



STATE PROCUREMENT OFFICE  
NOTICE & REQUEST FOR SOLE SOURCE

Received by  
State Procurement Office  
05/05/2016

TO: Chief Procurement Officer  
FROM: Dept. of Accounting and General Services  
*Name of Requesting Department*

Pursuant to HRS §103D-306 and HAR chapter 3-122, Subchapter 9, the Department requests sole source approval to purchase the following:

1. Describe the goods, services, or construction to be procured.

Upgrading key links in the microwave system to carry Ethernet traffic enabling statewide Ethernet connectivity employing dynamic data backhaul to fully utilize available bandwidth.

See attached.

2. Vendor/Contractor/Service Provider Name: <del>Aviat Networks</del> , 5200 Great America Parkway, Santa Clara, CA 95054 <i>Aviat U.S., Inc. per Gina 5/27/16 - ew</i>	3. Amount of Request: <u>Approx. \$1,200,000</u>
4. Term of contract (shall not exceed 12 months), if applicable:  From: <u>Notice to Proceed (NTP) Date</u> To: <u>1 year from NTP</u>	5. Prior SPO-001, Sole Source (SS) No.:  <u>15-048S</u>

6. Describe in detail the following:

a. The unique features, characteristics, or capabilities of the goods, service or construction.

See attached.

b. How the unique features, characteristics or capabilities of the goods, service or construction are essential for the department

See attached.

7. Describe the efforts and results in determining that this is the only vendor/contractor/service provider who can provide the goods, services or construction.

See attached.

8. Alternate source. Describe the other possible sources for the goods, services, or construction that were investigated but did not meet the department's needs.

See attached.

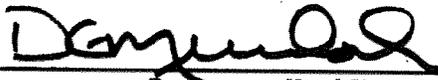
9. Identify the primary responsible staff person(s) conducting and managing this procurement. (Appropriate delegated procurement authority and completion of mandatory training required.)

\*Point of contact (Place asterisk after name of person to contact for additional information).

Name	Division/Agency	Phone Number	E-mail Address
Vincent Krog	ETS	808-586-1930 x613	vincent.e.krog@hawaii.gov
Gina Ichiyama*	PWD	808-586-0472	gina.e.ichiyama@hawaii.gov

Department shall ensure adherence to applicable administrative and statutory requirements, including HAR chapter 3-122, Subchapter 15, Cost or Pricing Data if required.

**All requirements/approvals and internal controls for this expenditure is the responsibility of the department.  
I certify that the information provided is to the best of my knowledge, true and correct.**



Department Head Signature

5-3-16

Date

**For Chief Procurement Officer Use Only**

Date Notice Posted: 5/5/16

Submit written objection to this notice to issue a sole source contract within seven calendar days or as otherwise allowed from date notice posted to:

state.procurement.office@hawaii.gov

**Chief Procurement Officer (CPO) Comments:**

Approval is granted for period from the Notice to Proceed Date to one year from the Notice to Proceed Date and is based on the understanding that Aviat U.S., Inc., as the original equipment manufacturer, is the only contractor that can provide upgrades to existing equipment and provide services to upgrade key links in the microwave system. Sole source contracts in excess of \$100,000 require certified cost or pricing data and analysis for price reasonableness pursuant to HAR chapter 3-122, subchapter 15.

This approval is for the solicitation process only. HRS section 103D-310(c) and HAR section 3-122-112 shall apply (i.e., vendor is required to provide proof of compliance and may use the Hawaii Compliance Express) and the award is required to be posted on the Awards Reporting System. Copies of the compliance, cost or pricing data certificate, agency's cost/price analysis of the data, and the awards posting are required to be documented in the procurement/ contract file.

If there are any questions, please contact Carey Ann Sasaki at 586-0575, or [careyann.r.sasaki@hawaii.gov](mailto:careyann.r.sasaki@hawaii.gov).

Approved       Disapproved       No Action Required

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Chief Procurement Officer Signature      Date 6/13/16

## Attachment for NOTICE & REQUEST FOR SOLE SOURCE, FORM SPO-001

### Upgrading Microwave System Links to Carry Ethernet Traffic Aviat Networks

*1. Describe the goods, services, or construction to be procured.*

This is a turnkey project to furnish and install compatible digital microwave radio equipment and systems and related equipment necessary to provide encryption to, upgrade the capacity of, convert from SONET to Ethernet data delivery format, and provide frequency engineering services for the Enterprise Technology Services (ETS) Division Microwave Radio System. Project deliverables include: frequency coordination, licensing services, and assistance to apply for, correct and update State microwave radio licenses; turnkey replacement of or installation of new microwave radio links including modification of waveguide branching into existing antenna systems; engineering, integration, and documentation services; program management services; factory acceptance test (FAT) of fully configured equipment and travel costs for State employees to attend the FAT; work within the State including equipment installation, transmission system component installation, and inter-island trans-shipment and warehousing of material and equipment; integration of new and modified equipment into the existing NMS and testing of external site alarms; radio link performance testing for acceptance; and a twenty four month warranty. The system design is based upon guaranteed (not "typical") performance specifications. The selected microwave radio equipment provides a commonality and standardization of design such that a minimum number of different model and/or module types of recent design are used to meet the State's technical requirements and thereby simplify inventory management, training, and maintenance; includes an Adaptive Coding and Modulation (ACM) capability with errorless switching between rates the ability to distinguish between and properly prioritize high and low priority traffic; features validated FIPS 197 128/256 bit AES encryption for payload and FIPS 140-2 Level 2 for secure network management access; provides a remotely downloadable log file for each radio transceiver that includes receive signal level (RSL) superimposed on radio alarms; directly integrates into the existing ProVision radio network monitoring system (NMS) that is organic to (designed and maintained by) the original equipment manufacturer, Aviat; provide a practical solution for connecting to other IRU radio antenna coupling unit expansion ports and waveguide expansion hardware, has expansion ports to permit sharing of microwave antenna systems; has been certified for use with First Net by the Public Safety Communications Research program; uses a single radio equipment platform for native mode transport of either all SONET payload or mixed TDM and IP (carrier Ethernet) payload without use of emulation, encapsulation, or pseudo-wire techniques; has an extended high power option that can provide 37 dBm at 6 GHz (32 dBm at 11 GHz) for 256QAM modulation; is designed with an overhead data channel that can be used for voice order wire and NMS data traffic; makes the most efficient use of rack space, floor space, and DC power and provides the lowest impact to cooling requirements for a Monitored Hot Standby radio configuration; and complies with Network Equipment-Building System (NEBS) GR-63-CORE, NEBS GR-1089-CORE, Level 3, Federal Communications Commission (FCC) Part 101, FCC Part 15 for a Class A digital device, and UL 60950-1 standards.

*6b. Describe in detail the following: How the unique features, characteristics or capabilities of the goods, service or construction are essential for the department to accomplish its work.*

The radio equipment and systems requested must be designed, installed, and integrated into existing communications facilities and systems with a minimum of reconfiguration and disruption. All of the State's existing radio equipment and its NMS has been provided by Aviat and due to the complex nature of the State's facilities, waveguide routing, and systems it is essential that we use an engineering team familiar with our situation, especially given that State has no staff with time to train a new vendor's engineering and installation teams. It is essential that the project provide a "plug and play" solution the first time. The Aviat Eclipse (IRU-600) product is the only known public safety grade digital microwave radio available in monitored hot standby (MHSB) configuration that provides a single platform for native mode transport of SONET and ACM-enabled combination traffic (IP and TDM) avoiding pseudo wire which adds latency and jitter while chewing up bandwidth. The automatic backup provided by Aviat's MHSB radios is essential for radio systems that are installed at remote locations statewide. Only the original equipment manufacturer, Aviat, can provide the required FIPS 197 and FIPS 140-2 encryption upgrades to the State's existing Aviat radio equipment. Aviat radios feature the Paperless Chart Recorder (PCR) tool for correlating radio alarms with RSL which greatly simplifies diagnostics and troubleshooting. As the program's author, Aviat will be able to provide software upgrades for the State's existing ProVision NMS to enable seamless monitoring of the Statewide Shared Blended (SSB) land mobile radio network alarms within the ProVision NMS. The Aviat radios provide power output levels that are the highest in the industry by at least a factor of two. Rack space, floor space, DC power, electrical power, and cooling capacity are at a premium at State radio facilities; the Aviat radios make best use of these resources and provide expansion ports in all configurations as part of their standard design. Aviat's compliance with standards, especially NEBS standards, is critical to deploying and maintaining a reliable system.

*7. Describe the efforts and results in determining that this is the only vendor/contractor/service provider who can provide the goods, services or construction.*

An extensive effort was made to give other vendors a competitive opportunity during the procurement of DAGS Job 16-10-0729, with final specifications issued on March 20, 2014. The effort by their local representative to bid Alcatel-Lucent radio equipment lost on price but offered radios that did not meet specifications relating to native transport (a pseudo wire approach was proposed), NMS integration (only the most basic notification of element status could be provided), use of a single platform (two different radios were proposed and the radio proposed for SONET transport is old, physically large, and inefficient), microwave expansion ports as a standard option, encryption capabilities, and having a PCR equivalent. Since that time the only upgrades and innovations made to digital microwave radio equipment has come from Aviat (e.g. encryption and extended high power features. Alcatel still offers the same multiple-chassis product solutions with no new features or capabilities.

8. *Alternative source. Describe the other possible sources for the goods, services, or construction that were investigated but did not meet the department's needs.*

The State is replacing key links to establish an ethernet path from North to South to better serve our IT community and better facilitate the necessary interfaces most new equipment require. Furthermore, since we are "upgrading" many existing IRUs, Aviat is the only vendor who can provide parts, software, and necessary reconfiguration.

Regarding replacing Constellation links, per previous procurements, the State is procuring Aviat radios and in this case the State is transitioning all links to the new IRUs. This will create a network of microwave radios that interoperate seamlessly and interface with the unified network monitoring and system management platform -Provision. Per State procurements, there are no other vendors offering radios with stated specifications, even in standard power levels and the State is opting for the high power option once again offered only through Aviat. Any other vendor would have to replace the entire network of microwave radios to achieve the ubiquitous interoperable system required.

Aviat will be extending the prices and discounts they offer in their National Association of State Procurement Officials (NASPO) Valuepoint contract for public safety communication equipment and services to the State for this purchase.