

## **Montague County**

Request for Proposal (RFP)

VHF Simulcast Radio System

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## 1 INSTRUCTIONS TO VENDORS

#### Introduction

Montague County. Texas requests proposals from qualified vendors to design and install a replacement Public Safety Radio System. The County is installing a new radio tower in Forestburg on county owned property to extend coverage to the southeast corner of the county. As we add radio service to this new tower, Montague County will be upgrading the existing radio system to improve VHF radio coverage for the Sheriff. Fire and Emergency Services.

## 1.2 Purpose of the RFP

This RFP is for the design, installation and commissioning of a Public Safety VHF Simulcast Radio system that meets the requirements defined in this document.

#### 1.3 Tender closing date

Proposals will be accepted until April 21, 2023. Proposal shall be submitted in a sealed envelope, so marked as to indicate its contents without being opened. The sealed envelope shall be delivered to Jennifer Essary, Montague County Auditor, 4th Floor-Montague County Courthouse, located at 101 E Franklin, PO Box 56, Montague, TX 76251. Proposals will be received until 4:00pm April 21, 2023. Proposals will be opened and read aloud in Commissioner's Court on Monday, April 24, 2023.

## 1.4 Questions on this RFP

Montague County will respond to questions submitted ONLY via e-mail to fema@co.montague.tx.us.

#### 1.5 RFP Schedule

Release of the RFP:

March 13, 2023

RFP response due date: April 21, 2023

Vendor selection:

April 24, 2023

#### 1.6 Vendor selection criteria

This contract will not be awarded solely on price. The process to select a vendor will be based on the following criteria:

- Total Cost of Ownership: 30%
  - a. Proposed Pricing
  - b. Maintenance Costs, including warranty provisions, if any offered
- Proposed Solution: 35%
  - a. Compliance with RFP Requirements:
  - b. Technical solution
  - c. Product lifecycle

- March 13, 2023
- d. Upgradeability to avoid obsolescence
- Vendor experience and performance: 35%
  - a. Vendor experience and installed base of proposed equipment
  - b. Public safety reference projects interview and feedback
  - c. Vendor corporate organization
  - d. Local support capability in Texas

## 1.7 Turnkey solution

The Vendor should propose a turnkey solution for engineering, furnishing, and deploying a VHF Simulcast Radio system.

## 1.8 Validity period of the proposal

Proposals must be valid for a period of 90 days.

## 1.9 Compliant Proposal Requirements

The following is a list of mandatory requirements for all Vendor proposals.

## Proposals that do not include these items will be rejected by the County.

## 1.9.1 **Pricing Form**

Vendor shall supply a complete pricing worksheet that includes all supplies necessary for a turnkey solution. Vendors will supply their own version of the pricing worksheet, but it must be clear and concise enough for the common layperson to comprehend.

#### 1.9.2 Construction Time

Vendor must supply an achievable timeline assuming a start date of May 1, 2023. Montague County understands the selected vendor may have to order equipment and will work with the selected vendor to establish a reasonable and agreeable start date.

## 1.9.3 Minority Businesses

Montague County encourages participation from Minority Owned and Historically Underutilized Businesses. Vendors submitting proposals should include a statement indicating their HUB certification if applicable. Appropriate consideration will be given to any vendor proposals from HUB certified businesses. Vendors who are not Minority Owned or HUB Certified should include an affidavit verifying that the vendor will be self-performing all the work.

#### 1.9.4 Subcontractors

Names of principal subcontractors must be listed and attached to the Proposal.

#### 1.10 Proposal Format

The RFP response should be organized in the following format:

- Pricing Worksheet completed
- **■** Executive Summary
- Construction Schedule

- Technical Overview of the proposed solution
- Vendors experience and qualifications in Public Safety
- References for at least three (3) similar projects including a description of each project

## 2 **CURRENT NETWORK**

#### 2.1 Overview

Montague County currently provides public safety communications using two conventional Analog VHF Radio networks. One Radio network serves the Sheriff department, while a second network serves Fire and Emergency Medical Services (EMS).

## 2.2 Existing Sites

The existing VHF sheriff's department radio network consists of one (1) repeater site. The existing Fire Department and EMS have five (5) repeater sites.

## 2.2.1 Existing Repeater Sites

The existing repeater site for the Sheriff's Department network is at the Hildreth Pool Tower. This tower is owned by the County. The existing repeater site for the Fire Departments and EMS is the Big Tree Tower.

## 2.2.2 Existing Voting Receiver Sites

- Sheriff's Department, located at the Hildreth Pool Tower
- · Fire Department and EMS, located at the Big Tree, Bowie, Nocona Hills, and Barrell Springs Towers

#### 2.3 **911 Center**

The 911 Center is located at 111 S Grand, Montague, Texas. There will be no changes to the 911 Center hardware or software.

#### 2.4 Radio Subscribers

Mobiles and Portables are used by Sheriff, EMS, and Fire Departments. Pagers are used by EMS and the Fire Departments. Radios and pagers are supplied by multiple vendors.

#### 2.5 Coverage Issues

The current network provides Pager and Mobile talk-out coverage in most of the county, except the south-eastern corner of the county.

## **<u>3 VHF SIMULCAST RADIO SYSTEM REQUIREMENTS</u>**

#### 3.1 General Requirements

The County requires a six (6) site VHF Simulcast system to expand coverage throughout the County. This RFP defines the requirements for the Simulcast system.

# 3.2 Simulcast solution for Sheriff and Fire & EMS Departments The County requires:

- For the Sheriff's Department
  - Master Controller for voting/simulcast at the Hildreth Pool Tower
  - Two repeaters with voting simulcast, capable of both digital and analog
     P25 transmissions, located on the Hildreth Pool Tower and the
     Forestburg Tower
- For the Fire Departments and EMS
  - o Master Controller for voting/simulcast at the Hildreth Pool Tower
  - o Backup Controller for voting/simulcast at the Forestburg Tower
  - Six repeaters with voting simulcast, capable of both digital and analog
     P25 transmissions, located on each of the six towers listed in section 3.3.
- Vendor to provide data connectivity between all six sites.
  - Internet service does not currently exist between the sites, and the county does not anticipate installing internet as part of this project.

#### 3.3 Tower sites

The network configuration consists of six (6) towers; four (4) leased and two (2) County owned towers. The sites are as follows;

- Hildreth Pool Tower county owned
- Big Tree Tower leased
- Barrel Springs Tower leased
- Nocona Hills Tower leased
- Bowie Tower leased
- Forestburg Tower county owned

#### 3.4 Tower availability

The Hildreth Pool, Big Tree, Barrel Springs, Nocona Hills, and Bowie towers are existing towers. The estimated availability for the Forestburg Tower is May 1, 2023.

#### 3.5 Tower Site Detailed Information

The following tables provide information for the six (6) tower sites.

Hildreth Pool Tower		
Coordinates	33-38-43.0 N 097-49-09.0 W	
Structure height	296 Feet	
Antenna height		
Ground elevation	357.0 Meters	
Support Structure		
Location	4.97 Miles N of Bowie on FM 1816, then .99 miles east on Hildreth Pool Rd	

Big Tree Tower		
Coordinates	33-40-17.4 N 097-37-17.1 W	
Structure height		
Antenna height	Using Existing Antenna	
<b>Ground Elevation</b>	396.0 Meters	
Support Structure		
Location	Intersection of State Hwy 59 and Big Tree Rd	

Bowie Tower		
Coordinates	33-34-12.1 N 097-52-25.9 W	
Structure height	300 Feet	
Antenna height		
Ground Elevation	325.2 Meters	
Support Structure		
Location	1108 FM 174, shares drive with Bowie Sheep & Goat Commission	

Nocona Hills Tower		
Coordinates	33-50-12.49 N 097-37-41.39 W	
Structure height	180 Feet	
Antenna height		
<b>Ground Elevation</b>	288.0 Meters	
Support Structure		
Location	111 Rivercrest Drive, South of Nocona Drive	

Barrel Springs Tower		
Coordinates	33-45-22.0 N 097-48-43.0 W	
Structure height	180 Feet	
Antenna height		
<b>Ground Elevation</b>	280.1 Meters	
Support Structure		
Location	South of Barrel Springs Rd, .49 miles West of Eureka	
	School Rd	

Forestburg Tower		
Coordinates	33-31-28.5 N 097-33-29.4 W	
Structure height	275'	
Antenna height		
<b>Ground Elevation</b>	351.74 Meters	
Support Structure	Stand Alone Tower	
Location	17357 FM 455, Forestburg	

## 3.6 Simulcast Site Configuration

The Vendor will configure the Hildreth Pool Tower site as the Prime Simulcast site for both networks. The Vendor will configure the Forestburg site as Backup Simulcast site for the Fire Departments and EMS. The Vendor will configure Saint Jo, Bowie, Nocona Hills, Barrel Springs, and Forestburg sites as Remote Simulcast sites for the Fire Departments and EMS.

## 3.7 Connectivity between the 911 Center and the Prime Simulcast site

The County will continue to use the existing connectivity between the 911 Center and the Hildreth Pool Simulcast Prime site.

# 3.8 Connectivity between the Prime site and the Remote Simulcast sites

The Vendor should propose connectivity for each tower site to provide the data connections to each of the other towers. Electricity is available at each tower site.

#### 3.9 Phased Rollout of the VHF Simulcast System

The County does not anticipate a phased rollout. Vendors should propose a system configuration that can be implemented 'at the flip of a switch' after installation to prevent any network downtime.

## 3.10 Equipment Deliverables

The vendor may begin installation at their discretion. However, vendor must adhere to the timeline they provide for the project.

## 3.11 Redundancy at the Prime Simulcast Site

The Vendor shall supply On-Site redundancy solution for the Simulcast Controller and any other controller functions required at the Hildreth Pool site on Hildreth Pool Road. The redundancy solution should operate in hot-standby mode to provide automatic switchover. The County requires a solution that will avoid downtime of the Simulcast network due to failure of a single component.

## 3.12 VHF analog Interface to Data System

The Vendor will supply a data system or functional equivalent at each of the six (6) sites to connect each tower to the voting/simulcast controller. The approximate length of the run from Hildreth Pool Tower site to each of the Remote sites is as follows:

	Saint Jo	11.5 miles
	Barell Springs	7.7 miles
	Nocona Hills	17.2 miles
=	Forestburg	17.2 miles
_	Bowie	6.1 miles

## 3.13 Radio System requirements

The vendor shall furnish and install all necessary equipment to meet the following requirements at each repeater site.

#### 3.13.1 Hildreth Pool Prime Simulcast site

- Supply, install and test two (2) VHF repeater systems equipped with Prime Simulcast operation.
- Supply, install and test all antennas and coaxial cable feed-line systems.
- Supply, install and test a combiner/duplexer solution that conserves tower space while maximizing performance.
- All new antennas and equipment will be grounded to existing ground systems at each tower.

#### 3.13.2 Remote Simulcast sites

- At the Hildreth Pool and Forestburg sites supply, install, and test a VHF repeater system equipped with Remote Simulcast operation for the Sheriff's Department.
- At the Hildreth Pool, Big Tree, Bowie, Barrell Springs, Nocona Hills, and Forestburg sites, supply, install and test a VHF repeater system equipped with Remote Simulcast operation for the Fire Departments and EMS.
- At each site supply except Big Tree, install and test all antennas and

coaxial cable feed-line systems.

NOTE: We will use the existing DB224 antenna on the Big Tree Tower

- At each site supply, install and test a combiner/duplexer solution that conserves tower space while maximizing performance.
- All new antennas and equipment will be grounded to existing ground systems at each tower.

#### 3.13.3 911 Center

No 911 Center hardware or software changes are anticipated, and vendor should propose a solution that does not require changes.

## 3.14 VHF antenna mounting brackets on the towers

Proposals must include the cost of VHF antenna mounting brackets at all sites.

#### 3.15 FCC licenses for Simulcast

The County currently has FCC licenses for Sheriff and Fire Department and EMS frequencies. The Call Sign for the Sheriff is KXX523 and the Fire Department and EMS is WNWX616.

## 3.16 Minimize service interruption

The vendor must plan, coordinate, and conduct all work with minimal interruption of service to existing radio communications systems.

#### 3.17 Existing network remains in place

The existing Voting Receivers and the Repeaters will remain in place as back up until after the Simulcast radio system is operational. Vendor must include pricing for removing existing antennas. The county will decide which, if any, equipment will be removed at a time mutually agreeable to the county and the vendor.

#### 3.18 Technical Overview

The vendor must provide a detailed technical description of the proposed VHF Simulcast System. Vendor responses are required to address the following requirements:

- Proposed technical solution to expand coverage throughout the County.
- Quantity of similar systems currently in service in Texas.
- Redundant design of the equipment supplied.
- Field performance of the equipment that includes service outages during the last 12 months

## 3.19 VHF Simulcast Staging and Integration Testing

The entire VHF simulcast system must be staged for Integration Testing by the vendor prior to installation.

## 3.20 Power for equipment at the repeater sites

Existing power equipment serving the existing sites will provide power to the Montague County VHF equipment. Electrical power is being supplied to the Forestburg site as part of the new tower installation. All sites are equipped with battery backup. The successful vendor will provide estimated average and peak power requirements for the proposed equipment.

## 3.21 Power for equipment at the 911 Center

Power is available in the 911 Center equipment room for VHF equipment. The 911 site is equipped with battery backup and a diesel generator.

## 3.22 Space for equipment at repeater sites

Space inside existing buildings is available for the equipment at Hildreth Pool and Forestburg; however, vendor should propose racks or indoor cabinets for the equipment. The Big Tree location will be an equipment swap inside the existing building. Vendor should propose outdoor climate-controlled cabinets for the Bowie, Nocona Hills, and Barrel Springs locations.

#### 3.23 **Product Lifecycle**

The vendor must state the product life cycle for the equipment supplied in this proposal. The County will not accept proposals that include systems or equipment at the end of their respective lifecycles. The County defines "end of lifecycle" products as products for which the manufacturer intends to discontinue support within the next 7 years.

#### 3.24 Turnkey Solution

Vendor proposals must include all components and services required to deliver a turnkey VHF Simulcast System. The Vendor must furnish all design, services, materials, equipment, tools, engineering, testing, and labor necessary to construct a VHF simulcast solution as specified in this RFP. The county will not amend its contract with the vendor to include any items the vendor failed to include in its proposal.

#### 3.25 Avoiding obsolescence

The vendor must propose a state-of-the-art solution that can be upgraded without having to replace repeaters or major infrastructure.

## 3.26 Spares Kit

The vendor must provide a recommended list for spares required to maintain the equipment supplied. The vendor must provide part numbers and pricing in the proposal for recommended spares. The sparing policy must be based on a minimum of one spare plug-in unit for each model of plug in used the prime site and at the five (5) repeater sites. Spares will be stored by the county and be available on a 24-hour turnaround. Prime site turnaround is 12 hours.

## 3.27 **Project Plan**

Vendor proposals must include a high-level Project Plan. The Project Plan should include a schedule of key events including:

- Equipment delivery date
- Installation start and completion date
- Coverage Acceptance Testing start and complete date
- 30 Day Final Acceptance start and complete date

## 3.28 Vendor Project Manager

The successful vendor must provide a Primary Point of Contact with at least four (4) years' experience in managing similar Public Safety system implementation for City, County, State or Federal agencies. The successful vendor must supply a biography for the Primary Point of Contact listing qualifications and the number of years of experience in managing projects of similar complexity.

## 3.29 Documentation

The selected vendor must supply Engineering drawings for the equipment configuration supplied to Montague County at each Repeater site and the 911 Center. Also, the successful vendor must supply Operations and Maintenance documentation.

#### 3.30 Training

If the Vendor proposal includes any changes to the 911 Center operations, to facilitate a smooth transition to Simulcast at the 911 Center, the vendor must provide a comprehensive training plan for 911 Center staff at Contract signature.

- The vendor must outline the training program and list the number of training hours.
- The vendor must provide a biography for the Trainer that lists training experience on Simulcast transitions for 911 Center staff.

#### 3.31 Thirty (30) Day Acceptance period

After the system has been installed and coverage testing is completed, the County requires 30 days of functional service prior to Final Acceptance. Major equipment malfunctions or failures, as determined by Montague County, will delay acceptance and the 30-day trial will restart the day after repairs are completed. The 30-Day Acceptance process serves as a sign off procedure for final payment to the successful vendor.

## 3.32 References from owners of similar projects

Provide a list of three (3) recent projects where the vendor supplied a similar Public Safety system implementation or upgrade for City, County, State or Federal agencies. The information must include contact information for the person within the City/County who was the Project Manager or held an equivalent role on these projects. A brief overview of the project must be provided.

## 3.33 Vendors experience and qualifications in Public Safety

The vendor must provide a detailed narrative outlining experience and qualification in providing Public Safety system implementation or upgrades for City, County, State or Federal agencies.

## 3.34 Number of similar VHF Simulcast Installations

The vendor must provide the number of VHF Simulcast installations within the State of Texas and adjacent States.

## 3.35 Warranty Period

A minimum of a one (1) year warranty period is required for all hardware, radio and ancillary equipment provided by the successful Vendor. This is to include software/hardware updates that are introduced by the Equipment vendors during the Warranty period. The one (1) year period will commence upon Final Acceptance of the system by Montague County. The warranty must include both parts and labor and 24-hour manufacturer phone support. Maintenance services provided under warranty must be available seven (7) days per week; twenty-four (24) hours per day, and twelve (12) hour response time from call initiation by the county throughout the entire warranty period.

## 3.36 Post Warranty Maintenance Support – Annual Contract

If Vendor offers an extended maintenance plan, provide a price for extending the one (1) year mandatory warranty period in one-year increments up to a total of (5) years in the Pricing Section of the proposal. The warranty extension must cover hardware and/or software. A written explanation of the services and/or materials covered under the extension, major items or components not covered, and the cost of the

extended warranty must be included.

## 3.36.1 Support organization

The proposal must describe the vendor's nationwide and state level organizational structure for Texas.

#### 3.36.2 Contacts and Location

The vendor must supply the address and contact information where certified maintenance technicians will provide diagnostic and repair services. Contact information for regular business hours as well as after- hours and holidays must be provided.

## 3.36.3 Response time

The Vendor must describe the proposed support response time for network problems resulting in service outages as well as non-service impacting outages. The proposal must address response times during regular business hours, after hours, weekends and holidays.

## 4 RFP TERMS AND CONDITIONS

#### 4.1 General Terms

Submission of any proposal signifies the vendor's agreement that the proposal content and associated prices will become part of the contract that is negotiated between Montague County and the selected vendor.

## 4.2 Rejection/Acceptance of proposals

This is a request soliciting proposals only. It is not an offer to enter into a contract or that a contract ultimately will be executed.

#### 4.3 **Proposal Award**

This contract will not be awarded solely based on price. Rather, the contract for this project will be awarded to the most responsive vendor, based on the evaluation criteria listed in this RFP.

## 4.4 Payment Schedule and Terms

The contract payment terms for the VHF project are:

- 15% upon completion of Project Kickoff Meeting
- 50% upon delivery of Equipment
- 20% upon completion of Installation and Coverage Testing.
- 15% upon successful completion of 30-day Final Acceptance.

Payment terms are net 30 days after receipt of invoice.

#### 4.5 Invoicing

The selected vendor must submit invoices for each progress payment outlined in the Payment Schedule above. Invoice must include a detailed breakdown of all charges. Invoices must be based upon completion of tasks or deliverables and must include progress reports. All invoices must be forwarded to the following address:

Montague County Grant Coordinator PO Box 416 Montague, TX 76251

Or by electronic delivery to fema@co.montague.tx.us

## 4.6 Equipment Standards and Performance

All infrastructure equipment and components supplied for this project must conform to applicable FCC, OSHA, NEC, TIA and similar regulations and standards for emissions, power, safety, and other relevant technical aspects.

## 4.7 Requirement for Original Equipment

All equipment must be new, of current manufacture, original and unmodified, and be generally recognized as public safety grade.

## 4.8 Responsibilities of the Vendor

It must be the responsibility of vendor to verify completeness of the material list and the suitability of the devices to meet the total requirements of the County.

#### 4.9 **Permits**

All permits required for installation of equipment must be procured by the selected vendor and any costs involved in procuring permits shall be the responsibility of the selected vendor.

## 4.10 Change Orders

The County shall be the only party with the authority to approve Change Orders.

#### 4.11 Insurance

The successful vendor must procure, maintain, and provide proof of insurance coverage for liability, injuries to persons and property damage as may arise from or in conjunction with the work performed on behalf of the County by the vendor, his/her agents, employees, or subcontractors. Proof of coverage, must be submitted 15 days prior to the commencement of work, and such coverage must be maintained by the vendor for the duration of the contract period. Montague County must be listed as additional insured. Claims made must be covered for three years after contract completion date. Proof of coverage for the following insurance

policies must be submitted to the County:

- Workers Compensation
- Commercial General Liability
- Automobile

## 4.11.1 Worker's Compensation

The vendor must provide and maintain Worker's Compensation Insurance as well as employer's liability coverage with minimum limits of \$1,000,000.00 per occurrence, covering all of contractor's employees who are engaged in any work under the contract. If any work is sublet, the vendor must require the subcontractor to provide the same coverage for employees engaged in any work under the contract.

## 4.11.2 Commercial General Liability

General Liability Coverage must be the minimum amount of \$1,000,000.00 per occurrence.

#### 4.11.3 Automobile

Automobile Liability Insurance, to include liability coverage, covering all owned, hired, and non-owned vehicles, used in connection with the contract. The minimum combined single limit must be \$1,000,000.00 bodily injury and property damage: \$1,000,000.00 uninsured/under insured motorist and \$1,000,000.00 medical payment.

## 4.12 Governing Laws

This contract must be governed in accordance with the laws of the State of Texas.

### 4.13 Affirmative Action

The supplier will take affirmative action in compliance with all Federal and State requirements concerning fair employment and employment of people with disabilities, and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin, or disability.

#### 4.14 **Assignment**

No assignment of the vendor's obligations or the vendor's right to receive payment hereunder will be permitted.

## 4.15 General Indemnity

The vendor must hold and save Montague County, its officers, agents, and employees, harmless from liability of any kind, including all claims and losses, including consequential damages, accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured

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or damaged by the vendor in the performance of this contact and that are attributable to the negligence of the vendor provided that the vendor is notified in writing within 30 days that Montague County has knowledge of such claims.