

DEPARTMENT OF VETERANS AFFAIRS

Justification and Approval

For

Other Than Full and Open Competition

1. Contracting Activity:

Department of Veterans Affairs
Lebanon VA Medical Center
1700 S. Lincoln Ave.
Lebanon, PA 17042

2. Nature and/or Description of the Action Being Processed:

Contractor shall furnish management, supervision, labor transportation, equipment, and materials, and perform work to include general construction, alterations, mechanical and electrical work, and certain other items as required by project drawings and specifications for:

PROJECT NO. #595-10-105

VACO – LEBANON VA MEDICAL CENTER

RENOVATE ACUTE CARE 1-2 BED UNIT

This acquisition is a firm-fixed price construction buy.

3. Description of Supplies/Services Required to Meet the Agency's Needs:

This section specifies the Nurse Call-Hill Rom: Materials, programming, start-up, certification and training.

- A. Furnish and install a complete and fully functional and operable Hill-Rom Navi-Care Nurse Call System for each location shown on the contract drawings and TCOs **WHOSE EMPTY CONDUIT SYSTEM WAS PROVIDED AS A PART OF SPECIFICATION 27 11 00.**
- B. The specific location for Nurse Call Network Switch and Server: Provide telecommunications 19" rack in equipment room where shown on drawings.
- C. Equipment: Provide a supervised audio-visual Voice over IP-based (VoIP) Nurse Call System. The System shall include, but not be limited to all equipment, materials, labor, documentation, and services necessary to furnish and install a complete, operational Voice over IP-based Nurse Call System. The System shall comply in all respects with all pertinent codes, rules, regulations, and laws of the hospital authority and local jurisdiction. The System shall comply in all respects with the requirements of the specifications, manufacturer's recommendations and Underwriters Laboratories Inc. (UL) Listings.

D. Expansion Capability: Each System shall be capable of supporting in excess of 1000 Patient Stations. The System shall support a single integrated platform for:

1. Wireless communications system(s)
2. Reporting Database
3. Siemens Security System Integration
4. Wireless Locating
5. Electronic Whiteboard
6. Supplemental PC applications
7. Patient/Staff Assignments

E. Meet all FCC requirements regarding equipment listing, low radiation and/or interference of RF signal(s). The system shall be designed to prevent direct pickup of signals from within and outside the building structure.

F. Weather/Water Proof Equipment: Listed and labeled by an OSHA certified NRTL (i.e. UL) for duty outdoors or in damp locations.

2.1 SYSTEM DESCRIPTION

A. Furnish and install a complete and fully functional and operable Nurse Call and/or Code Blue System **WHOSE EMPTY CONDUIT SYSTEM WAS PROVIDED AS A PART OF SPECIFICATION 27 11 00**. The System shall be network-based and incorporate decentralized, distributed intelligence architecture. The System shall allow both data and voice to be distributed over a common network infrastructure, which is consistent with the communication industry.

B. The Contractor is responsible for interfacing Patient Room MATV Television Controls, Patient Bed Service Walls, Patient Room Lighting Controls.

C. The Contractor shall continually employ interfacing methods that are approved by the OEM and VA. At a minimum, an acceptable interfacing method requires not only a physical and mechanical connection, but also a matching of signal, voltage, and processing levels with regard to signal quality and impedance. The interface point must adhere to all standards described herein for the full separation of Critical Care and Life Safety systems. The System shall provide a means of interoperability with 3rd party wired and wireless network devices within the facility, including PCs, PDA's, phones, databases, pagers, etc.

D. The System Contractor shall connect the System ensuring that all NFPA and UL Critical Care and Life Safety Circuit and System separation guidelines are satisfied. The System Contractor is not allowed to make any connections to the Telephone System. VA shall arrange for the interconnection between the

PA, MATV, RED, Patient Bed Service Walls and Lighting Control Systems with the appropriate responsible parties.

- E. System hardware shall consist of a **standalone (separate)** nurse call **code Blue** patient communications network comprised of Power over Ethernet (Poe) Switches, Room Control Boards (RCB), Standard Room Stations, Graphical Room Stations, nurse consoles, Single-Gang Push/Pull Type Peripheral Devices, control stations, staff and duty stations, Auxiliary Input Stations with ¼" input receptacles, annunciator panels with color touch screen LCD panels, room and corridor dome lights (Icon-based LED Lights), bed interface device consisting of pillow speakers/call cords bed and auxiliary input, pull cord and/or emergency push button stations, wiring. And, other options such as, **pocket page interfaces**, computer interfaces, printer interfaces, wireless / telephone network interfaces, and nurse locating system interface (**when specifically approved first by TVE 0050P3B**) and as shown on drawings. All necessary equipment required to meet the intent of these specifications, whether or not enumerated within these specifications, shall be supplied and installed to provide a complete and operating nurse call **Code Blue** patient communications network. **It is not acceptable to utilize the telephone cable system for the control and distribution of nurse call (code Blue) signals and equipment.**
- F. System firmware shall be the product of Hill-Rom. Manufacturer shall provide, free of charge, product firmware/software upgrades for a period of two (2) years from date of acceptance by VA for any product feature enhancements. System configuration programming changes shall not require any exchange of parts and shall be capable of being executed remotely via a modem connection (**when specifically approved first by TVE 0050P3B**).
- G. The Nurse Call Head End Equipment shall be standard 19" rack mountable and located in Systems equipment room where shown on drawings. **The Nurse Call / Code Blue System may interface the PA system when specifically approved by VA Headquarters T VE 0050P3B during the project approval process prior to contract bidding.**
- H. The System shall utilize microprocessor components for all signaling and programming circuits and functions. Self contained or on board system program memory shall be non-volatile and protected from erasure from power outages for a minimum of 12 hours.
- I. Provide a UPS for the System to be rack mounted in Systems equipment room shown on drawings, and at each CRT and Monitor in nurse station, to allow normal operation and function (as if there was no AC power failure) in the

event of an AC power failure or during input power fluctuations for a minimum of 30 minutes.

- J. The System is defined as Critical Service and the Code Blue functions is defined as Life Safety/Support by NFPA (re Part 1.1.A) and so evaluated by JCAHCO. **Therefore, the system shall have a minimum of two (2) additional remote enunciation points in order to satisfy NFPA's Life Safety Code 101. Coordinate with COTR.**

1. These two (2) additional remote locations shall be fully manned:
 - a. 24/7/365 for certified Hospital.
 - b. As long as other identified VA Medical / Servicing Facilities are open for servicing patients.
 - c. At a minimum, Code Blue Functions shall be provided in all Life Support, Monitoring Rooms, **and Nurse** Areas.
 - d. The minimum remote enunciation locations shall be:
 - 1) The Telephone / PBX Operator Room.
 - 2) The Police Control / Operations Room.
 - 3) Other location(s) that is specifically approved by VA Headquarters
TVE - 005OP3B DURING THE PROJECT DEVELOPMENT STAGES AND PRIOR TO EQUIPMENT PURCHASE.
2. In addition to the two (2) remote locations afore described, the following locations are the minimum required for additional Nurse Call /Code Blue Annunciation:
 - a. "On Call" Rooms.
 - b. Each Nurse Master Station.
 - c. Each Staff Station.
 - d. Each Duty Station.
 - e. Where indicated on drawings.
3. The MAXIMUM enunciation time period from placement of the Code Blue Call to enunciation at each remote locations is 10 seconds; and, 15 seconds to the subsequent enunciating media stations (i.e. PA, Radio Paging, Emergency Telephone or Radio Backup, etc.).

- K. Each Code Blue System shall be designed to provide continuous electrical supervision of the complete and entire system (i.e. dome light bulbs [each light will be considered supervised if they use any one or a combination of (UL) approved electrical supervision alternates, as identified in UL-1069, 1992 revision], wires, contact switch connections, circuit boards, data, audio, and communication busses, main and UPS power, etc.). All alarm initiating and signaling circuits shall be supervised for open circuits,

short circuits, and system grounds. Main and UPS power circuits shall be supervised for a change in state (i.e. primary to backup, low battery, UPS on line, etc.). When an open, short or ground occurs in any system circuit, an audible and visual fault alarm signal shall be initiated at the nurse control station and all remote locations.

- L. When the System is approved to connect to a separate communications system (i.e. LAN, WAN, Telephone, Public Address, radio paging, wireless systems, etc) the connection point shall meet the following minimum requirements for each hard wired / wireless connection (note each wireless system connection MUST BE APPROVED PRIOR TO CONTRACT BID BY VA HEADQUARTERS TVE - 0050P3B AND SPECTRUM MANAGEMENT - 0050P2B - hereinafter referred to as SM - 0050P2B):
 - 1. UL 60950-1/2.
 - 2. FIPS 142.
 - 3. FCC Part 15 Listed Radio Equipment restriction compliance approved by SM - 0050P2B.
- M. All passive distribution equipment shall meet or exceed -80 dB radiation shielding (aka RFI) shielding specifications and be provided with connectors specified by the OEM.
- N. All equipment face plates utilized in the system shall be stainless steel, anodized aluminum or UL approved cyclac plastic for the areas where provided. All patient stations and staff consoles shall have antimicrobial additives in the plastics to prevent biodegradation due to bacterial residue.
- O. Noise filters and surge protectors shall be provided for each equipment interface cabinet, headend cabinet, control console and local and remote amplifier locations to insure protection from input primary AC power surges and to insure noise glitches are not induced into low voltage data circuits.
- P. Plug-in connectors shall be provided to connect all equipment. System cable plan should be of standard Ethernet topology utilizing dedicated CAT 5E home runs to each location. Systems requiring separate cabling for power shall not be accepted.
- Q. The system architecture shall not require external power supplies. Systems requiring power supplies to be installed separately from the control equipment shall not be accepted.
- R. Audio Level Processing: System shall have the ability to use .wav files to create custom tones for each call type. The use of telephone cable to distribute RF signals, carrying system or sub-system AC or DC voltage is not acceptable and will not be approved. Additionally, each control location shall be provided with the equipment required to insure the system can

produce its designed audio channel capacity at each speaker identified on the contract drawings. The Contractor shall provide: a spare set of telephone paging modules as recommended by the OEM (as a minimum provide one spare module for each installed module); one spare audio power amplifier, one spare audio mixer, one spare audio volume limiter and/or compressor, and one spare audio automatic gain adjusting device, and minimum RF equipment recommended by the OEM.

S. Contractor is responsible for pricing all accessories and miscellaneous equipment required to form a complete and operating system. Unless otherwise noted in this Part, equipment quantities shall be as indicated on the drawings.

R. System Performance:

1. At a minimum, each distribution, interconnection, interface, terminating point and TCO shall be capable of supporting the Facility's Nurse Call and/or Code Blue System voice and data service as follows:
 - a. Shall be compliant with and not degrade the operating parameters of the Public Switched Telephone Network (PSTN) and the Federal Telecommunications System (FTS) at each PSTN and FTS interface (if attachment is permitted by TVE 0050P3B), interconnection and TCO terminating locations detailed on the contract drawings.
 - b. The System shall provide the following minimum operational functions:
 - 1) Code Blue calls shall be cancelable at the calling station only. The nurse call master station (s) that a managing Code Blue functions shall not have the ability to cancel Code Blue calls.
 - 2) Each Code Blue system shall be able to receive audio calls from all bedside stations simultaneously.
 - 3) Calls placed from any Code Blue station shall generate Code Blue emergency type audible and visual signals at each associated nurse control and duty station, respective dome lights and all local and remote annunciator panels. Calls placed from a bedside station shall generate emergency type visual signals at the bedside station and associated dome light(s) in addition to the previous stated stations and panels.
 - 4) Activating the silencing device at any location, while a Code Blue call or system fault is occurring shall mute the audible signals at the alarm location.
 - a) The audible alarm shall regenerate at the end of the selected time-out period until the call or fault is corrected.

- b) The visual signals shall continue until the call is canceled and/or a fault is corrected. When the fault is corrected, all signals generated by the fault shall automatically cease, returning the System to a standby status.
 - c) Audible signals shall be regenerated in any local or remote annunciator panel that is in the silence mode, in the event an additional Code Blue call is placed in any Code Blue system.
 - d) The additional Code Blue call shall also generate visual signals at all annunciators to identify the location of the call.
2. Each System Nurse Call location shall generate a minimum of distinct calls:
- a. Routine: single flashing dome lights & master station color and audio tone,
 - b. Staff Assist: rapid flashing dome lights & master station color and audio tone,
 - c. Emergency: Red flashing dome lights & master station color and audio tone,
 - d. Code Blue (if equipped): Blue flashing dome lights and master station color and audio tone,
 - e. Each generated call shall be cancelable at ONLY the originating location,
 - f. Staff Locator: Green Flashing dome lights & master station color and audio tone, and
 - g. System shall allow for each patient room to have a dedicated audio line to prevent line busy indication when calling back into patient locations

2.2 MANUFACTURERS

- A. The products specified shall be new, FCC and UL Listed, labeled and produced by Hill-Rom, the Proprietary manufacturer and OEM of record. Hill-Rom, the OEM of record shall:
 - 1. Maintain a stock of replacement parts for the item submitted,
 - 2. Maintain engineering drawings, specifications, and operating manuals for the items submitted, and
 - 3. Has published and distributed descriptive literature and equipment specifications on the items of equipment submitted at least 30 days prior to the Invitation for Bid.
- B. Specifications contained herein as set forth in this document detail the salient operating and performance characteristics of equipment in order for

VA to distinguish acceptable items of equipment from unacceptable items of equipment. When an item of equipment is offered or furnished for which there is a specification contained herein, the item of equipment offered or furnished shall meet or exceed the specification for that item of equipment.

C. Equipment Standards and Testing:

1. The System has been defined herein as connected to systems identified as Critical Service performing various Emergency and Life Support Functions. Therefore, at a minimum, the system shall conform to all aforementioned National and/or Local Life Safety Codes (which ever are the more stringent), NFPA, NEC, this specification, JCAHCO Life Safety Accreditation requirements, and the OEM recommendations, instructions, and guidelines.
2. All supplies and materials shall be listed, labeled or certified by UL or a NRTL where such standards have been established for the supplies, materials or equipment.
3. The provided equipment required by the System design and approved technical submittal must conform with each UL standard in effect for the equipment, as of the date of the technical submittal (or the date when the RE approved system equipment necessary to be replaced) was technically reviewed and approved by VA. Where a UL standard is in existence for equipment to be used in completion of this contract, the equipment must bear the approved UL seal.
4. Each item of electronic equipment to be provided under this contract must bear the approved UL seal or the seal of the testing laboratory that warrants the equipment has been tested in accordance with, and conforms to the specified standards. The placement of the UL Seal shall be a permanent part of the electronic equipment that is not capable of being transportable from one equipment item to another.

2.3 PRODUCTS

A. General.

1. Contractor is responsible for pricing all accessories and miscellaneous equipment required to form a complete and operating system. The equipment quantities provided herein shall be as indicated on the drawings with the exception of the indicated spare equipment.

B. CONTRACTOR FURNISHED EQUIPMENT:

a. Outlet and Junction Boxes:

1. Staff Console: 1-gang back box and finished plate for RJ-45 connection.
2. Patient Stations: 3-gang back box.

3. Staff Stations: 3-gang back box.
4. Bed Interface : 1-gang or 2-gang back box with single gang plaster ring (standard with lighting controls).
5. Sidecom Interface : 2-gang back box with single gang plaster ring.
6. Remote Call Stations: 1-gang deep back box.
7. Lavatory Stations: 1-gang deep back box .
8. Shower Stations: 1-gang deep back box .
9. Dome Lights: 1-gang back box.
10. Remote Infrared Receivers: 2-gang back box.

4. Statutory Authority Permitting Other than Full and Open Competition:

- (X) (1) Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements per FAR 6.302-1;
- () (2) Unusual and Compelling Urgency per FAR 6.302-2;
- () (3) Industrial Mobilization, Engineering, Developmental or Research Capability or Expert Services per FAR 6.302-3;
- () (4) International Agreement per FAR 6.302-4
- () (5) Authorized or Required by Statute FAR 6.302-5;
- () (6) National Security per FAR 6.302-6;
- () (7) Public Interest per FAR 6.302-7;

5. Demonstration that the Contractor's Unique Qualifications or Nature of the Acquisition Requires the Use of the Authority Cited Above (applicability of authority):

Nurse Call-Hill Rom, Navicare: Restriction of sources for this acquisition is justified in accordance with FAR 8.405-6(b)(3), the item is peculiar to one manufacturer. Although there are other manufacturers of HVAC controls, those controls are not compatible with the systems currently in place in the medical center (Hill Rom Nurse Call). Hill Rom Nurse Call is the system in use in building 1 at the VAMC. The use of Hill Rom meets the operational need of the Lebanon VAMC, by giving the nursing staff a single, reliable and full capability of use with Hill Rom beds currently at the facility . Use of other manufacturers would lead to storing additional inventory, functioning issues due to non compatibility with existing equipment, multiplicity of service contracts, and increased training and operator requirements.

6. Description of Efforts Made to ensure that offers are solicited from as many potential sources as deemed practicable:

The AE designing this project made every effort to specify generic items, however in design process only the products listed above meet the unique design criteria of this construction project. There is no restriction on suppliers of the products specified, only on the manufacturer. While these products are specified, most can be procured from multiple sources.

7. Determination by the Contracting Officer that the Anticipated Cost to the Government will be Fair and Reasonable:

It is anticipated that the prime construction contractor will obtain multiple quotes from various suppliers for the specified items, thus ensuring fair and reasonable price determination.

8. Description of the Market Research Conducted and the Results, or a Statement of the Reasons Market Research Was Not Conducted:

No market research was conducted as the prime contractor for these products is responsible for purchase/procurement of specified products. It is anticipated that prime construction contractor will be able to obtain price competition for these items.

9. Any Other Facts Supporting the Use of Other than Full and Open Competition:

These items are specified as design criteria to complete a unique atmosphere and work environment. Deviation from these products would jeopardize the aesthetic feel and functionality of the design.

10. Listing of Sources that Expressed, in Writing, an Interest in the Acquisition:

See Section VI above.

11. A Statement of the Actions, if any, the Agency May Take to Remove or Overcome any Barriers to Competition before Making subsequent acquisitions for the supplies or services required:

The products specified for this construction project are the only products that meet the Government's needs for the specified design. There is no restriction on suppliers of the products specified, only on the manufacturer. In the future the VA will continue to urge AE design firms to write specifications that allow for more diverse product placement and less restrictive requirements.

12. **Requirements Certification:** I certify that the requirement outlined in this justification is a Bona Fide Need of the Department of Veterans Affairs and that the supporting data under my cognizance, which are included in the justification, are accurate and complete to the best of my knowledge and belief.

Richard McKeary Assistant Chief Engineer March 14, 2012
for Thaddeus Kocuba Date
Chief of Engineering
Lebanon VA Medical Center

13. **Approvals in accordance with FAR 6.304**

a. **Contracting Officer's Certification (required):** I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Seth J. Custer 3/14/12
Seth J. Custer Date
Chief of Contracting
Lebanon VA Medical Center

b. **Network Contracting Manager's Delegate Certification (required):** I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Robert Del Campo 14 MARCH 2012
Robert Del Campo Date
Construction Team Manager
NCO 4