



APX NEXT

SMARTCONNECT

February 2021



MOTOROLA SOLUTIONS

SMARTCONNECT

Takes your voice beyond the boundaries of your radio system

SmartConnect automatically switches you to broadband as soon as your radio signal fades



MOBILE ACCESS TO INTELLIGENCE





SOLUTION DESCRIPTION

- Whenever the P25 signal drops below a pre-programmed RSSI threshold, the radio switches voice calls to the broadband network.
- P25 voice packets are tunneled over the broadband bearer to a cloud-based gateway.
- The gateway connects to the P25 master site to interface calls back into the P25 system.

**SEAMLESS CONNECTIVITY
AUTOMATIC SWITCHING
EFFORTLESS MANAGEMENT**

DEVICE COMPATIBILITY



APX NEXT

LTE NETWORK



APX 8000 SERIES PORTABLES
APX 6000 SERIES PORTABLES*

WIFI NETWORK

WIFI CONNECTION TO EXTERNAL
MODEM (LTE OR SATELLITE)

P25 TRUNKED SYSTEMS



APX 8500 MOBILE
APX 6500 MOBILE*

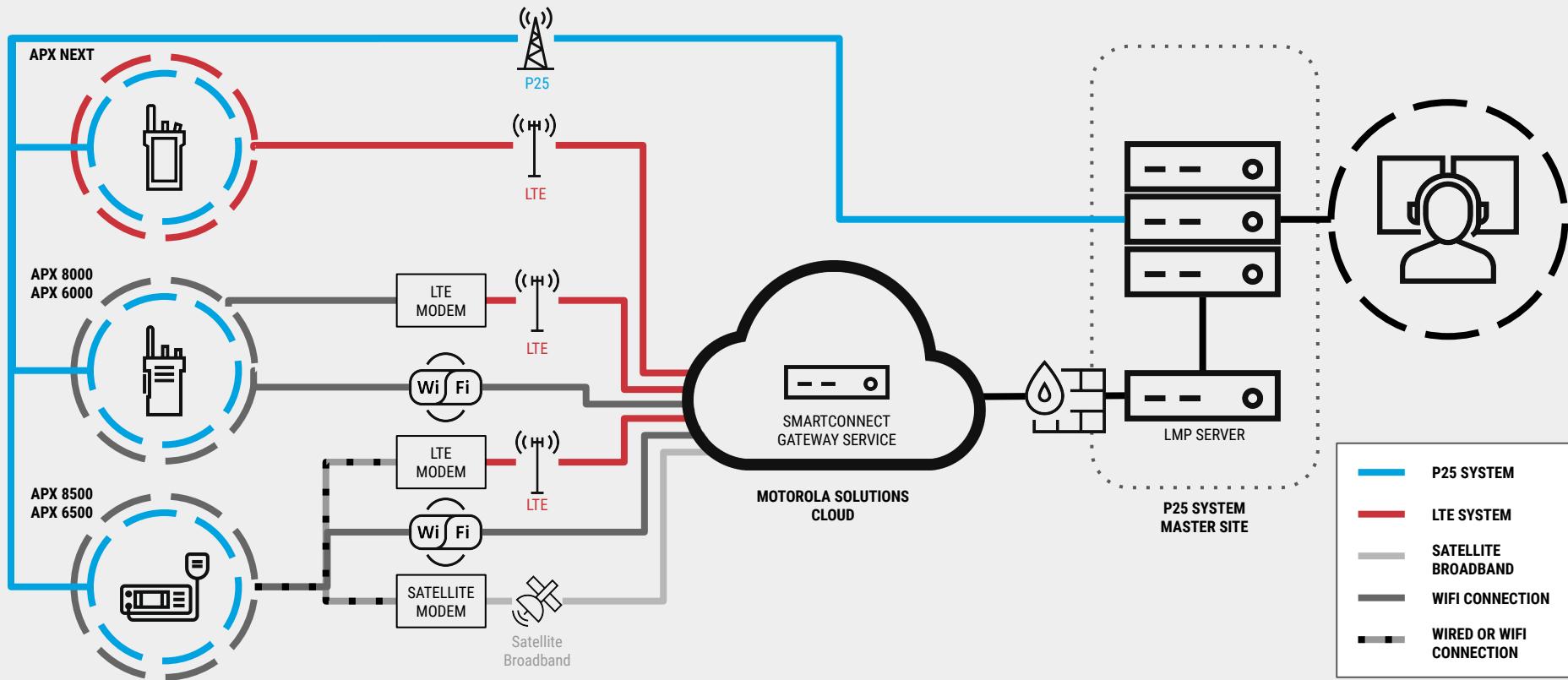
WIFI NETWORK

WIRED CONNECTION TO IN-VEHICLE
SIERRA WIRELESS LTE ROUTER

WIFI CONNECTION TO IN-VEHICLE
MODEM (LTE OR SATELLITE)

*Must be Enhanced "BN" (WiFi-enabled
models)

SMARTCONNECT SOLUTION ARCHITECTURE



USE CASES



Use WiFi to improve your indoor radio coverage in schools, hospitals, courts, police stations, airports, subways...

Use LTE to extend your first responders' connectivity beyond your radio system - nationwide

Tether your mobile radio to a satellite modem, for coverage in extremely inaccessible areas

FEATURES SUPPORTED

- Agency Talkgroups
- Call Alert
- Dynamic Regrouping (Reprogramming Request)
- Emergency Call and Alarm
- FDMA/TDMA to/from LMR Systems
- Group Call (Clear/Encrypted)
- Group Regrouping
- Multigroup
- Priority Monitor Scan
- PTT ID
- Radio Authentication
- Radio Check
- Radio Inhibit/Uninhibit
- Multi-System Scan
- Radio Interrupt/Console Takeover
- Status Update
- ViQi Virtual Partner

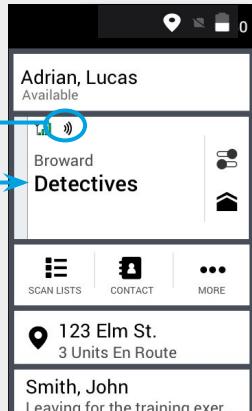


User Experience

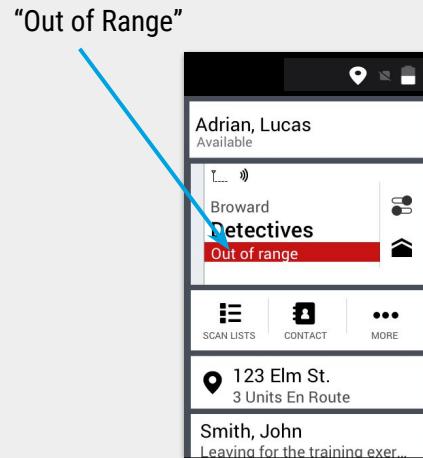


Talkgroup is SmartConnect Capable

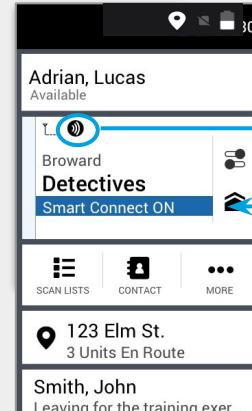
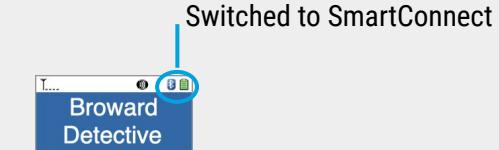
Current talk group



LMR Available



LMR and LTE Unavailable



LMR Unavailable and LTE Active

PTT talk permit tone is slightly different when on SmartConnect

Configuration

- Setup required in Command Central Admin
- Setup required in Radio Central
- Refer to details in [APX NEXT Customer Training Deck Master Application Services](#)



Configuration Radio Central

- Ensure the LTE Operation field is set to "Yes" in the Data Wide section (it should be set by default).
- Select Data Profile, and create a new data profile which will be used to connect to the Cloud Gateway.
- Under Trunking Personality, select or create a personality which points to the Trunking System from the previous step, and set the following info:
 - Features -> SmartConnect Operation: set it to either:
 - LMR Only (default)
 - LMR Preferred (radio will SmartConnect only if LMR quality deteriorates).
 - Under Zone Channel Assignment, use an existing Zone or create a new one with the appropriate personality previously created, and talkgroups.
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-





SYSTEM DEPENDENCIES

REQUIREMENTS

- ASTRO® 25 trunked system, release 7.17 or later.

INFRASTRUCTURE IMPACT

- Core expansion including LMR Multicast Proxy Server (LMP), firewall and internet access must be installed.

SECURITY

- Voice information is sent over the broadband network as P25 packets, complete with end-to-end encryption.
- Control signals between the radio and gateway are encrypted using TLS.

DELIVERY

- SmartConnect is purchased as an application service and is charged per radio per year.



FAQs

GATEWAY CAPACITY

- 200 simultaneous calls
- 2200 simultaneous voice streams
- 7000 broadband-connected radios

LMR-LTE and LTE-LMR SWITCHOVER

- Automatic. Cannot be manually triggered.

USER INTERFACE

- When the radio switches to LTE, a new icon will appear on the screen, and the talk permit tone will change slightly. Voice quality will not change.

LOCATION ON PTT

- Location on PTT is not supported while the radio is operating on LTE with SmartConnect. It is supported with SmartLocate.

CONNECTIVITY

- APX NEXT cannot currently use WiFi for SmartConnect.
- SmartConnect requires a trunked P25 system.



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