

Purchasing Department
Madison County Board of Supervisors
146 West Center Street
Canton, Mississippi 39046

601-855-5503
hardy@madison-co.com

9 July 2018

District 1 Supervisor Sheila Jones
District 2 Supervisor Trey Baxter
District 3 Supervisor Gerald Steen
District 4 Supervisor David Bishop
District 5 Supervisor Paul Griffin

Subject: Purchase of new E-911 System

Dear Board Members:

E-911 Director Albert Jones has informed me that he is ready to move forward with the purchase of a new E-911 system. The cost is expected to be in the range of \$800,000 to \$950,000. Madison County has sufficient 911 reserves to pay cash for a new system.

The Mississippi Department of Information Technology Services (ITS) allows counties to purchase 911 systems costing up to \$1 million from its approved vendors at not-to-exceed pricing. The price can be less but not more than ITS's not-to-exceed pricing.

There are several steps in the ITS purchasing process: (1) Adopt a 911 technology plan (see attached copy); (2) secure quotes with not-to-exceed pricing from two ITS approved vendors; (3) submit an application, the quotes, and the technology plan to ITS for its approval. If ITS approves the application, the board would then have the opportunity to approve or reject the purchase. Estimated delivery and installation time would be six months or longer from the issuance of the purchase order.

The county has had numerous discussion with two ITS-approved 911 vendors. Additionally, the 911 director has discussed the proposed 911 configuration with the cities of Canton, Madison, and Ridgeland. He reports that all three cities have approved the proposed configuration.

The configuration would be as follows:

- Madison County Sheriff's Department (Host Site)
3 positions with 3 full-use licenses

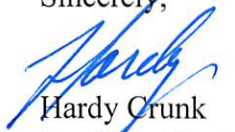
- Madison County Emergency Services Building (Redundant Host Site)
2 positions with 2 limited use licenses

- Madison Police Department
4 positions with 3 full-use licenses and 1 limited-use license
- Ridgeland Police Department
4 positions with 2 full-use licenses and 2 limited-use licenses
- Canton Police Department
2 positions with 2 full-use licenses

In the event of a major catastrophe, such as if a tornado or fire rendered one of the 911 dispatch centers unusable, one of the other jurisdictions could almost immediately takeover 911 dispatch for the affected entity. Then, as soon as the affected entity could get its 911 personnel to the Madison County Emergency Services Building, the affected entity would resume its 911 dispatch from that location using its own personnel. It would continue its 911 operations from that location until 911 service was restored to its own location.

If the board wishes to proceed with the process of purchasing a new 911 system, the only action needed today would be approval of the attached 911 Technology Plan.

Sincerely,



Hardy Crunk
Purchase Clerk

CC: Albert Jones, 911 Director
Tom Lariviere, Assistant 911 Director

MADISON COUNTY 911

TECHNOLOGY PLAN

Priority 1 - Replace Analog 911 PSAP with Next Generation 911 PSAP

Madison County 911's highest priority is replacing its aging 911 PSAP (Public Safety Answer Point) system. The system serves the Madison County Sheriff's Department, Madison County Emergency Management Agency, City of Madison Police and Fire Departments, City of Ridgeland Police and Fire Departments, City of Canton Police and Fire Departments, and all six county fire districts. Additionally, 911 calls for Pafford Ambulance are initially answered by Madison County's 911 PSAP system and then transferred to Pafford's dispatch center.

The current analog PSAP 911 system was purchased in 2001. It uses hardware and software that are well beyond life expectancy and are no longer fully supported by vendors. Many spare parts and components for the system are no longer readily available. Because of the unreliable condition of the existing system, replacement of the PSAP system is Madison County 911's highest priority.

Madison County 911's plan is to replace the current analog E-911 system with a new web-based network system that would require less PSAPs (Public Safety Access Points), be more reliable, and meet all the requirements for the Next Generation (NG) E-911 technology. The new NG-911 system would have the capability to allow callers to text an emergency to 911. It would also have the capability to allow callers to send pictures and video to the 911 dispatcher, who could then send the pictures and video to officers responding to an emergency. Another advantage of the new NG-911 system would be more precise location tracking of a cell phone if the caller is unable to talk, doesn't know their location, or refuses to give their location.

Upgrading to a NG-911 Dispatch System would allow Madison County to better serve its fast-growing population with the latest available technology, including the ability to fully support smart phone and other internet-based communication devices. The estimated cost of a new PSAP 911 system is \$900,000, which Madison County has available in its 911 cash reserves.

Priority 2 – Continue Investigating the Feasibility of a County-Wide Common Two-Way Radio System

Madison County 911's second priority is to continue to investigate the feasibility of all public safety agencies in the county operating on a county-wide common two-way radio system.

The Madison County Sheriff's Department, City of Canton Police and Fire Departments, and the Town of Flora Police Department currently use VHF High Band radio systems.

The City of Madison Police and Fire Departments, City of Ridgeland Police and Fire Departments, Town of Flora Fire Department, all six of the county's fire districts, and Pafford Ambulance currently use the MSWIN Digital P25 700MHz Statewide Public Safety Radio System.

Moving the current VHF High-Band Radio System users to MSWIN would provide all public safety agencies in Madison County with interoperability with each other, and with state agencies, federal agencies, and surrounding counties who use MSWIN.

However, questions persist as to whether or not MSWIN can at the present time provide county-wide radio coverage. Testing of MSWIN coverage in 2014 by Wireless Commission staff and county personnel revealed deficiencies in the MSWIN coverage footprint in Madison County. Due to those deficiencies, the Wireless Commission in 2014 granted the Madison County Sheriff's Department permission to make over \$350,000 in non-MSWIN upgrades to its radio system.

The Wireless Commission is currently exploring the possibility of locating an additional tower in Madison County. It currently has a portable tower located at the Sheriff's Department for coverage and penetration testing purposes.

Madison County 911 plans to continue to investigate MSWIN coverage issues and the feasibility of all public safety agencies in the county operating on a county-wide common two-way radio communication system. Funding is not currently available for such a project.