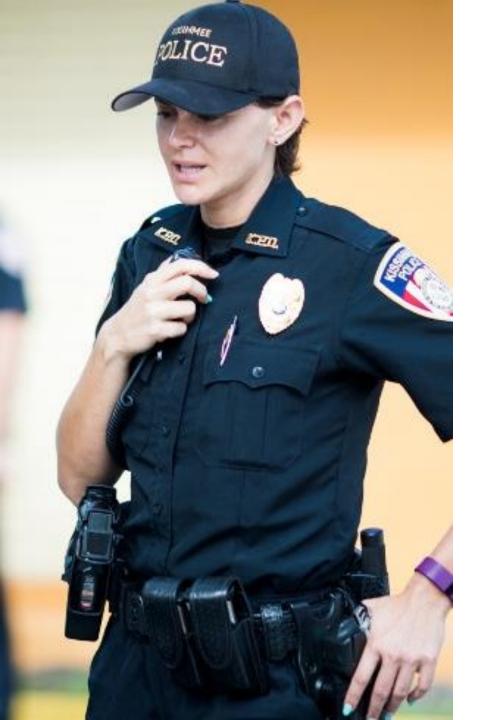




"During emergencies, reliable communications are critical. Disasters, such as 2017's hurricanes, continue to test the nation's emergency communications capabilities. As disasters can cross jurisdictional boundaries, collaboration within and across regions is very important."

April 2018 GAO Report, EMERGENCY COMMUNICATIONS, Increased Regional Collaboration Could Enhance Capabilities





THE PUSH-TO-TALK VOID

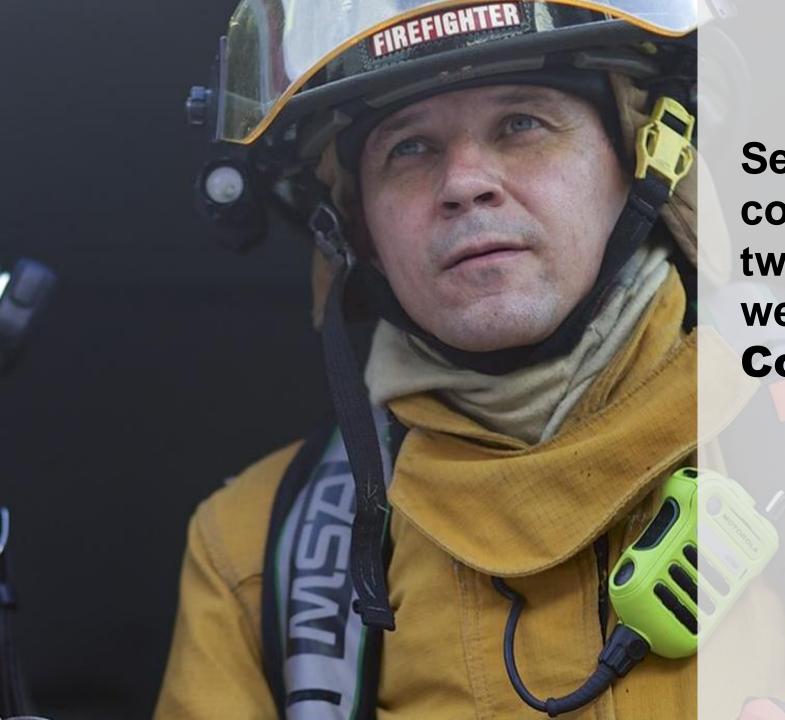
Public Safety Needs

Interoperable PTT communications to coordinate multi-agency responses during large-scale events

Current Interoperability Solutions Fall Short

- Long time to setup/provision
- Separate interfaces required for each connection, and cannot adjust quickly as needed





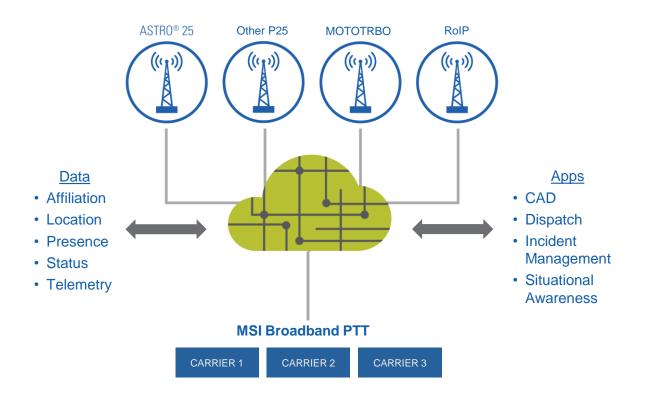
Setup interoperable communications in two clicks not two weeks with Critical Connect



CRITICAL CONNECT

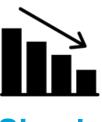
Interoperability Readily Available, Easily Reachable

Providing seamless exchange of information, voice, data, video, between disparate networks, agencies and applications.









Simple

One secure interface to connect with multiple agencies and/or locations



Flexible

Quickly setup & teardown connections as required



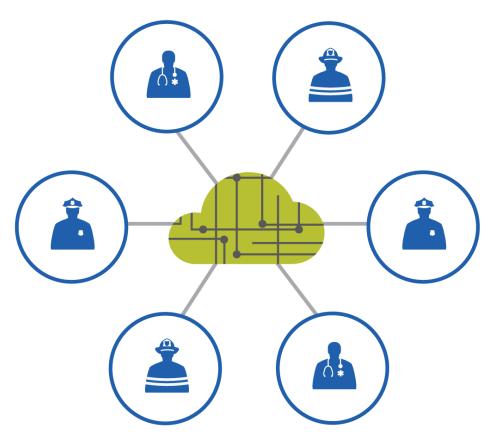
Scalable

Easily grow from a few to a large number of talkpaths and unique connections



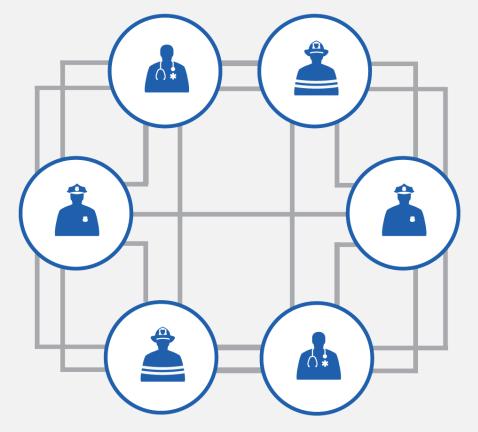
SIX AGENCY EXAMPLE: ONE-FIFTH THE LINKS

Critical Connect



versus

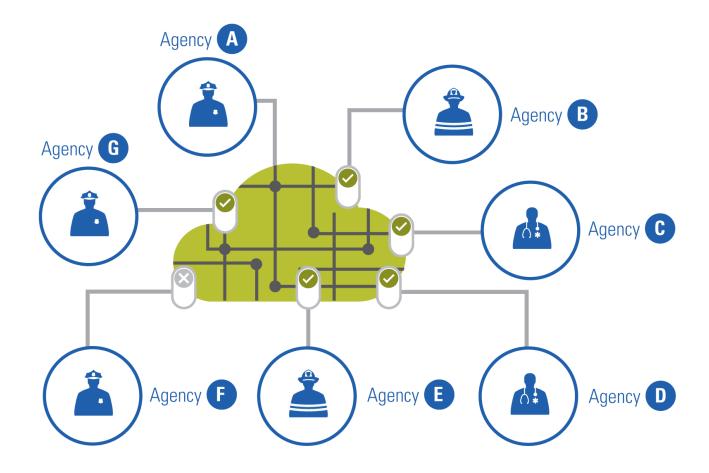
Legacy





SIX AGENCY EXAMPLE: FIVE-TIMES THE FLEXIBILITY

Connect With Whom You Want, When You Want







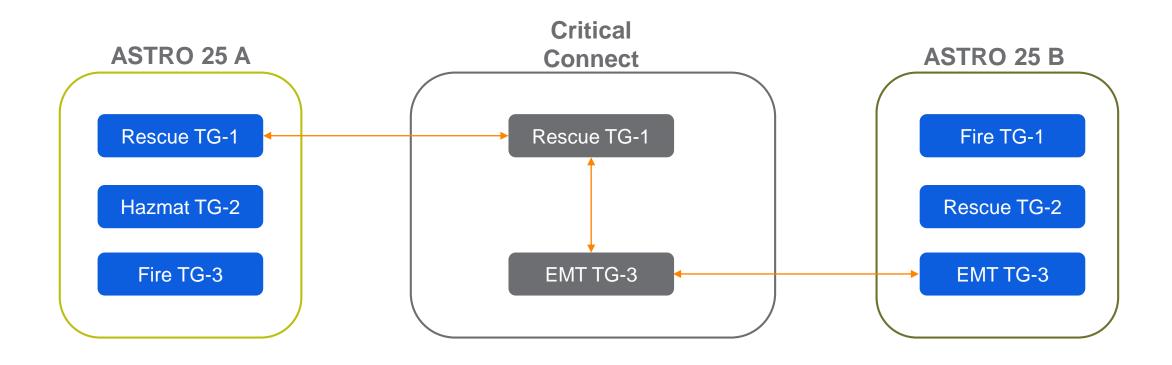
UNMATCHED SCALABILITY

Move From One Level To The Next As Needs Grow

- Single interface opens a directory of local, state, federal agencies, and carriers for interoperable PTT communications
- Monthly subscription makes it possible to purchase level of service needed at that moment
- Quickly add or reduce connections/talkpaths as requirements change



EXAMPLE - LMR TO LMR TALKGROUP LINKING





ASTRO 25 A users on "Rescue TG-1" can now talk to ASTRO 25 B users on "EMT TG-3"



ISSI 8000 VERSUS CRITICAL CONNECT

Feature	ISSI 8000	Critical Connect
Talkgroup Call	YES	YES
Emergency Call	YES	YES
Encrypted Voice	YES	YES
P25 Phase 1 Vocoder	YES	YES
Manual Inter-WACN Roaming	YES	YES
Manual Inter-system Roaming	YES	YES
Automatic Inter-WACN Roaming	YES	YES
Automatic Inter-system Roaming	YES	YES
RFSS Service Capability Polling	YES	YES
Transport of PTT-ID	YES	YES
Priority Call	YES	Roadmap
Emergency Alarm	YES	YES
Group Emergency Alarm	YES	YES
Busy Processing (Busy Queuing and Callback)	YES	Roadmap
Subscriber Unit Registration	YES	YES



ISSI 8000 VERSUS CRITICAL CONNECT (CONTINUED)

Feature	ISSI 8000	Critical Connect
Transport of Authentication Credential	YES	YES
Secure Subscriber Unit Registration	YES	YES
Subscriber Unit Deregistration	YES	YES
Group (Affiliation) Registration	YES	YES
Call Restriction	YES	Roadmap
P25 Data	YES	YES
Radio Inhibit/Uninhibit	YES	YES
Emergency Preemption (Ruthless Preemption)	YES	Roadmap





THE CHALLENGE

Emergency Medical Service requires assistance from ambulance services in nearby communities to transport casualties from an explosion.

THE SOLUTION

Critical Connect provides interoperable PTT communications between ASTRO® 25 networks used by responding agencies.

THE OUTCOME

Seamless communication for a coordinated and effective response.





THE CHALLENGE

Local and Federal law enforcement agencies conduct simultaneous raids on drug trafficking operation spanning several states.

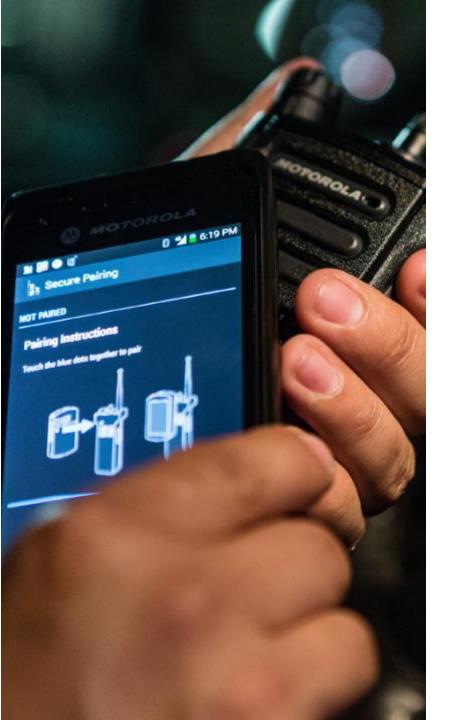
THE SOLUTION

With Critical Connect, each agency uses own ASTRO® 25 network for seamless communication with their officers and with agencies operating in other states.

THE OUTCOME

Frontline officers and command staff communicate in real time, enhancing situational awareness.





WHAT'S INCLUDED

- Installation
- Basic PTT voice
- Interoperability with ASTRO 25 LMR systems and/or MSI broadband PTT
- Configuration support
- Management support
- Ongoing support

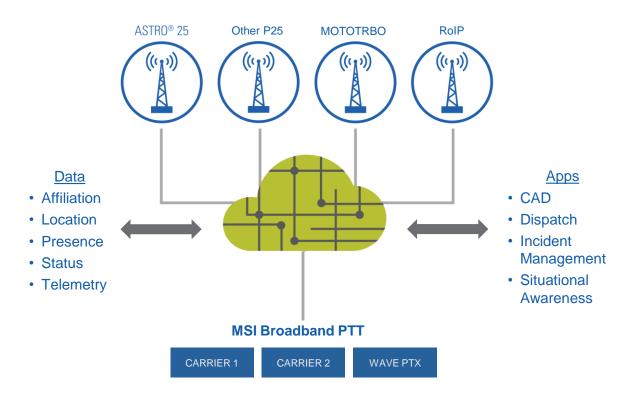




CRITICAL CONNECT

With Carrier-independent Broadband PTT

Special WAVE PTX offer tailored to meet the mission essential communication needs of Critical Connect customers.





WAVE PTX MOBILE APPLICATION

SINGLE APP. MULTIPLE MEDIA.





Location Services

- Photo and Video Sharing
- Real-Time Presence
- Voice Message Fallback

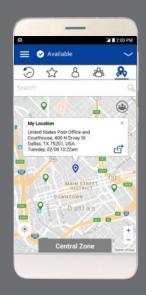














WAVE PTX WITH CRITICAL CONNECT

Tailored for mission essential communication

- Provides Critical Connect customers with a carrierindependent option for broadband PTT
- Delivers interoperable push-to-talk communications across any network, device, or location
- MCPTT-based features that enhance safety, situational awareness, and operational efficiency
- Keeping State and Local Government and other mission essential communication users connected, informed and safe



WAVE PTX SAFEGUARD PACKAGE

MCPTT-based Features Required for Access to Critical Connect

Emergency Calling & Alerting

Users press a hard or soft dedicated button to initiate an emergency call with the highest priority and preemption.

Ambient Listening

Makes it possible for dispatchers or supervisors to check on the well-being of users by remotely opening the device's microphone.

User Enable/Disable

Supervisors can remotely enable or disable the PTT function on specific devices.

Remote User Check

Allows supervisors or dispatchers to monitor the health of a user's device, including battery level, signal strength, and location.

Discreet Listening

Monitors all PTT communications between targeted user and other PTT callers.

Location-Based Temporary Groups (Dispatcher-only)

Adds/removes members from a talkgroup as they enter or leave a defined geographic area

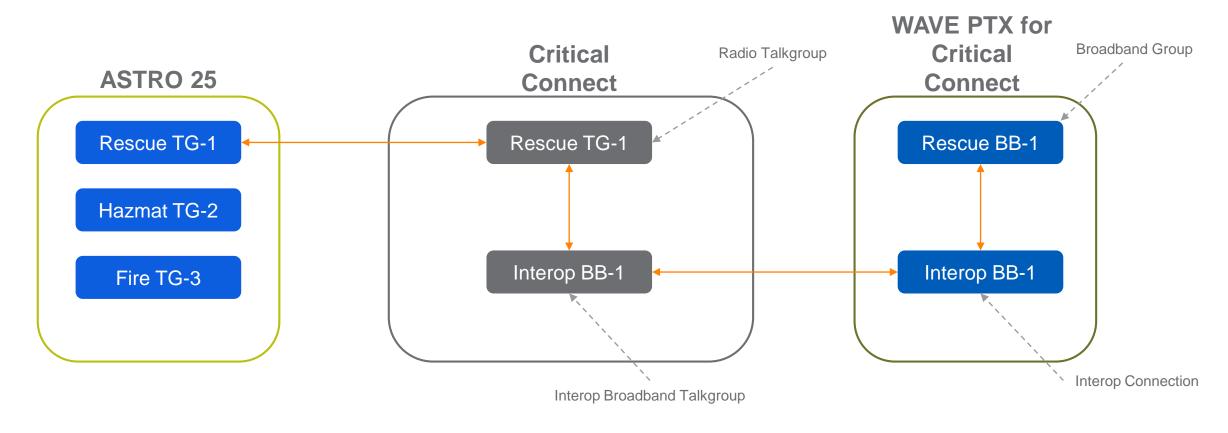


COMMERCIAL OFFERINGS AND CRITICAL CONNECT

• Carrier-independent **WAVE PTX for Critical** Sold by MSI and Its Dealers **Connect Customers** Supported by Critical Connect **Critical Communications** Carrier-integrated AT&T/FirstNet EPTT Sold by AT&T Advanced Supported by Critical Connect **Mission Support** MSI KODIAK Platform **Supports Critical Connect** Carrier-integrated Verizon PTT+ Group interoperability Sold by Verizon Command Supported by Critical Connect • Carrier-independent Sold by MSI and Its Dealers **WAVE PTX** • Interop with MOTOTRBO Collaboration Carrier-integrated AT&T/FirstNet EPTT Basic Sold by AT&T **Commercial Markets** Does not support Critical Verizon PTT+ Group Carrier-integrated Connect interoperability Sold by Verizon Advanced



EXAMPLE - LMR TO BROADBAND PTT TALKGROUP LINKING



END RESULT:

Rescue TG-1 Rescue BB-1

Radio users on "Rescue TG-1" can now talk to broadband PTT users on "Rescue BB-1"





THE CHALLENGE

Fire Chief traveling out of town when large storm causes major flooding back home.

THE SOLUTION

Critical Connect allows Chief to use smartphone and WAVE PTX broadband PTT to communicate directly with Battalion Chiefs and other frontline commanders using ASTRO® 25.

THE OUTCOME

Keep everyone coordinated -manage unit assignments and resident evacuations and rescues.



TAKING INTEROPERABLE COMMUNICATIONS TO A NEW LEVEL

Greater Choice

Faster Set Up

Seamless Exchange



