State Radio System Upgrade
Frequently Asked Questions

After nearly 20 years of operation, the State Radio system requires an operating system update, much the same as a computer upgrade from Windows 7 to Windows 10. The upgrade (P25) will require changes to the network, as well as, to the radios operating on the network.

How do I get information about the P25 upgrade in South Dakota? Please go to **stateradio.sd.gov** for updates and information about the P25 upgrade in South Dakota.

Why does my agency/organization need to upgrade radios to P25? The current SmartZone system, which has been in use for 20 years, is now obsolete and will no longer be supported by Motorola as of December 2023. Current radio settings are not compatible with the new P25 system.

What is P25 radio? P25 Basics video
Project 25 (P25) is a national standard for interoperable land mobile radio (LMR) systems so emergency responders can exchange critical communications across agencies and jurisdictions. As a joint effort of APCO and the National Association of State Telecommunications Directors, Project 25 is a longstanding partnership between the public safety communications community, standard development organizations, and industry manufacturers. Each group's end goal is to satisfy the complex and evolving mission-critical communication needs of users for interoperable LMR equipment and systems. For more information, please visit **APCO International**

What are the benefits of the P25 system?
- Reliable performance to support public safety operations since 1989
- Interoperability between equipment from various manufacturers ensures competitive pricing
- Coverage/sound quality enhancement new standard in P25 voice codecs are improvement over SmartZone. Users in South Dakota have noted a sound quality difference when switching between SmartZone and P25 systems.
- Reduce bandwidth use, while maintaining audio quality and improving encryption (AES 256 encryption will be standard in South Dakota)
- Enhanced system security with Advanced System Keys

- Convergence with LTE and broadband technologies (Critical Connect, Smart Connect) for enhanced interoperability
- Ability to upgrade system in phases, avoiding significant downtime

How long will P25 radios work with the statewide system? The Funding and Future of P25 video

Because the standard is constantly evolving, the use of a software-defined radio technology and IP-based platform making it much easier to support multiple technologies and applications. In short, P25 will be the mission-critical communications standard for the foreseeable future.

Will my current radio work with both the older SmartZone system and P25?

That depends on make/model of radio. Although many newer radios will support both P25 and SmartZone, they will need to be programmed with both systems to operate after the transition. If they are capable and properly programmed on the day of the site conversion, you can simply switch from SmartZone to P25 operation in the radio without any downtime.

**How do I test my radios prior to the cutover?**

Once you have verified your radios will work with P25 and a radio vendor has properly programmed your radios, you will need to test them on an active P25 site. Radio vendor shops will assist your organization if needed.

How will I know when my tower site will be converted?

You can refer to the timeline buildout on the **stateradio.sd.gov** website for the scheduled conversion date. During the cutover event itself, local dispatches will be involved in communication with users in the field.

Can I talk to other users on the system if their tower site has been upgraded and my location hasn't yet?

Yes, you can communicate with users that are operational on newly upgraded sites even if tower you are using hasn't been upgraded. The only determining factor for communications is, if the tower site you are communicating through has been upgraded, then the radio must be upgraded and switched over to P25. Dispatch upgrades will have no effect on users in the field. See below diagram.
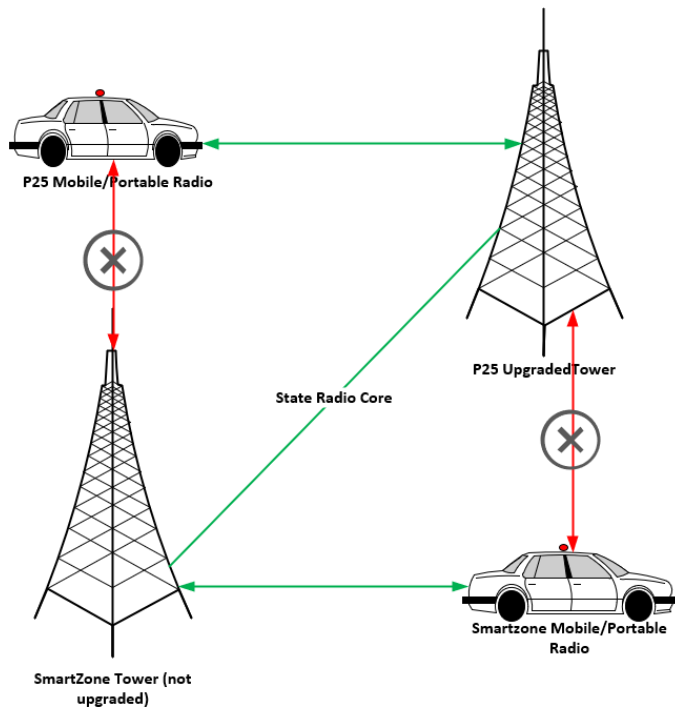
How many sites are active on P25 today? Currently there are the test sites in Pierre, Edgemont, Hot Springs, Pennington County Simulcast system, and Rapid City simulcast system.

What is the difference between a tower site and a simulcast system? A tower site is a stand-alone site that covers a geographical area intended for mobile coverage. A simulcast system is a group of towers synchronized to expand coverage over a larger geographic area, especially where frequency availability and terrain or buildings create coverage challenges.

What radio vendors for South Dakota that can assist me?
This may not be a complete list of vendors. These are vendors that have the programming specs. This should not be considered a vendor endorsement by the State of South Dakota.

Vendor	Website	Phone Number
B & L Communications		(605) 337-3377
Dakota Electronics		(605) 225-1672
MINN-KOTA Communications	http://www.minn-kota.net/	(701) 642-9229
Rushmore Communications	https://rushmore.coop/communications	(605) 348-4940
Tri-State Communications	https://www.tri-statecomm.com/	(402) 494-5477
Two Way Solutions, Inc.	https://www.twowaysolutionsinc.com/	Sioux Falls location (605) 334-9816
		Watertown location (605) 878-0303
Vantek Communications	https://vantek.org/	(605) 332-4144
Western Communications	https://www.wescomm.com/	(605) 342-7885

Can a P25 radio system be monitored with a scanner?
The P25 VHF Digital Trunked radio system can be monitored by any scanner that is APCO P25 Phase 2 capable scanner.

How do I submit a request for support or an Incident for State Radio Communications? The BIT Service Desk portal is now available to contact BIT/State Radio at https://servicedesk.sd.gov. From this portal, you can report issues to BIT/State Radio by way of Incidents, search our Knowledgebase, make a request for new or modify existing services through our Service Catalog, and interact with BIT employees on incidents and requests directly.

Visit the BIT Service Desk portal at https://servicedesk.sd.gov, and click the following depending if you are a state user/agency or a non-state user/agency. If you are a state user/agency, simply click the "State Employee Login" button. For non-state users please proceed by following items 1-6 below.
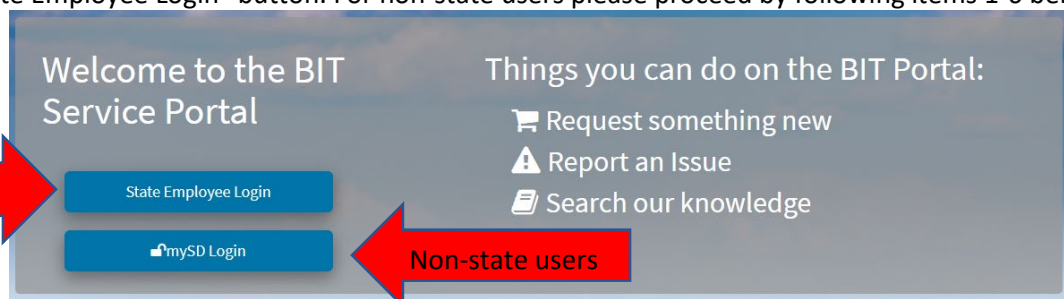
1. If a Login Help screen appears, close it.
2. Enter the email address you want to use for the mySD Login and click **Continue**. On the bottom right section of the window, click the **Sign up now** link.
3. Click the **Send verification code** button.
4. Go to your email and check for a message from 'donotreply@state.sd.us'.
5. Copy the code you received in your email, enter it on the mySD page, and click 'Verify code.'
6. Complete the information on the screens that follow.

To request services from BIT/State Radio, you can then search requests for what you are looking for by using key words such as "radio". If you cannot find the specific request you are searching for, then you can submit a "General Service Request". Or you can submit an "Incident" to report issues for an unplanned interruption or reduction in quality of service provided by BIT/State Radio. After opening an Incident or Request, emails with updates on progress will come from BIT Service Desk BITServiceDesk@state.sd.us. To interact with BIT/State Radio on our request or incident, you can open the link in the email to interact via the Service Desk portal or reply to the email. Replies to BIT Service Desk emails with the Ref: number at the bottom of the message are automatically inputted and associated with the Incident or Request you are referencing.

The BIT Service Desk is still available by phone at (605) 773-HELP. If you have a mySD login when you call, our Service Desk can associate the Incident or Request with you so you receive updates via email and can interact with BIT via the Service Desk portal.

Additional Questions? Please contact Trent Nincehelser at 605-773-3860 – Trent.Nincehelser@state.sd.us, or Todd Dravland (SWIC) at 605-773-4635 – todd.dravland@state.sd.us