

**COUNTY OF LOS ANGELES
SPECIFICATIONS
For**

FIRE DEPARTMENT

Date: 02/19/15

Solicitation #: RFB-IS-15200839

Requisition #: RQN-FR-15008405

For: FIRE STATION CONTROL UNIT (SCU)

BIDDER TO COMPLETE THE FOLLOWING INFORMATION

Company Name: _____

Address: _____

Contact Person: _____

Tel: No.: _____ Fax No.: _____

E-mail address: _____

Notice:

Bidder shall state in the right hand column wherein your product offered differs, indicating performance, specific size, and/or make and model of all components when not exactly as specified. When bidder is bidding items exactly as described in the left hand column, please state "AS SPECIFIED" on the right hand column. Failure to return and fill in this form will be considered sufficient reason for rejection of your offer. Literature alone is not sufficient for consideration of your offer.

All equipment must meet California and County of Los Angeles safety requirements. The equipment shall be the latest model and shall not have been used as a demonstrator. Bidders shall submit detailed literature on the unit they propose to furnish.

REQUIREMENTS	INDICATE EXCEPTION OR STATE "AS SPECIFIED" BELOW
<p>PROJECT DESCRIPTION:</p> <p>Los Angeles County Fire Department (LACoFD) is seeking bids to replace the current Fire Station Control Unit (SCU) for Fire Station Alerting. This bid will include all hardware, software, and installation service as a turnkey project to replace SCUs. Where an apparent low bidder has proposed an alternate or equal product, that bidder shall demonstrate product equivalency to the satisfaction of the department. Evidence of equivalency shall be presented for each requirement of this specification.</p> <p>LACoFD currently has 200 Fire Stations with SCUs that need to be replaced. The purpose of the SCU system is to alert and dispatch fire station personnel. The SCU system is separated into two separate and distinct SCUs for redundancy. The SCUs are referred to as the "Primary SCU" and "Secondary SCU", and both SCUs will need to be replaced. Upon award, the selected vender will work with LACoFD engineering staff and project team members to determine the final configuration.</p> <p>QUANTITY: 200</p> <p>RADIOMOBILE: STATION CONTROL UNIT PART # 170-RMSCU-2-SR OR EQUAL</p> <p>QUANTITY: 200</p> <p>RADIOMOBILE: REMOTE DISPLAY PART # 170-1320-RMHB-E OR EQUAL</p> <p>QUANTITY: 200</p> <p>RADIOMOBILE: REMOTE FIRE STATION CONTROL UNIT PART# 170-RMSCU-2-JR OR EQUAL</p> <p>QUANTITY: 1 LOT</p> <p>INSTALLATION</p> <p>GENERAL REQUIREMENTS:</p> <p>(Reference existing SCU manual and documentation)</p> <ol style="list-style-type: none"> 1. Vendor shall replicate, replace and upgrade the existing Los Angeles County Fire Department (LACoFD) SCU and alerting system, which meets and exceeds the current functions of the existing system. (Reference SCU manual and documentation) 2. The Vendor shall comply with all applicable 	

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<p>electrical and building codes.</p> <p>3. The proposed SCU System shall comply with NFPA 1221.</p> <p>EXISTING SCU SYSTEM DESCRIPTION AND REQUIREMENTS:</p> <p>1. Vendor shall replicate the following SCU operations:</p> <p>a. The “Primary SCU” is activated when an “over the air” alert form the Computer Aided Dispatch (CAD) is received and decoded by the station’s Radio Modem \ Mobile Data Computer (MDC).</p> <p>b. Once the alert has been received the SCU performs the following functions:</p> <p>i. Turns on the station lights for 3 Minutes.</p> <p>ii. Sounds an alert tone over the station speakers for 6 seconds.</p> <p>iii. Unmute the UHF Voice Radio over the station speaker for 3 minutes.</p> <p>iv. Prints the dispatch call information for Rip and Run operations.</p> <p>v. Displays the dispatch information on the Mobile Data Computer (MDC).</p> <p>vi. Information and alerting may also be addressed specifically to the Battalion Chiefs.</p> <p>vii. Display Information addressed specifically for “Card File” operations. (Overtime /staffing information from CAD),</p> <p>c. The “Primary SCU” also provides a Public Address (PA) System for the Fire Station, which interfaces to the telephone system for general announcements, telephone night ringer, and radio audio monitor across the PA System</p> <p>d. The “Secondary SCU” is activated when a two tone sequential and MDC1200 “over the air” alert is sent form the VHF Radio system. Calls can be sent in three formats “All Call”, Battalion Call”, and “Individual Station Call”.</p> <p>e. Once the alert has been received the SCU performs the following functions:</p> <p>i. Turns on the station lights for 3 Minutes.</p> <p>ii. Sounds an alert tone over the station speakers for 6 seconds, which interfaces with the primary SCU PA.</p> <p>iii. Unmute the VHF XTL5000 Voice Radio over the station speaker for 3 minutes.</p> <p>f. If the “Primary SCU” Failed, the secondary SCU performs the following functions:</p> <p>i. Turns on the station lights for 3 Minutes.</p> <p>ii. Sounds an alert tone over a separate speaker on the apparatus floor, which must support audio levels higher than 90dB to overcome the Fire Engine’s noise.</p>	
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<p>2. The Primary SCU's Central Program Logic Controller (PLC) must support the following alarm activation/triggers:</p> <ul style="list-style-type: none"> i. Incoming telephone call with ring indicator / night ringer. ii. PA Paging call indication closure and audio from the telephone to the SCU PA. iii. XTL500 Radio two tone alert & MDC1200 alert closures. <p>3. The Primary SCU shall terminate and alert Incoming Coded messages via Data transceivers such as:</p> <ul style="list-style-type: none"> i. Station Call Alerts ii. Priority Calls iii. Dispatch Calls iv. Other coded messages from current Computer Aided Dispatch (CAD) <p>4. The vendor shall interface the Primary SCU with IQ Mobile's application serial output message data string, which decodes message type, priority, destination, etc.</p> <ul style="list-style-type: none"> i. OUTPUT Functions: As a result of the incoming triggers or serial coded messages to the Mobile (fixed) data transceiver (Tait TMAB14-H700) the PLC Control Unit must provide the following actions. <ul style="list-style-type: none"> 1. Provide a series of contact closures: Minimum 7. The final configuration will be defined by LACoFD engineering staff and project team members in the detailed design's final configuration 2. Ability to generate various tone and audible queues that mimic current Audible TONE Alerts. 3. The alert tone to must be capable to ramping audio and have the ability to change the tone alerts as defined by LACoFD. 4. Ability to open Audio from devices or sources such as: <ul style="list-style-type: none"> a. UHF Radio b. VHF Radio c. Telephone paging line d. Tone generating sources e. Spare <p>GENERAL COMPONENT REQUIREMENTS FOR FIRE STATION CONFIGURATION:</p> <ul style="list-style-type: none"> 1. The Primary SCU shall interface with the current Data Radio Modem (Tait 8100) running RadioMobile modem communications platform, which is provided by LACoFD. The Radio must be incorporated into SCU cabinet. 2. The Primary SCU shall interface with the current Voice Radio (Motorola XTL5000), which is 	

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<p>provided by LACoFD. Radio must be incorporated into SCU cabinet with the capability for the user to view, change and transmit on radio channels.</p> <p>3. The Primary SCU must contain the following equipment with in the SCU to support the above operations description:</p> <ul style="list-style-type: none"> a. -Radio Modem / Data Transceiver (Tait TIMAB14-H700), which is provided by LACoFD. b. -UHF XTL5000 Voice Radio with Microphone, which is provided by LACoFD. i. The SCU shall provide a monitor switch that pass radio traffic through the SCU station PA system. c. Mobile Data Computer (MDC) mounted on the front of the SCU that controls the SCU and runs the RadioMobile application. <ul style="list-style-type: none"> 1. Windows based CPU <ul style="list-style-type: none"> a. Shall Run Windows Seven OS Pro b. Shall run the RadioMobile's IQ Mobile Software c. Shall have Solid State Hard drive 128GB 2. Shall have serial port to connect to Data Transceiver's I/O port (DB9) 3. Shall drive both Display and Printer. 4. Shall be able to drive other remote Supervisor Display touch screen displays via Ethernet in-house network. d. -The vendor shall provide a Supervisors display touch screen display that mounts on the front of the SCU. <ul style="list-style-type: none"> i. Display LCD type <ul style="list-style-type: none"> 1. At least 12" in diameter 2. Daylight readable with adjustable brightness 3. Touch screen 4. Independent keyboard with Mouse pad incorporated 5. Self- contained audio 6. Must run on both house and independent back up power. ii. System must be able to support remote auxiliary display units that will mimic the video of the Supervisors display touch screen. iii. Must be capable of running minimum of 4 remote auxiliary Display touch screens throughout the fire station via dedicated Ethernet network. iv. Must be able to be driven from main control / supervisors set up. v. Daylight readable with adjustable brightness. e. -The vendor shall provide a "Rip and Run" Printer. <ul style="list-style-type: none"> i. Printer shall print without any delay once the alert call is sent to the SCU ii. Printer - Point of Sale type 4" thermal printer. <ul style="list-style-type: none"> 1. Placed next to Video display iii. Must print at least 4" per second 	
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<p>f. - The vendor shall provide a Fire Station Public Address (PA) System (150W, 70VAC) with a minimum of 5 audio inputs.</p> <p>g. - The vendor shall provide a Power:</p> <p>i. The vendor shall provide a Power that connects to the Fire Station's 120VAC outlet.</p> <p>ii. The vendor will provide power protection to include surge and sage suppression.</p> <p>iii. The vendor will provide a Battery system to support all SCU functions (minimum 28Ahr) to allow the SCU to run independently for 24hr.</p> <p>h. - The vendor shall provide a Program Logic Controller (PLC).</p> <p>i. - The vendor shall provide a Fire Station interface / demarcation.</p> <p>i. Terminates all trigger inputs</p> <p>ii. Terminates all audio sources</p> <p>j. -The vendor shall provide any Cabinet cooling equipment if required to meet the equipment specifications.</p> <p>k. -The vendor shall provide a the Primary SCU cabinet, which must fit within space of 23" Wide, 30" High, and 23" deep, but a smaller cabinet is preferred. The cabinet must be capable of hanging on the wall and or sitting on a stand.</p> <p>l. The vendor shall allow for enough space in the primary SCU to incorporate the Secondary SCU equipment together in the same cabinet, should there not be enough space to install the secondary SCU.</p> <p>4. The Secondary SCU must contain the following equipment with in the SCU to support the above operations description:</p> <p>a. VHF XTL5000 Voice Radio with Microphone, which is provided by LACoFD</p> <p>b. - The vendor shall provide a Power:</p> <p>i. The vendor shall provide a Power that connects to the Fire Station's 120VAC outlet.</p> <p>ii. The vendor will provide power protection to include surge and sage suppression.</p> <p>iii. The vendor will provide a Battery system to support all SCU functions (minimum 28Ahr) to allow the SCU to run independently for 24hr.</p> <p>c. - The vendor shall provide a Program Logic Controller (PLC).</p> <p>d. - The vendor shall provide a Fire Station interface / demarcation.</p> <p>i. Terminates all trigger inputs</p> <p>ii. Terminates all audio sources</p> <p>e. -The vendor shall provide any Cabinet cooling equipment if required to meet the equipment specifications.</p> <p>f. -The vendor shall provide a the Secondary SCU cabinet, which must fit within space of 18" Wide,</p>	
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<p>9” High, and 12” deep, but a smaller cabinet is preferred. The cabinet must be capable of hanging on the wall and or sitting on a stand.</p> <p>APPLICATION REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. If power is lost to the SCU, it shall automatically power back up to its original operational state with no external interaction required. 2. The application must be flexible by allowing authorized LACoFD and technical staff the ability to administer, program and personalize the configuration to meet current and future operations. An example of such personalized configuration would be to configure the Primary SCU to be capable of zone alerting, there by alerting only the PA speakers and night lights for an individual field unit without disrupting other personnel in the fire station, as well as lighted indicators for individual units such as (E11, SQ11 ...) 3. The system programing configuration shall be capable of configuring all inputs, actions and resulting outputs to cover at least the following; <ol style="list-style-type: none"> a. Create or change SCU functions or application names to identify each trigger or input action from either the IQ Mobile Data Transceiver closure (or an alert or action data string generated by CAD), and hard contact closures from other external sources, (radio triggers or contact closures) b. Create, change or select a series of actions for each input noted in previous section. These actions should be but not limited to: <ol style="list-style-type: none"> i. Control the activation and deactivation of at least 7 independent relays for external contact closures. ii. Ability to cause a Pause process (to provide delay between actions) iii. Indicate a “wait for end” to allow sound files to complete before moving to next sequence. iv. Cause audio paths from different sources, such as radios, telephone page input, etc. to be selected and connected to Audio Amplifier simultaneously or independent of each other. v. Manage multiple triggers concurrently, with associated sequence of actions such that the Priority actions always can be distinguished. vi. Cause all actions to be reset to normal standby condition. c. Provide a means of adjusting each audio input independently 4. Provide a TEST Function: To allow administrative personnel to perform tests for each input trigger, and make adjustments before saving and 	
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<p>putting SCU into service.</p> <ol style="list-style-type: none"> 5. Allow personnel to name and save one or more configurations. 6. Provide a "Default" configuration such that personnel can reset and start a base line configuration. 7. Allow personnel to QUERY other station Controllers and push new configurations to those locations, via private Ethernet network via LACoFD's network via TCP/IP. 8. An intuitive alarm system that would be monitored by LACoFD dispatch that shows all alarms and SCU failures at each fire station simultaneously. <p>SECURITY REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. The SCU shall support multiple levels of login access (Admin, User) to the SCU. Only authorized personnel who have the login and password for administrator functions be able to perform maintenance on this system or other systems on the SCU network. 2. The user login will only have access to the RadioMoble application and funciton, and required tasks, as outlined in the Mobile application, such as ACK a required message, print, send message, change status , etc. 3. The User shall not be able to get access to anything but the user application. The user shall not have access to the computer, SCU or any of the Alerts or Trigger sequences, change the names, or any of the technical parameters. 4. If Windows is used, the user shall not be able to change user login types such as ADMIN, or should the User be able to Add, Change or delete programs. <p>INSTALLATION REQUIREMENT:</p> <ol style="list-style-type: none"> 1. The vendor shall install the SCU system into all of the Fire stations as a turnkey install. 2. The install costs shall be a separate line item. 3. LACoFD shall provide the vendor with the information in regards to the specific installation type for each location. 4. LACoFD personnel will provide the number of Fire Stations of each installation configuration type to include. <ol style="list-style-type: none"> a. Placement of the Main Controller. b. Placement of VHF Back up control unit. c. Connection and termination locations. 5. Vendor will provide the intended solution for each configuration type during the detailed design, and LACoFD shall approve vendor's final design for each SCU installation at the Fire Stations. 6. The vendor shall use off the shelf components 	

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<p>as much as possible.</p> <p>7. LACoFD shall inspect and test each SCU installation before it is accepted and put into service.</p> <p>8. The vendor shall stage the equipment at a LACoFD location and a user acceptance test will be performed to validate the operations of the 1st unit.</p> <p>a. The SCU must pass the performance test for 1 week at the staging area, and 1 month in a fire station before the installation of all the other sites can start.</p> <p>b. The SCU must perform 1 month tests continuously without any issues.</p> <p>c. If the SCU runs into any issues during the 1 month test, the test must be restarted over again until it passes 1 month without any issues.</p> <p>d. If the test fails more than 3 times in a row, than LACoFD may terminate the contract with vendor.</p> <p>9. LACoFD will provide assistance in coordinating and escorting the vendor to each site.</p> <p>10. Vendor shall be responsible for all vendor supplied installation materials, mounting hardware, connections and equipment that is required to install the SCU.</p> <p>11. Vendor shall remove current SCU and install new SCU, connect, mount, and test the SCU installation.</p> <p>12. The vendor shall coordinate all outages with LACoFD. The authorized LACoFD person will advise the Fire Station and appropriate authorities of the required outage.</p> <p>13. The Fire Station should not exhibit an outage for more than the time it takes to remove connections to the interface block and connect the new ones with minimum down time. All installation prep work shall be completed before the cutover to minimize the outage down time.</p> <p>14. The vendor shall prepare each days installation ahead of time for the necessary cables, their lengths, availability of necessary power, connections, hardware, etc.</p> <p>15. The vendor shall provide the interface cable from the SCU to the Fire Station Wall Terminal Board (Drawing # 4761-000-44-007). The cable shall be a single cable with 24 individual 18 Gage wires. Each wire must be labeled individually on the wire as depicted in drawing #4761-000-44-016. The vendor may also utilize the existing cable by creating a terminal block demark for cutover and transitioning from old to new SCUs.</p> <p>16. The Primary SCU cabinet must fit within space of 23" Wide, 30" High, and 23" deep, but a smaller cabinet is preferred. The cabinet must be capable of hanging on the wall and or sitting on a stand.</p> <p>17. The Secondary SCU cabinet must fit within</p>	
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<p>space of 18" Wide, 9" High, and 12" deep, but a smaller cabinet is preferred. The cabinet must be capable of hanging on the wall and or sitting on a stand.</p> <p>Documentation and Training requirements</p> <ol style="list-style-type: none"> 1. The vendor shall provide information and documentation on any proprietary components and circuit board build, data or programing, and must be delivered to LACoFD as part of the "As Build" documentation. 2. All technical specifications, drawings, programs shall be delivered to LACoFD. <ol style="list-style-type: none"> a. If any software or program information cannot be released to LACoFD than the vendor shall provide an Escrow services to hold the information. 5. Vendor shall provide a user manual and documentation and training classes. 6. Vendor shall provide a technical manual and documentation with the intent of system configuration, testing and troubleshooting the system and training classes. 7. The vendor shall provide all of the test documentation and all the installation information for each SCU installation. 8. The testing requirement shall be determined by LACoFD and the project team during the System detailed design. <p>WARRANTY:</p> <ol style="list-style-type: none"> 1. The vendor shall provide full warranty for all services and maintenance for 3 years. 2. The vendor shall provide cost for 1 year maintenance out to an additional 5 years. <p>COMPLETION DATE:</p> <p>Vendor is to complete the project by July 01, 2015.</p>	