

# South Dakota Public Safety Communications Council

## Important Notification

### Purpose:

This bulletin is to provide formal notification to the users of the South Dakota Statewide Radio System of timelines associated with the system upgrade and actions that will need to be taken by agencies with radios operating on the system for their equipment to remain functional.

### System:

The public safety radio system currently in use in South Dakota was installed from 2001-2003. As with all technology, this system has a technical shelf-life and will need to be upgraded prior to 2025 when all support for the system will be discontinued. The next step for our system and users will be to the Project 25, or P25 standard which will be a new operating system for both the system and radios. Significant planning and infrastructure upgrades have been ongoing, with investments of around \$13m over the past five years to prepare the system for this transition. The next step is to ensure that all radios are capable of operating on the new system, which will involve upgrades and replacements.

### Timeline:

2017-July 1, 2023: All radios operating on the statewide system will need to be equipped with the P25 Software and programmed with both the legacy and P25 profiles.

December 31, 2017: It is our goal to have any updated programming templates available.

July 2023: Begin system conversion regionally. Users will move to the P25 profile in their radios.

### Agency Responsibility:

As in the past, agencies are responsible for their radios; the state will maintain the network. Agencies should begin now to (1) identify what radios you have, (2) work with your regular radio service shop to determine if your radio is equipped with the P25 option, and (3) determine internally a path ahead for your radios, be that upgrade or replacement.

Below is a listing of most of the radios compatible with our legacy system and pertinent information. Please coordinate with your radio service provider for information on your radios:

Brand	Series	Sales To:	Repair To:	P25?	Notes:
EF Johnson	5100/5300	discontinued	discontinued	Capable	Original series radios, replace.
EF Johnson	5300ES	3/15/2017	10/1/2022	Capable	Agency decision to update/replace.
EF Johnson	Viking	Current line	10+ years	Capable	P25 capable by default.
Kenwood	Viking	Current line	10+ years	Capable	P25 capable by default.
Motorola	Spectra	discontinued	discontinued	Not capable	Replace
Motorola	XTL/XTS 2500	discontinued	12/31/2019	Capable	Upgrade only light-use radios.
Motorola	XTL/XTS 5000	discontinued	12/31/2018	Capable	Upgrade only light-use radios.
Motorola	APX	Current line	10+ years	Capable	If not P25, add software to radio.
<p><b>Note: XTL/XTS upgrades (appx. \$600) will only be available until 12/31/2017. After that date XTL/XTS radios not upgraded will need to be replaced prior to 7/31/2023. For all compatible equipment pricing: <a href="http://boa.sd.gov/divisions/procurement/contracts/contracts_n_to_r.aspx">http://boa.sd.gov/divisions/procurement/contracts/contracts_n_to_r.aspx</a> or contact your local radio service dealer</b></p>					

## Funding Options for Communications Systems

### Other Approaches to Radio System Funding

#### Bonding:

- State of Minnesota funded radio system using state-issued 911 Revenue Bonds to primarily fund the CAPEX of their ARMER statewide radio system. Other states such as Florida, South Carolina, and Illinois have used bonding to finance primarily the CAPEX, but also in some cases the OPEX.

#### User Fees:

- The most common source of funding for statewide radio systems. Fee's run a graduated range by location and use level from \$10 to \$65/month. Some states are using system diagnostic and tracking systems such as Genesis to establish an annual usage average to adjust billing. This approach is typically implemented at system build out

#### Surcharges:

- Minnesota and Pennsylvania utilize 911 surcharge fee's to service their bond obligation and/or provide funding directly for operations. Surcharges usually are set by state statute, but Pennsylvania is currently up to \$1.65/device.

#### Administrative Fees:

- Florida uses a \$3 fee on all vehicle registration and traffic fines under state statute to pay for their statewide system.
- Booking fees for those arrested are being considered as a potential for revenue in some states.

#### Lease to Own:

- Used in South Dakota to upgrade core and site RF equipment between 2012 and 2014.

#### Leasing Infrastructure:

- Missouri is leasing dark fiber to help pay for their communications system.

#### Infrastructure Investment

State/Local/Tribal/Federal investment to date is ~ \$45-\$50M. Number does not include access to towers and sites/buildings provided by non-state entities or the costs associated with connecting PSAP's to the network, either directly or through control radios.

#### Initial Local Radio Investment by State

The state provided over 6,000 radios at the outset to local agencies at ~ \$13.6M

#### Initial State radio Investment by State

Mobiles, portables, and extenders for state units ~ \$6.9M

#### Motorola Radios purchased after 2003

~ 14,800 Motorola radios purchased from 2004 – today. Radios are tracked by serial number so as close as we can get. If averaged at \$3,000/radio would be ~ \$44.4M. Number does not include EF Johnson radios which are more difficult to correlate age to serial and model number.