and one [data (D) channel](https://en.wikipedia.org/wiki/D_channel) for control purposes, for a total bandwidth of 24x64-kbit/s or 1.544 Mbit/s. Alternately, the PRI can have 24 bearer channels in a Non Facility Associated Signaling (NFAS) configuration.

“**Public Safety Answering Point**” or “**PSAP**” shall mean an answering location for E911 calls originating in a given area. The E911 Authority may designate a PSAP as primary or secondary, which refers to the order in which calls are directed for answering. Primary PSAPs answer calls; secondary PSAPs receive calls on a transfer basis. PSAPs are public safety agencies such as police, fire, emergency, medical, etc., or a common bureau serving a group of such entities.

“**Rate Center**” means a geographic area (determined by the applicable ILEC) within a LCA or Market that is associated with one or more specific NPA/NXX codes.

“**Registered Address**” means the address provided by customer in either written format on (i) appropriate Vendor order forms, (ii) entered into appropriate Vendor portals or (iii) other written or verbal communication to Customer’s Vendor sales or post-sales representative, that represents the physical location from which Vendor’s SIP Trunking service and TNs associated with this service will be used.

“**Selective Router**” or “**SR**” means the switch and associated software used to route an E911 call to the proper PSAP based upon the ANI or pANI associated with the E911 call. Selective routing is controlled by an ESN, which is derived from the location of the access line (or its equivalent) from which the E911 call was placed. In some PSAP or NENA materials Selective Routers may also be referred to as “E911 Control Offices” or “E911 Tandems,” which will be deemed synonymous with Selective Routers.

“**Service Impacting”** means the Service is degraded and is not operating within the Service Level Availability (SLA) Specifications.

“**SIP**” means “Session Initiation Protocol” which is the signaling protocol established in RFC 3261 used between networks (such as VoIP networks) to establish, control and terminate signaling for SIP-based services such as voice calls and SMS messages.

“**Subscriber**” means an individual End User of CTS’ service assigned a DID.

“**TDM**” or “**Time Division Multiplexing**” refers to a technology in which multiple calls may be carried simultaneously over the same physical path, each call requiring a dedicated “slot” on the path for the duration of the call, and, also, requiring a master signaling protocol to differentiate and route each call individually (i.e. SS7).

“**TFN**” means a telephone number that supports NADP and is assigned by Vendor to Customer that Customer ports to Vendor for use with the Vendor SIP Toll-Free service.

“**TN**” means telephone number.

“**TSP**” means Telecommunications Service Priority and is a program that authorizes national security and emergency preparedness (NS/EP) organizations to receive priority treatment for vital voice and data circuits or other telecommunications services.

# Statement of Work (“SOW”)

## All Services shall be performed pursuant to the terms of this Contract and shall be documented in an SOW or other order document established between CTS and Vendor.

## No work shall be performed by Vendor until:

1. A SOW is executed by Vendor and CTS and
2. The executed SOW is received by Vendor and
3. CTS electronically sends a Tech Order to the Vendor

## The Appparently Successful Vendor (ASV) will deliver all signed SOW documents electronically to CTS.

## If the ASV fails to sign and electronically return the SOW for more than thirty (30) days from CTS sending the SOW, the ASV may be cancelled. Multiple failures to timely return a signed SOW may constitute in a material breach and termination of theTechnical Addendum in CTS’ sole discretion.

## A SOW’s initial Service Term shall be thirty six (36) months, commencing upon the Effective Date of the Service Acceptance unless otherwise set forth in the CTS Procurement Document. After the initial term, CTS may extend the contract for up four (4) additional years in renewal increments of one (1) or more years.

# Term and Termination Liability (TLA):

## TLA Calculations

## In the event that the State must terminate service, termination liability will not exceed the cost of one month’s service at the affected locations for each remaining full year in the Service Term.

## New Pricing

## The Vendor may offer new lower pricing to CTS at any time or when requested. Acceptance of the new pricing will not reset the Service Term.

# Service Installation

## Guaranteed Install Interval

1. The Guaranteed Install Interval shall commence when CTS electronically sends the Tech Order to the Vendor, a Tech Order shall be provided to the Vendor within fifteen (15) days after receipt of the signed SOW.
2. Order must be keyed within 48 hours from receiving CTS’ Tech Order
3. CTS acknowledges that porting numbers adds a significant amount of time to an order. As a result, CTS will allow 7-10 days to port between one and ninety-nine numbers, while one hundred or more numbers ported will be completed by Vendor within 30 days. Any instance where the incumbent carrier rejects the port request on the basis of inaccuracies will delay the requirement seven (7) days. After 60 days vendor will be subject to remedies for missed guaranteed install interval (4.2)
4. Vendor will make CTS aware within 1 day of any restriction keeping the port order stalled, such as: past due amounts, pending orders, mismatched mailing or physical addresses, company name, unauthorized signer of LOA, mismatched numbers on the Letter of Agency compared to the incumbent carrier’s data bases and Customer Service Records.

## Remedies for Missed Guaranteed Install Interval

1. For every day past the Guaranteed Install Interval that the Service is not delivered to CTS, Vendor will credit five percent (5%) of the Vendor’s MRC for that Service for each day until the Service is delivered to CTS. Credits awarded under this section shall not exceed one month of the MRC unless the install interval takes more than one month.

## Service Installation Fees

1. Except as may be otherwise agreed by the Parties in the applicable Statement of Work, Vendor shall not charge fees for any re-performance caused by Vendor’s error or breach or to remedy any non-conformity as may be designated by CTS.
2. Vendors are responsible for installation of Service to the location specified in the CTS Procurement Document and all costs associated with said installation must be included in the Vendor’s Response. Any additional costs not stated in its Response shall be the responsibility of the Vendor.

## Weekly Updates

## The Vendor will provide weekly updates detailing the progress made for Service installation with estimated timeframes for major milestones. These updates will be delivered via email. In addition, the Vendor will participate in a recurring conference call with CTS.

## Vendor Demarcation Point

## If CTS requests an extended Vendor Demarcation Point – Vendor is responsible for installing, maintaining, and servicing of the extended d-mark including but not limited to cabling, telecommunications equipment, and any work done by a SubVendor.

## Circuit Handoff at SDC/QDC

## Unless otherwise stated in the CTS Procurement Document, all circuits will be delivered as multi-mode Fiber connections.

## Circuit Handoff at CTS User locations

## Unless otherwise stated in the CTS Procurement Document, all circuits will be delivered as Electrical/Copper connections.

# Tech Order Processing for SIP Services

## CTS will take orders from CTS User, record the orders in the CTS billing system, and transmit a Tech Order to the Vendor. The Vendor must provide a procedure for transmitting, processing, tracking and implementing orders.

## SIP Service can be ordered in three ways. Vendor will be able to accommodate all methods.

1. SIP Service can be ordered to provide Service from a local Rate Center using SIP trunking sourced from CTS Data Centers delivered via a Private CTS or Customer network.
2. SIP Service can be ordered to provide Service at the end user address- using SIP trunking sourced from the Vendor and delivered via a CTS or Customer using a dedicated connection.

c) SIP Service can be ordered to provide Service at end user address using SIP trunking using an internet connection that is delivered via CTS or the Customer.

## Capacity

1. The Vendor must maintain sufficient spare capacity to deliver additional services within 60 calendar days, examples include; bandwidth, trunks, or SIP sessions, etc.

# Invoices

## In addition to the Invoice and Payment section in the MSA:

## Vendor shall itemize all charges, taxes, and fees per Service. This information may be itemized directly on the invoice or provided as supplemental documentation attached to the invoice as long as the requirements are met.

## All invoices must be made available or delivered as an “E” bill using CSV format as well as a standard paper (pdf) format.

## All invoices must include all applicable taxes.

## All applicable surcharges and fees will be noted.

## Billing shall commence once Service has been accepted and tested by CTS. The Vendor must provide electronic billing which at a minimum itemizes Service by telephone number, location, duration and cost. CTS will receive a separate bill for each Rate Center unless otherwise requested. If charged, long distance calls must also provide individual call detail (date, time, originating number, destination number, duration, unit rate and total call charge).

## CTS has the right to dispute and collect (for incorrect) Billing Errors up to 12 months with Vendor.

## CTS is not responsible for payment of unbilled charges older than 2 monthly billing cycles.

# Technical Requirements

## Vendor shall provide the Services to meet the minimum standards stated herein:

## Standard Features

1. Vendor shall support a minimum of 100,000 dedicated DID numbers. Additional numbers may be requested from Vendor’s available numbers for all Rate Centers within the State of Washington.
2. Vendor shall support incoming Caller ID (displayed CPN) and honor outgoing CPN passing all CTS Caller ID numbers to the PSTN without changing the Caller ID number.
3. Vendor shall provide Caller ID CNAM lookups for any calls that do not contain CNAM information.
4. Vendor shall support the no Caller ID feature; When CTS sends No Caller ID number sent to Vendor, Vendor will not send anything to the PSTN.
5. Vendor shall support the pseudo Caller ID feature; When CTS sends No Caller ID number sent to Vendor, Vendor will send a predefined ‘pseudo’ number to the PSTN.
6. Vendor shall support domestic (intrastate/interstate) and international LD calling.
7. Vendor shall support world-wide calling via the international public telecommunication numbering plan E.164 standard.
8. Vendor shall support the Outgoing restriction (restrict a facility from dialing toll, 900 and 976 services)
9. Vendor shall support the Collect Calling restriction (prevents users from accepting collect calls)
10. Vendor shall support the Third party billing restriction (prevent a user from billing a toll or chargeable operator assisted call to a number on the service).
11. Vendor shall support 4 through 12 digit format for incoming DID calls to CTS network.
12. Vendor shall support the 12 digit E.164 standard for inbound calls.
13. Vendor shall support 10 and 12 digit E.164 formats for out-dialing from CTS’s network.

## Vendor shall support unlimited local calling and it must be included in the monthly rate in each local Rate Center.

## Vendor shall support the porting of all exising CTS DID numbers to and from the Vendors network.

## Vendor shall support Direct Inward Dial (DID) functionality on their SIP Service.

## Vendor shall have the capability of supporting the transmission of ANI information on the Vendor’s SIP Service to the local Public Safety Answering Position (PSAP) for the purpose of sending E911 station identification.

1. Vendor shall have the capability to port across all Rate Centers in WA State (that support local number portability) for 911 and PSAP Services.
2. Vendor shall support Directory Listing for all CTS DID numbers.

## Specific Features

1. Vendor’s network shall utilize T.38 relay protocol on CTS’ Fax and Modem calls.

## Vendor shall provide two-way Public Switched Telephone Network (PSTN) access via SIP facilities. The SIP facilities will be used as trunks to regularly service up to 6,000 Concurrent Call sessions, plus the ability to burst 20% of capacity (burst up an additional 1200 call sessions) at each Data Center (currently Olympia and Quincy).

## Vendor shall provide private network handoffs via dedicated Ethernet circuits, with defined sizes, of T1, 10 Mb, 100 Mb,1 Gb, or higher as requested by CTS, which will be identified at the time of ordering. T1 may be ordered as an ISDN PRI to serve as a backup to SIP. T1s must support use as an automated rollover to SIP or vice versa. The cost of any Vendor equipment must be included in the monthly circuit charge.

## Vendor shall support G.711mu, G.722 and G.729 audio codecs.

## Vendor must allow Long Distance calls to be sent to a CTS defined Presubscribed Interexchange Carrier Code (PICC), if requested by CTS.

1. Vendor shall have successfully completed and provide documentation of Avaya DevConnect certification on CTS’ production environment within 6 months of award. CTS currently uses the following equipment and software versions:
	* + Avaya Session Border Controller version ‘7.x’
		+ Avaya Session Manager version ‘7.x’
		+ Avaya CM server version ‘7.x’
2. Vendor shall support SIP connectivity to Audio Codes Mediant series Session Border Controller.

## Interoperability

## Vendor must be able to provide and support both IPv4 and IPv6 addressing (RFC 791).

## Vendor must follow (RFC 1918) for private IP addressing

## Carrier grade NAT (RFC 6598) will not be accepted.

## Link-local IP Addresses (RFC 3927) will not be accepted.

## Multicast addresses (RFC 3171) will not be accepted.

## Vendor shall support the IETF SIP standard (RFC 2543) and all revisions (RFC 3261).

## Long Distance

## CTS currently uses contracted Long Distance services that require the use of a seven digit authorization (account) code after a 10-digit number is dialed. This code is a travelling code which means they will work on any CTS managed phone system. This long distance service must be made available from any SIP or T1 PRI facility CTS purchases.

## Alternatively Vendor may provide Long Distance service as described below with each SIP session. Long distance would be included at no additional cost. Long distance with the session will be for North American Number Plan calls only. There will be a cost model for each scenario contained in appendix E.

## Country Code

## Vendor must support the capability to permit or deny calling based on the country code and city code being called to limit the potential for fraud for calls outside of the North American Number Plan, such as International calling. These calls will be billed as toll calls to CTS and assigned to the originating number. The allowed/disallowed table for international dialing needs the capability to be flexibly administered according to the need. There is a strong preference that this table can be administerd by authorized CTS staff using a customer portal, or through an expedient customer request process.

## Toll Free

## CTS and its customers currently use a Department of Enterprise Services (DES) Master agreement for Toll Free services. The agreement is found at <https://apps.des.wa.gov/DESContracts/Home/ContractSummary/06614>

## The capabilities and features of the propoosed Toll Free service are included below:

## Vendor must provide, at all times, voice transmission quality measured at the CTS interface which is at or better than toll quality as defined within the ITU-T P.800 specification with an MOS not below 4.0 or the ITU-T P.861 specification utilizing a PSQM value not in excess of 0.5.

## Vendor must provide a P.01 or better grade of service to all locations on the Vendor network.

## Vendor must provide call setup within 6 seconds. This is defined from the moment the Vendor receives the last digit of the dialed number to the point ringing is heard.

## Solution must be supported by switching sites and wire centers that are capable of continuous operation during a commercial power outage.

## Solution must be supported by facilities within Vendor network and capable of providing diverse routing between Vendor switching sites in the event of a Vendor's network failure.

## Vendor must provide Toll Free Number access to callers from Canada, Alaska and Hawaii without requiring a number change.

## Solution must have the capability to have calls to the same Toll Free Number handled simultaneously by multiple long distance carriers, or routed to different locations on the basis of a predetermined percentage (e.g., 90 percent carrier #1, 10 percent carrier #2, etc.). This functionality must be provided at the Service Control Point (SCP) level rather than the serving switch level.

## Solution must have the capability to have calls to the same Toll Free Number handled simultaneously by multiple long distance carriers, or routed to different locations on the basis of geography (e.g., Eastern US carrier #1, Western US carrier #2, etc.). This functionality must be provided at the Service Control Point (SCP) level rather than the serving switch level.

## Solution must have the capability to have calls to the same Toll Free Number handled simultaneously by multiple long distance carriers, or routed to different locations according to time of day (e.g., 8 a.m. to 5 p.m. carrier #1, other hours carrier #2, etc.). This functionality must be provided at the Service Control Point (SCP) level rather than the serving switch level.

## Solution must have the capability to have calls to the same Toll Free Number handled simultaneously by multiple long distance carriers, or routed to different locations according to the day of the week. This functionality must be provided at the Service Control Point (SCP) level rather than the serving switch level.

## Solution must have the capability to have calls to the same Toll Free Number routed simultaneously to different call centers intelligently, on the basis of network congestion. This functionality must be provided at the Service Control Point (SCP) level rather than the serving switch level.

## Solution must have the capability to have calls to the same Toll Free Number routed to different call centers intelligently, based on the originating phone number of a call (area code only, area code & prefix or the complete 10-digit number).

## Solution must have the capability of carrier supplied automated routing, which allows callers to route their own calls, using the touch-tone pad of the telephone (e.g., entering account numbers, or department choice).

## Provide the ability to control the routing pattern of a Toll Free Number within thirty (30) minutes of Purchaser’s emergency request.

## Provide the ability to reroute traffic, in the event of service interruptions, within thirty (30) minutes of Purchaser requests to another number or a Vendor-provided recording.

## T1 may be ordered as an ISDN PRI to serve as a backup to SIP. T1s must support use as an automated rollover to SIP or vice versa.

## Pass the Toll Free call’s originating Automatic Number Identification (ANI) to the customer’s receiving switch to allow the customer to route callers based on their telephone number. This only applies to Toll Free service provided over facilities utilizing ISDN Primary Rate Interface (PRI) or Session Initiated Protocol (SIP).

## Provide the ability to block Toll Free access to callers within the local calling area of the Toll Free Purchaser's telephone system. Vendors must make available to Purchasers custom local number referrals for callers that are blocked on specific numbers in a given local area.

## Provide the capability to block Toll Free access to callers based on 10-digit ANI and Caller ID, area code (NPA), Area Code + Prefix (NPA NXX), calls originating from pay phones, and geographic location. This blocking capability could be required on a permanent basis, or in response to traffic spikes and toll fraud. In the case of toll fraud, the blocking must be activated within twenty-four (24) hours of notification by the Purchaser.

## Allow co-location or virtual co-location of CPE in situations where calls can be handled without being transported to Purchaser premise. In these situations, 24-hour access (with prior arrangements) must be made for vendors of the CPE equipment to make repairs and provide maintenance to the CPE. If escorted entry is required, Vendor must be able to provide escort within two (2) hours.

## Make available, upon Purchaser request, the Disaster Recovery plans for catastrophic outages, such as power interruptions and circuit cuts.

## Provide the ability to support Dialed Number Identification Service (DNIS).

## Provide Toll Free Service to any location where a Purchaser may be located within the state of Washington

## Provide, in the event that a T-1 carrying services is unavailable, the ability to automatically send toll free calls to a switched number for each toll free number supported by that T-1. This routing must support the ability to forward multiple toll free numbers to multiple switched Public Switched Telephone Network numbers.

## Provide automatic call termination for calls over a predetermined duration. The minimum threshold will be 10 minutes.

## Provide support for incoming fax calls. If SIP is utilized, the Vendor’s network must support ITU standards T.38 & G.711 for Faxing.

## Toll Free Service must be available 24 hours per day, every day of the year.

## Toll Free Service must perform 99.99 percent of the time during a calendar month.

## The inability of Vendor to deliver a Toll Free call to its predetermined destination due to carrier-related network problems shall be considered “Out of Service.” This definition shall not cover problems due solely to Purchaser’s network or equipment.

## The existence of an Out of Service condition for 24 continuous hours (or more) shall allow the Purchaser, at its option, to terminate the affected Toll Free Number Service without termination liability or receive an Out of Service credit in an amount equal to the monthly recurring charge for the affected Toll Free Number Service for the month in which the outage occurred.

## Toll Free Number Service for the month in which the outage occurred.

## Security

## Vendor shall have Denial of Service (DoS) and Distributed Denial of Service (DDos) protection.

## Vendor shall have toll-fraud detection and have methods in place for identifying and blocking toll fraud.

## Vendor shall have session privacy. SIP Session Privacy is defined in RFC 3323 “A Privacy Mechanism for the Session Initiation Protocol (SIP)”.

## Vendor shall meet the Office of the Chief Information Officer (OCIO) Security Standard 141.10 located at <https://ocio.wa.gov/policies/141-securing-information-technology-assets/14110-securing-information-technology-assets>

## Vendor shall ensure the privacy of CTS User provided information and data, including but not limited to: encryption of signaling, encryption of media, topology hiding and routed number privacy (e.g. not selling or publishing DID numbers or passing Caller ID unless requested by CTS).

## Reporting, Capacity, Utilization, and Error reports

## Vendor shall provide a monthly Capacity Report (SIP trunks available, Bandwidth available) by site or facility, if requested by CTS.

## Vendor shall provide a monthly Utilization Report by site or facility, if requested by CTS.

## Vendor shall provide a monthly Error Report (Network, SIP Session, Equipment) by site or facility, if requested by CTS. Report format must included requested fields and metrics associated with Vendor SIP service.

## Vendor provides, on request, a monthly Call Detail Report including, at a minimum:origination number, termination number, call date, call time, call duration, call charge.

## Vendor’s assigned Account Manager on request schedule and attend in person Quarterly Business Reviews to cover, at a minimum, the items in 7.5 Reporting.

## Quality and Reliability

## Vendor shall support QoS tagging using IEEE 802.1P-2011 standard.

## Vendor shall not drop, rewrite, mark, or re-mark any VLAN tags affixed to packets by CTS, without CTS’s expressed consent.

## Vendor shall not impede the ability of CTS to utilize 802.1Q-2011 tagging (Q-in-Q).

## Vendor shall provide a minimum of one COS marking per Ethernet service delivered.

## Vendor shall support the capability to automatically failover traffic between SIP trunks and to a failover PRI trunk, or from PRI trunks to any SIP trunks.

## Vendor’s network shall contain two (2) or more geographically diverse exit points out of their network to support PSTN redundancy (Upstream) that can be used by CTS’ DID. Failover of these network connections must be automatic.

## Vendor shall be able to automatically port DID numbers back and forth between the Vendor and at least one other carrier.

## Vendor shall be able to provide the requested connections to all service locations listed in the cost model section. Additional sites may be needed at a later date. Availability of facilies will be evaluated at that time CTS reserves the right to change or add locations based on business requirements. Any new location will be at a similar, well known, well connected, network point of presence.

## Vendor shall recognize and respond to TSP codes.

# Maintenance

## Vendor shall perform maintenance consistent with the following:

## Vendor shall conduct routine maintenance outside the hours of 6:00 a.m.to 10:00 p.m. Pacific Standard or Daylight Time.

## Vendor shall provide a minimum of seven (7) days notice to CTS prior to performing maintenance which will be Service Impacting. Notice must be provided to Supportcenter@watech.wa.gov and WaTechDLNCCOperations@WaTech.wa.gov.

## Vendor shall provide seven (7) days notice to CTS prior to performing maintenance which is not expected to be Service Impacting.

## Vendor shall defer Service Impacting maintenance for up to forty eight (48) hours upon request from CTS. Requests to defere shall be made at a minimum of twenty four (24) hours before the maintenance is scheduled.

## Vendor may undertake Emergency Maintenance during the defined maintenance window and shall provide CTS with prior notice of such Emergency Maintenance .

## Notice of Maintenance shall include at a minimum: the CTS Site name, Site address, Vendor Billing Telephone Number (BTN) or Circuit ID number, a description of the maintenance, and estimated duration of the maintenance.

# Service Repair and Trouble Reporting

## Response to Trouble Reports

## Vendor shall provide a toll-free trouble reporting number to CTS.

## Vendor shall provide support for the Services delivered including twenty-four (24) hours a day, seven (7) days a week, three hundred sixty five (365) days per year call center, monitoring, fault detection, problem isolation, escalation, and restoration management of supported Services, networks, and equipment.

## Vendor shall respond within fifteen (15) minutes of receiving a Trouble notification from CTS. For purposes of this section, first response shall mean a phone call to CTS Telephony Operations staff or via email address: TelephonyTechSupport@watech.wa.gov. Vendor shall provide status reports every 2 hours to the CTS Telephony Operations for all Service replated issues. Vendor must provide the following information in the status report: type of problem, estimated time to repair, Vendor ticket number, site address(es) affected, and Vendor Billing Telephone Number (BTN) or Circuit ID.

## Vendor shall obtain concurrence from customer that the issue has been resolved before closing the issue.

## Vendor shall maintain a repair log listing the date of the repair occurrence, problem found, action taken to resolve the problem, and the total out-of-service time for problems and issues impacting CTS. The repair log shall be made available for CTS to review upon request.

## Reason for Outage / Root Cause Analysis

## CTS shall receive a Reason for Outage (“RFO”) as follows:

* A preliminary, non-official per incident Reason for Outage (RFO) must be provided by email or by verbal conversation to CTS Network Operations Center Technicians within two (2) hours of an incident being resolved.
* Major incidents that result in a breach of Service Level performance minimums, Vendor must provide an official RFO within seven (7) days, unless otherwise negotiated, after the incident causing the Outage is resolved. Official RFO’s must include a Root Cause Analysis on why the issue occurred and what the Vendor is doing to prevent the issue from re-occurring.

## End-to-End Service Monitoring and Test Capability

## Vendor shall have the capability of monitoring the Service end-to-end and shall perform testing as necessary to troubleshoot Service problems and issues.

## Solution Center

## Vendor shall provide a dedicated Service Desk to process orders and trouble tickets from CTS.

## Vendor shall provide support/helpdesk service based in the domestic United States.

## Vendor shall answer calls or e-mails within fifteen 15 minutes during prime business hours (from 7 AM to 6 PM PST).

## Vendor shall answer calls or e-mails within four (4) hours outsite of prime business ours (from 7 AM to 6 PM PST).

# Emergency Support

## Vendor shall be able to respond to emergency requests 24 hours a day, 7 days a week. Response time for an emergency maintenance call must be within 30 minutes after receipt of an emergency maintenance call. Time to correct an emergency situation shall not exceed eight (8) hours from time of notification. Unless instructed otherwise by CTS, emergency maintenance shall be performed immediately. Emergency conditions as referred to herein include:

## A Vendor network failure

## A failure of any access circuit

## A failure of call control signaling or commands

## Any other cause that adversely impacts 20% of CTS’ call capacity at any SBC site

## A failure of any Vendor service deemed critical by CTS

## Vendor shall comply with all applicable Federal Communication Commission’s regulations addressing requirements for 911 and Enhanced 911.

## Vendor shall have the capability of supporting the transmission of ANI information to the local Public Safety Answering Position (PSAP) for the purpose of sending for E911 station identification purposes.

# Service Level Agreements

## In addition to the terms set forth in this Contract, Vendor shall use best efforts to perform the Services in accordance with the Service Level Agreements, as set forth in herein.

## In the event of any failure by Vendor to perform the Services in accordance with the Service Level Agreement (“SLA”), the Contract, and this Technical addendum, CTS shall have a Service Availability credit in the amount determined pursuant to the Service Level Agreement, the Contract, and this Technical addendum, which CTS may apply against payment of the fees and charges payable by the CTS to Vendor in a subsequent calendar month; provided that such credit shall not exceed the amount paid or payable by CTS to Vendor during the period or periods in which the Service Level Agreements were not met and provided further, that in the event that this Contract expires or terminates, Vendor shall pay an amount equal to any unused credits to CTS within thirty (30) days after such termination or expiration.

## CTS agrees that such Service Level Credits shall constitute the sole and complete remedy for CTS (see note 14.7 – ‘service level remedies number ‘.7’) with respect to the corresponding failures by Vendor to perform the Services in accordance with the Service Level Agreements; provided, that nothing herein shall impair CTS’ rights to terminate this Contract in accordance with its terms, whether pursuant to failure to perform in accordance with the Service Level Agreements or otherwise.

# Service Level Breach Reporting

## The Vendor shall proactively report its own SLA breaches within two billing cycles from the event that invoked the SLA credit provisions herein. Such reporting shall be provided to the named CTS Contract Manager in this Technical Addendum and shall be provided in writing.

## CTS will continue to monitor service levels independent of the Vendor’s self reporting through monitoring the tickets opened with the Vendor. In the event CTS finds a breach that the Vendor did not report, the SLA credits shall be three (3) times the calculated and owed amount to cover the cost of auditing SLA's internally. The credits must appear on the CTS biling within two (2) biling cycles from the notification of the finding from CTS to the Vendor. CTS reserves the right to review up to the past twelve months of tickets for this section.

# Service Level Performance Minimums

## The Service shall be provisioned at the following minimum performance levels set forth below. In the event these Performance Minimums are not met, such a failure to meet this minimums shall be subject to Service Level Agreement remedies.

# Performance Minimums is defined as:

## The Service shall have a minimum Performance of 99.9% Availability including voice and fax, excluding scheduled maintenance, per one (1) calendar month.

## The Service shall have a minimum Performance of 99% Availability inclusive of scheduled maintenance, per one (1) calendar month.

## The Vendor’s connection from the provided handoff to CTS through the Vendor’s network to the terminating switch shall not exceed 30 ms unidirectional latency inside of the state of Washington.

## The Vendor’s connection from the provided handoff to CTS through the Vendor’s network to the terminating switch shall not exceed 80 ms unidirectional latency outside of the state of Washington.

## The Vendor’s connection from the provided handoff to CTS through the Vendor’s network to the terminating switch shall have less than 1% packet loss.

## The Vendor’s connection from the provided handoff to CTS through the Vendor’s network to the terminating switch shall have less than 30ms unidirectional Jitter.

## The Service is required to provide a Mean Time To Recover (MTTR) of 4 hours or less, per one (1) calendar month.

## Vendor shall be able to access and facilitate correct routing of all E911 traffic to all PSAPs in Washington state.

## Vendor shall route traffic based on CTS directives to Vendor.

## Vendor shall possess an active inter-operability capability and understanding of E911 location based service providers, specifically including Bandwidth, Intrado/West and TCS/Comtech.

## CTS may elect to terminate the affected Services within 15 days of reporting the Chronic Service to Vendor, and without incurring early termination fees that may arise pursuant to its Service Agreement.

# Service Level Remedies

## In addition to the terms set forth in this Contract, Vendor shall use best efforts to perform the Services in accordance with the Service Level Agreements, as set forth in herein.

## In the event of any failure by Vendor to perform the Services in accordance with the ServiceLevel Agreement (“SLA”), the Contract, and this Technical addendum, CTS shall have a Service Availability Credit in the amount determined pursuant to the Contract, and this Technical addendum, including the percentages stated in the “Service Level Credits” section below which CTS may apply against payment of the fees and charges payable by the CTS to Vendor in a subsequent calendar month; provided that such credit shall not exceed the amount paid or payable by CTS to Vendor during the period or periods in which the Service Level Agreements were not met.

## In the event that this Contract expires or is terminated, Vendor shall pay an amount equal to any unused credits to CTS within thirty (30) days after such termination or expiration.

## The Parties acknowledge and agree that, because of the unique nature of the Services contemplated by this Contract, it is difficult or impossible to determine with precision the specific amount of damages that might be incurred by CTS or any CTS User as a result of a failure of Vendor to meet the Service Level Agreements.

## It is further understood and agreed by the Parties that CTS shall be damaged by such failure of Vendor to meet the Service Level Agreements, and that any credits that become payable in the nature of Service Credits are not penalties, are fair and reasonable under the circumstances, and that such payments represent a reasonable estimate of fair compensation.

## Service Level Credits shall be applied to the Account within two billing cycles from which the month that the Outage or excessive Schedule Maintenance event(s) occurred. Award of the credit in no way relieves the Vendor of responsibility to correct any Outage event condition(s) and does not constitute an exclusive remedy for such Outage condition(s).

## Service Level Credits shall constitute the sole remedy for CTS with respect to Vendor’s failure to meet Performance Minimums so long as the Performance Minimums are not a Chronic Service. If the Service falls below this expectation, then damages may also be sought.

## CTS retains the right to terminate this Contract in accordance with its terms, whether pursuant to failure to perform in accordance with the Service Level Agreements or otherwise.

# Service Level Credits

## In the event of an Outage condition, Vendor agrees to grant CTS a credit against the Monthly Reoccuring Charge (MRC) also reffered to as “Service Level Credit”, as outlined in the Service Level Credit Table. The Service Level Credit shall be calculated as a five (5) percent discount on the CTS monthly bill for the affected Service(s)/Product(s) for each Outage unless otherwise specified. Credits awarded under this section shall not exceed one month of the MRC unless the install interval takes more than one month.

## Each distinct Outage will be considered a separate event. Vendor agrees to provide credits for all events occurring during a billing period. The credits will be applied to the account within two billing cycles from which the Outage occurred. Award of the credit in no way relieves the Vendor of responsibility to correct the Outage condition(s) and does not constitute an exclusive remedy for such Outage condition(s). (see note 14.7 – ‘service level remedies number ‘.7’)

## A Service is considered “interrupted” when it becomes unusable to the customer because of a failure of a facility component used to furnish the service by the Vendor.

## Except as otherwise provided, an interruption period starts when an inoperative Service is reported to the Vendor, and ends when the Service is operative.

## Service Level Availability is calculated on a calendar month, which will be pro-rated for the first calendar month of service.

## Vendor’s Service is designed to provide a Service Availability of at least 99.9%, excluding any scheduled maintenance agreed upon by CTS. If the Availability target is not achieved in a calendar month, CTS shall be entitled to the Service Level Credits set forth herein for each outage.

|  |  |  |
| --- | --- | --- |
| **Target Availability**(Excluding Schedule Maintenance) | **Actual Outage** | **Service Level Credit as % of MRC for the applicable Service** |
| **99.9% Availability** | Less than 43 minutes | Target Met |
| >43 minutes to 1 hour | 5% |
| >1 hour to 3 hours | 10% |
| >3 hours to 5 hours | 15% |
| >5 hours | An additional 5% for each additional hour of Outage |

## In the event of an Outage that negatively impacts over five percent (5%) CTS DID’s for a period longer than 43 minutes, Vendor shall grant CTS a Service Level Credit against the MRC. Such Service Level Credit shall be calculated as a 5% discount on the CTS' monthly bill for the affected Services for each Outage occurrence, unless otherwise specified herein. If in this same event it goes beyond 1 hr it will follow the same tiered schedule above.

## Vendor’s Service is designed to provide a Service Availability of at least 99%, including scheduled maintenance. If the Availability target is not achieved in a calendar month, CTS shall be entitled to the Service Level Credits set forth herein.

|  |  |  |
| --- | --- | --- |
| **Target Availability**(Including Schedule Maintenance) | **Actual Outage and Scheduled Maintenance** | **Service Level Credit as % of MRC for the applicable Service** |
| **99% Availability** | Less than 7 hours 18 minutes | Target Met |
| >7 hours 18 minutes to 9 hours | 5% |
| >9 hour to 12 hours | 10% |
| >12 hours to 15 hours | 15% |
| >15 hours | An additional 5% for each additional 3 hour of Outage due to scheduled Maintenance |

## In the event of Outages of Services due to the failure or malfunction of Vendor Network or Vendor Equipment, Vendor is required to provide a MTTR of 4 hours or less. If the target MTTR is not met for a particular circuit in a given calendar month then CTS shall be entitled to the Service Level Credits set forth in the table below.

|  |  |  |
| --- | --- | --- |
| **Target MTTR** | **Actual MTTR** | **Service Level Credit as % of MRC for the applicable Service** |
| 4 hr MTTR | Less than 4 hours | Target Met |
| >4 hours to 6 hours | 5% |
| >6 hours to 8 hours | 10% |
| >8 hours  | 25% |

## The following sections (a)- (e) are provided for illustration only:

## A Service has an Outage of one (1) hour. This results in a credit of 5% of the MRC for the applicable service.

## A Service has an Outage of one (1) hour and ten (10) hours of Outage and Scheduled Maintenance. This results in a credit of 5% for the one (1) hour of Outages and an additional 10% credit for the ten (10) hours of Outage and Scheduled Maintenance for a total of 15% of the MRC for the applicable service.

## A Service has a single Outage of five (5) hours. This results in a credit of 15% for the 5 hours of Outage and an additional 5% credit for the five (5) hour MTTR for a total of 20% of the MRC for the applicable service.

# Effect of Failure to Perform to Service Level Agreements

## The Parties acknowledge and agree that, because of the unique nature of the Services contemplated by this Contract, it is difficult or impossible to determine with precision the specific amount of damages that might be incurred by CTS or any CTS User as a result of a failure of Vendor to meet the Service Level Agreements.

## It is further understood and agreed by the Parties that CTS shall be damaged by such failure of Vendor to meet the Service Level Agreements, and that any credits that become payable in the nature of Service Credits are not penalties, are fair and reasonable under the circumstances, and that such payments represent a reasonable estimate of fair compensation. Unless stated otherwise herein or in the Contract, this section represents the sole CTS remedy for the losses that may reasonably be anticipated from Vendor’s failure to meet the Service Level Agreements.

## E-911 and Basic 911 Provisions

## Vendor will provide to Customer Enhanced 911 Service and/or Basic 911 Service call routing to the appropriate PSAP. Vendor will route Customer’s End User’s E911 calls to the proper PSAP, designated statewide default answering point, or appropriate local emergency authority serving the End User’s location. Vendor will provide emergency call support service to permit Customer to (i) provision its subscribers or End Users and their respective location data for accurate routing of 911 calls to the most geographically appropriate PSAP by means of the existing 911 infrastructure, including Next Generation 911 where enabled, and (ii) deliver Customer’s subscriber or End User Call Back Number and valid address to the PSAP during an emergency call using existing 911 infrastructure, including Next Generation 911 where enabled.

## Vendor will deliver End User’s call to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller’s location. Vendor will determine the incoming caller’s appropriate PSAP based upon the incoming TN of the caller and the End User’s corresponding location information previously registered in Vendor’s ALI database, then Vendor will route the call to the PSAP.

## Customer will provide to Vendor a TN inventory which details the total number of TNs being implemented on Vendor’s platform and the associated address or serving PSAP information for each TN.

## Vendor will provide the PSAP only such name, address and TN information as Customer will provide to Vendor, and for any 911 or E911 call, Vendor will only pass to the PSAP such information, including ALI and/or ANI data, as Customer’s facilities, network or station equipment will make properly available to Vendor’s network and equipment for transmission to the PSAP.

## For each TN or DID for which Customer desires emergency calling services, Customer must provide Vendor with a correct and valid emergency response address for that TN. The address information provided must include sufficient information to enable emergency responders to locate the calling party and must comply with any multiline telephone system requirements applicable to Customer. For example, if applicable pursuant to any applicable multiline telephone system requirements, if the subscriber or End User’s location is a multi-story building, Customer must provide floor number in addition to address information. Customer is solely responsible to promptly update this information whenever necessary to reflect changes. Customer will provide with a valid call back number for every subscriber and/or End User call presented to Vendor for processing. Vendor will have no obligation to provide Services with respect to any subscriber or End User call that does not include ANI and will not be liable for any claims arising from any efforts undertaken by Vendor to provide Services under such circumstances.

## The Effective Date of this Technical Addendum shall be the date of last signature below.

|  |  |  |
| --- | --- | --- |
| **Approved** |  | **Approved** |
| State of WashingtonConsolidated Technology Services |  | Vendor |
|  |  |  |
| *Signature* |  | *Signature* |
|  |  |  |
| *Print or Type Name Date* |  | *Print or Type Name Date* |
|  |  |  |
| *Title* |  | *Title*  |

***SIP Addendum Statement of Work Template***

This Statement of Work (SOW) 06-23-XXX is made and entered by and between the State of Washington, Consolidated Technology Services (“CTS” or “CTS”), and *xxxxxxxxxx xxxxxxxx*(“Contractor”), collectively referred to as “Parties” pursuant to Section xxxxxxx of that certain contract No. xxxxxxxxxxxx for SIP Services.

**Recitals**

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Parties, the Parties hereby agree as follows. Unless otherwise defined, capitalized terms in this Amendment have the meanings ascribed to them in the Contract. The terms and conditions of the Master Services Agreement, and SIP Addendum are hereby restated and incorporated by reference in their entirety.

1. **Term:**

The Service Term shall be thirty-six (36) months, commencing upon the date of the Service Acceptance. (delete and replace with the shorter term if stated on the CTS Procurement Document document.)

For any period shorter than twenty four (24) months, CTS will specify a superseding period in the CTS Procurement Document (example is eighteen [18] months or twelve [12] months)

This SOW shall be effective as of the date executed by CTS (the “Effective Date”) and continue in full force and effect for the duration of the Service Term measured from the Service Acceptance for each site covered by this SOW.

1. **Service Delivery Locations.**

Contractor agrees to provide, at all times during the Term of this SOW, SIP Services at the throughput, price, quantity, and features at each address specified in Exhibit 1 unless otherwise agreed upon by the Parties in an amendment to this SOW.

1. **Special Terms:**
	1. (Special Instructions from the RFP, Special Handoff – if requested, background check if required, etc.)
2. **Contractor’s Response.**
	1. A copy of Xxxxx’s response to the CTS’ Procurement resulting in this award is attached as Exhibit 2 as is incorporated by reference as if fully set forth herein.
	2. In the event the Parties need to exercise any options available on the procurement but not accepted in this SOW, the Parties will execute an amendment reflecting the exercise of said options.
	3. In the event of a conflict between the Response and this SOW, the SOW prevails.

***In Witness Whereof***, the Parties hereto, having read this Statement of Work to Contract Number *xxxxxxxxxxxxxxxxxx* in its entirety, do agree thereto in each and every particular.

|  |  |  |
| --- | --- | --- |
| **Approved** |  |  |
|  |  |  |
|  |  |
|  | *Signature* |
|  |  |
|  | *Print or Type Name* |
|  | *Title Date* |

Exhibit 1

SOW Site Purchases

**Example:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CTS Site** | **Address** | **City** | **Service /****Features** | **Throughput** | **Quantity** | **Guaranteed Install Interval** | **MRC** | **NRC** |
| Agency | 1234 W 1st Street | Seattle | SIP LocalSTTL01 via Ethernet | 1 GB | 1200 Sessions | 30 days | $1250.00 | $0 |

Exhibit 2

Contractor Response to CTS Procurement Number ------------

Exhibit 3

SIP Tech Order