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## Request for Proposal

**Due Date:** Tuesday, February 7, 2023, 5:00PM PST

**Questions:** CENIC Project Management  
2022Equipmentrfp@cenic.org

**Address:** Email proposals to:  
2022Equipmentrfp@cenic.org

Hard copies are not required but may be sent to:  
2022Equipmentrfp@cenic.org, CENIC, 16700 Valley View, Suite 400, La  
Mirada, CA 90638

### Introduction

This Request for Proposal solicits responses from qualified providers for network electronics as the modulating equipment for a fiber based network. Bids shall be for the purchase of optical Network Equipment, along with associated licensing and maintenance. Proposals must include all costs associated with the delivery of all equipment, labor, services, and materials. Because CENIC represents consortia of both schools and libraries, and their associated dark fiber networks are procured under multiple Forms 470 and RFPs, CENIC intends to use the results of this RFP for both the school and library consortia for development of the various consortia Form 471 funding requests.

CENIC reserves the right to award all, some, or none of the equipment associated with this RFP, and CENIC may or may not be the ultimate customer-of-record for the equipment listed in this RFP. CENIC is acting as a consortium lead for the purposes of seeking bids and awarding contracts, and may also apply for E-rate discounts for awarded equipment on behalf of members of the consortium.

### 1.0 General Administrative Information

A. **E-rate Form 470 and USAC E-rate Productivity Center (EPC).** For the purposes of this solicitation, the FCC Form 470 number is **230007198**. The Form 470 may be viewed by service providers with an EPC log in and search under the “Records” tab “[FCC Forms 470](#)” option. For service providers without an EPC login, the Form 470 may be viewed at

<https://data.usac.org/publicreports/Forms/Form470Rfp/Index> under Billed Entity Number (BEN) 225495. There is a copy of the RFP submitted with the Form 470 on USAC's website. **However, the original RFP and all prevailing documents, including frequently asked questions, are posted at CENIC's website at the following URL: <http://www.cenic.org/publications/2022equipmenttrfp>.**

- B. **Due date.** Responses must be received in electronic format via email at [2022Equipmenttrfp@cenic.org](mailto:2022Equipmenttrfp@cenic.org) by **5:00 P.M. Pacific Time on February 7, 2023**. Potential bidders must respond to all sections of this RFP for their proposal to be considered complete.
- C. **Frequently Asked Questions.** Any questions or points of clarification received by CENIC will be answered and posted online at <http://www.cenic.org/publications/2022equipmenttrfp>
- D. **Basis for Award.** It is CENIC's desire to award contract(s) to the most cost-effective proposals for equipment, and CENIC reserves the right to award contract(s) based *solely* upon the lowest price of E-rate eligible services.

For this RFP only, CENIC *may* also consider other criteria outlined below, in addition to what CENIC considers, in its sole judgment, to represent the best value considering program needs, technical issues and similar factors.

#### Scoring

- 35% E-rate eligible cost
- 30% Products proposed meet or exceed technical requirements
- 25% E-rate ineligible cost (*may be direct or indirect costs*)
- 5% Proposed contract terms and conditions
- 5% Estimated delivery date of equipment

- E. **Awards.** CENIC may make more than one award or may make no award as a result of this solicitation. The decision to make no award, to make one award, or to make more than one award is final. There is no appeal or protest process.
- F. **Vendor costs.** CENIC shall assume no responsibility for vendor costs incurred in developing a proposal.
- G. **Addenda.** CENIC may modify this RFP, its scope, any of its key action dates, or any of its attachments or exhibits, prior to the date for submission of proposals. Any such addenda will be published on the CENIC website, and email notification will be sent to all potential participants known to CENIC.
- H. **Questions on the RFP.** Any questions on the RFP must be conveyed in writing and will be responded to in writing and added to the Question & Answer exhibit posted online on

the CENIC website. Any oral statements made by CENIC employees, consultants or others will not be binding.

- I. **Rejection of proposals.** CENIC may reject proposals if, based on CENIC's sole judgment, the proposals are deemed to be conditional, non-responsive, or incomplete.
- J. **Negotiation.** CENIC reserves the right to negotiate any aspect of any proposal deemed responsive to this RFP.
- K. **Ownership of Proposals.** All proposals become the property of CENIC. CENIC reserves the right to make use of any information or ideas contained in the proposals.
- L. **Equipment.** All equipment and material **MUST** be new. Used, refurbished or repurposed equipment or material will not be accepted.
- M. **Confidential material.** Bidders must notify CENIC of any specific portions of proposals considered confidential or proprietary. CENIC will take reasonable efforts to protect the confidentiality of such material, but makes no guarantees that such material may be protected. Entire proposals designated as confidential may be rejected. Please note that as of Funding Year 2015, the Federal Communications Commission (FCC), in promoting new "pricing transparency" measures, has stated that the costs for services with an accompanying FCC Form 471 funding request must be disclosed for the purposes of public consumption on USAC's website.
- N. **Evaluation Criteria.** With respect to the network equipment, CENIC, in compliance with Federal Communications Commission (FCC) rules, will award to the vendor(s) providing the most cost-effective offerings. Per the Sixth Report and Order, FCC 10-175, FCC rules dictate the following:

*§ 54.503 (c)(2)(vii) All bids submitted for eligible products and services will be carefully considered, with price being the primary factor, and the bid selected will be for the most cost-effective service offering consistent with § 54.511.*

*and from § 54.511 Ordering Services:*

*In determining which service offering is the most cost-effective, entities may consider relevant factors other than the pre-discount prices submitted by providers, but price should be the primary factor considered.*

Therefore, CENIC may consider factors beyond price alone in the consideration of bids.

## **2.0 Required Administrative Responses**

Bidders **MUST** respond to all required items. Incomplete bids are subject to rejection. 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, Bidders are expected to respond to each of these, either by meeting the desire or by providing an alternative approach to meeting the desire.

A. **Federal and state discounts.** CENIC considers the equipment specified in this RFP to be eligible for Federal E-rate discounts. All respondents are asked to provide their current USAC Service Provider Identification Number (SPIN), if they have one. It is not required to have a SPIN to submit a response to this RFP. Additional information and requirements are contained in Exhibit A. Such procedures outlined in Exhibit A may be included in any contract issued as a result of this bid.

B. **Contract period.** The contract period for awards for this RFP will be 24 months from the date a contract is signed, with an option to renew via mutual written agreement. Bidders may bid on all or any subset of products and services included in this RFP. If Bidder is currently under contract for services, responses should indicate whether existing contracts are to be used, supplanted, or succeeded by the new proposal, or if services under such agreements convert to the proposed new agreement at the end of the existing contract period. CENIC may choose to adopt a later start date for services included in any proposal in order to fulfill commitments on current contracts. When mutually agreed upon, CENIC will consider contracts with one or more annual contract extensions beyond the basic term.

C. **Commencement of Billing.** In no case is a provider allowed to commence billing for products until goods have been shipped. Payment must not be due until thirty days after CENIC receives shipped product(s).

D. **Products, Services, and Pricing.** Proposals MUST include use of the RFP Pricing Worksheet and MUST identify E-rate eligible and E-rate ineligible costs. Supplemental pricing explanations are acceptable as long as the required Pricing Worksheet is used. Proposals that do not include the Pricing Worksheet or ONLY contain the Pricing Worksheet may be rejected. Bidders MUST meet all requirements noted in Exhibit A.

Pricing MUST be provided excluding Federal E-rate discounts, where applicable, and including estimated taxes, and shipping and handling fees.

Bidders MUST include a description of product warranty(ies) and maintenance terms and MUST provide (if applicable) annual costs of such in the pricing worksheet.

Bidders MUST indicate initial discount levels being proposed, as well as additional discounts that would apply at higher volume, and the volume at which the higher discount level would apply.

Bidders MUST include taxes and shipping charges for equipment, based on shipping to CENIC headquarters located at the address listed in E below.

E. **Invoices.** Each Bidder SHALL be expected to provide a single, itemized, invoice indicating all of the contracted goods and services unless otherwise requested by CENIC. Invoices should be mailed to:

The Corporation for Education Network Initiatives in California (CENIC)  
16700 Valley View, Suite 400, La Mirada, CA 90638

F. **Terms and Conditions.** Bidders MUST propose Terms and Conditions in the form of a contract as part of the response. If an existing contract with CENIC is to be used as the basis of a bidder's response, this must be explicitly stated in the response. The Terms and Conditions proposed MUST include all relevant terms from this RFP. All proposed Terms and Conditions will be subject to CENIC's approval and subject to negotiations before acceptance.

G. **Qualifications.** Bidders MUST demonstrate their ability and capacity to provide the equipment proposed.

H. **References.** Bidders will be judged in part on their experience providing goods and services similar to those contained in this RFP. Bidders MAY include references, with name and contact number, for three (3) such organizations.

### 3. Required Technical Responses

Bidders MUST respond to all required items. Incomplete bids are subject to rejection. 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, Bidders are expected to respond to each of these, either by meeting the desire or by providing an alternative approach to meeting the desire.

#### A. DWDM requirements:

- a. The optical equipment MUST support 50 and 100 GHz spacing across the full ITU grid C-band.
- b. ROADM requirements:
  - i. The optical equipment MUST support fiber spans up to 30 db of loss.
  - ii. The optical equipment MUST support a minimum of 4 waves.
  - iii. The optical equipment MUST optionally support more than 8 waves.
- c. Solution MUST support coherent DWDM 400GE waves.
- d. Solution MUST support multiplexing of services at the optical layer:
  - i. Support for multiplexing multiple 10 GE services onto a single 100 GE+ wavelength.
- e. Equipment MUST support optical passthrough of DWDM wavelengths.
- f. Equipment MUST support optional external EDFA amplifiers.
- g. Equipment MUST support an optical channel for shelf management purposes.
- h. Equipment MUST support 3<sup>rd</sup> party client optics.

**B. Chassis requirements:**

- a. Equipment MUST support dual power supplies. Equipment MUST support AC and DC options.
- b. Equipment MUST have a power consumption equal to or less than 0.4 W/Gbps.
- c. Equipment MUST fit in a 19” rack. Equipment MAY include an option for fitting in a 23” rack.
- d. Equipment size MUST not exceed 1 rack unit, not including passive components.
- e. Equipment MAY have front to back airflow. At bid time, the vendor MUST provide an overview of chassis airflow and airflow deflector options.
- f. Equipment MUST have an Ethernet port for in-band management to the optical shelf.
- g. Equipment MAY have a serial port for out of band management via dial up.
- h. Equipment MUST support (3) transponders capable of up to 400GE services in 1RU.

**C. Transponder requirements:**

- a. Optics in the transponders MUST support selective tuning to any channel on the 50 GHz C-band spaced ITU grid.
- b. Transponders MUST support DWDM waves in increments of 100GE, from 100GE to 400GE.
- c. Transponders MUST be capable of operating at 35 or 56 GBaud.
- d. Transponders MUST support DWDM compliance with ITU-G.709.
- e. Transponders MUST support LR4 1310nm and SR IEEE compliant QSFP+ 40GE client optics.
- f. Transponder MUST support LR4 and SR4 IEEE compliant QSFP28 100GE client optics.
  - g. Transponders MUST support 9192-byte frames on client ports.  
Transponders MAY support higher than 9192-byte frames on client ports.
- h. Equipment MUST Support online insertion and removal of transponder cards.

**D. Management and Support tools availability:**

- a. Optical solution MUST support these configuration/management protocols: SNMPv2, SNMPv3, NTP, SSH, NETCONF/RESTCONF.
- b. Optical solution MUST support TACACS and/or RADIUS.
- c. Optical solution MAY support a web interface for management purposes.
- d. Optical solution MUST support logging.
- e. Optical solution MUST support configuration backup/configuration restore.
- f. Optical solution MUST have an available tool for modeling the feasibility of new services. Optical solution MAY have an available tool for generating lists of equipment needed to provision those services.
- g. Optical solution MUST have an available tool for uploading the shelf optical parameters. Such management must support uninterrupted operation, or uninterrupted operation until a scheduled maintenance puts the new parameters into effect.
- h. Optical solution MUST have an available tool for managing a multi-node domain.

**E. Maintenance and Vendor Support Requirements:**

1. Provider **MUST** support next business day RMA. Equipment vendor must provide documentation about equipment depot locations and **MUST** provide costs of next business day RMA service.

**F. Equipment manufacturer MUST have 24x7 TAC support.**

- c. Equipment manufacturer **MUST** have an online bug search tool that is kept up-to-date and made available to CENIC engineers.
- c. Equipment manufacturer **MUST** keep End of Life/End of Service equipment documentation up to date and available to CENIC engineers.
- c. Equipment provided must **NOT** have an announced end-of-sale, end-of-maintenance, or end-of-life date.

**4. Table of Exhibits**

Exhibit A: Reporting Requirements for Federal and State Discounts

Exhibit B: Pricing Worksheet