



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 BPH11084

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 ROBERTA WAGNER
 304-558-0067

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

HEALTH AND HUMAN RESOURCES
 BPH - STATE TRAUMA &
 EMERGENCY MEDICAL SYSTEM
 190 HART FIELD ROAD
 MORGANTOWN, WV
 26505 304-581-2900

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
10/29/2010				

BID OPENING DATE: 12/01/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		906-29		
<p>RADIOS FOR THE STATEWIDE MEDICAL COMMAND MICROWAVE</p> <p>REQUEST FOR QUOTATION</p> <p>TO PROVIDE THE WVDHHR STATE TRAUMA & EMERGENCY MEDICAL SYSTEM WITH AN OPEN END CONTRACT FOR THE PURCHASE OF DUAL-BAND MOBILE RADIOS, DUAL-BAND PORTABLE RADIOS, REMOTE CONTROL CONSOLETTES, BASE STATION RADIOS, BASE STATION ANTENNAS, AND SERVICE MONITORS FOR THE STATEWIDE MEDICAL COMMAND MICROWAVE COMMUNICATIONS AND INTEROPERABLE RADIO SYSTEM THAT INCLUDES RF COMMUNICATIONS CARRIED ON ITS CURRENT MICROWAVE INFRASTRUCTURE PER THE ATTACHED SPECIFICATIONS.</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AWARD..... AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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<p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM. EXHIBIT 4</p> <p>LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES</p>						

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<p>IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.</p> <p>REV. 3/88</p> <p>INQUIRIES: WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF BUSINESS ON 11/15/2010. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER OR E-MAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, E-MAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO:</p> <p>ROBERTA WAGNER DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25311</p> <p>FAX: 304-558-4115 E-MAIL: ROBERTA.A.WAGNER@WV.GOV</p>						

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BUYER: -----RW/FILE 22----- RFQ. NO.: -----BPH11084----- BID OPENING DATE: -----12/1/2010----- BID OPENING TIME: -----1:30 PM----- PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: ----- CONTACT PERSON (PLEASE PRINT CLEARLY): ----- ***** THIS IS THE END OF RFQ BPH11084 ***** TOTAL: _____						

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REQUEST FOR QUOTATION
WV DHHR BPH STEMS RFQ#BPH11084

The West Virginia Department of Health and Human Resources (DHHR), Bureau of Public Health (BPH), State Trauma and Emergency Medical System, (STEMS), hereinafter referred to as the "Agency," desires to establish an open-end contract for the purchase of Dual-Band Mobile Radios, Dual-Band Portable Radios, Remote Control Console's, Base Station Radios, Base Station Antennas, and Service Monitors. The Agency is responsible for operating the Statewide Medical Command System that includes RF communications carried on its current microwave infrastructure. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

1.0 GENERAL INFORMATION

- 1.1 It is the intent of this RFQ to establish a "Menu Bid" for Dual-Band Mobile Radios, Dual-Band Portable Radios, Remote Control Console's, Base Station Radios, Base Station Antennas, and Service Monitors.
- 1.2 The response shall be specific and complete in every detail and prepared in a simple and straight forward manner.
- 1.3 Successful bidder shall pre-pay freight costs for delivery to various locations in WV. The vendor will then be paid the actual freight costs upon submission of a copy of the original freight invoice to STEMS.
- 1.4 Quote shall include samples of pertinent warranties. Bidder must warranty product for a minimum of one (1) year.
- 1.5 Quote shall be valid for a period of One (1) year from date of opening with the option to renew for two (2) additional one (1) year periods.
- 1.6 Award of this contract will go to a single vendor who meets all of the specifications as outlined in the RFQ at the lowest price.
- 1.7 The Agency will issue a State contract order form to the vendor for items covered by this contract with item quantities and location for delivery.
- 1.8 Payment to vendor will be made following delivery of equipment ordered and once a final complete invoice is received. Invoice must include copies of the original freight invoice. Payment will be made within sixty (60) days of invoice.

2.0 DETAILED SPECIFICATIONS FOR DUAL-BAND MOBILE RADIOS, DUAL-BAND PORTABLE RADIOS, REMOTE CONTROL CONSOLETTES, BASE STATION RADIOS, BASE STATION ANTENNAS, and SERVICE MONITORS.

- 2.1 **See Attachment A – Dual Band Mobile Radio**
 - 2.1.1 Attachment A1 Dual Band Mobile Cost Sheet
- 2.2 **See Attachment B – Dual Band Portable Radio**
 - 2.2.1 Attachment B1 Dual Band Portable Cost Sheet
- 2.3 **See Attachment C – Remote Control Consolette**
 - 2.3.1 Attachment C1 Remote Control Consolette Cost Sheet
- 2.4 **See Attachment D – Base Station Radios**
 - 2.4.1 Attachment D1 Base Station Radios Cost Sheet
- 2.5 **See Attachment E – Base Station Antennas**
 - 2.5.1 Attachment E1 Base Station Antennas Cost Sheet
- 2.6 **See Attachment F – Service Monitor**
 - 2.6.1 Attachment F1 Service Monitor Cost Sheet

Attachment A

**Request for Quotation
For
Dual Band Mobile Radio**

West Virginia

**Department of Health and Human Resources (DHHR),
Bureau for Public Health (BPH), State Trauma and
Emergency Medical System (STEMS)**

1 General Description

The Department of Health and Human Resources, State Trauma and Emergency Medical System, desires to establish a contract for the purchase of a Federal Communications Commission, FCC, mandated Narrow Band Digital Project 25, P25, Compliant Dual Band Mobile Radio equipment and related accessories. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

A Dual Band Mobile radio is a device that in professional two-way radio systems, allows a user to establish contact with personnel on similar devices in one of two distinct frequency bands on a channel assigned within that band, by the pressing of a single button. It is one end of the communications link.

2 Requirements

Item	Requirement	Compliance	
		Yes	No
	General Operation-Dual Band Mobile Radio		
2.1	The device shall operate as a Dual Band Digital Mobile radio, organized into a primary band Ultra High Frequency, UHF, and secondary band Very High Frequency, VHF, operation.		
2.2	The Primary Band shall support UHF frequency range of 403 to 470 mega hertz, mhz.		
2.3	In primary Band mode, the device shall be P-25 Digital Common Air Interface, CAI, compliant and be able to operate on the West Virginia Interoperable Radio Project, WVIRP, system.		
2.4	The Secondary Band shall support VHF frequency range of 136 to 174 mhz.		
2.5	The device shall support Conventional Push to talk, PTT, transmissions.		
2.6	The device shall support P-25 Trunk PTT transmissions.		
2.7	The device shall have a minimum output power of 40 watts.		
2.8	The device shall support FCC Narrow Band.		
2.8.1	The device shall provide 25 Khz +/- 5 Khz channel spacing.		
2.8.2	The device shall provide 12.5 Khz +/- 2.5 Khz channel spacing.		
2.8.3	The device shall have the capability to provide 6.25 Khz +/- 2.5 Khz channel spacing.		
2.9	The device shall include any other software necessary to enable seamless roaming operation on the WVIRP radio system presently being installed in West Virginia, Dept of Health and Human Resources / STEMS Medical Command Network, and shall be capable of supporting multiple zone operation, and West Virginia Department of Natural Resources, WV DNR, Law Enforcement Agency.		

	Requirements continued		
2.10	The device shall be capable of receiving and transmitting on a minimum of 512 channels.		
2.11	All currently licensable frequencies shall be considered acceptable to the unit.		
2.12	Radio shall be capable via programming of wide band and narrow band operation (12.5 khz/25khz) respectively and capable of storing more than 512 channels.		
2.13	Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog operation, and /or trunked/non-trunked operation.		
2.14	There shall be no limitations in the radio with regard to what channels may be programmed into the radio in a given bank and in a particular mix of channels/talk groups		
2.15	The device shall support Zone selection to allow access to more groups of channels.		
2.16	The device shall support UHF and VHF analog Trunk.		
2.17	The device shall support UHF and VHF analog conventional.		
2.18	Radio shall have programmable encode and decode capability for continuous tone coded squelch system, CTCSS, tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.		
2.19	Radio shall be capable of using and storing user defined scan lists.		
2.20	Predefined Scan lists may be edited by the user utilizing buttons on the radio.		
2.21	Scan lists shall be able to be established at the user/keypad level.		
2.22	Scanning will be enabled and disabled by depressing no more than one button, one time.		
2.23	The device shall operate from standard vehicle 13.8v Direct Current ,DC, power source.		
2.24	Radio shall include necessary hardware and software to support Advanced Encryption Standard, AES, encryption.		

	Requirements continued		
2.25	The radio shall include the necessary hardware and software to support Advanced Digital Privacy, ADP, encryption.		
2.26	Radio shall be capable of holding multiple encryption keys.		
2.26.1	All encryption key loading shall be facilitated by a Motorola KVL3000 Plus.		
2.27	A keyloading cable compatible with the Motorola KVL3000 Plus shall be included as an option.		
2.28	The device shall have the capability to support P-25 phase II Time Division Multiple Access, TDMA, operation.		
2.29	The device shall have the ability to support Over the Air Re-keying.		
2.30	The device shall have the ability to support Programming over P25, POP25.		
2.31	The device shall have the capability to support autonomous Global Positioning System, GPS, operation.		
2.32	The device shall be capable of a minimum of 7.5watts of audio output.		
2.33	The device shall support an external speaker.		
2.34	The device shall support a standard public safety microphone.		
2.35	The device shall support remote mount configurations.		
2.36	The device shall support dual control head configurations.		
2.37	The device shall support remote control head operation.		
2.38	The device shall be in dash mountable.		
2.39	The device shall be under dash mountable.		

3 Common Requirements

Item	Requirement	Compliance	
		Yes	No
3.1	Environmental & Physical		
3.1.1	The device shall meet Ingress Protection Rating, IP54 standard.		
3.1.2	The device shall meet performance specifications over the temperature range of -30° C to 60° C.		
3.1.3	The device shall meet performance criteria of Military 810 C, D, E and F. Designed and tested to meet the U.S. military standards approval for Shock, Vibration, Rain & Dust, ensuring its ability to perform in rigorous work environments for mobile radios.		
3.1.4	The device shall have FCC type acceptance for full operation.		
3.1.5	The device shall meet RoHS. (Restriction of Hazardous Substances)		
3.1.6	The device shall have a comprehensive 3 year warranty.		
3.1.7	The device shall have maximum dimensions of 7.5"w x 3.5"h x 11"d		
3.1.8	The device shall not weigh more than 7 pounds.		
3.1.9	The front panel of the display shall not have a slope greater than 20 degrees from vertical.		
3.2	USER Interface-Display		
3.2.1	Radio shall have an alphanumeric display with a minimum of 2 rows of 14 characters each.		
3.2.2	Radio shall have Identification, ID, display capability.		

	Common Requirements continued		
3.2.3	Channel indication shall be by way of an alphanumeric display containing a minimum of 14 digits.		
3.2.4	Radio shall have a backlit display		
3.3	USER Interface-Function Access		
3.3.1	Radio shall have a minimum of 5 programmable function buttons.		
3.3.2	Radio shall have a menu navigational button capability.		
3.3.3	The device shall have an emergency button with a clearly distinctive color.		

4 Electrical Parameters

Item	Requirement	Compliance	
		Yes	No
4.1	Transmitter Specifications		
4.1.1	The transmitter shall maintain ± 0.0002 % frequency stability		
4.1.2	The transmitter shall maintain ± 5 kHz / ± 2.5 kHz modulation limiting.		
4.1.3	The transmitter shall have an audio response of +1, -3 dB.		
4.1.4	The transmitter shall have a FM Hum and noise rejection of 40 dB.		
4.1.5	The transmitter shall have an audio distortion of less than 2%.		
4.2	Receiver Specifications		
4.2.1	The receiver shall have ± 0.0002 % frequency stability.		
4.2.2	The receiver in Band shall have an analog sensitivity at 12 db Sinad of 0.3 microV.		
4.2.3	The receiver in Band shall have a digital sensitivity at 1% BER of 0.4 microV, and at 5% BER of 0.3 microV.		
4.2.4	The receiver in the UHF Band shall have Selectivity at 25khz of 90 dB, at 12.5khz of 70 dB.		
4.2.5	The receiver in Band shall have audio distortion of no more than 3 %.		
4.2.6	The receiver in UHF and VHF bands shall have 85dB of intermodulation rejection.		

5 General Capability

Item	Requirement	Compliance	
		Yes	No
5.1	The vendor shall provide installation manual, user manual and basic repair shop service manual.		
5.2	All programming operation software support shall operate on a Microsoft Windows pc with operating systems 2000/XP/Vista/Windows 7.		
5.3	The device shall be field software upgradeable.		
5.4	All features that are placed into the device by way of programming shall remain for the life of the radio		
5.5	Any lost feature (i.e., No. of Channels, type of radio, etc.) will be replaced at no charge during the warranty period.		
5.6	All firmware needed to correct radio product defects as identified by the user agency must be provided for free during the warranty period. This does not include enhancements or addition of features.		
5.7	All programming software for code-plug type of data shall be free of charge throughout the warranty period of the device.		
5.8	The device shall include any other software necessary to enable seamless roaming operation on the WVIRP radio system presently being installed in West Virginia, Dept of Health and Human Resources / STEMS Medical Command Network, and shall be capable of supporting multiple zone operation, and WV DNR Law Enforcement Agency.		
5.9	The vendor shall make available for purchase all programming software and cabling necessary to program the device.		
5.10	The vendor shall make available for purchase a version with AES encryption configuration.		

General Capability continued			
5.11	The vendor shall make available for purchase a version with ADP encryption configuration.		
5.12	The vendor shall make available for purchase a version with no encryption configuration.		
5.13	The vendor shall have a 100 watt RF power version for purchase.		

6 Accessories

Item	Requirement	Compliance	
		<u>Yes</u>	<u>No</u>
6.1	A remote microphone with coiled cord shall be provided.		
6.1.1	The microphone cable shall be capable of extending to a minimum of 24 inches.		
6.1.2	The microphone shall be available as a separate purchasable item.		
6.1.3	The microphone shall include a clip for mounting purposes.		
6.2	The vendor shall make available for purchase antennae for UHF R1 and VHF frequencies.		
6.3	The vendor shall make available for purchase an externally mounted speaker.		

RFQ#BPH11084
P25 Dual Band VHF and UHF Digital Mobile Radio
Attachment A1: Cost Sheet

The vendor must provide pricing inclusive of all associated costs for the following items including the cost of delivery. The estimated quantities contained on the cost sheet are intended for bid evaluation purposes only. Actual quantities may vary based upon the needs of the agency. Vendors should complete this pricing sheet in lieu of submission of manufacturer's quotes.

TIER	Description	Unit Cost	Estimated Qty.	Extended Cost
1	Digital Dual Band Mobile with: AES encryption Dash Mount		20	
2	Digital Dual Band Mobile with: AES encryption Remote Mount		5	
3	Digital Dual Band Mobile Basic: AES Encryption Remote Mount with Dual Control Head		5	
4	Digital Dual Band Mobile Basic: No encryption Dash Mount		10	
<i>Options for Items 1-4</i>				
	A) Remote Microphone		40	
	B) External Speaker		40	
	C) UHF Antenna		40	
	D) VHF Antenna		40	
	E) Hand Held Full function Control Head		5	
	F) Encryption Key Loader cable (for KVL3000+)		5	
	G) Programming Software		5	
	H) Programming Cable		5	
	I) High Power (100 watt) transmitter		20	
Total Bid:				\$0.00

**RFQ BPH11084
P25 Dual Band VHF and UHF Digital Mobile Radio
Attachment A1: Equipment List**

The vendor must provide manufacturer, model number, and part number for all the equipment bid. Vendors should include a copy of the manufacturer's product sheet and any other supporting documentation which demonstrates the vendor's adherence to the mandatory specifications as outlined in the specifications.

TIER	Description	Manufacturer	Model Number	Part Number /Configuration Codes
	1 Digital Dual Band Mobile with: AES encryption Dash Mount			
	2 Digital Dual Band Mobile with: AES encryption Remote Mount			
	3 Digital Dual Band Mobile Basic: AES Encryption Remote Mount with Dual Control Head			
	4 Digital Dual Band Mobile Basic: No encryption Dash Mount			
<i>Options for Items 1-4</i>				
	A) Remote Microphone			
	B) External Speaker			
	C) UHF Antenna			
	D) VHF Antenna			
	E) Hand Held Full function Control Head			
	F) Encryption Key Loader cable (for KVL3000+)			
	G) Programming Software			
	H) Programming Cable			
	I) High Power (100 watt) transmitter			

Attachment B

Request for Quotation
For
Dual Band Portable Radio

West Virginia

**Department of Health and Human Resources (DHHR),
Bureau for Public Health (BPH) State Trauma and
Emergency Medical System (STEMS)**

1 General Description

The Department of Health and Human Resources, State Trauma and Emergency Medical System, desires to establish a contract for the purchase of a FCC mandated Narrow Band Digital P25 Compliant Dual Band Portable handheld Radio equipment and related accessories. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

A Dual Band Portable radio is a device that in professional two-way radio systems, allows a user to establish contact with personnel on similar devices in one of two distinct frequency bands on a channel assigned within that band, by the pressing of a single button. It is one end of the communications link.

2 Requirements

Item	Requirement	Compliance	
		Yes	No
	General Operation-Dual Band Portable Radio		
2.1	The device shall operate as a Dual Band Portable radio, organized into a primary band Ultra High Frequency, UHF, and secondary band Very High Frequency, VHF, operation.		
2.2	The Primary Band shall support UHF frequency range of 403 to 470 mhz.		
2.3	In primary Band mode, the device shall be Project 25, P-25, Digital Common Air Interface, CAI, compliant and be able to operate on the West Virginia Interoperable Radio Project, WVIRP, system.		
2.4	The Secondary Band shall support VHF frequency range of 136 to 174 mhz.		
2.5	The device shall support Conventional Push to Talk, PTT, transmissions.		
2.6	The device shall support P-25 Trunk PTT transmissions.		
2.7	The device shall have a programmable output power of 2- 5 watts.		
2.8	The device shall support Federal Communications Commission, FCC, Narrow Band requirements.		
2.8.1	The device shall provide 25 Khz +/- 5 Khz channel spacing.		
2.8.2	The device shall provide 12.5 Khz +/- 2.5 Khz channel spacing.		
2.8.3	The device shall have the capability to provide 6.25 Khz +/- 2.5 Khz channel spacing.		

	Requirements continued		
2.9	The device shall include any other software necessary to enable seamless roaming operation on the WVIRP radio system presently being installed in West Virginia, and shall be capable of supporting multiple zone operation, Dept of Health and Human Resources / STEMS Medical Command Network and West Virginia Department of Natural Resources, WV DNR, Law Enforcement Agency.		
2.10	The device shall be capable of receiving and transmitting on a minimum of 512 channels.		
2.11	All currently licensable frequencies shall be considered acceptable to the unit.		
2.12	Radio shall be capable via programming of wide band and narrow band operation (12.5 khz/25khz) respectively and capable of storing more than 512 channels.		
2.13	Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog operation, and /or trunked/non-trunked operation.		
2.14	There shall be no limitations in the radio with regard to what channels may be programmed into the radio in a given bank and in a particular mix of channels/ talk groups.		
2.15	The device shall support Zone selection to allow access to more groups of channels.		
2.16	The device shall support UHF and VHF analog Trunk.		
2.17	The device shall support UHF and VHF analog conventional.		
2.18	Radio shall have programmable encode and decode capability for Continuous Tone Coded Squelch System, CTCSS, tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.		
2.19	Radio shall be capable of using and storing user defined scan lists.		
2.20	Predefined Scan lists may be edited by the user utilizing buttons on the radio.		

	Requirements continued		
2.21	Scan lists shall be able to be established at the user/keypad level.		
2.22	Scanning will be enabled and disabled by depressing no more than one button, one time.		
2.23	Battery life shall have the capability to be 8 hours or greater. A FM Intrinsically safe Lithium ION battery is acceptable. Nickel Cadmium batteries are not acceptable.		
2.23.1	A rapid charge battery shall be provided and be able to achieve full capacity in four hours.		
2.23.2	The device shall support duty cycle operation of 5/5/90 per Telecommunications Industry Association/Electronic Industry Alliance, TIA/EIA, Specification 903 (5% Receive/ 5% Transmit/ 90% standby)		
2.24	Radio shall include the necessary hardware and software to support Advanced Encryption Standard, AES, encryption.		
2.25	Radio shall include the necessary hardware and software to support Advanced Digital Privacy, ADP, encryption.		
2.26	Radio shall be capable of holding multiple encryption keys.		
2.27	All encryption key loading shall be facilitated by a Motorola KVL3000 Plus.		
2.28	A keyloading cable compatible with the Motorola KVL3000 Plus shall be included as an option.		
2.29	The device shall have the capability to support P-25 phase II Time Division Multiple Access, TDMA, operation.		
2.30	The device shall have the ability to support Over the Air Re-keying.		
2.31	The device shall have the ability to support Programming over P25, POP25.		
2.32	The device shall have the capability to support autonomous Global Positioning System, GPS, operation.		
2.33	The device shall support 1 watt audio speaker output.		
2.34	The device shall have the capability to support multiple speaker output.		

	Requirements continued		
2.35	The device shall support noise cancellation processing for noisy environments.		
2.36	The device shall have the capability to support dual microphone noise cancellation processing.		
2.37	The device shall provide a user selectable option for audible announcement of selected channel/talk group & Zone.		
2.38	The device shall not weigh more than 18 ounces with standard battery.		

3 Common Requirements

Item	Requirement	Compliance	
		Yes	No
3.1	Environmental & Physical		
3.1.1	The device shall meet Ingress Protection Rating, IP67 standard.		
3.1.2	The device shall meet performance specifications over the temperature range of -30° C to 60° C.		
3.1.3	The device shall meet performance criteria of Military 810 C, D, E and F Designed and tested to meet the U.S. military standards approval for Shock, Vibration, Rain & Dust, ensuring its ability to perform in rigorous work environments for mobile radios. for portable radios.		
3.1.4	The device shall have FCC type acceptance for full operation.		
3.1.5	The device shall meet RoHS. (Restriction of Hazardous Substances)		
3.1.6	The device shall have a comprehensive 3 year warranty.		

	Common requirements continued		
3.2	USER Interface-Display		
3.2.1	Radio shall have an alphanumeric display with a minimum of 4 rows of 14 characters each.		
3.2.2	Radio shall have Identification, ID, display capability		
3.2.3	Channel indication shall be by way of an alphanumeric display containing a minimum of 14 digits.		
3.2.4	Radio shall have a backlit display		
3.2.5	Radio shall have a separate icon for battery status.		
3.2.6	Radio shall have the capability to support a Top Display.		
3.2.7	For Radios that support a top display, the display shall have a minimum of 1 line of text, 8 characters and a battery status icon.		
3.3	USER Interface-Function Access		
3.3.1	Radio shall have a single function Home button that returns the user to the main menu.		
3.3.2	Radio shall have a minimum of 3 programmable function buttons.		
3.3.3	Radio shall have a menu navigational button capability.		
3.3.4	Channel selection will be by way of rotary knob to select a minimum of 16 channels		
3.3.5	The device shall have a separate button reserved for Zone selection.		
3.3.6	The device shall have an emergency button with a distinct color.		

4 Electrical Parameters

Item	Requirement	Compliance	
		Yes	No
4.1	Transmitter Specifications		
4.1.1	The transmitter shall maintain ± 0.000025 % frequency stability		
4.1.2	The transmitter shall maintain ± 5 kHz / ± 2.5 kHz modulation limiting.		
4.1.3	The transmitter shall have an audio response of +1, -3 dB.		
4.1.4	The transmitter shall have a FM Hum and noise rejection of -47dB.		
4.1.5	The transmitter shall have an audio distortion of less than 0.50%.		
4.2	Receiver Specifications		
4.2.1	The receiver shall have ± 0.000086 % frequency stability.		
4.2.2	The receiver in the UHF Band shall have an analog sensitivity at 12 db Sinad of 0.234 microV.		
4.2.3	The receiver in the UHF Band shall have a digital sensitivity at 1% Bit Error Rate, BER, of 0.3077 microV, and at 5% BER of 0.207 microV.		
4.2.4	The receiver in the VHF Band shall have an analog sensitivity at 12 db Sinad of 0.216 microV.		
4.2.5	The receiver in the VHF Band shall have a digital sensitivity at 1% BER of 0.277 microV, and at 5% BER of 0.188 microV.		

Electrical Parameters continued			
4.2.6	The receiver in the UHF Band shall have a selectivity at 25khz of 78 dB, at 12.5khz of 68 dB.		
4.2.7	The receiver in the VHF Band shall have a Selectivity at 25khz of 79 dB, at 12.5khz of 70 dB.		
4.2.8	The receiver in the UHF Band shall have audio distortion of no more than 0.90 %.		
4.2.9	The receiver in the VHF Band shall have audio distortion of no more than 1.20 %.		
4.2.10	The receiver in UHF and VHF bands shall have 80dB of intermodulation rejection.		

5 General Capability

Item	Requirement	Compliance	
		Yes	No
5.1	The vendor shall provide installation manual, user manual and basic repair shop service manual.		
5.2	All programming operation software support shall operate on a Microsoft Windows pc with operating systems 2000/XP/Vista/Windows 7.		
5.3	The device shall be field software upgradeable.		
5.4	All features that are placed into the device by way of programming shall remain for the life of the radio		
5.5	Any lost feature (i.e., No. of Channels, type of radio, etc.) will be replaced at no charge during the warranty period.		

General Capability continued			
5.6	All firmware needed to correct radio product defects as identified by the user agency must be provided for free during the warranty period. This does not include enhancements or addition of features.		
5.7	All programming software for code plug type of data shall be free of charge throughout the warranty period of the device.		
5.8	The device shall include any other software necessary to enable seamless roaming operation on the WVIRP radio system presently being installed in West Virginia, Dept of Health and Human Resources / STEMS Medical Command Network, and shall be capable of supporting multiple zone operation, and WV DNR Law Enforcement Agency.		
5.9	The vendor shall make available for purchase all programming software and cabling necessary to program the device.		
5.10	The vendor shall make available for purchase a version with AES encryption configuration.		
5.11	The vendor shall make available for purchase a version with ADP encryption configuration.		
5.12	The vendor shall make available for purchase a version with no encryption configuration.		

6 Accessories

Item	Requirement	Compliance	
		Yes	No
6.1	A remote microphone with coiled cord shall be provided.		
6.1.1	The microphone cable shall be capable of extending to a minimum of 24 inches.		
6.1.2	The microphone shall include a spring clip to attach to clothing.		

	Accessories continued		
6.1.3	The microphone shall be available as a separate purchasable item.		
6.2	A single unit desktop charger shall be provided to allow rapid charging from standard US 117v 60 hz AC power source,		
6.2.1	The charger shall be capable of both a fast and trickle charge to return the battery to a fully charged condition in 4 hours.		
6.2.2	The charger shall have the capability to incorporate a built in battery conditioner.		
6.2.3	The charger shall be available for individual purchase		
6.3	A Portable radio black leather belt loop shall be provided.		
6.3.1	The leather belt loop shall be available for individual purchase.		
6.4	A multi-unit charging device to allow rapid and trickle charging from a standard US 117v AC 60 hz power source shall be available for purchase.		
6.5	A vehicular charger that operates from 12 vdc shall be available for purchase.		
6.6	A spare FM intrinsically safe Lithium Ion, Lilon, battery shall be available for purchase.		
6.7	A plastic swivel belt clip attachment shall be available for purchase.		

RFQ#BPH11084
P25 Dual Band VHF and UHF Digital Portable Radio
Attachment B1: Cost Sheet

The vendor must provide pricing inclusive of all associated costs for the following items including the cost of delivery. The estimated quantities contained on the cost sheet are intended for bid evaluation purposes only. Actual quantities may vary based upon the needs of the agency. Vendors should complete this pricing sheet in lieu of submission of manufacturer's quotes.

TIER	Description	Unit Cost	Estimated Qty.	Extended Cost
	1 Digital Dual Band Portable with: AES encryption Top and Front display		15	
	2 Digital Dual Band Portable with: ADP encryption Top and Front display		5	
	3 Digital Dual Band Portable Basic: no encryption Top Display only		5	
<i>Options for Items 1-3</i>				
	A) Remote Microphone		20	
	B) AC desktop Charging Station		20	
	C) Black Leather Belt Loop		20	
	D) Multi-unit Charging Station		5	
	E) Vehicular Charger Station		10	
	F) FM LiION Battery		20	
	G) Plastic Swivel Belt Clip		20	
	H) Encryption Key Loader cable (for KVL3000+)		1	
	I) Programming Software		5	
	J) Programming Cable		5	
Total Bid:				\$ -
Award of this contract will go to a single vendor who meets all of the specifications as outlined in the RFQ at the lowest price.				
Above numbers are sample estimates only. The actual number ordered may be more or less.				

**RFQ BPH11084
P25 Dual Band VHF and UHF Digital Portable Radio
Attachment B1: Equipment List**

The vendor must provide manufacturer, model number, and part number for all the equipment bid. Vendors should include a copy of the manufacturer's product sheet and any other supporting documentation which demonstrates the vendor's adherence to the mandatory specifications as outlined in the specifications.

TIER	Description	Manufacturer	Model Number	Part Number /Configuration Codes
1	Digital Dual Band Portable with: AES encryption Top and Front display			
2	Digital Dual Band Portable with: ADP encryption Top and Front display			
3	Digital Dual Band Portable Basic: no encryption Top Display only			
<i>Options for Items 1-3</i>				
	A) Remote Microphone			
	B) AC desktop Charging Station			
	C) Black Leather Belt Loop			
	D) Multi-unit Charging Station			
	E) Vehicular Charger Station			
	F) FM LIION Battery (Intrinsically Safe)			
	G) Plastic Swivel Belt Clip			
	H) Encryption Key Loader cable (for KVL3000+)			
	I) Programming Software			
	J) Programming Cable			

Attachment C

Request for Quotation
For
Digital Remote Controlled Base
Station System

West Virginia

**Department of Health and Human Resources (DHHR),
Bureau for Public Health, (BPH), State Trauma and
Emergency Medical System (STEMS)**

1 General Description

The Department of Health and Human Resources, State Trauma and Emergency Medical System, desires to establish a contract for the purchase of a Federal Communications Commission, FCC, mandated Narrow Band Digital Project 25, P25, Compliant Digital Remote Control Base Station System and related accessories. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

The digital remote controlled Base Station System is a Push to Talk, PTT, radio solution that allows the Radio Frequency, RF, base station component to be remotely located from the user interface by up to 1000 ft. It is to use digital encoded frequency tones between the user interface and the RF base station device. Full control of normal base station operation and PTT exchanges is required.

The digital remote controlled Base Station System is composed of three devices: a RF base station device that connects to the external RF environment, a device that aggregates user access and a desk set device for the user.

The base station device provides the RF circuitry to communicate to other base stations, repeaters or RF elements on the selected frequency channels in a P-25 compliant network.

The aggregate device allows several separately located end user devices to interface with the RF base station. The purpose of the adapter is to allow several desk set devices to utilize the base station and to condition signal levels appropriate for proper operation.

The desk set device is similar in function to a business grade telephone. It provides the user a voice and audio path to the Two-Way communication system. The desk set also provides the user control of the base station parameters. It has a corded handset, display for status, and internal speaker and microphone.

2 RF Base Station Requirements

item	Requirement	Compliance	
		Yes	No
2.1	General Operation-RF Base Station		
2.1.1	The device shall operate as a RF base Station.		
2.1.2	The Primary Band shall support Ultra High Frequency, UHF, frequency range of 403 to 470 MHz.		
2.1.3	The device shall be P-25 Digital Common Air Interface, CAI, compliant and be able to operate on the West Virginia Interoperable Radio Project, WVIRP, system.		
2.1.4	The device shall support Conventional PTT transmissions.		
2.1.5	The device shall support P-25 Trunk PTT transmissions.		
2.1.6	The device shall have a minimum output RF power of 40 watts.		
2.1.7	The device shall support FCC Narrow Band.		
2.1.8	The device shall provide 25 Khz +/- 5 Khz channel spacing.		
2.1.9	The device shall provide 12.5 Khz +/- 2.5 Khz channel spacing.		
2.1.10	The device shall include any other software necessary to enable seamless roaming operation on the WVIRP radio system presently being installed in West Virginia, and shall be capable of supporting multiple zone operation, the Dept. of Health and Human Resources/STEMS Medical Command Network, and West Virginia Department of Natural Resources, WV DNR, Law Enforcement Agency.		

	RF Base Station Requirements contd.		
2.1.11	The device shall be capable of receiving and transmitting on a minimum of 870 channels.		
2.1.12	All currently licensable frequencies shall be considered acceptable to the unit.		
2.1.13	Radio shall be capable via programming of wide band and narrow band operation (12.5 khz/25khz) respectively and capable of storing more than 870 channels.		
2.1.14	Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog operation, and /or trunked/non-trunked operation.		
2.1.15	There shall be no limitations in the radio with regard to what channels may be programmed into the radio in a given bank and in a particular mix of channels/talk groups		
2.1.16	The device shall support Zone selection to allow access to more groups of channels.		
2.1.17	The device shall support UHF and Very High Frequency, VHF, analog Trunk.		
2.1.18	The device shall support UHF and VHF analog conventional.		
2.1.19	Radio shall have programmable encode and decode capability for continuous tone coded squelch system, CTCSS, tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.		
2.1.20	Radio shall include necessary hardware and software to support Advanced Encryption Standard, AES, encryption.		

RF Base Station Requirements contd.			
2.1.21	Radio shall include necessary hardware and software to support Advanced Digital Privacy, ADP, encryption.		
2.1.22	Radio shall be capable of holding multiple encryption keys.		
2.1.23	All encryption key loading shall be facilitated by a Motorola KVL3000 Plus.		
2.1.23	A keyloading cable compatible with the Motorola KVL3000 Plus shall be included as an option.		
2.1.24	The device shall be capable of a minimum of 7.5watts of audio output.		
2.1.25	The device shall support Over the Air Re-keying.		
2.1.26	The device shall support Programming over P25, POP25.		

2.2 Electrical Parameters

Item	RF Base Station Requirement	Compliance	
		Yes	No
2.2.1	Transmitter Specifications		
2.2.1.1	The transmitter shall maintain 2 parts per million, ppm, frequency stability.		
2.2.1.2	The transmitter shall maintain ± 5 kHz / ± 2.5 kHz modulation limiting.		
2.2.1.3	The transmitter shall have an audio response of +1, -3 dB.		
2.2.1.4	The transmitter shall have a FM Hum and noise rejection of 40 dB.		
2.2.1.5	The transmitter shall have an audio distortion of less than 3%.		

Electrical Parameters continued			
2.2.2	Receiver Specifications		
2.2.2.1	The receiver shall have 2 ppm frequency stability.		
2.2.2.2	The receiver in Band shall have an analog sensitivity at 12 db Sinad of 0.3 microV.		
2.2.2.3	The receiver in Band shall have a digital sensitivity at 1% Bit Error Rate, BER, of 0.4 microV, and at 5% BER of 0.3 microV.		
2.2.2.4	The receiver in Band shall have a Selectivity at 25khz of 82 dB, at 12.5khz of 75 dB.		
2.2.2.5	The receiver in Band shall have audio distortion of no more than 3 %.		
2.2.2.6	The receiver in band shall have 85dB of intermodulation rejection.		

2.3 Environmental & Physical Requirements

Item	RF Base Station	Compliance	
		Yes	No
2.3.1	The device shall meet Ingress Protection Rating, IP54, standard.		
2.3.2	The device shall meet performance specifications over the temperature range of -30° C to 60° C.		
2.3.3	The device shall meet performance criteria of Military 810 C, D, E and F for Rf Base station devices. Designed and tested to meet the U.S. military standards approval for Shock, Vibration, Rain & Dust, ensuring its ability to perform in rigorous work environments for mobile radios.		
2.3.4	The device shall have FCC type acceptance for full operation.		

	Environmental & Physical Requirements continued		
2.3.5	The device shall meet Restriction of Hazardous Substances, RoHS.		
2.3.6	The device shall have a comprehensive 3 year warranty.		
2.3.7	The device shall operate from either 13.8vdc or 120 vac 60 hz power supply.		
2.3.8	The device shall have a desk or table self supporting mount.		
2.3.9	The device shall provide alternate remote mount hardware.		
2.3.10	The device shall be equipped with a UHF antenna.		

3 Desk Set Device Requirements

Item	Desk Set Device Requirement	Compliance	
		Yes	No
3.1.1	The device shall control up to 4 base stations		
3.1.2	The device shall provide individual channel select, transmit indicator and transmit control		
3.1.3	The device shall allow speaker selection and control.		
3.1.4	The device shall allow individual volume control per channel		
3.1.5	The device shall allow mute (-24db) on a channel basis.		
3.1.6	The device shall provide a dedicated logging recorder output, 600 ohm reference.		
3.1.7	The device shall provide ability to patch any two channels together.		
3.1.8	The device shall provide ability to simultaneously select up to four channels.		

	Desk Set Device Requirements continued		
3.1.9	The device shall support PTT.		
3.1.10	The device shall support full duplex operation.		
3.1.11	The device shall provide an internal microphone for hands free operation.		
3.1.12	The device shall provide monitor Light Emitting Diode, LED, indicator		
3.1.13	The device shall provide an internal speaker.		
3.1.14	The device shall operate from a 120 vac 60 hz power supply		
3.1.15	The device shall provide an intercom to parallel desk set devices.		
3.1.16	The device shall be programmable from the front panel		
3.1.17	The device shall be wall mountable.		
3.1.18	The device shall have a minimum of a 2 line 20 character back lit display.		
3.1.19	The device shall display the Unit Identification, ID, or Aliases of the caller		
3.1.20	The device shall provide Voice alert, and call alert to a remote user.		
3.1.21	The device shall display status and message codes.		
3.1.22	The device shall be able to enable or disable a remote portable.		
3.1.23	The device shall be able to perform a radio check.		
3.1.24	The device shall support emergency alarm via display, audible tone, or external output signal.		
3.1.25	The device shall have a minimum of 18 programmable buttons.		
3.1.26	The device shall support a minimum of 16 frequency tones for remote control purposes.		
3.1.27	The device shall provide all capabilities at a distance up to 1000ft of either a 2 or 4 conductor standard 600 ohm telephone cable.		

Desk Set Device Requirements contd.			
3.1.28	The device audio output shall be 0.8w minimum at no more than 3% THD.		
3.1.29	Receive and transmit audio shall be adjustable from -30 to +11 dbm.		
3.1.30	The device audio frequency response shall be from 300 to 3300 Hz +3, -3 dB @ less than 3% distortion		
3.1.31	Device shall operate over the temperature range 0 ⁰ to +50 ⁰ deg C		
3.1.32	The device shall not use DC signals for base station control.		

4 Aggregate Device Requirements

Item	Requirement	Compliance	
		Yes	No
4.1.1	The device shall connect up to 10 desk set stations.		
4.1.2	The device shall support a minimum of 16 frequency tones for control purposes.		
4.1.3	The device shall allow a RF base station to be controlled by a desk set device.		
4.1.4	The device shall provide LED indicators for Power, PTT activity, monitor, and squelch detect.		
4.1.5	The device shall support a local desk style microphone.		
4.1.6	The device shall support both 2 or 4 wire audio.		
4.1.7	The device shall support local audio level adjustments.		
4.1.8	The device shall be rack mountable or desk top mountable.		
4.1.9	The device shall support PTT.		
4.1.10	The device shall support full duplex operation.		
4.1.11	The device shall provide RJ 11 receptacles for desk set connections.		

Aggregate Device Requirements continued			
4.1.12	The device shall support/maintain operation located a maximum of 10 ft from the RF base station device.		
4.1.13	The device shall provide a DB 25 connector for connection to the RF base station device.		
4.1.14	The device shall provide all capabilities at up to 1000ft of both 2 or 4 conductor standard 600 ohm telephone cable to the desk set device.		
4.1.15	Device shall operate over the temperature range 0 ⁰ to +50 ⁰ deg C		
4.1.16	The device shall not use DC signals for desk set control.		
4.1.17	The device shall operate from 120 vac 60 hz power supply		
4.1.18	Receive and transmit audio shall be adjustable from -30 to +11 dbm.		
4.1.19	The device audio frequency response shall be from 300 to 3300 Hz +3, -3 dB @ less than 3% distortion		
4.1.20	Device shall operate over the temperature range 0 ⁰ to +50 ⁰ deg C		

5 General

Item	Requirement	Compliance	
		Yes	No
5.1	The vendor shall provide installation manual, user manual and basic repair shop service manual.		
5.2	All programming operation software support shall operate on a Microsoft Windows pc with operating systems 2000/XP/Vista/Windows 7.		
5.3	The device shall be field software upgradable.		

	General continued		
5.4	All features that are placed into the device by way of programming shall remain for the life of the radio		
5.5	Any lost feature (i.e., No. of Channels, type of radio, etc.) will be replaced at no charge during the warranty period.		
5.6	All firmware needed to correct radio product defects as identified by the user agency must be provided for free during the warranty period. This does not include enhancements or addition of features.		
5.7	All programming software for code-plug type of data shall be free of charge throughout the warranty period of the device.		
5.8	The device shall include any other software necessary to enable seamless roaming operation on the WVIRP radio system presently being installed in West Virginia, Dept of Health and Human Resources / STEMS Medical Command Network, and shall be capable of supporting multiple zone operation, and WV DNR Law Enforcement Agency.		
5.9	The vendor shall make available for purchase all programming software and cabling necessary to program the device.		
5.10	The vendor shall have a 100 watt RF power version for purchase		
5.11	The vendor shall make available for purchase a version with AES encryption configuration.		
5.12	The vendor shall make available for purchase a version with ADP encryption configuration.		
5.13	The vendor shall make available for purchase a version with no encryption configuration.		

6 Accessories

Item	Requirement	Compliance	
		Yes	No
6.1	The vendor shall make available for purchase all three of the components, RF base station, Aggregator, and Desk Set individually.		
6.2	The vendor shall make available for purchase antennae for UHF R1 frequencies.		
6.3	The vendor shall make available for purchase an externally mounted speaker.		
6.4	The vendor shall make available for purchase a control head with display for the RF base station for local control.		
6.4.1	The device shall have an alphanumeric display with a minimum of 2 rows of 14 characters each.		
6.4.2	The device shall have ID display capability.		
6.4.3	Channel indication shall be by way of an alphanumeric display containing a minimum of 14 digits.		
6.4.4	The device shall have a backlit display		
6.5	The vendor shall make available for purchase a hand held microphone for the RF base station for local PTT functions.		

Attachment D

**Request for Quotation
For
Base Station Devices**

West Virginia

**Department of Health and Human Resources (DHHR),
Bureau for Public Health (BPH), State Trauma and
Emergency Medical System (STEMS)**

1 General Description

The Department of Health and Human Resources, State Trauma and Emergency Medical System, desires to establish a contract for the purchase of a Federal Communications Commission, FCC, mandated Narrow Band Compliant Conventional, Analog, Ultra High Frequency, UHF, and Very High Frequency, VHF, Base Stations. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

This request for quotation contains specifications for two Base Station types, a UHF model and a VHF model. The contract may be awarded for each item individually or for both, dependent upon the responses.

A base Station is a device that in a professional two-way radio system is used to maintain contact with a dispatch fleet of hand-held or mobile radios. The base station is one end of the communications link.

Item	Requirement	Compliance	
		Yes	No
2	General Operation-UHF		
2.1	The device shall operate as a Base Station.		
2.2	The device shall operate on Analog signals		
2.3	The device shall support Conventional Push to Talk, PTT, transmissions.		
2.4	The device shall operate in the UHF frequency range of 403 to 470 Mhz		
2.5	The device shall support a minimum of 16 channels.		
2.6	The device shall support FCC Narrow Band.		
2.6.1	The device shall provide 25 Khz +/- 5 Khz channel spacing.		
2.6.2	The device shall provide 12.5 Khz +/- 2.5 Khz channel spacing.		
2.6.3	The device shall have the capability to provide 6.25 Khz +/- 2.5 Khz channel spacing.		
2.7	The device shall not require the use of an external timing reference in order to achieve channel spacing, bandwidth, and operation.		
2.8	The device shall transmit at full power of 100 watts in a continuous duty cycle on all channels and over the full channel bandwidth.		
2.9	The device shall contain software which will allow it to be field configurable for Time Division Multiple Access, TDMA, Repeater operation.		
2.10	The device when configured for Digital Repeater operation shall support single site operation.		
2.11	The device when configured for Digital Repeater operation shall support multi-site IP connect.		
2.12	The device shall support field configuration to allow it to operate in a Digital Trunk system.		
2.13	The device shall provide front panel access for a service speaker.		
2.14	The Device shall provide front panel access for a service microphone.		

item	Requirement	Compliance	
		Yes	No
3	General Operation-VHF		
3.1	The device shall operate as a Base Station.		
3.2	The device shall operate on Analog signals		
3.3	The device shall support Conventional PTT transmissions.		
3.4	The device shall operate in the VHF frequency range of 150 to 174 Mhz		
3.5	The device shall support a minimum of 32 channels.		
3.6	The device shall support FCC Narrow Band.		
3.6.1	The device shall provide 25 Khz +/- 5 Khz channel spacing.		
3.6.2	The device shall provide 12.5 Khz +/- 2.5 Khz channel spacing.		
3.7	The device shall not require the use of an external timing reference in order to achieve channel spacing, bandwidth, and operation.		
3.8	The device shall transmit at full power of 100 watts in a continuous duty cycle on all channels and over the full channel bandwidth.		

4 Common Requirements for the UHF and VHF Base Station

Item	Requirement	Compliance	
		Yes	No
4.1	Environmental & Physical		
4.1.1	The device must operate within the performance specifications listed in this document from standard single phase AC voltage and frequency available at the main supply range of 85 – 264 VAC and 47-63 Hz.		

	Common Requirements continued		
4.1.2	The device shall meet performance specifications over the temperature range of - 30° C to 60° C.		
4.1.3	The device performance shall conform to testing standards outlined in Telecommunication Industry Association, TIA-603-B.		
4.1.4	The device shall have FCC type acceptance for full operation.		
4.1.5	The Device shall not require adjunct cooling devices or mechanism other than convectional air flow.		
4.1.6	The device shall meet Restriction of Hazardous Substances, RoHS.		
4.1.7	The device shall fit in 4 rack units (7 inches) in an EIA standard 19" rack.		
4.1.8	The device shall have a comprehensive 2 year warranty.		

4.2	USER Interface		
4.2.1	The device shall provide illuminated indicator for power and status. It shall illuminate Green, for power on and normal operation. It shall illuminate Red for power on and detected failure.		
4.2.2	The device shall provide illuminated indicators for Transmit and Receive. It shall illuminate Green for enabled operation.		
4.2.3	The device shall support US based Tone Remote control.		

4.3	Transmitter/Receiver Specifications		
4.3.1	The device transmit audio response shall be +1,-3 dB from 6 dB per octave pre-emphasis.		
4.3.2	The device transmit audio distortion shall be Less than 3% at 1000 Hz; 60% RSD.		
4.3.3	The devices receive selectivity per TIA 603-D shall be 75 dB.		
4.3.4	The device receive audio response shall be +1,-3 dB from 6 dB per octave pre-emphasis.		
4.3.5	The device receive audio distortion shall be Less than 3% at 1000 Hz; 60% RSD.		

4.4	General Capability		
4.4.1	The vendor shall provide installation manual, user manual and basic repair shop service manual.		
4.4.2	All programming operation software support shall operate on a Microsoft Windows pc with operating systems 2000/XP/Vista/Windows 7.		
4.4.3	The device shall contain software which will allow it to be field configurable for Analog Repeater operation.		
4.4.4	The device shall be field software upgradable.		
4.4.5	The device shall support field configuration to allow it to operate in an Analog Trunk system.		
4.4.6	The device shall have the necessary software to connect to the Department of Health and Human Resources, State Trauma and Emergency Medical System Medical Command Network.		

RFQ#BPH11084
 Base Station Radio
 Attachment D1: Cost Sheet

The vendor must provide pricing inclusive of all associated costs for the following items including the cost of delivery. The estimated quantities contained on the cost sheet are intended for bid evaluation purposes only. Actual quantities may vary based upon the needs of the agency. Vendors should complete this pricing sheet in lieu of submission of manufacturer's quotes.

TIER	Description	Unit Cost	Estimated Qty.	Extended Cost
1U	Base Station UHF with Mounting Hardware		100	
1V	Base Station VHF with Mounting Hardware		100	
<i>Options for Items 1-2</i>				
	A) Software Upgrade for Digital Repeater Mode UHF		100	
	B) Software Upgrade for Digital Repeater Mode VHF		100	
Total Bid:				\$0.00
Award of this contract will go to a single vendor who meets all of the specifications as outlined in the RFQ at the lowest price.				

RFQ BPH11084
Base Station Radio
Attachment D1: Equipment List

The vendor must provide manufacturer, model number, and part number for all the equipment bid. Vendors should include a copy of the manufacturer's product sheet and any other supporting documentation which demonstrates the vendor's adherence to the mandatory specifications as outlined in the specifications.

TIER	Description	Manufacturer	Model Number	Part Number /Configuration Codes
1U	Base Station UHF with Mounting Hardware			
1V	Base Station VHF with Mounting Hardware			
<i>Options for Items 1-2</i>				
A)	Software Upgrade for Digital Repeater Mode UHF			
B)	Software Upgrade for Digital Repeater Mode VHF			
C)				
D)				
E)				
F)				
G)				
H)				

Attachment E

Request for Quotation
For
Base Station Antenna and
Supporting Equipment

West Virginia

**Department of Health and Human Resources (DHHR),
Bureau for Public Health (BPH), State Trauma and
Emergency Medical System (STEMS)**

1 General Description

The Department of Health and Human Resources, State Trauma and Emergency Medical System desires to establish a contract for the purchase of tower site grade antenna for Ultra High Frequency, UHF, and Very High Frequency, VHF, frequencies and site supporting equipment. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

2 UHF Antenna Requirements Tier 1

Item	Requirement	Compliance	
		Yes	No
2.1	The device is a low Passive Intermodulation, PIM, External grade Dipole antenna for UHF frequencies.		
2.1.1	The device shall be tuned over the bandwidth from 400 Mhz to 520 Mhz.		
2.1.2	The device shall have a Voltage Standing Wave Ratio, VSWR, less than 1.5:1 (14dB).		
2.1.3	The device shall have a maximum power rating of 500 watts.		
2.1.4	The device shall have a nominal impedance of 50 ohms.		
2.1.5	The device shall have a nominal gain of 6dBd.		
2.1.6	The horizontal beam width shall be Omni directional +/- 0.5 dB.		
2.1.7	The vertical beam width shall be 30 degrees.		
2.1.8	The PIM shall be -140 dBc.		
2.1.9	The device shall have mounting brackets.		
2.1.10	The device shall withstand up to 149 miles per hour, mph, gusts, no ice.		
2.1.11	The device shall withstand up to a 117 mph gust with ice.		
2.1.12	The device shall have no downward tilt.		
2.1.13	The device shall be approximately 83" in length.		

3 UHF Antenna Requirements tier 2

item	Requirement	Compliance	
		Yes	No
3.1	The device is a low PIM External grade Dipole antenna for UHF frequencies.		
3.1.1	The device shall be tuned over the bandwidth from 400 Mhz to 520 Mhz.		
3.1.2	The device shall have a VSWR less than 1.5:1 (14dB).		
3.1.3	The device shall have a maximum power rating of 500 watts.		
3.1.4	The device shall have a nominal impedance of 50 ohms.		
3.1.5	The device shall have a nominal gain of 6dBd.		
3.1.6	The horizontal beam width shall be Omni directional +/- 0.5 dB.		
3.1.7	The vertical beam width shall be 9 degrees.		
3.1.8	The PIM shall be -140 dBc.		
3.1.9	The device shall have mounting brackets.		
3.1.10	The device shall withstand up to 134 mph gusts, no ice.		
3.1.11	The device shall withstand up to a 104 mph gust with ice.		
3.1.12	The device shall have 0 degree or 3 degree downward tilt.		
3.1.13	The device shall be approximately 197" in length.		

4 VHF Antenna Requirements tier 1

item	Requirement	Compliance	
		Yes	No
4.1	The device is a low PIM External grade Dipole antenna for VHF frequencies.		
4.1.1	The device shall be tuned over the bandwidth from 136 Mhz to 174 Mhz.		
4.1.2	The device shall have a VSWR less than 1.5:1 (14dB).		
4.1.3	The device shall have a maximum power rating of 750 watts.		
4.1.4	The device shall have a nominal impedance of 50 ohms.		
4.1.5	The device shall have a nominal gain of 3dBd.		
4.1.6	The horizontal beam width shall be Omni directional +/- 0.5 dB.		
4.1.7	The vertical beam width shall be 35 degrees.		
4.1.8	The PIM shall be -140 dBc.		
4.1.9	The device shall have mounting brackets.		
4.1.10	The device shall withstand up to a 149 mph gusts, no ice.		
4.1.11	The device shall withstand up to a 115 mph gust with ice.		
4.1.12	The device shall have no downward tilt.		
4.1.13	The device shall be approximately 138" in length.		

5 VHF Antenna Requirements tier 2

Item	Requirement	Compliance	
		Yes	No
5.1	The device is a low PIM External grade Dipole antenna for VHF frequencies.		
5.1.1	The device shall be tuned over the bandwidth from 136 Mhz to 174 Mhz.		
5.1.2	The device shall have a VSWR less than 1.5:1 (14dB).		
5.1.3	The device shall have a maximum power rating of 750 watts.		
5.1.4	The device shall have a nominal impedance of 50 ohms.		
5.1.5	The device shall have a nominal gain of 6dBd.		
5.1.6	The horizontal beam width shall be Omni directional +/- 0.5 dB.		
5.1.7	The vertical beam width shall be 18 degrees.		
5.1.8	The PIM shall be -140 dBc.		
5.1.9	The device shall have mounting brackets.		
5.1.10	The device shall withstand up to a 114 mph gusts, no ice.		
5.1.11	The device shall withstand up to a 89 mph gust with ice.		
5.1.12	The device shall have 0 degree or 3 degree downward tilt.		
5.1.13	The device shall be approximately 248" in length.		

6 UHF Antenna Supporting Equipment Requirements

Item	Requirement	Compliance	
		Yes	No
6.1	The device is an UHF Circulator and Isolator for RF transmission systems.		
6.1.1	The device shall support 15 and 60 watt loading.		
6.1.2	The device shall operate over the 406 to 512 Mhz frequency band.		
6.1.3	The device shall have an insertion loss 1.0 DB at 125 w power rating.		
6.1.4	The device shall include a harmonic filter.		
6.1.5	The device shall have a reverse isolation of 50 DB over a band width 12 mhz		
6.2	The device is an UHF Duplexor for RF transmission systems.		
6.2.1	The device shall operate over the 406 to 512 MHz frequency band.		
6.2.2	The device shall have an insertion loss of 1.5 dB and a frequency separation of 0.8 MHz.		
6.2.3	The device shall have an isolation of 75 DB minimum and 90 DB maximum.		
6.2.4	The device shall have an input power rating of 350 w.		
6.2.5	The device shall be 19" standard rack mounting.		
6.2.6	The device shall occupy no more than 4 rack units, (1 ru= 1.75 inches)		

	UHF Antenna Supporting Equipment Requirements continued		
6.3	The device is an UHF Combiner for RF transmission systems.		
6.3.1	The device shall operate over the 406-512 MHz frequency band.		
6.3.2	The device shall have a maximum insertion loss of 3.7 DB with minimum spacing of 200 KHz.		
6.3.3	The device shall have 70 DB isolation from TX to TX input.		
6.3.4	The device shall support 125w per input.		
6.3.5	The device shall be offered in either 2 or 4 channel input.		
6.3.6	The device shall fit in a standard 19" rack.		

7 VHF Antenna Supporting Equipment Requirements

<u>Item</u>	<u>Requirement</u>	<u>Compliance</u>	
		<u>Yes</u>	<u>No</u>
7.1	The device is a VHF Circulator and Isolator for RF transmission systems.		
7.1.1	The device shall support 60 watt loading.		
7.1.2	The device shall operate over the 132 to 174 Mhz frequency band.		
7.1.3	The device shall have an insertion loss 0.4 DB at 125 w power rating.		
7.1.4	The device shall have a reverse isolation of 35 DB over a band width 5 mhz		
7.2	The device is a VHF Duplexor for RF transmission systems.		

	VHF Antenna Supporting Equipment Requirements continued		
7.2.1	The device shall operate over the 132 to 174 MHz frequency band.		
7.2.2	The device shall have an insertion loss of 1.5 dB and a frequency separation of 0.5 MHz.		
7.2.3	The device shall have an isolation of 80 DB.		
7.2.4	The device shall have an input power rating of 350 w.		
7.2.5	The device shall be 19" standard rack mounting.		
7.2.6	The device shall occupy no more than 4 rack units, (1 ru= 1.75 inches)		
7.3	The device is a VHF Combiner for RF transmission systems.		
7.3.1	The device shall operate over the 132 to 174 MHz frequency band.		
7.3.2	The device shall have a maximum insertion loss of 3.2 DB with minimum spacing of 150 KHz.		
7.3.3	The device shall have 70 DB isolation from TX to TX input.		
7.3.4	The device shall support 125w per input.		
7.3.5	The device shall be offered in either 2 or 4 channel input.		
7.3.6	The device shall fit in a standard 19" rack.		

RFQ#BPH11084
 Base Station Antenna
 Attachment E1: Cost Sheet

The vendor must provide pricing inclusive of all associated costs for the following items including the cost of delivery. The estimated quantities contained on the cost sheet are intended for bid evaluation purposes only. Actual quantities may vary based upon the needs of the agency. Vendors should complete this pricing sheet in lieu of submission of manufacturer's quotes.

TIER	Description	Unit Cost	Estimated Qty.	Extended Cost
1U	Base Station Antenna		100	
	UHF 3dBd			
	With Mounting Hardware			
1V	Base Station Antenna		100	
	VHF 3dBd			
	With Mounting Hardware			
2U	Base Station Antenna		50	
	UHF 6dBd			
	With Mounting Hardware			
2V	Base Station Antenna		50	
	VHF 6dBd			
	With Mounting Hardware			
<i>Options for Items 1-2</i>				
A)	UHF Circulator		20	
B)	UHF Isolator		20	
C)	UHF Duplexor		20	
D)	UHF Combiner		20	
E)	VHF Circulator		20	
F)	VHF Isolator		20	
G)	VHF Duplexor		20	
H)	VHF Combiner		20	
Total Bid:				\$0.00
Award of this contract will go to a single vendor who meets all of the specifications as outlined in the RFQ at the lowest price.				

**RFQ BPH11084
Base Station Antenna
Attachment E1: Equipment List**

The vendor must provide manufacturer, model number, and part number for all the equipment bid. Vendors should include a copy of the manufacturer's product sheet and any other supporting documentation which demonstrates the vendor's adherence to the mandatory specifications as outlined in the specifications.

TIER	Description	Manufacturer	Model Number	Part Number /Configuration Codes
1U	Base Station Antenna			
	UHF 3dBd With Mounting Hardware			
1V	Base Station Antenna			
	VHF 3dBd With Mounting Hardware			
2U	Base Station Antenna			
	UHF 6dBd With Mounting Hardware			
2V	Base Station Antenna			
	VHF 6dBd With Mounting Hardware			
<i>Options for Items 1-2</i>				
	A) UHF Circulator			
	B) UHF Isolator			
	C) UHF Duplexor			
	D) UHF Combiner			
	E) VHF Circulator			
	F) VHF Isolator			
	G) VHF Duplexor			
	H) VHF Combiner			

Attachment F

**Request for Quotation
For
Service Monitor**

West Virginia

**Department of Health and Human Resources (DHHR),
Bureau for Public Health (BPH), State Trauma and
Emergency Medical System (STEMS)**

1 General Description

The Department of Health and Human Resources, State Trauma and Emergency Medical System, desires to establish a contract for the purchase of a complete Two Way Radio service monitor and analyzer. The service monitor device will allow the service technician to perform real time Project 25, P25, and P25 Trunk parametric analysis, monitoring, Radio Frequency, RF, spectrum usage, transmit power levels, PSD masks validation, and audio quality and distortion evaluation. It is a critical tool in the maintenance and trouble shooting of the equipment in the field at the tower sites and in the control buildings. Other entities of West Virginia state government as well as counties, municipalities and Public Safety Agencies shall be able to piggy back on this contract with prior approval from the Agency.

2 Service Monitor Requirements

2.1.1	The device shall achieve rated accuracy over the frequency range from 10 Mhz to 1 Ghz with un-calibrated measurements down to 100khz.		
2.1.2	The device shall have an option to support measurements over the spectrum range from 1 Mhz to 2.7 Ghz.		
2.1.3	The device shall support Direct coupled measurements of RF power up to 125W		
2.1.4	The device shall be able to measure RF signals applied to an antenna input port as low as -100 dBm and -115 dBm with the aid of an internal pre-amp.		
2.1.5	The device shall utilize a temperature compensated time base accurate to 0.01parts per million, ppm, for all RF measurements.		
2.1.6	The device shall have 1 dB level accurate RF generator for use in receiver performance.		
2.1.7	The device shall provide a spectrum analyzer mode covering the spectrum from 1 Mhz to 2.7 Ghz, with -140dBm DANL (300 hz RBW).		
2.1.8	The device shall support Channel analysis, being able demodulate the carrier in a 5 MHz spectral window. In effect allows channel analysis while a push to talk, PTT, call is in progress.		
2.1.9	The device shall provide a 4 MHz oscilloscope mode of operation.		
2.1.10	The device shall support 50 ppm accurate Audio generator over the 20 hz to 40 Khz band, at levels from 1 mV to 8 V rms.		

	Service Monitor Requirements contd.		
2.1.11	The device shall support GPIB and network connectivity for automated and remote controlled operation of all device functions.		
2.1.12	The device shall apply straight forward, easy to use, with ergonomic panel layouts, and menu system.		
2.1.13	The device shall have a multi-color display.		
2.1.14	The device shall have a direct printer output port.		
2.1.15	The device shall support connection and control for standard pointing device i.e., mouse.		
2.1.16	The device shall demodulate audio signals from an RF input signal to provide spectral analysis of the audio signal.		
2.1.17	The device shall demodulate audio signals from the audio input to provide quality analysis of the audio signal.		
2.1.18	The device shall support the ability to analyze frequency responses of duplexers and filter banks through the use of calibrated return loss bridge attachment.		
2.1.19	The device shall have a digital multi-meter mode and isolated input connections to allow measurement of AC/DC volts, amps and resistance.		
2.1.20	The device shall be able to measure P25 conventional systems for power, frequency error, transmit BER as specified by TIA-EIA-102.		
2.1.21	The device shall allow site simulation of a P25 control channel in all frequency bands to allow P25 Trunking operation validation.		

	Service Monitor Requirements contd.		
2.1.22	The device shall support P25 Data Encryption Standard, DES, Output Feedback, OFB, and Advanced Encryption Standard, AES, encryption formats and decoding validation.		

2.2 Environmental & Physical Requirements

Item		Compliance	
		Yes	No
2.2.1	The device shall meet Standard for Safety Electrical Measuring and Testing, UL 61010B-1 safety standards for test devices.		
2.2.2	The device shall meet performance specifications over the temperature range of -0° C to 50° C.		
2.2.3	The device shall have a comprehensive 1 year warranty.		
2.2.4	The device shall operate from 120 vac 60 hz power supply.		
2.2.5	The device shall be desk or table self supporting mount.		
2.2.6	The device shall have a 1 yr calibration cycle.		
2.2.7	The device shall be supplied with an UHF, VHF and 700/800 MHz antenna.		
2.2.8	The vendor shall provide instruction manual, user manual and self calibration manual.		
2.2.9	The device shall be constructed to allow for transportable operation.		

3 Accessories

Item	Requirement	Compliance	
		Yes	No
3.1	The vendor shall make available for purchase and must be field installable options to support listed analysis processors individually.		
3.2	The vendor shall make available for purchase antennae for UHF, VHF, HF and 700 and 800 MHz public safety frequency.		
3.3	The vendor shall make available for purchase connectors, interface cables, specialized probes, and reference impedance matching networks.		
3.4	The vendor shall make available for purchase connectors, interface cables, specialized probes, and reference impedance matching networks for microwave analysis.		

RFQ No. BPH 11084

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: _____

Authorized Signature: _____ Date: _____

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ___ day of _____, 20__.

My Commission expires _____, 20__.

AFFIX SEAL HERE

NOTARY PUBLIC _____

ATTACHMENT
P.O.# BPH11084

This agreement constitutes the entire agreement between the parties, and there are no other terms and conditions applicable to the licenses granted hereunder.

Agreed

Signature Date

Title

Company Name

Signature Date

Title

Agency/Division

AGREEMENT ADDENDUM

In the event of conflict between this addendum and the agreement, this addendum shall control:

1. **DISPUTES** - Any references in the agreement to arbitration or to the jurisdiction of any court are hereby deleted. Disputes arising out of the agreement shall be presented to the West Virginia Court of Claims.
2. **HOLD HARMLESS** - Any clause requiring the Agency to indemnify or hold harmless any party is hereby deleted in its entirety.
3. **GOVERNING LAW** - The agreement shall be governed by the laws of the State of West Virginia. This provision replaces any references to any other State's governing law.
4. **TAXES** - Provisions in the agreement requiring the Agency to pay taxes are deleted. As a State entity, the Agency is exempt from Federal, State, and local taxes and will not pay taxes for any Vendor including individuals, nor will the Agency file any tax returns or reports on behalf of Vendor or any other party.
5. **PAYMENT** - Any references to prepayment are deleted. Payment will be in arrears.
6. **INTEREST** - Should the agreement include a provision for interest on late payments, the Agency agrees to pay the maximum legal rate under West Virginia law. All other references to interest or late charges are deleted.
7. **RECOUPMENT** - Any language in the agreement waiving the Agency's right to set-off, counterclaim, recoupment, or other defense is hereby deleted.
8. **FISCAL YEAR FUNDING** - Service performed under the agreement may be continued in succeeding fiscal years for the term of the agreement, contingent upon funds being appropriated by the Legislature or otherwise being available for this service. In the event funds are not appropriated or otherwise available for this service, the agreement shall terminate without penalty on June 30. After that date, the agreement becomes of no effect and is null and void. However, the Agency agrees to use its best efforts to have the amounts contemplated under the agreement included in its budget. Non-appropriation or non-funding shall not be considered an event of default.
9. **STATUTE OF LIMITATION** - Any clauses limiting the time in which the Agency may bring suit against the Vendor, lessor, individual, or any other party are deleted.
10. **SIMILAR SERVICES** - Any provisions limiting the Agency's right to obtain similar services or equipment in the event of default or non-funding during the term of the agreement are hereby deleted.
11. **ATTORNEY FEES** - The Agency recognizes an obligation to pay attorney's fees or costs only when assessed by a court of competent jurisdiction. Any other provision is invalid and considered null and void.
12. **ASSIGNMENT** - Notwithstanding any clause to the contrary, the Agency reserves the right to assign the agreement to another State of West Virginia agency, board or commission upon thirty (30) days written notice to the Vendor and Vendor shall obtain the written consent of Agency prior to assigning the agreement.
13. **LIMITATION OF LIABILITY** - The Agency, as a State entity, cannot agree to assume the potential liability of a Vendor. Accordingly, any provision limiting the Vendor's liability for direct damages to a certain dollar amount or to the amount of the agreement is hereby deleted. Limitations on special, incidental or consequential damages are acceptable. In addition, any limitation is null and void to the extent that it precludes any action for injury to persons or for damages to personal property.
14. **RIGHT TO TERMINATE** - Agency shall have the right to terminate the agreement upon thirty (30) days written notice to Vendor. Agency agrees to pay Vendor for services rendered or goods received prior to the effective date of termination.
15. **TERMINATION CHARGES** - Any provision requiring the Agency to pay a fixed amount or liquidated damages upon termination of the agreement is hereby deleted. The Agency may only agree to reimburse a Vendor for actual costs incurred or losses sustained during the current fiscal year due to wrongful termination by the Agency prior to the end of any current agreement term.
16. **RENEWAL** - Any reference to automatic renewal is hereby deleted. The agreement may be renewed only upon mutual written agreement of the parties.
17. **INSURANCE** - Any provision requiring the Agency to insure equipment or property of any kind and name the Vendor as beneficiary or as an additional insured is hereby deleted.
18. **RIGHT TO NOTICE** - Any provision for repossession of equipment without notice is hereby deleted. However, the Agency does recognize a right of repossession with notice.
19. **ACCELERATION** - Any reference to acceleration of payments in the event of default or non-funding is hereby deleted.
20. **CONFIDENTIALITY**: -Any provision regarding confidentiality of the terms and conditions of the agreement is hereby deleted. State contracts are public records under the West Virginia Freedom of Information Act.
21. **AMENDMENTS** - All amendments, modifications, alterations or changes to the agreement shall be in writing and signed by both parties. No amendment, modification, alteration or change may be made to this addendum without the express written approval of the Purchasing Division and the Attorney General.

ACCEPTED BY:

STATE OF WEST VIRGINIA

Spending Unit: _____

Signed: _____

Title: _____

Date: _____

VENDOR

Company Name: _____

Signed: _____

Title: _____

Date: _____

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. Application is made for 2.5% resident vendor preference for the reason checked:

- Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
- Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
- Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% resident vendor preference for the reason checked:

- Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% resident vendor preference for the reason checked:

- Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

4. Application is made for 5% resident vendor preference for the reason checked:

- Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

- Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

- Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: _____ Signed: _____

Date: _____ Title: _____

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.