



DEPARTMENT OF THE NAVY
NAVSUP FLEET LOGISTICS CENTER SAN DIEGO
REGIONAL CONTRACTS DEPARTMENT
3985 CUMMINGS ROAD
SAN DIEGO CA 92136-4200

IN REPLY REFER TO
J&A 15/200-267

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

Upon the basis of the following justification, I as Contracting Officer hereby approve use of the other than Full and Open competition for the proposed contractual action pursuant to the authority of 10 USC 2304(c)(1), only one responsible source and no other supplier or servicing activity will satisfy agency requirements, as implemented by FAR 6.302-1.

1. Identification of the Agency and Contracting Activity:

- a. Agency Name: Naval Postgraduate School (NPS)
Dept. of Mechanical and Aerospace Engineering (MAE)
1 University Circle
Monterey, CA 93943
- b. Contracting Activity: NAVSUP FLC San Diego
Regional Contracts Department
San Diego, CA 92132

2. Nature/Description of the action:

Government (or "NPS") will acquire 100 Gigabytes per Second (Gbps) Operational Systems Interconnection (OCI) Layer 2 and to California's Research and Education (CalREN) OSI Layer 3 by "Other Than Full and Open Competition" from the Corporation for Education Network Initiatives in California (CENIC), Cypress, CA.

The proposed action will be a sole source subscription change to an existing sole-source 2013 contract (N00244-13-P-0584, originally awarded in the amount of \$1,618,580.00) awarded to CENIC for 10Gbps, now in its third and final option period. The new subscription with its ten-fold upgraded bandwidth will be acquired this fiscal year (FY) and added on two new CLINs; Government intends to obligate FY 15 Operation and Maintenance, Navy (O&MN) funding in the amount of \$549,984.00 for this requirement. The new total of this contract will be \$2,168,564.00.

3. Description of the supplies/services:

To meet current NPS research and operational network initiatives, NPS must connect to a high speed networking infrastructure with networking partner research institutions through the non-profit CENIC and CalREN networks. CENIC offers its unique research and communication tool that connects the top research universities (including Caltech, Stanford, 9 UC campuses, the Pacific Rim, and the National Educational and Research Internet2 (I2) Membership).

While the current CENIC 10G subscription had allowed NPS to meet strategic research goals, teaching goals, and objectives, the 10G connection is close to capacity. The 10G capability cannot meet changing NPS research requirements; and, NPS requires the 100G connection to maintain and enhance its research capabilities. It must have the CENIC 100G subscription to obtain/distribute high performance computing data and research; NPS requires 100G to effectively communicate with sister high-performing research institutions throughout the United States. Having the additional bandwidth will enable seamless use of network resources vice having to plan network capacity around large network loads. CENIC 100G will avoid unacceptable negative teaching and research mission(s) impacts.

NPS requires CENIC's unique bandwidth. Only CENIC provides required state-of-the-art performance necessary to support current High Performance Computing Center Research initiatives, High Network Availability initiatives, Disaster Recovery initiatives, and NPS' Distance Learning Programs.

4. Identification of the statutory authority:

Title 10 U.S.C. 2304 (c) (1) – Only one responsible source and no other supplies or services will satisfy agency requirements; Federal Acquisition Regulations (FAR) 6.302-1

5. Demonstration of contractor's unique qualifications:

The CENIC is a not-for-profit corporation formed by Stanford University, the University of California, California State University, the California Institute of Technology, and others. CENIC is charged with designing, provisioning, and operating robust, high capacity next generation research and education data bases and networks for its associate and affiliate members. It takes the form of a subscription – only its members can access published research papers from various member organizations via CalREN. Affiliate subscription provides access to CalREN and the other high performance research and education networks required by NPS to support its research and education mission.

CENIC is the only network operator connecting California universities that can deliver peer-to-peer educational data base access via CalREN. And, is the only operator providing 100GB or more access for our high-performance-computing needs. CENIC connects with the following networks:

- Internet2,
- National Lambda Rail (NLR),
- CUDI,
- ESnet
- Internet2
- Pacific Northwest Gigapop
- Defense Research and Education Network (DREN)
- CA*net4
- Qatar Foundation
- Taiwan Research Network (TANET2)
- Singapore Advanced Research and Education Network (SingAREN)
- Microsoft Corporation

CENIC is the only educational research network with the capabilities to interconnect the top research universities with the state-of-the art equipment and services. It is the only network meeting the highest internet connectivity levels necessary to NPS and its research university partners. NPS is an .edu domain and not a .mil, therefore NPS' education/research network requirements have to be met through a local service provider like CENIC. A local provider must be used to ensure maximum network speed. Local infrastructure must provide multiple 100 G data rates to support the volume of data exchanged locally and across the wide area. NPS minimum required Committed Information Rate across the wide area is 100 G to meet its ever-increasing high-data (Big Data) research and communications demands.

NPS is an accredited degree granting institution that offers Master's and Doctoral degrees. As such, its "domain" is education and has the ".edu" extension. This is not simply a naming convention; it is tied to the physical network, CalREN, which consists of circuits and routers within this managed network. These network nodes are systematically placed throughout California and distribute the network to higher education institutions (K-20). Network connection routes are similar to the other state educational institutions on the Monterey Peninsula, and connect at the Soledad Point of Presence.

This ".edu" extension is the *only* (emphasis added) extension available to NPS that meets NPS' research and overall mission requirements. The ".edu" extension provides NPS with the network bandwidth necessary to conduct research and education; it provides access to experimental networks and other high

bandwidth networks worldwide. If NPS does not have connection to the .edu, it will not have internet connection and will experience mission failure. The .edu is not comparable to the .mil domain and cannot connect to commercial internet providers.

There is no other internet provider that can connect NPS to key educational research partners in less hops and latency based on the .edu domain. The more hops required the slower the system network will operate. To re-emphasize, the .edu domain is the only connection available to NPS that meets NPS' research and overall mission requirements. NPS requires the ability to perform supercomputing applications, virtualization, cloud computing, visualization, and other computer applications demand sustained data rates in excess of existing 10 G in order to meet its mission.

Funding of the wide area connection to the CalREN is shared by CENIC members at a cost considerably lower than equivalent bandwidth purchased as a stand-alone service from commercial providers. Commercial monthly service costs per 10 G wavelength exceed \$43,000. NPS has redundant connections for a comparable cost of \$86,000 per month or an annual cost that exceeds \$1,000,000.

Costs of the incomplete solutions available from commercial providers are in excess of 5 to 10 times greater than CENIC, and unable to deliver CalREN performance. This is the advantage of being part of a "non-profit consortium." By leveraging the combined buying power of 10,000 California educational institutions and similar regional networks across the country, CENIC has been able to steadily lower the price of Internet access. CENIC and its members are non-profit, thereby able to provide services at dramatically lower costs than commercial providers. CENIC tailors its network to research university requirements and, CENIC adapts to research trends due to the unique fact that the university members design and maintain the network. No other provider allows this member university-centric network development and management.

6. Commerce Business Daily Announcements:

The proposed contract award intent notice and justification for other than full and open competition will be posted at the Government wide Point of Entry.

7. Determination of fair and reasonable cost:

The Contracting Officer will determine, in accordance with FAR procedures, that this procurement represents the best value at a fair and reasonable price. The Contracting Officer has access to, and has reviewed, the Independent Government Estimate (IGE), which closely aligns to the estimated price. The Contracting Officer will engage in a rigorous cost/price analysis – and review similar commercial products, the procurement history, GSA schedules, and other available pricing sources to determine the price offered to be fair and reasonable.

8. Description of market survey:

There is no Internet provider that can connect NPS to our key educational research partners in less hops and latency and meet performance standards locally, regionally, and nationally. NPS is in the habit researching innovation and ways to implement efforts at a cost savings. Our vision allows for the opportunity to open this effort up to competition when and if a provider can deliver the same services as CENIC.

Market surveys conducted over the last 36 months demonstrated that no commercial vendor can satisfy these performance requirements pervasively with peer institutions. No commercial carrier can interconnect to California's major research universities such as UC, Caltech, or Stanford in less router hops or latency than the NPS CENIC high performance connections. No carrier ISP can meet the CENIC performance characteristics necessary to NPS Research because it is the only carrier that interconnects California's major research universities. This facilitates NPS' mission critical research and education.

Market research therefore confirms that no other vendors are capable of providing the CENIC-like tool/resource necessary to meet NPS and Navy mission.

9. Other facts supporting the use of other than full and open competition:

NPS currently maintains a connection to the Defense Research and Educational Network. This connection proved suitable for “.mil” research connection; but, again, is not sufficient to meet educational needs. It is not satisfactory for “.edu” research and collaboration requirements. Commercial Internet services were the only other alternative and those commercial products could not meet peer-to-peer requirements. Only CENIC, with its “.edu” network, has the bandwidth necessary to conduct high-level research and education; it provides access to experimental networks and other high bandwidth networks world-wide.

Additionally, CENIC has a dedicated monitoring center that monitors traffic and provides technical support. And, this capability translated to optimal research and technical capability.

10. Listing of interested sources:

CENIC is the only authorized company capable of fulfilling the government requirement.

11. Actions to remove barriers to competition:

There are no actions the Government can take to remove barriers to competition. CENIC as a not-for-profit institution has the mission to reduce costs and make services available to educational institutions. By leveraging the combined buying power of 10,000 California educational institutions and similar regional networks across the country, CENIC has been able to steadily lower the price of Internet access for institutions such as NPS. Commercial vendors cannot provide many of the services required by an academic institution, and the services commercial vendors can provide are significantly more expensive.

