



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

Solicitation

NUMBER

DPS1418

PAGE

1

ADDRESS CORRESPONDENCE TO ATTENTION OF:

TARA LYLE

304-558-2544

RFQ COPY

TYPE NAME/ADDRESS HERE

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WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE

SOUTH CHARLESTON, WV

25309

304-746-2141

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T
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DATE PRINTED

06/26/2014

BID OPENING DATE:

07/24/2014

BID OPENING TIME

1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		725-74		
DIGITAL MOBILE AND PORTABLE RADIOS						
OPEN-END CONTRACT						
THE WEST VIRGINIA STATE PURCHASING DIVISION ON BEHALF OF THE WEST VIRGINIA STATE POLICE, IS SOLICITING BIDS FOR THE PURCHASE DIGITAL MOBILE AND PORTABLE RADIOS FOR THE STATE AGENCIES WITHIN THE DEPARTMENT OF MILITARY AFFAIRS AND PUBLIC SAFETY, PER THE ATTACHED SPECIFICATIONS.						
ATTACHMENTS INCLUDE:						
1. INSTRUCTIONS TO VENDORS SUBMITTING BIDS						
2. GENERAL TERMS AND CONDITIONS						
3. DPS1418 SPECIFICATIONS						
4. CERTIFICATION AND SIGNATURE PAGE						
5. PURCHASING AFFIDAVIT						
6. VENDOR PREFERENCE CERTIFICATE						
THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT						
SIGNATURE				TELEPHONE		DATE
TITLE		FEIN		ADDRESS CHANGES TO BE NOTED ABOVE		

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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

Solicitation

NUMBER

DPS1418

PAGE

2

ADDRESS CORRESPONDENCE TO ATTENTION OF:

TARA LYLE

304-558-2544

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV

25309

304-746-2141

DATE PRINTED

06/26/2014

BID OPENING DATE:

07/24/2014

BID OPENING TIME

1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.						
***** THIS IS THE END OF RFQ DPS1418 ***** TOTAL: _____						

SIGNATURE

TELEPHONE

DATE _____

TITLE

FEIN

ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. **REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.
2. **MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.
3. **PREBID MEETING:** The item identified below shall apply to this Solicitation.

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A pre-bid meeting will not be held prior to bid opening.

☐

A **NON-MANDATORY PRE-BID** meeting will be held at the following place and time:

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A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing. Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. **VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are non-binding.

Question Submission Deadline: July 11, 2014 at 4:00 pm

Submit Questions to: Tara Lyle, File 32

2019 Washington Street, East

Charleston, WV 25305

Fax: (304) 558-4115

(Vendors should not use this fax number for bid submission)

Email: Tara.L.Lyle@wv.gov

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.
6. **BID SUBMISSION:** All bids must be signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include hand delivery, delivery by courier, or facsimile. The bid delivery address is:

Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

The bid should contain the information listed below on the face of the envelope or the bid may not be considered:

SEALED BID: _____
BUYER: _____
SOLICITATION NO.: _____
BID OPENING DATE: _____
BID OPENING TIME: _____
FAX NUMBER: _____

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: ☐ Technical
☐ Cost

7. **BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when time stamped by the official Purchasing Division time clock.

Bid Opening Date and Time: July 24, 2014 at 1:30 pm

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. **ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.
9. **BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.
2. **DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.
 - 2.1 **"Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
 - 2.2 **"Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.
 - 2.3 **"Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.
 - 2.4 **"Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.
 - 2.5 **"Purchase Order"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the successful bidder and Contract holder.
 - 2.6 **"Solicitation"** means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.
 - 2.7 **"State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
 - 2.8 **"Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. **CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:



Term Contract

Initial Contract Term: This Contract becomes effective on award

and extends for a period of one (1) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed 36 months in total. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Release Order Limitations: In the event that this contract permits release orders, a release order may only be issued during the time this Contract is in effect. Any release order issued within one year of the expiration of this Contract shall be effective for one year from the date the release order is issued. No release order may be extended beyond one year after this Contract has expired.



Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within days.



One Time Purchase: The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall this Contract extend for more than one fiscal year.



Other: See attached.

4. **NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Purchase Order will be considered notice to proceed
5. **QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.



Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

- ☐ **Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.
- ☐ **Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.
- ☐ **One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. **PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.
7. **EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.
8. **REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.
- ☐ **BID BOND:** All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.
- ☐ **PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of . The performance bond must be issued and received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.
- ☐ **LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be issued and delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a

performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.

☐ **MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

☐ **WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.

☐ **INSURANCE:** The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:

☐ **Commercial General Liability Insurance:**
or more.

☐ **Builders Risk Insurance:** builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.

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The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

☐ **LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

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The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

9. **LITIGATION BOND:** The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.
10. **ALTERNATES:** Any model, brand, or specification listed herein establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.
11. **EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.
12. **LIQUIDATED DAMAGES:** Vendor shall pay liquidated damages in the amount
for

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.
13. **ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.
14. **REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee if applicable.
15. **COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation

during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

- 16. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.
- 17. PAYMENT:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To."
- 18. UNIT PRICE:** Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.
- 19. DELIVERY:** All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.
- 20. INTEREST:** Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.
- 21. PREFERENCE:** Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.
- 22. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, in accordance with West Virginia Code § 5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to submission of its bid to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.
- 23. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 24. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract.

The Purchasing Division Director may cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.

- 25. WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.
- 26. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- 27. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
- 28. COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
- 29. PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at <http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx>. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.
- 30. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
- 31. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**
- 32. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.
- 33. SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or

maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

34. **ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.
35. **WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.
36. **STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.
37. **BANKRUPTCY:** In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.
38. **[RESERVED]**
39. **CONFIDENTIALITY:** The Vendor agrees that it 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/default.html>.
40. **DISCLOSURE:** Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED.

Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

- 41. LICENSING:** In accordance with West Virginia Code of State Rules §148-1-6.1.7, Vendor 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, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.
- 42. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Purchase Order from any agency of the State of West Virginia, the Vendor agrees to 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 Vendor.
- 43. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this RFQ in its entirety, understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

The individual signing this bid on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

- 44. PURCHASING CARD ACCEPTANCE:** The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

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Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

- 45. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, *etc.* and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.
- 46. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.
- 47. PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.
- 48. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.
- 49. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder.

Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

50. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

- ☒ Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.
- ☐ Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

51. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision.

The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

52. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.

- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process.

The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

- a. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- b. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

53. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products.

This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference.

If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

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SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia State Police for all state agencies within the Department of Military Affairs and Public Safety to establish an open-end contract for Digital Mobile and Portable Radios, replacement parts and accessories.
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1. **“Contract Item” or “Contract Items”** means the list of items identified in Section 3, Subsections 1,2,3,4,5,6,and 7 below.
 - 2.2. **“Pricing Pages”** means the schedule of prices, estimated order quantity, and totals attached hereto as Exhibit A and used to evaluate the RFQ.
 - 2.3. **“RFQ”** means the official request for quotation published by the Purchasing Division and identified as DPS1418.

3. GENERAL REQUIREMENTS:

3.1 Contract Items and Mandatory Requirements: Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below. No split awards will be made from this solicitation. **ALL RADIOS LISTED BY THE VENDOR IN THE PRICING PAGES MUST BE APPROVED BY THE STATEWIDE INTEROPERABLE EXECUTIVE COMMITTEE PER EXECUTIVE ORDER NO. 2-11, and must be compatible with the Statewide Interoperable Radio Network (SIRN).** Any Vendor submitting a response to this RFQ should submit the specifications for each radio that they are offering with their bid.

3.1.1 DIGITAL DUAL BAND MOBILE RADIOS

3.1.1.1 Digital Dual Band mobile radio shall be capable of at least one thousand two hundred fifty (1250) channel operation and shall be P-25 Phase 2 compliant.

3.1.1.2 Each Digital Dual Band Mobile Radio shall come with the following: Specified radio, under dash mounting bracket, remote speaker, microphone, microphone hang-up clip, all necessary cables, including ignition sense wire, mounting hardware, and instruction manual.

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- 3.1.2 Digital Dual Band mobile radio shall be capable of operating in the following frequency bands: VHF (136-174 Mhz.), UHF R1(380-470 Mhz.), 700 Mhz. (764-776 Mhz., 794-806 Mhz.) 800 Mhz. (806-824 Mhz, 851-870 Mhz.).
- 3.1.3 Digital Dual Band mobile radio shall be capable of utilizing the following channel spacing: 6.25 Khz., 12.5 Khz. and 25 Khz.
- 3.1.4 Digital Dual Band mobile radio shall be capable of using the following encryption algorithms: AES/ DES-OFB.
 - 3.1.4.1 Digital Dual Band mobile radio shall have an Encryption Algorithm Capacity of eight (8).
 - 3.1.4.2 Encryption Keys Module for the Digital Dual Band mobile radio shall be capable of storing 1024 keys. Programmable for 128 Common Key Reference (CKR) or 16 Physical Identifier (PID).
 - 3.1.4.3 The Encryption frame re-sync interval shall be: P25 CAI 300 mSec.
 - 3.1.4.4 Encryption keying shall be loaded by a Motorola Key Variable Loader (KVL 3000+).
 - 3.1.4.5 Synchronization shall be: XL-Counter Addressing; OFB-Output Feedback.
 - 3.1.4.6 The Vector Generator shall be the National Institute of Standards and Technology (NIST) approved random number generator.
 - 3.1.4.7 The encryption shall be digital.
 - 3.1.4.8 Key erasure shall be accomplished by keyboard command and tamper detection.
 - 3.1.4.9 Encryption standards shall be: FIPS 140-2 Level 3, FIPS 197.
 - 3.1.4.10 Key storage shall be in tamper protected volatile or non-volatile memory.
- 3.1.5 Digital Dual Band mobile radio shall be capable of the following transmit power levels: 10-30 watts (700 Mhz), 10-35 watts (800 Mhz.), 10-50 watts (VHF dash mount low-medium power), 25-110 watts (VHF Remote mount high power), 10-40 watts (UHF 380-470 MHz. dash mount low-medium power), 25-110 watts (UHF 380-470 MHz. remote mount high power),. The Vendor shall list the high power range option as a separate listing in the Pricing Pages.

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- 3.1.5.1** Transmitter channel spacing shall be: 25/12.5 kHz in the 700 MHz. range; 25/12.5 kHz in the 800 MHz range; 30/25/12.5 kHz in the VHF range; 25/12.5 kHz in UHF range.
- 3.1.5.2** The frequency separation shall be the full bandwidth.
- 3.1.5.3** Frequency stability shall be +/- 0.8 PPM in all frequency ranges.
- 3.1.5.4** Audio distortion shall be 0.50% in all frequency ranges.
- 3.1.5.5** FM Hum and Noise at 25 kHz separation shall be: 50 dB in 700 MHz and 800 MHz, 53 dB in VHF, UHF range. At 12.5 kHz separation shall be 48 dB in 700 MHz and 800 MHz, 52 dB in VHF, and 50 dB in UHF range .
- 3.1.5.6** Modulation Fidelity (C4FM) for 12.5 kHz digital channel shall be 1.10% in all frequency ranges.
- 3.1.6** Digital Dual Band mobile radio shall be P-25 compliant, P-25 Trunking if an option shall be included.
- 3.1.7** Digital Dual Band mobile radio shall be capable of multi-band operation. Multi-band means the following: a multi-band radio shall be capable of operating in two bands in the same radio. Each multi-band radio shall be configured to operate in one of the following configurations: VHF (136-174 Mhz) and UHF (380-470 Mhz), VHF (136-174 Mhz) and 700/800 (764-870 Mhz), UHF (380-470 Mhz), 700/800 (764-870 Mhz),. Each frequency combination shall be listed as a separate option in the Pricing Pages.
- 3.1.8** Digital Dual Band mobile radio shall be capable of scanning both bands of the radio at the same time.
- 3.1.8.1** Radio shall be capable of using and storing user defined scan lists.
- 3.1.8.2** Predefined scan lists may be edited by the user utilizing buttons on the radio.
- 3.1.8.3** Scan lists shall be able to be established at the user/keypad level.
- 3.1.8.4** Scanning shall be enabled and disabled by depressing no more than one button one time.
- 3.1.8.5** The radio shall be able to simultaneously scan both bands in the radio as well as “Trunking” and “Conventional” channels.

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3.1.9 Digital Dual Band mobile radio shall be capable of Over-The-Air Programming (OTAP) and Over-The-Air Rekeying (OTAR).

3.1.9.1 The radio shall have OTAP enabled.

3.1.9.2 The manufacturer's OTAP infrastructure software and hardware must be compatible and operational through the existing SIRN equipment and software connected to the Motorola Core Switch to facilitate OTAP, or it must be furnished at no additional charge.

3.1.10 Digital Dual Band mobile radio shall meet the following standards: MIL-STD 810C, MIL-STD 810D, MIL-STD 810E, MIL-STD 810E, MIL-STD 810F, MIL-STD 810G.

3.1.11 Digital Dual Band mobile radio shall be capable of using multiple control head configurations and Vendor shall list each control head configuration as an option on the Pricing Pages.

3.1.12 Receiver channel spacing shall be 25/12.5 kHz in 700 MHz, 800 MHz, UHF Range. Receiver channel spacing shall be 30/25/12.5 kHz in the VHF Range.

3.1.12.1 Maximum frequency separation shall be full bandsplit for each frequency range.

3.1.12.2 Audio output power at 3% distortion shall be 7.5 W or 15 W for all frequency ranges.

3.1.12.3 Receiver frequency stability shall be +/- 0.8 PPM for all frequency ranges.

3.1.12.4 Analog sensitivity at 12dB SINAD shall be -121 dBm for 700 MHz and 800 MHz. Analog sensitivity at 12dB SINAD shall be -123 dBm using a pre-amp and -119 dBm standard for VHF, and UHF.

3.1.12.5 Digital sensitivity at 5% BER shall be -121.5 dBm for 700 MHz and 800 MHz. Digital sensitivity at 5% BER shall be -123 dBm using a pre-amp and -119 dBm standard for VHF, and UHF.

3.1.12.6 Intermodulation at 25 kHz shall be 82 dB for 700 MHz and 800 MHz. Intermodulation at 25 kHz using a pre-amp shall be 84 dB in VHF, 82 dB in UHF. Intermodulation at 25 kHz without a pre-amp shall be 86 dB for VHF, and UHF.

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3.1.12.7 Intermodulation at 12.5 kHz shall be 82 dB for 700 MHz and 800 MHz. Intermodulation at 12.5 kHz using a pre-amp shall be 85 dB in VHF, 83 dB in UHF. Intermodulation at 12.5 kHz without a pre-amp shall be 86 dB in VHF and 85 dB in UHF range 1 and UHF.

3.1.12.8 Spurious rejection shall be 91 dB for 700 MHz and 800 MHz, 95 dB for VHF, and 93 dB for UHF.

3.1.12.9 Audio Distortion as rated shall be 1.2%.

3.1.12.10 FM Hum and Noise at 25 kHz separation shall be 59 dB for 700 MHz, 800 MHz and VHF, and 55 dB for UHF.

3.1.12.11 FM Hum and Noise at 12.5 kHz separation shall be 50 dB for all frequency ranges.

3.1.12.12 Selectivity at 25 kHz shall be 85 dB for all frequency ranges, at 12.5 kHz it shall be 75 dB for all frequency ranges, at 30 kHz it shall be 90 dB for VHF.

3.1.13 Digital Dual Band mobile radio shall operate at 13.8V DC +/- 20% Negative Ground

3.1.13.1 Standby current at 13.8 V shall be no greater than 0.85A for all frequency ranges.

3.1.13.2 Receive current at rated audio at 13.8V shall be no greater than 3.2A for all frequency ranges.

3.1.13.3 Transmit current at rated power shall be no greater than: 136-174 MHz (10-50 Watts), 13A (50 W), 8A (15W); 380-470 MHz (10-40 Watts), 11A (40 W), 8A (15W); 764-870 MHz (10-35 Watts), 12A (50W), 8A (15W); 136-174 MHz (25-110 Watts) 20A (110W), 380-470 MHz (25-110Watts) 24A (110W).

3.1.14 Digital Dual Band mobile radio shall be Integrated GPS capable.

3.1.14.1 GPS shall be capable of receiving at least 12 channels.

3.1.14.2 GPS tracking sensitivity shall be -153dBm or better.

3.1.14.3 GPS accuracy shall be <10 meters (95%).

3.1.14.4 GPS cold start shall be <60 seconds (95%).

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- 3.1.14.5** GPS hot start shall be <10 seconds (95%).
- 3.1.14.6** GPS mode of operation shall be Autonomous.
- 3.1.15** Digital Dual Band mobile radio shall support the following trunking standards:
clear or digital encrypted ASTRO 25 9600 baud Trunked operation.
- 3.1.16** Digital Dual Band mobile radio shall have Analog MDC-1200 and
Digital APCO P25 Conventional (CAI) Systems Configurations enabled.
- 3.1.17** Digital Dual Band mobile radio shall be capable of Embedded Digital signaling
(ASTRO and ASTRO 25).
 - 3.1.17.1** Astro Mode signaling rate shall be 9.6kbps.
 - 3.1.17.2** Digital ID capacity shall be 10,000,000 Conventional / 48,000 Trunking.
 - 3.1.17.3** Digital access codes shall be at least 4,096 network site addresses.
 - 3.1.17.4** Astro Digital user Group network site addresses shall be at least 4,096
network addresses.
 - 3.1.17.5** Project 25-CAI Digital User Group addresses shall be
at least 65,000 Conventional / 4,096 Trunking.
- 3.1.18** Digital Dual Band mobile radio must use Windows XP or newer software for all
programming functions.
 - 3.1.18.1** Programming cable must use USB technology to connect to the
programming computer.
 - 3.1.18.2** All currently licensable frequencies shall be considered acceptable to the
unit.
 - 3.1.18.3** Each channel shall be individually programmable with regard to
wideband/narrowband operation, digital/analog, trunking/non- trunking,
encode/decode, encrypted/non-encrypted, transmit frequency, receive frequency,
digital/analog CTCSS tones/no-tones.
 - 3.1.18.4** The radio shall have an alphanumeric display with a minimum of 2 rows
of 14 characters each.
 - 3.1.18.5** The radio shall have a minimum of 5 programmable function buttons.

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3.1.18.6 The radio shall have an “emergency” button with a clearly distinctive color.

3.1.18.7 The radio shall have a menu navigation button capability.

3.1.19 Each Digital Dual Band Mobile radio shall have the following configurations available for purchase:

3.1.19.1 Digital Dual Band Mobile radio, 380-470 Mhz and VHF, with AES Encryption, Dash Mount (low-medium power as specified in section 3.1.5).

3.1.19.1.1 Digital Dual Band Mobile Radio, 380-470 MHz and 700 MHz, with AES encryption, Dash Mount (low-medium power as specified in section 3.1.5).

3.1.19.1.2 Digital Dual Band Mobile Radio, 380-470 MHz and 800 MHz, with AES encryption, Dash Mount (low-medium power as specified in section 3.1.5).

3.1.19.2 Digital Dual Band Mobile radio with, 380-470 MHz and VHF, with AES Encryption, Remote mount (low-medium power as specified in Section 3.1.5).

3.1.19.2.1 Digital Dual Band Mobile radio with, 380-470 MHz and 700 MHz, with AES Encryption, Remote mount (low-medium power as specified in Section 3.1.5).

3.1.19.2.2 Digital Dual Band Mobile radio with, 380- 470 MHz and 800 MHz, with AES Encryption, Remote mount (low-medium power as specified in Section 3.1.5).

3.1.19.2.3 Hand Held Full Function Control Head for Digital Dual Band Mobile radio with Remote Mount.

3.1.19.3 Dual control head option for Remote mount Digital Dual Band Mobile radio.

3.1.19.4 Digital Dual Band Mobile radio 380-470 MHz and VHF with NO AES Encryption, Dash mount (low-medium power as specified in Section 3.1.5).

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3.1.19.4.1 Digital Dual Band Mobile Radio, 380-470 MHz and 700 MHz, NO AES encryption, Dash Mount (low-medium power as specified in section 3.1.5).

3.1.19.4.2 Digital Dual Band Mobile Radio, 380-470 MHz and 800 MHz, NO AES encryption, Dash Mount (low-medium power as specified in section 3.1.5).

3.1.19.5. Digital Dual Band Mobile radio 380-470 MHz and VHF with NO AES Encryption, remote mount (low-medium power as specified in Section 3.1.5).

3.1.19.5.1 Digital Dual Band Mobile Radio, 380-470 MHz and 700 MHz, NO AES encryption, remote Mount (low-medium power as specified in section 3.1.5).

3.1.19.5.2 Digital Dual Band Mobile Radio, 380-470 MHz and 800 MHz, NO AES encryption, remote Mount (low-medium power as specified in section 3.1.5).

3.1.19.5.3 Hand Held Full Function Control Head for Digital Dual Band Mobile radio with Remote Mount.

3.1.20 Spare Microphone for Digital Dual Band Mobile radio.

3.1.21 The Digital Dual Band Mobile radio shall be capable of having at least two “Dynamic” zones in the radio permitting users to create user defined zones of channels/talkgroups.

3.1.22 Programming Software for Digital Dual Band Mobile Radio. Programming software shall include unlimited seats.

3.1.23 Programming Cable for Digital Dual Band Mobile radio.

3.1.24 High Power Option (up to 110 watts added on to Digital Dual Band Mobile radio, (as specified in section 3.1.5).

3.1.25 GPS enable shall be an option.

3.1.25.1 GPS antenna for GPS for Digital Dual Band Radio

3.1.26 AC power supply to convert a digital dual band radio into above station.

3.1.27 Desk style microphone for digital dual band radio.

- 3.1.28 Optional spare remote speaker for Digital Dual Band Mobile Radio.
- 3.1.29 Encryption Key Loader cable (for KVL3000+) for Digital Dual Band Mobile radio.
- 3.1.30 Digital Dual Band radio shall be Phase 2 capable and must meet current P25 standards, and be backwards and forwards compatible and future-ready to support new technology and data applications.
- 3.1.31 Over-The-Air Programming (OTAP) shall be enabled, unless requested to not be included.
 - 3.1.31.1 There shall be an option for removing the OTAP feature from the radio.
- 3.1.32 Over-The-Air Rekeying (OTAR) shall be available as an option to be enabled.

3.2 DIGITAL SINGLE BAND MOBILE RADIO

- 3.2.1 Digital Single Band mobile radio shall be capable of at least one thousand two hundred fifty (1250) channel operation and shall be P-25 Phase 2 compliant.
 - 3.2.1.1 Each Digital Single Band Mobile Radio shall come with the following: Specified radio, under dash mounting bracket, remote speaker, microphone, microphone hang-up clip, all necessary cables, including ignition sense wire, mounting hardware, and instruction manual.
- 3.2.2 Digital Single Band mobile radio shall be capable of operating in the following frequency bands: VHF (136-174 Mhz.), UHF (380-470 Mhz.), 700 Mhz. (764 -776 Mhz, 794-806 Mhz.), 800 Mhz. (806-824 Mhz., 851-870 Mhz.).
- 3.2.3 Digital Single Band mobile radio shall be capable of utilizing the following channel spacing: 6.25 Khz., and 12.5 Khz.
- 3.2.4 Digital Single Band mobile radio shall be capable of using the following encryption algorithms: AES/DES-OFB.
 - 3.2.4.1 Digital Single Band mobile radio shall have an Encryption Algorithm Capacity of eight (8).
 - 3.2.4.2 Encryption Keys Module for the Digital Single Band mobile radio shall be capable of storing 1024 keys. Programmable for 64 Common Key Reference (CKR) or 16 Physical Identifier (PID).

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- 3.2.4.3** The Encryption frame re-sync interval shall be: P25 CAI 300 mSec.
- 3.2.4.4** Encryption keying shall be loaded by a Key Variable Loader (KVL).
- 3.2.4.5** Synchronization shall be: XL-Counter Addressing ; OFB-Output Feedback.
- 3.2.4.6** The Vector Generator shall be the National Institute of Standards and Technology (NIST) approved random number generator.
- 3.2.4.7** The encryption shall be digital.
- 3.2.4.8** Key erasure shall be accomplished by keyboard command and tamper detection.
- 3.2.4.9** Encryption standards shall be: FIPS 140-2 Level 3, FIPS 197.
- 3.2.4.10** Key storage shall be in tamper protected volatile or non-volatile memory.
- 3.2.5** Digital Single Band mobile radio shall be capable of the following transmit power levels: 10-30 watts (700 Mhz), 10-35 watts (800 Mhz.), 10-50 watts (VHF dash mount low-medium power), 25-110 watts (VHF Remote mount high power), 10-40 watts (UHF dash mount low-medium power), 25-110 watts (UHF Remote mount high power). The Vendor shall list each power range option as a separate listing in the Pricing Pages.
- 3.2.5.1** Transmitter channel spacing shall be: 25/12.5 kHz in the 700 MHz. range; 25/12.5 kHz in the 800 MHz range; 30/25/12.5 kHz in the VHF range; 25/12.5 kHz in UHF.
- 3.2.5.2** The frequency separation shall be the full bandwidth.
- 3.2.5.3** Frequency stability shall be: $\pm 0.00015\%$ in 700 Mhz, $\pm 0.00015\%$ in 800 Mhz., $\pm 0.0002\%$ in VHF, $\pm 0.0002\%$ in UHF R-1, $\pm 0.0002\%$ in UHF R-2 frequency ranges.
- 3.2.5.4** Audio distortion shall be 2% in all frequency ranges.
- 3.2.5.5** FM Hum and Noise at 25 kHz separation shall be: -50 dB in 700 MHz and 800 MHz, -53 dB in VHF, and UHF. At 12.5 kHz separation shall be - 48 dB in 700 MHz and 800 MHz, -52 dB in VHF, and -50 dB in UHF.
- 3.2.5.6** Modulation Fidelity (C4FM) for 12.5 kHz digital channel shall be ± 2.8

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kHz. in all frequency ranges.

3.2.6 Digital Single Band mobile radio shall be P-25 compliant, P-25 Trunking if an option shall be included.

3.2.7 Digital Single Band mobile radio shall be configured to operate in one of the following configurations: VHF (136-174 Mhz), UHF (380-470 Mhz), 700/800 (764-870Mhz). Each frequency range shall be listed as a separate option in the Pricing Pages.

3.2.8 Digital Single Band mobile radio shall be capable of scanning both Analog channels and digital channels in the same scan list.

3.2.8.1 Radio shall be capable of using and storing user defined scan lists.

3.2.8.2 Predefined scan lists may be edited by the user utilizing buttons on the radio.

3.2.8.3 Scan lists shall be able to be established at the user/keypad level.

3.2.8.4 Scanning shall be enabled and disabled by depressing no more than one button one time.

3.2.8.7 The radio shall be able to simultaneously scan both bands in the radio as well as “Trunking” and “Conventional” channels.

3.2.9 Digital Single Band mobile radio shall be capable of Over-The-Air Programming (OTAP) and Over-The-Air Rekeying (OTAR).

3.2.9.1 The radio shall have OTAP enabled.

3.2.9.2 The manufacturer’s OTAP infrastructure software and hardware must be compatible and operational through the existing SIRN equipment and software connected to the Motorola Core Switch to facilitate OTAP, or it must be furnished at no additional charge.

3.2.10 Digital Single Band mobile radio shall meet the following Standards: MIL-STD 810C, MIL-STD 810D, MIL-STD 810E, MIL-STD 810E, MIL-STD 810F, MIL-STD 810G.

3.2.11 Digital Single Band mobile radio shall be capable of using multiple control head configurations and Vendor shall list each control head configuration as an option on the Pricing Pages.

3.2.12 Receiver channel spacing shall be 25/12.5 kHz in 700 MHz, 800 MHz, and UHF. Receiver channel spacing shall be 30/25/12.5 kHz. in the VHF Range.

3.2.12.1 Maximum frequency separation shall be full bandsplit for each frequency range.

3.2.12.2 Audio output power at 3% distortion shall be 7.5 W or 15 W for all frequency ranges.

3.2.12.3 Receiver frequency stability shall be +/- 0.8 PPM for frequency ranges.

3.2.12.4 Analog sensitivity at 12dB SINAD shall be -121 dBm for 700 MHz and 800 MHz. Analog sensitivity at 12dB SINAD shall be -123 dBm using a pre-amp and -119 dBm standard for VHF, and UHF range.

3.2.12.5 Digital sensitivity at 5% BER shall be -121.5 dBm for 700 MHz and 800 MHz. Digital sensitivity at 5% BER shall be - 123 dBm using a pre-amp and - 119 dBm standard for VHF, and UHF range.

3.2.12.6 Intermodulation at 25 kHz shall be 82 dB for 700 MHz and 800 MHz. Intermodulation at 25 kHz using a pre-amp shall be 84 dB in VHF, and 82 dB in UHF. Intermodulation at 25 kHz without a pre-amp shall be 86 dB for VHF, and UHF.

3.2.12.7 Intermodulation at 12.5 kHz shall be 82 dB for 700 MHz and 800 MHz. Intermodulation at 12.5 kHz using a pre-amp shall be 85 dB in VHF, and 83 dB in UHF. Intermodulation at 12.5 kHz without a pre-amp shall be 86 dB in VHF and 85 dB in UHF.

3.2.12.8 Spurious rejection shall be 91 dB for 700 MHz and 800 MHz, 95 dB for VHF, and 93 dB for UHF.

3.2.12.9 Audio Distortion as rated shall be 1.2%.

3.2.12.10 FM Hum and Noise at 25 kHz separation shall be 59 dB for 700 MHz, 800 MHz and VHF, and 55 dB for UHF.

3.2.12.11 FM Hum and Noise at 12.5 kHz separation shall be 50 dB for all frequency ranges.

3.2.12.12 Selectivity at 25 kHz shall be 85 dB for all frequency ranges, at 12.5 kHz it shall be 75 dB for all frequency ranges, at 30 kHz it shall be 90 dB for VHF.

3.2.13 Digital Single Band mobile radio shall operate at 13.8V DC +/- 20%, Negative Ground

3.2.13.1 Standby current at 13.8 V shall be no greater than 0.85A for all frequency ranges.

3.2.13.2 Receive current at rated audio at 13.8V shall be no greater than 3.2A for all frequency ranges.

3.2.13.3 Transmit current at rated power shall be: 136-174 MHz (10-50 Watts), 13A (50 W), 8A (15W); 380-470 MHz (10-40 Watts), 11A (40 W), 8A (15W); 450-520 MHz (10-45 Watts), 11A (45 W), 8A (15W); 764-870 MHz (10-35 Watts), 12A (50W), 8A (15W); 136-174 MHz (25-110 Watts) 20A (100W), 380-470 MHz (25-110Watts) 24A (100W).

3.2.14 Digital Single Band mobile radio shall be Integrated GPS capable.

3.2.14.1 GPS shall be capable of receiving at least 12 channels.

3.2.14.2 GPS tracking sensitivity shall be -153dBm or better.

3.2.14.3 GPS accuracy shall be <10 meters (95%).

3.2.14.4 GPS cold start shall be <60 seconds (95%).

3.2.14.5 GPS hot start shall be <10 seconds (95%).

3.2.14.6 GPS mode of operation shall be Autonomous.

3.2.15 Digital Single Band mobile radio shall support the following trunking standards: clear or digital encrypted ASTRO 25 Trunked operation.

3.2.16 Digital Single Band mobile radio shall be capable of Analog MDC-1200 and Digital APCO P25 Conventional Systems Configurations.

3.2.17 Digital Single Band mobile radio shall be capable of Embedded Digital signaling (ASTRO and ASTRO 25).

3.2.17.1 Astro Mode signaling rate shall be 9.6kbps.

3.2.17.2 Digital ID capacity shall be 10,000,000 Conventional / 48,000 Trunking.

3.2.17.3 Digital access codes shall be at least 4,096 network site addresses.

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3.2.17.4 Astro Digital user Group network site addresses shall be at least 4,096 network addresses.

3.2.17.5 Project 25-CAI Digital User Group addresses shall be at least 65,000 Conventional / 4,096 Trunking.

3.2.18 Digital Single Band mobile radio must use Windows XP or newer software for all programming functions.

3.2.18.1 Programming cable must use USB technology to connect to the programming computer.

3.2.18.2 All currently licensable frequencies shall be considered acceptable to the unit.

3.2.18.3 Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog, trunking/non-trunking, encode/decode, encrypted/non-encrypted, transmit frequency, receive frequency, digital/analog CTCSS tones/no-tones.

3.2.18.4 The radio shall have an alphanumeric display with a minimum of 2 rows of 14 characters each.

3.2.18.5 The radio shall have a minimum of 5 programmable function buttons.

3.2.18.6 The radio shall have an “emergency” button with a clearly distinctive color.

3.2.18.7 The radio shall have a menu navigation button capability.

3.2.19 Each Digital Single Band Mobile radio shall have the following Options available for purchase:

3.2.19.1 Digital Single Band Mobile radio, 1250 channels, 380-470 MHz with, AES Encryption, Dash Mount (low-medium power as specified in section 3.2.5).

3.2.19.1.1 Digital Single Band Mobile Radio, 1250 channels VHF, with AES encryption, Dash Mount (low-medium power as specified in section 3.1.5).

3.2.19.2 Digital Single Band Mobile radio with, 1250 channels AES Encryption, 380-470 MHz, Remote mount (low-medium power as specified in Section 3.2.5).

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3.2.19.2.1 Digital Single Band Mobile Radio, 1250 channels VHF, with AES encryption, remote Mount (low-medium power as specified in section 3.1.5).

3.2.19.2.4 Hand Held Full Function Control Head for Digital Single Band Mobile radio with Remote Mount.

3.2.19.3 Dual control head option for Remote mount Digital Single Band Mobile radio.

3.2.19.4 Digital Single Band Mobile radio, 1250 channels, 380-470 MHz, with NO AES Encryption, Dash mount (low-medium power as specified in Section 3.2.5).

3.2.19.4.1 Digital Single Band Mobile Radio, 1250 channels VHF, NO AES encryption, dash Mount (low-medium power as specified in section 3.1.5).

3.2.19.5 Digital Single Band Mobile radio, 1250 channels, 380-470 MHz, with NO AES Encryption, remote mount (low-medium power as specified in Section 3.2.5).

3.2.19.5.1 Digital Single Band Mobile Radio, 1250 channels VHF, NO AES encryption, remote Mount (low-medium power as specified in section 3.1.5).

3.2.20 Spare Microphone for Digital Single Band Mobile radio.

3.2.21 Programming Software for Digital Single Band Mobile Radio. Programming software shall include unlimited seats.

3.2.22 Programming Cable for Digital Single Band Mobile radio.

3.2.23 High Power Option (up to 110 watts added on to Digital Single Band Mobile radio (as specified in section 3.1.5).

3.2.24 GPS enable shall be an option.

3.2.24.1 GPS antenna for Digital Single Band Mobile Radio

3.2.25 AC power supply to convert a Digital Single Band Mobile radio into a base station.

3.2.26 Desk microphone for a Digital Single Band radio.

- 3.2.27 Optional remote speaker for Digital Single Band Mobile Radio.
- 3.2.28 Encryption Key Loader cable (for KVL3000) for Digital Single Band Mobile radio.
- 3.2.29 The Digital Single Dual Band Mobile radio shall be capable of having at least two “Dynamic” zones in the radio permitting users to create user defined zones of channels/talkgroups.
- 3.2.30 Digital Single Dual Band portable radio shall be Phase 2 capable and must meet current P25 standards, and be backwards and forwards compatible and future-ready to support new technology and data applications.
- 3.2.31 Over-The-Air Programming (OTAP) shall be enabled, unless requested to not be included.
 - 3.2.31.1 There shall be an option for removing the OTAP feature from the radio.
- 3.2.32 Over-The-Air Rekeying (OTAR) shall be available as an option to be enabled.

3.3 DIGITAL DUAL BAND PORTABLE RADIO

- 3.3.1 Digital Dual Band Portable radio shall be capable of at least one thousand two hundred (1200) channels, shall have a dual display The front display shall have a full bitmap color LCD display with 4 lines of text of at least 14 characters, 2 lines of ICONs, 1 menu line with 3 menus and be white backlit. The backlit keypad shall have at least 2 soft keys, 4 direction Navigation key, Home and button, and a 4 X 3 keypad and shall be P-25 Phase 2 compliant.
 - 3.3.1.1 Digital Dual Band Portable shall be delivered with the following: the radio, antenna, battery, spare battery, a hard plastic case, a rapid charger, a 3” belt clip, a remote speaker microphone with a 3.5mm audio jack, and instruction manual.
- 3.3.2 Digital Dual Band Portable radio shall be capable of operating in the following frequency bands: VHF (136-174 Mhz.), UHF(380-470 Mhz.), 700 Mhz. (764-776 Mhz., 794-806 Mhz. 800 Mhz. (806-824 Mhz., 851-870 Mhz.).
- 3.3.3 Digital Dual Band portable radio shall be capable of utilizing the following channel spacing: 6.25 Khz., 12.5 Khz. and 25 Khz.

3.3.4 Digital Dual Band portable radio shall be capable of using the following encryption algorithms: AES/DES-OFB.

3.3.4.1 Digital Dual Band portable radio shall have an Encryption Algorithm Capacity of eight (8).

3.3.4.2 Encryption Keys Module for the Digital Dual Band mobile radio shall be capable of storing 1024 keys. Programmable for 128 Common Key Reference (CKR) or 16 Physical Identifier (PID).

3.3.4.3 The Encryption frame re-sync interval shall be: P25 CAI 300 mSec.

3.3.4.4 Encryption keying shall be loaded by a Key Variable Loader (KVL).

3.3.4.5 Synchronization shall be: XL-Counter Addressing ; OFB-Output Feedback.

3.3.4.6 The Vector Generator shall be the National Institute of Standards and Technology (NIST) approved random number generator.

3.3.4.7 The encryption shall be digital.

3.3.4.8 Key erasure shall be accomplished by keyboard command and tamper detection.

3.3.4.9 Encryption standards shall be: FIPS 140-2 Level 3, FIPS 197.

3.3.4.10 Key storage shall be in tamper protected volatile or non-volatile memory.

3.3.5 Digital Dual Band portable radio shall be capable of the following transmit power levels: 1- 2.5 watts (700 Mhz), 1- 3 watts (800 Mhz.), 1 - 6 watts (VHF), 1- 5 watts (UHF).

3.3.5.1 Transmitter channel spacing shall be: 25/12.5 kHz in the 700 MHz. range; 25/12.5 kHz in the 800 MHz range; 30/25/12.5 kHz in the VHF range; 25/12.5 kHz in UHF.

3.3.5.2 The frequency separation shall be the full bandsplit.

3.3.5.3 Frequency stability shall be +/- 0.00010% in all frequency ranges.

3.3.5.4 Audio distortion shall be 0.60% in 700Mhz. range, 1 % in 800 Mhz range, 0.50% in VHF range, 0.50% in UHF range.

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- 3.3.5.5** FM Hum and Noise at 25 kHz separation shall be: 48 dB in 700 MHz., -47 dB in 800 MHz, 47 dB in VHF, and UHF. At 12.5 kHz separation shall be -46 dB in 700 MHz., -45 dB in 800 MHz, VHF, and UHF.
- 3.3.6** Digital Dual Band portable radio shall be P-25 compliant, P-25 Trunking if an option shall be included.
- 3.3.7** Digital Dual Band portable radio shall be capable of multi-band operation. Multi-band means the following: a multi-band radio shall be capable of operating in two bands in the same radio. Each multi-band radio shall be configured to operate in one of the following configurations: VHF (136-174 Mhz) and UHF (380-470 Mhz), VHF (136-174 Mhz) and 700/800 (764-870 Mhz), UHF (380-470 Mhz), 700/800 (764-870 Mhz), Each frequency combination shall be listed as a separate option in the Pricing Pages.
- 3.3.8** Digital Dual Band portable radio shall be capable of scanning both bands of the radio at the same time.
- 3.3.8.1** Radio shall be capable of using and storing user defined scan lists.
- 3.3.8.2** Predefined scan lists may be edited by the user utilizing buttons on the radio.
- 3.3.8.3** Scan lists shall be able to be established at the user/keypad level.
- 3.3.8.4** Scanning shall be enabled and disabled by depressing no more than one button one time.
- 3.3.8.5** Digital Dual Band Mobile radio shall be capable of having a separate scan list for each zone as well as at least two “Dynamic” scan lists for the radio.
- 3.3.8.6** The radio shall be able to simultaneously scan both bands in the radio as well as “Trunking” and “Conventional” channels.
- 3.3.9** Digital Dual Band portable radio shall be capable of Over-The-Air Programming (OTAP) and Over-The-Air Rekeying (OTAR).
- 3.3.9.1** The radio shall have OTAP enabled.
- 3.3.9.2** The manufacturer’s OTAP infrastructure software and hardware must be compatible and operational through the existing SIRN equipment and software connected to the Motorola Core Switch to facilitate OTAP, or it must be furnished at no additional charge.

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- 3.3.10** Digital Dual Band portable radio shall meet the following standards: MIL-STD 810C, MIL-STD 810D, MIL-STD 810E, MIL-STD 810F, MIL-STD 810G.
- 3.3.11** Digital Dual Band portable radio shall be Phase 2 capable and must meet current P25 standards, and be backwards and forwards compatible and future-ready to support new technology and data applications.
- 3.3.12** Receiver channel spacing shall be 25/12.5 kHz in 700 MHz, 800 MHz, and UHF. Receiver channel spacing shall be 30/25/12.5 kHz in the VHF Range.
- 3.3.12.1** Maximum frequency separation shall be full bandsplit for each frequency range.
- 3.3.12.2** Audio output power at rated shall be 1000 mW for all frequency ranges.
- 3.3.12.3** Receiver frequency stability shall be +/- 0.8 PPM for frequency ranges.
- 3.3.12.4** Analog sensitivity at 12dB SINAD shall be 0.250 μ V for 700 MHz and 800 MHz. Analog sensitivity at 12dB SINAD shall be 0.216 μ V for VHF and 0.234 μ V for UHF.
- 3.3.12.5** Digital sensitivity at 5% BER shall be 0.251 μ V for 700 MHz and 800 MHz. Digital sensitivity at 5% BER shall be 0.188 μ V for VHF and 0.207 μ V for UHF.
- 3.3.12.6** Sensitivity at 25 kHz shall be 75.7 dB for 700 MHz and 800 MHz. Sensitivity at 25 kHz shall be 79.3 dB in VHF, and 78.3 dB in UHF.
- 3.3.12.7** Sensitivity at 12.5 kHz shall be 67.5 dB for 700 MHz and 800 MHz. Sensitivity at 12.5 kHz shall be 70 dB in VHF, and 68.1 dB in UHF.
- 3.3.12.8** Spurious rejection shall be 76.6 dB for 700 MHz and 800 MHz, 93.2 dB for VHF, 80.3 dB for UHF.
- 3.3.12.9** Audio Distortion as rated shall be 0.9% for 700MHz and 800 MHz, 1.2% for VHF and 0.91% for UHF.
- 3.3.12.10** FM Hum and Noise at 25 kHz separation shall be -54 dB for 700 MHz and 800 MHz and -53.8 dB for VHF, and -53.5 dB for UHF.
- 3.3.12.11** FM Hum and Noise at 12.5 kHz separation shall be -48 dB for 700

MHz and 800 MHz and VHF, it shall -47.4 dB for UHF.

3.3.12.12 Intermodulation shall be 80 dB for 700 MHz and 800 MHz, 80.5 dB for VHF and 80.2 dB for UHF.

3.3.13 Digital Dual Band portable radio shall be Integrated GPS capable.

3.3.13.1 GPS shall be capable of receiving at least 12 channels.

3.3.13.2 GPS tracking sensitivity shall be -151dBm or better.

3.3.13.3 GPS accuracy shall be <10 meters (95%).

3.3.13.4 GPS cold start shall be <60 seconds (95%).

3.3.13.5 GPS hot start shall be <10 seconds (95%).

3.3.13.6 GPS mode of operation shall be Autonomous.

3.3.14 Digital Dual Band portable radio shall support the following trunking standards: clear or digital encrypted ASTRO 25 Trunked operation.

3.3.15 5 Digital Dual Band portable radio shall be capable of Analog MDC-1200 and Digital APCO P25 Conventional Systems Configurations.

3.3.16 Digital Dual Band portable radio shall be capable of Embedded Digital signaling (ASTRO and ASTRO 25).

3.3.16.1 Astro Mode signaling rate shall be 9.6kbps.

3.3.16.2 Digital ID capacity shall be 10,000,000 Conventional / 48,000 Trunking.

3.3.16.3 Digital access codes shall be at least 4,096 network site addresses.

3.3.16.4 Astro Digital user Group network site addresses shall be at least 4,096 network addresses.

3.3.16.5 Project 25-CAI Digital User Group addresses shall be at least 65,000 Conventional / 4,096 Trunking.

3.3.17 Digital Dual Band portable radio must use Windows XP or newer Software for all programming functions.

3.3.17.1 Programming cable must use USB technology to connect to the programming computer.

3.3.17.2 All currently licensable frequencies shall be considered acceptable to the unit.

3.3.17.3 Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog, trunking/non-trunking, encode/decode, encrypted/non-encrypted, transmit frequency, receive frequency, digital/analog CTCSS tones/no-tones.

3.3.17.4 The radio shall have an alphanumeric display with a minimum of 2 rows of 14 characters each.

3.3.17.5 The radio shall have a minimum of 5 programmable function buttons.

3.3.17.6 The radio shall have an “emergency” button with a clearly distinctive color.

3.3.17.7 The radio shall have a menu navigation button capability.

3.3.18 Each Digital Dual Band portable radio shall have the following options available for purchase if purchased with a UHF option.

3.3.18.1 Digital Dual Band portable radio, Statewide Operation 380-470 MHz UHF and VHF operation with, AES Encryption (SIRN Tier 1).

3.3.18.1.1 Digital Dual Band Portable Radio, Statewide Operation 380-470 MHz UHF and 700 MHz operation with AES encryption (SIRN Tier 1).

3.3.18.1.2 Digital Dual Band Portable Radio, Statewide Operation 380-470 MHz UHF and 800 MHz operation with AES encryption (SIRN Tier 1).

3.3.18.2 Digital Dual Band portable radio, Statewide Operation 380-470 MHz UHF and VHF operation without AES Encryption, (SIRN Tier 2).

3.3.18.2.1 Digital Dual Band Portable Radio. Statewide Operation 380-470 MHz and 700 MHz operation without AES Encryption, (SIRN Tier 2).

3.3.18.2.2 Digital Dual Band Portable Radio, Statewide Operation 380-470 MHz and 800 MHz operation without AES Encryption, (SIRN Tier 2).

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- 3.3.19 Programming Software for Digital Dual Band portable Radio. Programming software shall include unlimited seats.
- 3.3.20 Programming Cable for Digital Dual Band portable radio.
- 3.3.21 Public Safety Yellow housing
- 3.3.22 GPS enable shall be an option.
- 3.3.23 Spare speaker microphone w/3.5mm audio jack.
- 3.3.24 Spare battery.
- 3.3.25 Spare ac rapid charger.
- 3.3.26 Spare antenna for Digital Dual Band Portable Radio.
 - 3.3.26.1 Spare GPS/Dual Band antenna for Digital Dual Band Portable Radio.
- 3.3.27 Battery life shall have the capability to be 8 hours or greater. A Lithium-Ion battery or Lithium Polymer battery is acceptable. Nickel-Cadmium batteries are not acceptable.
 - 3.3.27.1 A rapid charge battery shall be provided and shall be able to reach full capacity in 4 hours.
 - 3.3.27.2 The radio shall have a duty cycle of 5/5/90 per Telecommunications Industry Association/Electronic Industry Alliance (TIA/EIA), specification 903 (5% receive/5% transmit/90% standby).
- 3.3.28 Spare hard plastic case with a 3 inch belt clip.
- 3.3.29 Encryption Key Loader cable (for KVL3000) for Digital Dual Band Portable Radio (2000 channels).
- 3.3.30 The Digital Dual Band Portable radio shall be capable of having at least two "Dynamic" zones in the radio permitting users to create user defined zones of channels/talkgroups.
- 3.3.31 Over-The-Air Programming (OTAP) shall be enabled, unless requested to not be included.

3.3.31.1 There shall be an option for removing the OTAP feature from the radio.

3.3.32 Over-The-Air Rekeying (OTAR) shall be available as an option to be enabled.

3.4 DIGITAL SINGLE BAND PORTABLE RADIO

3.4.1 Digital Single Band Portable radio shall be capable of at least one thousand (1000) Channels, have a dual display. The front display shall have a full bitmap color LCD display with 4 lines of text of at least 14 characters, 2 lines of ICONs, 1 menu line with 3 menus and be white backlit. The backlit keypad shall have 3 soft keys, 4 direction Navigation key, Home and Data buttons and shall be P-25 Phase 2 compliant.

3.4.1.1 Digital Single Band Portable shall be delivered with the following: the radio, antenna, battery, spare battery, a hard plastic case, a rapid charger, a 3" belt clip, a remote speaker microphone with a 3.5mm audio jack, and instruction manual.

3.4.2 Digital Single Band Portable radio shall be capable of operating in the following frequency bands: VHF (136-174 Mhz.), UHF (380-470 Mhz.), 700 Mhz. (764-776 Mhz., 794-806 Mhz.) 800 Mhz. (806-824 Mhz., 851-870 Mhz.).

3.4.3 Digital Single Band portable radio shall be capable of utilizing the following channel spacing: 6.25 Khz., 12.5 Khz. and 25 Khz.

3.4.4 Digital Single Band portable radio shall be capable of using the following encryption algorithms: AES/DES-OFB.

3.4.4.1 Digital Single Band portable radio shall have an Encryption Algorithm Capacity of eight (8).

3.4.4.2 Encryption Keys Module for the Digital Single Band mobile radio shall be capable of storing 1024 keys. Programmable for 128 Common Key Reference (CKR) or 16 Physical Identifier (PID).

3.4.4.3 The Encryption frame re-sync interval shall be: P25 CAI 300 mSec.

3.4.4.4 Encryption keying shall be loaded by a Key Variable Loader (KVL).

3.4.4.5 Synchronization shall be: XL-Counter Addressing ; OFB-Output Feedback.

3.4.4.6 The Vector Generator shall be the National Institute of Standards and

Technology (NIST) approved random number generator.

3.4.4.7 The encryption shall be digital.

3.4.4.8 Key erasure shall be accomplished by keyboard command and tamper detection.

3.4.4.9 Encryption standards shall be: FIPS 140-2 Level 3, FIPS 197.

3.4.4.10 Key storage shall be in tamper protected volatile or non-volatile memory.

3.4.5 Digital Single Band portable radio shall be capable of the following transmit power levels: 1- 3 watts (700 Mhz), 1- 3 watts (800 Mhz.), 1 - 6 watts (VHF), 1- 5 watts (UHF).

3.4.5.1 Transmitter channel spacing shall be: 25/12.5 kHz in the 700 MHz. range; 25/12.5 kHz in the 800 MHz range; 30/25/12.5 kHz in the VHF range; 25/12.5 kHz in UHF.

3.4.5.2 The frequency separation shall be the full bandsplit.

3.4.5.3 Frequency stability shall be +/- 0.00010% in all frequency ranges.

3.4.5.4 Audio distortion shall be 0.60% in 700Mhz. range, 1 % in 800 Mhz range, 0.50% in VHF range, 0.50% in UHF range.

3.4.5.5 FM Hum and Noise at 25 kHz separation shall be: -48 dB in 700 MHz., -47 dB in 800 MHz, -47 dB in VHF, and UHF range 1. At 12.5 kHz separation shall be -46 dB in 700 MHz., -45 dB in 800 MHz, VHF, and UHF.

3.4.6 Digital Single Band portable radio shall be P-25 compliant, P-25 trunking if an option shall be included.

3.4.7 Digital Single Band portable radio shall be capable of single band operation.

3.4.8 Digital Single Band portable radio shall be capable of scanning both analog channels and digital channels in the same scan list.

3.4.8.1 Radio shall be capable of using and storing user defined scan lists.

3.4.8.2 Predefined scan lists may be edited by the user utilizing buttons on the radio.

3.4.8.3 Scan lists shall be able to be established at the user/keypad level.

3.4.8.4 Scanning shall be enabled and disabled by depressing no more than one button one time.

3.4.8.5 The radio shall be able to simultaneously scan both bands in the radio as well as “Trunking” and “Conventional” channels.

3.4.9 Digital Single Band portable radio shall be capable of Over-The-Air Programming (OTAP) and Over-The-Air Rekeying (OTAR).

3.4.9.1 The radio shall have OTAP enabled.

3.4.9.2 The manufacturer’s OTAP infrastructure software and hardware must be compatible and operational through the existing SIRM equipment and software connected to the Motorola Core Switch to facilitate OTAP, or it must be furnished at no additional charge.

3.4.10 Digital Single Band portable radio shall meet the following standards: MIL-STD 810C, MIL-STD 810D, MIL-STD 810E, MIL-STD 810F, MIL-STD 810G.

3.4.11 Digital Single Band portable radio shall be Phase 2 capable and must meet current P25 standards, and be backwards and forwards compatible and future-ready to support new technology and data applications.

3.4.12 Receiver channel spacing shall be 25/12.5 kHz in 700 MHz, 800 MHz, UHF. Receiver channel spacing shall be 30/25/12.5 kHz in the VHF Range.

3.4.12.1 Maximum frequency separation shall be full bandsplit for each frequency range.

3.4.12.2 Audio output power at rated shall be 500 mW for all frequency ranges.

3.4.12.3 Receiver frequency stability shall be +/- 0.8 PPM for frequency ranges.

3.4.12.4 Analog sensitivity at 12dB SINAD shall be 0.250µV for 700 MHz and 800 MHz. Analog sensitivity at 12dB SINAD shall be 0.216µV for VHF and 0.234µV for UHF.

3.4.12.5 Digital sensitivity at 5% BER shall be 0.251 µV for 700 MHz and 800 MHz. Digital sensitivity at 5% BER shall be 0.188µV for VHF and 0.207 µV for UHF.

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- 3.4.12.6** Selectivity at 25 kHz shall be -75.7 dB for 700 MHz and 800 MHz. Sensitivity at 25 kHz shall be -79.3 dB in VHF, and -78.3 dB in UHF.
- 3.4.12.7** Selectivity at 12.5 kHz shall be -67.5 dB for 700 MHz and 800 MHz. Sensitivity at 12.5 kHz shall be -70 dB in VHF, and -68.1 dB in UHF.
- 3.4.12.8** Spurious rejection shall be -76.6 dB for 700 MHz and 800 MHz, -93.2 dB for VHF, -80.3 dB for UHF.
- 3.4.12.9** Audio Distortion as rated shall be 0.9% for 700MHz and 800 MHz, 1.2% for VHF and 0.91% for UHF.
- 3.4.12.10** FM Hum and Noise at 25 kHz separation shall be -54 dB for 700 MHz and 800 MHz and -53.8 dB for VHF, and -53.5 dB for UHF.
- 3.4.12.11** FM Hum and Noise at 12.5 kHz separation shall be -48 dB for 700 MHz and 800 MHz and VHF, it shall -47.4 dB for UHF.
- 3.4.12.12** Intermodulation shall be -80 dB for 700 MHz and 800 MHz, -80.5 dB for VHF and -80.2 dB for UHF.
- 3.4.13** Digital Single Band portable radio shall be Integrated GPS capable.
- 3.4.13.1** GPS shall be capable of receiving at least 12 channels.
- 3.4.13.2** GPS tracking sensitivity shall be -159 dBm or better.
- 3.4.13.3** GPS accuracy shall be <10 meters (95%).
- 3.4.13.4** GPS cold start shall be <60 seconds (95%).
- 3.4.13.5** GPS hot start shall be <10 seconds (95%).
- 3.4.13.6** GPS mode of operation shall be Autonomous.
- 3.4.14** Digital Single Band portable radio shall support the following trunking standards: clear or digital encrypted ASTRO 25 Trunked operation.
- 3.4.15** Digital Single Band portable radio shall be capable of Analog MDC-1200 and Digital APCO P25 Conventional Systems Configurations.
- 3.4.16** Digital Single Band portable radio shall be capable of Embedded Digital signaling (ASTRO and ASTRO 25).

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- 3.4.16.1 Astro Mode signaling rate shall be 9.6kbps.
- 3.4.16.2 Digital ID capacity shall be 10,000,000 Conventional / 48,000 Trunking.
- 3.4.16.3 Digital access codes shall be at least 4,096 network site addresses.
- 3.4.16.4 Astro Digital user Group network site addresses shall be at least 4,096 network addresses.
- 3.4.16.5 Project 25-CAI Digital User Group addresses shall be at least 65,000 Conventional / 4,096 Trunking.
- 3.4.17 Digital Single Band portable radio must use Windows XP or newer software for all programming functions.
 - 3.4.17.1 Programming cable must use USB technology to connect to the programming computer.
 - 3.4.17.2 All currently licensable frequencies shall be considered acceptable to the unit.
 - 3.4.17.3 Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog, trunking/non-trunking, encode/decode, encrypted/non-encrypted, transmit frequency, receive frequency, digital/analog CTCSS tones/no-tones.
 - 3.4.17.4 The radio shall have an alphanumeric top display with a minimum of 2 rows of 14 characters each, plus a full bitmap color LCD display of 4 rows of text X 14 characters, 2 lines of icons, 1 menu line X 3 menus.
 - 3.4.17.5 The radio shall have a backlight keyboard, 3 softkeys, a 4 direction navigation key, home and data buttons.
 - 3.4.17.6 The radio shall have an "emergency" button with a clearly distinctive color.
- 3.4.18 Each Digital Single Band portable radio shall have the following options available for purchase.
 - 3.4.18.1 Digital Single Band portable radio, Statewide Operation 380-470 MHz UHF with AES Encryption (SIRN Tier 1)
 - 3.4.18.1.1 Digital Single Band Portable radio, VHF operation with

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AES encryption.

3.4.18.2 Digital Single Band portable radio, Statewide Operation 380-470 MHz UHF without AES Encryption, (SIRN Tier 2)

3.4.18.2.1 Digital Single Band Portable radio, VHF operation without AES encryption.

3.4.19 Programming Software for Digital Single Band portable Radio. Programming software shall include unlimited seats.

3.4.20 Programming Cable for Digital Single Band portable radio.

3.4.21 Public Safety Yellow housing

3.4.22 GPS enable shall be an option.

3.4.23 Spare speaker microphone w/3.5mm audio jack.

3.4.24 Spare battery.

3.4.25 Spare ac rapid charger.

3.4.26 Spare antenna for Digital Single Band Portable Radio.

3.4.26.1 Spare GPS capable antenna for Digital Single Band Portable Radio.

3.4.27 Battery life shall have the capability to be 8 hours or greater. A Lithium-Ion battery or Lithium Polymer battery is acceptable. Nickel-Cadmium batteries are not acceptable.

3.4.27.1 A rapid charge battery shall be provided and shall be able to reach full capacity in 4 hours.

3.4.27.2 The radio shall have a duty cycle of 5/5/90 per Telecommunications Industry Association/Electronic Industry Alliance (TIA/EIA), specification 90(5% receive/5% transmit/90% standby).

3.4.28 Spare hard plastic case with 3 inch belt clip.

3.4.29 Encryption Key Loader cable (for KVL3000+) for Digital Single Band Portable Radio (2000 channels).

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3.4.30 The Digital Single Band Portable radio shall be capable of having at least two “Dynamic” zones in the radio permitting users to create user defined zones of channels/talkgroups.

3.4.31 Over-The-Air Programming (OTAP) shall be enabled, unless requested to not be included.

3.4.31.1 There shall be an option for removing the OTAP feature from the radio.

3.4.32 Over-The-Air Rekeying (OTAR) shall be available as an option to be enabled.

3.5 DIGITAL SINGLE BAND MOBILE RADIO (DASH MOUNT ONLY)

3.5.1 Digital Single Band mobile radio shall be capable of at least 512 channel operation and shall be P-25 Phase 2 compliant.

3.5.1.1 Each Digital Single Band Mobile Radio shall come with the following: Specified radio, under dash mounting bracket, remote speaker, microphone, microphone hang-up clip, all necessary cables, including ignition sense wire, mounting hardware, and instruction manual.

3.5.2 Digital Single Band mobile radio shall be capable of operating in the following frequency bands: VHF (136-174 Mhz.), UHF R1(380-470 Mhz.), 700 Mhz. (764-776 Mhz, 794-806 Mhz.), 800 Mhz. (806-824 Mhz., 851-870 Mhz.).

3.5.3 Digital Single Band mobile radio shall be capable of utilizing the following channel spacing: 6.25 Khz., 12.5 Khz., 25 Khz., and 30 Khz.

3.5.4 Digital Single Band mobile radio shall be capable of using the following encryption algorithms: AES, and ADP

3.5.4.1 Digital Single Band mobile radio shall have an Encryption Algorithm Capacity of one (1).

3.5.4.2 Encryption Keys Module for the Digital Single Band mobile radio shall be capable of storing 1024 keys. Programmable for 64 Common Key Reference (CKR) or 16 Physical Identifier (PID).

3.5.4.3 The Encryption frame re-sync interval shall be: P25 CAI 300 mSec.

3.5.4.4 Encryption keying shall be loaded by a Key Variable Loader (KVL).

3.5.4.5 Synchronization shall be: XL-Counter Addressing ; OFB-Output Feedback.

3.5.4.6 The Vector Generator shall be the National Institute of Standards and Technology (NIST) approved random number generator.

3.5.4.7 The encryption shall be digital.

3.5.4.8 Key erasure shall be accomplished by keyboard command and tamper detection.

3.5.4.9 Encryption standards shall be: FIPS 140-2 Level 3, FIPS 197.

3.5.4.10 Key storage shall be in tamper protected volatile or non-volatile memory.

3.5.5 Digital Single Band mobile radio shall be capable of the following transmit power levels: 10-30 watts (700 MHz), 10-35 watts (800 Mhz.), 10-50 watts (VHF), 10-40 watts (UHF R-1) 10-45 watts (UHF R-2) 450-485 MHz , 10-40 watts (UHF R-2 485-512 Mhz). 10-25 watts (UHF R-2 512-520 MHz). The Vendor shall list each power range option as a separate listing in the Pricing Pages.

3.5.5.1 Transmitter channel spacing shall be: 25/12.5 kHz in the 700 MHz range; 25/12.5 kHz in the 800 MHz range; 30/25/12.5 kHz in the VHF range; 25/12.5 kHz in UHF Range 1 and 25/12.5 kHz in UHF Range 2.

3.5.5.2 The frequency separation shall be the full bandwidth.

3.5.5.3 Frequency stability shall be: $\pm 0.00015\%$ in 700 MHz, $\pm 0.00015\%$ in 800 Mhz., $\pm 0.0002\%$ in VHF, $\pm 0.0002\%$ in UHF R-1, $\pm 0.0002\%$ in UHF R-2 frequency ranges.

3.5.5.4 Audio distortion shall be 2% in all frequency ranges.

3.5.5.5 FM Hum and Noise at 25 kHz separation shall be: -50 dB in 700 MHz and 800 MHz, -53 dB in VHF, UHF range 1 and UHF Range 2. At 12.5 kHz separation shall be -48 dB in 700 MHz and 800 MHz, -52 dB in VHF, and -50 dB in UHF range 1 and UHF range 2.

3.5.5.6 Modulation Fidelity (C4FM) for 12.5 kHz digital channel shall be ± 2.8 kHz. in all frequency ranges.

3.5.6 Digital Single Band mobile radio shall be P-25 compliant, P-25 Trunking if an option shall be included.

- 3.5.7** Digital Single Band mobile radio shall be configured to operate in one of the following configurations: VHF (136-174 MHz), UHF R1 (380-470 Mhz), and UHF R2 (450-520 Mhz), 700/800 (764-870Mhz). Each frequency range shall be listed as a separate option in the Pricing Pages.
- 3.5.8** Digital Single Band mobile radio shall be capable of scanning both analog channels and digital channels in the same scan list.
- 3.5.8.1** Radio shall be capable of using and storing user defined scan lists.
- 3.5.8.2** Predefined scan lists may be edited by the user utilizing buttons on the radio.
- 3.5.8.3** Scan lists shall be able to be established at the user/keypad level.
- 3.5.8.4** Scanning shall be enabled and disabled by depressing no more than one button one time.
- 3.5.8.5** Digital Dual Band Mobile radio shall be capable of having a separate scan list for each zone as well as at least two “Dynamic” scan lists for the radio.
- 3.5.8.6** The radio shall be able to simultaneously scan both bands in the radio as well as “Trunking” and “Conventional” channels.
- 3.5.9** Digital Single Band mobile radio shall be capable of Over-The-Air Programming (OTAP) and Over-The-Air Rekeying (OTAR).
- 3.5.9.1** The radio shall have OTAP enabled.
- 3.5.9.2** The manufacturer’s OTAP infrastructure software and hardware must be compatible and operational through the existing SORN equipment and software connected to the Motorola Core Switch to facilitate OTAP, or it must be furnished at no additional charge.
- 3.5.10** Digital Single Band mobile radio shall meet the following Standards: MIL-STD 810C, MIL-STD 810D, MIL-STD 810E, MIL-STD 810E, MIL-STD 810F, MIL-STD 810G.
- 3.5.11** Digital Single Band mobile radio shall be configured as a dash mount only.
- 3.5.12** Receiver channel spacing shall be 25/12.5 kHz in 700 MHz, 800 MHz, UHF Range 1, and UHF Range 2. Receiver channel Spacing shall be 30/25/12.5 kHz in the VHF Range.

3.5.12.1 Maximum frequency separation shall be full bandsplit for each frequency range.

3.5.12.2 Audio output power at 3% distortion shall be 7.5 W or 15 W for all frequency ranges.

3.5.12.3 Receiver frequency stability shall be +/- 0.8 PPM for frequency ranges.

3.5.12.4 Analog sensitivity at 12dB SINAD shall be -121 dBm for 700 MHz and 800 MHz. Analog sensitivity at 12dB SINAD shall be -123 dBm using a pre-amp and -119 dBm standard for VHF, UHF range 1 and UHF range 2.

3.5.12.5 Digital sensitivity at 5% BER shall be -121.5 dBm for 700 MHz and 800 MHz. Digital sensitivity at 5% BER shall be -123 dBm using a pre-amp and -119 dBm standard for VHF, UHF range 1 and UHF range 2.

3.5.12.6 Intermodulation at 25 kHz shall be 82 dB for 700 MHz and 800 MHz. Intermodulation at 25 kHz using a pre-amp shall be 84 dB in VHF, 82 dB in UHF range 1 and UHF range 2. Intermodulation at 25 kHz without a pre-amp shall be 86 dB for VHF, UHF range 1 and UHF range 2.

3.5.12.7 Intermodulation at 12.5 kHz shall be 82 dB for 700 MHz and 800 MHz. Intermodulation at 12.5 kHz using a pre-amp shall be 85 dB in VHF, 83 dB in UHF range 1 and UHF range 2. Intermodulation at 12.5 kHz without a pre-amp shall be 86 dB in VHF and 85 dB in UHF range 1 and UHF range 2.

3.5.12.8 Spurious rejection shall be 91 dB for 700 MHz and 800 MHz, 95 dB for VHF, 93 dB for UHF range 1 and UHF range 2.

3.5.12.9 Audio Distortion as rated shall be 1.2%.

3.5.12.10 FM Hum and Noise at 25 kHz separation shall be 59 dB for 700 MHz, 800 MHz and VHF, 55 dB for UHF range 1 and 57 dB for UHF range 2.

3.5.12.11 FM Hum and Noise at 12.5 kHz separation shall be 50 dB for all frequency ranges.

3.5.12.12 Selectivity at 25 kHz shall be 85 dB for all frequency ranges, at 12.5 kHz it shall be 75 dB for all frequency ranges, at 30 kHz it shall be 90 dB for VHF.

3.5.13 Digital Single Band mobile radio shall operate at 13.8V DC \pm 20%, Negative Ground.

3.5.13.1 Standby current at 13.8 V shall be no greater than 0.85A for all frequency ranges.

3.5.13.2 Receive current at rated audio at 13.8V shall be no greater than 3.2A for all frequency Ranges.

3.5.13.3 Transmit current at rated power shall be: 136-174 MHz (10-50 Watts), 13A (50 W), 8A (15W); 380-470 MHz (10-40 Watts), 11A (40 W), 8A (15W); 450-520 MHz (10-45 Watts), 11A (45 W), 8A (15W); 764-870 MHz (10-35 Watts), 12A (50W), 8A (15W).

3.5.14 Digital Single Band mobile radio shall be Integrated GPS capable.

3.5.14.1 GPS shall be capable of receiving at least 12 channels.

3.5.14.2 GPS tracking sensitivity shall be -153dBm or better.

3.5.14.3 GPS accuracy shall be <10 meters (95%).

3.5.14.4 GPS cold start shall be <60 seconds (95%).

3.5.14.5 GPS hot start shall be <10 seconds (95%).

3.5.14.6 GPS mode of operation shall be Autonomous.

3.5.15 Digital Single Band mobile radio shall support the following trunking standards: clear or digital encrypted ASTRO 25 Trunked operation.

3.5.16 Digital Single Band mobile radio shall be capable of Analog MDC-1200 and Digital APCO P25 Conventional Systems Configurations.

3.5.17 Digital Single Band mobile radio shall be capable of Embedded Digital signaling (ASTRO and ASTRO 25).

3.5.17.1 Astro Mode signaling rate shall be 9.6kbps.

3.5.17.2 Digital ID capacity shall be 10,000,00 Conventional / 48,000 Trunking.

3.5.17.3 Digital access codes shall be at least 4,096 network site addresses.

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3.5.17.4 Astro Digital user Group network site addresses shall be at least 4,096 network addresses.

3.5.17.5 Project 25-CAI Digital User Group addresses shall be at least 65,000 Conventional / 4,096 Trunking.

3.5.18 Digital Single Band mobile radio must use Windows XP or newer Software for all programming functions.

3.5.18.1 Programming cable must use USB technology to connect to the programming computer.

3.5.18.2 All currently licensable frequencies shall be considered acceptable to the unit.

3.5.18.3 Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog, trunking/non-trunking, encode/decode, encrypted/non-encrypted, transmit frequency, receive frequency, digital/analog CTCSS tones/no-tones.

3.5.18.4 The radio shall have a full bitmap color LCD display of 3 rows of text X 14 characters, 1 line of icons, 1 menu line X 3 menus, night/day mode button.

3.5.18.5 The radio shall have an “emergency” button with a clearly distinctive color.

3.5.19 Each Digital Single Band Mobile radio shall have the following options available for purchase:

3.5.19.1 Digital Single Band Mobile radio, (512 channels) 380-470 MHz, with, AES Encryption, Dash Mount (low- medium power as specified in section 3.5.5).

3.5.19.1.1 Digital Single Band Mobile radio, (512 channels) VHF, with AES Encryption, Dash Mount (low- medium power as specified in section 3.5.5).

3.5.19.2 Digital Single Band Mobile radio, (512 Channels) 380-470 MHz w/o AES Encryption, Dash mount (low-medium power as specified in Section 3.5.5).

3.5.19.2.1 Digital Single Band Mobile radio, (512 Channels) VHF, w/o AES Encryption, Dash Mount (low-medium power as specified in section 3.5.5).

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- 3.5.20 Spare Microphone for Digital Single Band Mobile radio.
- 3.5.21 Programming Software for Digital Single Band Mobile Radio. Programming software shall include unlimited seats.
- 3.5.22 Programming Cable for Digital Single Band Mobile radio.
- 3.5.23 High Power Option (up to 110 watts added on to Digital Single Band Mobile radio (as specified in section 3.5.5).
- 3.5.24 GPS enable shall be an option.
 - 3.5.24.1 GPS antenna for Digital Single Band mobile radio.
- 3.5.25 AC power supply for desk top operation.
- 3.5.26 Desk microphone for a Digital Single Band radio.
- 3.5.27 Optional remote speaker for Digital Single Band Mobile Radio (512 Channels).
- 3.5.28 Encryption Key Loader cable (for KVL3000+) for Digital Single Band Mobile Radio (512 channels).
- 3.5.29 The Digital Single Band Mobile radio shall be capable of having at least two “Dynamic” zones in the radio permitting users to create user defined zones of channels/talkgroups.
- 3.5.30 Digital Single Band mobile radio shall be Phase 2 capable and must meet current P25 standards, and be backwards and forwards compatible and future-ready to support new technology and data applications.
- 3.5.31 Over-The-Air Programming (OTAP) shall be enabled, unless requested to not be included.
 - 3.5.31.1 There shall be an option for removing the OTAP feature from the radio.
- 3.5.32 Over-The-Air Rekeying (OTAR) shall be available as an option to be enabled.

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3.6 DIGITAL SINGLE BAND PORTABLE RADIO

3.6.1 Digital Single Band Portable radio shall be capable of at least 512 channels and shall be P-25 Phase 2 compliant.

3.6.1.1 Digital Dual Band Portable shall be delivered with the following: the radio, antenna, battery, spare battery, a hard plastic case, a rapid charger, a 2 1/2" belt clip, a remote speaker microphone with a 3.5mm audio jack, and instruction manual.

3.6.2 Digital Single Band Portable radio shall be capable of operating in the following frequency bands: VHF (136-174 Mhz.), UHF (380-470 Mhz.), 700 Mhz. (764-776 Mhz., 794-806 Mhz.) 800 Mhz. (806-824 Mhz., 851-870 Mhz.).

3.6.3 Digital Single Band portable radio shall be capable of utilizing the following channel spacing: 6.25 Khz., 12.5 Khz. and 25 Khz.

3.6.4 Digital Single Band portable radio shall be capable of using the following encryption algorithms: AES.

3.6.4.1 Digital Single Band portable radio shall have an Encryption Algorithm Capacity of ONE (1).

3.6.4.2 Encryption Keys Module for the Digital Single Band mobile radio shall be capable of storing 1024 keys. Programmable for 128 Common Key Reference (CKR) or 16 Physical Identifier (PID).

3.6.4.3 The Encryption frame re-sync interval shall be: P25 CAI 300 mSec.

3.6.4.4 Encryption keying shall be loaded by a Key Variable Loader (KVL).

3.6.4.5 Synchronization shall be: XL-Counter Addressing ; OFB-Output Feedback.

3.6.4.6 The Vector Generator shall be the National Institute of Standards and Technology (NIST) approved random number generator.

3.6.4.7 The encryption shall be digital.

3.6.4.8 Key erasure shall be accomplished by keyboard command and tamper detection.

3.6.4.9 Encryption standards shall be: FIPS 140-2 Level 3, FIPS 197.

- 3.6.4.10** Key storage shall be in tamper protected volatile or non-volatile memory.
- 3.6.5** Digital Single Band portable radio shall be capable of the following transmit power levels: 1- 3 watts (700 Mhz), 1- 3 watts (800 Mhz.), 1 - 6 watts (VHF), 1- 5 watts (UHF R-1).
- 3.6.5.1** Transmitter channel spacing shall be: 25/12.5 kHz in the 700 MHz. range; 25/12.5 kHz in the 800 MHz range; 30/25/12.5 kHz in the VHF range; 25/12.5 kHz in UHF Range.
- 3.6.5.2** The frequency separation shall be the full bandsplit.
- 3.6.5.3** Frequency stability shall be +/- 0.00010% in all frequency ranges.
- 3.6.5.4** Audio distortion shall be 1 % in all frequency ranges.
- 3.6.5.5** FM Hum and Noise at 25 kHz separation shall be: -47 dB in 700 MHz., -47 dB in 800 MHz, -47 dB in VHF, and UHF range. At 12.5 kHz separation shall be -45 dB in 700 MHz., -45 dB in 800 MHz, UHF range, and -47 dB in VHF.
- 3.6.6** Digital Single Band portable radio shall be P-25 compliant, P-25 Trunking if an option shall be included.
- 3.6.7** Digital Single Band portable radio shall be capable of single band operation.
- 3.6.8** Digital Single Band portable radio shall be capable of scanning both analog channels and digital channels in the same scan list.
- 3.6.8.1** Radio shall be capable of using and storing user defined scan lists.
- 3.6.8.2** Predefined scan lists may be edited by the user utilizing buttons on the radio.
- 3.6.8.3** Scan lists shall be able to be established at the user/keypad level.
- 3.6.8.4** Scanning shall be enabled and disabled by depressing no more than one button one time.
- 3.6.8.5** The radio shall be able to simultaneously scan both bands in the radio as well as “Trunking” and “Conventional” channels.
- 3.6.9** Digital Single Band portable radio shall be capable of Over-The-Air Programming (OTAP) and Over-The-Air Rekeying (OTAR).

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3.6.9.1 The radio shall have OTAP enabled.

3.6.9.2 The manufacturer's OTAP infrastructure software and hardware must be compatible and operational through the existing SIRM equipment and software connected to the Motorola Core Switch to facilitate OTAP, or it must be furnished at no additional charge.

3.6.10 Digital Single Band portable radio shall meet the following standards: MIL-STD 810C, MIL-STD 810D, MIL-STD 810E, MIL-STD 810F, MIL-STD 810G.

3.6.11 Digital Single Band portable radio shall be Phase 2 capable and must meet current P25 standards, and be backwards and forwards compatible and future-ready to support new technology and data applications.

3.6.12 Receiver channel spacing shall be 25/12.5 kHz in 700 MHz, 800 MHz, UHF Range. Receiver channel spacing shall be 30/25/12.5 kHz in the VHF Range.

3.6.12.1 Maximum frequency separation shall be full bandsplit for each frequency range.

3.6.12.2 Audio output power at rated shall be 500 mW for all frequency ranges.

3.6.12.3 Receiver frequency stability shall be +/- 1.0 PPM for all frequency ranges.

3.6.12.4 Analog sensitivity at 12dB SINAD shall be 0.226 μ V for 700 MHz and 800 MHz. Analog sensitivity at 12dB SINAD shall be 0.216 μ V for VHF and 0.234 μ V for UHF.

3.6.12.5 Digital sensitivity at 5% BER shall be 0.266 μ V for 700 MHz and 800 MHz. Digital sensitivity at 5% BER shall be 0.188 μ V for VHF and 0.207 μ V for UHF range.

3.6.12.6 Selectivity at 25 kHz shall be -76 dB for all frequency ranges.

3.6.12.7 Selectivity at 12.5 kHz shall be -67 dB for 700 MHz and 800 MHz. Sensitivity at 12.5 kHz shall be -70 dB in VHF, and -67 dB in UHF.

3.6.12.8 Spurious rejection shall be -76.6 dB for 700 MHz and 800 MHz, -85 dB for VHF, 80.3 dB for UHF.

3.6.12.9 Audio Distortion as rated shall be 1.0% for all frequency ranges.

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3.6.12.10 FM Hum and Noise at 25 kHz separation shall be -53 dB for 700 MHz and 800 MHz and -51 dB for VHF, and -50 dB for UHF.

3.6.12.11 FM Hum and Noise at 12.5 kHz separation shall be -47 dB for 700 MHz and 800 MHz, it shall -45 dB for VHF, UHF.

3.6.12.12 Intermodulation shall be -75 dB for 700 MHz and 800 MHz, -76 dB for VHF and -77 dB for UHF.

3.6.13 Digital Single Band portable radio shall be Integrated GPS capable.

3.6.13.1 GPS shall be capable of receiving at least 12 channels.

3.6.13.2 GPS tracking sensitivity shall be -159 dBm or better.

3.6.13.3 GPS accuracy shall be <10 meters (95%).

3.6.13.4 GPS cold start shall be <60 seconds (95%).

3.6.13.5 GPS hot start shall be <10 seconds (95%).

3.6.13.6 GPS mode of operation shall be Autonomous.

3.6.14 Digital Single Band portable radio shall support the following trunking standards: clear or digital encrypted ASTRO 25 Trunked operation.

3.6.15 5 Digital Single Band portable radio shall be capable of Analog MDC-1200 and Digital APCO P25 Conventional Systems Configurations.

3.6.16 Digital Single Band portable radio shall be capable of Embedded Digital signaling (ASTRO and ASTRO 25).

3.6.16.1 Astro Mode signaling rate shall be 9.6kbps.

3.6.16.2 Digital ID capacity shall be 10,000,00 Conventional /48,000 Trunking.

3.6.16.3 Digital access codes shall be at least 4,096 network site addresses.

3.6.16.4 Astro Digital user Group network site addresses shall be at least 4,096 network addresses.

3.6.16.5 Project 25-CAI Digital User Group addresses shall be at least 65,000 Conventional / 4,096 Trunking.

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3.6.17 Digital Single Band portable radio must use Windows XP or newer Software for all programming functions.

3.6.17.1 Programming cable must use USB technology to connect to the programming computer.

3.6.17.2 All currently licensable frequencies shall be considered acceptable to the unit.

3.6.17.3 Each channel shall be individually programmable with regard to wideband/narrowband operation, digital/analog, trunking/non-trunking, encode/decode, encrypted/non-encrypted, transmit frequency, receive frequency, digital/analog CTCSS tones/no-tones.

3.6.17.4 The radio shall have an alphanumeric display with a minimum of 2 rows of 14 characters each.

3.6.17.5 The radio shall have a minimum of 5 programmable function buttons.

3.6.17.6 The radio shall have an “emergency” button with a clearly distinctive color.

3.6.17.7 The radio shall have a menu navigation button capability.

3.6.18 Each Digital Single Band portable radio shall have the following options available for purchase.

3.6.18.1 Digital Single Band portable radio (512 Channels), Statewide Operation 380-470 MHz UHF with, AES Encryption (SIRN Tier 1).

3.6.18.1.1 Digital Single Band Portable Radio (512 Channels), VHF Operation with AES encryption.

3.6.18.2 Digital Single Band portable radio, Statewide Operation 380-470 MHz UHF without AES Encryption, (SIRN Tier 2)

3.6.18.2.1 Digital Single Band Portable Radio (512 Channels), VHF operation without AES encryption.

3.6.19 Programming Software for Digital Single Band portable Radio. Programming software shall include unlimited seats.

3.6.20 Programming Cable for Digital Single Band portable radio.

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- 3.6.21 Public Safety Yellow housing
- 3.6.22 GPS enable shall be an option.
- 3.6.23 Spare speaker microphone w/3.5mm audio jack.
- 3.6.24 Spare battery.
- 3.6.25 Spare ac rapid charger.
- 3.6.26 Spare antenna for Digital Single Band Portable Radio.
 - 3.6.26.1 Spare GPS capable antenna for Digital Single Band Portable Radio
- 3.6.27 Battery life shall have the capability to be 8 hours or greater. A Lithium-Ion battery or Lithium Polymer battery is acceptable. Nickel-Cadmium batteries are not acceptable.
 - 3.6.27.1 A rapid charge battery shall be provided and shall be able to reach full capacity in 4 hours.
 - 3.6.27.2 The radio shall have a duty cycle of 5/5/90 per Telecommunications Industry Association/Electronic Industry Alliance (TIA/EIA), specification 903 (5% receive/5% transmit/90% standby).
- 3.6.28 Spare hard plastic case with 2 ½ inch belt clip.
- 3.6.29 Encryption Key Loader cable (for KVL3000+) for Digital Single Band Mobile Radio (512 channels).
- 3.6.30 The Digital Single Band Portable radio shall be capable of having at least two “Dynamic” zones in the radio permitting users to create user defined zones of channels/talkgroups.
- 3.6.31 Over-The-Air Programming (OTAP) shall be enabled, unless requested to not be included.
 - 3.6.31.1 There shall be an option for removing the OTAP feature from the radio.
- 3.6.32 Over-The-Air Rekeying (OTAR) shall be available as an option to be enabled.

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3.7 Digital Remote Controlled Base Station System (Consolette)

- 3.7.1** Digital Remote Controlled Base Station System (Sometimes called a Consolette) consists of an RF base station configured as a consolette, meeting the specification listed in section 3.1, an aggregate device configured as a junction box allowing a desk top controller to be remotely located in excess of 5000 feet from the RF base station, and a desk top controller.
- 3.7.2** Digital Remote Controlled Base Station System (Sometimes called a Consolette) consists of an RF base station configured as a consolette, meeting the specification listed in section 3.2, an aggregate device configured as a junction box allowing a desk top controller to be remotely located in excess of 5000 feet from the RF base station, and a desk top controller.
- 3.7.3** Desk top controller shall be similar in appearance to an office desk phone. It shall be configured to allow full control of the base station through a display and preprogrammed function buttons.
- 3.7.3.1** It shall support speaker phone and hand set operations. The desk set controller shall be an MC5000 Deskset controller or equal.
- 3.7.3.2** The digital deskset controller shall remotely control all radio functions and frequencies of the Consolette.
- 3.7.3.3** All of the functionality provided by the buttons from the radio shall be duplicated on the deskset with customized labels, so a user that is familiar with the radio can easily use the deskset.
- 3.7.3.4** Desk top controller shall have automatic line leveling to compensate for variations in phone lines.
- 3.7.3.5** Desk top controller shall have a 2-line, 20 character backlit display capable of showing all text messages generated by the radio control head.
- 3.7.3.6** Desk top controller shall have an adjustable mounting bracket to allow optimal viewing angles for desktop operation.
- 3.7.3.7** Desk top controller shall come standard with a 110/220VAC, 50/60 Hz power supply.
- 3.7.3.8** Desk top controller shall accept line impedance of 600 Ω nominal to 10K Ω .
- 3.7.3.9** Desk top controller shall have an adapter kit to allow for wall mount applications.

- 3.7.3.10** Desk top controller shall support an IP interface to the signal Aggregate Device, and an IP interface to the base station device.
- 3.7.3.11** Desk top controller shall support a SB9600 digital interface to RF base station device.
- 3.7.3.12** Desk top controller shall support a Tone Remote Control interface to an RF base station device.
- 3.7.3.13** Desk top controller shall be able to directly connect to the RF base station device without the use of a signal aggregate device.
- 3.7.3.14** Desk top controller shall support direct programming configuration.
- 3.7.3.15** Desk top controller shall support remote programming configuration through a LAN connection.
- 3.7.4** Signal Aggregate Device shall support four desktop controllers.
 - 3.7.4.1** Signal Aggregate Device shall come standard with a 110/220VAC, 50/60 Hz power supply.
 - 3.7.4.2** Signal Aggregate Device shall allow the Desk top controller to be located In excess of 5000 feet from the radio.
 - 3.7.4.3** Signal Aggregate Device shall be capable of both tone remote and DC remote control.
- 3.7.5** RF Base station(Console) shall be a Digital Dual Band radio, and shall meet the same specifications as those listed in section 3.1 of this document.
- 3.7.6** RF Base station (Console) shall be a Digital Single Band radio, and shall meet the same specifications as those listed in section 3.2 of this document.
- 3.7.7** RF base station (Console) shall come standard with a 110/220VAC, 50/60 Hz Power supply.
- 3.7.8** RF base station (Console) shall support IP interface to Signal Aggregate Device.
- 3.7.9** RF base station (Console) shall support Tone Remote control to Signal Aggregate Device.
- 3.7.10** RF base station (Console) shall support SB9600 Digital Interface to Signal Aggregate Device.

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3.8 WARRANTY and SOFTWARE

- 3.8.1** All items offered for purchase under this RFQ shall be warranted by the seller for a period of not less than one year.
- 3.8.2** Vendor shall furnish a copy of the most current version of software with each radio.
- 3.8.3** All features that are placed into the radio by way of programming shall remain for the life of the radio.
- 3.8.4** Any lost feature (i.e., number of channels, type of radio, etc.) will be replaced at no charge during the warranty period.
- 3.8.5** All firmware needed to correct radio product defects as identified by the user agency must be provided free of charge during the warranty period. This does not include enhancements or addition of features.

4. CONTRACT AWARD:

- 4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price on all Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Pricing Pages:** Vendor should complete the Pricing Pages by placing the cost of a single unit of the requested item in the "Unit Price" section and then multiplying the "Unit Price" by the "Estimated Quantity" and then placing the result in the "Extended Price". The Vendor will then total all of the "Extended Price" lines and place the total at the bottom of the "Extended Price" column. Vendor should complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Notwithstanding the foregoing, the Purchasing Division may correct errors at its discretion. Vendor should type or electronically enter the information into the Pricing Pages to prevent errors in the evaluation.

5 ORDERING AND PAYMENT:

- 5.1 Ordering:** Vendor shall accept orders by regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Any on-line ordering system must have the capability to restrict prices and available items to conform to the Catalog originally submitted with this RFQ. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 5.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6 DELIVERY AND RETURN:

- 6.1 Delivery Time:** Vendor shall deliver standard orders within 30 working days after orders are received. Vendor shall deliver emergency orders within 20 working days after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.
- 6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.3 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.
- 6.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

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- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7 MISCELLANEOUS:

- 7.1 No Substitutions:** Vendor shall supply only Contract Items submitted in response to the RFQ unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 7.2 Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 7.3 Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 7.4 Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: _____
Telephone Number: _____
Fax Number: _____
Email Address: _____

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PLEASE NOTE:

PRICING PAGES WILL BE ADDED VIA ADDENDUM.

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

(Company)

(Authorized Signature)

(Representative Name, Title)

(Phone Number)

(Fax Number)

(Date)

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. 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.

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.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"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 exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

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 _____

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 Vendor Preference, if applicable.

1. Application is made for 2.5% 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% 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% 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% 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% 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% 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.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

- ____ Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

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: _____