

# Mississippi Wireless Communication Commission



## 5 Year Strategic Plan FY 2019 – FY 2023

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July 15, 2017

# Wireless Communication Commission

## Strategic Planning and Performance Budgeting

### **Mission**

The mission of the Wireless Communication Commission (WCC) is to promote the efficient use of public resources to ensure that law enforcement personnel and essential public health and safety personnel have effective communications services available in an emergency situation, and to ensure the rapid restoration of such communications services in the event of disruption caused by natural disaster, terrorist attack or other public emergency. (Miss. Code Ann. 25-53-171)

### **Philosophy**

The WCC is committed to ensuring the operability, interoperability, and continuity of public safety-related communications throughout the state of Mississippi by providing the strategic framework for integrated local, state, tribal and federal collaboration supporting all hazards communications.

### **Statewide Goals and Benchmarks**

#### **Public Safety and Order**

To protect the public's safety, including providing timely and appropriate responses to emergencies and disasters and to operate a fair and effective system of justice

##### Emergency Preparedness

- Average emergency response time to natural and man-made disasters.

#### **Government and Citizens**

To create an efficient government and an informed and engaged citizenry that helps to address social problems through the payment of taxes, the election of capable leaders at all levels of government, and participation in charitable organizations through contributions and volunteerism

##### Government Efficiency

- Administrative efficiency: Expenditures on state government administrative activities as a percentage of total operational expenditures

### **Overview**

#### *Background*

Throughout the nation, communication between different agencies and jurisdictions has long been a challenge. During every day scenarios our state and local law enforcement, fire and rescue services, and emergency medical response personnel experience communication problems. These situations are especially evident in times of natural or manmade disasters. The unprecedented events of September 11, 2001, and many disasters since, underscore the need for agencies to share information not only locally

but also across state lines. These situations increase the need for a multi-jurisdictional/multi-agency common and interoperable platform. As government budgets shrink greater emphasis has been, and should be, placed on resource sharing in order to efficiently and effectively respond to every day events and emergencies.

Mississippi began efforts in 1999 to address the interoperability issue when the Mississippi Department of Transportation conducted a technological assessment and needs analysis of its existing two-way radio systems as well as other state agency systems. On February 5, 2003, Governor Musgrove signed Executive Order 874 establishing the State Interoperability Executive Committee (SEIC), charging them with “fostering coordination across state and local entities and studying short and long term improvements and developments of a public safety wireless communication system in Mississippi.” On August 4, 2004, Governor Barbour signed Executive Order 920, which restructured the SEIC and further defined the needs for short and long term interoperability solutions.

On April 1, 2005, S.B. 2514 created the Wireless Communication Commission (WCC) to address the strong governance structure necessary to provide the framework in which stakeholders collaborate and make decisions that represent a common objective. As set forth in the legislation, the WCC set out to produce a blueprint for a statewide radio system to ensure emergency responders had access to a common interoperable communications solution which meets public safety reliability standards – the Mississippi Wireless Information Network (MSWIN).

MSWIN is a 700 megahertz (MHz) Project 25 (P25)/Phase 2 Land Mobile Radio trunked public safety communications network which provides 97% mobile area coverage statewide. P25 is a suite of standards for digital radio communications for use by federal, state/province, and local public safety agencies in North America to enable them to communicate with other agencies and mutual aid response teams in emergencies. P25 is a collaborative project to ensure that two-way radios are interoperable.

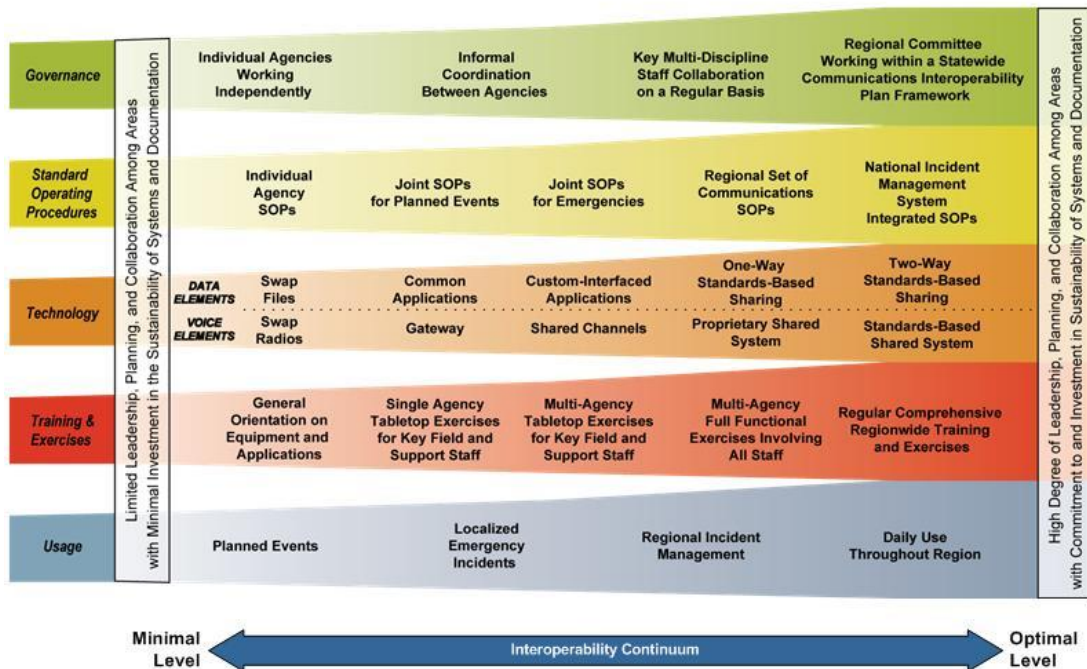
Land Mobile Radio systems are designed to meet emergency responders’ unique mission critical requirements and support time-sensitive, lifesaving tasks, including rapid voice call-setup, group calling capabilities, high-quality audio, and guaranteed priority access to the end-user. Because these radio systems support lifesaving operations, they are designed to achieve high levels of reliability, redundancy, coverage, and capacity, and can operate in harsh natural and man-made environments. Land Mobile Radio technology has progressed over time from conventional analog voice service to complex systems incorporating digital and trunking features. These enhancements have improved the security, reliability, and functionality of voice communications. Land Mobile Radio systems will remain the primary tool for mission critical voice communications for many years to come.

### *Interoperability*

Interoperability is an important issue for law enforcement, fire fighters, emergency medical services, and other public safety and health departments. By definition, interoperability is the ability of public safety responders to share information via voice and data communications systems on demand, in real time,

when needed and as authorized. Emergency responders need to be able to communicate during emergencies and their ability to communicate with one another directly impacts the average emergency response time to natural and man-made disasters. Ensuring operable and interoperable communications among responders during all threats and hazards is paramount to the safety and security of the citizens of Mississippi.

The Interoperability Continuum, developed by SAFECOM, Figure 1 below, serves as a framework to address all of these challenges and continue improving operable/interoperable and emergency communications. It is designed to assist emergency response agencies and policy makers with planning and implementing interoperability solutions for voice and data communications.



**Figure 1: The Interoperability Continuum**

The Continuum identifies five critical success elements that must be addressed to achieve a successful interoperable communications solution:

- Governance – Collaborative decision-making process that supports interoperability efforts to improve communication, coordination, and cooperation across disciplines and jurisdictions. Governance is the critical foundation of all of Mississippi efforts to address communications interoperability.
- Standard Operating Procedures – Policies, repetitive practices, and procedures that guide emergency responder interactions and the use of interoperable communications solutions.

- Technology – Systems and equipment that enable emergency responders to share voice and data information efficiently, reliably, and securely.
- Training and Exercises – Scenario-based practices used to enhance communications interoperability and familiarize the public safety community with equipment and procedures.
- Usage – Familiarity with interoperable communications technologies, systems, and operating procedures used by emergency responders to enhance interoperability.

Mississippi has taken significant steps towards achieving interoperable emergency communications, including the build-out of MSWIN, strong coordination with users at all levels of government, and a strong governance structure led by the WCC. However, more remains to be done to achieve Mississippi's vision. It is also important to note that this work is part of a continuous cycle as Mississippi will always need to plan and prepare in order to adapt to issues surrounding operability, interoperability, geography, aging equipment/systems, and emerging technologies.

#### *Element 1 - Governance*

Prior to the creation of the WCC in 2005, the state was confronting a number of long-standing mission critical voice communication issues—notably, operability, interoperability, and continuity challenges among emergency responders. These challenges were compounded by the lack of coordination among emergency communications disciplines and jurisdictions, often leading to disjointed approaches to planning and the acquisition of disparate radio systems that were not interoperable with neighboring localities. Communications interoperability cannot be resolved by any one entity, but rather a partnership among emergency response organizations among all levels of government.

The WCC was created to address these issues. The WCC is comprised of a variety of state and local agencies representing various emergency communications disciplines which includes the following entities: Mississippi Emergency Management Agency; Mississippi Association of Fire Chiefs; Mississippi Highway Safety Patrol; Mississippi National Guard; Mississippi Department of Wildlife, Fisheries, and Parks; Mississippi Department of Corrections; Mississippi Association of Supervisors; Mississippi Department of Environmental Quality; Mississippi Department of Transportation; Mississippi Department of Public Health; Mississippi Municipal League; Mississippi Office of Homeland Security; Mississippi Department of Information Technology Services; Mississippi Sheriff's Association; Mississippi Department of Public Safety; and Mississippi Association of Police Chiefs. The structure of the WCC was established to ensure all disciplines share their expertise, support decision-making, and create unity through interoperable communications.

Through the work of the WCC, Mississippi has achieved the optimal level of leadership which allows multi-disciplinary jurisdictions to work together across the state promoting optimal interoperability. The WCC will continue to examine efforts to streamline communications with local user entities in order to better communicate updates occurring throughout the state.

## *Element 2 - Standard Operating Procedures*

Strong governance and partnerships can facilitate another key component of successful emergency communications—the development of strategies, plans, and operating procedures. Plans and operating procedures are especially critical in the current operating environment, as they can help federal, state, and local governments manage their future mission critical voice needs and capabilities, as well as the deployment of new mobile data services and applications.

One of Mississippi's highest priorities is to ensure that every emergency responding agency is familiar with the state's approach to all-hazards scenarios. Mississippi's Standard Operating Procedures aim to be the unifying factor in any multi-jurisdictional/multi-disciplinary operation. The WCC maintains a Standard Operating Procedure for access to MSWIN and acts as the final approver of procurement agreements for public safety entities. While the law mandates that the WCC is the clearinghouse for public safety communications purchases, communications with local entities about technological and governance requirements have proved to be a challenge to implementing the law.

Through the Statewide Interoperability Coordinator (SWIC), the WCC works with the Department of Homeland Security's Office of Emergency Communications (OEC) to develop, implement, and update the Statewide Communication Interoperability Plan (SCIP). The SCIP is a critical strategic planning tool to help prioritize resources, establish or strengthen governance, and address gaps associated with interoperable and emergency communications. The Executive Officer of the WCC serves as the SWIC for the state of Mississippi.

During FY 2016 and FY 2017, the WCC, through OEC, was awarded a technical assistance for Communications Unit Policy and Procedure Development. OEC is seeking to partner with states to establish effective and consistent policies and procedures for how to manage its Communications Unit (COMU) resources. Some states may choose to create a COMU working group to create and oversee the implementation of these policies and procedures, while for other states the responsibility may fall primarily to the SWIC.

The WCC is committed to increasing outreach and communications about Standard Operating Procedures as well as procurement procedures in order to ensure technology and equipment purchased at the local level has interoperable capabilities. Additionally, the WCC is continuously developing Standard Operating Procedures that will clarify standards for MSWIN operations, maintenance, training, and partnerships for bandwidth usage.

## *Element 3 - Technology*

Technology is a critical tool for improving interoperability, but it is not the sole driver of an optimal solution. Successful implementation of data and voice communications technology is supported by strong

governance and is highly dependent on effective collaboration and training among participating agencies and jurisdictions.

MSWIN is a 700 MHz trunked P25, Phase 2 compliant wireless digital communication solution. This platform employs IP WAN system architecture. This solution provides the State of Mississippi with a highly reliable, interoperable, and seamless voice and data communications across the entire state.

MSWIN consists of three interconnected regional subsystems, zones that operate as a seamless statewide network. Regional control center master sites are located in Hattiesburg, Jackson, and Batesville. These three regional subsystems are connected together to operate as one network but have the capability to operate independently. In addition to this system architecture, the WCC has implemented Dynamic System Resiliency (DSR) through which a zone is automatically backed up by a non-geographically contiguous zone.

Each regional subsystem of MSWIN contains a primary control point and all network elements for controlling and processing voice/data messages. The system's regional wide area controller protection scheme consists of collocated redundant wide area controllers. The online controller's operation is monitored by the backup unit. If a failure occurs, the backup unit takes over control of that portion of the system. Each regional subsystem includes a network management system collocated with the regional control center master site. A centralized network monitoring system for the entire network is located in Jackson, MS.

The telecommunications backbone portion of MSWIN is a multi-loop configured monitored hot-standby Multiprotocol Label Switching (MPLS) microwave radio system. The microwave radio network meets the alternate routing requirements of the state and links the remote radio repeater tower sites, regional control center master sites, and dispatch locations together. MSWIN includes 135 trunked radio repeater tower sites and meets the state's 97% mobile area coverage reliability requirements. An additional 9 towers support dispatch centers. Each tower site is equipped with an equipment shelter, emergency power system, network equipment and redundant site controllers.

In 2017, the WCC began the construction of two new tower sites located near Camp Shelby as expansion sites for the MSWIN System. A third site located near Parchman is undergoing compliance assessment to meet Federal requirements. In addition, voice and data capacity is being added to the MSWIN network in FY 2017 and will continue into FY 2018. To provide continued and increased reliability, microwave expansion paths are being added, as well.

MSWIN has a master site on wheels (MSOW) that can be used as a fully functional backup to any one of the three regional control center master sites. This provides a rapidly deployable element that has the same functionality and redundancy as a permanent regional control center master site and will enhance disaster recovery efforts and ensure continuity of operations for MSWIN. The WCC also has three radio repeater sites on wheels (SOWs) that can be used to restore the wide area functionality of the system infrastructure anywhere in the state when it is damaged or destroyed. These transportable sites have the same functionality as a permanent radio repeater site.

System monitoring and operations includes a Motorola on-site Jackson based Customer Support Manager and System Support Center located out of state as well as a Network Operations Center (NOC) which is located at the WCC offices and is monitored daily. The System Support Center remotely monitors the MSWIN system and physical building alarms throughout the network on a 24 hour by 7 day a week basis. This ensures a timely response to problems and immediate system restoration should a fault occur. Additionally, the WCC utilizes a combination of 3 full-time WCC technicians and contractors to provide routine and preventive maintenance, restoration services, and repairs/replacements during warranty and post warranty periods.

The WCC upgrades the necessary system hardware and software on a biennial basis to maintain MSWIN at the highest level of support and availability and to provide access to the latest standard and optional features available. System upgrades allow the WCC to sustain operation of MSWIN at the highest level of performance and functionality of system operations; ensure network security by providing protection against system vulnerabilities that may compromise security and confidential information; provide the ability to expand the system for increased coverage and additional users; protect initial capital investment against premature deterioration and obsolescence which extends the system lifespan; and provide fiscal stability by mitigating the risk of unplanned expenses as an inability to perform required maintenance services can result in degradation of system operations.

Through the use of MSWIN, our state and local emergency responders are able to communicate with each other and, thus, achieve enhanced coordination, timely response, and efficient and effective use of communications equipment. The system currently has over 33,000 users from over 400 local, 40 state, 20 federal agencies, and 18 non-governmental organizations, however the system can support up to 250,000 users. MSWIN is used by these in-state agencies for day-to-day operations, planned events as well as for emergency incidents. MSWIN has proven its performance and resilience during several emergency events when remote tower facilities have successfully switched to back-up generators without loss of service. The focus of the WCC's strategy to improve interoperability is to continue to provide a cost-effective network that offers dynamic solutions to its user base. Neighboring states of Louisiana, Alabama, Tennessee, and Arkansas have the ability to interface with MSWIN to coordinate contraflow lane reversal and other interstate emergency management activities.

#### *Element 4 - Training*

Mississippi actively works to identify user needs as technological improvements are made to MSWIN. One continuing challenge is ensuring proper training accompanies technology upgrades and expansions. Emergency responders need to be familiar with interoperable and emergency communications equipment and procedures so they are better prepared for responding to real-world events. Training remains a persistent challenge in Mississippi.

Through the WCC's active engagement with OEC, technical assistance is provided to the state which covers all five lanes of the Interoperability Continuum. These offerings are designed to help emergency



responders continue to communicate during disasters or large-scale planned events. The following technical assistance requests have been awarded to the state through the WCC since 2014:

TICP (Tactical Interoperable Communications Plan) Workshop

SOP (Standard Operation Procedure) Workshop

COMT (Communications Unit Technician)

COMMEX (Communication Unit Exercise)

COML (Communications Unit Leader)

INTRADIO (Intro to Interoperable Radio Operations)

OP-PSCC (Interoperability for Dispatchers)

OP-ASMT (Operational Communications Assessment)

TRG-INCM (Incident Communications Center Manager Training)

TRG-INTRADIO TTT (Interoperable Radio Operations Train-the-Trainer Course)

SCIP-WKSP (Statewide Communication Interoperability Plan Workshop)

GOV-COMUPLAN (Communications Unit Planning and Policies, Project Management)

TIC-FOG (Tactical Interoperable Communications Plan & Field Operations Guide)

OP-FE (Communications Focused Exercises)

ENG-NG9-1-1 (Next Generations 9-1-1)

In addition, approximately 95 individuals in Mississippi have received training through the COML, COMT, and INCM programs offered by the WCC and OEC. Other training opportunities are offered in conjunction with pre-existing local, federal and state exercises and drills. Communication exercises have been held as a separate part of other exercises/drills such as the Health Department's POD exercise, as an integral part of Homeland Security's SAR Exercise, and Grand Gulf Nuclear Station Drills. In FY 2017, the WCC and OEC will host a statewide functional communications exercise that will involve both public safety and public service agencies including law enforcement, fire, hospitals, public works, emergency medical services throughout the state and possible neighboring states as well.

The Introduction to Interoperable Radio Operations training brings the idea of interoperability down to the local user to make the use of the radio easier so as to cut down time in getting the correct information to the correct place on demand, in real time, when needed and as authorized.

The WCC has trained multiple people within the MSWIN subscriber base on the proper operation of the system, but more people need to be trained in order to fully realize the advantages of the system. The WCC is working toward expanding existing capabilities to ensure users at all levels are provided training in the proper use of equipment and system access. In FY 2017, the WCC delivered train-the-trainer Intro to Interoperable Radio Operations program sessions developed with the assistance of the OEC. Thirty four individuals received the necessary training in FY 2017. The WCC will continue to provide this basic training on MSWIN and the use of the special event talk groups as well as the Train-the-Trainer when needed or requested.

#### *Element 5 - Usage*

Regular usage of MSWIN ensures the maintenance of and familiarity with interoperability capabilities in case of an incident and ensures responders adopt and familiarize themselves with interoperable and emergency communications technologies, systems, and operating procedures in the state. Mississippi's users utilize MSWIN for all-hazards, multi-disciplinary responses that require continuous reliable service during events.

The WCC created 40 special event talk groups to ensure interoperability between local, state, federal, and tribal entities. Every user operating on MSWIN has the special event talk groups programmed into their radios. This enables multi-jurisdictional interoperability by allowing first responders to communicate directly with one another during an emergency or a planned event or exercise. The WCC regularly works with MEMA and other public safety entities to develop the incident radio communications plan (ICS 205) for use during these events. During FY 2017, more than 60 special event talk groups were issued for multiple events including, but not limited to, local search and rescues, joint agency training exercises, severe weather events, Hinds County kidnapping event, Durant tornado damage, Trump campaign visit, Monroe County airplane crash, Forrest County/Hattiesburg tornado response, and the Newton County Halloween hayride incident.

Since FY 2015, the WCC has continued to increase interoperability among emergency responders by allowing public safety nongovernmental organizations (NGOs) access to the MSWIN system. Per Federal Communications Commission (FCC) rules, a public safety NGO is eligible so long as it "provides services, the sole of principal purpose of which is to protect the safety of life, health, or property". The WCC, as system operator, makes these determinations on a case-by-case basis depending on the entities proposed use of the system. Under no circumstances can a public safety NGO use the system for services made commercially available to the public.

Statewide usage of the MSWIN system is measured by the number of push-to-talks which continued to increase significantly during FY 2017. MSWIN users log an average of 180,000 calls (push-to-talks) daily.

The average monthly push-to-talks during FY 2017 totaled 5,619,142. The system push-to-talks monthly usage during FY 2017 is indicated in Figure 2 below:

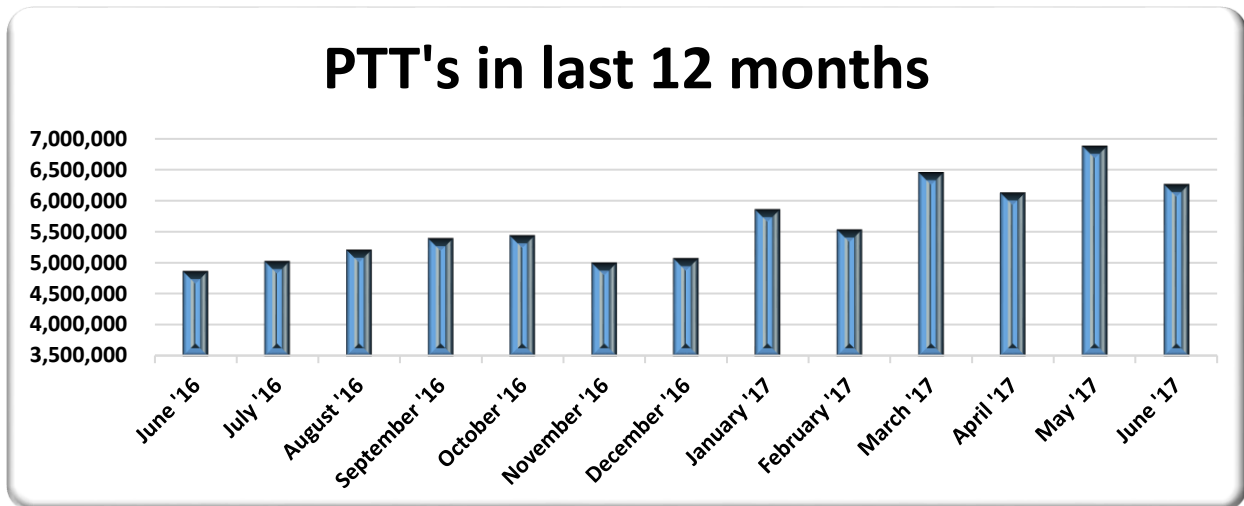


Figure 2: Push-to-Talks for FY 2017

MSWIN push-to-talks monthly average increased by 32.9% from FY 2016 to FY 2017 due to the addition of subscribers and agencies becoming more familiar with the system and thereby increasing their usage of the system.

It is expected that the majority of the large urban localities will join the system by FY 2018. The increase of MSWIN users from FY 2016 to FY 2017 was 17.9%. Currently, 33,607 public safety subscribers are utilizing MSWIN. In FY 2018, the number of subscribers utilizing MSWIN is expected to increase by 5% a year. MSWIN usage by the Top Ten State Agencies by System Use and the Top 10 Local/Other Agencies by System Use is outlined in Figures 3 & 4 below:

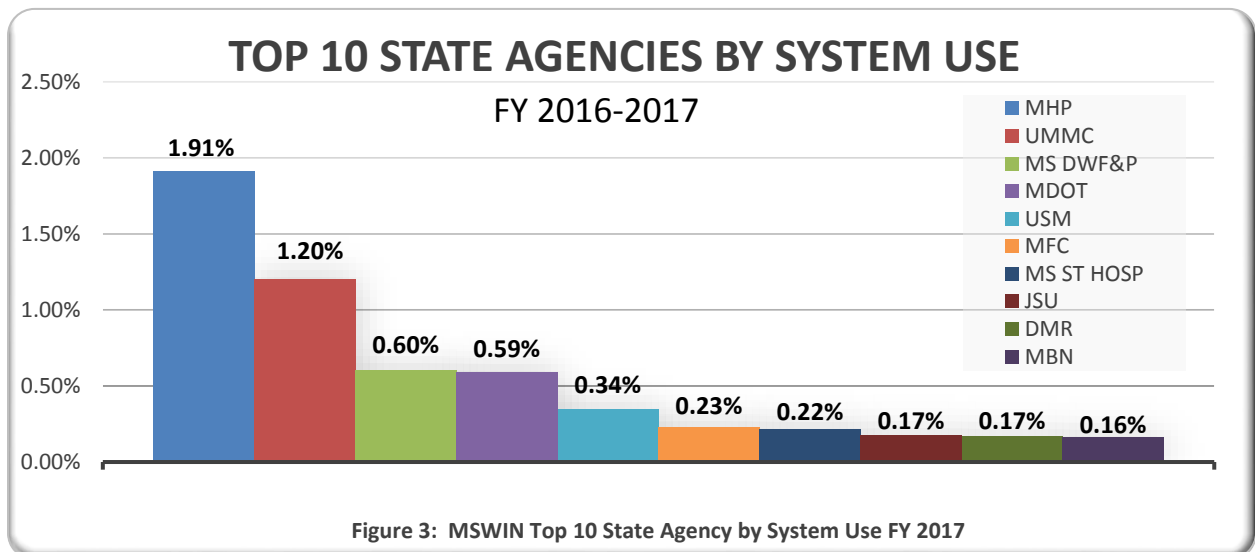
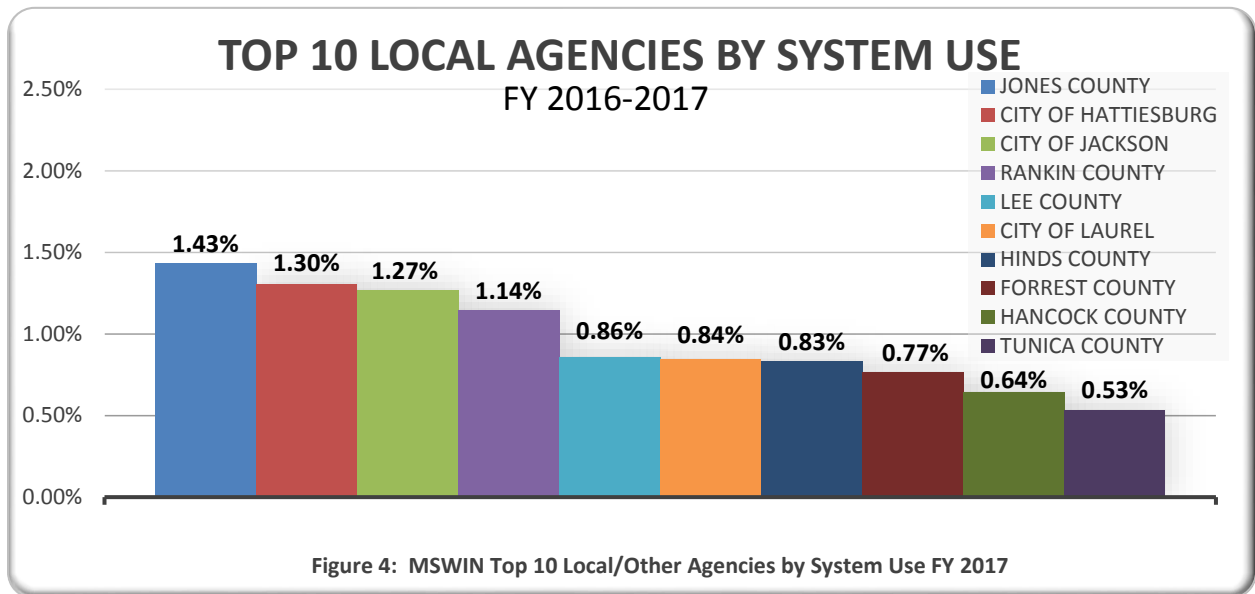


Figure 3: MSWIN Top 10 State Agency by System Use FY 2017



While the majority of users benefit from the 97% mobile area coverage currently provided by the MSWIN network, some localities require increased portable coverage to ensure adequate in-building coverage for their mission critical communication needs. In order to ensure increased interoperability among first responders, the WCC partners with these localities to integrate these additional local-owned sites into the MSWIN network. This provides a cost savings to the county as they save funds by utilizing MSWIN infrastructure. In addition, most counties allow all MSWIN users to roam on their local-owned sites which increases the MSWIN coverage area.

To date, the WCC has successfully integrated the local-owned infrastructure of Lee County, Jones County, Forrest County, Hancock County, Rankin County, Hinds County, Warren County, and Desoto County into the MSWIN network. During FY 2018, the WCC expects to finalize local integration efforts with Oktibbeha County and Lafayette County.

While over 33,000 subscribers currently utilize MSWIN, constrained budgets complicate the decision of local agencies to join or continue to use MSWIN services. Using MSWIN in its current free-voice capability form is often a local agencies only option for communications and enables the state to increase its communications interoperability. Additionally, equipment upgrades have resulted in a depletion of skilled expertise in user ability which needs to be addressed so that radios remain an essential and widely used life safety tool.

**WCC External/Internal Assessment**

Within the next five years, Mississippi will encounter challenges relating to operability, interoperability, geography, aging equipment/systems, and emerging technologies.

Wireless voice and data technology is evolving rapidly and efforts are underway to determine how to leverage these new technologies to meet the needs of public safety. The enactment of the Middle Class Tax Relief and Job Creation Act of 2012 (the Act), specifically Title VI, related to Public Safety Communications, authorizes the deployment of the Nationwide Public Safety Broadband Network (NPSBN). The NPSBN is intended to be a single, wireless, interoperable nationwide communications network that will allow members of the public safety community to securely and reliably gain and share information (data) with their counterparts in other locations and agencies. New policies and initiatives such as the NPSBN present additional changes and considerations for future planning efforts and require an informed strategic vision to properly account for these changes.

Integrating capabilities such as broadband provide an unparalleled opportunity for the future of interoperable public safety communications in Mississippi. It may result in a secure path for information-sharing initiatives, Public Safety Answering Points (PSAPs), and Next Generation 911 (NG911) integration. Broadband will not replace existing Land Mobile Radio voice systems in the foreseeable future due to implementation factors associated with planning, deployment, technology, and cost. A cautious approach to this investment is needed. Therefore, robust requirements and innovative business practices must be developed for broadband initiatives prior to any implementation.

Investments in Land Mobile Radio will continue to be necessary and in the near term, wireless data systems or commercial broadband will complement Land Mobile Radio.

Key priorities for Mississippi in the near term are:

- Continue engagement with local governments and agencies to build a multi-disciplinary user base across the state.
- Maintain existing quality of service while expanding the existing user base to further public safety goal of interoperable communications.
- Expand in-state training capabilities to create a cadre of all-hazards response communications experts at all levels of government, including Tribal government.
- Monitor emerging technologies to determine a cost effective means of integration while continuing to provide interoperable public safety communications solutions.

Mississippi has taken significant steps towards enhancing interoperable and emergency communications through the build out of a statewide interoperability network, strong coordination with users at all levels of government, and a strong governance structure led by the WCC. However, more remains to be done to achieve Mississippi's statewide goals for public safety. This work is only part of a continuous cycle as Mississippi will always need to adapt to evolving technologies, operational tactics and challenges to support communication for public safety entities.

## **Agency Goals, Objectives, Strategies, and Measures by Program**

FY 2019 – FY 2023

### **Program 1: MSWIN Communication System**

**Goal A: Develop, Implement and Maintain the MSWIN System to ensure that emergency responders have access to communications services which provides a cost efficient multi-jurisdictional/multi-agency common and interoperable platform**

Objective A: 1. Development of an interoperable communications system across Mississippi which increases communications access to emergency responders.

- Outcome: *Mobile Coverage across state equals 97%*
- Outcome: *Public safety subscribers utilizing MSWIN – increase by 5% annually*
- Outcome: *MSWIN public safety subscribers push to talks increase by 5% annually*

A.1.1. Strategy: Work with subscriber entities to determine where increased capacity for interoperability is needed.

- Output: *MSWIN sites under development (# of sites)*
- Efficiency: *MSWIN construction project managed in accordance with both the time schedule and within budget (%)*
- Explanatory: Increased communications interoperability among emergency responders provides the ability to effectively reduce emergency response time to a natural or man-made disaster. (statewide benchmark)

A.1.2. Strategy: Monitor and provide technical direction for maintenance of an interoperable communications system for emergency responders across Mississippi

- Output: *MSWIN sites in operation (# of sites)*
- Efficiency: *MSWIN availability to public safety subscribers >99%*
- Explanatory: A fully functioning communications system will provide a reliable method to ensure an effective emergency response time to natural and man-made disasters. (statewide benchmark)

A.1.3. Strategy: Increase coordination among multi-jurisdictional and multi-agency personnel to ensure effective communications services during emergency response time to natural and man-made disasters. (statewide benchmark)

- Output: *Public Safety subscribers utilizing MSWIN (# of subscribers)*
- Efficiency: *MSWIN public safety subscriber push to talks (# of PTTs)*
- Explanatory: Regular usage by public safety personnel ensures the maintenance of and familiarity with interoperability capabilities that improve emergency response time to natural and man-made disaster. (statewide benchmark)

Objective A: 2. Maintain a cost efficient interoperable communication system for emergency responders.

- Outcome: MSWIN annual operating cost per Mississippian  $\leq$  \$4.23 per person

A.2.1 Strategy: Monitor the administrative costs of the MSWIN communication system at or below 10% of total operating costs.

- Output: Fiscal Year Total Expenditures (actuals)
- Output: Fiscal Year Administrative Expenses (actuals)
- Efficiency: Administrative costs of MSWIN as percentage of total operating expenditures. (statewide benchmark)
- Explanatory: Monitoring actual administrative expenditures will assist the WCC in maintaining a cost efficient operation.