



## Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #415

### Wisconsin Interoperable System for Communications (Military Affairs)

[LFB 2021-23 Budget Summary: Page 408, #2]

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#### CURRENT LAW

The Wisconsin Interoperable System for Communications (WISCOM) is a statewide radio network that permits first responders from different jurisdictions to communicate with each other during daily operations, natural disasters, and large-scale events. The network is used by 1,132 local, state, federal, tribal, and non-governmental agencies (17 federal agencies, 12 state agencies, 908 local and tribal agencies, and 195 non-governmental agencies). These agencies have over 40,000 registered subscriber radios connected to the network, with approximately 5,000 radios accessing the network each month. User agencies are responsible for purchasing their own radio equipment to connect to the statewide network; however, the network is designed to work with a variety of radio systems. State statute authorizes the Department of Military Affairs (DMA) to provide oversight of the development and operation of WISCOM.

The WISCOM network consists of equipment installed at 130 tower sites statewide. The network was built to support 95% mobile radio coverage statewide, while also allowing agencies the ability to join and enhance the coverage with additional sites. The State Patrol also has a mobile site on wheels that can provide or enhance coverage in an emergency. The core network consists of five Very High Frequency (VHF) channels that permit emergency responders to carry on simultaneous conversations utilizing a particular radio tower. Utilizing the VHF band for WISCOM has enabled the state to develop statewide coverage with fewer radio towers and lower infrastructure expense. However, the VHF band on which WISCOM primarily relies does not penetrate buildings as well as other radio bands and can be difficult to utilize in urban settings with increased radio traffic. In addition, portable radios have weaker antenna ranges and may not be able to gain access to the system from all locations.

The current network's technical specifications are unable to provide coverage and capacity concurrent with program demand and key network components have reached their end-of-life.

According to DMA, WISCOM must be replaced to ensure the network can deliver public-safety grade communications to current users, expand to support other users at the state and local levels, and provide interoperability with other communications systems. In September, 2019, DMA signed a five-year maintenance contract with EF Johnson to ensure the current system remains viable as the state moves forward with a replacement system. Base funding for WISCOM maintenance is \$1,345,600 GPR annually.

## **DISCUSSION POINTS**

1. In response to events such as car accidents, natural disasters, terrorism events, or high-speed pursuits, public safety officials from different disciplines and jurisdictions need to rapidly communicate. Prior to the development of WISCOM, in February, 2008, two semitrailers collided on Interstate 90 near Janesville during a winter storm. Local agencies, the State Patrol, and the National Guard responded to the accident but were unable to communicate with each other, thereby delaying decisions about rerouting traffic and closing the highway. As a result, over 2,000 vehicles were stranded on the highway for 12 hours, in vehicles running out of gas in frigid temperatures. In 2016, WISCOM helped first responders from local and county agencies communicate in response to a windstorm in Bayfield and Douglas counties that disabled wireless and landline systems. The system has also been used to help first responders communicate during Wisconsin Badger football games, the Birkebeiner ski race, and other events involving large crowds and multiple public safety agencies.

2. The current system has reach its end-of-life and needs to be replaced. Under 2017 Act 59, DMA was required to upgrade or replace WISCOM during the 2017-19 biennium. As directed, DMA issued a RFP to replace the system in October, 2018. However, the process was placed on hold because of a statewide moratorium on RFPs during the gubernatorial transition in 2018. Under 2019 Act 9, the requirement that DMA issue a RFP during the 2017-19 biennium was repealed.

3. In May, 2020, DMA solicited a request for information (RFI) to develop specifications for the replacement system. The Department indicates that gathering information from vendors prior to re-soliciting a RFP is intended to reduce system costs and improve the quality and reliability of proposals. The next iteration of WISCOM will be required to comply with industry standards that support multi-vendor interoperation (support for user radios from various companies without proprietary technologies) and best practices for the design and construction of the system. Additionally, the network must meet the following requirements: (a) deliver at least 95% service area reliability across the state, with higher levels in selected areas; (b) provide best performance for diverse daily users, given that VHF has been the frequency band of choice in rural areas while 700/800MHz is prevalent in urban areas; (c) have the ability to improve coverage through future expansions; and (d) support statewide interoperability through interconnections to mutual-aid channels, external radio systems, and broadband users. Responses to the RFI were due in October, 2020, and DMA is currently finalizing the RFP based on the results. The RFP is expected to be published in June, 2021, with proposals due in January, 2022.

4. The Department intends to select a vendor and system design through a request for proposal process in 2022, begin a phased deployment in 2023, and sustain the system through 2038. In its 2021-23 agency budget request, DMA requested \$6.5 million GPR to support: (a) initial design

and build costs for the new network (\$6.0 million); and (b) project management consultant services (\$0.5 million). The Department indicates that it is critical to provide initial project funds during the 2021-23 biennium to ensure that construction can begin as soon as a vendor and design are selected. This request was incorporated into 2021 Assembly Bill 68/Senate Bill 111.

5. According to DMA, additional construction funds would be requested during the 2023-25 biennium. While exact costs would be determined during the RFP process in 2022, estimates by vendors have ranged from \$18 million to \$34 million. Based on projects in other states, this range may be low; a similar project in Utah cost \$64 million to build, and a similar project in Nevada cost \$108 million. Construction costs would include: (a) communication sites, physical sites that contain, transmit, receive, and control equipment; (b) backhaul sites, used to bring the radio signal back to main communication sites; (c) consoles, equipment that enable the dispatch center to communicate with field personnel; and (d) peripheral equipment, such as remote base stations, remote control consoles, handheld chargers, and amplifiers to ensure coverage inside of buildings.

6. Agencies that do not have 800MHz capable radios may need to procure new equipment to utilize the new network. The Department indicates that a grant program will be requested during the 2023-25 biennium to assist agencies purchase compatible equipment, at an estimated cost of \$7 million to the state and requiring a 30% local match. Each radio costs approximately \$5,000 to purchase; therefore, the program would facilitate the purchase of 2,000 new radios for local agencies.

7. Current law does not provide contracting authority to permit DMA to replace WISCOM. Therefore, DMA requested that statutory language be added to require the agency to oversee the development of a statewide public safety interoperable communication system and to enter into agreements for the maintenance and support of, upgrades to, and enhancements for such a system.

8. Separately, DMA requested one-time funding of \$21.1 million in general fund supported borrowing to remediate life- and equipment-safety issues at 107 state radio tower sites. An assessment identified issues with the radio towers that support the WISCOM network, including non-compliance with industry safety standards. This request was incorporated in the Governor's 2021-23 capital budget recommendations and will be considered as part of the state building program. However, DMA indicates that the condition of towers impacts the quality of the network; thus, appropriating funds for tower maintenance could enable the new radio network to operable at maximum efficacy.

9. Given that first responders need to communicate with each other and that the current WISCOM system has reached its end-of-life, the Committee could provide \$6.5 million GPR in 2022-23 and specify that DMA is required to replace WISCOM. [Alternative 1] This is the amount that the agency estimates it would cost to start building the replacement system during the 2021-23 biennium. Under this alternative, the Department would be able to solicit a RFP for the replacement system in 2022. It is expected that the Department would request additional funds during the 2023-25 biennium depending on the terms of the contract with the selected vendor.

10. On the other hand, given that the cost of replacing WISCOM is not yet known, the Committee could reserve the estimated replacement cost (\$41 million) in the Committee's supplemental appropriation. The Department could submit a plan to the Committee for the release of funds once actual costs are determined in 2021-22. Under this alternative, the Department could build

the replacement system and facilitate the transition of local agencies to the network as soon as the design is finalized, without waiting for additional funds to be appropriated during the 2023-25 biennium. The Committee could create a corresponding continuing appropriation for WISCOM under DMA, provided \$0 GPR until the supplemental funds are transferred. As a continuing appropriation, DMA could spend the amount at any time until the funds are exhausted or the appropriation is repealed. The appropriation could be authorized to fund the cost of: (a) developing, maintaining, and upgrading a statewide public safety interoperable communication system (\$34 million); and (b) providing grants to local agencies to purchase compatible equipment (\$7 million). [Alternative 2]

11. The state's master lease program is used to acquire equipment for state agencies through installment payments. The goal of the program is to spread acquisition costs over the expected useful life of the asset (a maximum of seven years), and to match financing costs to the depreciation cycle. The program cannot be used for annual maintenance costs, building projects, or real estate purchases. Examples of current leased items include fleet vehicles, desktop computers, and the state's accounting system. Under the program, the Department of Administration reviews agency requests to determine whether lease financing is the best alternative for acquiring the equipment and the agency has the resources to make lease payments. Given that replacing WISCOM will require a large, one-time purchase of equipment, it could be appropriate to use lease financing to disperse costs over several biennia. To support the estimated \$34 million cost of replacing WISCOM in part through the master lease program, the Committee could provide \$5.3 million GPR starting in 2022-23 to DMA's existing general program operations appropriation for emergency management. [Alternative 3] It should be noted that some expenses, such as maintenance costs and the construction of tower sites, would not be eligible for lease financing.

12. Alternatively, the Committee could take no action. [Alternative 4] The state contract to maintain the current system expires on June 30, 2024, with an option to extend the contract until June 30, 2026. It could take up to three years to transition all users to the new network. If funds are not provided during the 2021-23 biennium, the replacement of WISCOM would be postponed. According to DMA, further delays could hinder the ability of law enforcement and public safety individuals to communicate and coordinate during large-scale events.

## ALTERNATIVES

1. Provide \$6,500,000 GPR in 2022-23 on a one-time basis to build a statewide interoperable radio network to replace the existing WISCOM system. Require DMA to oversee the development and operation of any current or future statewide public safety interoperable communication system and administer the system. Allow DMA to enter into agreements for the maintenance and support of, upgrades to, and enhancements for WISCOM.

ALT 1	Change to Base
GPR	\$6,500,000

2. Provide \$41,000,000 GPR in 2021-22 on a one-time basis to the Committee's supplemental appropriation for WISCOM. Create a continuing GPR appropriation for interoperable

communications systems under DMA and authorize the appropriation to support costs associated with developing, upgrading, and maintaining a statewide public safety interoperable communication system, and to provide grants to local units of government to purchase equipment that is compatible with the network. Specify that DMA may promulgate rules regarding eligibility for equipment grants and the use of grant funds.

<b>ALT 2</b>	<b>Change to Base</b>
GPR	\$41,000,000

3. Provide \$5,253,500 GPR in 2022-23 to build a statewide interoperable radio network to replace the existing WISCOM system. Require DMA to oversee the development and operation of any current or future statewide public safety interoperable communication system. Allow DMA to enter into agreements for the maintenance and support of, upgrades to, and enhancements for WISCOM. Funds would be provided to DMA's emergency management services; general program operations annual appropriation.

<b>ALT 3</b>	<b>Change to Base</b>
GPR	\$5,253,500

4. Take no action.

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