

Communications System and Services Agreement

Motorola Solutions, Inc. (“Motorola”) and Union County, NC (“Customer”) enter into this “Agreement,” pursuant to which Customer will purchase and Motorola will sell the System and Services, as described below. Motorola and Customer may be referred to individually as a “Party” and collectively as the “Parties.” For good and valuable consideration, the Parties agree as follows:

Section 1 ATTACHMENTS

1.1. EXHIBITS. The Exhibits listed below are exhibits related to the System sale and implementation. These Exhibits are incorporated into and made a part of this Agreement.

Exhibit A “Motorola Software License Agreement”

Exhibit B “Payment”

Exhibit C Proposal dated August 21 2023

Exhibit D “System Acceptance Certificate”

Int. _____

1.2. ADDENDUM (ADDENDA). Customer may elect to purchase professional or subscription services in addition to the System and related services. Any such services will be governed by the terms in the main body of the Agreement and an applicable Addendum containing terms specific to such service. Such Addenda will be labeled with the name of the service being purchased.

1.3 ORDER OF PRECEDENCE. In interpreting this Agreement and resolving any ambiguities: 1) the main body of this Agreement takes precedence over the exhibits (unless otherwise specified in an exhibit), and any inconsistency between Exhibits A through D will be resolved in their listed order, and 2) The applicable service Addendum will take precedence over the main body of the Agreement and the Exhibits.

Section 2 DEFINITIONS

Capitalized terms used in this Agreement have the following meanings:

“**Acceptance Tests**” means those tests described in the Acceptance Test Plan.

“**Addendum (Addenda)**” is the title of the document(s) containing a specific set of terms and conditions applicable to a particular service or other offering beyond the Communication System and System implementation services. The terms in the Addendum are applicable only to the specific service or offering described therein.

“**Administrative User Credentials**” means an account that has total access over the operating system, files, end user accounts and passwords at either the System level or box level. Customer’s personnel with access to the Administrative User Credentials may be referred to as the Administrative User.

“**Beneficial Use**” means when Customer first uses the System or a Subsystem for operational purposes (excluding training or testing).

“**Confidential Information**” means all information consistent with the fulfillment of this Agreement that is (i) disclosed under this Agreement in oral, written, graphic, machine recognizable, and/or sample form, being clearly designated, labeled or marked as confidential or its equivalent or (ii) obtained by examination, testing or analysis of any hardware, software or any component part thereof provided by discloser to recipient. ~~The nature and existence of this Agreement are considered Confidential Information.~~ Confidential Information that is disclosed orally must be identified as confidential at the time of disclosure and confirmed by the discloser by submitting a written document to the recipient within thirty (30) days after such disclosure. The written document must contain a summary of the Confidential

Int. _____

Information disclosed with enough specificity for identification purpose and must be labeled or marked as confidential or its equivalent. *

Int. _____

“Contract Price” means the price for the System and implementation Services, excluding applicable sales or similar taxes and freight charges. Further, unless otherwise stated in Exhibit B, “Payment” or the pricing pages of the proposal, recurring fees for maintenance, SUA, or subscription services are not included in the Contract Price.

“Deliverables” means all written information (such as reports, specifications, designs, plans, drawings, analytics, Solution Data, or other technical or business information) that Motorola prepares for Customer in the performance of the Services and is obligated to provide to Customer under this Agreement. The Deliverables, if any, are more fully described in the Statement of Work.

“Derivative Proprietary Materials” means derivatives of the Proprietary Materials that Motorola may from time to time, including during the course of providing the Services, develop and/or use and/or to which Motorola provides Customer access.

“Effective Date” means that date upon which the last Party executes this Agreement.

“Equipment” means the hardware components of the Solution that Customer purchases from Motorola under this Agreement. Equipment that is part of the System is described in the Equipment List.

“Feedback” means comments or information, in oral or written form, given to Motorola by Customer in connection with or relating to Equipment or Services, during the term of this Agreement.

“Force Majeure” means an event, circumstance, or act that is beyond a Party’s reasonable control, such as an act of God, an act of the public enemy, an act of a government entity, strikes, other labor disturbances, supplier performance, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, riots, or any other similar cause.

“Motorola Software” means software that Motorola or its affiliated companies owns.

“Non-Motorola Software” means software that a party other than Motorola or its affiliated companies owns.

“Open Source Software” (also called “freeware” or “shareware”) means software with either freely obtainable source code, license for modification, or permission for free distribution.

“Proprietary Materials” means certain software tools and/or other technical materials, including, but not limited to, data, modules, components, designs, utilities, subsets, objects, program listings, models, methodologies, programs, systems, analysis frameworks, leading practices and specifications which Motorola has developed prior to, or independently from, the provision of the Services and/or which Motorola licenses from third parties.

“Proprietary Rights” means the patents, patent applications, inventions, copyrights, trade secrets, trademarks, trade names, mask works, know-how, and other intellectual property rights in and to the Equipment and Software, including those created or produced by Motorola under this Agreement and any corrections, bug fixes, enhancements, updates or modifications to or derivative works from the Software whether made by Motorola or another party.

“Services” means system implementation, maintenance, support, subscription, or other professional services provided under this Agreement, which may be further described in the applicable Addendum and/or SOW.

“Software” (i) means proprietary software in object code format, and adaptations, translations, de-

* Notwithstanding anything in this Agreement to the contrary, Motorola acknowledges that Customer is subject to Chapter 132 of the North Carolina General Statutes, the Public Records Act, and that this Communications System and Services Agreement and the Software License Agreement may be a public record as defined in such Act, and as such, may be open to public disclosure and copying.

compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

"Software License Agreement" means the Motorola Software License Agreement (Exhibit A).

"Software Support Policy" ("SwSP") means the policy set forth at https://www.motorolasolutions.com/content/dam/msi/secure/services/software_policy.pdf describing the specific technical support that will be provided to Customers under the Warranty Period and during any paid maintenance support period for Motorola Software. This policy may be modified from time to time at Motorola's discretion.

"Solution" means the combination of the System(s) and Services provided by Motorola under this Agreement.

"Solution Data" means Customer data that is transformed, altered, processed, aggregated, correlated or operated on by Motorola, its vendors or other data sources and data that has been manipulated or retrieved using Motorola know-how to produce value-added content to data consumers, including customers or citizens which is made available to Customer with the Solution and Services.

"Specifications" means the functionality and performance requirements that are described in the Technical and Implementation Documents.

"SUA" or "SUA II" means Motorola's Software Upgrade Agreement program.

"Subsystem" means a major part of the System that performs specific functions or operations. Subsystems are described in the Technical and Implementation Documents.

"System" means the Equipment, including incidental hardware and materials, Software, and design, installation and implementation services that are combined together into an integrated system; the System(s) is (are) described in the Technical and Implementation Documents.

"System Acceptance" means the Acceptance Tests have been successfully completed.

"System Data" means data created by, in connection with or in relation to Equipment or the performance of Services under this Agreement.

"Warranty Period" for System Hardware, Software, or services related to system implementation means one (1) year from the date of System Acceptance or Beneficial Use, whichever occurs first. Unless otherwise stated in the applicable Addendum, Warranty Period for other Services means ninety (90) days from performance of the Service.

Section 3 SCOPE OF AGREEMENT AND TERM

3.1. **SCOPE OF WORK.** Motorola will provide, install and test the System(s), and perform its other contractual responsibilities to provide the Solution, all in accordance with this Agreement. Customer will perform its contractual responsibilities in accordance with this Agreement.

3.2. **CHANGE ORDERS.** Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price or applicable subscription fees, Performance Schedule, or both, and will reflect the adjustment in a change order or Addendum. Neither Party is obligated to perform requested changes unless both Parties

execute a written change order.

3.3. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the Effective Date and continues until the date of Final Project Acceptance or expiration of the Warranty Period, or completion of the Services, whichever occurs last. The term and the effective date of recurring Services will be set forth in the applicable Addendum.

3.4. ADDITIONAL EQUIPMENT OR SOFTWARE. For three (3) years after the expiration date of the Agreement, Customer may order additional Equipment or Software, if it is then available. Each purchase order must refer to this Agreement, the expiration date of the Agreement, and must specify the pricing and delivery terms. The Parties agree that, notwithstanding expiration of the Agreement, the applicable provisions of this Agreement (except for pricing, delivery, passage of title and risk of loss to Equipment, warranty commencement, and payment terms) will govern the purchase and sale of the additional Equipment or Software. Additional or contrary terms in the purchase order will be inapplicable, unless signed by both parties. Title and risk of loss to additional Equipment will pass at ~~shipment~~^{*delivery}, warranty will commence upon delivery, and payment is due within thirty (30) days after the invoice date. Motorola will send Customer an invoice as the additional Equipment is shipped or Software is licensed. Alternatively, Customer may register with and place orders through the Motorola Solutions Customer Portal eCommerce Shop, and this Agreement will be the "Underlying Agreement" for those eCommerce transactions rather than the eCommerce Shop Terms and Conditions of Sale. eCommerce Shop registration and other information may be found at https://www.motorolasolutions.com/en_us/registration and the shop support telephone number is (800) 814-0601. Int. _____

3.5. MOTOROLA SOFTWARE. Any Motorola Software, including subsequent releases, is licensed to Customer solely in accordance with the Software License Agreement. Customer hereby accepts and agrees to abide by all of the terms and restrictions of the Software License Agreement.

3.6. NON-MOTOROLA SOFTWARE. Any Non-Motorola Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date unless the copyright owner has granted to Motorola the right to sublicense the Non-Motorola Software pursuant to the Software License Agreement, in which case it applies and the copyright owner will have all of Licensor's rights and protections under the Software License Agreement. Motorola makes no representations or warranties of any kind regarding Non-Motorola Software. Non-Motorola Software may include Open Source Software.

3.7. SUBSTITUTIONS. At no additional cost to Customer, Motorola may substitute any Equipment, Software, or services to be provided by Motorola, if the substitute meets or exceeds the Specifications and is of equivalent or better quality to the Customer. Any substitution will be reflected in a change order.

3.8. OPTIONAL EQUIPMENT OR SOFTWARE. This paragraph applies only if a "Priced Options" exhibit is shown in Section 1, or if the parties amend this Agreement to add a Priced Options exhibit. During the term of the option as stated in the Priced Options exhibit (or if no term is stated, then for one (1) year after the Effective Date), Customer has the right and option to purchase the equipment, software, and related services that are described in the Priced Options exhibit. Customer may exercise this option by giving written notice to Seller which must designate what equipment, software, and related services Customer is selecting (including quantities, if applicable). To the extent they apply, the terms and conditions of this Agreement will govern the transaction; however, the parties acknowledge that certain provisions must be agreed upon, and they agree to negotiate those in good faith promptly after Customer delivers the option exercise notice. Examples of provisions that may need to be negotiated are: specific lists of deliverables, statements of work, acceptance test plans, delivery and implementation schedules, payment terms, maintenance and support provisions, additions to or modifications of the Software License Agreement, hosting terms, and modifications to the acceptance and warranty provisions.

Section 4 SERVICES

4.1. If Customer desires and Motorola agrees to continue Services beyond the Term, Customer's issuance and Motorola's acceptance of a purchase order for Services will serve as an automatic extension of the Agreement for purposes of the continuing Services. Only the terms and conditions applicable to the performance of Services will apply to the extended Agreement.

4.2. During the Warranty Period, in addition to warranty services, Motorola will provide maintenance Services for the Equipment and support for the Motorola Software pursuant to the applicable maintenance and support Statements of Work. Support for the Motorola Software will be in accordance with Motorola's established Software Support Policy. Copies of the SwSP can be found at https://www.motorolasolutions.com/content/dam/msi/secure/services/software_policy.pdf and will be sent by mail, email or fax to Customer upon written request. Maintenance Services and support during the Warranty Period are included in the Contract Price. Unless already included in the Contract Price, if Customer wishes to purchase 1) additional maintenance or software support services during the Warranty Period; or 2) continue or expand maintenance, software support, installation, and/or SUA services after the Warranty Period, Motorola will provide the description of and pricing for such services in a separate proposal document. Unless otherwise agreed by the parties in writing, the terms and conditions in this Agreement applicable to maintenance, support, installation, and/or SUA Services, will be included in the Maintenance and Support Addendum, SUA Addendum, the applicable Statements of Work, and the proposal, (if applicable). These collective terms will govern the provision of such Services.

To obtain any such additional Services, Customer will issue a purchase order referring to this Agreement and the separate proposal document. Omission of reference to this Agreement in Customer's purchase order will not affect the applicability of this Agreement. Motorola's proposal may include a cover page entitled "Service Agreement" or "Installation Agreement", as applicable, and other attachments. These cover pages and other attachments are incorporated into this Agreement by this reference

4.3. PROFESSIONAL AND SUBSCRIPTION SERVICES. If Customer purchases professional or subscription Services as part of the Solution, additional or different terms specific to such Service will be included in the applicable Addendum and will apply to those Services. Customer may purchase additional professional or subscription services by issuing a purchase order referencing this Agreement and Motorola's proposal for such additional services.

4.4. Any information in the form of specifications, drawings, reprints, technical information or otherwise furnished to Customer in providing Services under this Agreement or Motorola data viewed, accessed, will remain Motorola's property, will be deemed proprietary, Confidential Information. This Confidential Information will be promptly returned at Motorola's request.

4.5. TOOLS. All tools, equipment, dies, gauges, models, drawings or other materials paid for or furnished by Motorola for the purpose of providing Services under this Agreement will be and remain the sole property of Motorola. Customer will ~~safeguard all such property while it is in Customer's custody or control, be liable for any loss or damage to this property, and~~ Int. ____ and return it to Motorola upon request. This property will be held by Customer for Motorola's use without charge and may be removed from Customer's premises by Motorola at any time without restriction. Upon termination of the contract for any reason, Customer shall return to Motorola all equipment delivered to Customer.

4.6. COVENANT NOT TO EMPLOY. During the term of this Agreement and continuing for a period of two (2) years thereafter, Customer will not ~~hire, engage on contract, solicit the employment of, or recommend employment to any third party of~~ Int. ____ any employee of Motorola or its subcontractors without the prior written authorization of Motorola. This provision applies only to those employees of Motorola or its subcontractors who are responsible for rendering Services under this Agreement. If this provision is found to be overly broad under applicable law, it will be modified as necessary to conform to applicable law.

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** The foregoing prohibition shall not apply to an employee responding to the general advertisement of an open position by Customer.

4.7. CUSTOMER OBLIGATIONS. If the applicable Statement of Work or Addendum contains assumptions that affect the Services or Deliverables, Customer will verify that they are accurate and complete. Any information that Customer provides to Motorola concerning the Services or Deliverables will be accurate and complete in all material respects. Customer will make timely decisions and obtain any required management approvals that are reasonably necessary for Motorola to perform the Services and its other duties under this Agreement. Unless the Statement of Work states the contrary, Motorola may rely upon and is not required to evaluate, confirm, reject, modify, or provide advice concerning any assumptions and Customer-provided information, decisions and approvals described in this paragraph.

4.8. ASSUMPTIONS. If any assumptions or conditions contained in this Agreement, applicable Addenda or Statements of Work prove to be incorrect or if Customer's obligations are not performed, Motorola's ability to perform under this Agreement may be impacted and changes to the Contract Price, subscription fees, project schedule, Deliverables, or other changes may be necessary. Int. _____
Motorola must notify Customer as soon as possible upon discovery of any incorrect assumptions or conditions.

4.9. NON-PRECLUSION. If, as a result of the Services performed under this Agreement, Motorola recommends that Customer purchase products or other services, nothing in this Agreement precludes Motorola from participating in a future competitive bidding process or otherwise offering or selling the recommended products or other services to Customer. Customer represents that this paragraph does not violate its procurement or other laws, regulations, or policies.

4.10. PROPRIETARY MATERIALS. Customer acknowledges that Motorola may use and/or provide Customer with access to Proprietary Materials and Derivative Proprietary Materials. The Proprietary Materials and the Derivative Proprietary Materials are the sole and exclusive property of Motorola and Motorola retains all right, title and interest in and to the Proprietary Materials and Derivative Proprietary Materials.

4.11. ADDITIONAL SERVICES. Any services performed by Motorola outside the scope of this Agreement at the direction of Customer will be considered to be additional Services which are subject to additional charges. Any agreement to perform additional Services will be reflected in a written and executed change order, Addendum or amendment to this Agreement.

Section 5 PERFORMANCE SCHEDULE

The Parties will perform their respective responsibilities in accordance with the Performance Schedule. By executing this Agreement, Customer authorizes Motorola to proceed with contract performance.

Section 6 CONTRACT PRICE, PAYMENT AND INVOICING

6.1. Customer affirms that a purchase order or notice to proceed is not required for contract performance or for subsequent years of service, if any, and that sufficient funds have been appropriated in accordance with applicable law. The Customer will pay all invoices as received from Motorola and any changes in scope will be subject to the change order process as described in this Agreement. At the time of execution of this Agreement, the Customer will provide all necessary reference information to include on invoices for payment in accordance with this Agreement.

6.2. CONTRACT PRICE. The Contract Price in U.S. dollars is \$2,847,153.00. If applicable, a pricing summary is included with the Payment schedule in Exhibit B. Motorola has priced the Services, Software, and Equipment as an integrated System. A change in Software or Equipment quantities, or Services, may affect the overall Contract Price, including discounts if applicable. Fees for professional, SUA, and/or subscription services which are not included in the Contract Price may be listed in Exhibit B, the pricing pages of the proposal, or the applicable Addendum. Int. _____
Pricing is accordance with NC State Contract #725G.

6.3. INVOICING AND PAYMENT. Motorola will submit invoices to Customer according to the Payment schedule in Exhibit B. Invoices will be mailed or emailed to Customer pursuant to Section 6.5, Invoicing and Shipping Addresses. Except for a payment that is due on the Effective Date, Customer will

make payments to Motorola within thirty (30) days after the ~~date~~^{receipt} of each invoice. Customer will make payments when due in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. Overdue invoices will bear simple interest at the maximum allowable rate. For reference, the Federal Tax Identification Number for Motorola is 36-1115800.

Int. _____

6.4. FREIGHT, TITLE, AND RISK OF LOSS. Motorola will pre-pay and add all freight charges to the invoices. Title and risk of loss to the Equipment will pass to Customer upon ~~shipment~~^{*}. Title to Software will not pass to Customer at any time. Motorola will pack and ship all Equipment in accordance with good commercial practices. * delivery of the Equipment to Customer

Int. _____

6.5. INVOICING AND SHIPPING ADDRESSES. Invoices will be sent to the Customer at the following address:

Name: _____
Address: _____
Phone: _____

E-INVOICE. To receive invoices via email:

Customer Account Number: _____
Customer Accounts Payable Email: _____
Customer CC(optional) Email: _____

The address which is the ultimate destination where the Equipment will be delivered to Customer is:

Name: _____
Address: _____

The Equipment will be shipped to the Customer at the following address (insert if this information is known):

Name: _____
Address: _____
Phone: _____

Customer may change this information by giving written notice to Motorola.

Section 7 SITES AND SITE CONDITIONS

7.1. ACCESS TO SITES. In addition to its responsibilities described elsewhere in this Agreement, Customer will provide a designated project manager; all necessary construction and building permits, zoning variances, licenses, and any other approvals that are necessary to develop or use the sites and mounting locations; and access to the worksites or vehicles identified in the Technical and Implementation Documents as reasonably requested by Motorola so that it may perform its duties in accordance with the Performance Schedule and Statement of Work. If the Statement of Work so indicates, Motorola may assist Customer in the local building permit process.

7.2. SITE CONDITIONS. Customer will ensure that all work sites it provides will be safe, secure, and in compliance with all applicable industry and OSHA standards. To the extent applicable and unless the Statement of Work states to the contrary, Customer will ensure that these work sites have adequate: physical space; air conditioning and other environmental conditions; adequate and appropriate electrical power outlets, distribution, equipment and connections; and adequate telephone or other communication lines (including modem access and adequate interfacing networking capabilities), all for the installation, use and maintenance of the System. Before installing the Equipment or Software at a work site, Motorola may inspect the work site and advise Customer of any apparent deficiencies or non-conformities with the requirements of this Section. This Agreement is predicated upon normal soil conditions as defined by the version of E.I.A. standard RS-222 in effect on the Effective Date.

7.3. SITE ISSUES. If a Party determines that the sites identified in the Technical and Implementation

Documents are no longer available or desired, or if subsurface, structural, adverse environmental or latent conditions at any site differ from those indicated in the Technical and Implementation Documents, the Parties will promptly investigate the conditions and will select replacement sites or adjust the installation plans and specifications as necessary. If change in sites or adjustment to the installation plans and specifications causes a change in the cost or time to perform, the Parties will equitably amend the Contract Price, Performance Schedule, or both, by a change order.

Section 8 TRAINING

Any training to be provided by Motorola to Customer will be described in the applicable Statement of Work. Customer will notify Motorola immediately if a date change for a scheduled training program is required. If Motorola incurs additional costs because Customer reschedules a training program less than thirty (30) days before its scheduled start date, Motorola may recover these additional costs.

Section 9 SYSTEM ACCEPTANCE

9.1. COMMENCEMENT OF ACCEPTANCE TESTING. Motorola will provide to Customer at least ten (10) days notice before the Acceptance Tests commence. System testing will occur only in accordance with the Acceptance Test Plan.

9.2. SYSTEM ACCEPTANCE. System Acceptance will occur upon successful completion of the Acceptance Tests. Upon System Acceptance, the Parties will memorialize this event by promptly executing a System Acceptance Certificate. If the Acceptance Test Plan includes separate tests for individual Subsystems or phases of the System, acceptance of the individual Subsystem or phase will occur upon the successful completion of the Acceptance Tests for the Subsystem or phase, and the Parties will promptly execute an acceptance certificate for the Subsystem or phase. If Customer believes the System has failed the completed Acceptance Tests, Customer will provide to Motorola a written notice that includes the specific details of the failure. If Customer does not provide to Motorola a failure notice within thirty (30) days after completion of the Acceptance Tests, System Acceptance will be deemed to have occurred as of the completion of the Acceptance Tests. Minor omissions or variances in the System that do not materially impair the operation of the System as a whole will not postpone System Acceptance or Subsystem acceptance, but will be corrected according to a mutually agreed schedule.

9.3. BENEFICIAL USE. Customer acknowledges that Motorola's ability to perform its implementation and testing responsibilities may be impeded if Customer begins using the System before System Acceptance. Therefore, Customer will not commence Beneficial Use before System Acceptance without Motorola's prior written authorization, which will not be unreasonably withheld. Motorola is not responsible for System performance deficiencies that occur during unauthorized Beneficial Use. Upon commencement of Beneficial Use, Customer assumes responsibility for the use and operation of the System.

9.4. FINAL PROJECT ACCEPTANCE. Final Project Acceptance will occur after System Acceptance when all deliverables and other work have been completed. When Final Project Acceptance occurs, the parties will promptly memorialize this final event by so indicating on the System Acceptance Certificate.

Section 10 REPRESENTATIONS AND WARRANTIES

10.1. SYSTEM FUNCTIONALITY. Motorola represents that the System will perform in accordance with the Specifications in all material respects. Upon System Acceptance or Beneficial Use, whichever occurs first, this System functionality representation is fulfilled. Motorola is not responsible for System performance deficiencies that are caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System or for reasons or parties beyond Motorola's control, such as natural causes; the construction of a building that adversely affects the microwave path reliability or radio frequency (RF) coverage; the addition of frequencies at System sites that cause RF interference or intermodulation; or Customer changes to load usage or configuration outside the Specifications.

10.2. EQUIPMENT WARRANTY. During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship. If System Acceptance is delayed beyond six (6) months after shipment of the Equipment by events or causes beyond Motorola's control, this warranty expires eighteen (18) months after the shipment of the Equipment.

10.3. SOFTWARE WARRANTY. Except as described in the SwSP and unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Software in accordance with the warranty terms set forth in the Software License Agreement and the provisions of this Section that are applicable to the Software. If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes beyond Motorola's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. **Nothing in this Warranty provision is intended to conflict or modify the Software Support Policy. In the event of an ambiguity or conflict between the Software Warranty and Software Support Policy, the Software Support Policy governs.**

10.4. EXCLUSIONS TO EQUIPMENT AND SOFTWARE WARRANTIES. These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Software in other than its normal, customary, and authorized manner; accident, liquids, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

10.5. SERVICE WARRANTY. During the Warranty Period, Motorola warrants that the Services will be provided in a good and workmanlike manner and will conform in all material respects to the applicable Statement of Work. Services will be free of defects in materials and workmanship for a period of ninety (90) days from the date the performance of the Services are completed. Customer acknowledges that the Deliverables may contain recommendations, suggestions or advice from Motorola to Customer (collectively, "recommendations"). Motorola makes no warranties concerning those recommendations, and Customer alone accepts responsibility for choosing whether and how to implement the recommendations and the results to be realized from implementing them.

10.6. WARRANTY CLAIMS. To assert a warranty claim, Customer must notify Motorola in writing of the claim before the expiration of the Warranty Period. Upon receipt of this notice, Motorola will investigate the warranty claim. If this investigation confirms a valid Equipment or Software warranty claim, Motorola will (at its option and at no additional charge to Customer) repair the defective Equipment or Motorola Software, replace it with the same or equivalent product, or refund the price of the defective Equipment or Motorola Software. These actions will be the full extent of Motorola's liability for the warranty claim. In the event of a valid Services warranty claim, Customer's sole remedy is to require Motorola to re-perform the non-conforming Service or to refund, on a pro-rata basis, the fees paid for the non-conforming Service. If this investigation indicates the warranty claim is not valid, then Motorola may invoice Customer for responding to the claim on a time and materials basis using Motorola's then current labor rates. Repaired or replaced product is warranted for the balance of the original applicable warranty period. All replaced products or parts will become the property of Motorola.

10.7. ORIGINAL END USER IS COVERED. These express limited warranties are extended by Motorola to the original user purchasing the System or Services for commercial, industrial, or governmental use only, and are not assignable or transferable.

10.8. DISCLAIMER OF OTHER WARRANTIES. THESE WARRANTIES ARE THE COMPLETE

WARRANTIES FOR THE EQUIPMENT AND MOTOROLA SOFTWARE PROVIDED UNDER THIS AGREEMENT AND ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

Section 11 DELAYS

11.1. FORCE MAJEURE. Neither Party will be liable for its non-performance or delayed performance if caused by a Force Majeure. A Party that becomes aware of a Force Majeure that will significantly delay performance will notify the other Party promptly (but in no event later than fifteen days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties will execute a change order to extend the Performance Schedule or applicable Addenda for a time period that is reasonable under the circumstances.

11.2. PERFORMANCE SCHEDULE DELAYS CAUSED BY CUSTOMER. If Customer (including its other contractors) delays the Performance Schedule, ~~it will make the promised payments according to the Payment schedule as if no delay occurred; and~~ Int. _____ the Parties will execute a change order to extend the Performance Schedule and, if requested, compensate Motorola for all reasonable charges incurred because of the delay. Delay charges may include costs incurred by Motorola or its subcontractors for additional freight, warehousing and handling of Equipment; extension of the warranties; travel; suspending and re-mobilizing the work; additional engineering, project management, and standby time calculated at then current rates; and preparing and implementing an alternative implementation plan.

Section 12 DISPUTES

The Parties will use the following procedure to address any dispute arising under this Agreement (a "Dispute").

12.1. GOVERNING LAW. This Agreement will be governed by and construed in accordance with the laws of the State ~~in which the System is installed.~~ Int. _____ of North Carolina.

12.2. NEGOTIATION. Either Party may initiate the Dispute resolution procedures by sending a notice of Dispute ("Notice of Dispute"). The Parties will attempt to resolve the Dispute promptly through good faith negotiations including 1) timely escalation of the Dispute to executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for the matter and 2) direct communication between the executives. If the Dispute has not been resolved within ten (10) days from the Notice of Dispute, the Parties will proceed to mediation.

12.3. MEDIATION. The Parties will choose an independent mediator within thirty (30) days of a notice to mediate from either Party ("Notice of Mediation"). Neither Party may unreasonably withhold consent to the selection of a mediator. If the Parties are unable to agree upon a mediator, either Party may request that American Arbitration Association nominate a mediator. Each Party will bear its own costs of mediation, but the Parties will share the cost of the mediator equally. Each Party will participate in the mediation in good faith and will be represented at the mediation by a business executive with authority to settle the Dispute.

12.4. LITIGATION, VENUE and JURISDICTION. If a Dispute remains unresolved for sixty (60) days after receipt of the Notice of Mediation, either Party may then submit the Dispute to a court of competent jurisdiction in ~~the state in which the System is installed.~~ Int. _____ *Union County, North Carolina.

12.5. CONFIDENTIALITY. All communications pursuant to subsections 12.2 and 12.3 will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any

additional confidentiality protections provided by applicable law. The use of these Dispute resolution procedures will not be construed under the doctrines of laches, waiver or estoppel to affect adversely the rights of either Party.

Section 13 DEFAULT AND TERMINATION

13.1. **DEFAULT BY A PARTY.** If either Party fails to perform a material obligation under this Agreement, the other Party may consider the non-performing Party to be in default (unless a Force Majeure causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of default. Except for a default by Customer for failing to pay any amount when due under this Agreement which must be cured immediately, the defaulting Party will have thirty (30) days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, provide a written cure plan. The defaulting Party will begin implementing the cure plan immediately after receipt of notice by the other Party that it approves the plan. If Customer is the defaulting Party, Motorola may stop work on the project until it approves the Customer's cure plan.

13.2. **FAILURE TO CURE.** If a defaulting Party fails to cure the default as provided above in Section 13.1, unless otherwise agreed in writing, the non-defaulting Party may terminate any unfulfilled portion of this Agreement. In the event of termination for default, the defaulting Party will promptly return to the non-defaulting Party any of its Confidential Information. If Customer is the non-defaulting Party, terminates this Agreement as permitted by this Section, and completes the System through a third Party, Customer may as its exclusive remedy recover from Motorola reasonable costs incurred to complete the System to a capability not exceeding that specified in this Agreement less the unpaid portion of the Contract Price. Customer will mitigate damages and provide Motorola with detailed invoices substantiating the charges. In the event Customer elects to terminate this Agreement for any reason other than default, Customer shall pay Motorola for the conforming Equipment and/or Software delivered and all services performed.

Section 14 INDEMNIFICATION

14.1. **GENERAL INDEMNITY BY Motorola.** Motorola will indemnify and hold Customer harmless from any and all liability, expense, judgment, suit, or cause of action arising from any third party claim or demand for personal injury, death, or direct damage to tangible property which may accrue against Customer to the extent it is caused by the negligence of Motorola, its subcontractors, or their employees or agents, while performing their duties under this Agreement, if Customer gives Motorola prompt, written notice of any third-party claim or suit. Customer will cooperate with Motorola in its defense or settlement of such claim or suit. This Section sets forth the full extent of Motorola's general indemnification of Customer from liabilities that are in any way related to Motorola's performance under this Agreement.

To the extent permitted by North Carolina law,

Int. ____

14.2. **GENERAL INDEMNITY BY CUSTOMER.** ^Customer will indemnify and hold Motorola harmless from any and all liability, expense, judgment, suit, or cause of action arising from any third party claim or demand for personal injury, death, or direct damage to tangible property which may accrue against Motorola to the extent it is caused by the negligence of Customer, its other contractors, or their employees or agents, while performing their duties under this Agreement, if Motorola gives Customer prompt, written notice of any third-party claim or suit. Motorola will cooperate with Customer in its defense or settlement of such claim or suit. This Section sets forth the full extent of Customer's general indemnification of Motorola from liabilities that are in any way related to Customer's performance under this Agreement.

14.3. **PATENT AND COPYRIGHT INFRINGEMENT.**

14.3.1. Motorola will defend at its expense any suit brought against Customer to the extent it is based on a third-party claim alleging that the Equipment manufactured by Motorola or the Motorola Software ("Motorola Product") directly infringes a United States patent or copyright ("Infringement Claim"). Motorola's duties to defend and indemnify are conditioned upon: Customer promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all

negotiations for its settlement or compromise; and Customer providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim. In addition to Motorola's obligation to defend, and subject to the same conditions, Motorola will pay all damages finally awarded against Customer by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

14.3.2 If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Customer the right to continue using the Motorola Product; (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or (c) accept the return of the Motorola Product and grant Customer a credit for the Motorola Product, less a reasonable charge for depreciation. The depreciation amount will be calculated based upon generally accepted accounting standards.

14.3.3 Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon: (a) the combination of the Motorola Product with any software, apparatus or device not furnished by Motorola; (b) the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Motorola Product; (c) Motorola Product designed or manufactured in accordance with Customer's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions; (d) a modification of the Motorola Product by a party other than Motorola; (e) use of the Motorola Product in a manner for which the Motorola Product was not designed or that is inconsistent with the terms of this Agreement; or (f) the failure by Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. In no event will Motorola's liability resulting from its indemnity obligation to Customer extend in any way to royalties payable on a per use basis or the Customer's revenues, or any royalty basis other than a reasonable royalty based upon revenue derived by Motorola from Customer from sales or license of the infringing Motorola Product.

14.3.4. This Section 14 provides Customer's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Customer has no right to recover and Motorola has no obligation to provide any other or further remedies, whether under another provision of this Agreement or any other legal theory or principle, in connection with an Infringement Claim. In addition, the rights and remedies provided in this Section 14 are subject to and limited by the restrictions set forth in Section 15.

Section 15 LIMITATION OF LIABILITY

Except for personal injury or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, indemnification, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or implementation and other one-time Services with respect to which losses or damages are claimed. With respect to all subscription or other ongoing Services and unless as otherwise provided under the applicable Addenda, Motorola's total liability will be limited to the direct damages recoverable under law, but not to exceed the ^{total} price of ~~twelve (12) months~~ of Services preceding the incident giving rise to the claim. Int. _____ ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS, INCONVENIENCE, LOSS OF USE, LOSS TIME, DATA, GOODWILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT, THE SALE OR USE OF THE EQUIPMENT OR SOFTWARE, OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT. This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. Int. _____ ~~No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than one (1) year after the accrual of the cause of action, except for money due upon an open account.~~

Section 16 CONFIDENTIALITY AND PROPRIETARY RIGHTS

16.1. CONFIDENTIAL INFORMATION.

16.1.1. Each party is a disclosing party (“Discloser”) and a receiving party (“Recipient”) under this Agreement. All Deliverables will be deemed to be Motorola’s Confidential Information. * During the term of this Agreement and for a period of three (3) years from the expiration or termination of this Agreement, Recipient will (i) not disclose Confidential Information to any third party; (ii) restrict disclosure of Confidential Information to only those employees (including, but not limited to, employees of any wholly owned subsidiary, a parent company, any other wholly owned subsidiaries of the same parent company), agents or consultants who must be directly involved with the Confidential Information for the purpose and who are bound by confidentiality terms substantially similar to those in this Agreement; (iii) not copy, reproduce, reverse engineer, decompile, or disassemble any Confidential Information; (iv) use the same degree of care as for its own information of like importance, but at least use reasonable care, in safeguarding against disclosure of Confidential Information; (v) promptly notify Discloser upon discovery of any unauthorized use or disclosure of the Confidential Information and take reasonable steps to regain possession of the Confidential Information and prevent further unauthorized actions or other breach of this Agreement; and (vi) only use the Confidential Information as needed to fulfill this Agreement.

*To the extent allowed by law, Int.

16.1.2. Recipient is not obligated to maintain as confidential, Confidential Information that Recipient can demonstrate by documentation (i) is now available or becomes available to the public without breach of this agreement; (ii) is explicitly approved for release by written authorization of Discloser; (iii) is lawfully obtained from a third party or parties without a duty of confidentiality; (iv) is known to the Recipient prior to such disclosure; or (v) is independently developed by Recipient without the use of any of Discloser’s Confidential Information or any breach of this Agreement. Additionally, the Recipient may disclose Confidential Information to the extent required by a judicial or legislative order or proceeding, or by any applicable federal or state open records act or freedom of information act requirements provided that it gives the Discloser prompt prior notice of the intended disclosure and an opportunity to respond or object to the disclosure, if permissible.

16.1.3. All Confidential Information remains the property of the Discloser and will not be copied or reproduced without the express written permission of the Discloser, except for copies that are absolutely necessary in order to fulfill this Agreement. Within ten (10) days of receipt of Discloser’s written request, Recipient will return all Confidential Information to Discloser along with all copies and portions thereof, or certify in writing that all such Confidential Information has been destroyed. However, Recipient may retain one (1) archival copy of the Confidential Information that it may use only in case of a dispute concerning this Agreement. No license, express or implied, in the Confidential Information is granted other than to use the Confidential Information in the manner and to the extent authorized by this Agreement. The Discloser warrants that it is authorized to disclose any Confidential Information it discloses pursuant to this Agreement.

16.2. PRESERVATION OF MOTOROLA’S PROPRIETARY RIGHTS. Motorola, the third party manufacturer of any Equipment, and the copyright owner of any Non-Motorola Software own and retain all of their respective Proprietary Rights in the Equipment and Software, and nothing in this Agreement is intended to restrict their Proprietary Rights. All intellectual property developed, originated, or prepared by Motorola in connection with providing to Customer the Equipment, Software, or related services remain vested exclusively in Motorola, and this Agreement does not grant to Customer any shared development rights of intellectual property. Except as explicitly provided in the Software License Agreement, Motorola does not grant to Customer, either directly or by implication, estoppel, or otherwise, any right, title or interest in Motorola’s Proprietary Rights. Customer will not modify, disassemble, peel components, decompile, otherwise reverse engineer or attempt to reverse engineer, derive source code or create derivative works from, adapt, translate, merge with other software, reproduce, distribute, sublicense, sell or export the Software, or permit or encourage any third party to do so. The preceding sentence does not apply to Open Source Software which is governed by the standard license of the copyright owner.

16.3 VOLUNTARY DISCLOSURE. Except as required to fulfill its obligations under this Agreement,

Motorola will have no obligation to provide Customer with access to its Confidential Information and/or proprietary information. Under no circumstances will Motorola be required to provide any data related to cost and pricing.

16.4 DATA AND FEEDBACK.

16.4.1 To the extent permitted by law, Customer owns all right, title and interest in System Data created solely by it or its agents (hereafter, "Customer Data"), and grants to Motorola the right to use, host, cache, store, reproduce, copy, modify, combine, analyze, create derivatives from, communicate, transmit, ~~publish, display, and distribute~~ such Customer Data. Int. _____

16.4.2 Motorola owns all right, title and interest in data resulting from System Data that is or has been transformed, altered, processed, aggregated, correlated or operated on (hereafter, "Derivative Data").

16.4.3 Any Feedback given by Customer is and will be entirely voluntary and, even if designated as confidential, will not create any confidentiality obligation for Motorola. Motorola will be free to use, reproduce, license or otherwise distribute and exploit the Feedback without any obligation to Customer. Customer acknowledges that Motorola's receipt of the Feedback does not imply or create recognition by Motorola of either the novelty or originality of any idea. The parties further agree that all fixes, modifications and improvements made to Motorola products or services conceived of or made by Motorola that are based, either in whole or in part, on the Feedback are the exclusive property of Motorola and all right, title and interest in and to such fixes, modifications or improvements to the Motorola product or service will vest solely in Motorola.

Section 17 GENERAL

17.1. TAXES. The Contract Price does not include any excise, sales, lease, use, property, or other taxes, assessments or duties, all of which will be paid by Customer except as exempt by law. If Motorola is required to pay any of these taxes, Motorola will send an invoice to Customer and Customer will pay to Motorola the amount of the taxes (including any interest and penalties) within thirty (30) days after the date of the invoice. Customer will be solely responsible for reporting the Equipment for personal property tax purposes, and Motorola will be solely responsible for reporting taxes on its income or net worth.

17.2. ASSIGNABILITY AND SUBCONTRACTING. Except as provided herein, neither Party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Customer. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other Party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

17.3. WAIVER. Failure or delay by either Party to exercise a right or power under this Agreement will not be a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the waiving Party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.

17.4. SEVERABILITY. If a court of competent jurisdiction renders any part of this Agreement invalid or unenforceable, that part will be severed and the remainder of this Agreement will continue in full force and effect.

17.5. INDEPENDENT CONTRACTORS. Each Party will perform its duties under this Agreement as an independent contractor. The Parties and their personnel will not be considered to be employees or agents of the other Party. Nothing in this Agreement will be interpreted as granting either Party the right or authority to make commitments of any kind for the other. This Agreement will not constitute, create, or be interpreted as a joint venture, partnership or formal business organization of any kind.

17.6. HEADINGS AND SECTION REFERENCES. The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers. This Agreement will be fairly interpreted in accordance with its terms and conditions and not for or against either Party.

17.7. NOTICES. Notices required under this Agreement to be given by one Party to the other must be in writing and either personally delivered or sent to the address provided by the other Party by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt.

17.8. COMPLIANCE WITH APPLICABLE LAWS. Each Party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Customer will obtain and comply with all Federal Communications Commission ("FCC") licenses and authorizations required for the installation, operation and use of the System before the scheduled installation of the Equipment. Although Motorola might assist Customer in the preparation of its FCC license applications, neither Motorola nor any of its employees is an agent or representative of Customer in FCC or other matters.

17.9 FUTURE REGULATORY REQUIREMENTS. The Parties acknowledge and agree that this is an evolving technological area and therefore, laws and regulations regarding Services and use of Solution may change. Changes to existing Services or the Solution required to achieve regulatory compliance may be available for an additional fee. Any required changes may also impact the price for Services.

17.10. AUTHORITY TO EXECUTE AGREEMENT. Each Party represents that it has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so; upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

17.11. ADMINISTRATOR LEVEL ACCOUNT ACCESS. If applicable to the type of System purchased by Customer, Motorola will provide Customer with Administrative User Credentials. Customer agrees to only grant access to the Administrative User Credentials to those personnel with the training and experience to correctly use them. Customer is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Customer may be asked to provide valid Administrative User Credentials when in contact with Motorola System support personnel. Customer understands that changes made as the Administrative

User can significantly impact the performance of the System. Customer agrees that it will be solely responsible for any negative impact on the System or its users by any such changes. System issues occurring as a result of changes made using the Administrative User Credentials may impact Motorola's ability to perform Services or other obligations under the Agreement. In such cases, a revision to the appropriate provisions of the Agreement, including the Statement of Work, may be necessary. To the extent Motorola provides assistance to correct any issues caused by or arising out of the use of or failure to maintain Administrative User Credentials, Motorola will be entitled to bill Customer and Customer will pay Motorola on a time and materials basis for resolving the issue.

17.12. SURVIVAL OF TERMS. The following provisions will survive the expiration or termination of this Agreement for any reason: Section 3.5 (Motorola Software); Section 3.6 (Non-Motorola Software); if any payment obligations exist, Sections 6.2 and 6.3 (Contract Price and Invoicing and Payment); Subsection 10.8 (Disclaimer of Implied Warranties); Section 12 (Disputes); Section 15 (Limitation of Liability); and Section 16 (Confidentiality and Proprietary Rights); and all of the General provisions in Section 17.

17.13. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the Agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. This Agreement may be executed in multiple counterparts, and shall have the same legal force and effect as if the Parties had executed it as a single document. The Parties may sign in writing, or by electronic signature, including by email. An electronic signature, or a facsimile copy or computer image, such as a PDF or tiff image, of a signature, shall be treated as and shall have the same effect as an original signature. In addition, an electronic signature, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. This Agreement may be amended or modified only by a written instrument signed by authorized representatives of both Parties. The preprinted terms and conditions found on any Customer purchase or purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each Party signs that document.

The Parties hereby enter into this Agreement as of the Effective Date.

Motorola Solutions, Inc.

Customer: Union County, NC

By: _____

By: _____

Name: _____

Name: Brian Matthews

Title: _____

Title: County Manager

Date: _____

Date: _____

This instrument has been preaudited in the manner required by
The Local Government Budget and Fiscal Control Act.

Deputy Finance Officer

Exhibit A

MOTOROLA SOFTWARE LICENSE AGREEMENT

This Exhibit A Motorola Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and Union County, NC ("Licensee").

For good and valuable consideration, the parties agree as follows:

Section 1 DEFINITIONS

1.1 "Designated Products" means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.

1.2 "Documentation" means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).

1.3 "Open Source Software" means software with either freely obtainable source code, license for modification, or permission for free distribution.

1.4 "Open Source Software License" means the terms or conditions under which the Open Source Software is licensed.

1.5 "Primary Agreement" means the agreement to which this exhibit is attached.

1.6 "Security Vulnerability" means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or the system damaged.

1.7 "Software" (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

Section 2 SCOPE

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary software or products containing embedded or pre-loaded proprietary software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee's use of the proprietary software and affiliated documentation.

Section 3 GRANT OF LICENSE

3.1. Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola's copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.

3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software, the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; and (ii) identify the Open Source Software (or specify where that license may be found).

3.3 TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERSEDES THE SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.

Section 4 LIMITATIONS ON USE

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; *provided* that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning, if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4 Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's premises, books and records, upon reasonable prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and

security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

Section 5 OWNERSHIP AND TITLE

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or, provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY

6.1. Unless otherwise stated in the Primary Agreement, the commencement date and the term of the Software warranty will be a period of ninety (90) days from Motorola's shipment of the Software (the "Warranty Period"). If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software. Notwithstanding, any warranty provided by a copyright owner in its standard license terms will flow through to Licensee for third party software provided by Motorola.

6.2 Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are described in the Primary Agreement.

6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.

Section 7 TRANSFERS

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than CPS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; *provided* that Licensee transfers all copies of the Software and Documentation to the transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

Section 8 TERM AND TERMINATION

8.1 Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2 Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

Section 9 Commercial Computer Software

9.1 *This Section 9 only applies to U.S. Government end users.* The Software, Documentation and updates are commercial items as that term is defined at 48 C.F.R. Part 2.101, consisting of "commercial computer software" and "computer software documentation" as such terms are defined in 48 C.F.R. Part 252.227-7014(a)(1) and 48 C.F.R. Part 252.227-7014(a)(5), and used in 48 C.F.R. Part 12.212 and 48 C.F.R. Part 227.7202, as applicable. Consistent with 48 C.F.R. Part 12.212, 48 C.F.R. Part 252.227-7015, 48 C.F.R. Part 227.7202-1 through 227.7202-4, 48 C.F.R. Part 52.227-19, and other relevant sections of the Code of Federal Regulations, as applicable, the Software, Documentation and Updates are distributed and licensed to U.S. Government end users: (i) only as commercial items, and (ii) with only those rights as are granted to all other end users pursuant to the terms and conditions contained herein.

9.2 If Licensee is licensing Software for end use by the United States Government or a United States Government agency, Licensee may transfer such Software license, but only if: (i) Licensee transfers all copies of such Software and Documentation to such United States Government entity or interim transferee, and (ii) Licensee has first obtained from the transferee (if applicable) and ultimate end user an enforceable end user license agreement containing restrictions substantially identical to the ones contained in this Agreement. Except as stated in the foregoing, Licensee and any transferee(s) authorized by this subsection 9.2 may not otherwise use or transfer or make available any Motorola software to any third party nor permit any party to do so.

Section 10 CONFIDENTIALITY

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and Confidential Information and are Motorola's trade secrets, and that the provisions in the Primary Agreement concerning Confidential Information apply.

Section 11 LIMITATION OF LIABILITY

The Limitation of Liability provision is described in the Primary Agreement.

Section 12 NOTICES

Notices are described in the Primary Agreement.

Section 13 GENERAL

13.1. COPYRIGHT NOTICES. The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2. COMPLIANCE WITH LAWS. Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3 FUTURE REGULATORY REQUIREMENTS. The Parties acknowledge and agree that this is an evolving technological area and therefore, laws and regulations regarding Services and use of Solution may change. Changes to existing Services or the Solution required to achieve regulatory compliance may be available for an additional fee. Any required changes may also impact the price for Services.

13.4. ASSIGNMENTS AND SUBCONTRACTING. Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.5. GOVERNING LAW. This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State ^{*} ~~to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity.~~ of North Carolina. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA. Int. _____

13.6. THIRD PARTY BENEFICIARIES. This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing,

any licensor or supplier of third party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.7. SURVIVAL. Sections 4, 5, 6.4, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.8. ORDER OF PRECEDENCE. In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

13.9. SECURITY. Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third party Software to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps set forth in Section 6 of this Agreement.

**Exhibit B
PAYMENT**

Except for a payment that is due on the Effective Date, Customer will make payments to Motorola within thirty (30) days after the ~~date~~ of each invoice. Customer will make payments when due in the form of a check, cashier's check, or wire transfer drawn on a U.S. financial institution. If Customer has purchased additional Professional or Subscription services, payment will be in accordance with the applicable addenda. Payment for the System purchase will be in accordance with the following milestones. nt

System Purchase (excluding Subscribers, if applicable)

1. **25% of the Contract Price due upon contract execution (due upon effective date);**
2. **15% of the Contract Price due upon completion of a Customer Design Review (CDR);**
3. **40% of the Contract Price due upon shipment of equipment;**
3. **10% of the Contract Price due upon installation of equipment; and**
4. **10% of the Contract Price due upon Final Acceptance.**

If Subscribers are purchased, 100% of the Subscriber Contract Price will be invoiced upon shipment (as shipped).

Motorola shall make partial shipments of equipment and will request payment upon shipment of such equipment. In addition, Motorola shall invoice for installations completed on a site-by-site basis or when professional services are completed, when applicable. The value of the equipment shipped/services performed will be determined by the value shipped/services performed as a percentage of the total milestone value. Unless otherwise specified, contract discounts are based upon all items proposed and overall system package. For invoicing purposes only, discounts will be applied proportionately to the FNE and Subscriber equipment values to total contract price. Overdue invoices will bear simple interest at the maximum allowable rate by state law.

**For Lifecycle Support Plan and Subscription Based Services:
Motorola will invoice Customer annually in advance of each year of the plan.**

The chart below outlines the hourly labor rates for Motorola System Integration resources to be used. The staffing requirements shall be multiplied by the appropriate rate per resource in the table below. The hourly labor rates are fully burdened. The hourly rates per resource type and level are listed in Table 1.

	Resource Types			
Levels	Project Management	System Engineering	System Technologist	Project Administration
4	\$ 290.00	\$ 300.00	\$ 280.00	\$ 200.00
3	\$ 240.00	\$ 250.00	\$ 240.00	\$ 180.00
2	\$ 220.00	\$ 220.00	\$ 220.00	\$ 170.00
1	\$ 190.00	\$ 210.00	\$ 210.00	\$ 160.00

Table 1 - Hourly Rates

These rates apply to ordinary days and times (Monday to Friday during the hours 8am to 5pm). Additional surcharges may apply to work done outside these timeframes. The minimum charge for any resource will be 4 hours. Travel expenses are not included in these rates and may be charged separately. The qualifications of each type and level of resource are defined in the tables found at <https://www.motorolasolutions.com/content/dam/msi/secure/services/labor-rates-exhibit-160408.pdf>. All Motorola System Integration personnel assigned to this project will be classified according these levels. Project Administrative roles are varied and their specific duties and qualifications will be determined by the complexity and requirements of each project.

EXHIBIT C

Proposal dated August 21 2023

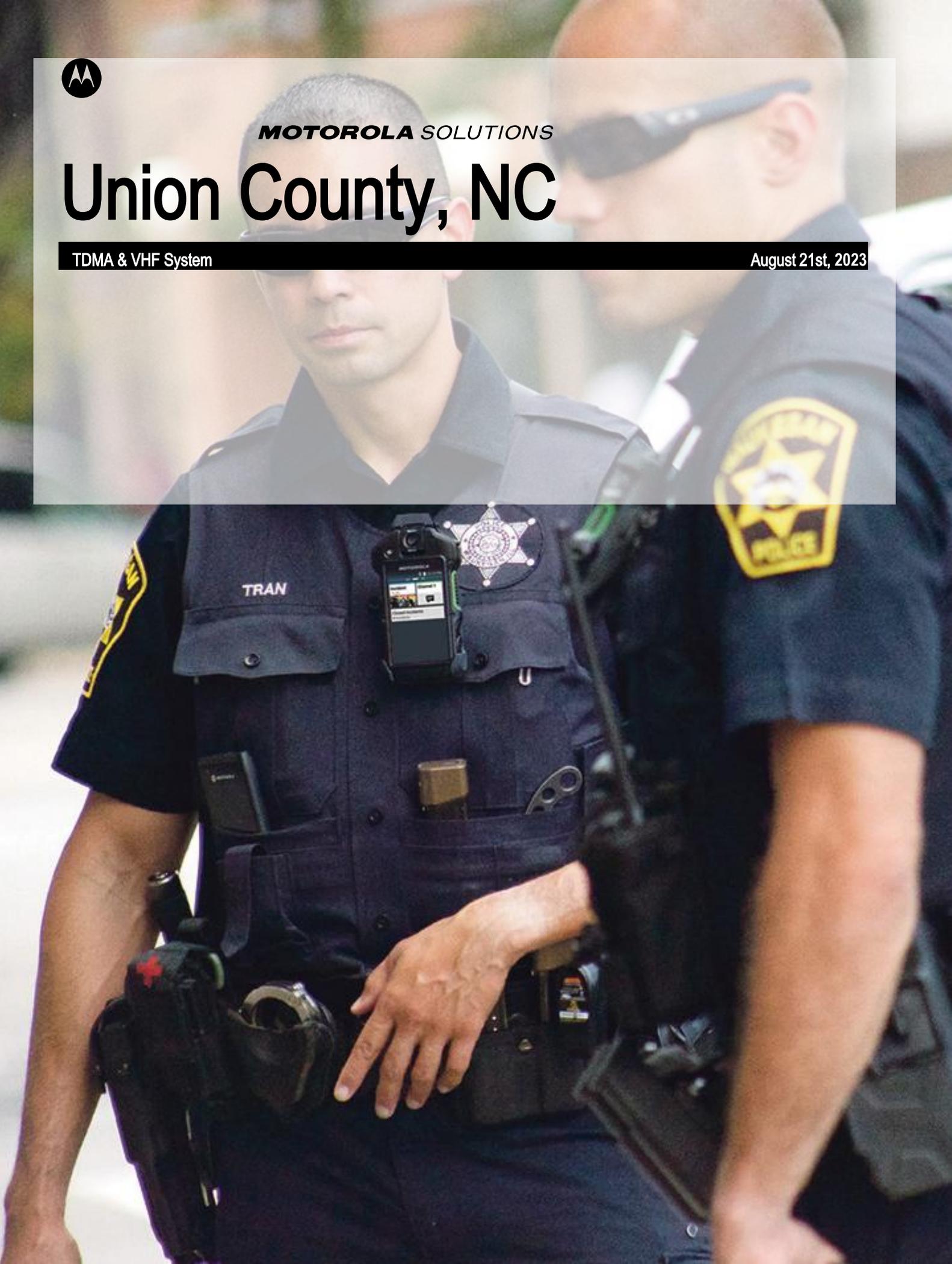


MOTOROLA SOLUTIONS

Union County, NC

TDMA & VHF System

August 21st, 2023



Motorola Solutions, Inc.
500 W Monroe Street, Ste 4400
Chicago, IL 60661-3781
USA

Mrs. Vicki Callicutt
Union County, NC
2258 Concord Ave.
Monroe, NC 28110

Subject: P25 TDMA Conversion & VHF Conventional Simulcast

Dear Mrs. Callicutt,

Motorola Solutions, Inc. ("Motorola") is pleased to have the opportunity to provide Union County, NC with quality communications equipment and services. The Motorola project team has taken great care to propose a solution that will meet your needs and provide unsurpassed value.

To best meet the functional and operational specifications of this solicitation, our solution includes a combination of hardware, software, and services. Specifically, this solution is for the conversion of the Union County trunking simulcast (8 sites, 10 channels) from Frequency Division Multiple Access (FDMA) to Time Division Multiple Access (TDMA) operation and a VHF Conventional Simulcast and provides:

- P25 Phase II TDMA Trunking site operation licenses
- P25 Phase II TDMA Base Radio software licenses
- P25 Phase II TDMA GCM 8000 Comparator upgrades from FDMA to TDMA operation
- P25 Phase II TDMA GTR 8000 Base Radio upgrades from FDMA to TDMA operation
- Site and Base Radio Licenses and Software for Dynamic Dual Mode for 5 simulcast channels
- VHF Simulcast Comparator for 1 channel, 4 site VHF simulcast
- 4 simulcast remote sites with 1 Base Radio each
- 1 RF Antenna and coaxial line at each tower site

This proposal consists of this cover letter and the Communications System Agreement (CSA), together with its Exhibits. This proposal shall remain valid for a period of 60 days from the date of this cover letter. Union County, NC may accept the proposal by delivering to Motorola the CSA signed by Union County. Alternatively, Motorola would be pleased to address any concerns Customer may have regarding the proposal. Any questions can be directed to your Motorola Account Executive, Brian Hoey, at (704)-516-5935.

We thank you for the opportunity to furnish Union County, NC with "best in class" solutions and we hope to strengthen our relationship by implementing this project. Our goal is to provide you with the best products and services available in the communications industry.

Sincerely,

Motorola Solutions, Inc.

Scott Hopkins, Territory Vice President, MSI

Union County, NC

VHF Conventional Simulcast

1 VHF channel simulcast at 4 RF sites

August 25, 2023

The design, technical, and price information furnished with this proposal is proprietary information of Motorola Solutions, Inc. (Motorola). Such information is submitted with the restriction that it is to be used only for the evaluation of the proposal, and is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the proposal, without the express written permission of Motorola Solutions, Inc.

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Section 1

System Description

1.1 Conventional Paging System Overview

To help Union County, NC meet their conventional system needs, Motorola Solutions proposes our Conventional Analog Simulcast Paging System designed to safely and efficiently deliver critical information to users in the field. Cost-effective and reliable communications are key components of this emergency notification solution, and Union County's organization will benefit from the proposed system's affordability and scalability.

1.2 System Architecture

Motorola Solutions proposes simulcast repeater equipment at the following four (4) sites:

- Belk Mill
- Cuthbertson
- Fairview
- New Salem

These VHF transmitter sites will connect via Ethernet to a new, VHF voting/simulcast comparator to install at the Sheriff-Wingate site location as a part of this solution.

A Site Summary matrix, with detailed information on each site, has been included at the end of this section.

1.3 Site Connectivity

This solution assumes that the RF sites have Ethernet connectivity and an Ethernet connection from each of the RF sites to the prime site will be provided by Union County. Prime site equipment can be co-located at one of the RF sites or any other site that Union County chooses, as long as the prime site has Ethernet connectivity to all of the sub sites.

1.4 Conventional Paging System Components

The proposed solution for Union County includes the following equipment:

GTR 8000 Base Radio

The GTR 8000 Base Radio is a flexible, software configurable base station.

One GTR 8000 base radio is needed per channel at each site. The standalone base radio only occupies three rack units for efficient use of expensive site space.

GRV 8000 Site Comparator

The GRV 8000 Comparator ensures the broadcast of the best possible voice signal by combining the best parts of a single signal that has been received by multiple sites in a Multisite (simulcast) system.

The comparator features Frame Diversity Reception—a digital voting methodology. The comparator selects the data frame or signals with the lowest Bit Error Rate (BER) and forwards it. By using the best pieces of each input signal, the result is the best possible composite signal.

RF Antenna System

An antenna network system is included in this proposal, consisting of a single antenna at each RF site for the paging system. Depending on Union County’s frequency plan and the other frequencies at these RF sites, additional filtering may become necessary (not included in this proposal).

TRAK 9100 Simulcast Site Reference (use existing site reference)

Motorola will reuse the existing TRAK 9100 Simulcast Site Reference, a GPS-based frequency and time reference, at each of the site locations. The TRAK frequency reference provides the simulcast system one PPS (Pulse per Second), five MPPS (megahertz PPS), and one PPS + five MPPS composite signals.

These signals are used to synchronize the transmission of a simulcast system to improve overall performance and coverage. This unit provides a high-level redundancy, including redundant GPS receivers, backup rubidium standard, and redundant power supplies.

1.5 Site Summary Matrix

Please see Site Summary Matrix, below.

Site Name	Major Equipment
Sheriff-Wingate	GRV 8000 Voting/Simulcast Comparator
Belk Mill	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable
Cuthbertson	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable
Fairview	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable

Site Name	Major Equipment
New Salem	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable

1.6 Design Assumptions

This is a summary of our design assumptions for this project.

- Includes one new conventional VHF GTR8000 at each of the 4 sites
- Includes one GRV8000 comparator at the Sherriff-Wingate Prime site
- Additional CCGW is provided to connect into the system at the Sherriff-Wingate Prime Site
- Includes one GRV8000 Spare
- Assumes utilizing the existing P25 network for connectivity
- New Antenna/Line supplied for each site to replace existing antennas and line
- Assumes ports available in existing TRAK units at all sites
- Includes tower loading studies
- No buildings or towers included
- Assumes adequate physical space and power to be provided at all sites including UPS and generators
- No coverage guarantee or CATP is provided
- Motorola reserves the right to modify or change part numbers that may change periodically.

Section 2

Statement of Work

2.1 Overview

This Statement of Work (SOW) describes the deliverables to be furnished to Union County, NC. The tasks described herein will be performed by Motorola, its subcontractors, and Union County, NC (the Customer) to implement the 1 channel, 4 site VHF conventional simulcast described in the System Description. It describes the actual work involved in installation, identifies the installation standards to be followed, and clarifies the responsibilities for both Motorola and the Customer during the project implementation. Specifically, this SOW provides:

- A summary of the phases and tasks to be completed within the project lifecycle.
- A list of the deliverables associated with the project.
- A description of the responsibilities for both Motorola and the Customer.
- The qualifications and assumptions taken into consideration during the development of this project.

This SOW provides the most current understanding of the work required by both parties to ensure a successful project implementation. In particular, Motorola has made assumptions of the sites to be used for the new system. Should any of the sites change, a revision to the SOW and associated pricing will be required. It is understood that this SOW is a working document, and that it will be revised as needed to incorporate any changes associated with contract negotiations, Contract Design Review (CDR), and any other change orders that may occur during the execution of the project.

2.2 General Assumptions

Motorola has based the system design on information provided by Union County, NC and an analysis of their system requirements. A list of general assumptions has been noted below for review. Should Motorola's assumptions be deemed incorrect or not agreeable to, a revised proposal with the necessary changes and adjusted costs may be required. Changes to the equipment or scope of the project after contract may require a change order.

- All work is to be performed during normal work hours, Monday through Friday 8:00 a.m. to 5:00 p.m.
- A structural analysis will be conducted for each site. This proposal assumes all towers and buildings are structurally capable and equipped to support the proposed RF Antenna and coaxial line at each tower site without modification. This proposal does not include the cost to retrofit the proposed sites.
- There is sufficient space, utilities, and HVAC available to install the new equipment.
- The existing backup power (if required) is capable of supporting the new equipment.
- The existing site grounding meets R56 standards.
- The installation at the (5 existing sites): Sheriff-Wingate, Belk Mill, Cuthbertson, Fairview and New Salem will not require any special equipment such as a crane, helicopter, or invasive mounting structures.
- Union County, NC will be able to obtain licensing at each site, if necessary.

- Union County, NC will obtain any MOUs or lease agreements necessary to install the proposed equipment.

2.3 Contract

2.3.1 Contract Award (Milestone)

- The Customer and Motorola execute the contract and both parties receive all the necessary documentation.

2.3.2 Contract Administration

Motorola Responsibilities:

- Assign a Project Manager, as the single point of contact with authority to make project decisions.
- Assign resources necessary for project implementation.
- Set up the project in the Motorola information system.
- Schedule the project kickoff meeting with the Customer.

Customer Responsibilities:

- Assign a Project Manager, as the single point of contact responsible for Customer-signed approvals.
- Assign other resources necessary to ensure completion of project tasks for which the Customer is responsible.

Completion Criteria:

- Motorola internal processes are set up for project management.
- Both Motorola and the Customer assign all required resources.
- Project kickoff meeting is scheduled.

2.3.3 Project Kickoff

Motorola Responsibilities:

- Conduct a project kickoff meeting during the Contract Design Review (CDR) phase of the project.
- Ensure key project team participants attend the meeting.
- Introduce all project participants attending the meeting.
- Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- Review the overall project scope and objectives with the Customer.
- Review the resource requirements with the Customer.
- Review preliminary implementation timing with the Customer to address upcoming milestones and/or events.
- Review the teams' interactions (Motorola and the Customer), meetings, reports, milestone acceptance, and the Customer's participation in particular phases.

- Motorola intends to complete the project as efficiently as possible, in the interest of all parties. The project schedule presented with this proposal is based on a 12 month implementation. The start date is based on the contract execution date.

Preliminary Project Schedule

Date	Milestone
Start	Contract Execution
Within 30-60 days	Contract Design Review (CDR)
Months 2-5	Equipment manufacturing
Months 6-8	Fixed Network Equipment installation
Month 9-10	Optimization, testing, ATP and CATP
Month 11	Cutover, Conditional Acceptance
Month 12	Final Acceptance

Customer Responsibilities:

- The Customer's key project team participants attend the meeting.
- Review Motorola and Customer responsibilities.

Completion Criteria:

- Project kickoff meeting completed.
- Meeting notes identify the next action items.

2.4 Contract Design Review

2.4.1 Review Contract Design

Motorola Responsibilities:

- Meet with the Customer project team.
- Review the operational requirements and the impact of those requirements on various equipment configurations.

- Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- Review the system design and scope of work, and update the contract documents accordingly.
- Discuss the proposed Cutover Plan and methods to document a detailed procedure.
- Submit design documents to the Customer for approval. These documents form the basis of the system, which Motorola will manufacture, assemble, ship, and install.
- Prepare equipment layout plans for shipment to the field.

Customer Responsibilities:

- The Customer's key project team participants attend the meeting.
- Make timely decisions, according to the implementation tasks.
- Frequency Licensing and Interference:
 - As mandated by FCC, the Customer, as the licensee, has the ultimate responsibility for providing all required radio licensing or licensing modifications for the system prior to system shipment. This responsibility includes paying for FCC licensing and frequency coordination fees.
 - Provide the FCC "call sign" station identifier for each site prior to system shipment.

Completion Criteria:

- Complete Design Documentation, which may include updated system description, equipment list, system drawings, or other documents applicable to the project.
- Incorporate any deviations from the proposed system into the contract documents accordingly.
- The system design is "frozen" in preparation for subsequent project phases such as Order Processing and Manufacturing.
- A Change Order is executed in accordance with all material changes resulting from the Design Review to the contract.

2.4.2 Design Approval (Milestone)

- The Customer executes a Design Approval milestone document.

2.5 Order Processing

2.5.1 Process Equipment List

Motorola Responsibilities:

- Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- Enter order into Motorola's Customer Order Fulfillment (COF) system.
- Create Ship Views, to confirm with the Customer the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- Create equipment orders.

- Reconcile the equipment list(s) to the Contract.
- Procure third-party equipment if applicable.

Customer Responsibilities:

- Approve shipping location(s).
- Complete and provide Tax Certificate information verifying tax status of shipping location.

Completion Criteria:

- Verify that the Equipment List contains the correct model numbers, version, options, and delivery data.
- Trial validation completed.
- Bridge the equipment order to the manufacturing facility.

2.6 Manufacturing and Shipment

2.6.1 Manufacture Motorola Fixed Network Equipment

Motorola Responsibilities:

- Manufacture the Fixed Network Equipment (FNE) necessary for the system based on equipment order.

Customer Responsibilities:

- None.

Completion Criteria:

- FNE shipped to the field.

2.6.2 Manufacture Non-Motorola Equipment

Motorola Responsibilities:

- Procure non-Motorola equipment necessary for the system based on equipment order.

Customer Responsibilities:

- None.

Completion Criteria:

- Ship non-Motorola manufactured equipment to the field.

2.6.3 Ship Equipment to Field

Motorola Responsibilities:

- Pack system for shipment to final destination.
- Arrange for shipment to final destination.

Customer Responsibilities:

- None.

Completion Criteria:

- Equipment ready for shipment to final destination.

2.6.4 Ship Acceptance (Milestone)

- All equipment shipped to the field.

2.7 Site Development

Motorola is proposing to Union County, NC the installation and configuration of the following equipment at the specified locations.

Site Name	Major Equipment
Sheriff-Wingate	GRV 8000 Voting/Simulcast Comparator
Belk Mill	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable
Cuthbertson	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable
Fairview	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable
New Salem	GTR 8000 VHF Base Radio 1 RF antenna and coaxial cable

The document delineates the general responsibilities between Motorola and Union County as agreed to by contract.

Motorola Responsibilities

Motorola’s general responsibilities include the following:

- Perform the installation of the Motorola-supplied equipment described above.
- Schedule the implementation in agreement with Union County.
- Coordinate the activities of all Motorola subcontractors under this contract.
- Administer safe work procedures for installation.
- Provide Union County with the appropriate system interconnect specifications (if required).
- Inventory and deliver equipment to the 4 sites.
- Provide tower crew labor to install one (1) antenna and line at all 4 sites (and removal of old RF/antenna/line, if required).
- Ground all new infrastructure equipment to customer supplied ground system per R56.
- Provide parts to implement installation (ground wire, Cat 5 cable for T1 links, etc.).

Union County, NC Responsibilities

Union County will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Motorola. General responsibilities for Union County include the following:

- Provide access to and all buildings, equipment shelters and towers required for system installation.
- Ensure communications sites meet space, grounding, power, and connectivity requirements for the installation of all equipment.
- Obtain all licensing, site access, or permitting required for project implementation.
- Obtain frequencies for project as required.
- Provide required system interconnections (if required).
- Union County will provide a dedicated delivery point, such as a warehouse, for receipt, inventory, and storage of equipment prior to delivery to the site(s).
- Coordinate the activities of all Union County vendors or other contractors.

Assumptions

Motorola has made several assumptions in preparing this proposal, which are noted below. In order to provide a firm quote, Motorola will need to verify all assumptions or seek alternate solutions in the case of invalid assumptions.

- All existing sites or equipment locations will have sufficient space available for the system described as required/specified by R56.
- All existing sites or equipment locations will have adequate electrical power in the proper phase and voltage, and site grounding to support the requirements of the system described.
- All existing towers will have adequate space and size to support the antenna network requirements of the system described.
- Any site/location upgrades or modifications are the responsibility of Union County.
- Any tower upgrade requirements are the responsibility of Union County.
- Approved FCC licensing provided by Union County.
- Approved local, State, or Federal permits as may be required for the installation and operation of the proposed equipment are the responsibility of Union County.
- Any required system interconnections not specifically outlined here will be provided by Union County. These may include dedicated phone circuits, microwave links, or other types of connectivity.
- No coverage guarantee is included in this proposal.
- Motorola is not responsible for interference caused or received by the Motorola-provided equipment except for interference that is directly caused by the Motorola-provided transmitter(s) to the Motorola-provided receiver(s). Should the Union County's system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.

Section 3

Essential Services/Warranty

3.1 Overview

Motorola Solutions is proposing our Essential Services for ASTRO® 25 infrastructure to provide Union County, NC with technical support, equipment repair, and software patch validation. Essential Services consists of the following elements:

- Network Hardware Repair.

Together, these elements will help to avoid operational disruptions and maintain the value of Union County's communications investment.

3.2 Essential Element Descriptions

The following sections describe the elements proposed for Union County's ASTRO 25 infrastructure.

3.2.1 Network Hardware Repair

To restore Union County's ASTRO 25 network components if they malfunction, Motorola Solutions will repair Motorola Solutions-provided infrastructure equipment. This includes select third-party infrastructure equipment supplied by Motorola Solutions. Motorola Solutions will ship and return repaired equipment, and will coordinate the repair of third-party solution components.

3.3 Motorola Solutions Service Delivery Ecosystem

Essential Services are delivered through a tailored combination of centralized teams, product repair depots, and MyView Portal. These service resources will collaborate to swiftly analyze network issues, accurately diagnose root causes, and efficiently resolve issues to return the network to normal operation.

Motorola Solutions services will be delivered by staff experienced in servicing mission-critical networks. Motorola Solutions uses the Information Technology Infrastructure Library (ITIL) framework to define service tasks based on industry-recognized best practices. As staff perform tasks, service incident information will be available to Union County's administrators and personnel through MyView Portal.

Service activities and Motorola Solutions' service team are described in more detail below.

3.3.1 Centralized Managed Support Operations

The cornerstone of Motorola Solutions' support process is the Centralized Managed Support Operations (CMSO) organization. This TL 9000/ISO 9001-certified organization is staffed 24x7x365 by

experienced service desk specialists, security analysts, and operations managers. The CMSO houses critical central functions, including the Service Desk.

The CMSO Service Desk will serve as a single point of contact for services. It processes service requests, service incidents, change requests, and dispatching. The Service Desk communicates necessary information to stakeholders, bridging communications among Union County, Motorola Solutions, and third-party subcontractors.

Service Desk teams record, track, and update incidents through the Motorola Solutions Customer Relationship Management (CRM) system. They document and respond to inquiries, requests, concerns, and service tickets. When an incident is initiated, the CMSO will engage with teams to resolve that incident. The CMSO will escalate to new teams when needed. Depending on the incident, the CMSO will coordinate incident resolution with local field service and authorized repair depots.

3.3.2 Repair Depot

The Motorola Solutions Repair Depot will provide Union County with a central repair location. This will eliminate the need to send network equipment to multiple vendor locations for repair. Motorola Solutions tracks products sent to the Depot via a case management system throughout the repair process. This system will enable Union County's representatives to check repair status, from inbound shipment to return.

3.3.3 Customer Support Manager

A Motorola Solutions Customer Support Manager (CSM) will be Union County's key point of contact for the definition and administration of services. The CSM will work with Union County to define service delivery details to address Union County's specific priorities.

3.3.4 MyView Portal

To provide Union County with quick access to service details, Motorola Solutions will provide our MyView Portal online network information tool. MyView Portal provides our customers with real-time critical network and services information through an easy-to-use graphical interface.



Figure 3-1: MyView Portal offers real-time, role-based access to critical network and services

information.

With MyView Portal, Union County's administrators will be able to monitor system health and maintenance updates. Capabilities include:

- Viewing network and support compliance.
- Viewing incident reports.
- Updating and creating incidents.
- Checking system update status.
- Receiving pro-active notifications regarding updates.

Available 24x7x365 from any web-enabled device, the information provided by MyView will be based on your needs and user access permissions, ensuring that the information displayed is secure and pertinent to your operations.

Section 4

Equipment List

This section lists the equipment necessary for the proposed solution.

QTY	NOMENCLATURE	DESCRIPTION
1	T8341	GRV 8000 COMPARATOR
1	CA03677AA	ADD: ASTRO SYSTEM RELEASE 2020.1
1	CA03084AA	ADD: COMPARATOR
1	CA01949AC	ADD: ANALOG CONV ONLY SW
1	CA01952AC	ADD: ANALOG CONV SIMULCAST SW
1	X153AW	ADD: RACK MOUNT HARDWARE
1	T8343	GSERIES SOFTWARE LICENSING
1	UA00525AA	ADD: GSERIES GRV - ANALOG CONV
1	SQM01SUM0333	MCG 8000 CONVENTIONAL GATEWAY
1	CA03714AA	ADD: AC POWER
1	CA03718AA	ADD: ANALOG 4WIRE INTERFACE
1	CA03720AA	ADD: ANALOG IP INTERFACE
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	T8341	GRV 8000 COMPARATOR
1	CA03677AA	ADD: ASTRO SYSTEM RELEASE 2020.1
1	CA03084AA	ADD: COMPARATOR
1	CA01949AC	ADD: ANALOG CONV ONLY SW
1	CA01952AC	ADD: ANALOG CONV SIMULCAST SW
1	X153AW	ADD: RACK MOUNT HARDWARE
1	DLN6897	FRU: PA VHF
1	DLN6893	FRU: XCVR VHF V2 W/OPTION CARD
1	DLN6781	FRU: POWER SUPPLY
1	DLN6898	FRU: FAN MODULE
1	DLN6821	FRU: GTR ANALOG 4W E&M SIMULCST KIT
1	DLN6455	CONFIGURATION/SERVICE SOFTWARE
1	T7039	GTR 8000 Base Radio
1	CA03677AA	ADD: ASTRO SYSTEM RELEASE 2020.1
1	X530BG	ADD: VHF (136-174 MHZ)
1	CA01949AA	ADD: ANALOG ONLY CONV SW
1	CA01952AA	ADD: ANALOG CONVENTIONAL SIMULCAST SOFTWARE
1	X153AW	ADD: RACK MOUNT HARDWARE
1	TRN7343	SEVEN AND A HALF FOOT RACK

QTY	NOMENCLATURE	DESCRIPTION
1	T8343	GSERIES SOFTWARE LICENSING
1	UA00412AA	ADD: GSERIES BR-P25 DIG CONV
1	DSCOL54160P	OMNI, MEANDER COLLINEAR, 6DBD, 150-160MHZ, PIM RATED
15	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
410	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
8	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
3	DSHG78L	HOISTING GRIP, PRE-LACED, 7/8 IN CORRUGATED COAX
14	DSSH578	STACKABLE SNAP-IN HANGER FOR 7/8IN AIRCELL COAX (PACKAGE OF 10)
14	DSAAU	UNIVERSAL STAINLESS STEEL ANGLE ADAPTOR PKG OF 10
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSSL120	SPD, TYPE 3, 120VAC, 15A PLUG-IN WITH 15A SIMPLEX OUTLET
1	T7039	GTR 8000 Base Radio
1	CA03677AA	ADD: ASTRO SYSTEM RELEASE 2020.1
1	X530BG	ADD: VHF (136-174 MHZ)
1	CA01949AA	ADD: ANALOG ONLY CONV SW
1	CA01952AA	ADD: ANALOG CONVENTIONAL SIMULCAST SOFTWARE
1	X153AW	ADD: RACK MOUNT HARDWARE
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	T8343	GSERIES SOFTWARE LICENSING
1	UA00412AA	ADD: GSERIES BR-P25 DIG CONV
1	DSCOL54160P	OMNI, MEANDER COLLINEAR, 6DBD, 150-160MHZ, PIM RATED
15	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
360	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A

QTY	NOMENCLATURE	DESCRIPTION
7	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
2	DSHG78L	HOISTING GRIP, PRE-LACED, 7/8 IN CORRUGATED COAX
12	DSSHS78	STACKABLE SNAP-IN HANGER FOR 7/8IN AIRCELL COAX (PACKAGE OF 10)
12	DSAAU	UNIVERSAL STAINLESS STEEL ANGLE ADAPTOR PKG OF 10
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSSL120	SPD, TYPE 3, 120VAC, 15A PLUG-IN WITH 15A SIMPLEX OUTLET
1	T7039	GTR 8000 Base Radio
1	CA03677AA	ADD: ASTRO SYSTEM RELEASE 2020.1
1	X530BG	ADD: VHF (136-174 MHZ)
1	CA01949AA	ADD: ANALOG ONLY CONV SW
1	CA01952AA	ADD: ANALOG CONVENTIONAL SIMULCAST SOFTWARE
1	X153AW	ADD: RACK MOUNT HARDWARE
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	T8343	GSERIES SOFTWARE LICENSING
1	UA00412AA	ADD: GSERIES BR-P25 DIG CONV
1	DSCOL54160P	OMNI, MEANDER COLLINEAR, 6DBD, 150-160MHZ, PIM RATED
15	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
290	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
6	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
2	DSHG78L	HOISTING GRIP, PRE-LACED, 7/8 IN CORRUGATED COAX
10	DSSHS78	STACKABLE SNAP-IN HANGER FOR 7/8IN AIRCELL COAX (PACKAGE OF 10)
10	DSAAU	UNIVERSAL STAINLESS STEEL ANGLE ADAPTOR PKG OF 10
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50

QTY	NOMENCLATURE	DESCRIPTION
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSSL120	SPD, TYPE 3, 120VAC, 15A PLUG-IN WITH 15A SIMPLEX OUTLET
1	T7039	GTR 8000 Base Radio
1	CA03677AA	ADD: ASTRO SYSTEM RELEASE 2020.1
1	X530BG	ADD: VHF (136-174 MHZ)
1	CA01949AA	ADD: ANALOG ONLY CONV SW
1	CA01952AA	ADD: ANALOG CONVENTIONAL SIMULCAST SOFTWARE
1	X153AW	ADD: RACK MOUNT HARDWARE
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	T8343	GSERIES SOFTWARE LICENSING
1	UA00412AA	ADD: GSERIES BR-P25 DIG CONV
1	DSCOL54160P	OMNI, MEANDER COLLINEAR, 6DBD, 150-160MHZ, PIM RATED
15	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
360	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
7	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
2	DSHG78L	HOISTING GRIP, PRE-LACED, 7/8 IN CORRUGATED COAX
12	DSSH578	STACKABLE SNAP-IN HANGER FOR 7/8IN AIRCELL COAX (PACKAGE OF 10)
12	DSAAU	UNIVERSAL STAINLESS STEEL ANGLE ADAPTOR PKG OF 10
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSSL120	SPD, TYPE 3, 120VAC, 15A PLUG-IN WITH 15A SIMPLEX OUTLET

Union County, NC

P25 TDMA Conversion

Trunking Simulcast to TDMA Operation

August 21, 2023

August 21, 2023

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Section 1

System Description

1.1 System Capacity and Spectrum Management

The level of traffic on Union County’s simulcast system may vary depending on the time of day, day of the week, and emergency situations. Motorola Solutions takes great care to design systems that can meet peak performance levels without requiring resources that remain unused during slow periods. The proposed ASTRO 25 radio system upgrade includes features to ensure that resources are efficiently used.

Today, Union County’s simulcast system uses P25 Frequency Division Multiple Access (FDMA) to share the radio spectrum within the simulcast subsystem. With FDMA, radio frequencies are divided into smaller frequency bands, each with its own carrier frequency. These smaller frequency bands are dynamically allocated to the radio users who share the frequency channel. Each radio user making a call on the system will receive a unique talkpath for the duration of the call.

Thus, Union County’s simulcast supports up to nine (9) FDMA talkgroup calls, or talk paths, as installed today. Talkgroup calls above nine (9) simultaneous calls would enter into a prioritized busy queue, waiting for a channel grant once FDMA channel resources are available.

P25 FDMA SYSTEM: 10 CHANNEL TRUNKED SYSTEM WITH UP TO 9 VOICE CALLS



Figure 1-1: Union County trunked P25 system with 10 FDMA channels at 8 simulcast remote sites

Converting P25 FDMA channels to TDMA channels makes room for additional channels for voice and data.

The proposed system upgrade will convert the FDMA channels to use P25 Time Division Multiple Access (TDMA) to divide each channel into two talkpaths, leveraging 2:1 channel efficiency to double talkpath capacity over FDMA using the same radio frequency bandwidth allocation. This enhanced capacity improves the system's Grade of Service, leading to fewer busied calls and faster callbacks during busy situations. The extra bandwidth provided by TDMA can be deployed for more talkpath capacity and packet data services at the same site.

Thus, Union County's simulcast converted to TDMA would support up to eighteen (18) TDMA talkgroup calls, or talk paths, once fully migrated. Talkgroup calls above eighteen (18) simultaneous calls would enter into a prioritized busy queue, waiting for a channel grant once TDMA channel resources are available. With TDMA operation, Union County has doubled the simulcast subsystem talk path capacity for voice without any additional frequencies or hardware.

**P25 TDMA SYSTEM:
10 CHANNEL TRUNKED SYSTEM WITH UP TO 18 VOICE CALLS**

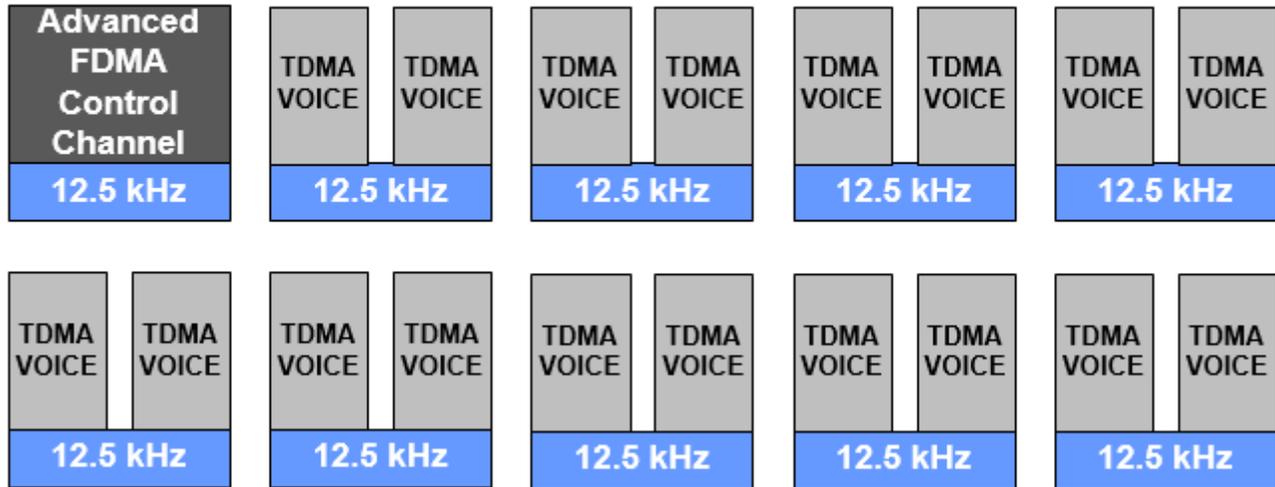


Figure 1-2: Union County trunked P25 system with 10 TDMA channels at 8 simulcast remote sites

With the additional capacity in the simulcast subsystem, Union County simulcast could also use the existing channels for data services such as location services. Location on Receive is only available with TDMA talkgroups. Data Services are not included in this proposal. However, an example of the added capacity with TDMA and data services is shown in Figure 1-3: below.

**P25 TDMA SYSTEM WITH IV&D DATA CHANNELS (Example):
10 CHANNEL TRUNKED SYSTEM WITH UP TO 14 VOICE CALLS
AND 2 DATA CHANNELS**

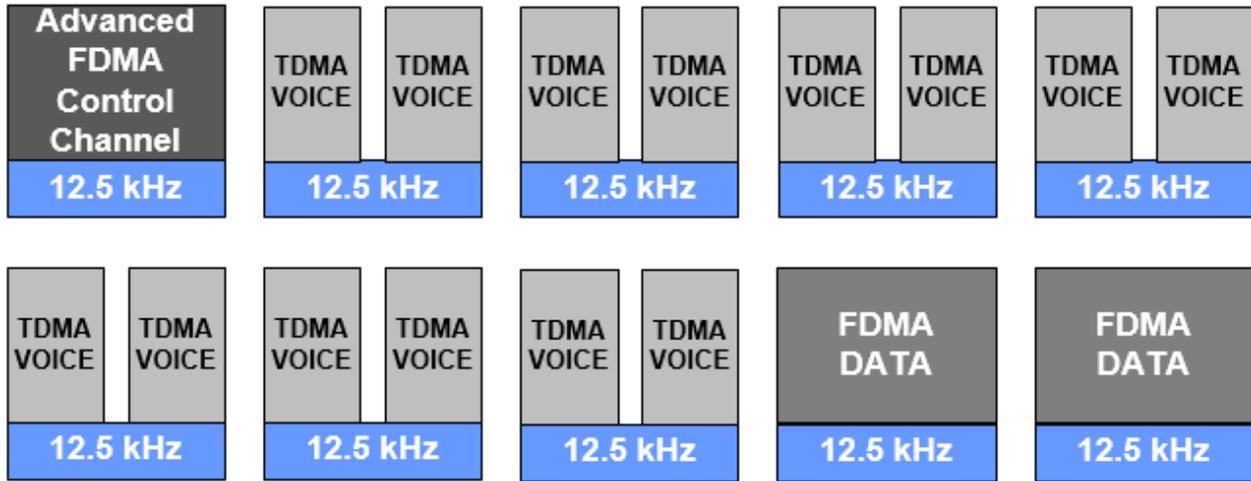


Figure 1-3: Example Union County trunked P25 system with 10 TDMA channels and FDMA data services at 8 simulcast remote sites

With having 5 RF channels configured for Dynamic Dual Mode (DDM), the Union County simulcast could also support up to 5 FDMA voice calls and an additional 10 TDMA voice calls. The 5 DDM channels can support FDMA voice calls and FDMA Data services or TDMA voice calls with 2 talkpaths per RF channel. This DDM configuration will assist in the migration to a TDMA system as well as support interoperability with surrounding systems that still operate in the FDMA mode. An example of the DDM on 5 of the 10 RF channels is shown in Figure 1-3: below.

**P25 TDMA SYSTEM WITH DYNAMIC DUAL MODE CHANNELS (Example):
10 CHANNEL TRUNKED SYSTEM WITH UP TO 8 TDMA VOICE CALLS
AND A COMBINATION OF UP TO 5 FDMA VOICE OR DATA OR UP TO
10 TDMA VOICE CALLS ON 5 DDM CHANNELS**

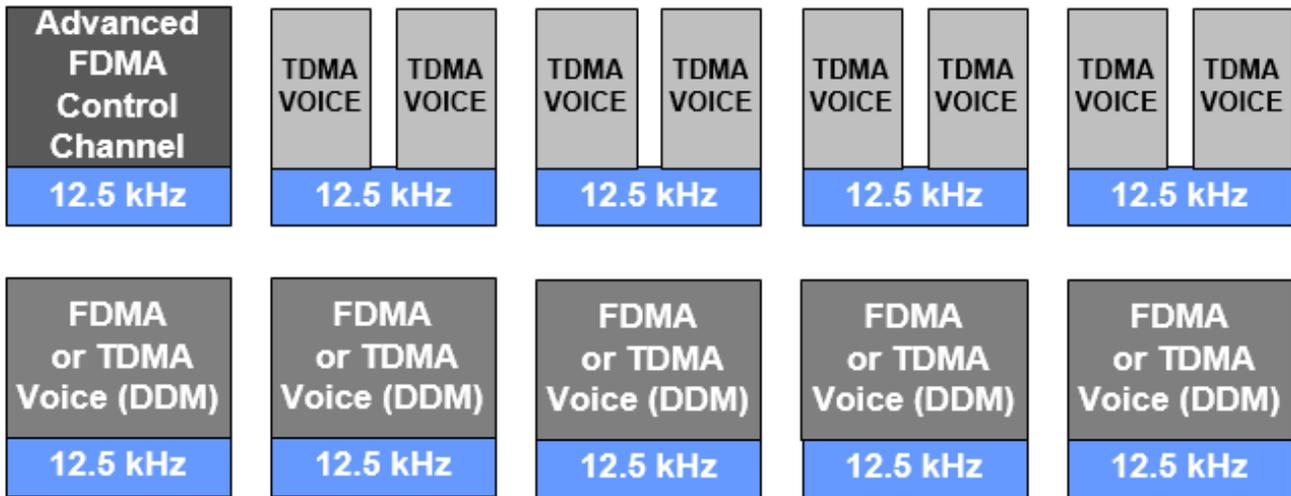


Figure 1-4: Example Union County trunked P25 system with 5 TDMA channels and 5 Dynamic Dual Mode (FDMA/TDMA) channels at 8 simulcast remote sites

All APX subscriber radios need the TDMA operation feature and programming to operate on a TDMA channel or talkgroup. XTS/XTL radios only support FDMA operation and thus, are not capable of TDMA operation.

1.2 Design Assumptions

This is a summary of our design assumptions for this project.

- A2021.x System Release
- Includes Master site licensing for TDMA on the following 8 sites in the Union County simulcast subsystem: Belk Mill, Crow Road, Fairview, NCSHP Monroe, New Salem, Reid Dairy, Sherriff-Wingate, and Sims
- Includes Master site licensing for TDMA on 10 RF channels at the 8 simulcast remote sites listed above
- Includes Master site licensing for Dynamic Dual Mode (DDM) which consists of Dynamic Talkgroup Assignment Site and Dynamic Channel Base Radio licenses for 5 RF channels as the 8 simulcast remote sites listed above
- Includes software upgrades to 10 prime site comparators and 80 simulcast remote site base radios (10 channels each at of the 8 simulcast remote sites)
- Converts 10 channels to TDMA with 5 of the 10 channels also configured for DDM (1 control channel with up to 18 TDMA talk paths, up to 5 FDMA talk paths) on the Union County P25 simulcast subsystem

- TDMA coverage should be equivalent to the FDMA coverage where site separation is not too far. Some areas may require diversity for the receivers and will be detailed by new coverage maps being run to analyze the TDMA coverage prediction.
- Receiver diversity is NOT included in this proposal
- Dynamic Dual Mode operation, which consists of Dynamic Channel Assignment and Dynamic Talkgroup Assignment, is included in this quote for 5 of the 10 simulcast RF channels at 8 sites
- TDMA is only supported on GTR IP based simulcast subsystems, GTR IP based ASR sites, MCC 7500 consoles and APX subscribers. Gold Elite and XTS/XTL subscribers will need to be replaced with newer console and APX subscriber products to operate in the TDMA mode. Quotes for replacement consoles or subscribers is not included in this project.
- Union County is responsible for any Federal Communications Commission (FCC) licensing coordination and/or modifications to add TDMA emission mask to current simulcast site licenses
- Requires TDMA option to be added and programmed for APX subscribers
- Union County will be responsible for flashing and programming radios for TDMA operation
- Assumes adequate physical space and power to be provided including UPS and generators
- No CATP or coverage guarantees are provided

Section 2

Statement of Work

2.1 Overview

This Statement of Work (SOW) describes the deliverables to be furnished to Union County, NC. The tasks described herein will be performed by Motorola, its subcontractors, and Union County, NC (the Customer) to implement the Conversion of the Union County trunked P25 system with 10 FDMA channels at 8 simulcast remote sites to TDMA and 5 channels will support Dynamic Dual Mode (DDM) for FDMA/TDMA operation as described in the System Description. It describes the actual work involved in installation, identifies the installation standards to be followed, and clarifies the responsibilities for both Motorola and the Customer during the project implementation. Specifically, this SOW provides:

- A summary of the phases and tasks to be completed within the project lifecycle.
- A list of the deliverables associated with the project.
- A description of the responsibilities for both Motorola and the Customer.
- The qualifications and assumptions taken into consideration during the development of this project.

This SOW provides the most current understanding of the work required by both parties to ensure a successful project implementation. In particular, Motorola has made assumptions of the sites to be used for the new system. Should any of the sites change, a revision to the SOW and associated pricing will be required. It is understood that this SOW is a working document, and that it will be revised as needed to incorporate any changes associated with contract negotiations, Contract Design Review (CDR), and any other change orders that may occur during the execution of the project.

2.2 General Assumptions

Motorola has based the system design on information provided by Union County, NC and an analysis of their system requirements. A list of general assumptions has been noted below for review. Should Motorola's assumptions be deemed incorrect or not agreeable to, a revised proposal with the necessary changes and adjusted costs may be required. Changes to the equipment or scope of the project after contract may require a change order.

- All work is to be performed during normal work hours, Monday through Friday 8:00 a.m. to 5:00 p.m.
- There is sufficient space, utilities, and HVAC available to install the new equipment, if required.
- The existing site grounding meets R56 standards.
- Union County, NC will be able to obtain licensing at each site, if necessary.
- Union County, NC will obtain any MOUs or lease agreements necessary to install the proposed equipment, if required

2.3 Contract

2.3.1 Contract Award (Milestone)

- The Customer and Motorola execute the contract and both parties receive all the necessary documentation.

2.3.2 Contract Administration

Motorola Responsibilities:

- Assign a Project Manager, as the single point of contact with authority to make project decisions.
- Assign resources necessary for project implementation.
- Set up the project in the Motorola information system.
- Schedule the project kickoff meeting with the Customer.

Customer Responsibilities:

- Assign a Project Manager, as the single point of contact responsible for Customer-signed approvals.
- Assign other resources necessary to ensure completion of project tasks for which the Customer is responsible.

Completion Criteria:

- Motorola internal processes are set up for project management.
- Both Motorola and the Customer assign all required resources.
- Project kickoff meeting is scheduled.

2.3.3 Project Kickoff

Motorola Responsibilities:

- Conduct a project kickoff meeting during the Contract Design Review (CDR) phase of the project.
- Ensure key project team participants attend the meeting.
- Introduce all project participants attending the meeting.
- Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- Review the overall project scope and objectives with the Customer.
- Review the resource requirements with the Customer.
- Review preliminary implementation timing with the Customer to address upcoming milestones and/or events.
- Review the teams' interactions (Motorola and the Customer), meetings, reports, milestone acceptance, and the Customer's participation in particular phases.
- Motorola intends to complete the project as efficiently as possible, in the interest of all parties. The project schedule presented with this proposal is based on a 12 month implementation. The start date is based on the contract execution date.

Preliminary Project Schedule

Date	Milestone
Start	Contract Execution
Within 30-60 days	Contract Design Review (CDR)
Months 2-5	Equipment manufacturing
Months 6-8	Fixed Network Equipment installation
Month 9-10	Optimization, testing, ATP and CATP
Month 11	Cutover, Conditional Acceptance
Month 12	Final Acceptance

Customer Responsibilities:

- The Customer's key project team participants attend the meeting.
- Review Motorola and Customer responsibilities.

Completion Criteria:

- Project kickoff meeting completed.
- Meeting notes identify the next action items.

2.4 Contract Design Review

2.4.1 Review Contract Design

Motorola Responsibilities:

- Meet with the Customer project team.
- Review the operational requirements and the impact of those requirements on various equipment configurations.
- Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- Review the system design and scope of work, and update the contract documents accordingly.
- Discuss the proposed Cutover Plan and methods to document a detailed procedure.

- Submit design documents to the Customer for approval. These documents form the basis of the system, which Motorola will manufacture, assemble, ship, and install.
- Prepare equipment layout plans for shipment to the field.

Customer Responsibilities:

- The Customer's key project team participants attend the meeting.
- Make timely decisions, according to the implementation tasks.
- Frequency Licensing and Interference:
 - As mandated by FCC, the Customer, as the licensee, has the ultimate responsibility for providing all required radio licensing or licensing modifications for the system prior to system shipment. This responsibility includes paying for FCC licensing and frequency coordination fees.
 - Provide the FCC "call sign" station identifier for each site prior to system shipment.

Completion Criteria:

- Complete Design Documentation, which may include updated system description, equipment list, system drawings, or other documents applicable to the project.
- Incorporate any deviations from the proposed system into the contract documents accordingly.
- The system design is "frozen" in preparation for subsequent project phases such as Order Processing and Manufacturing.
- A Change Order is executed in accordance with all material changes resulting from the Design Review to the contract.

2.4.2 Design Approval (Milestone)

- The Customer executes a Design Approval milestone document.

2.5 Order Processing

2.5.1 Process Equipment List

Motorola Responsibilities:

- Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- Enter order into Motorola's Customer Order Fulfillment (COF) system.
- Create Ship Views, to confirm with the Customer the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- Create equipment orders.
- Reconcile the equipment list(s) to the Contract.
- Procure third-party equipment if applicable.

Customer Responsibilities:

- Approve shipping location(s).

- Complete and provide Tax Certificate information verifying tax status of shipping location.

Completion Criteria:

- Verify that the Equipment List contains the correct model numbers, version, options, and delivery data.
- Trial validation completed.
- Bridge the equipment order to the manufacturing facility.

2.6 Manufacturing and Shipment

2.6.1 Manufacture Motorola Fixed Network Equipment

Motorola Responsibilities:

- Manufacture the Fixed Network Equipment (FNE) necessary for the system based on equipment order.

Customer Responsibilities:

- None.

Completion Criteria:

- FNE shipped to the field.

2.6.2 Manufacture Non-Motorola Equipment

Motorola Responsibilities:

- Procure non-Motorola equipment necessary for the system based on equipment order.

Customer Responsibilities:

- None.

Completion Criteria:

- Ship non-Motorola manufactured equipment to the field.

2.6.3 Ship Equipment to Field

Motorola Responsibilities:

- Pack system for shipment to final destination.
- Arrange for shipment to final destination.

Customer Responsibilities:

- None.

Completion Criteria:

- Equipment ready for shipment to final destination.

2.6.4 Ship Acceptance (Milestone)

- All equipment shipped to the field.

2.7 Site Development

Motorola is proposing to Union County, NC the installation and configuration of the following equipment at the specified locations.

Site Name	Major Equipment
Convert the Union County trunked P25 system with 10 FDMA channels at 8 simulcast remote sites to TDMA: <ul style="list-style-type: none"> • Belk Mill, Crow Road, Fairview, NCSHP Monroe, New Salem, Reid Dairy, Sherriff-Wingate, and Sims 	Software upgrades to 10 prime site comparators and 80 simulcast remote site base radios (10 channels each at of the 8 simulcast remote sites)
Configure 5 of the 10 RF channels at the Union County trunked P25 system as Dynamic Dual Mode (DDM) channels at 8 simulcast remote sites for dynamic assignment as FDMA or TDMA: <ul style="list-style-type: none"> • Belk Mill, Crow Road, Fairview, NCSHP Monroe, New Salem, Reid Dairy, Sherriff-Wingate, and Sims 	Software upgrades to 5 channels at 8 simulcast remote sites to support Dynamic Dual Mode

The document delineates the general responsibilities between Motorola and Union County as agreed to by contract.

Motorola Responsibilities

Motorola’s general responsibilities include the following:

- Perform the installation of the Motorola-supplied equipment described above.
- Schedule the implementation in agreement with Union County.
- Coordinate the activities of all Motorola subcontractors under this contract.
- Administer safe work procedures for installation.
- Provide Union County with the appropriate system interconnect specifications.
- Perform cutover, optimization and ATP for the Conversion from FDMA to TDMA operation with 5 RF Channel using Dynamic Dual Mode (DDM).

Union County, NC Responsibilities

Union County will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Motorola. General responsibilities for Union County include the following:

- Provide all buildings, equipment shelters, and towers required for system installation.
- Ensure communications sites meet space, grounding, power, and connectivity requirements for the installation of all equipment.

- Obtain all licensing, site access, or permitting required for project implementation.
- Obtain frequencies for project as required.
- Provide required system interconnections.
- Union County will provide a dedicated delivery point, such as a warehouse, for receipt, inventory, and storage of equipment prior to delivery to the site(s).
- Union County will be responsible for flashing and programming radios for TDMA operation and cost for adding the required TDMA option for their fleet of APX subscribers.
- Coordinate the activities of all Union County vendors or other contractors.

Assumptions

Motorola has made several assumptions in preparing this proposal, which are noted below. In order to provide a firm quote, Motorola will need to verify all assumptions or seek alternate solutions in the case of invalid assumptions.

- All existing sites or equipment locations will have sufficient space available for the system described as required/specified by R56.
- All existing sites or equipment locations will have adequate electrical power in the proper phase and voltage, and site grounding to support the requirements of the system described.
- Any site/location upgrades or modifications are the responsibility of Union County.
- Approved FCC licensing provided by Union County.
- Approved local, State, or Federal permits as may be required for the installation and operation of the proposed equipment are the responsibility of Union County.
- Any required system interconnections not specifically outlined here will be provided by Union County. These may include dedicated phone circuits, microwave links, or other types of connectivity.
- No coverage guarantee is included in this proposal.
- Motorola is not responsible for interference caused or received by the Motorola-provided equipment except for interference that is directly caused by the Motorola-provided transmitter(s) to the Motorola-provided receiver(s). Should the Union County system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.

Section 3

Acceptance Test Plan

Union County, NC Trunked Simulcast

Conversion from FDMA to TDMA operation

In-Field Draft

www.motorolasolutions.com/services/government

Representative 1 Name

Field Program Manager

(XXX) XXX-XXXX

Representative 2 Name

Field Engineer

(XXX) XXX-XXXX

3.1 Wide Area Trunking - TDMA Only Sites

3.1.1 Auto Site Affiliation

1. DESCRIPTION

A Radio affiliation is a function that links a unique radio ID and unique talkgroup to a specific site. This information is stored in a affiliation table in the zone database.

Before resources are assigned, the affiliation table is accessed to know which sites need to be assigned to support the call. Only the sites that need to be assigned that have associated talkgroups will be assigned. If the site does not have that talkgroup affiliated to it will not be assigned. This allows for more calls to be processed with fewer resources.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 2
RADIO-3 - SITE - SITE 2
RADIO-4 - TALKGROUP 2
RADIO-4 - SITE - SITE 2

This test requires the ZoneWatch feature.

Note: There are system settings which could affect the assignment of resources, such as required site.

Pass _____ Fail _____

VERSION #1.030

2. TEST

- Step 1. Turn RADIO-1 off and on.
- Step 2. Verify via ZoneWatch that RADIO-1 sends in its affiliation.
- Step 3. Initiate a call using RADIO-1 on TALKGROUP 1.
- Step 4. Verify RADIO-2 can receive and respond to the call. Using ZoneWatch verify that no resources are assigned at SITE 2 as there are no subscribers affiliated to TALKGROUP 1 at SITE 2.
- Step 5. Initiate a call on TALKGROUP 2 using RADIO-3.
- Step 6. Verify that RADIO-4 can receive and respond to the call. Using ZoneWatch verify that no resources are assigned at SITE 1 as there are no subscribers affiliated to TALKGROUP 2 at SITE 1.

Wide Area Trunking - TDMA Only Sites

3.1.2 Secure Operation

1. DESCRIPTION

Digital encryption is used to scramble a transmission so only properly equipped and configured radios can monitor the conversation. A "Key" is used to encrypt the transmit audio. Only radios with the same "Key" can decrypt the audio and listen to it.

SETUP

RADIO-1 - TALKGROUP 1 (SECURE TX MODE)
RADIO-2 - TALKGROUP 1 (SECURE TX MODE)
RADIO-3 - TALKGROUP 1 (SECURE MODE and no, or incorrect key)
RADIO-4 - TALKGROUP 1 (Clear TX Mode)

Note: The identical secure mode must be programmed into RADIO-1, RADIO-2, RADIO-4 and that RADIO-3 has no secure code loaded or has a unique secure code from the other testing radios.

VERSION #1.020

2. TEST

- Step 1. Initiate a secure wide area call with RADIO-1 on TALKGROUP 1. Keep this call in progress until instructed to end the call.
- Step 2. Observe that RADIO-2 will be able to monitor the call.
- Step 3. Observe that RADIO-3 does not receive the call.
- Step 4. Observe that RADIO-4 will also receive the call even with the secure switch set to the non-secure mode of operation.
- Step 5. End the call from RADIO-1.
- Step 6. Respond with RADIO-2 and verify that RADIO-1 receives the response audio but RADIO-3 cannot.

Pass____ Fail____

Wide Area Trunking - TDMA Only Sites

3.1.3 Continuous Assignment Updating

1. DESCRIPTION

When a talkgroup is assigned a voice channel, the site controller continues to transmit the channel assignment on the control channel for the duration of the talkgroup call. Radios coming into use on the system are automatically sent to voice channels with conversations in progress involving their selected talkgroups.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
RADIO-3 - TALKGROUP 1

VERSION #1.010

2. TEST

- Step 1. Turn OFF RADIO-1.
- Step 2. Initiate a Talkgroup Call using RADIO-2 and verify RADIO-3 hears the audio.
- Step 3. While the Talkgroup Call is in progress, turn ON RADIO-1.
- Step 4. Observe RADIO-1, which was just brought back into service, joins the Talkgroup Call already in progress.
- Step 5. End the talkgroup call.
- Step 6. Switch RADIO-1 to another talkgroup.
- Step 7. Initiate a Talkgroup Call from RADIO-2 to RADIO-3.
- Step 8. While the Talkgroup Call is in progress, set RADIO-1 back to TALKGROUP 1.
- Step 9. Observe that RADIO-1 joins the Talkgroup Call already in progress.

Pass____ Fail____

Wide Area Trunking - TDMA Only Sites

3.1.4 Call Alert

1. DESCRIPTION

Call Alert is a tone page that allows a user to selectively alert another radio unit. The initiating radio will receive notification from the trunked system as to whether or not the page was received by the target radio. Units receiving a Call Alert will sound an alert tone. As with other types of calls, Call Alerts can take place from anywhere in the system.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - TALKGROUP 3

VERSION #1.010

2. TEST

- Step 1. Using RADIO-1, press the page button.
- Step 2. Enter the unit ID of RADIO-2 with the keypad, or scroll to the location where this ID is stored
- Step 3. Press the PTT to initiate the call alert. Verify that the RADIO-1 user receives audible indication that the Call Alert was sent.
- Step 4. Verify that RADIO-2 user receives an audible indication of an incoming Call Alert was sent but RADIO-3 does not.
- Step 5. Verify RADIO-1 gets an audible indication that the Call Alert was successfully received at the target radio.
- Step 6. Turn off RADIO-2. Send a Call Alert from RADIO-1 to RADIO-2.
- Step 7. Verify that the RADIO-1 user receives audible indication that the Call Alert was sent.
- Step 8. Verify RADIO-1 receives a "No Acknowledgement" indication that the Call Alert was not received at the target radio.

Pass_____ Fail_____

Wide Area Trunking - TDMA Only Sites

3.1.5 Emergency Alarm and Call with Top of Queue (TDMA)

1. DESCRIPTION

Users in life threatening situations can use the Emergency button on the radio to immediately send a signal to the dispatcher and be assigned the next available voice channel. An Emergency Call can be set to either Top of Queue or Ruthless Preemption operation. To accomplish this test, an Emergency Alarm and Call will be initiated from a subscriber which will be received by a subscriber affiliated at any site of any zone in the system.

NOTE: If the subscriber does not have the Display option, the Emergency ID will not be displayed.

NOTE: All radios and talkgroups should start with default priorities. Default is 10.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - Any Site
RADIO-3 - TALKGROUP 2
RADIO-3 - SITE - SITE 1
RADIO-4 - TALKGROUP 3
RADIO-4 - SITE - SITE 1
RADIO-5 - TALKGROUP 4
RADIO-5 - SITE - Any Site

VERSION #1.020

2. TEST

- Step 1. Verify the emergency type for TALKGROUP 1's template to be set up as Top of Queue.
- Step 2. Simulate a busy system by disabling all channels at SITE 1 with the exception of the control channel and one physical voice channel. Press the PTT on RADIO-5 and hold until the completion of the test.
- Step 3. Press the PTT to initiate a call with RADIO-3 and hold the PTT switch until instructed to release.
- Step 4. Key RADIO-4 and verify the radio receives a busy tone. Release the PTT switch on RADIO-4.
- Step 5. Using RADIO-1, send an Emergency Call by depressing the emergency switch and then the PTT switch.
- Step 6. Observe that RADIO-1 cannot transmit due to the voice channel being busy.
- Step 7. Release the PTT switch on RADIO-3. Observe that RADIO-1 receives the call back before RADIO-4 and is able to proceed with the call.
- Step 8. Observe that the display on RADIO-2 denotes an emergency and the unit ID or alias of RADIO-1.
- Step 9. Dekey RADIO-1 and end the Emergency Call by holding down the Emergency button on RADIO-1 until an alert tone sounds. Verify RADIO-1 returns to normal operation.
- Step 10. Verify RADIO-4 receives a callback. Release the PTT on RADIO-5. Return the system to normal operation.

Pass____ Fail____

Wide Area Trunking - TDMA Only Sites

3.1.6 Priority Monitor/Non-Priority Scan

1. DESCRIPTION

This test will demonstrate that a subscriber unit can scan a pre-programmed list to find any Priority and Non-priority Talkgroups with assigned voice channels at that site. To demonstrate this, a call will be initiated from a subscriber at a remote site on a talkgroup monitored by a subscriber at the same site as the scanning radio. The scanning radio will scan from its selected talkgroup to the active talkgroup.

Note: Subscribers must be capable of supporting the Talkgroup scan.

SETUP

RADIO-1 - TALKGROUP 1 (SCANNING)
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 2
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 3
RADIO-3 - SITE - SITE 1
RADIO-4 - TALKGROUP 3
RADIO-4 - SITE - SITE 2

* RADIO-1 needs to be set to a dial position configured to scan.

Pass____ Fail____

VERSION #1.010

2. TEST

- Step 1. Verify that RADIO-1 is set to TALKGROUP 1 and in the scan mode of operation and programmed to scan TALKGROUP 1, TALKGROUP 2, and TALKGROUP 3.
- Step 2. Initiate a Talkgroup Call with RADIO-4 and observe that RADIO-1 scans to the talkgroup and receives the call. Keep the call in progress until completion of the following step.
- Step 3. Initiate a Talkgroup Call with RADIO-2 and observe that RADIO-1 does not receive the call since RADIO-1 is listening to TALKGROUP 3.

3.2 Signoff Certificate

By their signatures below, the following witnesses certify they have observed the system Acceptance Test Procedures.

Signatures

WITNESS:

_____ Date: _____

Please Print Name: _____

Initials:

Please Print Title: _____

WITNESS:

_____ Date: _____

Please Print Name: _____

Initials:

Please Print Title: _____

Section 4

Equipment List

This section lists the equipment necessary for the proposed solution.

QTY	NOMENCLATURE	DESCRIPTION
1	SQM01SUM0323	ASTRO MASTER SITE
1	CA03517AD	ADD: CORE EXPANSION
8	UA00159AB	ADD: P25 PHASE 2 TDMA TRKNG OP SITE LIC
80	UA00161AA	ADD: P25 PHASE 2 TDMA SW BASE RADIO LIC
8	UA00160AA	ADD: PHASE 2 DYNAMIC TG ASGNMT SITE LIC
40	UA00162AA	ADD: PHASE 2 DYNAMIC CH BASE RADIO LIC
1	T7140	G-SERIES SOFTWARE UPGRADE
80	CA01903AA	ADD:P25 FDMA TO P25 TDMA SW UPGRADE
40	CA01966AA	ADD:DYNAMIC CHANNEL ASSIGNMENT SOFTWARE
1	T7140	G-SERIES SOFTWARE UPGRADE
10	CA01910AA	ADD: CM P25 FDMA TO P25 TDMA SW UP
1	T8343	GSERIES SOFTWARE LICENSING
10	UA00418AA	ADD: P25 TDMA TRNK COMPARATOR SW

Section 5

Pricing Summary

Motorola is pleased to provide the following equipment and services to Union County, NC.

Equipment and Services

Description	Price (\$)
TDMA Equipment Total	\$2,064,000.00
TDMA Implementation Services Total	\$360,088.00
VHF Equipment Total	\$118,732.00
VHF Implementation Services Total	\$354,333.00
<i>PO by 12/20/2023 Discount</i>	<i>(\$50,000.00)</i>
Total System	\$2,847,153.00

The pricing above is valid through 12/20/2023.

**This proposal and pricing are pursuant to NC State Contract 725G*

Section 6

Contractual Documentation

Provided on the following pages.

EXHIBIT D

System Acceptance Certificate

Customer Name: _____

Project Name: _____

This System Acceptance Certificate memorializes the occurrence of System Acceptance. Motorola and Customer acknowledge that:

1. The Acceptance Tests set forth in the Acceptance Test Plan have been successfully completed.
2. The System is accepted.

Customer Representative:

Motorola Representative:

Signature: _____
Print Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

FINAL PROJECT ACCEPTANCE:

Motorola has provided and Customer has received all deliverables, and Motorola has performed all other work required for Final Project Acceptance.

Customer Representative:

Motorola Representative:

Signature: _____
Print Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

Exhibit E

I. At Motorola's sole expense, Motorola shall procure and maintain the following insurances with insurers authorized to do business in North Carolina and rated A-VII or better by A.M. Best., or as otherwise authorized by the Union County Risk Manager.

A. **WORKERS' COMPENSATION**
Statutory limits covering all employees, including Employer's Liability with limits of:

\$500,000	Each Accident
\$500,000	Disease - Each Employee
\$500,000	Disease - Policy Limit

B. **COMMERCIAL GENERAL LIABILITY**
Covering Ongoing and Completed Operations involved in this Agreement.

\$2,000,000	General Aggregate
\$2,000,000	Products/Completed Operations Aggregate
\$1,000,000	Each Occurrence
\$1,000,000	Personal and Advertising Injury Limit

C. **COMMERCIAL AUTOMOBILE LIABILITY**

\$1,000,000	Combined Single Limit - Any Auto
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II. **ADDITIONAL INSURANCE REQUIREMENTS**

A. Motorola's General Liability policy shall be endorsed, specifically or generally, to include the following as Additional Insured:

UNION COUNTY, ITS OFFICERS AND EMPLOYEES ARE INCLUDED AS ADDITIONAL INSURED WITH RESPECTS TO THE GENERAL LIABILITY INSURANCE POLICY.

Additional Insured status for Completed Operations shall extend for a period of not less than three (3) years from the date of final payment.

B. After execution of the Agreement or before commencement of any work or event, Motorola shall provide a Certificate of Insurance in satisfactory form as evidence of the insurances required above.

C. Motorola shall have no right of recovery or subrogation against Union County (including its officers and employees).

- D. It is the intention of the parties that the insurance policies afforded by Motorola shall protect both parties and be primary coverage for any and all losses covered by the above-described insurance.
- E. Union County shall have no liability with respect to Motorola's personal property whether insured or not insured. Any deductible or self-insured retention is the sole responsibility of Motorola.
- F. Notwithstanding the notification requirements of the Insurer, Motorola hereby agrees to notify County's Risk Manager at 500 N. Main Street # 130, Monroe, NC 28112, within five (5) days of the cancellation or substantive change of any insurance policy set out herein. Union, in its sole discretion, may deem failure to provide such notice as a breach of this Agreement.
- G. The Certificate of Insurance should note in the Description of Operations the following:
- Department: 911 Communications
Contract #: 8670
- H. Insurance procured by Motorola shall not reduce nor limit Motorola's contractual obligation to indemnify, save harmless and defend Union County for claims made or suits brought which result from or are in connection with the performance of this Agreement.
- I. Certificate Holder shall be listed as follows:
- Union County
Attention: Risk Manager
500 N. Main Street, Suite #130
Monroe, NC 28112
- J. If Motorola is authorized to assign or subcontract any of its rights or duties hereunder and in fact does so, Motorola shall ensure that the assignee or subcontractor satisfies all requirements of this Agreement or requirements substantially similar to the requirements of this Agreement, including, but not limited to, maintenance of the substantially similar insurances coverage and provision of certificate(s) of insurance and additional insured endorsement(s), in proper form prior to commencement of services.

III. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program, used to verify the work authorization of newly hired employees pursuant to federal law. Motorola warrants that Motorola and any subcontractor performing work under this Agreement: (i) uses E-Verify if required to do so by North Carolina law; and (ii) otherwise complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes. A breach of this warranty by

Motorola will be considered a breach of this Agreement, which entitles Union County to terminate this Agreement, without penalty, upon notice to Motorola.