

# **Request For Proposal**

## **California Telehealth Network**



**CALIFORNIA**  
TELEHEALTH NETWORK

Request for Proposal #2010-03

**Submitted by University of California  
at Davis Health System**

**November, 2010**

# Table of Contents

1	Section A: RFP Information and Terms .....	1
1.1	Introduction.....	1
1.2	General RFP Information.....	3
1.3	RFP Process .....	6
2	Section B: Technical Requirements .....	17
2.1	Overview.....	17
2.2	Initial and Future Capacity Requirements .....	17
2.3	Firewall Traversal System: Bidder Overview.....	22
2.4	Firewall Traversal System Specific Requirements .....	22
2.5	Project Implementation/Management Services .....	26
3	Section C: Financial Terms and Conditions .....	28
4	Section D: Cost Reporting .....	31
5	Appendices.....	32
5.1	Appendix A: University of California, Terms and Conditions of Purchase .....	33
5.2	Appendix B: University of California, Business Information Form.....	36

# **1 Section A: RFP Information and Terms**

## **1.1 Introduction**

As the managing partner of the California Telehealth Network Consortium (hereinafter referred to as CTN-C), the University of California (UC) is issuing this RFP to obtain firewall traversal services (FTS) for videoconferencing and telemedicine sessions to/from the California Telehealth Network (CTN) .

### **1.1.1 Background**

The Federal Communications Commission announced in late 2007, its decision to fund the State of California's proposal to establish a statewide California Telehealth Network. Under the FCC's Rural Health Care Pilot Program (RHCPP) – with the goal of significantly increasing access to acute, primary and preventive health care in rural America. The FCC will provide California with up to \$22.1 million over the next three years to create this network, whose goals are to:

- Create a statewide broadband network dedicated to health care, connecting public and non-profit health care providers in California's rural and urban areas, and bringing the benefits of telemedicine to the areas of California where the needs are most acute
- Over a period of three years, connect over three hundred healthcare providers throughout the state.
- Link the California Telehealth Network to a nationwide backbone, creating greater access for the state's health care providers to continuing education, research, and peer networking
- Leverage and build upon California's historic and recent investments in telehealth
- Utilize the California Telehealth Network for ongoing disaster preparedness training
- Report back to the FCC on the State of California's pilot program as to lessons learned regarding access to advanced services for public and non-profit health providers, and suggested revisions to the FCC's current rural health rules

Additional information regarding the FCC Rural Health Care Pilot Program, including a downloadable version of the complete original California RHCPP proposal to the FCC, can be found at the FCC RHCPP Web site:

<http://www.fcc.gov/cgb/rural/rhcp.html>

Additional Information regarding the California Telehealth Network (CTN) program can be found at the CTN Web site:

<http://caltelehealth.org/>

CTN RFP #2010-03

Operational management of the RHCPP at the national level is being provided by the Universal Services Administrative Company (USAC). Information regarding the USAC process can be found at the USAC RHCPP Web site:

<http://www.universalservice.org/rhc-pilot-program/default.aspx>

Specific information regarding the Rural Health Care Vendor Pilot Process can be found at the following URL:

<http://www.usac.org/rhc-pilot-program/vendors/>

### **1.1.2 Purpose of Request for Proposal**

1. To obtain detailed written proposals from Bidders regarding their experience and capabilities in successfully delivering products and accomplishing services as described in the summary below.
2. To obtain written proposal pricing structures, work plans and implementation schedules, and proposed methodologies and approaches to be utilized.
3. To solicit proposals in a standard format that will enable UCDHS to compare and evaluate Bidders and award a contract based on the selection criteria specified herein.

## **1.2 General RFP Information**

### **1.2.1 Project Authority**

The Regents of the University of California (UC) have been designated as the Managing Partner of a consortium of state governmental organizations, healthcare providers and other health care-related organizations that represent the executive management of the California Telehealth Network (CTN) Project. Bidders should therefore consider UC as the Project Authority.

Throughout this RFP several terms are used to reference the CTN Project Authority:

1. University of California (UC)
2. Regents of the University of California (UC)
3. University of California Office of the President (UCOP)
4. California Telehealth Network Consortium (CTN-C)

Bidders shall consider each of these terms to equivalently reference the formal CTN Project Authority:

#### **Regents of the University of California**

### **1.2.2 Summary: Services Requested; Terms and Conditions**

#### **1.2.2.1 Firewall Traversal Equipment and Installation/Configuration Services**

The California Telehealth Network (CTN) will contract for the acquisition of equipment, software and services that will provide firewall traversal capabilities in support of videoconferencing (VC) and real-time telemedicine (TM) activities among its projected 800+ participant sites, as well as multiple health care and miscellaneous sites external to the CTN Core network.

CTN is currently constructing a dedicated health care network that will interconnect the participant sites employing an MPLS-routed VPN (AVPN) constructed and maintained as a managed service by AT&T. The CTN backbone will peer with the CENIC statewide network, in order to provide access to various external sites and services, including:

1. Directly-connected CENIC members, including UC campuses and medical centers, CSU and community college campuses.
2. Internet 2 and National Lambda national educational and research networks.
3. Public Internet

Internally, the CTN will deploy and exclusively route private IP addresses (10.x.x.x) for security and capacity purposes. Network Address Translation (NAT) to a block of publically routable IP addresses will occur at the physical peering point with the CENIC network, currently sited at a CENIC POP in Los Angeles, California. At the physical peering point, a “demilitarized zone” (DMZ) will be interposed between the CTN and CENIC networks. In addition to NAT services, the DMZ will be comprised of the following security equipment and services:

1. Firewall and Intrusion Prevention Services (Cisco ASA 5540/SSM 40)
2. Web Content Filtering Services (Blue Coat content filtering)
3. Anti-Virus Scanner

CTN-C has arranged for collocation facilities immediately adjacent to the CENIC POP. The CTN DMZ equipment, as well as the equipment requested herein, will reside in the collocation facilities. CTN-C will provide the mutually agreed-upon rack space, power, environmental services and circuit interconnects that are required to implement the selected vendor’s solution.

More detailed description of the CTN DMZ are provided in Section 2 “Technical Requirements”, including diagrams illustrating physical equipment layouts as well as logical architecture of the CTN DMZ.

CTN-C is currently requesting an “baseline” system that will accommodate the projected Year One H.323 call volumes. CTN-C anticipates that as additional sites are connected, the call volume will increase substantially. Consequently CTN-C desires an FTS solution that is readily expandable with regard to performance and call volume capacity.

#### 1.2.2.2 Project Management

CTN-C requires that comprehensive project management services be provided during the design, installation and initial configuration phases of the vendor solution. These services shall include:

1. System design, including hardware and software specification, design of integration into the CTN DMZ and coordination of system programming with CENIC and AT&T, in order to maintain interoperability and compatibility among the three systems.
2. Project management staff available to coordinate implementation of the Solution with AT&T, CENIC and CTN-C as appropriate.
3. Technical staff available to install, initially configure and test the Solution.
4. Regular project implementation status update reporting and coordination with CTN-C Management.

### **1.2.3 Summary: Financial Terms and Conditions**

CTN-C has established price caps that will apply to all Contractor-provided services that are explicitly available under under the State of California CalNET 2 Master Service Agreements MSA-1 through MSA-4. Bidders are encouraged to enhance the competitiveness of their bids by providing pricing below CalNET 2 terms for CalNET 2 –listed (or equivalent) equipment and services.

CTN RFP #2010-03

Additional financial requirements include:

1. Adherence to USAC-RHCPP invoicing and payment policies and procedures.
2. Aggregate, itemized invoicing for all non-recurring and recurring charges accrued by Contractor and all Subcontractors.

## 1.3 RFP Process

### 1.3.1.1 Formal RFP Posting

This RFP has been formally posted on the following Web site:

1. USAC Rural Health Care Pilot Program (RHCPP) Web site:

<http://www.usac.org/rhc-pilot-program/default.aspx>

Bidders may also obtain a copy of the RFP by submitting an email request to the CTN-C email address, requesting a copy of RFP #2010-03. The CTN-C email address is:

ctn@ucdmc.ucdavis.edu

Bidders can obtain authoritative copies of the RFP only from these sites.

### 1.3.1.2 Format of RFP Posting and Alternative Format

For purposes of posting on the USAC RHCPP web site, this RFP and associated appendices and worksheets have been converted to PDF format. Bidders may find it more convenient to prepare their proposal using a Microsoft Office version of the RFP. This format may be obtained by submitting an email request to CTN-C as described above.

### 1.3.1.3 Vendor Inquiries

Inquiries regarding this RFP process and the functional or technical requirements of the proposed systems must be addressed in writing. The CTN-C contact person and his address are listed below. Questions via email are preferred

David J. Harry Ph.D.  
Director of Technology Operations  
California Telehealth Network  
Center for Health and Technology  
Sherman Bldg, Suite 3900  
2300 Stockton Blvd  
UCDMC  
Sacramento CA 95817  
email: [ctn@ucdmc.ucdavis.edu](mailto:ctn@ucdmc.ucdavis.edu)  
Phone: (916) 734-3008; Fax: (916) 734-3580

#### 1.3.1.4 Vendor Inquiry Responses and RFP Modifications

All Bidder inquiries will remain anonymous. All responses to questions submitted by Bidders will be distributed via email. Potential Bidders are encouraged to subscribe to the **CTN Information Distribution List**. All subscribers will be included in information updates, including responses to questions. Bidders may subscribe to the Information Distribution List by submitting a request via email to the CTN email address listed above. Potential Bidders that request a copy of the RFP will automatically be subscribed.

All changes, additions and corrections to, as well as deletions from the RFP will be via addendum. Addenda will be distributed via the Information Distribution List.

#### 1.3.1.5 Completeness Requirements for a Responsive Proposal

Bidders are required to include a response to every item within this RFP that is labeled with the following heading:

Bidder Response: (description of required response)

#### 1.3.1.6 Proposal Submittal Instructions

Each Bidder is required to submit proposals in electronic format.

Electronic documents will be submitted in the following formats, as appropriate:

- Documents: Microsoft Word 2007 for Windows
- Spreadsheets: Microsoft Excel 2007 for Windows
- Graphics: Microsoft Visio 2007 for Windows

Alternatively, Bidders may submit proposals in Portable Document Format (PDF)

#### 1.3.1.7 Submittals Required

Bidder submittals must be comprised of three separate components:

1. Bidder Qualification Statement
2. Technical Requirements Proposal
3. Cost Proposal

Bidders are required to submit proposals formatted in such a fashion that the Bidder's Qualification Statement, Technical Requirements Proposal (Section B), and Cost Proposal (Section D) can be individually separated for purposes of review.

CTN RFP #2010-03

### 1.3.1.8 Proposal Submission: Mailing Address

Proposal may be mailed or hand delivered to:

California Telehealth Network  
Center for Health and Technology  
Sherman Bldg, Suite 3900  
2300 Stockton Blvd  
UCDMC  
Sacramento CA 95817  
REF: RFP # 2010-03

Bidders may also submit proposals electronically via email by sending them to the California Telehealth Network email address:

ctn@ucdmc.ucdavis.edu

NOTE: UC Davis Health System email system will only accept attachments up to 10 megabytes. If the aggregate size of attachments exceeds this limit, proposals should be submitted in multiple email messages.

### 1.3.1.9 Proposal Submission: Due Date

All proposals submitted must be received no later than 4:00 p.m. PST on the Due Date.

Due date will be established as 30 calendar days following the official posting of this RFP on the USAC RHCPP web site.

### 1.3.1.10 Schedule of Events

<b>Event</b>	<b>Date</b>
Release of Request for Proposals	Day 1*
Receipt of Bidders' Written Questions on RFP	Day 2 - 20
Receipt of Proposals	Day 2 – 30
Last Day to Submit a Proposal	Day 30
Completion of Evaluation Process and Award Announcement	Day 45

*\* Number of days following posting of CTN RFP #2010-03 on the USAC Website (schedule is approximate)*

### 1.3.1.11 Basis of Award

Proposals will be evaluated on the basis of cost per quality points. A CTN-C evaluation committee will choose the selected Bidder. Committee participants will review, evaluate, and

score each responsive proposal received in accordance with predetermined scoring criteria. The selection process will be broken down into three phases.

#### 1.3.1.12 Phase I – Bidder Qualification Assessment

To be considered responsive and to continue in the scoring process, the Bidder must:

1. Provide all documentation as requested by the requested due date.
2. Provide a proposal that is complete and complies with the instructions and requirements as stated herein.
3. Provide a Bidder Qualification Statement that meets the following requirements:
  - a. Establish satisfactorily financial solvency.
  - b. Demonstrate recent successes in installation and implementation of the requested equipment and services of similar scope and scale.

#### 1.3.1.13 Phase II – Technical and Cost Analysis

Bidders who satisfactorily meet the Phase I criteria will have their submitted proposals qualified for the detailed scoring process. In this phase, the Bidder's response will undergo intensive evaluation. The following criteria (not in priority order) will be utilized to select a finalist:

1. Overall Bidder qualifications, including years in business, financial status, and background information.
2. Technical quality of the proposed network infrastructure, including stated network performance and QOS metrics.
3. Capabilities to design implement and initially configure the required equipment and connections within the CTN DMZ.
4. Bidder's proven ability to implement product(s) in a timely and effective manner.
5. Compliance with CTN-C's specified terms and conditions, including acceptance of CTN-C payment terms and conditions, as described in Section C: "Financial Terms and Conditions".
6. Life-Cycle Cost of Bidder's proposal.

Each Bidder will receive a total point score known as quality points.

The total cost for each proposal will be divided by the proposal's total quality points to determine the cost per quality point ratio. The cost per quality point ratio for each Bidder will be ranked in order of magnitude.

CTN-C intends to use Life-Cycle-Cost techniques in evaluating the cost of the requested services.

#### 1.3.1.14 Phase III

CTN RFP #2010-03

CTN-C intends to select a finalist Bidder *based primarily, but not solely* \* on lowest cost per quality point ranking.

#### 1.3.1.15 \*FCC Order, Proposal Ranking and Bidder Selection

The FCC RHCPP Order specifies that selected participants (e.g., CTN-C) are not required to select the lowest cost bidder for services. According to the Order, cost is not required to be the most important selection criterion, but must be one of the selection criteria used to evaluate proposals.

*In accordance with the FCC RHCPP Order, CTN-C reserves the sole prerogative to uniformly assign a weighting factor to all Bidders' project cost proposals, that will have the effect of more heavily weighting quality scores.*

Following evaluation of this RFP and Bidder selection, CTN-C expects to negotiate a contract with the selected Bidder.

CTN-C reserves the right to award this RFP in part or in full.

## **1.3.2 Proposal Conditions – University of California Requirements**

1. Notwithstanding any other provision of the RFP, Bidders are hereby advised that this RFP is a solicitation of proposals only and is not to be construed as an offer to enter into any contract or agreement. Thus, CTN-C reserves the unqualified right to reject any or all proposals for any reason.
2. CTN-C shall have the unconditional and unqualified right to withdraw, cancel, or amend this RFP at any time. Bidders shall bear all costs associated with the preparation and furnishing of responses to this RFP. CTN-C, in its sole discretion, reserves the right to determine whether any Bidder meets the minimum qualification standards, to determine whether a proposal is responsive, and to select a proposal which best serves its programmatic objectives. CTN-C reserves the right to negotiate a binding contract with the selected Bidder.
3. All proposals shall be firm for a period of 180 days following the proposal submission due date.
4. Responses to this RFP should be made according to the instructions contained herein. Failure to adhere to RFP instructions may be cause for rejection of the proposal. A proposal that contains conditions or limitations set up by the Bidder may be deemed irregular and subsequently rejected by CTN-C.
5. False, incomplete, or unresponsive statements in the proposal response may be cause for its rejection. The evaluation and determination of the fulfillment of the RFP requirements will be CTN-C's responsibility and its judgment shall be final.
6. CTN-C reserves the right to interpret or change any provision of this RFP at any time prior to the proposal submission date. Such interpretation or change shall be in the form of a written addendum to this RFP. Such addendum will become part of this RFP and any resultant contract. Such addendum shall be made available to each company that has received an RFP. Should such addendum require additional information not previously requested, a Bidder's failure to address the requirements of such addendum in the proposal response may result in the proposal not being considered.
7. CTN-C has, at its sole discretion, the unconditional and unqualified right to determine that a time extension is required for submission of proposals, in which case, a written RFP addendum issued by CTN-C shall indicate the new submission date for proposals.
8. Prior to the final submission date, any Bidder may retrieve its proposal to make additions or alterations. Such retrieval, however, shall not extend the final submission date.
9. Bidders wishing to submit proposals in response to this request do so entirely at their own expense, and submission of a proposal indicates acceptance of the conditions contained in the RFP unless clearly and specifically noted otherwise.
10. PUBLIC INFORMATION AND TRADE SECRETS--The California Public Records Act limits CTN-C's ability to withhold pre-qualification and bid data to trade secrets or records, the disclosure of which is exempt or prohibited pursuant to federal or state law. If a submittal contains any trade secrets that Bidder does not want disclosed to the public or used by CTN-C for any purpose other than evaluation of the Bidder's eligibility, each sheet of such information must be marked with the designation "Confidential." The

CTN RFP #2010-03

CTN-C will notify Bidder of data so classified upon receipt of any request to inspect such data so that Bidder will have an opportunity to establish that such information is exempt from inspection in any proceeding to compel inspection.

11. All computer programs and data made available by CTN-C to Bidders hereunder shall remain the property of the CTN-C and shall be maintained, used, and disseminated in accordance with the California Information Practices Act of 1911, Civil code Sections 1798 through 1798.76, and the California Public Records Act, Government Code Section 6250 through 6260.

### 1.3.3 Contract Terms and Conditions

*The Regents of the University of California will serve as the legal entity with which the successful Bidder will execute a contract pursuant to this RFP. The terms: "University", "University of California," "Regents of the University of California" and "CTN-C" are used interchangeably in this RFP. For all legal and contractual purposes, these terms shall be interpreted as designating: "The Regents of the University of California."*

1. The University's Terms and Conditions of Purchase (See Appendix A) shall apply to any contract for hardware or hardware-related services awarded from this solicitation for proposals. The selected Bidder will be required to comply with all the terms and conditions as specified therein. A Bidder's inability to comply with, or exceptions and modifications to, the terms and conditions incorporated in Appendix A must be stated in its proposal and may disqualify Bidder from further consideration.

To facilitate timely award of this contract, each Bidder must certify its ability to comply with the insurance requirements outlined in Appendix A. **The University will require the selected Bidder to furnish a certificate of insurance naming The Regents of the University of California as an additional insured.** Such certificate of insurance shall be in a form as issued by an insurer approved by the University and shall contain an endorsement requiring not less than thirty (30) days' written notice to the University prior to any cancellation or modification thereof. Thereafter, a certificate evidencing the renewal of each such policy shall be furnished to the University at least ten (10) days prior to the expiration of the term of said policy. Failure to comply with this requirement may result in cancellation of any contract resulting from this Request for Proposal.

The University reserves the right to adjust the minimum insurance limits specified in Appendix A, based on the overall risk assessment of the project. Each Bidder must provide evidence of its current coverage with its proposal.

The final contract(s) with the selected Bidder(s) will be **prepared by the UCDHS Purchasing Department** and will incorporate this Request for Proposal, including its Appendices and Addenda (if any), and the submitted proposal.

2. The University reserves the right to cancel any contracts resulting from this RFP, for cause, at any time or at the end of any fiscal year (June 30), should insufficient funds be budgeted in the following year to continue the contract, by giving 120 days' written notice and upon payment of costs actually incurred by the Bidder prior to the notice of cancellation.
3. Records developed by the Bidder and related to the project costs will be maintained for a period of five years following the completion of the project.
4. The Bidder or Bidders awarded a contract as a result of this RFP may not assign or sublet the whole or any part of the contract without the prior written consent of the University.

5. The Bidder must warrant that, for a minimum of one (1) year from final acceptance of each hardware component and software package included in the proposed system, the hardware and software shall meet all of the specifications set forth in Bidder's proposal and in the operational manuals current as of the date of University's final acceptance of such hardware and software products and will be free of defects. In the event of the Bidder's breach of its warranty hereunder, the University shall have the option to repair or replace the hardware and/or software, and the Bidder will be liable for excess costs incurred by University therefor.
6. No form of the University's name shall be used in promotional materials, signs, announcements, or other forms of communication or advertising originated by Bidder unless the University's express written permission for such use has been obtained in advance.

### 1.3.4 Bidder Qualification Statement

The Qualification Statement must contain a description of the Bidder's corporate qualifications, area of expertise, and prior experience with providing systems and services similar to those described in this RFP, including but not limited to the following.

1. Provide the Bidder's name, address, telephone and facsimile numbers, a contact name, a brief description of the company's history, including name and address of the parent company, the size of the company, and an organization chart.
2. Provide a corporate profile, service portfolio, and description of the Bidder's service philosophy and approach. What separates and distinguishes this Bidder from other applicants?
3. Provide a report of the Bidder's financial status, including the most recently audited financial statements and profit and loss statements or equivalent evidence of financial stability.
4. Provide an indication of whether the Bidder qualifies as a woman-owned or minority-owned business (**Each Bidder is required to complete Appendix B, Business Information Form.**).
5. Identify by name and University position any University officer, faculty member or other employee who holds a position of director, officer, partner, trustee, manager or employee in the Bidder's company, as well as the name of any near relatives who are employed by the University.
6. Provide a statement of the total dollar amount of products and services provided by Bidder for the University of California in the past twelve (12) months and specify the campus (es) served.  
*The contract will not be awarded to any Bidder that has failed to perform in a satisfactory or faithful manner on any previous contract or purchase order with the University of California.*
7. Identify which services and modules included in your RFP response will be provided by subcontractors versus provided directly by your company.
8. Profiles of the major officers in your company: backgrounds, credentials, and length of service, areas of expertise, role and responsibilities relative to proposed services.
9. Each Bidder must provide a reference list of three clients located in California, if possible, for whom the Bidder was directly responsible for providing products or services similar to those requested herein within the past two years. The references may be from current or prior clients. The references will be used as a basis for inquiry concerning the Bidder's quality of products and service.  
*Furnishing incorrect and/or incomplete reference information may lead to Bidder's elimination from consideration for award. The decision to eliminate Bidder from consideration for award for poor reference checks or for incorrect and/or incomplete reference information shall be at the sole discretion of UCDHS and shall not be subject to appeal.*
10. What is the approximate total number of fully operational implementations of the proposed firewall traversal services that your company currently supports?

CTN RFP #2010-03

11. What is the approximate number of firewall traversal services projects currently in implementation?
12. Unless otherwise indicated in the proposal response, the selected Bidder must perform all work. Any work that is to be subcontracted by the Bidder will be subject to the terms and conditions of this RFP and any resultant contract or purchase order awarded.

## **2 Section B: Technical Requirements**

### **2.1 Overview**

CTN is soliciting proposals for a comprehensive Firewall Traversal System (FTS) that will provide Internet callers access to privately addressed (10.X.X.X) endpoints on the CTN network. We do not expect to use H.460, as it is not CTN-C’s intent to help outside callers on the Internet traverse their own firewalls. The sole purposes of this solution will be to allow outside Internet callers a way through the CTN NAT and firewall environment, as well as to provide sites internal to the CTN reliable, high performance H.323 (and optionally SIP) firewall traversal.

Limited Gatekeeper services – It is not the role of the CTN to impose any restrictions on other organizations’ endpoints. The gatekeeper used for firewall traversal must not limit anyone’s ability to place calls that they could otherwise make while unregistered to the gatekeeper.

The following section provides a brief summary of the technical and architectural characteristics of the CTN DMZ, itemizes any restrictions or limitations that will be imposed upon proposed solutions, and requests detailed information regarding the Bidder’s solution.

### **2.2 Initial and Future Capacity Requirements**

CTN-C is requesting a “baseline” system for immediate acquisition that will suitably accommodate the anticipated H.323 session volume and endpoint gatekeeper registrations during the first year of operation. The following table outlines capacity estimates to which Bidders should calibrate their proposed solution.

Maximum incoming H.323 simultaneous calls	10
Maximum number of outbound simultaneous H.323 calls	10
Maximum number of internal-internal simultaneous H.323 calls	100
Maximum number of gatekeeper registrations	100

CTN-C also desires an FTS that can be readily expanded to accommodate additional capacity as additional sites are connected to CTN. The following estimated future capacity needs incorporating an anticipated full build-out of 800+ sites.

Maximum incoming H.323 simultaneous calls	50
Maximum number of outbound simultaneous H.323 calls	50
Maximum number of internal-internal simultaneous H.323 calls	no limit
Maximum number of gatekeeper registrations	1500-2000

In a section below, bidders are requested to detail how their “baseline” system can be expanded (through acquisition of additional hardware, software, licenses, etc) to accommodate future CTN growth.

## **2.2.1 Physical Characteristics**

The CTN will establish a DMZ between the AT&T AVPN (to which up to 800 individual participant sites may be connected) and the CENIC network. The following is a description of the DMZ as well as various services that will be provided by CTN-C, CENIC and/or AT&T to support the FTS solution. This information is intended to aid Bidders in proposing a compatible architecture.

1. Figures 1 and 2 illustrate the basic physical architecture of the DMZ. The Figures also illustrate the two physical architectures that are acceptable to CTN-C for interconnection of the requested FTS equipment into the DMZ.
2. The peering point with the CENIC POP will occur in Los Angeles, CA at the following address:  
`818 West 7<sup>th</sup> Street, Los Angeles, California
3. All equipment proposed by Bidder will be housed in a collocation facility located within the same building as the CENIC POP.
4. Fiber-based interconnection between the DMZ and the CENIC POP peering router will be provided by CTN and CENIC. Other data and telecommunications circuits and services are also available (e.g., POTS lines).
5. CTN-C requires that all FTS equipment be rack mountable in a standard 19 inch rack system.
6. Rack space, power and environmental facilities/services will be provided by the collocation space provider.

Figure 1

Option 1: Firewall Traversal

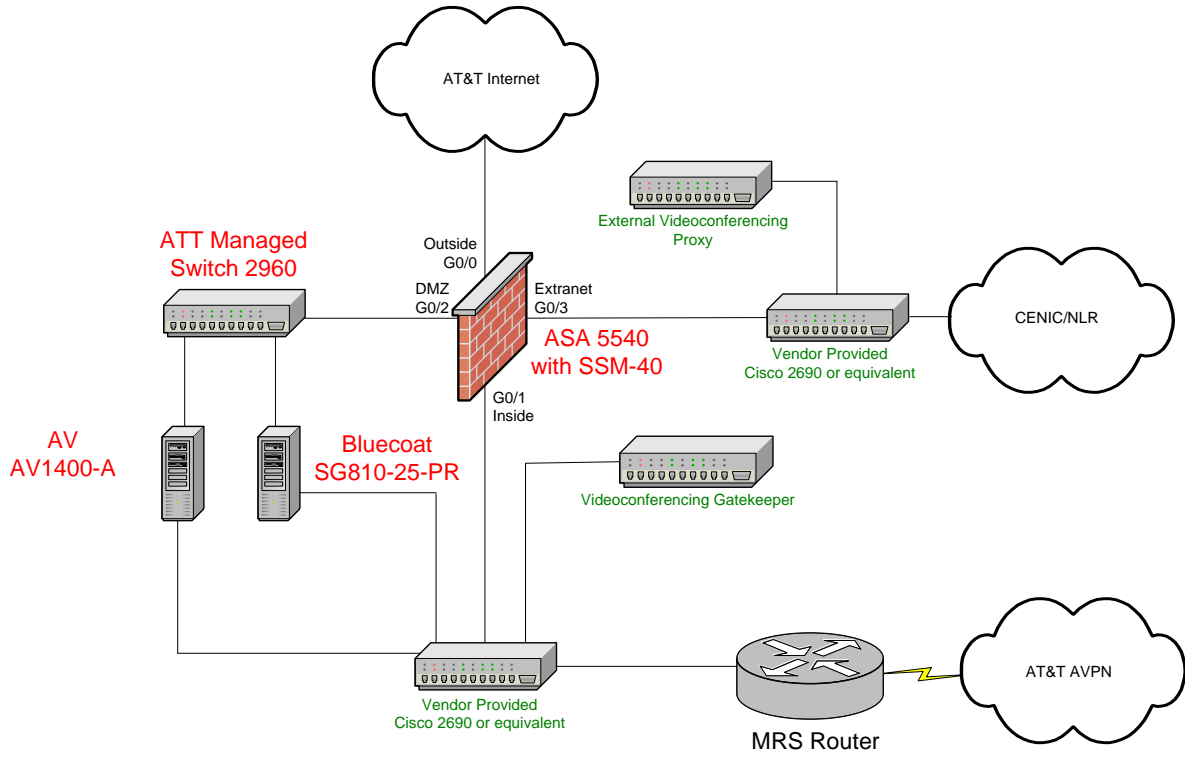
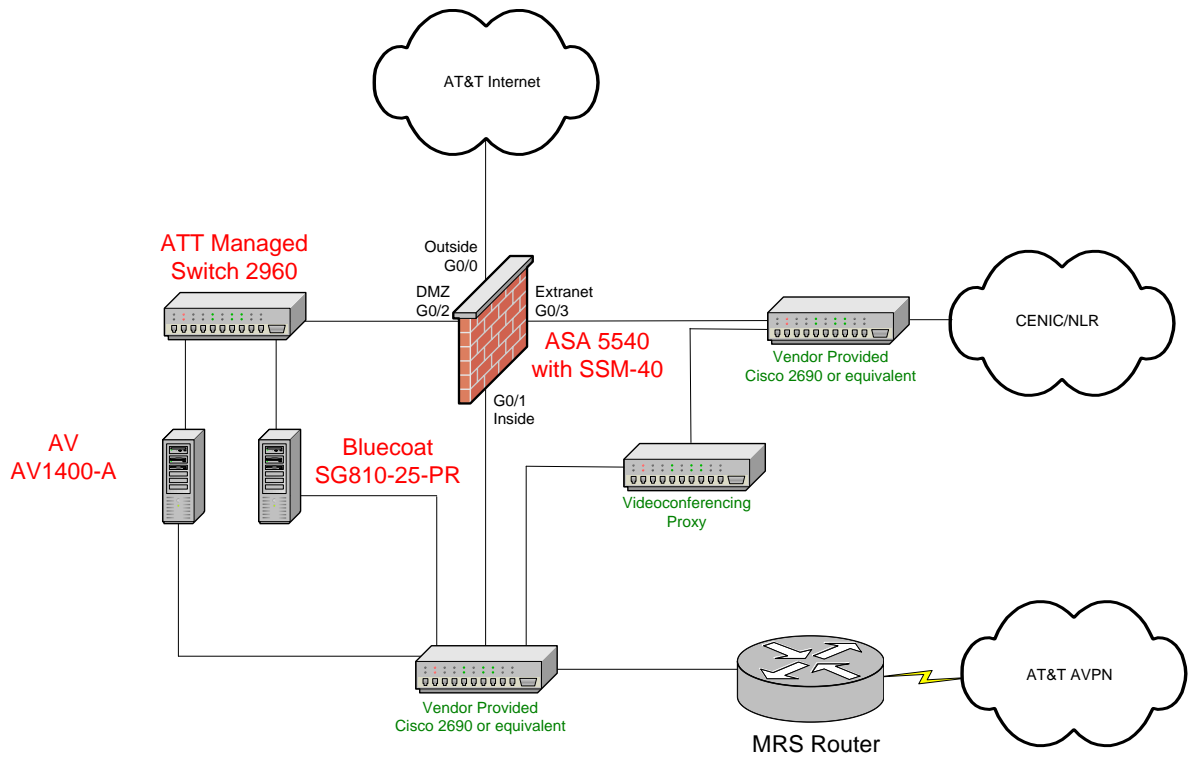


Figure 2

Option 2: Parallel Proxy



## 2.2.2 IP Addressing and Explicit QOS

1. CTN-C is applying to ARIN for a block of publicly routable IP addresses to support access to sites and services external to CTN.
2. CTN-C will provide to Contractor the requisite number of publicly routable IP addresses that are required in order to implement Contractor's FTS and to provide a public identity to the Proxy services.
3. All devices internal to CTN will be addressed on the 10.x.x.x private Class A IP network.
4. All internal devices that will access the FTS will be statically addressed.
5. If the proposed FTS implements a parallel physical architecture in which H.323 sessions bypass the ASA firewall, the FTS will be required to perform any Network Address Translation (NAT) services that are required in order for internal endpoints to access external destinations through the FTS. NAT services for all sessions other than H.323/SIP will be provided by the AT&T equipment.
6. CTN will support explicit Diffserv QOS. At each site, the AT&T provided Customer Edge router will label outbound H.323 traffic as MPLS COS 2, providing expedited transit through the AVPN backbone. H.323 sessions inbound to a site and labeled as MPLS COS 2 will have QOS label converted to DSCP AF31. At the DMZ, all outbound traffic labeled MPLS COS 2 will have QOS labels converted to DSCP AF31 by the AT&T equipment. All traffic inbound to the DMZ and labeled DSCP AF31 will have QOS label converted to MPLS COS 2, providing expedited transit through the AVPN backbone.

## 2.2.3 DMZ Equipment and Services Provided by AT&T

As illustrated in Figures 1 and 2, AT&T will provide the following security equipment and associated services

1. Equipment Provided
  - a. Cisco ASA 5540 Firewall
  - b. Cisco SSM-40 Intrusion Protection Module
  - c. Bluecoat SG810-25-R Web Content Filtering
  - d. Bluecoat AV1400-A anti-virus monitoring/filtering
  - e. Cisco 2960 Ethernet switch
2. Equipment will be located in the same collocation facility as the FTS equipment and may occupy one or more of the same racks.
3. Contractor will not have access to the AT&T managed Ethernet switch, which will be dedicated to interconnection of the AT&T provided security equipment.

## 2.2.4 DMZ Equipment and Services Provided by CENIC

1. CENIC peering router will connect to the DMZ via a gigabit Ethernet connection to Contractor GE switch, as illustrated in Figures 1 and 2.

2. CENIC peering router will connect to the CTN DMZ via Single Mode fiber, terminated with LC connector.

## **2.2.5 DMZ Equipment to be Provided by Contractor**

As illustrated in Figures 1 and 2, in addition to any required FTS equipment, Contractor will be required to provide two gigabit Ethernet (**GE**) switches that will provide interconnection of the FTS equipment with the DMZ.

1. CTN-C requires that the proposed GE switches be compatible with the listed DMZ equipment provided by AT&T and CENIC.
2. AT&T security equipment will be connected through the GE switches.
3. CENIC peering router will interconnect with the DMZ through one of the GE switches
4. AT&T provided managed router will be connected through one of the GE switches.
5. For purposes of achieving maximum compatibility among the DMZ equipment, CTN-C prefers (but does not require) that that Contractor provide Cisco 2960 Ethernet switches as part of the proposed FTS.

## **2.3 Firewall Traversal System: Bidder Overview**

Based upon the physical and logical architectures described in Sections 2.2 and 2.3, provide a high-level overview of Bidder's proposed solution. The overview should identify the physical architectural alternative to be employed (as illustrated in Figures 1 and 2). Briefly describe the specific hardware and software components that will be deployed to accommodate the requested baseline capacity. Briefly describe the upgrade path available that will allow CTN-C to accommodate the anticipated full build-out capacity.

### 2.3.1.1.1.1 Bidder Response: Overview

## **2.4 Firewall Traversal System Specific Requirements**

Describe the capabilities of the proposed firewall traversal solution (**FTS**) to meet or exceed each of the following requirements

### 2.4.1.1.1.1 Bidder Response: Cisco ASA Firewall Traversal

If applicable to Bidder's design, describe the capabilities of the FTS to traverse the Cisco ASA firewall, requiring minimal (ideally no) modifications to firewall programming or infrastructure. Briefly describe the standard protocol(s) that the FTS employs (e.g., SSL). Briefly describe any ASA programming required, including TCP/UDP addresses/ ports that require any special provisioning.

CTN RFP #2010-03

2.4.1.1.1.2 Bidder Response: Network Address Translation

Describe support for the required 10.x.x.x to publicly routable IP address translation services.

2.4.1.1.1.3 Bidder Response: H.323 and SIP session level protocol support

Describe the capabilities of the FTS to support H.323 sessions. Although CTN does not initially anticipate supporting SIP, describe the capabilities of the FTS to support this protocol. Describe any system upgrades that may be available to upgrade the FTS to support SIP.

2.4.1.1.1.4 Bidder Response: Explicit QOS Support

CTN-C requires that the FTS preserve and/or initiate explicit QOS labeling for all H.323 sessions processed by the FTS, as described in Section 2.3.2 above.

Describe the capabilities of the FTS to support Diffserv explicit QOS. Include a specific explanation of how the FTS will maintain the following QOS labeling for H.323 sessions:

1. Inbound H.323 sessions labeled DSCP AF31
2. Inbound H.323 sessions possessing no DSCP label.
3. Outbound sessions labeled DSCP AF31

2.4.1.1.1.5 Bidder Response: HD Support

Describe the capabilities of the FTS to support HD video.

2.4.1.1.1.6 Bidder Response : Unified External IP addresses

Describe the number of publically routable IP addresses required for FTS equipment residing external to the DMZ, in order to proxy sessions to/from internal endpoints. Describe the number of private IP addresses required by FTS equipment residing behind the CTN DMZ.

2.4.1.1.1.7 Bidder Response: Special External Site Equipment

Describe whether the FTS requires any special equipment or software to be installed at sites external to CTN in order to establish H.323 sessions with internal CTN sites.

2.4.1.1.1.8 Bidder Response: Session Encryption

Describe the capabilities of the FTS to encrypt sessions, especially between CTN internal sites and external entities.

#### 2.4.1.1.1.9 Bidder Response: Compatibility with VideoConferencing (V/C) Equipment

Describe Whether the FTS requires any special equipment or software in order to support H.323 sessions with commonly deployed V/C endpoint equipment (e.g., Polycom, LifeSize, Tandberg, Radvision, etc.). List any commonly deployed V/C equipment that is incompatible with the FTS.

#### 2.4.1.1.1.10 Bidder Response: Gatekeeper Services

1. Describe the gatekeeper services provided with the proposed FTS.
2. Itemize any limits on gatekeeper registrations.
3. Discuss any ancillary gatekeeper equipment/services available that would augment or enhance the gatekeeper capacity or capabilities of the proposed FTS.
4. Discuss the capabilities of the FTS to proxy external calls to internal CTN endpoints that are NOT registered to the FTS gatekeeper (some sites will prefer to remain registered to their own gatekeeper).
5. It is very important that any proposed gatekeeper does not impose limitations on CTN members who register to it, as any restrictions could impact the delivery of critical medical care. Please describe any negative consequences that a site might experience upon registering to your proposed gatekeeper. For example:
  - a. Does your gatekeeper restrict the total number of simultaneous internal calls that can take place?
  - b. If so, does this restriction apply to calls dialed by direct IP? Or just by alias?

#### 2.4.1.1.1.11 Bidder Response: Address Conversion/Resolution

Describe the FTS support for H.323, E.164 alias to IP address resolution. Include discussion of:

1. URI dialing (e.g., name@hospital.com)
2. E.164 dialing (1234@152.79.55.4)

#### 2.4.1.1.1.12 Bidder Response: Simultaneous H.323 Call Support

Describe the number of simultaneous H.323 calls of the following types that the proposed FTS will support, assuming that all internal endpoints would be registered with the FTS gatekeeper service. If the number of active concurrent calls is dependent upon licensing, list the various licensing levels available. Do not include cost here. Bidder will itemize system cost in a separate section.

1. Internal – internal calls
2. Internal – external calls (i.e., outbound calls)
3. External – internal calls (i.e., inbound calls)

There are plans to configure the CTN firewall to allow unlimited outbound calls from behind the CTN NAT to the Internet without requiring the use of a firewall traversal proxy. Please indicate if your proposed solution can be implemented so as not to place any restrictions on CTN endpoints' preexisting ability to place unlimited outbound calls to the Internet (the firewall traversal proxy is primarily needed to facilitate inbound calls from the Internet in to the CTN NAT, it would be desirable to be able to preserve traversal capacity for this function alone).

#### 2.4.1.1.1.13 Bidder Response: Ethernet Switches

Figures 1 and 2 above illustrate the physical interconnections of equipment and circuits that comprise the CTN DMZ. Contractor will be required to provide the two Gigabit Ethernet (GE) LAN switches that will be used to interpose FTS equipment into the DMZ. Contractor must provide the two switches, even if Bidder's solution does not require either or both GE switches.

CTN-C prefers Cisco 2960 GE switches, but will consider other vendor products, subject to the proposed equipment possessing the equivalent or superior capabilities. Switches must provide the following minimal capabilities and capacities;

1. 12 1000bT interfaces
2. 1 Single Mode fiber interface: GE LC Connector LX/LH transceiver.
3. Spanning Tree support
4. 19 inch rack mountable
5. Cabling, connectors and associated accessories and supplies necessary to physically interconnect all Contractor-supplied equipment (CTN-C and/or AT&T will provide the required connection equipment and supplies to complete interconnection of Contractor-supplied equipment with the DMZ and or CENIC peering router).

Describe the proposed GE switches. If equipment other than Cisco 2960 GE switches are proposed, detail how the proposed equipment offers equivalent or better performance and capacities.

#### 2.4.1.1.1.14 Bidder Response: Rack Space and Power Requirements

For each piece of equipment provided, describe the following for the FTS baseline configuration:

3. Rack space required in Rack Units (RU's)
4. Power requirements (voltage and kVA)
5. Any special or non-standard mounting or environmental requirements

#### 4.1.1.1.13 Bidder Response: interoperability with other vendors' infrastructure

Some organizations within the CTN will want their endpoints to remain registered to their own infrastructure (preexisting gatekeepers and firewall traversal proxies such as the Polycom VBP and Tandberg Border Controller). Please describe how your solution could interoperate with other vendors' infrastructure to allow outside callers on the Internet to call through your traversal

proxy to a site's endpoint located behind their own traversal proxy, or registered to their own gatekeeper.

#### 4.1.1.1.14 Bidder Response: Neighboring

Please indicate any limitations that might be experienced while attempting to neighbor your gatekeeper with gatekeepers belonging to other sites (including compatibility issues and the total number for neighbors your gatekeeper can support)

## 2.4.2 IP Version 6 Support

CTN-C intends to apply for an Autonomous System Number (ASN) and associated IP version 6 (IPv6) address assignment for future implementation. CTN-C will develop a strategic plan for IP migration of CTN network infrastructure, participant computing equipment, and application upgrades to enable transition to Ipv6.

CTN-C prefers that all computer and networking hardware deployed to support the CTN, as well as all associated services and applications, will conform to the mandatory components of [USGV6] (or later version at CTN-C's option; see National Institute of Standards and Technology, Special Publication 500-267 (draft), Draft2-USGV6-V1.0, 23 January 2008).

#### 2.4.2.1.1.1 Bidder Response (M): IPv6 Support

Describe the capabilities of the FTS to support IPv6 addresses and associated routing.

## 2.5 Project Implementation/Management Services

### 2.5.1 Overview

CTN-C intends to obtain equipment, software, licenses, as well as installation and initial configuration services from a qualified Contractor; either an equipment manufacturer and/or Value Added Reseller (VAR). CTN-C requires that Contractor provide the following services:

1. FTS design, according to CTN-C functionality requirements.
2. Coordination with AT&T and CENIC, ensuring that the FTS is compatible with the AT&T provided firewall infrastructure, as well as the CENIC peering router.
3. Acquisition of all required FTS equipment.
4. Acquisition of all additional equipment requested by CTN-C in Section 2.4.
5. Overall project management responsibility, including:
  - a. Coordination and Scheduling of equipment installation.
  - b. Coordination of integration of FTS infrastructure into the AT&T provided DMZ.

CTN RFP #2010-03

- c. Initial configuration of equipment according to specifications jointly agreed upon by Contractor and CTN-C.
- d. Initial testing and validation of proper operation of the FTS
- 6. Regular communications and reporting on project status to CTN-C
- 7. Budgetary coordination and consultation with CTN-C
- 8. Adherence to University of California Terms & Conditions for purchase, as specified in Appendix A.

Bidder shall provide comprehensive project implementation and management services, including as a minimum, the services and functions listed above.

**2.5.1.1.1 Bidder Response : Project Implementation and Management Resources**

Describe the project management resources and services that Bidder will provide. Discuss or confirm each of the items listed in 1 – 8 above.

## **3 Section C: Financial Terms and Conditions**

### **3.1.1 Source of Funds and Contractor Reimbursement**

The California Telehealth Network project is receiving major financial support from the Federal Communications Commission Rural Health Care Pilot Program (RHCPP). The Universal Services Administrative Company (USAC) on behalf of the FCC is administering the program. Payment to the Contractor for all goods and services provided under the RHCPP will be derived as follows:

1. 15% of charges eligible for RHCPP reimbursement are payable by CTN-C.
2. Up to 85% of charges eligible for RHCPP reimbursement are payable by USAC.
3. 100% of charges not eligible for RHCPP reimbursement are payable by CTN-C.

All payments for goods and services associated with design, installation, maintenance and management of CTN resources and facilities shall be solely by reimbursement to Contractor. USAC, CTN-C, or any organization providing collateral funding to CTN-C shall not provide any advance payments to Contractor for goods or services provided.

Contractor shall obtain reimbursement for goods and services provided by submission of regular invoices to the appropriate funding entities.

Contractor shall individually invoice and collect payments from each of the following entities, according to applicable federal and state government policies and procedures, as well as procedures jointly agreed upon by Contractor and CTN-C:

1. Universal Services Administrative Company on behalf of FCC RHCPP
2. CTN-C

### **3.1.2 Prohibition on Contractor Reimbursements to CTN Participants**

FCC/USAC policies under the RHCPP prohibit Contractor from providing monetary compensation or anything of value to any CTN participants in return for the use of any Participant-provided facilities, goods or services for the CTN, including but not limited to:

1. Facilities expenses
2. Supply expenses
3. Operating expenses
4. Personnel expenses

CTN Participants include, but are not limited to:

1. University of California
2. Regional Telehealth Networks that participate in CTN.

3. CTN Participants
4. CTN Consortium Members not otherwise mentioned

### **3.1.3 Rate Structure and Pricing Equivalency**

CTN-C desires to obtain for all applicable products and services (i.e., those goods and services for which the State of California has specifically established contractual agreements under the CalNet 2 Program), rate structures, pricing and terms that are equivalent to or better than those available under the State of California, CalNet 2 Program. Bidders are referred to the following online resources for detailed information regarding the CalNet 2 Program, including contract terms and pricing.

<http://www.calnet.ca.gov/>

### **3.1.4 USAC-RHCPP Invoicing and Payment Policies and Procedures**

Contractor shall adhere to all USAC policies, procedures and requirements established under the Rural Health Care Pilot Program (RHCPP) including, but not limited to the following:

1. Supporting documentation required for billable services
2. Itemization of invoices in sufficient detail to discriminate between RHCPP-reimbursable and non-reimbursable services.
3. Inclusion with all invoices submitted to USAC, certification of receipt of payment by CTN-C of its required 15% co-payment to Contractor.

**NOTE: In order to obtain reimbursement from USAC, Contractor MUST possess a valid Service Provider Identification Number (SPIN). Additional information regarding acquisition of a SPIN can be obtained at the USAC web site given below. CTN-C will not award a contract to Bidder until Bidder provides documentation of possession of a valid FCC SPIN.**

Additional information regarding USAC RHCPP Contractor requirements can be found at the following online sources:

<http://www.universalservice.org/rhc-pilot-program/>

Specific information regarding the Rural Health Care Vendor Pilot Process can be found at the following URL:

<http://www.usac.org/rhc-pilot-program/vendors/>

Forbearance for Payment Delay – Bidder shall not levy upon CTN-C, any late payment fines or penalties for payment delays attributable to USAC, or any other federal or state government programs to which Contractor may directly submit invoices for CTN goods and services.

### **3.1.5 Invoicing CTN-C**

Unified Invoicing for all Contracted Products and Services – Contractor shall provide unified invoicing for all goods and services provided to the CTN-C. Unified invoicing shall include billable fees for all goods and services provided by sub-contractors.

Electronic Format – Contractor shall provide invoices to CTN-C in a business-standard electronic format that is mutually acceptable to CTN-C and Contractor.

#### **3.1.5.1.1.1 Bidder Response Financial Terms and Conditions**

Describe Bidder's understanding and acceptance of the financial terms and conditions stipulated in this Section, including the terms and conditions specified in the following subsections above:

1. Source of Funds and Contractor Reimbursement
2. Prohibition on Contractor Reimbursements to CTN Participants
3. CalNet 2 Rate Structure and Pricing Equivalency (where applicable)
4. USAC-RHCPP Invoicing and Payment Policies and Procedures
5. Invoicing CTN-C

Itemize under each subsection title, any exceptions to the stipulated requirements. For terms and conditions Desired by CTN-C, indicate Bidder's acceptance of the terms, or describe alternative terms that Bidder proposes.

## **4 Section D: Cost Reporting**

### **4.1.1 Cost Reporting: Organization Requirements**

Bidders should provide cost information for a minimum of two configurations:

1. Equipment, software and licensing costs for the Baseline Configuration described in Section 2.2.
2. Equipment software and licensing costs for the Full Build-Out Configuration given in Section 2.2.
  - a. Bidder may at their option, provide intermediate increments of pricing for various configurations intermediate between Baseline and Full Build-Out Configurations.
  - b. CTN-C acknowledges that future purchases made to achieve augmented configurations may be subject to alternative pricing .

Bidders should organize the cost information for each Configuration proposal according to the following requirements:

1. Each piece of separately priced equipment should be itemized separately and a unit price provided, together with subtotal costs for multiple like items.
2. Each separately priced software or license item should be itemized separately and unit pricing provided as appropriate. Subtotal pricing should be provided for multiple like items.
3. Pricing for project management, technical services including design, installation, configuration and testing, should be separately priced.
4. Aggregate Subtotal costs for items 1 – 3 should be provided.
5. Total FTS project cost should be provided.

Bidders may organize pricing in any fashion that clearly and accurately provides the requested information.

Bidders must submit cost proposals in one of the required document formats listed in Section 1.3.1.6

Bidders should clearly stipulate any additional financial terms and conditions that pertain to their cost proposal, if they have not been addressed as part of their response to Section 3, Financial Terms and Conditions.

## **5 Appendices**

## 5.1 Appendix A: University of California, Terms and Conditions of Purchase

ARTICLE 1 - The materials, supplies or services covered by this order shall be furnished by Seller subject to all the terms and conditions set forth in this order including the following, which Seller, in accepting this order, agrees to be bound by and to comply with in all particulars and no other terms or conditions shall be binding upon the parties unless hereafter accepted by them in writing. Written acceptance or shipment of all or any portion of the materials or supplies, or the performance of all or any portion of the services, covered by this order shall constitute unqualified acceptance of all its terms and conditions. The terms of any proposal referred to in this order are included and made a part of the order only to the extent it specifies the materials, supplies, or services ordered, the price therefor, and the delivery thereof, and then only to the extent that such terms are consistent with the terms and conditions of this order.

ARTICLE 2 - INSPECTION. The services, materials and supplies furnished shall be exactly as specified in this order free from all defects in Seller's performance, design, workmanship and materials, and, except as otherwise provided in this order, shall be subject to inspection and test by University at all times and places. If, prior to final acceptance, any services and any materials and supplies furnished therewith are found to be incomplete, or not as specified, University may reject them, require Seller to correct them without charge, or require delivery of such materials, supplies, or services at a reduction in price which is equitable under the circumstances. If Seller is unable or refuses to correct such items within a time deemed reasonable by University, University may terminate the order in whole or in part. Seller shall bear all risks as to rejected services and, in addition to any costs for which Seller may become liable to University under other provisions of this order, shall reimburse University for all transportation costs, other related costs incurred, or payments to Seller in accordance with the terms of this order for unaccepted services and materials and supplies incidental thereto. Notwithstanding final acceptance and payment, Seller shall be liable for latent defects, fraud or such gross mistakes as amount to fraud.

ARTICLE 3 - CHANGES. University may make changes within the general scope of this order in drawings and specifications for specially manufactured supplies, place of delivery, method of shipment or packing of the order by giving notice to Seller and subsequently confirming such changes in writing. If such changes affect the cost of or the time required for performance of this order, an equitable adjustment in the price or delivery or both shall be made. No change by Seller shall be allowed without written approval of University. Any claim of Seller for an adjustment under this Article must be made in writing within thirty (30) days from the date of receipt by Seller of notification of such change unless University waives this condition in writing. Nothing in this Article shall excuse Seller from proceeding with performance of the order as changed hereunder.

ARTICLE 4 - TERMINATION

A. University may, by written notice stating the extent and effective date, cancel and/or terminate this order for convenience in whole or in part, at any time. University shall pay Seller as full compensation for performance until such termination:

- (1) the unit or pro rata order price for the performed and accepted portion; and
- (2) a reasonable amount, not otherwise recoverable from other sources by Seller as approved by University, with respect to the unperformed or unaccepted portion of this order, provided compensation hereunder shall in no event exceed the total order price.

B. University may by written notice terminate this order for Seller's default, in whole or in part, at any time, if Seller refuses or fails to comply with the provisions of this order, or so fails to make progress as to endanger performance and does not cure such failure within a reasonable period of time, or fails to perform the services within the time specified or any written extension thereof. In such event, University may purchase or otherwise secure services and, except as otherwise provided herein, Seller shall be liable to University for any excess costs occasioned University thereby.

If, after notice of termination for default, University determines that the Seller was not in default or that the failure to perform this order was due to causes beyond the control and without the fault or negligence of Seller (including, but not restricted to, acts of God or of the public enemy, acts of University, acts of Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, and delays of a subcontractor or supplier due to such causes and without the fault or negligence of the subcontractor or supplier), termination shall be deemed for the convenience of University, unless University shall determine that the services covered by this order were obtainable by Seller from other sources in sufficient time to meet the required performance schedule.

C. If University determines that Seller has been delayed in the work due to causes beyond the control and without the fault or negligence of Seller, University may extend the time for completion of the work called for by this order, when promptly applied for in writing by Seller; any extension granted shall be effective only if given in writing. If such delay is due to failure of University, not caused or contributed to by Seller, to perform services or deliver property in accordance with the terms of the order, the time and price of the order shall be subject to change under the Changes Article. Sole remedy of Seller in event of delay by failure of University to perform shall, however, be limited to any money actually and necessarily expended in the work during the period of delay, solely by reason of the delay. No allowance will be made for anticipated profits.

D. The rights and remedies of University provided in this Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this order.

E. As used in this Article, the word "Seller" includes Seller and its suppliers at any tier.

ARTICLE 5 - LIABILITY FOR UNIVERSITY - FURNISHED PROPERTY. Seller assumes complete liability for any tooling, articles or material furnished by University to Seller in connection with this order and Seller agrees to pay for all such tooling, articles or material

damaged or spoiled by it or not otherwise accounted for to University's satisfaction. The furnishing to Seller of any tooling, articles, or material in connection with this order shall not, unless otherwise expressly provided, be construed to vest title thereto in Seller.

ARTICLE 6 - TITLE. Title to the material and supplies purchased hereunder shall pass directly from Seller to University at the f.o.b. point shown, or as otherwise specified in this order, subject to the right of University to reject upon inspection.

ARTICLE 7 - PAYMENT, EXTRA CHARGES, DRAFTS. Seller shall be paid, upon submission of acceptable invoices, for materials and supplies delivered and accepted or services rendered and accepted. University will not pay cartage, shipping, packaging or boxing expenses, unless specified in this order. Drafts will not be honored. Invoices must be accompanied by shipping documents or photocopies of such, if transportation is payable and charged as a separate item.

ARTICLE 8 - CHARACTER OF SERVICES. Seller, as an independent contractor, shall furnish all equipment, personnel and material sufficient to provide the services expeditiously and efficiently during as many hours per shift and shifts per week and at such locations as the University may so require and designate.

ARTICLE 9 - INDEMNITY.

A. General. Seller shall defend, indemnify, and hold harmless University, its officers, employees, and agents, from and against all losses, expenses (including attorneys' fees), damages, and liabilities of any kind resulting from or arising out of this agreement and/or Seller's performance hereunder, provided such losses, expenses, damages and liabilities are due or claimed to be due to the negligent or willful acts or omissions of Seller, its officers, employees, agents, subcontractors, or anyone directly or indirectly employed by them, or any person or persons under Seller's direction and control.

B. Proprietary Rights. Seller shall indemnify, defend, and hold harmless University, its officers, agents, and employees against all losses, damages, liabilities, costs, and expenses (including but not limited to attorneys' fees) resulting from any judgment or proceeding in which it is determined, or any settlement agreement arising out of the allegation, that Seller's furnishing or supplying University with parts, goods, components, programs, practices, or methods under this order or University's use of such parts, goods, components, programs, practices, or methods supplied by Seller under this order constitutes an infringement of any patent, copyright, trademark, trade name, trade secret, or other proprietary or contractual right of any third party. The foregoing shall not apply unless University has informed Seller as soon as practicable of the suit or action alleging such infringement. Seller shall not settle such suit or action without the consent of University. University retains the right to participate in the defense against any such suit or action.

C. Products. Seller shall fully indemnify, defend, and hold harmless University from and against any and all claim, action, and liability, for injury, death, and property damage, arising out of the dispensing or use of any of Seller's product provided under authorized University orders. In addition to the liability imposed by law on the Seller for damage or injury (including death) to persons or property by reason of the negligence, willful acts or omissions, or strict liability of the Seller or his agents, which liability is not impaired or otherwise affected hereby, the Seller hereby assumes liability for and agrees to save University harmless and indemnify it from every expense, liability or payment by reason of any damage or injury (including death) to persons or property suffered or claimed to have been suffered through any act or omission of the Seller.

The University agrees to provide Seller with prompt notice of any such claims and to permit Seller to defend any claim or suit, and that it will cooperate fully in such defense.

ARTICLE 10 - DECLARED VALUATION OF SHIPMENTS.

Except as otherwise provided on the face of this order, all shipments by Seller under this order for University's account shall be made at the maximum declared value applicable to the lowest transportation rate or classification and the bill of lading shall so note.

ARTICLE 11 - WARRANTY. Seller agrees that the supplies or services furnished under this order shall be covered by the most favorable commercial warranties the Seller gives to any customer for the same or substantially similar supplies or services, or such other more favorable warranties as specified in this order. The rights and remedies so provided are in addition to and do not limit any rights afforded to University by any other article of this order. Such warranties will be effective notwithstanding prior inspection and/or acceptance of the services or supplies by the University.

ARTICLE 12 - ASSIGNMENT AND SUBCONTRACTING.

This order is assignable by University. Except as to any payment due hereunder, this order may not be assigned or subcontracted by Seller without written approval of University. In case such consent is given, it shall not relieve Seller from any of the obligations of this Agreement and any transferee or subcontractor shall be considered the agent of Seller and, as between the parties hereto, Seller shall be and remain liable as if no such transfer or subcontracting had been made.

ARTICLE 13 - EQUAL OPPORTUNITY. Seller shall not maintain or provide racially segregated facilities for employees at any establishment under its control. Seller agrees to adhere to the requirements set forth in Executive Orders 11246 and 11375, and with respect to activities occurring in the State of California, to the California Fair Employment and Housing Act (Government Code section 12900 et seq.). Expressly, Seller shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, medical condition (as defined by California Code section 12925f), marital status, age, physical and mental handicap in regard to any position for which the employee or applicant for employment is qualified, or because he or she is a disabled veteran or veteran of the Vietnam era. Seller shall further specifically undertake affirmative action regarding the hiring, promotion and treatment of women, the handicapped, and disabled veterans and veterans of the Vietnam era. Seller shall communicate this policy to all persons concerned within its company, with outside recruiting services, and the community at large. Seller shall provide the University on request a breakdown of its labor force by groups, specifying the above characteristics within job categories, and shall discuss with the University its policies and practices relating to its equal opportunity programs.

ARTICLE 14 - The clauses contained in the following paragraphs of the Federal Acquisition Regulations are incorporated by reference. The full text is available upon request:

FAR 52.222-04 Contract Work Hours and Safety Standards Act

FAR 52.222-26 Equal Opportunity

FAR 52.223-02 Clean Air and Water (If order exceeds \$100,000)

ARTICLE 15 - WORK ON UNIVERSITY OR GOVERNMENT PREMISES. If Seller's work under this order involves performance by Seller at University or United States Government owned sites or facilities, the following provisions shall apply:

A. Liens. Seller agrees that at any time upon request of University he will submit a sworn statement setting forth the work performed or material furnished by subcontractors, suppliers and materialmen, and the amount due and to become due to each, and that before the final payment called for hereunder, will if requested, submit to University a complete set of vouchers showing what payments have been made for materials and labor used in connection with the work called for hereunder.

Seller shall:

(1) Indemnify and hold harmless University from all claims, demands, causes of action or suits, of whatever nature, arising out of the services, labor and materials furnished by Seller or its subcontractors under this order, and from all laborers', materialmen's and mechanics' liens upon the real property upon which the work is located or any other property of University;

(2) Promptly notify University in writing, of any such claims, demands, causes of action, or suits brought to its attention. Seller shall forward with such notification copies of all pertinent papers received by Seller with respect to any such claims, demands, causes of action or suits and, at the request of University shall do all things and execute and deliver all appropriate documents and assignments in favor of University of all Seller's rights and claims growing out of such asserted claims as will enable University to protect its interest by litigation or otherwise.

The final payment shall not be made until Seller, if required, shall deliver to University a complete release of all liens arising out of this order, or receipts in full in lieu thereof, as University may require, and if required in either case, an affidavit that as far as it has knowledge or information, the receipts include all the labor and materials for which a lien could be filed; but Seller may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to University to indemnify it against any claim by lien or otherwise. If any lien or claim remains unsatisfied after all payments are made, Seller shall refund to University all monies that the latter may be compelled to pay in discharging such lien or claim, including all costs and reasonable attorneys' fees.

B. Cleaning Up. Seller shall at all times keep University premises where the work is performed and adjoining premises free from accumulations of waste material or rubbish caused by its employees or work of any of its subcontractors, and, at the completion of the work; shall remove all rubbish from and about the building and all its and its subcontractors' tools, scaffolding, and surplus materials, and shall leave the work "broom clean" or its equivalent, unless more exactly specified. In case of dispute between Seller and the subcontractors employed on or about the structure or structures upon which the work is to be done, as herein provided, as to responsibility for the removal of the rubbish, or in case the same be not promptly removed as herein required, University may remove the rubbish and charge the cost to Seller.

C. Employees. Seller shall not employ on the work any unfit person or anyone not skilled in the work assigned to him or her, and shall devote only its best-qualified personnel to work under this order. Should University deem anyone employed on the work incompetent or unfit for his or her duties and so inform Seller, Seller shall immediately remove such person from work under this order and he or she shall not again, without written permission of University, be assigned to work under this order.

It is understood that if employees of University shall perform any acts for the purpose of discharging the responsibility undertaken by the Seller in this Article 15, whether requested to perform such acts by the Seller or not, such employees of the University while performing such acts shall be considered the agents and servants of the Seller subject to the exclusive control of the Seller.

D. Safety, Health and Fire Protection. Seller shall take all reasonable precautions in the performance of the work under this order to protect the health and safety of employees and members of the public and to minimize danger from all hazards to life and property, and shall comply with all health, safety, and fire

protection regulations and requirements (including reporting requirements) of University. In the event that Seller fails to comply with said regulations or requirements of University, University may, without prejudice to any other legal or contractual rights of University, issue an order stopping all or any part of the work; thereafter a start order for resumption of work may be issued at the discretion of the University. Seller shall make no claim for extension of time or for compensation or damages by reason of or in connection with such work stoppage.

The safety of all persons employed by Seller and its subcontractors on University premises, or any other person who enters upon University premises for reasons relating to this order, shall be the sole responsibility of Seller. Seller shall at all times maintain good order among its employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him or her. Seller shall confine its employees and all other persons who come onto University's premises at Seller's request or for reasons relating to this order and its equipment to that portion of University's premises where the work under this order is to be performed or to roads leading to and from such work sites, and to any other area which University may permit Seller to use.

Seller shall take all reasonable measures and precautions at all times to prevent injuries to or the death of any of its employees or any other person who enters upon University premises. Such measures and precautions shall include, but shall not be limited to, all safeguards and warnings necessary to protect workers and others against any conditions on Owner's premises which could be dangerous and to prevent accidents of any kind whenever work is being performed in proximity to any moving or operating machinery, equipment or facilities, whether such machinery, equipment or facilities are the property of or are being operated by, the Seller, its subcontractors, the University or other persons.

To the extent compliance is required, Seller shall comply with all University safety rules and regulations when on University premises.

#### ARTICLE 16 - INSURANCE

Seller shall at its expense obtain, keep in force and maintain insurance to cover its performance under this order as follows:

A. Comprehensive or Commercial Form General Liability Insurance (Contractual Liability Included)

Minimum Limits:

Each Occurrence: \$5,000,000

Products/Completed Operations: \$5,000,000

If the above insurance is written on a claims made form, it shall continue for three years following termination of this agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the effective date of this agreement.

B. Business Automobile Liability: (Owned, Scheduled, Non-Owned, or Hired Automobiles) with a combined single limit of no less than \$5,000,000 per occurrence.

C. Professional Medical and Hospital Liability Insurance with limits of:

\$5,000,000 per occurrence.

\$5,000,000 General Aggregate.

If the above insurance is written on a claims made form, it shall continue for three years following termination of this agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the effective date of this agreement. Coverage shall include endorsements to the insurance policies for Contractual Liability Coverage and Defense and Indemnification of University by Seller.

D. Workers' Compensation as required under California State law.

Seller, upon the execution of this agreement shall furnish University with Certificates of Insurance evidencing compliance with all requirements. Coverages referred to under A., B., and C. above shall include The Regents of the University of California as an additional insured, but only with respect to the negligent acts or



NUMBER OF YEARS IN BUSINESS	AVERAGE ANNUAL SALES (PRIOR 3 YEARS)	NET WORTH OF BUSINESS	NORMAL INVENTORY VALUE	APPROXIMATE SIZE OF FACILITIES (sq.ft.)	NUMBER OF EMPLOYEES
DESCRIPTION OF PRODUCTS & SERVICES (attach sales literature as appropriate)					
BANK REFERENCE NAME:			ADDRESS: (Number, City, State, Zip)		
CUSTOMER REFERENCES: Name		Address		Phone Number	
PERSON(S) AUTHORIZED TO COMMIT YOUR FIRM TO A CONTRACT:					
Name		Title		Name	
Name		Title		Name	
INSURANCE: Is your Company Insured? YES NO					
TYPE OF INSURANCE: General Liability Automobile Liability Worker's Compensation Other _____					
Name of Insurance Provider/Producer _____					
Companies Affording Coverage: _____					
GSA SF 254 A/E or related services questionnaire may be required					
OWNERSHIP OF BUSINESS: (Check One) Corporation Individual/Sole Proprietorship Joint Venture					
Partnership Foreign Ownership Not for Profit Other ____					

Ownership Status Categories: (Place an "X" in the boxes that best describe your firm's ownership)

Type of Business		Asian/Indian Asian/Pacific American	Black African American	Hispanic American	Native American Indian	White Caucasian American	Other	Disabled Veteran	Socially & Economically Disadvantaged
LARGE BUSINESS	Woman Owned								
	Male Owned								
SMALL BUSINESS	Woman Owned								
	Male Owned								

\_\_\_\_\_  
Signature Title Date

**INSURANCE REQUIREMENTS:**

The University selects insurance requirements based on degree of risk, rather than the dollar value of the contract. All insurance policies required shall be subject to review and approval by the University.

## SELF-CERTIFICATION

### Initial the Business Categories That Apply:

\_\_\_\_\_ **SMALL BUSINESS ENTERPRISE (SBE)** - an independently owned and operated concern certified, or certifiable, as small business by the Federal Small Business Administration (SBA). (Size standards by Standard Industrial Classification codes may be found in the Federal Acquisition Regulations, Section 19.102. The University may rely on written representation by the vendors regarding their status.)

\_\_\_\_\_ **DISADVANTAGED BUSINESS ENTERPRISE (DBE)** - a business concern which is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as members of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free private enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged. Business owners who certify that they are members of named groups (**Asian-Indian Americans, Asian-Pacific Americans, Black Americans, Hispanic Americans, Native Americans**) are to be considered socially and economically disadvantaged.

\_\_\_\_\_ **DISABLED VETERAN BUSINESS ENTERPRISE (DVBE)** - a business that is at least 51% owned by one or more disabled veterans or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. A Disabled Veteran is a veteran of the military, naval, or air service of the United States with a service connected disability who is a **resident of the State of California**. To qualify as a veteran with a service connected disability, the person must be currently declared by the United States Veterans Administration to be 10% or more disabled as a result of service in the armed forces.

\_\_\_\_\_ **WOMEN-OWNED BUSINESS ENTERPRISE (WBE)** - a business that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

## PRIVACY NOTIFICATIONS

**FEDERAL** Pursuant to the Federal Privacy Act of 1974, you are hereby notified that the disclosure of your social security number is voluntary. This record keeping system was established pursuant to the authority of The Regents of the University of California under Art. IX, Sec. 9 of the California Constitution. The social security number is used to verify your identify.

**STATE** The State of California Information Practices Act of 1977 (effective July 1, 1978) requires the University of California to provide the following information to individuals who are asked to supply information about themselves:

The principal purpose of requesting the information on this form is to evaluate your qualifications as a supplier to the University and for reporting purposes in accordance with state law and University policy.

Furnishing all information (except Social Security Number) requested on this form is mandatory; failure to provide all requested information will delay or may prevent evaluation of your firm's ability to do business with the University.

I hereby certify under penalty of perjury under the laws of the State of California that I have read this application and know the contents thereof, and that the business category and ethnicity indicated above reflect the true and correct status of the business in accordance with Federal Small Business Administration criteria and Federal Acquisition Regulations, FAR 19, pertaining to small, disadvantaged, woman, disabled veteran, small and disadvantaged, and small and woman-owned business enterprises. I understand that falsely certifying the status of this business, obstructing, impeding or otherwise inhibiting any University of California official who is attempting to verify the information on this form may result in suspension from participation in University of California business contracts for a period up to 5 years and the imposition of any civil penalties allowed by law. In addition, I understand that this business must notify the University of California in writing 30 days in advance of any changes in size, ownership, control, or operation which may affect this business's continued eligibility as a SBE, DBE, WBE, DVBE, SDBE, SWBE or SDVBE.

INFORMATION FURNISHED BY: (Print or Type Name of Owner and/or Principal)

NAME OF BUSINESS: \_\_\_\_\_

NAME: \_\_\_\_\_ TITLE: \_

SIGNATURE: \_\_\_\_\_ DATE: \_

FOR U.C. USE ONLY (do not write in this area)		
Reviewed by:	Date	Comments