



REQUEST FOR QUOTATIONS: NB672010-16-05130

Please quote to the attached Statement of Work. Deadline for submittal of quote is **10:00 AM September 15, 2016.** Discounts are very encouraged.

Please be aware that basis for award will be Lowest Price Technically Acceptable (LPTA), based upon the technical specifications as detailed within the attached statement of work.

NIST reserves the right to use their own shipping account number(s).

Please direct all questions to susan.mckean@nist.gov before September 13, 2016. All communications and documents must include the solicitation # NB672010-16-05130. Please email your quote to me at susan.mckean@nist.gov

This RFQ is conducted under the authority of FAR 13 Simplified Acquisitions with NAICS code 511210, Applications software, computer, packaged having a Small Business Size Standard of \$38.5 million.

This is a small business set aside.

If you are a "no quote" please indicate as such.

Please acknowledge receipt of this Request for Quote (RFQ). Please indicate via email if you decline to provide a quote.

The National Institute of Standards & Technology (NIST) in Boulder, Colorado, has a Brand Name requirement for:

CONTRACT

<u>LINE ITEM No.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
0001	LTE UE Diagnostic Monitoring Software Tool, Delivery: Within 30 After Receipt of Order (ARO), (Government Preference)	1 EACH
	Software Updates and Technical Support Period of Performance: 3 Years After Delivery (PLEASE REFERENCE ATTACHED SOW)	3 YEARS

Delivery Address: The National Institute of Standards & Technology (NIST), 325 Broadway, Boulder, Colorado 80305.

The Government intends to use this product as follows:

I. Background Information

The Communications Technology Laboratory (CTL) is in the process of expanding its research efforts related to spectrum sharing. This research spans a broad area covering topics associated with distributed spectrum sensing, signal propagation, interference between devices and networks, and evaluating a device's ability to share spectrum. As one of the most prolific technologies currently in use today, Long Term Evolution (LTE) technology is a significant factor in almost all proposed spectrum sharing scenarios. To research the use of LTE systems in shared spectrum environments, the procurement of a commercial LTE user equipment (UE) Diagnostic Monitoring Software Tool is an essential part of CTL's portfolio. This Tool will leverage the evolved packet system (EPS) already owned by the National Institute of Standards and Technology (NIST) and be used inside a NIST laboratory. CTL envisions using this Tool for both conducted and radiated UEs research for LTE and other technologies (e.g., Wi-Fi). Radiated testing will take place inside a shielded test chamber.

As this is a research effort (and not a commercial deployment), having the ability to monitor the functions of the UE is critical.

II. Scope Of Work

The LTE UE Diagnostic Monitor Software Tool will be installed inside a NIST laboratory laptop and connected to commercial UEs. NIST will supply the computer necessary to operate the tool. The research to be conducted is interested in multiple instances of the tool running on the same laptop. An example application of this would be the simultaneous monitoring of multiple UEs. Because of the differences between frequency-division duplexing (FDD) and time-division duplexing (TDD), CTL requires a tool which supports both FDD and TDD systems.

III. Specifications

The Contractor shall provide one (1) LTE UE Diagnostic Monitor software tool that meets the following minimum technical requirements as described below.

1. The Application Tool shall have the following technical characteristics:
 - 1.1. Support all types of QUALCOMM chipsets commonly in commercial LTE UEs.
 - 1.2. Support analysis of both LTE FDD and TDD protocol technologies.
 - 1.3. Support the monitoring and analysis of Wi-Fi (IEEE 802.11) protocol technology.
 - 1.4. At a minimum, the software shall be capable of monitoring and reporting the following parameters: signal to noise plus interference ratio (SINR), reference signal received power (RSRP), reference signal received quality (RSRQ), modulation, and precision matrix indicators (PMI).
 - 1.5. Support up to five simultaneous instances of the application tool on a single PC, each monitoring a different UE or interface. The software tool shall be compatible with the Windows 7 operating system. NIST will install the software on a Windows computer. The license must be portable to other NIST owned computers.
 - 1.6. The software shall support basic functionality via the use of an automated script (e.g., Python). Such basic functions include: the ability to begin collecting logs and the ability to stop collection of logs.
 - 1.7. The software shall be capable of converting the collected logs to text or comma separated variable (csv) file formats.

- 1.8. The provided software shall be the most current stable release available from the manufacturer.
2. The Contractor shall provide a license for the software with the following characteristics:
 - 2.1. The license for this tool must be provided on a USB dongle (or similar). The computer using this software tool shall not be required to connect to the internet to activate or “check-out” a license. The license (or license dongle) must be capable of being transported for use in another machine. Support for simultaneous use on multiple machines is not required (i.e., only a single dongle is required).
 - 2.2. The license for this software tool shall be perpetual in nature and have no annual (or otherwise recurring) licensing expenses.
3. Software technical support shall be provided as part of the system for three years. This support shall be available during normal business hours. No after-hours support is required.
4. To the extent that software updates become available, they shall be provided to NIST for period of three years.
5. The Contractor shall include the cost of shipping to the NIST site in Boulder, CO.

The following item should be included as an option in the quote.

1. The ability to acquire diagnostic information from chipsets other than Qualcomm.
2. The ability to acquire diagnostic information from chipsets utilizing technologies other than LTE and IEEE 802.11 (e.g., Bluetooth).

IV. Delivery

Delivery shall be thirty (30) days from award of this requirement.

52.252-2 Clauses Incorporated by Reference. This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text:
<http://farsite.hill.af.mil/vffara.htm>.

FAR 52.202-1, Definitions.

FAR 52.203-5, Covenant against Contingent Fees.

FAR 52.203-6, Restrictions on Subcontractor Sales to the Government.

FAR 52.203-7, Anti-kickback Procedures.

FAR 52.203-17, Contractor Employee Whistleblower Rights and Requirements to Inform Employees of Whistleblower Rights.

FAR 52.212-1, Instructions to Offerors—Commercial, applies to this acquisition.

FAR 52.212-2, Evaluation -- Commercial Items, applies to this acquisition. The Government will award a fixed price contract based on the following factors: Technical capability (capability of the item offered to meet the agency need), price and past performance. Technical capability will be evaluated by how well the proposed products meet the Government requirement as stated in Paragraph (vi). Technical and past performance when combined are significantly more important than price. The Government reserves the right to make an award to other than the lowest-priced

offeror if the superior technical submission or the submission indicating a reduced performance risk, warrants paying a premium.

The offeror must have completed the Online Representations and Certifications Application (ORCA) which is the provision at FAR 52.212-3, Offeror Representations and Certifications -- Commercial Items. Reps and certs must be uploaded to the System for Award Management at www.sam.gov.

FAR 52.212-4, Contract Terms and Conditions -- Commercial Items, applies to this acquisition.

FAR 52.212-5, Contract Terms and Conditions Required To Implement Statutes or Executive Orders -- Commercial Items applies to this acquisition. Additional FAR 52.212-5 clauses cited in the clause applicable to this acquisition are:

- 52.219-28 Post Award Small Business Program Representation (Jul 2013)
- 52.222-3 Convict Labor (June 2003)
- 52.222-19 Child Labor—Cooperation with Authorities and Remedies (Jan 2014)
- 52.222-21 Prohibition of Segregated Facilities (Apr 2015).
- 52.222-35 Equal Opportunity (Apr 2015)
- 52.222-50 Combating Trafficking in Persons (Mar 2015)
- 52.225-1 Buy American--Supplies (May 2014)
- 52.225-13 Restrictions on Certain Foreign Purchases (Jun 2008)

FAR 52.216-24, Limitation of Government Liability.

FAR 52.219-13, Notice of Set-Aside of Orders (Nov 2011).

FAR 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving.

FAR 52.225-18, Place of Manufacture.

FAR 52.232-1, Payments.

FAR 52.232-15, Progress Payments Not Included.

FAR 52.232-39, Unenforceability of Unauthorized Obligations

FAR 52.243-1, Changes – Fixed Price.

FAR 52.244-6, Subcontracts for Commercial Items.

FAR 52.247-34, FOB Destination

CAR, 1352.246-70, Place of Acceptance (APR 2010)

(a) The Contracting Officer or the duly authorized representative will accept supplies and services to be provided under this contract.

(b) The place of acceptance will be: NIST, 325 Broadway – Shipping and Receiving, Boulder, CO 80305

The following clauses may also be applicable to this acquisition:

CAR 1352.201-70, Contracting Officer's Authority

CAR 1352.209-73, Compliance with the Laws

CAR 1352.209-74, Organizational Conflict of Interest

CAR 1352.213-70, Evaluation Utilizing Simplified Acquisition Procedures

CAR 1352.215-70, Proposal preparation

CAR 1352.233-70, Agency Protests

CAR 1352.233-71, GAO and Court of Federal Claims Protests

CAR 1352.239-70 Software license addendum

NIST LOCAL – 04, NIST LOCAL-04 BILLING INSTRUCTIONS

(a) NIST prefers electronic Invoice/Voucher submissions and they should be emailed to INVOICE@NIST.GOV.

(b) Each Invoice or Voucher submitted shall include the following: (1) Contract Number. (2) Contractor Name and Address. (3) Date of Invoice. (4) Invoice Number. (5) Amount of Invoice and Cumulative Amount Invoiced to-date. (6) Contract Line Item Number (CLIN). (7) Description, Quantity, Unit of Measure, Unit Price, and Extended Price of Supplies/Services Delivered. (8) Prompt Payment Discount Terms, if Offered. (9) Any other information or documentation required by the contract.

(c) In the event electronic submissions are not used, The Contractor shall submit an original invoice

Or voucher in accordance with the payment provisions of this contract to:

NIST: Accounts Payable Office

100 Bureau Drive, Mail Stop 1621

Gaithersburg, MD 20899-1621

NIST LOCAL - 39, NIST LOCAL-39 MARKING/PACKING INSTRUCTIONS

(1) If the total contract/order includes multiple quantities of the same or like item(s), segregated as separate CLIN/Item numbers, deliverables shall be packed accordingly. Each individual Package / container in the shipment shall include deliverables on a per-CLIN or Item basis.

(2) For each shipment made under this contract/order, the Contractor shall furnish itemized packing list(s), enumerating the specific contents of each shipping container and what specific individual

Components constitute a full and complete "unit" for each bid item. The packing list shall include the brief description of each item found in the Schedule. If more than one container is Required for each unit, each container should be marked accordingly, e.g., "Box 1 of 2," "Box 2 of 2," and the boxes, where feasible, should be taped or shrink-wrapped together as an Issuable unit.

(3) The contract number AND CONTRACT LINE ITEM NUMBER (CLIN) OR ORDER ITEM NUMBER shall be placed on the exterior of all containers.