



# EXECUTIVE OFFICE OF TECHNOLOGY SERVICES & SECURITY

COMMONWEALTH OF MASSACHUSETTS | 1 ASHBURTON PLACE, 8TH FLOOR, BOSTON, MA 02108

## Guidance to CoMIRS Agencies and Radio Shops in Planning the Transition to CoMIRS+P25

The Commonwealth of Massachusetts, in coordination with its county, regional, and municipal partners, is well underway in its efforts to modernize the shared statewide radio system referred to as “CoMIRS” (Commonwealth of Massachusetts Interoperable Radio System). Over 245 different agencies use the current CoMIRS system for operable or interoperable communications. The modernization program is replacing the current end-of-life system with a modern and robust digital system, called “CoMIRS+P25”.

Throughout this year and next, the CoMIRS Modernization Team plans to complete the replacement of the current radio system and to coordinate transitioning to the new system. There are different requirements for radios planned to operate on the new system. It is important that you understand these requirements and, if needed, plan updates to your existing radios to meet these requirements.

### How to prepare for CoMIRS+P25

- 1 Upgrade your digital radios. Act now for out-of-support Motorola radios.
- 2 Plan to replace your analog only radios.
- 3 Program your radios for the new system.

**1 First, if you have existing digital capable radios, it is imperative you determine if your radios meet the new system’s requirements.** The new system will operate on a digital standard called P25 Phase 2 (or “TDMA”) and utilize Radio Authentication. Once the new system is available, your agency will need radios that work on P25 Phase 2 and have Radio Authentication to use the new CoMIRS+P25 system<sup>1</sup>. Your agency likely has digital radios in your current fleet of radios. These digital radios may need additional licenses to work on the new system.

In addition to the basic features that allow your existing radios to operate on the current CoMIRS system, any Motorola radio you plan to continue to use on the new system needs the following features:

- Project 25 Digital Trunking Systems (Phase 1 and Phase 2)
- Project 25 Data Services
- Project 25 Radio Authentication
- Project 25 AES 256-bit encryption with multikey and over-the-air rekeying (if planning to use encrypted talkgroups)

These features have been part of the recommended radio specification issued by the Massachusetts State Police for the past five years and have been grant requirements for most Commonwealth grant opportunities over the past

<sup>1</sup> P25 Phase 2 and P25 Radio Authentication will be used for CoMIRS+P25 radio tower sites / subsystems. Users on those radio tower sites / subsystems will need both features. Partner agencies with their own radio tower sites / subsystems that are core connected to CoMIRS+P25 may operate under P25 Phase 1 or P25 Phase 2 and may or may not require P25 Radio Authentication. Users operating solely on these partner radio tower sites / subsystems (and not roaming onto CoMIRS+P25 radio tower sites / subsystems) may not need P25 Phase 2 and P25 Radio Authentication features on their radios. The details of how radio tower sites / subsystems will integrate with CoMIRS+P25 and which features are required will be defined in the memorandum of agreement to be entered into by the owner of the partner radio tower sites / subsystems and the CoMIRS Program Management Office.

several years. Many radios purchased before 2020, though, do not have all the entitlements needed for the new system. It is important to determine whether your radios have these features.

Your radio shop or the Motorola sales representative should be able to help you determine which of your radios may need additional licenses. *Some older radios, though, can only be updated through our project.* Motorola Solutions has ended upgrades to several series of radios currently in use in the Commonwealth, including:

- APX 6000 AN Portable - Model # starts with H98 and ends with AN - Serial # starts with 481
- APX 7000 Portable - Model # starts with H97 - Serial # starts with 655
- APX 7500 Mobile - Model # starts with M30 - Serial # starts with 656
- APX 7500 Consolette - Model # starts with L30 - Serial # starts with 761

Additionally, Motorola factory support is ending September 30, 2025, for two other Motorola radio models. Any new features for radios of these models will need to be ordered prior to the end of September:

- APX 4500 Mobile - Model # starts with M22 and ends with AN - Serial # starts with 471
- APX 6500 Mobile - Model # starts with M25 and ends with AN - Serial # starts with 527

We have worked with Motorola Solutions to develop a process where radios can be “read into” a Motorola tool (called “Radio Management”) where a radio technician can identify what features are installed on the radio and what features may be needed. For the models no longer factory supported, those features need to be ordered this summer. *Otherwise, those radios may not work on the new system.*

Any upgrades to the models listed above need to be coordinated and ordered through the CoMIRS Modernization Project. Partner technical shops are already reading radios into the Radio Management tool, including MassDOT, DCR, Massachusetts State Police, Barnstable County Sheriff’s Office on behalf of agencies on the Cape, and others.

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## **2 If your agency still uses analog-only radios, those radios will need to be replaced.**

The current CoMIRS system in central and eastern Massachusetts operates on analog technology and many agencies still have older radios that only work on this standard. Dual-mode radios that operate on either analog or digital radio systems are capable of operating on the new system (with the right features), but analog-only radios will not work on CoMIRS+P25. There will be a transition period where both the old CoMIRS system and the new CoMIRS+P25 system will be operational concurrently, but the plan is to decommission the analog portions of the radio system.

The timeframe for how long the analog CoMIRS system will remain is not yet known, but it is important that any agencies with these old analog-only radios start to plan radio refreshes with new P25 digital radios. The timeframe for this transition from analog to digital radios will be driven by the final rollout of the new CoMIRS+P25 system. Please plan to replace or make do without these analog radios starting in 2027. Our project office will share additional information about P25-capable replacement radios as we get closer to the transition to the new digital system. Requirements for new radios can be found on mass.gov at <https://www.mass.gov/doc/comirs-radio-requirements/download>.

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## **3 Finally, your fleet of radios will need to be programmed for the new system.**

Whether a daily operable user or a periodic interoperable user of the new CoMIRS+P25 system, your radios will need to be provisioned on the new system and will need new keys and programming code plugs loaded. In addition, the tolerance for tuning on a P25 Phase 2 system is much less forgiving. Your radios will need to be properly tuned by a radio technician to make sure they work optimally on the new system.

**Who should I contact with questions?** If you have questions, your usual “go to” radio contact should be able to help. Most of the activities needed to get your radios ready for the new system will be done by the team that currently supports your radios. State police users and the agencies that work directly with an MSP dispatch center will coordinate through the MSP Communications Section. Many state agencies have their own radio shops, which will be responsible for much of the upgrades and programming needed for their agency’s transition. Public safety agencies in Barnstable and Franklin Counties can reach out to the Barnstable County Sheriff’s Office or the Franklin Regional Council of Governments, respectively, with questions. Some state agencies, sheriff’s offices, and interoperable agencies can reach out to their typical Motorola-certified radio shop. As always, you can reach out to our team at [comirs@mass.gov](mailto:comirs@mass.gov).



MSP Communications Section

**MSP-led Upgrades**

- MA State Police
- New Braintree Dispatch agencies
- Hampshire Hills public safety



BCSO and FRCOG

**Regional Support Upgrades**

- Barnstable County public safety
- Franklin County public safety



Agency Communications Shops

**Agency Self-Service Upgrades**

- MA Dept of Conservation & Recreation
- MA Dept of Correction
- MA Dept of Fire Services
- MA Emergency Management Agency
- MA Environmental Police
- MA Dept of Transportation



Motorola Radio Shops

**Motorola Radio Shop Upgrades**

- MA Parole
- MWRA
- Interoperable agencies
- Sheriff’s Offices

Not sure? Feel free to contact the CoMIRS Program Management Office at [comirs@mass.gov](mailto:comirs@mass.gov).

**What are my next steps?** Here are checklists for CoMIRS agencies and for radio shops to get started on the activities needed to ready agency radios for the new digital system.

**Agency User Checklist**

- Make sure your radios are scheduled to be read into Radio Management by your radio shop; make sure radios are available if a technician visits
- Upgrade any APX 6000 AN, APX 7000, or APX 7500 models this summer – *this is the last chance for these radios, if you want them to work on the new system*
- If needed, plan to replace your analog-only radios by 2027
- Communicate any proposed changes to your current talkgroups to CoMIRS (email [comirs@mass.gov](mailto:comirs@mass.gov))

**Radio Shop Checklist**

- Contact MSP Communications Section or CoMIRS PMO with any questions about the transition to CoMIRS+P25
- Read radios for your supported agencies into the CoMIRS instance of Radio Management
  - Complete reading of APX 6000 AN, APX 7000, or APX 7500 models by this July
  - Keep track of what agency radios still need to be read and share your status with the CoMIRS PMO
- Coordinate with MSP Communications Section on changes to codeplugs and getting updated codeplugs
- If needed, obtain any needed tools (Key Variable Loaders, laptops, cables, service monitors, etc.) for the later programming of radios for the new system