Critical Connect

Interoperability made easy.

MOTOROLA *SOLUTIONS*

The size and complexity of many incidents, whether natural or manmade, require a coordinated response by multiple agencies and organizations. Seamless, cross-jurisdictional voice, data and video communication is crucial for collaboration to protect life and property during events.

Legacy interoperability solutions can take significant time and effort to set up and provision, requiring you to dedicate a separate network interface for each system you want to connect to. As a result, they cannot adjust quickly as your interoperability needs change – but the growing size and complexity of incidents demand effective coordination. Being able to quickly set up and manage interoperable push-to-talk (PTT) communications between different networks and applications can significantly impact outcomes.

Critical Connect fills this void by providing cloud-based interoperability between land mobile radio (LMR) systems, broadband PTT and applications to eliminate barriers and unify communications. A single, secure network connection provides standards-based interoperability with internal groups and external organizations, reducing both the cost and complexity of interoperable PTT communications.

From a single interface, you can connect agencies and organizations in just a few clicks – regardless of the device or network they use – to enable the real-time exchange of voice, data and video, and improve collaboration.
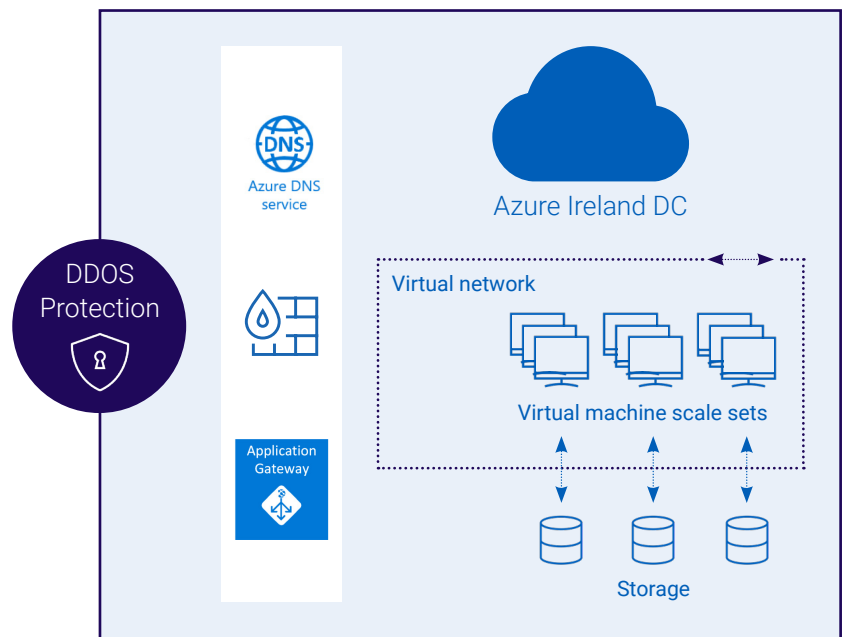
> " Emergency incidents can occur anywhere and do not respect jurisdictional borders. When this happens, responders from more than one agency have to respond and work together. Agencies set themselves up for failure and put lives at risk when interoperability is not carefully considered and built into the purchase and implementation of equipment and programs they utilize to communicate, both with the public and with other agencies.
>
> – Steve Lesse, What Does Interoperable Mean in the Real World?, APCO International.
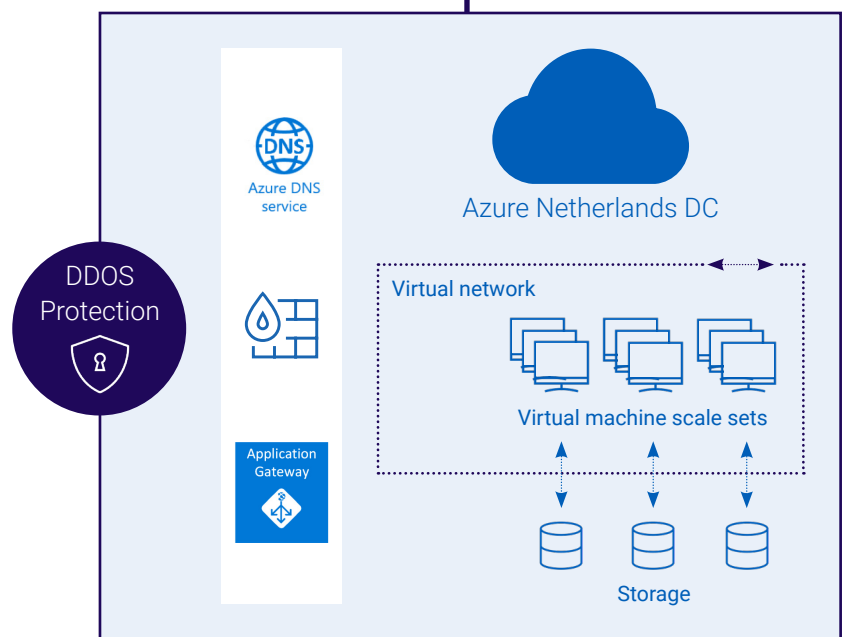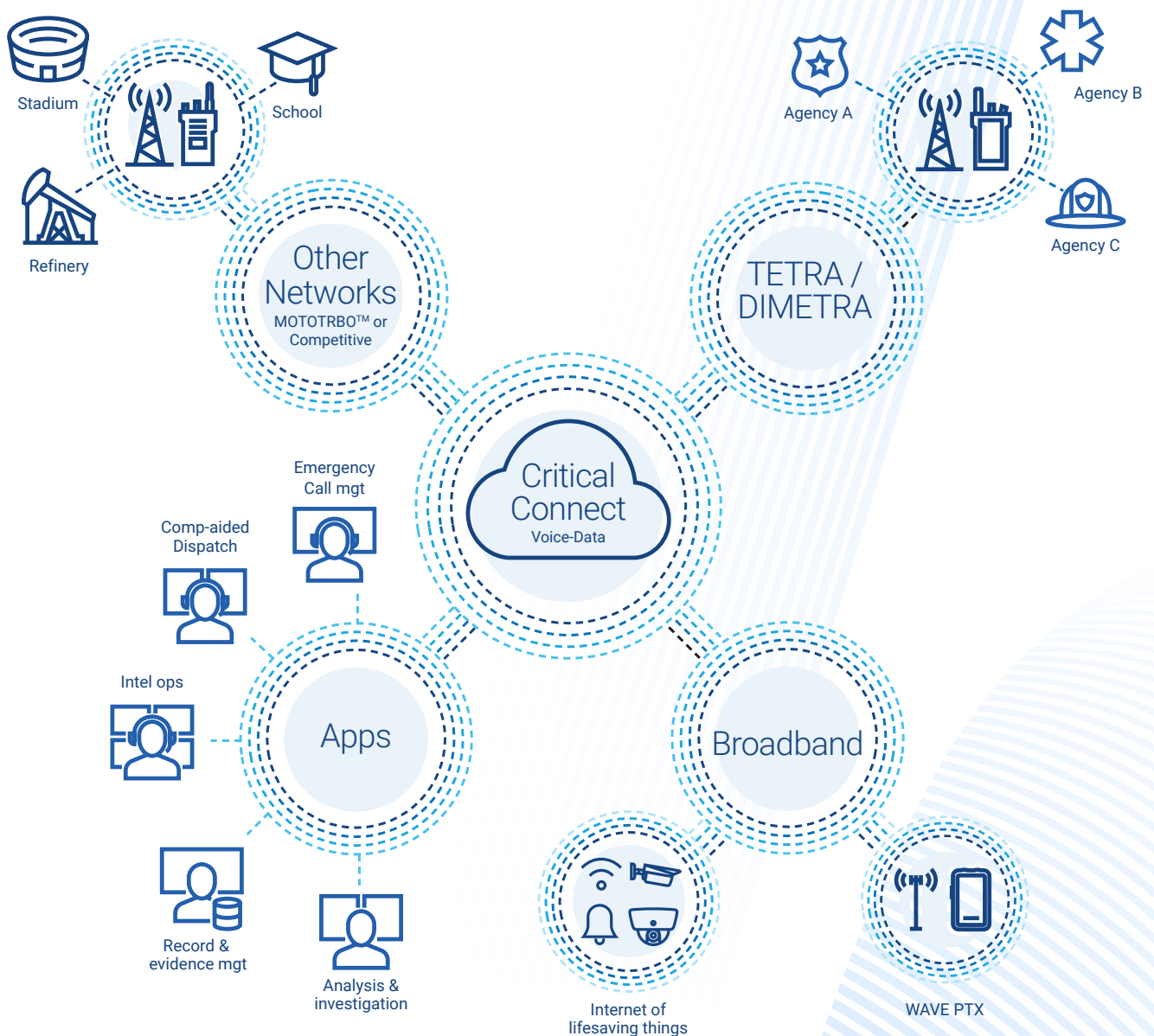
Hosted in Europe for localized operations

WAVE +
Critical Connect

DDOS
Protection

Azure DNS
service

Application
Gateway

Azure Ireland DC

Virtual network

Virtual machine scale sets

Storage

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Versatility that conquers unpredictability

You can't always predict which systems or devices you'll need to connect to enable coordination during a major event or natural disaster. Critical Connect bridges the gap between different networks, devices and applications, making it possible for TETRA/DIMETRA LMR and broadband PTT users to communicate when responding to complex incidents.

Using virtual connections, one physical link from your TETRA/DIMETRA network to Critical Connect provides interoperable communication with other TETRA/DIMETRA networks, WAVE PTX broadband PTT services, as well as MOTOTRBO networks and other LMR systems.

Taking interoperability beyond voice

Critical Connect takes interoperability to the next level by enabling data communication, making it possible for TETRA/DIMETRA LMR and broadband PTT users on different networks to share location and messages for more efficient responses.

Control room applications – such as call handling, dispatch and situational awareness – can leverage Critical Connect's single point of connectivity and common APIs to access voice, data and video communications from various networks and devices.

Critical Connect in action

Situation

Multiple agencies are required to respond to a large-scale event that spans across multiple jurisdictions.
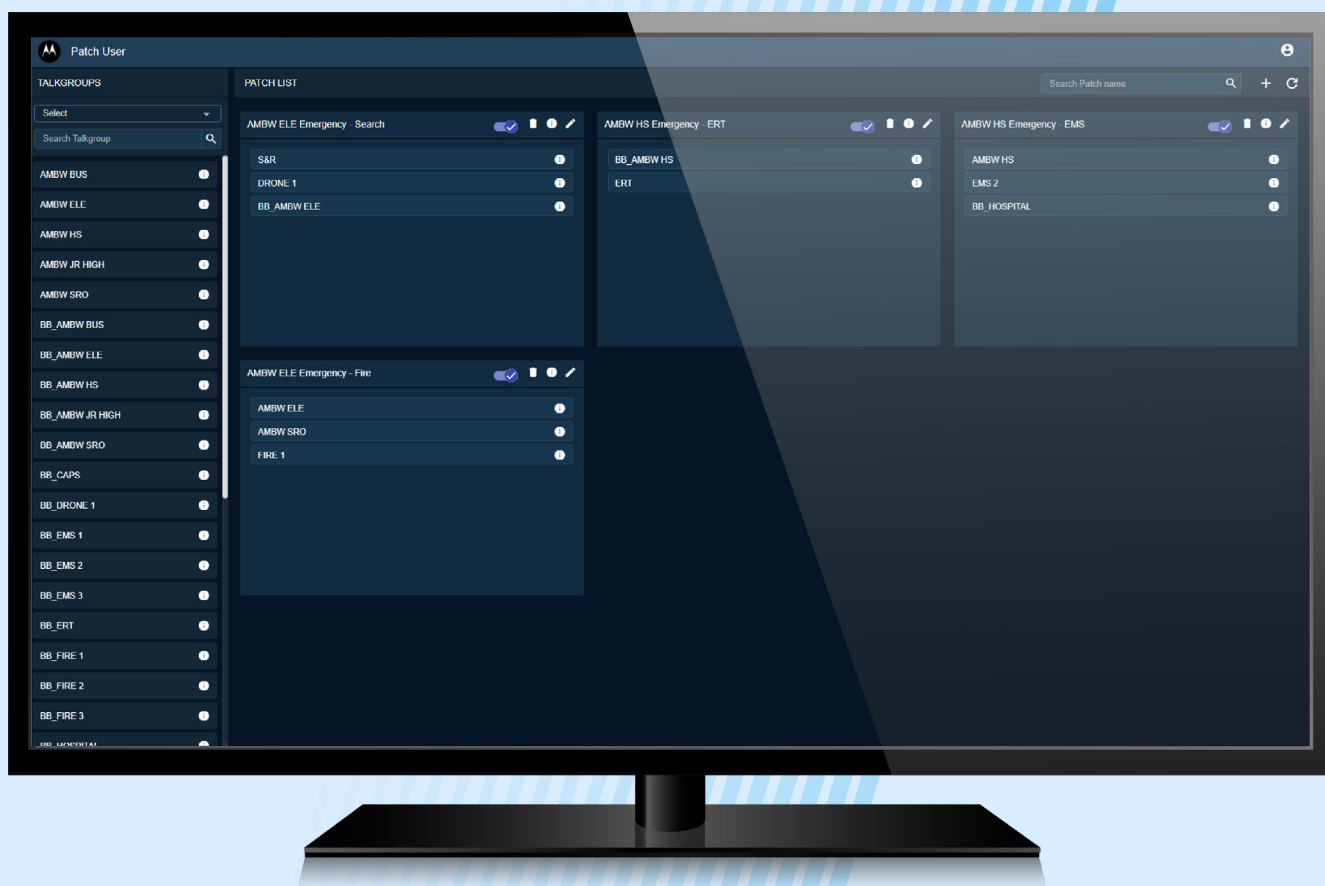

Response

In the control room, situational awareness applications leverage Critical Connect to access key information, such as location and presence, for personnel from each responding agency. With this information, a single map is created to display the position and status of all responders at the scene.
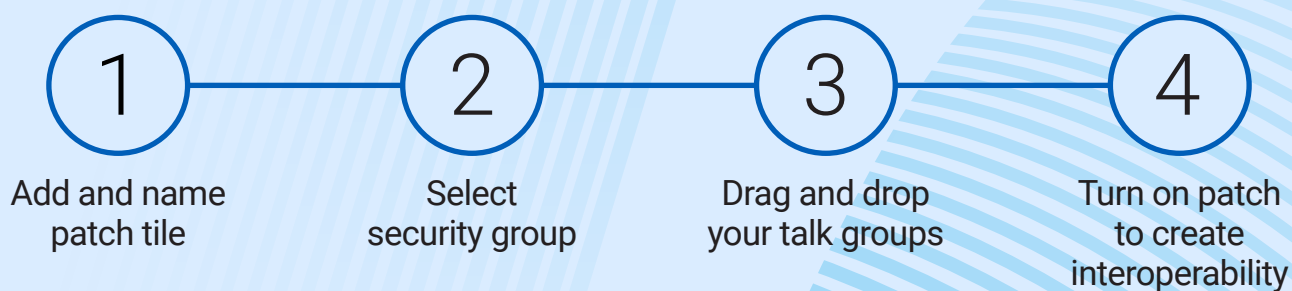
Result

A new level of interoperable multimedia communication that enhances safety, situational awareness and operational efficiency.

Critical Connect Patch Portal

The Critical Connect Patch Portal is a user-friendly, web-based tool that enables remote management so you can create pre-planned or ad-hoc talkgroups in a few clicks. Within the Patch Portal, you can see all of the LMR systems your Critical Connect account is connected to. You can also view all LMR talkgroups across different LMR systems in the Patch Portal, and can drag and drop multiple talkgroups from any of your connected LMR systems to create a interop talkgroup patch.

1 Add and name patch tile

2 Select security group

3 Drag and drop your talk groups

4 Turn on patch to create interoperability

Fast and flexible

Legacy interoperability solutions often require significant time for setup and provisioning, with rigid connections that can't adjust as fast as you need them to.

Critical Connect empowers you to quickly set up and tear down connections from anywhere with internet access as your needs change. Select your desired agency within the Critical Connect Patch Portal and establish a connection in just two clicks—not two months.

Scale at your own pace

Interoperability systems should evolve with you to support the changing needs of your organization. One link to Critical Connect allows you to scale at your own pace, supporting thousands of talkgroups and hundreds of simultaneous calls. You can easily add more connections to Critical Connect to meet new communication requirements as they come up.

WAVE PTX enhances your Critical Connect experience

WAVE PTX supports a bring your own device (BYOD) policy and is delivered securely over a European-hosted cloud solution.

WAVE PTX delivers interoperable broadband PTT communications across any Commercial telecommunications carrier in Europe or Wi-Fi data network. With an offering tailored for critical communications, WAVE PTX provides access to the MCPTT-based features required to enhance safety and improve situational awareness for mission-critical users.

The basic WAVE PTX for public safety service includes the following capabilities:

- Group and private PTT calls
- Real-time presence
- Location services
- Text messaging
- Push videos, images and files
- Background calling
- Voice message fallback
- Communication history
- Soft or hard PTT buttons

Choosing the SafeGuard Package for your WAVE PTX subscription adds critical communications features, including:

- Emergency calling and alerting
- Remote user check
- Ambient listening
- Discreet listening
- User enable/disable
- Location-based temporary groups

Secure, reliable and trusted

Motorola Solutions' WAVE PTX and Critical Connect services adhere to a comprehensive set of security standards and compliances, including:

NIST 800-53,
ISO 27001,
ISO 27017,
ISO 27018,
ISO 27701, and
SOC 2 Type 1 and Type 2.
WAVE PTX Solutions also comply with HIPAA and PCI-DSS.

Our security architecture is built on the NIST Cybersecurity Framework, encompassing govern, identify, protect, detect, respond and recover functions. We utilize a comprehensive Secure SDLC process, integrating threat modeling, penetration testing and continuous monitoring. This ensures our services meet the highest security and compliance requirements, delivering trusted solutions for critical communications.

Security

Motorola Solutions prioritizes robust encryption for its WAVE PTX and Critical Connect services, securing your communications from end-to-end. We employ TLSv1.3 for signaling, presence, and location data, ensuring secure transmission of critical information.

For audio and video, we utilize SRTP-SRTCP/UDP with end-to-end encryption for voice and encrypted floor control, while DTLS secures video transmissions. Key management is handled according to 3GPP 33.180 standards, and data at rest is also secured within our SOC 2 certified Azure Cloud, providing comprehensive protection for all your communications.

To learn more about our security framework, refer to our [cloud security white paper](#).

To learn more, visit:
motorolasolutions.com/criticalconnect

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