

## Butler County Sheriff's Office

**Richard K. Jones**  
Sheriff

**Anthony E. Dwyer**  
Chief Deputy



**Communications Division**  
1810 Princeton Road  
Hamilton, Ohio 45011  
(513) 785-1299  
brics.butlersheriff.org

**To:** All BRICS Radio System Users  
**From:** Capt. Matt Franke  
**Date:** Wednesday, July 16, 2014  
**Subject:** Radio System Upgrade

# BRICS

### Upgrading to 7.13

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In early September, BRICS and Motorola technicians will be upgrading the 800MHz trunked radio system that provides voice communications for all public safety agencies and many other agencies based in Butler County. This is part of a normal cycle during which the radio system infrastructure receives an upgrade every two years – this time from Motorola's version 7.11 to 7.13.

As with past upgrades, little changes for the end radio user between one version and the next – it's mostly behind the scenes, with modernized servers and updated software inside the radio tower infrastructure. It's about keeping the system current, and extending its useful life.

### State of Ohio's MARCS-IP

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The State of Ohio is in the process of constructing its next generation radio system and, in that process, has been partnering with local radio systems to build a comprehensive, interconnected "system of systems" that will improve the ability to talk across borders while saving taxpayer dollars. They're calling that system MARCS-IP and hope to have it completed in the spring. It will operate on the same Motorola P25 platform as the BRICS trunked radio system.

Some counties, lacking a radio system that adequately met their needs, have chosen to subscribe to MARCS. By purchasing radios and paying a monthly fee, they're able to use the radio system infrastructure the state already had in place in their area. For smaller counties with relatively few users, this can meet their needs.

Other counties, planning to replace an aging system, have opted to partner with the state by building additional towers attached to MARCS rather than a standalone system. Warren and Greene counties recently completed this type of project, and Montgomery and Clermont have projects underway. In some cases, the local county is retaining ownership of their infrastructure. In others, the improvements were funded at the local level and ownership was transferred to the state as a credit to offset subscription fees.

The benefit to these counties is that they have a local radio system providing the enhanced coverage and services their county requires, while their local system is

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actually just the branch of a larger tree. Should an incident in Greene County require first responders from Warren, they can switch to a talkgroup that allows roaming between the two areas.

These “system of systems” features should be pretty familiar to Butler County’s users. When the county went from eight public safety radio systems to one, we enjoyed the same ability on a smaller scale. Today, from police officers to transit buses, we each can operate on our own talkgroups as if we’re using our own, local radio system – but with the turn of the knob, everyone and anyone can be connected and work together.

### **Partnering with Butler County**

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We have been talking to MARCS about the “system of systems” concept for years, and discussions intensified as they began to build out their P25 platform. Since Butler County already operates the BRICS trunked radio system and does not require additional coverage and capacity, our situation is different than the counties that surround us. We don’t need a new radio system, or more towers.

Using our experiences in operating the BRICS system and the feedback from our user community, we formulated our needs and desires for interoperability with neighboring counties and state agencies into a list of objectives for such a partnership.

Discussions at the last three Advisory Board meetings yielded the criteria for a cost benefit analysis to proceed. We found that, in order to connect our two networks, several of our components needed to be replaced; the original Motorola estimate to do so was \$1.1 million. Through negotiation, we were able to reduce this cost significantly. Coupled with the annual savings we will enjoy as part of a larger system, we were able to recommend the integration to the Board of County Commissioners.

The Commissioners agreed and entered into a revised service contract with Motorola that will enable the Sheriff to link BRICS with MARCS-IP. We are now working on a Memorandum of Understanding with MARCS; the discussions have went well and, I believe, we have agreed to all major issues in principle.

Unlike the situation in some counties, the BRICS trunked radio system will not cease to exist, nor will the county turn over its infrastructure to the state. In most ways, it will be business as usual after the interconnection, except that we’ll have interoperability improvements with neighbors and state users.

The best time to link our radio systems will be during our scheduled upgrade in September, to consolidate the technical work effort behind the scenes. Depending on the type of radio user you are, you will likely be receiving more information from us as the upgrade and interconnection approaches.

### What does this mean for me?

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- 1. All radios will need to be reprogrammed before the upgrade.**  
Once reprogrammed, radio users will operate in temporary zones using talkgroups on our current system. Talkgroups on the new, interconnected "system of systems" will be added to radio templates so that users can switch to them on the appropriate day. Radio programming staff from Mobilcomm or BRICS will contact your agency to schedule this work.
- 2. There will be no changes to fees or billing.**  
Costs for maintenance or the use of the radio system aren't changing, and Butler County users won't be paying MARCS subscription fees.
- 3. BRICS staff will continue to provide your radio support.**  
The BCSO Communications Division will continue to support BRICS systems, including the BRICS trunked radio system once it is connected to MARCS-IP.
- 4. In an emergency, your radio will be capable of working statewide.**  
Dedicated, roaming-enabled emergency talkgroups in your radio template will allow you to reach a dispatcher in Butler County from anywhere else in the state.

### Information for BRICS Users

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More information will be coming from us – before, during and after the upgrade and interconnection with MARCS-IP. You're encouraged to take a look at:

- 1. Our new website:** <http://brics.butlersheriff.org/>  
This site is replacing butlersheriff.org/radio with updated information and a focus on all the systems supported by the BCSO Communications Division.
- 2. BRICS support staff on social media:** Facebook and Twitter  
It's our intention to get information out to our user community in as many different ways as they consume it, and social media works for some. Less urgent information makes its way to Facebook, and Twitter will give us a method to share important service-related alerts that doesn't rely on our own systems.
  - [www.facebook.com/BRICSupport](http://www.facebook.com/BRICSupport)
  - [www.twitter.com/BRICSAlerts](http://www.twitter.com/BRICSAlerts)
- 3. Come to 800MHz Advisory Board meetings.** See the calendar online.

### Contact Us

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If you have questions, use one of the methods above, or:

[radiohelp@butlersheriff.org](mailto:radiohelp@butlersheriff.org) and (513) 785-1299