

**Corporation for Education Network Initiatives in California (CENIC)**  
**Request for Proposals**  
**For Hardware and Software In Support Of CENIC SIP Centrex Service (CSIP)**

This Request for Proposals (RFP) solicits responses from qualified Vendors for equipment and software to implement a CENIC IP Centrex Service (CSIP) infrastructure.

Sealed, written responses must be received in print format by CENIC by the following date and time:

Friday, March 18, 2011, 5:00pm, Pacific Daylight Time (PDT)

to the following address:

CENIC  
16700 Valley View Ave., Suite 400  
La Mirada, CA 90638  
Attn: Bea Jensen

Submission via email of an electronic copy of the proposal may be sent to: [bjensen@cenic.org](mailto:bjensen@cenic.org) and must be received by the due date. In addition, the electronic submission must be followed by receipt of the sealed, written response at CENIC no later than 5:00pm PDT on Monday, March 21, 2011. All documents in the electronic copy must be in Adobe PDF or HTML format.

RFP Contents:

1. Introduction and Solicitation Requirements
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# 1. Introduction and Solicitation Requirements

## 1.1. Introduction

CENIC is charged with designing, provisioning and operating robust, high capacity, next generation Internet communications services through a cohesive infrastructure -- the California Research and Education Network (CalREN) -- for its associates and affiliates. CENIC represents the common interests of its associates, who are drawn from California's education and research communities, and is highly accountable to the institutions it serves in order to fulfill the trust that has been placed with it. CENIC also provides services to non-California higher education institutions and to industry research organizations with which CENIC-associate researchers and educators are engaged.

CENIC operates an owned fiber backbone on which it provides network services in three tiers: CalREN-XD, CalREN-HPR, and CalREN-DC.

CENIC's CalREN-DC (Digital California) network provides high-quality network services for K-20 students/teachers/staff and for faculty, researchers and staff at higher education institutions.

This RFP solicits bids for equipment and software to be used on the CalREN-DC backbone network to support Voice-over-IP services for CENIC's associates and affiliates.

For more information on CENIC and CalREN-DC see <http://www.cenic.org/>.

### 1.1.1. Contract Term

It is anticipated that CENIC will enter into an agreement or multiple agreements for purchase of hardware, software, and services. In addition, CENIC will enter into related agreements with a minimum term of two (2) years for maintenance and support of equipment and software, payable annually, subject to satisfactory performance, with options to renew for up to three (3) additional years. Discounts and costs shall be firm rates for five years from the date of contract execution. Renewals, after the initial two year term, may be in single-year or multi-year increments, at CENIC's sole option.

### 1.1.2. Bidders' Conference

A Bidders' Conference will be held on March 4 at 2:00pm PDT via telephone conference call to provide project background and an opportunity for discussion for interested Vendors. Attendance at this meeting is not mandatory, but is advisable. Vendors intending to participate in the Bidders' conference should notify CENIC via email to [<bjensen@cenic.org>](mailto:bjensen@cenic.org).

Telephone conference info for Bidders' Conference:

Dial-in: 888-886-3951

PIN: 604304

Details on the Bidders' conference are posted on CENIC's website at:

[\(http://www.cenic.org/RFP.html\)](http://www.cenic.org/RFP.html).

## **1.2. Solicitation Requirements**

### **1.2.1. RFP Process**

The Vendor will submit a proposal based on the instructions and requirements contained in this RFP. CENIC may, at its sole option, not issue any order as a result of this RFP process.

To be considered responsive to this RFP, responses to technical requirements (i.e., items in Section 4) must conform to the format defined in Appendix 1. In addition, within each subsection of the RFP for which a response is required (i.e., items in Sections 3 and 4), all requirements listed must be addressed and all requested data must be supplied for the equipment, software, or services being proposed. CENIC reserves the right to request additional information which, in CENIC's opinion, is necessary to assure that all proposals are as complete as possible in addressing the breadth and scope of requirements of this RFP, including clarifications of information submitted. Such additional information may be used as supplemental information to the Vendor's response to this RFP.

### **1.2.2. Basis for Award**

The award of contract will be made to the Vendor or Vendors whose proposal(s) is/are considered the most advantageous to CENIC considering program objectives, mitigation of risk, technical/cost relationships and other evaluation factors deemed by CENIC to be relevant.

CENIC may award to multiple Vendors, or not at all, at its discretion. CENIC may make a partial award if a Vendor bids on additional products or services described in Section 4.3.5. That is, CENIC may accept bids only for the additional products or only for the products for which this RFP requests response or for both.

### **1.2.3. Questions Regarding the RFP**

Any questions, interpretations or clarifications, either administrative or technical, about this RFP, must be requested in writing. All written questions will be answered in writing and conveyed to all Vendors if received by CENIC before the date shown on the schedule (Section 2). Oral statements made by CENIC employees, consultants or others concerning the meaning or intent of the contents of this RFP are unauthorized and will not be considered binding. All questions, either technical or administrative, shall be directed in writing (email to <bjensen@cenic.org> is acceptable) to the designated person on the first page of this RFP. Without divulging their source, all questions, and their written answers, will be posted on the CENIC website and made available to all Vendors.

### **1.2.4. Errors and Omissions Regarding the RFP**

If, prior to the date fixed for submission of proposal, a Vendor discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP or any of its exhibits or appendices, the Vendor shall immediately notify CENIC of such error in writing and request modification or clarification

of the document. Modifications will be made by addenda. Without divulging the source of the request, clarifications will be given by written notice to all parties who have been furnished an RFP for proposal purposes.

### **1.2.5. Addenda to the RFP**

CENIC may modify this RFP, its scope, any of its key action dates, or any of its attachments, prior to the date fixed for submission of proposals by issuance of an addendum to all parties who have been furnished the RFP for proposal purposes.

Addenda will be numbered consecutively as suffixes to the RFP reference number.

It is the responsibility of the Vendor to provide copies of addenda to its partners and/or sub-contractors, as necessary.

### **1.2.6. Completion of the RFP**

Proposals shall be completed in all respects as required by this RFP. A proposal may be rejected if conditional or incomplete, or if it contains any alterations or other irregularities of any kind, and may be rejected if any such unresolved defect or irregularity could have materially affected the quality of the proposal. Proposals that contain false or misleading statements or provide references that do not support an attribute or condition claimed by the Vendor may be rejected. Statements made by a Vendor shall also be without ambiguity and with adequate elaboration where necessary for clear understanding.

A Vendor must respond to all sections of this RFP for a proposal to be considered complete. Within Section 4.3.2, Vendors must respond to at least one sub-section and may, but are not required to, respond to additional sub-sections within Section 4.3.2 for a proposal to be considered complete. However, for a response to be considered complete, Vendors must separately and clearly respond to each technical requirement (designated by MUST or SHALL) and desire (designated by MAY or SHOULD) within the sub-section(s) of Section 4.3.2 chosen. Vendors are encouraged to include in their proposals additional products or services beyond those called for in this RFP and to include attractive pricing for such additional products and services.

### **1.2.7. Delivery of Proposals**

Proposals must be received in the CENIC office no later than the time indicated above. The Vendor is responsible for the means of delivering the proposal to the appropriate office on time. LATE OR FAXED PROPOSALS WILL NOT BE ACCEPTED.

### **1.2.8. Vendors' Costs**

Costs for developing proposals are entirely the responsibility of the Vendor and shall not be chargeable to CENIC.

### **1.2.9. Rejection of Proposals**

CENIC reserves the right to accept or reject proposals, or sections thereof, when the rejection is in the best interest of CENIC. Furthermore, CENIC reserves the right to waive minor irregularities in any proposal and to negotiate the terms of any proposal.

CENIC may make such investigations as deemed necessary to determine the ability of the Vendor to perform the work or provide the product or service, and the Vendor shall furnish to CENIC all such information and data for this purpose as requested by CENIC. CENIC reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Vendor fails to satisfy CENIC that such Vendor is properly qualified to carry out the obligations of the proposal and to deliver any goods or services requested herein.

#### **1.2.10. Cancellation of Solicitation**

This solicitation does not obligate CENIC to enter into an Agreement. CENIC retains the right to cancel this RFP at any time. No obligation, either expressed or implied, exists on the part of CENIC to make an award or to pay any cost incurred in the preparation or submission of a proposal.

#### **1.2.11. Proposals Become the Property of CENIC**

All Proposals become the property of CENIC. CENIC reserves the right to make use of any information or ideas contained in the proposals.

#### **1.2.12. Disposition of Proposals**

All materials, ideas, and formats submitted in response to this RFP will become the property of CENIC on receipt and may be returned only at CENIC's option and at the Vendor's expense. One copy shall be retained for CENIC's files.

#### **1.2.13. Confidential Material**

CENIC values openness with and transparency to its member community. In general, materials contained in Vendors' proposals may be shared with members of that community. The Vendor must notify CENIC in advance of specific proprietary or confidential material contained in the proposal and provide justification for not making such material public. CENIC will endeavor to honor such requests. However, even confidential information will be disclosed (with appropriate non-disclosure agreements) to the members of CENIC's community who will assist in evaluating the proposals.

#### **1.2.14. Disputes/Protests**

CENIC's decision with regard to any award or lack of award stemming from this RFP is final. CENIC will not entertain protests or disputes.

#### **1.2.15. Award of Agreement**

CENIC reserves the right to reject any and all proposals and to award one or more Agreements. Award, if any, will be to the Vendor(s) whose proposal is considered the most advantageous to CENIC, considering program objectives, mitigation of risk, technical/cost relationship, CENIC's assessment of the Vendor's (s') ability to perform, and other evaluation factors as deemed appropriate by CENIC, and that best complies with all of the requirements of the RFP documents and any addenda. A notice of "Selection of Successful Vendor(s)" will be emailed to each proposing Vendor.

Subsequent to the notice of "Selection of Successful Vendor(s)", CENIC and the Vendor(s) will

engage in a good faith negotiation of an Agreement that will govern the provision of the goods and services to be provided to CENIC by the chosen Vendor(s).

Should negotiations be unsuccessful or if it is determined in CENIC's sole opinion that the selected Vendor is unable to perform or is unwilling to honor their offer, CENIC reserves the right to terminate negotiations and select another Vendor.

## **2. Schedule of Events**

*February 1, 2011: RFP Issued*

*March 4, 2011: Bidders' Conference at 2:00pm PDT*

*March 18, 2011: Responses Due by 5:00pm PDT*

*April 29, 2011: Award Issued*

## **3. Administrative Requirements**

In addition to meeting all other requirements of this RFP, potential Vendors must meet all the administrative requirements contained in this section. This section is intended to address requirements for demonstrating Vendor's general administrative and management capabilities. CENIC will consider responses to this section as part of the overall evaluation.

### **3.1. Cover Letter**

Responding Vendors shall provide a cover letter that includes a brief statement of intent to perform the services, qualifications for selection and signature by an authorized officer of the firm who has legal authority in such transactions. Unsigned proposals shall be rejected. Include Vendor's name, address, telephone and fax numbers and the name(s) of authorized representative(s).

In addition, Vendor's cover letter shall expressly state that, should the Vendor's proposal be accepted, the Vendor agrees to enter into an Agreement under the terms and conditions as prescribed in this RFP.

### **3.2. Financial Statements**

Vendor shall submit audited financial statements for the two most recent year ends, a Form 10K for the most recent year end (if available), and the most recent annual reports. The financial statement shall demonstrate that the Vendor currently has the necessary financial strength and capacity to perform the services required in this RFP and being proposed. This

information should be provided for each corporation or other independent business entity that is a contractor or Sub-contractor on any Vendor team. CENIC shall maintain the confidentiality of financial statements for non-publicly held businesses, if requested to do so at the time of submission.

### ***3.3. Bankruptcy and Insolvency***

Vendor must provide a statement certifying that no member of the Vendor team (Vendor, Vendor subsidiaries or sub-vendor) has declared bankruptcy or filed for protection under any of the bankruptcy or insolvency statutes within the past two (2) years.

### ***3.4. Qualifications and Experience***

Prior to award of the contract, CENIC must be assured that the Vendor selected has all of the resources required to perform successfully under the contract. This includes, but is not limited to: personnel in the numbers and with the skills required; financial resources sufficient to complete performance under the Agreement; and, experience in similar endeavors. If, during the evaluation process, CENIC is unable to assure itself of the Vendor's ability to perform under the Agreement, if awarded, CENIC has the option of requesting any information that CENIC deems necessary to validate the Vendor's competency in meeting contractual responsibilities.

### ***3.5. Lawsuits***

The Vendor shall provide a statement informing CENIC of any current or pending lawsuits that may impact this project.

## 4. Technical Specifications and Requirements

### 4.1. Introduction.

CENIC is soliciting bids for Voice-over-IP equipment and software in support of a CENIC IP Centrex Service (CSIP).

Throughout this section and the accompanying appendices, the capitalized words **MUST** and **SHALL** are used to indicate requirements that are mandatory and must be addressed for a response to be considered complete. The capitalized words **MAY** and **SHOULD** are used to indicate desires on CENIC's part that are not requirements. However, Vendors are expected to respond to each of these, either by meeting the desire or by providing an alternative approach to meeting the desire.

For the purposes of this proposal CENIC has elected not to provide an extremely detailed set of requirements. CENIC prefers to specify the functional requirements and ask Vendors to propose appropriate solutions. Vendors are asked to bear the following guidelines in mind when proposing such solutions:

1. CalREN-DC is a production network. Services located on CalREN-DC must be extremely reliable and stable.
2. Management of Connector Site<sup>1</sup> networks is a de-centralized function, with administrators located throughout the state at various institutions.
3. CENIC does not manage telephones, wiring, or other end-points at user sites; management and support of these is handled locally.

### 4.2. Overview

CENIC provides high-bandwidth, high reliability IP service to over 200 Connector Sites<sup>1</sup> around the State of California. Several of CENIC's member Connector Sites have ageing telephone PBXes of various types and will need to refresh their Site's voice services over the next few years. CENIC plans to offer a Voice-over-IP (VoIP) Centrex-style service to these Sites over the CalREN-DC network. The expectation is that the cost to each Site will be significantly lower than if each one were to install its own replacement PBX.

In this model, CENIC plans to manage the VoIP "PBX" equipment and configuration, and the network infrastructure up to the edge of a Connector Site. Each Site will manage the "Tier 1" support for the voice service end user. CENIC will be responsible for configuring Quality of Service (QoS) and Class of Service (CoS) within the CalREN-DC network, and each Site's staff will be responsible for the QoS/CoS infrastructure on the Site.

CENIC does not plan to support any traditional (TDM) telephone service directly, but expects to

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<sup>1</sup> A "Connector Site" (or "Site") may be a campus or institutional facility location. For examples, a UC campus, a CSU campus, State Board of Education office location, etc.

need equipment and software to provide a TDM-to-SIP service during a Site's transition to the CENIC VoIP service.

### **4.3. Technical Requirements**

The CENIC CSIP infrastructure needs to provide enough standard voice functionality to support the Connector Sites' transitioning from multiple different PBXes using the SIP transport. In addition, support for other technologies (e.g., H.239, integration with Instant Messaging and presence and High Definition videoconferencing) is desirable.

All features and functionalities are expected to be standards-based where an applicable industry standard exists.

In order to allow CENIC to assess the carbon footprint of the solution, proposals MUST list power and HVAC requirements for all equipment proposed, including options for AC and DC power.

#### **4.3.1. Responses from Single or Multiple Vendors, and/or Integrators**

CENIC recognizes that there may be no single manufacturer whose equipment can meet all the requirements in this RFP. Therefore the technical requirements have been broken out into six sets in section 4.3.2: All Vendors; Class 5 Feature Server (PBX); Class 4 Features – Call Routing; Provisioning and Billing; OA&M; and SIP Trunking. CENIC will accept bids from:

1. Vendors that meet only certain of the sets of technical requirements, provided that the response contains recommendations for compatible components required to provide the total solution (“Best of Breed” bids, in which CENIC would perform the integration);
2. Vendors partnered together to meet all the requirements with a lead partner, or Integrators who specify an entire solution from components (“Integrator” bids).

All responses MUST specify if the response type is “Best of Breed”, “Partnership”, or “Integrator”.

#### **4.3.2 Technical Requirements**

##### **4.3.2.1 Applies to All Vendors**

The solution proposed:

- a. MUST support standard SIP devices and handsets, SIP trunking, and SIP-to-SIP gateway functions, SHOULD support SIP soft phones.

- b. Vendors **MUST** provide an example list of supported SIP phone devices that would cover a broad range of user requirements—eg single faculty desktop phone, department administrative assistant multi-button set, call center distribution and seats, etc. Multiple manufacturers’ equipment **SHOULD** be included.
  - 1. End-user devices **SHOULD** support auto-configuration (for example, via TFTP) to facilitate large-scale deployment and management
- c. **MUST** scale from 30,000 to 500,000 end devices. Vendors **MUST** provide complete configuration and costs for a system that supports 30,000, and then provide the configuration and costs for upgrading this system to 50,000; 100,000; 250,000; 500,000. If there are cost-optimal configuration points (say at 75,000 devices or 300,000) respondents **MAY** also provide these.
- d. **MUST** be able to be partitioned into individual tenant domains for call routing, users, dial plan configuration & network administration. Individual tenant domains may span multiple locations.
- e. **MUST** provide Active/Active High Availability service with geographic redundancy in at least two locations
- f. All system components **MUST** be replaceable and upgradeable with zero downtime for the users of the system
- g. **SHOULD** use a Linux platform for the various software components, and/or “appliance” type devices
- h. **MUST** provide the ability to generate usage reports and **MUST** describe the level of customization available
- i. **MUST** support T.38 Fax protocol, and similar evolving SIP and H.32x standards to allow for continued roll out of additional features
- j. **MUST** have measures to prevent fraud calls and protect caller privacy
- k. **MUST** maintain detailed call records
- l. **MUST** meet all requirements of Section 508 for accessibility compliance guidelines and **MUST** provide a VPAT (Voluntary Product Accessibility Template) for all the proposed products
- m. **MUST** support Message Waiting Indicator function to handsets.

#### **4.3.2.2 Class 5 Feature Server (PBX)**

- n. **MUST** support Multi-Tenant (multi-Site) configurations in one consolidated network.

- o. MUST provide Caller ID number/name, Call Transfer, 3-way Calling, Call Hold, Call Forward, Call Busy/no answer Forwarding, Remote Access to Call Forward, Call Waiting, Call Park, Call Pickup, Authorization Code Calling, Multi-line Hunting, Privacy Lock/Release, Anonymous Call Rejection, Call Trace.
- p. MUST provide Voicemail
  - a. MUST support 30 minutes/user storage
  - b. MUST support option of receiving voicemail via email
  - c. SHOULD support option of receiving notification of voicemail via email
  - d. MAY support transcribing voicemail into email
- q. MUST provide “Find Me/Follow Me” multi-ring functions
- r. MUST support per-DID E911 functionality to the **room** level, with call and location information delivery to the local PSAP serving the user location.
- s. MUST provide auto-attendant with up to 10 hierarchical branches
- t. MUST support automated call distribution (ACD) with management features
- u. MUST allow administrative users to create groups for voice mail announcement distribution
- v. MUST allow Connector Site administrator to enforce call restriction for long distance, international and one-way calling
- w. MUST support Call Center options available per Site
- x. MUST support ad-hoc audio conference calls
- y. MUST provide music on hold function
- z. MUST provide Attendant Console functionality to monitor and serve multiple line appearances.
- aa. MAY support “paging” groups (ability to call multiple lines at one time, either for regular calls or for “walkie-talkie” style broadcast messages)

#### **4.3.2.3 Class 4 Features – call routing**

- bb. MUST allow automatic fail-over to a Connector Site TDM service
- cc. MUST support Least-cost Routing
- dd. MUST support Toll Fraud detection and prevention
- ee. MUST be able to provide various TDM gateway options, including various sizes of IADs,

FAX gateways

- ff. MUST provide a dial plan management component, and centralized administration, that allows 4, 5, 7 or 10 digit dial plans that may be different in individual tenant domains.

#### **4.3.2.4 Provisioning and Billing**

- gg. MUST provide a customer portal where Connector Site administrators can configure their own users based on limits set by CENIC. Portal shall have capability for Site administrator(s) to accomplish moves, adds, and changes; update voice mail and unified message databases; and make all other modifications as required to the system.
- hh. MUST provide raw Call Detail Record (CDR) data in a way that can easily be separated for distribution to each Connector Site.
- ii. MUST provide integration with Campuses Telemangement/Accounting Systems for Moves, Adds, Changes and Message Detail Recording.
- jj. Must incorporate a means for a variety of codes to be utilized to identify user/customer including: department code, account code, telephone extension, etc.
- kk. MUST have ability for Connector Site managers (and CENIC managers) to assign users to groups and assign different permissions to different groups
- ll. SHOULD support integration with Site LDAP directories, Shibboleth and/or AD directories
- mm. MUST provide the ability for CENIC and Site staff to generate usage and auditing reports

#### **4.3.2.5 OA&M**

- nn. MUST support remote management and monitoring via SNMPv3 or similarly secure protocol
- oo. MUST provide management platform, or references to open source methods of same

#### **4.3.2.6 SIP Trunking (PSTN Handoff)**

- pp. MUST be able to provide flat rate service for local, and LD
- qq. MUST be able to bill international calls separately per Site
  - a. SHOULD be able to bill directly to Site on behalf of CENIC
  - b. MUST provide specific call record identifying the initiating line extension
- rr. MUST be able to accommodate LNP requests in a timely fashion

- ss. MUST be able to accommodate new and existing DID's throughout California
- tt. MUST allow Least Cost Routing
- uu. MUST provide CALEA support
- vv. MUST assist in E911 troubleshooting and setup if necessary
- ww. MUST have a multiple SIP peering points within California, and provide a carrier class network.
- xx. MUST peer directly with CENIC via a discreet peering session, not over commodity internet links

#### **4.3.3. Installation/Transition services**

Responses MUST include sample implementation/transition plans and pricing for professional services to support transition of services from a Connector Site's legacy telephone infrastructure to the new infrastructure. The sample implementation plan MUST define scope of work to be handled by the Vendor and clearly identify areas where CENIC or local (Connector Site) staffing resources will be required. The plan MUST also include time estimates for completion of milestones (stated in # of work days from start of work to completion). Plan SHOULD include provision for an optional phased implementation for Connector Sites that may choose to transition services over an extended period of time, accommodating a mix of campus PBX based services and CENIC provided services simultaneously during the extended transition.

#### **4.3.4. Maintenance, Support, and Documentation**

Responses MUST include pricing for hardware and software maintenance and support on all equipment bid for at least the initial year. Options for hardware replacement must include at least next-business-day (NBD), 8x5xNBD, and 24x7xNBD. Vendors SHOULD provide pricing for hardware and software maintenance and support on all equipment bid for subsequent years of the agreement.

Vendors who are reselling equipment manufactured/branded by another Vendor MUST indicate whether the support specified includes access to support technicians from the original manufacturer, the reseller, or both.

CENIC wishes to ensure that Vendors are capable of meeting the response time specified in its support agreements. To this end, Vendors MUST provide information on its practices with regard to stocking and shipping spare parts. Vendors SHOULD be prepared to agree to contractual terms calling for financial penalties in the event that a Vendor fails to meet its specified response time for equipment replacement or repair.

Vendors MUST be prepared to agree to contractual terms calling for replacement, at no cost to CENIC, of any equipment bid that becomes unsupported during the term of this contract.

Vendors **MUST** identify any and all requirements that it expects to place on CENIC for support, such as mandatory training or certification.

Vendors **MUST** describe the escalation path or process available to CENIC in the event of any support or maintenance issues.

Vendors **MUST** establish direct support for designated CENIC and individual local (Connector Site) member.

Vendors **MUST** include in their proposals a copy (or a pointer to a web-accessible copy) of applicable operations/configuration documentation for all equipment bid.

#### **4.3.5. Optional Services**

Bidders are encouraged to propose optional services or capabilities (such as integration with unified messaging) not specifically requested by CENIC as part of this RFP, however CENIC shall be under no obligation to consider, nor adopt, any such services.

Bidders are encouraged to propose methods for integrating mobile phones, smart phones, and mobile devices (such as tablets) with their system.

## **5. Evaluation and Selection Criteria**

CENIC will evaluate proposals based on the following criteria (in no particular order):

- cost
- technical merit
- Vendor qualifications
- completeness of proposal
- additional service or product offerings
- quality of documentation
- additional factors, such as the costs of staff retraining, costs of migration, etc.

## **6. Response Format and Requirements**

Vendors may choose to respond to some or all sub-sections within Section 4.3. However, for a response to be considered complete, Vendors must separately and clearly respond to each technical requirement (designated by **MUST** or **SHALL**) and desire (designated by **MAY** or **SHOULD**) within the sub-sections of Section 4.3 chosen. In addition, Vendors must separately and clearly respond to each administrative requirement outlined in Section 3.

## Appendix 1. Format for Proposals

The following is a sample of the format for response by a fictional Vendor, where Vendor responses are italicized. For Section 4, responses MUST include original RFP language immediately preceding each response. A summary sheet showing all costs MUST also be provided.

### Sample Response for Section 4.

#### 4.3.1. VoIP PBX Functions

The solution proposed:

- a. MUST support standard SIP devices and handsets, SIP trunking, and SIP-to-SIP gateway functions

*Product X fully meets this requirement*

- b. Respondants MUST provide an example list of supported SIP phone devices that would cover a broad range of user requirements—eg single faculty desktop phone, department administrative assistant multi-button set, call center distribution and seats, etc. Multiple manufacturers' equipment SHOULD be included.

1) *Single line desktop:*

a. *Manufacturer X Model NNN, software revision m.m*

b. *Manufacturer Y Model Z, software revision n.n*

c. *...*

2) *... (The response would continue listing types of sets and supported models for each.)*

- c. MUST scale from 30,000 to 500,000 end devices. Respondants MUST provide complete configuration and costs for a system that supports 30,000, and then provide the configuration and costs for upgrading this system to 50,000; 100,000; 250,000; 500,000. If there are cost-optimal configuration points (say at 75,000 devices or 300,000) respondents MAY also provide these

*Product x is highly scalable by adding blades to the servers. For 30,000 end devices the configuration is X, at cost \$Y, etc... (The response would continue listing configuration options and costs, assuming upgrading from the previous configuration.)*