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Joint Committee on Finance

Paper #501

Statewide Interoperable Radio Network Replacement and Grants for Upgrades (Military Affairs)

[LFB 2025-27 Budget Summary: Page 446, #5 & #6]

CURRENT LAW

The Wisconsin Interoperable System for Communications (WISCOM) is a radio system that permits emergency responders from varying public safety disciplines to communicate across jurisdictions during major disasters and large-scale incidents. In addition, state and local agencies may elect to use WISCOM as their primary radio system. The system was developed in 2012 and installed by the State Patrol with equipment procured from EF Johnson. Since the system is reaching its end-of-life, the Department of Military Affairs (DMA) is in the process of constructing the system's replacement. The system developed in 2012 is hereafter referred to as "Legacy WISCOM," and the new system, which is currently being implemented, is referred to as "WISCOM 800." During the implementation of WISCOM 800, there will be an overlap between Legacy WISCOM and WISCOM 800. As each tower must be upgraded during the implementation of WISCOM 800, towers in certain regions will be operating on Legacy WISCOM, while other regions will be operating on WISCOM 800. The implementation of WISCOM 800 in a region will be complete when all towers have been upgraded, the system is operating as designed, and the state has designated the region as complete.

In total, Legacy WISCOM is currently used by 1,248 local, state, federal, tribal, and non-governmental agencies (18 federal agencies, 13 state agencies, 1,041 local and tribal agencies, and 176 non-governmental agencies). These agencies have over 52,000 registered subscriber radios connected to the network, with approximately 24,700 radios accessing the network each month.

As of April, 2025, Legacy WISCOM consists of communications equipment installed at 140 tower sites statewide (no locations have yet undergone WISCOM 800 equipment replacement). The system was built to support 95% mobile radio coverage statewide, while allowing agencies

the ability to join and enhance the coverage with additional sites. The Department also owns a mobile site that can provide or enhance Legacy WISCOM communications coverage in an emergency and is routinely deployed by State Patrol technicians. The core system consists of five Very High Frequency (VHF) channels that permit emergency responders to carry on four simultaneous conversations in a given area utilizing a particular radio tower. Utilizing the VHF band for Legacy WISCOM enabled the state to develop statewide coverage with fewer radio towers and lower infrastructure expense. However, the VHF band on which Legacy 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 limitations of Legacy WISCOM's VHF equipment and frequency band contributed to the procurement of a new system that primarily operates on the 700/800 MHz frequency band.

2023 Act 19, the 2023-25 biennial budget act, provided the following resources for WISCOM 800: (a) the act created a continuing appropriation and provided \$45.0 million GPR in 2023-24 for the development of a replacement statewide public safety interoperable communication system; and (b) the act created an annual appropriation to provide grants for public safety communication system upgrades [s. 20.465(3)(c)] and, for this purpose, placed \$2.0 million in the Joint Committee on Finance's supplemental GPR appropriation in 2024-25. According to DMA, as of May, 2025, \$7,714,100 of the \$45.0 million GPR has been expended, \$13,799,500 has been encumbered, and known expenses of \$6,529,800 are expected to be paid in the near future. As a result, \$16,956,600 remains available. However, as the appropriation supporting the WISCOM 800 project is continuing, any funds that are not expended or encumbered in 2024-25 may be spent at any time thereafter, unless or until the appropriation is repealed.

DISCUSSION POINTS

1. In response to events such as car accidents, natural disasters, terrorism events, or highspeed pursuits, public safety officials from different disciplines and jurisdictions need to rapidly communicate. Prior to the development of Legacy 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, with vehicles running out of gas in frigid temperatures. In 2016, Legacy 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.

WISCOM Replacement

2. As directed under 2017 Act 59, DMA issued a request for proposal (RFP) to replace the Legacy WISCOM system in October, 2018. To support related costs, Act 59 provided \$464,000 GPR annually to purchase software, equipment, and services starting in 2018-19. However, the RFP was

placed on hold because of a statewide moratorium on RFPs during the gubernatorial transition in November, 2018.

3. Under 2019 Act 9, the requirement that DMA issue an RFP for WISCOM 800 was repealed. Instead, in May, 2020, DMA solicited a request for information (RFI) to develop requirements and specifications for the next iteration of WISCOM. According to DMA, the RFI was the first phase of a competitive procurement approach that sought to engage the vendor community and experts in public safety communications to collaborate on solutions for the design, construction, implementation, support, and maintenance of the interoperable communications system. Information gathered through the RFI contributed to the scope and objective of the subsequent RFP. The Department indicated that gathering information from vendors prior to re-soliciting an RFP reduced system costs and improved the quality and reliability of proposals.

4. The RFI specified that the next iteration of WISCOM 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 700/800 MHz 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 authorized broadband users. Additionally, the system must 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.

5. The 2021-23 biennial budget act, 2021 Act 58, required DMA to: administer the current and future statewide public safety interoperable communication system; enter into agreements for the maintenance and support of the current system; and enter into agreements for the maintenance and support of, upgrades to, and enhancements to the replacement system. Act 58 also directed DMA to issue an RFP for the replacement of Legacy WISCOM. Further, the act provided DMA with \$500,000 GPR in 2022-23 for WISCOM management consulting services and placed \$6 million GPR in 2022-23 in the Joint Finance Committee's supplemental appropriation for potential release to DMA for initial WISCOM replacement costs. However, because the \$6 million GPR was not released before the end of the biennium, it lapsed to the general fund.

6. The Department released an RFP for WISCOM 800 on November 30, 2021. On August 22, 2022, the Department sent a notice of intent to award letter to the selected vendor, L3Harris Technologies, Inc. The RFP received a protest to the intent to award in January, 2023. After the Department of Administration denied the protest, the contract with L3Harris Technologies, Inc. was signed on May 22, 2024.

7. Upgrading the state's interoperable radio network requires an overlap of Legacy WISCOM and WISCOM 800. In September, 2019, DMA signed a five-year contract with EF Johnson to continue providing maintenance on Legacy WISCOM. On July 23, 2024, DMA extended the contract for an additional year. The Department indicates that it intends to renew the contract for an additional year as the existing contract expires on June 30, 2025. According to DMA, the extended maintenance agreement is needed to ensure Legacy WISCOM remains operational as the state moves to WISCOM 800. In 2023-25, \$1,345,600 GPR annually is allocated to support the maintenance of

Legacy WISCOM. According to DMA, the cost could increase by an additional \$200,000 at the next renewal.

8. During the construction of WISCOM 800, all VHF equipment from the old system will be removed from towers and replaced with new 700/800 MHz equipment equipped with a VHF overlay, allowing users to communicate using a 700/800 MHz frequency band or the VHF frequency band. WISCOM 800 will operate using towers owned by the Wisconsin Departments of Transportation (DOT), Corrections, Health Services, Military Affairs, and Natural Resources, as well as the Educational Communications Board, the University of Wisconsin System, local governments, and utility companies, and will also utilize privately-owned leased tower sites. Five new towers, owned by either DOT or DMA, will be constructed during the implementation of WISCOM 800. However, additional towers may be needed as the implementation of WISCOM 800 progresses. Maintenance of the towers will be completed by L3Harris, except for DOT-owned towers, which will be maintained by DOT.

9. According to DMA, the final cost for building the new radio network will include the following: (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 enables 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). The Department indicates that the total estimated cost of WISCOM 800 implementation is \$163.2 million. The implementation budget includes: (a) \$101.5 million under the contract with L3Harris for infrastructure and implementation costs; (b) \$27.2 million for a project contingency; (c) \$14.0 million for civil work to improve tower structures and shelters; (d) \$12.0 million for microwave backhaul equipment and installation; (e) \$5.0 million for additional subscriber equipment; and (f) \$3.5 million for consultants to assist with project oversight. Under the contract, there are six regions for which project implementation will be completed. According to DMA, the buildout of each region will not occur simultaneously, but will instead be staggered. As a result, the project timeline will vary by region. The implementation phase of the project is expected to take approximately 3.4 years.

10. After the implementation phase, the WISCOM 800 project will move to the operational and maintenance phase. Once a region is accepted as complete, it will move to the two-year warranty period, after which post-warranty maintenance and support will be provided. The L3Harris contract includes \$51.5 million for post-warranty maintenance and support for years three through seven for each region. Due to the staggering of project implementation by region, post-warranty costs are budgeted in the contract over an eight-year period. If the contract is renewed, post-warranty maintenance and support would be provided for at least another two years. In addition, the operational phase includes ongoing tower lease costs, estimated at \$5.5 million annually. Combined, the two phases total an estimated \$220.2 million. The table below shows the estimated costs of the known components of the WISCOM 800 project. Beyond what is listed in the table, DMA anticipates that funding for repairs, tower lease payments, equipment replacement, and possibly additional towers may be required in future biennia. According to DMA, the construction of WISCOM 800 is estimated to be completed in 2027-28, when ongoing maintenance and support will become necessary.

Estimated Costs of Known Components of WISCOM 800 (In Millions)

	<u>Cost</u>	<u>Description</u>
<i>Implementation Budget</i>		
Contract Implementation	\$101.5	The cost of implementation of WISCOM 800, including costs for the buildout, state agency subscriber radios, and a mobile site.
Contingency	27.2	A 20% complex project contingency is in place to account for any cost increases or additional costs that that may arise under the contract.
Civil Work	14.0	Costs to make structural improvements to equipment shelters, towers, and grounds.
Microwave Backhaul Equipment and Installation	12.0	Cost for new point-to-point microwave connections to provide communication backhaul between the towers in the network.
Additional Subscriber Equipment	5.0	Additional subscriber radio equipment for state entities based on changes or new needs since the release of the RFP.
Implementation Consultant	<u>3.5</u>	Consultants to assist with the oversight and testing of project implementation.
Subtotal	\$163.2	
 <i>Operational Budget</i>		
Contract Maintenance	\$51.5	Post-warranty maintenance and support, provided during years three through seven of project implementation for each region.
Tower Lease Payments	<u>5.5</u>	Costs for making tower lease payments through 2028-29.
Subtotal	\$57.0	
Total	\$220.2	

11. Note that, as shown in the table, there is a distinction between the implementation and operational budgets for WISCOM 800. The implementation budget covers one-time costs that will be incurred during the construction of the project, while the operational budget represents costs that will be ongoing. Over time, the cost of the operational budget will likely exceed the \$57.0 million cited in the table; however, additional costs are not yet known and are not anticipated until after 2028-29, at the earliest. Given the ongoing nature and scale of the WISCOM 800 project, it is difficult to establish a total cost of the project.

12. According to DMA, the WISCOM 800 project is currently in the design phase for multiple regions, which consists of site assessments and validating antennae heights to ensure that they fit within design parameters. The amount expended on the project to date (\$7.7 million) has gone

towards execution of the contract, including costs for monthly project services. Currently, the detailed design review is underway for Region One and is anticipated to be completed in the near future. Once completed (and after equipment has been tested in the factory), Region One will begin the construction phase. At that point, a milestone payment will be made under the contract. The Department estimates that coverage testing for Region One will occur in the summer of 2026, and Region One users will begin using WISCOM 800 in the fall/winter of 2026. In addition, DMA anticipates that L3Harris will begin microwave backhaul upgrades shortly.

13. Under Senate Bill 45/Assembly Bill 50 (SB 45/AB 50), \$79,746,400 GPR would be provided to the statewide public safety interoperable communications system appropriation [s. 20.465(3)(bm)] in 2025-26 for the development of WISCOM 800. This amount is equal to the sum of the estimated contracted costs for the project during the 2025-27 biennium (\$32,438,000 in 2025-26 and \$47,308,400 in 2026-27). As such, the Committee could provide funding of \$79,746,400 GPR in 2025-26. [Alternative A1] As the WISCOM 800 contract is estimated to cost \$153.0 million GPR (\$101.5 million for contract implementation and \$51.5 million for contract maintenance) and the estimated cost of project implementation and operation is \$220.2 million, DMA will likely request additional funding for the project in future biennia. As a continuing appropriation, any amounts appropriated to the GPR statewide public safety interoperable communications system appropriation do not lapse back to the general fund at the end of a fiscal year, but remain in the DMA appropriation until expended.

14. As noted above, given that DMA received \$45.0 million GPR under Act 19 for WISCOM 800, the total cost of WISCOM 800 implementation is projected at \$163.2 million (2024-25 to 2027-28), and the operational and maintenance costs under the contract are estimated at \$57.0 million (2027-28 to 2030-31) for a total estimated cost of \$220.2 million, additional funding for WISCOM 800 will be needed in future biennia. The Committee could choose to fund the implementation of the project by providing the full cost of project implementation (\$163.2 million), less the 20% contingency (\$27.2 million) and funding provided previously (\$45.0 million), for a total of \$91.0 million GPR in 2025-26. As a continuing appropriation, any amounts appropriated to the GPR statewide public safety interoperable communications system appropriation do not lapse to the general fund at the end of a fiscal year, but remain in the DMA appropriation until expended. [Alternative A2]

15. The state contract to maintain the current Legacy WISCOM system expires on June 30, 2025, with an option to extend the contract until June 30, 2026. If funds are not provided during the 2025-27 biennium, the project would not be able to proceed as outlined in the WISCOM 800 contract. According to DMA, such delays could, under certain circumstances, hinder the ability of law enforcement and public safety individuals to communicate and coordinate during large-scale events. [Alternative A3]

Grants for WISCOM 800 Equipment Upgrades

16. 2023 Act 221 created a grant program for public safety interoperable communications system upgrades, intended to support the purchase of 700/800 MHz subscriber radios needed by local users to transition to the new public safety interoperable communication system currently under development (WISCOM 800). The provisions of Act 221 specify that the grant program will end on

March 29, 2028, and grants require a 20% match from local units of government. In addition, 70% of the grants must be provided to daily users of WISCOM, and the remaining 30% must be provided to non-daily users. Eligible entities include counties, municipalities, and fire departments (full-time or volunteer). In general, any entity that has first responder duties is eligible for the grant program.

17. Under Act 19, an annual GPR appropriation was created under DMA to provide grants to local governments for public safety interoperable communication system upgrades, and \$2.0 million was placed in the Joint Committee on Finance's supplemental GPR appropriation in 2024-25. On May 27, 2025, DMA submitted a request for transfer of \$2.0 million in 2024-25 from the Joint Committee on Finance's supplemental GPR appropriation [s. 20.865(4)(a)] to DMA's annual GPR appropriation for a grant program for public safety interoperable communication system upgrades [s. 20.465(3)(c)]. [Note that funding was inadvertently requested for the emergency management services general program operations appropriation. The Department intended to request funding for the former rather than the latter.]

18. According to DMA, there are two types of WISCOM users. Daily users, currently comprised of nine counties and two cities (including Bayfield, Douglas, Dunn, Florence, Iowa, Juneau, Kewaunee, Sawyer, and Taylor Counties, as well as the cities of New Lisbon and Mauston in Juneau County), use WISCOM as their primary public safety radio communications system, while interoperable users have their own radio communications systems for internal use and primarily utilize WISCOM to communicate during emergencies, trainings, or during mutual aid calls.

19. The grant program supports the purchase of 700/800 MHz P25 Phase II-compliant radios capable of operating on WISCOM 800. Specifically, grant funding may be used to purchase portable radios, mobile radios, and radio gateways. In addition, grants may be used to program and install radio gateways and consoles. According to DMA, each piece of equipment costs approximately \$10,400, and the total statewide need for equipment replacement to facilitate the transition to WISCOM 800 is approximately \$46.0 million for the state share of costs (80%). Note that this amount does not take into account the \$2.0 million in the Committee's supplemental GPR appropriation for the grant program, and would fund the cost of approximately 5,530 pieces of equipment.

20. According to DMA, the price of WISCOM 800 radios ranges between \$1,500 and \$15,000 depending on the manufacturer, options, accessories, programming, installation, and shipping costs. The cost of radio gateways is dependent on numerous factors, such as size and complexity, and could range from \$10,000 to \$100,000. Local entities can, but are not required to, purchase equipment from L3Harris under the contract as DMA negotiated equipment prices at significant discounts for three years after contract execution. However, DMA's estimate for the price of equipment is not based on the prices negotiated with L3Harris as it cannot guarantee that entities will purchase equipment under the contract. In determining the estimated cost of equipment, DMA used a mid-range estimate for portable and mobile radios to arrive at \$10,400 per piece of equipment. DMA notes that it has completed outreach to educate local entities about the negotiated rates in the contract.

21. According to DMA, replacement WISCOM 800-compliant radio equipment will be usable on both Legacy WISCOM and WISCOM 800. The Department indicates that equipment needs to be ordered between nine and 12 months prior to use on WISCOM 800 to ensure that entities receive

radios and have sufficient time to install, program, test, and train users on how to operate them. In addition, DMA expresses that, although WISCOM 800 may not be operational for the first users until 2026, receiving grant funding in the 2025-27 biennium would enable the timing of the grant announcement to align with the WISCOM 800 project schedule. While the life span of radio equipment is typically cited as seven years, DMA notes that radios ten years and older are commonly used in active service. Due to these considerations, if recipients of WISCOM upgrade grants purchase radios before the implementation of WISCOM 800 is completed, although there would be a delay before equipment could be used for the new system, radios could be used on the Legacy WISCOM system, and radios could be potentially used for longer than seven years.

22. Under SB 45/AB 50, \$10.0 million GPR would be provided to the grant program for public safety interoperable communication system upgrades appropriation in 2025-26. This amount would support the purchase of the state share (80%) of approximately 1,200 pieces of equipment. [Alternative B1]

23. Given that the WISCOM 800 contract was signed with L3Harris in May, 2024, and compatible equipment is significantly discounted for the first three years after execution of the contract (May, 2027), it could be considered most cost-effective for entities to purchase equipment from L3Harris before the expiration of the discounts. If the Committee wishes to fully fund the total cost of equipment replacement for local units of government within the period of discounted rates, it could provide \$23.0 million GPR annually on a one-time basis for WISCOM 800 equipment upgrades. [Alternative B2] As an annual appropriation, if funding is not expended within the fiscal year, any remaining amount would lapse to the general fund. Note that this alternative does not take into account the \$2.0 million for WISCOM upgrades requested by DMA under s. 13.10 of the statutes.

24. If the Committee wishes to provide funding equal to Alternative 1 over the biennium and additionally establish base funding for the grant program, it could instead provide \$5.0 million GPR annually for grants for public safety interoperable communication system upgrades. [Alternative B3]

25. If the Committee wishes to provide funding for grants for public safety interoperable communication system upgrades but at a lesser amount than would be provided under SB 45/AB 50, it could provide \$5.0 million in 2025-26. [Alternative B4]

26. If funding were not provided for grants for public safety interoperable communication system upgrades, local units of government would fund the total cost of their radio upgrades for WISCOM 800. [Alternative B5]

ALTERNATIVES

A. Implementation of WISCOM 800

1. Provide a one-time funding amount of \$79,746,400 GPR in 2025-26 to the statewide public safety interoperable communications system appropriation [s. 20.465(3)(bm)] for the development of WISCOM 800.

ALT A1	Change to Base
GPR	\$79,746,400

2. Provide a one-time funding amount of \$91.0 million GPR in 2025-26 to the statewide public safety interoperable communications system appropriation [s. 20.465(3)(bm)] for the development and maintenance of WISCOM 800.

ALT A2	Change to Base
GPR	\$91,000,000

3. Take no action.

B. Grants for WISCOM 800 Equipment Upgrades

1. Provide a one-time funding amount of \$10.0 million GPR in 2025-26 to the appropriation for the grant program for public safety interoperable communication system upgrades [s. 20.465(3)(c)] for grants for WISCOM 800 equipment upgrades.

ALT B1	Change to Base
GPR	\$10,000,000

2. Provide a one-time funding amount of \$23.0 million GPR annually on a one-time basis to the appropriation for the grant program for public safety interoperable communication system upgrades [s. 20.465(3)(c)] for grants for WISCOM 800 equipment upgrades.

ALT B2	Change to Base
GPR	\$46,000,000

3. Provide funding of \$5.0 million GPR annually to the appropriation for the grant program for public safety interoperable communication system upgrades [s. 20.465(3)(c)] for grants for WISCOM 800 equipment upgrades.

ALT B3	Change to Base
GPR	\$10,000,000

4. Provide a one-time funding amount of \$5.0 million GPR in 2025-26 to the appropriation for the grant program for public safety interoperable communication system upgrades [s. 20.465(3)(c)] for grants for WISCOM 800 equipment upgrades.

ALT B4	Change to Base
GPR	\$5,000,000

5. Take no action.

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