



FAQ

800 MHz Simulcast Public Safety Radio System

PROJECT GOALS AND OVERALL STATUS

What is Milwaukee County attempting to accomplish?

***Answer:** Milwaukee County is working to replace the existing county-wide public safety radio system with a new system that meets user-requirements for levels of service (coverage, capacity, interoperability, features, security, reliability, and maintainability) at the best overall total cost (including capital infrastructure, capital user-equipment, and operations/maintenance costs). Because the new system will be used for mission-critical, public safety communications, we seek the right balance of best-service and best-cost, not necessarily the cheapest system.*

Our desire is to provide the right level of radio communications to all public safety and public service agencies in Milwaukee County – either directly to those that natively use the new system or indirectly through interoperability mechanisms to those that use other systems.

Why do we even need to upgrade our current radio system?

***Answer:** Milwaukee County operates an aged analog 800 MHz trunked radio system that provides support to the Milwaukee County Sheriff's Department, Milwaukee County Transit System, Department of Public Works, Zoo, Parks and first responder agencies (police, fire & EMS) in 17 municipalities within the County. It currently includes nine sites and a 14-channel analog system with approximately 4,200 subscriber radios. Many system components of the current system, dating back to the 1990s, are no longer manufactured nor supported; therefore, Milwaukee County and the municipalities are at a critical point requiring that the system be replaced.*

What is the current status of this project?

***Answer:** Milwaukee County and Waukesha County have released a Request for Proposals (RFP) for a new radio system that would serve both counties, meeting the identified levels of service in each county independently but also providing for enhanced interoperability between the counties while sharing the burden of costs of some 'core components'. The counties just recently identified a vendor (Motorola) from among the three that responded to this RFP and are in the early phase of negotiations.*

In the meantime, Milwaukee County has engaged in dialogue with the State of Wisconsin regarding the statewide WISCOM radio system to determine if/how WISCOM could meet the county's goals.



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MILWAUKEE COUNTY AND WISCOM

What is WISCOM?

Answer: Principally based on VHF technologies to provide wide area rural coverage, the Wisconsin Interoperable System for Communications (WISCOM) is a shared system that first responders in communities across the state will use to communicate during a major disaster, large-scale incident or other events.

What dialogue has Milwaukee County had with WISCOM?

Answer: We originally met with WISCOM in 2011 to discuss the potential for synergies but found at that time the WISCOM technology vendor of choice did not offer an 800 MHz simulcast system. Since then, WISCOM's vendor, EF Johnson, has launched new simulcast platform offerings. Because of those new offerings, senior staff members from Milwaukee County engaged in a series of meetings with senior staff members of WISCOM throughout the month of September to establish a common agreement and understanding of where the two agencies may work together. Milwaukee County and WISCOM jointly updated the ICC subcommittee facilitated by Rob Henken of Public Policy Forum. A summary of the mutual understanding and agreement between the two agencies is attached.

So what were the outcomes of the dialogue?

Answer: In a nutshell, both parties acknowledged the need for continued dialogue and strengthening of the relationship. Milwaukee County reported at the September 24th meeting that they were moving forward with the joint RFP process with Waukesha County. Among other reasons, the two primary drivers for this decision were: EF Johnson's lack of a proven track record on the installation of 800 MHz simulcast technologies of this scale and magnitude; and, the importance of leveraging the RFP and interoperability work with Waukesha County.

What's the downside of Milwaukee County not going with WISCOM?

Answer: The primary benefit WISCOM offers is statewide full interoperability without having to "click" to another channel for those users that have VHF-capable radios. While the vision of having "one statewide system" makes a lot of sense, the relative scarcity of licensable, dedicated public safety channels available in southeast Wisconsin necessitates an 800 MHz simulcast radio system. Therefore, our choice was to implement our own 800 MHz system (in conjunction with Waukesha County) or to pay for an 800MHz Milwaukee County deployment of WISCOM.

In choosing to do the former, we'll have to use inter-system talk-groups to communicate with WISCOM users (including any that are from WISCOM-using agencies within Milwaukee County). This will be true for other counties and agencies across the State that have chosen not to move forward with WISCOM's underlying technology provider, EF Johnson. The concern for Milwaukee County is the lack of a



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demonstrated ability of EF Johnson's new technologies to consistently and reliably meet the high call volume needs within a densely urbanized county. In other words, public safety comes first.

INTEROPERABILITY BETWEEN SYSTEMS

Will moving forward with the joint RPF process limit radio interoperability within Milwaukee County?

***Answer:** No. Milwaukee County and all agencies signing onto the platform will have full interoperability within the County, including with WISCOM agencies.*

What about interoperability outside of Milwaukee County?

***Answer:** Full "native" interoperability will be available among users of the Milwaukee and Waukesha joint system. We learned through the investigations process that led to the RFP that this was an absolutely critical requirement for users in both counties. There will also be direct inter-system connections with the City of Milwaukee Police/Fire (OpenSky) system and with WISCOM. When users of the new Milwaukee and Waukesha joint system want to talk to users on WISCOM and/or OpenSky, they will all select a special inter-system talkgroup and begin communicating (provided they have coverage from their system). For users with dual-band (800 MHz and VHF) radios, they will have statewide access to these inter-system talkgroups on WISCOM (which is primarily a VHF-based system). There will also be patches/gateways to the channels and talkgroups of other important systems like those from neighboring counties as well as regional mutual-aid channels.*

COST OF THE MILWAUKEE COUNTY 800 MHZ SYSTEM

As a municipality or agency within Milwaukee County, what will we have to pay for the joint Milwaukee and Waukesha County system?

***Answer:** There are three cost components related to building out the new 800 MHz system:*

- 1. Infrastructure: Milwaukee County can now affirm that its intent is to **fully** cover the \$13 Million cost to build the infrastructure (subject to County Board approval). At the ICC subcommittee, we wanted to be conservative in our communication to the agencies during our internal discussions so we framed it as "significantly covering the infrastructure costs"; having now fully vetted this project with the County Executive, he is supportive to **fully** cover the infrastructure costs, subject to Milwaukee County Board approval.*
- 2. Radios and Consoles ("user equipment"): Agencies will pay for their own cost of radios and consoles.
Regarding console costs, agencies have three options:*



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- *The many agencies in Milwaukee County that use dispatch consoles with wireless links (radio control stations) could continue to use those consoles and incur just the costs to replace their radio control stations (and not the costs of the consoles themselves).*
- *There are some agencies that wish to interface their existing Motorola MCC7500 consoles to the new system but that also want to replace their wireless links with wireline links. Because the selected vendor is Motorola Solutions, those agencies will have to pay the costs of interfacing their existing consoles via wireline - this will include installing a wireline link to the system (T1, backhaul, etc.) as well as the possibility of a software upgrade to those MCC7500 consoles. The details will have to be worked out as part of the detailed design process but the good news is that the capital costs of the consoles themselves won't need to be "re-spent".*
- *Any agency that wants to do a wholesale replacement of their console will be able to buy off of the competitive RFP pricing we establish from the RFP vendor.*

Regarding subscriber radio costs, agencies will again have options.

- *The many agencies in Milwaukee County that have existing radios that can be upgraded the technology of the new system (digital Project 25 with authentication) can do so.*
 - *Any agency that wants to do a wholesale replacement of their subscriber radios will be able to buy off of the competitive RFP pricing we establish from Motorola Inc.*
 - *Agencies will also be able to use other certified P25 compliant radios other than those from Motorola – not all "other" radios will be certified for use on the new system, but the counties will work as best as they can to meet user agency needs.*
3. *Ongoing Operating and Maintenance: Agencies will pay a substantial portion of their pro-rata share of these costs, likely based on the number of radios in operation*

Wait! Does this mean I have to pay for both the old and the new system?

Answer: *No. Milwaukee County will continue to pay for the operation of the old analog system per the terms of the existing municipal intergovernmental agreements during this transition period.*

So far you have provided only estimates. I need specifics!

Answer: *Yes, we know you need more specific details and will provide this information to you in the coming months as we finalize the negotiations with the potential vendor. As a rule, the cost of the radios and consoles, as well as the ongoing operating and maintenance fees will be very competitive when benchmarked to the industry.*



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WISCOM says they can provide a proposal of costs, can Milwaukee County?

***Answer:** Yes, in the coming weeks we believe we will have enough information to provide a proposal to those municipalities wanting to gain a better understanding of the costs and perhaps compare our cost estimates to WISCOM/EF Johnson's proposal. But please know that our proposal will still be our "best estimate" as we continue to move forward in the negotiations with the selected vendor.*

How can I budget for 2014 if I don't know the costs?

***Answer:** Since 2014 will be the beginning of the build out phase, there will be no 2014 costs for any agencies to budget for; and remember, all infrastructure work will be fully covered by Milwaukee County (subject to County Board approval).*

Do I begin paying when I sign on...and when do I have to sign on?

***Answer:** Milwaukee County will phase the new system in over a four year period. The first year will involve preparing the sites and deploying the master-switching 'core' of the system. The second year will involve deploying the radio sites on a limited scale (only a few channels per site) and interfacing them to the core. The third and fourth years will each include adding more and more channels to those sites. Agencies will be able to transition on to the new system during this four year period. Therefore, working with Milwaukee County, you can budget your costs timed with when your agency transitions to the new system. There will be no need to budget for any costs in 2014.*

I heard that Milwaukee County hasn't fully funded this project.

***Answer:** We expect the total cost of the project to Milwaukee County and joining agencies and municipalities will be approximately \$25 million. This includes the \$13M associated with infrastructure plus the costs of Milwaukee County's user equipment (consoles and subscriber radios). Like most government agencies, Milwaukee County has an annual operating and capital budgeting process. In 2013, the Milwaukee County Board approved \$1.8 million to begin the project. The 2014 budget submitted to the Board requests and additional \$7.1 million in 2014, \$6.3 million in 2015, \$6.6 million in 2016 and \$2.9 million in 2017. The Board approves the annual budget recognizing that this project extends over multiple years and is a critical public safety initiative.*

So what is Waukesha County's role in the process?

***Answer:** Milwaukee County and Waukesha County both have the same need to replace their independent and outdated analog 800 MHz systems. Recognizing the need for interoperability and the benefits of coming together to leverage experience, synergies and pricing power, the two counties worked with their respective agencies to construct and distribute a combined RFP.*



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COST OF THE WISCOM 800 MHZ SYSTEM

I was told that WISCOM is free. Is this true?

Answer: As noted in the attached Memorandum of Agreement and Understanding between WISCOM and Milwaukee County, both the build out and operation (maintenance, support and service) of any WISCOM infrastructure will have to be borne by the municipality. It is true that Greenfield, and perhaps one other agency, did receive Homeland Security grant money funding a portion or all of the build costs; but WISCOM has acknowledged that the availability of the grant money has been substantially reduced. Bottom line is that agencies going with WISCOM should expect to pay for infrastructure costs, radios and consoles, and operating expenses.

I was also told that WISCOM is waiving the \$50/year per radio fee for the 800 MHz local system?

Answer: From our understanding, the fees and corresponding waiver referenced in the question apply only to users of the WISCOM VHF system. It is important to understand that municipalities will be responsible for all other ongoing operating, administration and maintenance costs related to infrastructure, radios and consoles. After June of 2015, if the State budget isn't available to fund the operations and maintenance of WISCOM, the WISCOM Statewide System Management Group (a board of 23 members from across the state) will set the policy for funding the system's on-going costs. Please contact WISCOM and/or EF Johnson directly for more information.

Do I have to purchase a frequency license if I go with WISCOM?

Answer: Perhaps - and it's something that WISCOM should clarify. Since Milwaukee County is already licensed for 18 frequencies, there would be no additional frequency costs to sign up with Milwaukee County. Milwaukee County has been told that additional frequencies are limited or unavailable.

GOVERNANCE

What 'say' will municipalities have in how the system is operated?

Answer: Milwaukee County fully recognizes that a new governance structure may make sense to determine how the new system is used, funded, and operated and maintained. Municipalities within Milwaukee County will be part of this new governance structure and we will work to create it very soon. The good news is that there are many models and best practices for governing a shared public safety radio system so we'll be able to pick-and-choose from among their charters and operating policies as we set out to create a structure that best fits Milwaukee County and our municipalities.



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What will happen to the existing Radio Advisory Committee (RAC)?

Answer: *The Milwaukee County RAC has served a valuable role in guiding technical operations of the existing system and in providing operational requirements for the new system but we see the new governance structure as being different from the RAC. There may be a chance for members of the RAC to participate in the new governance structure and/or for the RAC to be a “subcommittee”. This will all have to be worked out.*

EF JOHNSON

EF Johnson is highly regarded in this space so why didn't Milwaukee County consider them in the RFP?

Answer: *The RFP was not specific to any particular 800 MHz technology vendor. Stated another way, it was open to all vendors/manufacturers of 800 MHz radio technologies. EF Johnson had the opportunity to submit a proposal to the Waukesha-Milwaukee joint system RFP but chose not to. This was their choice.*

I heard that EF Johnson chose not to because they felt the RFP was written specifically for a particular vendor.

Answer: *We have heard the same thing. First, the use of the RFP process represents best practices in procurement for Milwaukee and Waukesha County. We are sure this is true for most of you as well. We believe that the managed RFP process used provides Milwaukee County with the best system with demonstrated capabilities at the best cost.*

Secondly, the RFP was constructed through a joint effort between Milwaukee and Waukesha County using an effective and structured process for collecting requirements from agencies within both counties. The RFP was constructed to be as open as possible and it was “scrubbed and edited” before its release by Waukesha County’s purchasing department to ensure it was unbiased. All interested vendors had the chance to raise questions or concerns about any aspect of the RFP and to seek changes to its requirements. Other vendors did and changes were made. Instead of working with the Counties about any concerns they had about any RFP issues, including a possible “bias”, EF Johnson simply decided not to participate.

EF Johnson technologies are on the State of Wisconsin Vendor contract. While we can't speak for EF Johnson, it is certainly possible that they felt no need to respond and assumed that county and local agencies would simply use the state contract as a vehicle to purchase EF Johnson technologies. Please contact EF Johnson for additional information.

So, how many technology manufacturers and/or their vendors responded to the RFP?



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Answer: *Three respondents representing four different manufacturers of radio technologies satisfied at least 90% of the criteria (and not one vendor satisfied 100% of the technical criteria), reinforcing the fact that the RFP was not written for one specific vendor.*

Why didn't Milwaukee County reach out to EF Johnson?

Answer: *When the RFP was released, we did reach out to many vendors, including EF Johnson and eight others to invite them participate. As noted, EF Johnson notified the Counties even before the RFP question-answer-change period was over that they did not plan to participate in the process. As you know, once the responses to the RFP's were received, Milwaukee County could not reach out to EF Johnson independent of the RFP process; any discussions with EF Johnson during the RFP process would put at risk the RFP process and likely trigger an appeal and litigation. We had hoped that they would respond to the RFP but they chose not to.*

We heard that Milwaukee County doesn't think EF Johnson could do the job. Please explain why.

Answer: *We determined that picking a vendor with demonstrated experience with the specific technologies of the new system (800MHz Project 25 trunked simulcast radio) was important. Significant weight was placed in the RFP on experience and capabilities of the company and of their project teams. Milwaukee County recognizes that EF Johnson is a reputable firm and has proven capabilities in the VHF space. We also believe that EF Johnson will be successful as they continue to build out their new capabilities in the 800 MHz Simulcast space.*

Milwaukee County's research suggests that EF Johnson launched their Project 25 800 MHz Trunked Simulcast capabilities two years ago and their largest installation to date has been a \$4 million build out within the City of Waterbury, CT – awarded in late 2012. Milwaukee County is a \$25 million implementation and will be a large, challenging project for any vendor and Waukesha and Milwaukee Counties will use the weight of the "experience and capabilities" criteria points in the RFP to make sure we have a vendor that has demonstrated their success at other projects of similar scope and size.

EF Johnson has been in the business since 1923. Isn't that good enough?

Answer: *We wish that were true but they have only been in the Project 25 800 MHz Trunked Simulcast business for two years. EF Johnson was acquired by a \$5 billion private equity fund three years ago called Francisco Partners, an international firm having invested in over 50 technology companies. Over time, this private equity player should provide them with the financial resources to expand their capability in the market. Their new CEO joined the organization shortly thereafter. They are aggressively marketing the new capability and invested in the Project 25 800 MHz Trunked Simulcast market but on a relative basis they remain a smaller player.*



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NEED MORE INFORMATION?

Where can I go for more questions?

Answer: *You can contact the following individuals for answers to other questions and/or to arrange a meeting with you and other interested individuals within your organization.*

*Chris Lindberg
CIO and Director of IMSD
Milwaukee County
email: chris.lindberg@milwaukeecountywi.gov*

*Laurie Panella
Deputy CIO and Director of Business Solutions
Milwaukee County
email: laurie.panella@milwcnty.com*