

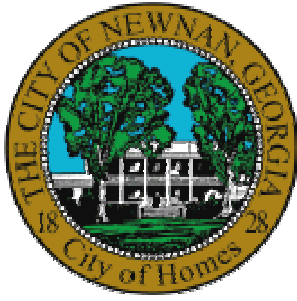
# City of Newnan, Georgia Police Department

## Request for Proposal (RFP) for System Integrated UHF Wireless Data Network



---

|                       |                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Issue Date:</b>    | February 3, 2009                                                                                                                                                            |
| <b>Issued By:</b>     | City of Newnan<br>Finance Department<br>25 LaGrange Street<br>PO Box 1193<br>Newnan, GA 30264                                                                               |
| <b>Inquiries:</b>     | Chief Meadows<br>Police Department<br>PO Box 1193<br>Newnan, GA 30264<br><a href="mailto:dlmeadows@cityofnewnan.org">dlmeadows@cityofnewnan.org</a><br>770-254-2355 ext 102 |
| <b>Proposals Due:</b> | Tuesday, March 31, 2009 by 10:00 AM, EST                                                                                                                                    |
| <b>Bid Opening:</b>   | Tuesday, March 31, 2009 by 10:00 AM, EST                                                                                                                                    |



## POLICE DEPARTMENT CITY OF NEWNAN

25 Jefferson Street  
P.O. Box 1193  
Newnan, GA 30264  
770-254-2355  
Fax: 770-254-2347

Douglas L. Meadows  
Chief of Police

### RFP FOR SYSTEM INTEGRATION UHF WIRELESS DATA NETWORK

The Newnan Police Department is upgrading its UHF wireless data network. At present twenty (20) mobile units and one (1) base unit are operating on a 9.6 MB system. The intention is to upgrade the hardware in the vehicles and base stations to at least a 43.2 kbps system. The hardware must be compatible with Vision Air Software through an IP connection. The system must operate over an UHF radio frequency supplied by Newnan Police Department. A smooth migration plan to move from the old system to the new system is required.

All responses must have documentation to verify responses to the questions. A "Does not Meet" response to some of the questions will not necessarily result in a failure to meet specifications rejection. Vendor should state how this would effect the operation of the system. Any response that "Exceeds Expectations" must have notations made as to how it exceeds the expectations. All responders must supply the names of four (4) current customers who have a similar sized system in use. A similar sized system utilizing Vision Air Software will be a plus. Responders must supply the names of two (2) previous customers who are no longer utilizing your system due to upgrades or other reasons. Any request by Vendor to view the Newnan Police Department's existing site and system must be made three (3) days prior to requested date of visit, excluding weekends and holidays.

The Vendor must supply documentation to support all responses for the specifications. The point of contact for this bid will be Chief D. L. Meadows, [dlmeadows@cityofnewnan.org](mailto:dlmeadows@cityofnewnan.org) or Sgt. Charles Stapler at, [cstapler@cityofnewnan.org](mailto:cstapler@cityofnewnan.org).

The due date for the bid opening will be **March 31, 2009** at 10:00 A.M. All proposals must be in before bid opening date and time. Proposals received after 10:00 A.M. on **March 31, 2009** will not be accepted or considered.

CITY OF NEWNAN, GEORGIA  
System Integration UHF Wireless Data Network

**A. PURPOSE**

The **City of Newnan**, Georgia, located 35 miles southwest of downtown Atlanta on Interstate 85 South, and county seat of Coweta County, Georgia, is seeking bids from qualified vendors to furnish the City of Newnan Police Department with Radio Communications Coverage Enhancement per attached specifications.

**B. GENERAL INFORMATION AND SCHEDULE**

*This RFP has been issued on February 3, 2009.* Questions and requests for clarifications relating to this RFP must be directed to Chief Meadows in writing at PO Box 1193, Newnan, GA 30264 or by email at [dlmeadows@cityofnewnan.org](mailto:dlmeadows@cityofnewnan.org)

Delivery of one (1) original and one (1) copy of the bid, with original signatures, to the City of Newnan (at the address below) is due by **10:00 A.M. on Tuesday, March 31, 2009, at which time there will be a public bid opening in the City Manager's Office.** Bids received by the City of Newnan after this date and time will be rejected, **without exception. No provisions are made for extenuating circumstances in this RFP.** Proposals shall be submitted in a sealed envelope marked **"System Integration UHF Wireless Data Network, March 31, 2009."** Mail Bid Packages to:

City of Newnan  
City Manager's Office  
Bid Opening 03/31/09  
PO Box 1193  
Newnan, GA 30264

An order will be awarded to the vendor whose bid is determined to be the most advantageous for the City of Newnan, considering all the conditions set forth in this RFP. While price will be an important factor, it alone will not be the deciding factor in the selection process. Issuance of this RFP does not constitute a commitment on the part of the City of Newnan to award a contract pursuant to this RFP. The City of Newnan reserves the right to reject any and all proposals submitted in response to this RFP, in whole or in part, and to award a contract pursuant to this RFP or cancel this RFP if it is considered to be in the best interests of the City of Newnan. The City of Newnan further reserves the right to make changes to this RFP at any time by issuance of written addendum/addenda, amendment(s) or clarification(s).

**C. EQUAL OPPORTUNITY**

The City of Newnan prohibits discrimination on the basis of race, color, gender, religion, national origin, or disability in connection with employment of any person, or the award of any contract with the corporation. The City of Newnan will provide equal opportunities without regard to race, color, gender, religion, national origin, or disability, by requiring that any bank doing business with the corporation provide equal opportunity to persons and businesses employed by, or contracting with the supplier of products and services to the Corporation.

#### **D. ACCESS TO PUBLIC RECORDS ACT NOTICE**

Each vendor should give specific attention to the identification of those portions of its proposal that it considers confidential, proprietary commercial information or trade secrets, and provide justification as to why such materials, upon request, should not be disclosed.

#### **E. COSTS OF PROPOSALS**

The City of Newnan is not responsible or liable for any of the costs incurred by any vendor in preparing and/or submitting a proposal pursuant to this RFP.

#### **F. ORAL PRESENTATIONS AND QUESTIONS**

Any vendor that submits a proposal may be requested to provide additional information to the City of Newnan. Such information is only for the purpose of clarification and in no way changes the vendor's proposal as originally submitted. The City of Newnan reserves the right to ask any or all vendors to clarify any portion of their proposals after submission. The City of Newnan will not be responsible for any costs or expenses incurred by a bank in its response to such inquiries.

#### **G. BID FORMAT**

Bids shall be submitted on the specifications sheets, bid cover sheet, and bid sheet attached. Bidders shall indicate in the appropriate column if their bid complies **on each item** specified. Utilization of the specifications sheets will allow the proposals submitted to be evaluated consistently and efficiently. **No exception to this requirement will be tolerated.**

If there is a need for additional information or clarification for an item or items, please list on a separate sheet referencing the page number and item from the specifications sheets. See **Exceptions to Specifications** section for further information.

#### **H. SHIPPING/FREIGHT CHARGES**

All shipping/freight shall be **FOB Newnan, Georgia 30264**. Shipping costs shall be included in the total price unless otherwise stated in the bid document. If shipping is not FOB Newnan, the shipping/freight cost shall be shown as a separate line item on the bid for evaluation purposes.

#### **I. EVALUATION OF BIDS**

Awarding of the bid shall be based upon, but not limited to, the factors listed below, not necessarily in the order of their importance:

1. Price of bid;
2. Quality of the bid and proposal;
3. Prior business experience with the bidder;
4. Ability of the bidder to fulfill contract and specifications;
5. Reputation of bidder and service to other local municipalities/clients;
6. Responsiveness to specifications and special terms and conditions set forth in this *Request for Proposal* and attachments;
7. Estimated delivery date of the finished product; and
8. Staff recommendation and award of the order by Council

## **J. GENERAL CONDITIONS**

Upon submission of a bid, the bidder hereby certifies on behalf of his company or organization that:

1. This bid is genuine and not made in the interest of, or on behalf of, an undisclosed person, firm or corporation.
2. This bid is not submitted in conformity with any agreement or rules of any group, association, organization or corporation.
3. The bidder has not directly or indirectly induced or solicited any other bidder to submit a false or sham bid.
4. The bidder has not solicited or induced any person, firm or corporation to refrain from bidding.
5. The bidder has not sought by collusion to obtain for itself any advantages over any other bidder or over the City of Newnan.

**City of Newnan**

**System Integration UHF Wireless Data Network**

General Specifications

1. Vendor shall provide three references with contact names and phone numbers with bid package.
2. Each site has specifications that are unique for that particular location.
3. Installation shall be complete within 120 days of the award of contract.
4. System shall comply with all FCC regulations.
5. The Vendor shall provide a coverage map to indicate the expected coverage area with this enhancement.
6. The Vendor shall assume total responsibility for all services offered in its proposal.
7. The successful Vendor shall have one (1) technician whose primary responsibility is Coweta County.
8. All Vendors shall be identified as and meet criteria as a Motorola Service Station (MSS) and a Motorola Authorized Resell Dealer.
9. Request to view sites shall be submitted at least 48 hours in advance of the requested date of visit. Not to include weekends, and/or holidays.
10. Vendor shall comply with all requirements of this RFP.
11. Any attachments to the specification sheets shall reference the item number of the specification.
12. Vendor shall submit a copy of a valid Occupational Tax Certificate for the business address.
13. Each Vendor shall supply an email address to Chief D. L. Meadows upon their receipt of the specifications. This will enable each Vendor to be brought up to date on any changes or questions and answers from other Vendors.
14. Vendor shall be responsible for eliminating any interference created by our radios or from other outside stations.

### SPECIFICATIONS

Number of Mobile Units to operate on the system: 30

Number of base stations to operate on system: 1

Newnan Police Department reserves to right to decrease the number of units to be included in the end bid to allow for budgeted funds.

| SPECIFICATIONS                                                                                                                                                                                                                                                                                               | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| Operates on a UHF frequency of 453.45000 and 458.45000 with a bandwidth of 12.5 kHz or 25 kHz.                                                                                                                                                                                                               |       |         |               |         |
| Operates with Vision Air RMS and GPS system.                                                                                                                                                                                                                                                                 |       |         |               |         |
| Vendor will supply, and install all necessary hardware equipment for the operation of the system. Hardware to include mobile radio modems, base stations, antennas, coax cable and connectors, mounting hardware, receivers, modems, and all other equipment required to make a complete operational system. |       |         |               |         |
| All mobile equipment must operate on a 12 volt system.                                                                                                                                                                                                                                                       |       |         |               |         |
| The mobile radio modem shall provide an interface between the mobile computing device and the wireless data fixed network equipment.                                                                                                                                                                         |       |         |               |         |
| The mobile modem should be designed as a rugged, factory integrated vehicular radio modem product designed for data transmissions performance.                                                                                                                                                               |       |         |               |         |
| Digital signal processing must be of a technology for high performance operation and to allow for future modem upgrades or enhancements and to allow for a degree of mobile hardware flexibility.                                                                                                            |       |         |               |         |
| The modem section of the mobile device shall encode outgoing messages for RF transmission.                                                                                                                                                                                                                   |       |         |               |         |
| The modem section of the mobile device shall simultaneously decode two incoming message streams provided by the RF section of the mobile radio modem over a 12.5 KHz or a 25 KHz.                                                                                                                            |       |         |               |         |
| The mobile radio modem shall be capable of interfacing Ethernet 10/100 Base T (RJ-45) and two external serial devices by 9-pin D-Type RS-232C female connectors.                                                                                                                                             |       |         |               |         |
| The RS-232 ports shall communicate asynchronously to serial data peripheral devices.                                                                                                                                                                                                                         |       |         |               |         |

| SPECIFICATIONS                                                                                                                                                                     | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| The mobile radio modem shall provide an internal, twelve (12) channels, wide area augmentation system capable, Global Positioning System receiver.                                 |       |         |               |         |
| The Global Positioning System must be housed and mounted within the mobile radio unit.                                                                                             |       |         |               |         |
| The modem section of the mobile device shall examine dual message streams from two mobile receivers and review the data for errors.                                                |       |         |               |         |
| If an error is detected, the mobile modem will employ forward error correction. <b>This specification must be met.</b>                                                             |       |         |               |         |
| A positive acknowledgment must be sent to the originating base station modem upon receipt of successfully received and corrected messages.                                         |       |         |               |         |
| Uncorrectable messages shall not be forwarded to the Mobile Device.                                                                                                                |       |         |               |         |
| Each modem must be uniquely identifiable by its static IP address.                                                                                                                 |       |         |               |         |
| The manufacturer of the mobile radio modems must be a reputable company with a minimum of fifteen (15) years of experience.                                                        |       |         |               |         |
| The manufacturer of the mobile radio modems must have a parts support system capable of providing parts for a period of ten (10) years from the date of system acceptance.         |       |         |               |         |
| The manufacturer of the mobile radio modems and fixed equipment must provide a minimum of one (1) year factory warranty.                                                           |       |         |               |         |
| The mobile modem shall be designed so that voltage variations and electrical noise in a typical vehicular environment will not cause the unit to lose or alter stored information. |       |         |               |         |
| The mobile modem's operating voltage must be 10.9 to 16.3 volts DC with reverse polarity protection.                                                                               |       |         |               |         |
| The mobile radio modem must be designed to operate within a range of -30° C to +60° C and a humidity range of 0 to 95% non-condensing.                                             |       |         |               |         |
| All equipment will be solid state and must be of current design and manufacture.                                                                                                   |       |         |               |         |
| All equipment must meet or exceed the applicable industry standards for mobile communications equipment.                                                                           |       |         |               |         |

| SPECIFICATIONS                                                                                                                                                                                                             | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| The mobile radio modem shall be installed in a manner that does not interfere with the cabin space of the Officer and other equipment.                                                                                     |       |         |               |         |
| All installation connectors should be industry-standard and should feature the ability to be quickly and easily removed and re-installed.                                                                                  |       |         |               |         |
| Interface cables between the mobile radio modem and the Mobile Communications Device must be of high quality and shielded to reduce the possibility of radio frequency interference.                                       |       |         |               |         |
| The radio part of the mobile system will be designed only for the transmission of data communications.                                                                                                                     |       |         |               |         |
| The radio part will consist of an internal capability of multi-channels.                                                                                                                                                   |       |         |               |         |
| The radio will feature automatic channel switching and any other characteristics necessary for a high grade, reliable installation suitable for data communications.                                                       |       |         |               |         |
| Heat generating components shall be secured to a die cast heat sink chassis to minimize internal heat emissions.                                                                                                           |       |         |               |         |
| All mounting hardware will be furnished by successful Vendor.                                                                                                                                                              |       |         |               |         |
| The internal GPS Data can be sent locally and remotely without the need for additional software.                                                                                                                           |       |         |               |         |
| All cabling for connect to radio, vehicle battery and fusing will be included by successful Vendor.                                                                                                                        |       |         |               |         |
| The radio part of the mobile data system will be designed so that voltage variations and electrical noise in a normal vehicle electrical system will not cause the unit to lose or alter stored information or lose power. |       |         |               |         |
| The transmitter, transmitter RF power output and transmitter emission will fully comply with EIA Standard and applicable FCC Rules and Regulations.                                                                        |       |         |               |         |
| The transmitter will be FCC approved for use in the UHF Public Safety band.                                                                                                                                                |       |         |               |         |
| The transmitter will utilize solid state circuitry, with transistors or integrated circuitry.                                                                                                                              |       |         |               |         |
| The transmitter will have an embedded web server for access to status and configuration pages from any browser equipped computer, both locally and remotely.                                                               |       |         |               |         |

| SPECIFICATIONS                                                                                                                                                                | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| The transmitter will use native UDP and TCP/IP support with data compression, protocol reduction and optimization to make the most efficient use of the available band width. |       |         |               |         |
| The transmitter will contain online and offline diagnostics.                                                                                                                  |       |         |               |         |
| Carrier output power rating will be 10-40 watts (adjustable)                                                                                                                  |       |         |               |         |
| Carrier frequency stability will be 1.0 ppm, - 30°C to +60°C                                                                                                                  |       |         |               |         |
| FM Hum and noise ratio will be >45 dB @ 25 KHz                                                                                                                                |       |         |               |         |
| Conducted spurious emissions will be >80 dBc typical                                                                                                                          |       |         |               |         |
| Time from RX to TX transition will be <10 ms.                                                                                                                                 |       |         |               |         |
| The mobile radio receiver shall contain and use two (2) receivers and will use high quality transistors, diodes and integrated circuits throughout the unit.                  |       |         |               |         |
| Mobile Antennas for the vehicles will be included and mounted.                                                                                                                |       |         |               |         |
| GPS antennas will be included and mounted.                                                                                                                                    |       |         |               |         |

### **MINIMUM MOBILE RADIO RECEIVER SPECIFICATIONS**

| SPECIFICATIONS                                                                         | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|----------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| Response rejection; >80 dB                                                             |       |         |               |         |
| Intermodulation rejection; 80 dB typical, >75 dB                                       |       |         |               |         |
| Adjacent channel selectivity;<br>77 dB typical<br>>75 dB @ 25 KHz<br>>65 dB @ 12.5 KHz |       |         |               |         |

### **DATA RATE**

| SPECIFICATIONS                    | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|-----------------------------------|-------|---------|---------------|---------|
| 16 kbps; 12.5 KHz                 |       |         |               |         |
| 24 kbps; 12.5 KHz                 |       |         |               |         |
| 32 kbps; 12.5 KHz                 |       |         |               |         |
| 43.2 kbps; 25 KHz<br>48 kbps; KHz |       |         |               |         |
| 64 kbps; 25 KHz                   |       |         |               |         |

### **GENERAL SPECIFICATIONS**

| SPECIFICATIONS                                               | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|--------------------------------------------------------------|-------|---------|---------------|---------|
| Frequency range: 403-460 or 450-512 MHz<br>Under FCC Part 90 |       |         |               |         |
| Number of Channels: 32 internally stored                     |       |         |               |         |
| Channel spacing: 12.5 KHz / 25 KHz                           |       |         |               |         |
| Mode of Operation: Half Duplex                               |       |         |               |         |
| Frequency stability: 1.00 ppm                                |       |         |               |         |
| Operating temperature range: -30°C to +60°C                  |       |         |               |         |

### **BASE STATION RADIO SPECIFICATIONS**

| SPECIFICATIONS                                                                                                                                                                                                                                | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| The proposed equipment will be design so the specific upgrades to the base radio modems can be made and that it allows flexibility in the RF network architecture changes.                                                                    |       |         |               |         |
| The base radio system will consist of a base station(s) with required automatic station identifiers, duplexer and isolators, base station antenna(s), coaxial cable with a diameter of at least 7/8 inches, connectors and mounting hardware. |       |         |               |         |
| The base radio station will be designed for the purpose of data communications only.                                                                                                                                                          |       |         |               |         |
| The manufacturer of the base radio system must be a company with a minimum of fifteen (15) years of                                                                                                                                           |       |         |               |         |

|                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| experience in data communications.                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |
| The modem section of the base radio station shall reliably encode outgoing messages from the host application for RF transmission to the mobile radio modem.                                                                                                                                                                                                            |  |  |  |  |
| The modem of the base radio station must simultaneously decode two (2) incoming message streams provided by the RF section of the data base station. This is to increase the message reliability in the field while operating at a pre-programmed over the air data rate of up to 32,000 bps on 12.5 KHz channels or up to 64,000 bps on a conventional 25 KHz channel. |  |  |  |  |
| The base modem will contain two (2) Ethernet 10/100 Base T (RJ-45) interfaces with the capability of interfacing external RS-232 serial devices by a built in terminal server.                                                                                                                                                                                          |  |  |  |  |
| The RS-232 ports will communicate asynchronously to serial data peripheral devices.                                                                                                                                                                                                                                                                                     |  |  |  |  |
| Spare parts and repair capability must be provided for ten (10) years from the date of acceptance of the system.                                                                                                                                                                                                                                                        |  |  |  |  |
| All radios will be FCC type accepted for transmission of the data signals in the UHF band.                                                                                                                                                                                                                                                                              |  |  |  |  |
| The base radio station will operate full duplex and be capable of transmitting an outbound message to one MCD and receiving an inbound message from another MCD simultaneously.                                                                                                                                                                                         |  |  |  |  |
| Base radio equipment shall be constructed with transistors, integrated circuits and other solid state silicon devices to maximize the life expectancy of the equipment.                                                                                                                                                                                                 |  |  |  |  |
| Base radio equipment will contain online and offline diagnostics to assist in troubleshooting the system.                                                                                                                                                                                                                                                               |  |  |  |  |
| Base radio equipment will be constructed with commercial grade circuit boards for maximum durability.                                                                                                                                                                                                                                                                   |  |  |  |  |
| Base station equipment will operate on a single transmitter and receiver frequency pair.                                                                                                                                                                                                                                                                                |  |  |  |  |
| Base radio equipment will meet or exceed EIA-603C standards for both transmitters and receivers.                                                                                                                                                                                                                                                                        |  |  |  |  |
| Base radio equipment will have all necessary base station control circuitry to                                                                                                                                                                                                                                                                                          |  |  |  |  |

|                                                                                        |  |  |  |  |
|----------------------------------------------------------------------------------------|--|--|--|--|
| mechanical and electrical connections to provide a data interface with the base modem. |  |  |  |  |
|----------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                                                                  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Each base station will have an automatic station identification feature that is compliant with FCC base station identification specifications (FCC part 90.425). |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

### **BASE TRANSMITTER INFORMATION**

| SPECIFICATIONS                               | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|----------------------------------------------|-------|---------|---------------|---------|
| Frequency Stability: 1.0 ppm                 |       |         |               |         |
| Power output: 20 – 100 Watts continuous duty |       |         |               |         |

### **BASE RECEIVER INFORMATION**

| SPECIFICATIONS                                                                                                                                                                                                                                                                                                                | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| Base station must use two (2) receivers that will receive two (2) streams of data provided in parallel to the modem section of the base radio system for increased message reliability with a user selected over the air data rate of up to 12,800 bps on a 12.5 KHz channel and 64,000 bps on a conventional 25 KHz channel. |       |         |               |         |
| Adjacent Channel Selectivity:<br>90 dB typical, 87 dB min @ 25 KHz<br>85 dB typical, 83 dB min @ 12.5 KHz                                                                                                                                                                                                                     |       |         |               |         |
| Intermodulation Rejection:<br>85 dB typical @ 25 KHz<br>80 dB typical @ 12.5 KHz                                                                                                                                                                                                                                              |       |         |               |         |
| Frequency Stability:<br>1.0 ppm                                                                                                                                                                                                                                                                                               |       |         |               |         |

### **BASE STATION MODEM INFORMATION**

**The Vendor will provide a detailed description of the base station modem, taking into consideration the following minimum specifications. It is highly recommended that Vendors provide point by point responses to all questions and specifications.**

**It is desired that the base station modem allow for future modem upgrades or radio enhancements, and to allow the greatest degree of base hardware flexibility. The base modem will be modular in nature. The base modem must communicate directly with the application server in a single base system. A system shall not require a multiple site controller to provide the interface between the application server and the radio network.**

| SPECIFICATIONS                                                                                                                                                                                                    | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| As a minimum the modem will communicate with the application server using the TCP/IP protocol for a single interface between the application and the radio network.                                               |       |         |               |         |
| As a minimum the modem will reliably encode outgoing messages from the application server for RF transmission to the mobile modem and decode incoming messages from the mobile modem.                             |       |         |               |         |
| As a minimum the modem will validate the message from the mobile modem and review it for errors (error Detection).                                                                                                |       |         |               |         |
| If error is detected, the base modem will initiate forward error correction.                                                                                                                                      |       |         |               |         |
| As a minimum a positive acknowledgement will be sent to the originating mobile modem upon receipt of successfully received and corrected messages.                                                                |       |         |               |         |
| The error free message will be forwarded to the application server.                                                                                                                                               |       |         |               |         |
| Uncorrectable messages will be rejected and not forwarded to the application server.                                                                                                                              |       |         |               |         |
| Each base modem must be uniquely identifiable.                                                                                                                                                                    |       |         |               |         |
| All units will have an over the air protocol speed of up to 64,000 bps on a 25 KHz conventional channel or at least a 32,000 bps on a 12.5 KHz channel with the option for slower speeds to increase RF coverage. |       |         |               |         |

### **ANTENNA INFORMATION**

| SPECIFICATIONS                                                                                                       | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|----------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| The successful vendor will install all antenna hardware and cables.                                                  |       |         |               |         |
| It will be the responsibility of the Vendor to verify space availability on the proposed tower structure.            |       |         |               |         |
| The successful Vendor will be responsible for the furnishing and installation of the vehicle radio and GPS antennas. |       |         |               |         |

### **COVERAGE AREAS**

| SPECIFICATIONS                                                                         | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|----------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| Coverage must cover the city limits of Newnan with public safety standards of 95%/95%. |       |         |               |         |
| Data speed for city wide coverage must be indicated on coverage map.                   |       |         |               |         |

### **INSTALLATION**

| SPECIFICATIONS                                                                                                                                         | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| The successful Vendor shall be responsible for the installation of all hardware and software components of the MDCS that the Vendor will be providing. |       |         |               |         |
| The Vendor will be responsible for all costs associated with loading, unloading, storage and testing of the MDCS components.                           |       |         |               |         |
| All work must comply with local, state and federal codes in place at time of installation.                                                             |       |         |               |         |
| The successful Vendor will submit an implementation plan which will include a detailed description of all installation/implantation tasks.             |       |         |               |         |
| Vendor will supply a Gant Chart with time line for installation and testing with this response.                                                        |       |         |               |         |

## **TESTING**

| SPECIFICATIONS                                                                                                                                                                                                                                   | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| The successful Vendor will prepare a comprehensive acceptance test plan to clearly and definitively demonstrate to the Newnan Police Department that the entire MDCS meets all specifications and contractual commitments.                       |       |         |                  |         |
| The test plan will be subject to the Newnan Police Department's Project Manager, the Chief of Police and/or the Chief of Police designee.                                                                                                        |       |         |                  |         |
| Test plan will include test procedures for each phase of the project.                                                                                                                                                                            |       |         |                  |         |
| Test plan will include all equipment and system acceptance criteria and parameters.                                                                                                                                                              |       |         |                  |         |
| Test plan will include any specific resources required to be provided by the Vendor or the Newnan Police Department for completion of the acceptance tests and inspections.                                                                      |       |         |                  |         |
| After the Newnan Police Department has approved the acceptance test plan, the Vendor will prepare detailed test procedures, which will also be subject to approval by the Newnan Police Department's Project Manager and/or the Chief of Police. |       |         |                  |         |
| The test procedures will outline all system acceptance tests and inspections that are to be strictly adhered to by the Vendor and monitored by the Newnan Police Department's Project Manager or his designee.                                   |       |         |                  |         |
| The procedures will be used as the basis to determine acceptability of the entire MDCS, in accordance with the system specifications, the approved test plan and all contractual commitments.                                                    |       |         |                  |         |
| The detailed test procedures will include all factory acceptance tests for all MDCS equipment, tests on all installed vehicle equipment and tests at all base station radio sites including the Newnan Police Department's transmitter site.     |       |         |                  |         |
| As part of the test procedures, the Vendor will hold a demonstration for the Newnan Police Department's Project Manager in order to show that the RF coverage and mobile data communications system capacity                                     |       |         |                  |         |

|                                                                                                                                                                                                                |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| (including radio channel loading, and throughput) will meet all contract specifications.                                                                                                                       |  |  |  |  |
| All test plans and procedures approved by the Newnan Police Department will not be revised without the prior approval by the Newnan Police Department's Project Manager or the Chief of Police and the Vendor. |  |  |  |  |

### **30-DAY TESTING AND ACCEPTANCE**

| SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                  | MEETS | EXCEEDS | DOES NOT MEET | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------------|---------|
| After the system has been installed, has passed acceptance testing and is ready for the final 30-day testing phase, the Vendor will notify the Newnan Police Department's Project Manager in writing. The test period will commence with the Newnan Police Department's Project Manager's approval.                                                                                             |       |         |               |         |
| A test period of 30 consecutive calendar days will be conducted to demonstrate that all equipment is in good operating condition and meets the specifications of the manufacturer.                                                                                                                                                                                                              |       |         |               |         |
| If the test fails due to Vendor provided equipment, it will be the responsibility of the Vendor to correct any deficiencies that may have caused the test failure.                                                                                                                                                                                                                              |       |         |               |         |
| A new 30-day test period will be initiated after correction of the system failure.                                                                                                                                                                                                                                                                                                              |       |         |               |         |
| The failure of any single mobile device due to faulty connectors, cabling or damage shall not constitute system failure. As long as the MDCS can support at least <QTY 1> vehicles and provide normal functionality, acceptance will be granted. All defective devices will be repaired under warranty. Newnan Police Department Project Manager will witness all phases of acceptance testing. |       |         |               |         |

### **TEST STANDARDS**

**During the thirty (30) day test period, all equipment will meet the following standards**

| SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                           | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| No unit will experience more than one failure during the test period.                                                                                                                                                                                                                                                                                                                                                    |       |         |                  |         |
| The system shall meet the specifications provided in the contract or design document.                                                                                                                                                                                                                                                                                                                                    |       |         |                  |         |
| System failure shall not occur more than one time. System failure is defined as any problem that prevents communication with the message switch for more than thirty (30) cumulative minutes.                                                                                                                                                                                                                            |       |         |                  |         |
| Failures of equipment due to scheduled maintenance, state/national crime database outages, natural disaster, Newnan Police Department negligence, Newnan Police Department's provided backhaul failures, vandalism or acts of God will not constitute failure. Failures of these types will not relieve the Vendor from repeating the test, but such lost time will not be counted towards the thirty (30) day deadline. |       |         |                  |         |

### **TRAINING**

**The Vendor will provide a detailed description of all proposed training services, subject to the guidelines contained in this section.**

| SPECIFICATIONS                                                                                                                                                                                          | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| The Vendor will provide a minimum of eight (8) hours of maintenance training for up to ten (10) Newnan Police Department representatives.                                                               |       |         |                  |         |
| Training shall include a description of the theory of operation and practical maintenance procedures for the mobile computing devices, base station radios, mobile radios and the modem hardware.       |       |         |                  |         |
| Upon completion of the course, a technician with a basic education in data and radio fundamentals will be qualified to perform installation, setup, maintenance, and trouble shooting of the equipment. |       |         |                  |         |
| Instructional material will be included as part of the training package.                                                                                                                                |       |         |                  |         |

### **WARRANTIES/MAINTENANCE**

| SPECIFICATIONS                                                                                                                                                                                                                                                       | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| The Vendor shall warrant the MDCS for one (1) year from the date of final system acceptance.                                                                                                                                                                         |       |         |                  |         |
| Work will conform to drawings and other requirements and in accordance with the best and most current accepted industry practices.                                                                                                                                   |       |         |                  |         |
| All material and workmanship shall be guaranteed for at least one (1) year.                                                                                                                                                                                          |       |         |                  |         |
| The Vendor shall pass through warranties of all suppliers to the Newnan Police Department.                                                                                                                                                                           |       |         |                  |         |
| Vendors will specify the companies that will perform hardware and software maintenance during the warranty period.                                                                                                                                                   |       |         |                  |         |
| Vendors will provide a listing of its program management and technical support personnel available to support the project during the warranty period. This will include office telephone numbers, emergency telephone numbers, and pager and cellular phone numbers. |       |         |                  |         |

### **HARDWARE WARRANTY**

| SPECIFICATIONS                                                                                                                                                                                                    | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| All mobile radio modem equipment shall be warranted for a minimum of one (1) year from the date of acceptance.                                                                                                    |       |         |                  |         |
| Vendors will describe their warranty repair program and will include a recommended complement of ready spares.                                                                                                    |       |         |                  |         |
| All fixed equipment will be warranted for minimum of one (1) year from the date of acceptance. Bidder will describe their factory depot repair program and will include a recommended complement of ready spares. |       |         |                  |         |

### **MAINTENANCE**

**Maintenance support and responses to system failures during the warranty period will include:**

| SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                            | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| Eight (8) hours, five (5) days per week, maximum 24 hour response time for non-critical system components.                                                                                                                                                                                                                                                                                |       |         |                  |         |
| Self diagnostic and VPN or dial up modems for diagnostics troubleshooting are expected.                                                                                                                                                                                                                                                                                                   |       |         |                  |         |
| Following corrections of system failures, Vendor will provide the Newnan Police Department with a written report identifying the nature of the failure, corrective action taken and the length of time required to restore normal equipment operation. Vendors shall insure the maintenance firms have sufficient parts inventory, equipment and certified employees to maintain systems. |       |         |                  |         |

### **POWER SUPPLY FOR EQUIPMENT**

| SPECIFICATIONS                                                                                                            | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
|---------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| All base station equipment will operate on a 120 volt system with a minimum of a 20 amp system.                           |       |         |                  |         |
| All mobile equipment will operate on a 12 volt positive or negative system with or without requiring a voltage converter. |       |         |                  |         |

## **SYSTEMS DOCUMENTATION**

**The successful Vendor will provide a complete documentation package for all components of the implemented hardware. The documentation package will be divided into the following sections:**

**Contact List**

**System Block Diagrams**

**Vehicular Configuration**

**Transmitter Site Configuration**

**Technical/User Manuals**

| CONTACT LIST                                                                                                                                                   |       |         |                  |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| Radio Maintenance Vendor                                                                                                                                       |       |         |                  |         |
| Prime Contractor Project Manger                                                                                                                                |       |         |                  |         |
| RF backbone hardware Vendor                                                                                                                                    |       |         |                  |         |
| SYSTEM BLOCK DIAGRAMS                                                                                                                                          |       |         |                  |         |
| Diagram will show all interconnections, including from laptop application through the message switch computer to the state/national crime database interfaces. |       |         |                  |         |
| Diagram will show a detailed network topology and routing plan incorporating the mobile fleet and a single host server.                                        |       |         |                  |         |
| VEHICULAR CONFIGURATION                                                                                                                                        |       |         |                  |         |
| SPECIFICATIONS                                                                                                                                                 | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
| Documentation package will show optimization procedures.                                                                                                       |       |         |                  |         |
| Documentation package will show programming parameters.                                                                                                        |       |         |                  |         |
| Documentation package will show system diagrams.                                                                                                               |       |         |                  |         |
| TRANSMITTER SITE CONFIGURATION                                                                                                                                 |       |         |                  |         |
| SPECIFICATIONS                                                                                                                                                 | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
| Documentation package will show optimization procedures.                                                                                                       |       |         |                  |         |
| Documentation package will show programming parameters.                                                                                                        |       |         |                  |         |
| Documentation package will show system diagrams.                                                                                                               |       |         |                  |         |
|                                                                                                                                                                |       |         |                  |         |

| TECHNICAL/USER MANUALS                                                                 |       |         |                  |         |
|----------------------------------------------------------------------------------------|-------|---------|------------------|---------|
| SPECIFICATIONS                                                                         | MEETS | EXCEEDS | DOES<br>NOT MEET | REMARKS |
| Documentation package will include ten (10) mobile radio modem manuals.                |       |         |                  |         |
| Documentation package will include ten (10) manuals for each base station radio modem. |       |         |                  |         |

**VENDOR INFORMATION**

|                                      |  |
|--------------------------------------|--|
| Company Name                         |  |
| Contact Person                       |  |
| Contact Person's office phone number |  |
| Contact Person's cell phone number   |  |
| Contact Person's email address       |  |
| Mailing address                      |  |
| Street address                       |  |

**BID COVER SHEET**  
**City of Newnan**  
**System Integration UHF Wireless Data Network**

We/I have thoroughly examined the specifications and agree to furnish the City of Newnan with a ***System Integration UHF Wireless Data Network*** according to the specifications. Any deviation from the specifications shall be listed as an exception on the bid sheet and explained.

Total Bid Price for all items: \_\_\_\_\_

Price good through: \_\_\_\_\_

**Note:** If additional information is required, please attach separate sheet along with any required literature and warranty information.

Estimated Completion Date: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Printed name of person completing proposal: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Estimated Delivery Date: \_\_\_\_\_ days after receipt of purchase order from City of Newnan.

**Note:** Please complete and return this sheet to the City of Newnan along with the entire bid packet.

Vendor: \_\_\_\_\_

Current Customer References

|                      |  |
|----------------------|--|
| Company Name         |  |
| Contact Name         |  |
| Contact Phone Number |  |

|                      |  |
|----------------------|--|
| Company Name         |  |
| Contact Name         |  |
| Contact Phone Number |  |

|                      |  |
|----------------------|--|
| Company Name         |  |
| Contact Name         |  |
| Contact Phone Number |  |

Former Customer References

|                      |  |
|----------------------|--|
| Company Name         |  |
| Contact Name         |  |
| Contact Phone Number |  |

|                      |  |
|----------------------|--|
| Company Name         |  |
| Contact Name         |  |
| Contact Phone Number |  |

|                      |  |
|----------------------|--|
| Company Name         |  |
| Contact Name         |  |
| Contact Phone Number |  |