

Data modem tethering

Summary

This feature allows your APX radios to offload data to a cellular or public safety broadband network.

Details

Your P25 system is designed to keep you safe and in control. Voice calls and mission-critical data (such as GPS) are always prioritized.

That means ordinary data transmissions are not prioritized. When you need to push an update to your radios – such as a new codeplug or encryption keys – you may have to wait, especially if the network is busy.

But this feature allows you to speed up those transmissions, by “tethering” your radios to a vehicle-mounted LTE modem. You can now route noncritical data over a mobile broadband network, improving speed and responsiveness.

Portable radios are connected over Wi-Fi; mobile radios can be connected over Wi-Fi or using a USB cable or ethernet, depending on your radio model*.

Customer benefits

Non-critical data such as radio updates can be delivered more quickly.

Dependencies

- Portable radios must be Wi-Fi capable: APX 8000, APX 8000XE, or Enhanced (“BN”) models of APX 6000, APX 6000XE and SRX2200.
- Mobile radios can be connected over Wi-Fi or using a wired option connection (like i.e. USB).
- Make sure your radios firmware are as follows:
 - For Semtech (Sierra Wireless) XR Routers: APX Software release 2024.1 or later
 - For Ericsson Cradlepoint Routers: APX Software release 2025.1 or later

*depending on the LTE router, satellite connections may be available as an option (the radio can display a “sat” icon to let know the user the connection is going thru Satellite)



Radios Compatibility

Portable radios:

- APX™ NEXT series via Wi-Fi or LTE
- APX 8000 series via Wi-Fi
- APX N70 via Wi-Fi or LTE
- APX N50 via Wi-Fi
- APX N30 via Wi-Fi
- APX 6000 enhanced series (BN) via Wi-Fi
- APX SRX2200 enhanced series (BN) via Wi-Fi

Mobile radios:

- APX 8500 via Wi-Fi or Data Modem Tethering
- APX 6500 enhanced series (BN/CN) via Wi-Fi or Data Modem Tethering

Consolettes:

- APX All-Band Consolette

LTE routers verified:

- Semtech (Sierra Wireless) Routers: GX Series, Airlink MP70, MG90, XR80, XR90
- Ericsson Cradlepoint Routers: IBR1700, R1900, R980

Notes: For details related to router models technical specs please visit the respective vendors' website. Depending on the LTE router selected, satellite connections may be available and supported.

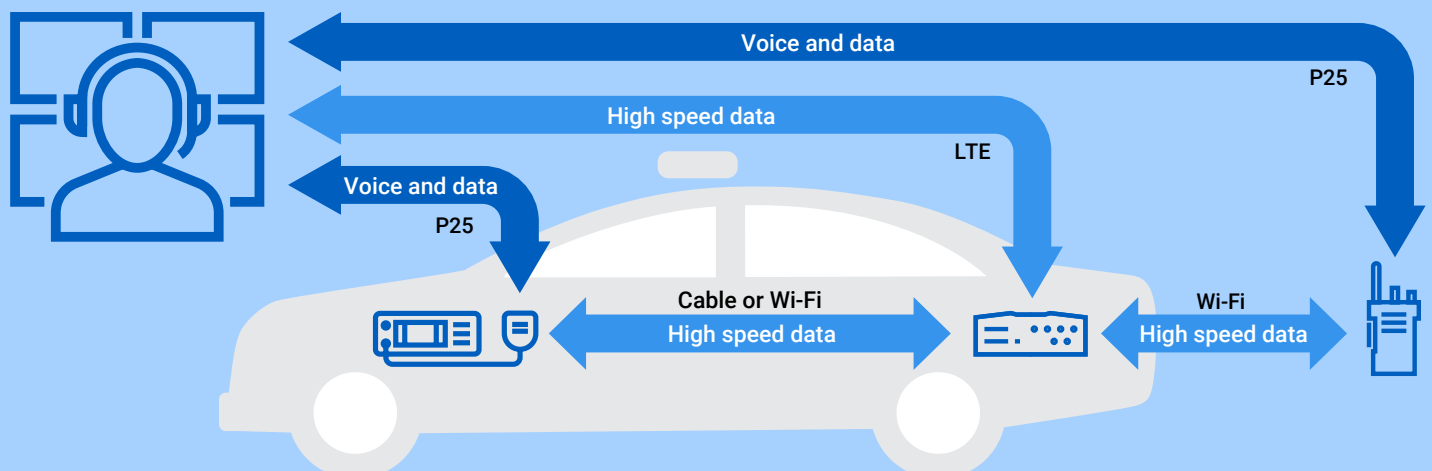
Satellite modems verified:

- Cobham 325

Connections Supported:

- USB
- Ethernet
(via Ethernet faceplate, or USB-to-Ethernet Hub box)
- WiFi

Note: Refer to the Data Modem Tethering User Guide for more details on the type of connections supported by each of the APX radio compatible models.



Why data modem tethering?

P25 systems are designed for reliability, especially in critical situations. While useful in everyday operations, their ability to prioritize voice communication becomes crucial during emergencies like natural disasters. During disasters, data demands often strain bandwidth. Data Modem Tethering strengthens P25 by providing a secondary LTE network, ensuring essential voice calls remain clear and uninterrupted.

Radio Configuration Programming Updates

As part of our APX Device Management Services, we offer Radio Management and Radio Central Programming Services. Whether you're adding a new talkgroup to your system, or upgrading all radios to the latest firmware release, we can handle the experience for you. The Radio Management (RM) and/or the Radio Central (RC) process, is greatly enhanced when you have a broadband connection to your radio fleet. Where once you had to wait for radios to be within range of static Wi-Fi hotspots, you can now use Data Modem Tethering to connect every radio that's close to any of your vehicles.

Over the air rekeying

Security is important to you, so you change your encryption keys regularly. You're using the recommended encryption scheme AES 256 and Over The Air Rekeying (OTAR). Sometimes it takes several days to complete an update. That may not be good enough in a high-threat environment. Data Modem Tethering allows you to route that traffic over LTE and Wi-Fi. You can do a complete system rekeying in less than an hour, and your security is never in doubt.

Location Data

Keeping track of radio users at all times is the safeline that can keep everybody accounted for and safe. Whether location data is being pulled by an API or being integrated by Motorola IMW (Intelligent Middleware), Data Modem Tethering enables location data to be retrieved for improved situational awareness.

Text messaging

When you are sharing sensitive or detailed information or there is a need for silent communication between individuals or entire teams, a text message is a useful tool. However when your system is busy, voice is prioritized and texts can be delayed. Data Modem Tethering allows you to bypass the busy P25 system, so your messages are passed quickly and efficiently.

To learn more, visit:
www.motorolasolutions.com



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