

# MISSION CRITICAL PUSH-TO-TALK WHENEVER AND WHEREVER NEEDED

**WAVE PTX Government** 





## **KEEPING THEM CONNECTED, INFORMED AND SAFE**

Whether an undercover officer in need of assistance, a utility worker injured at a remote job site, or a Paramedic dealing with a critical patient, radio communication may not always be available when help is needed. WAVE PTX Government is the carrier-independent broadband PTT service that delivers 3GPP MCPTT-compliant emergency calling, remote monitoring, location-based talkgroups, interoperable communication, and other features necessary to enhance safety, situational awareness, and operational efficiency for critical users.

## WAVE PTX Government provides public safety users with access to the following:

## **WAVE PTX Government Mobile Application**

Turn your smartphone or tablet into a PTT handset, getting the power of push-to-talk with the ability to share location, images, videos, and data files with individuals or groups at the touch of a button.

## **WAVE PTX Government Dispatch Application**

From any Internet-enabled location, dispatchers can effectively manage operations in the field with easy access to key features such as talkgroup scanning, multimedia communication, and location mapping and tracking.

## **Critical Connect**

The Critical Connect platform enables users of ASTRO, P25, TETRA, DMR and any radio system to communicate to Broadband devices users (cell phones) providing interoperability between broadband-to-LMR communication. In addition, the platform enables LMR-to-LMR communication which enables ASTRO radio users on two or more geographically separate ASTRO25 networks to communicate to one another via the Critical Connect Platform.

## **Security**

Motorola Solutions Broadband PTT solution encrypts all communication between the PTT Application Server and the PTT client and ensures the privacy of all voice traffic and signalling information. The encryption method used is AES-256, the Advanced Encryption Standard, formalised by the National Institute of Standards and Technology (NIST). Encryption is achieved using the following secure protocols: HTTPS, TLS and DTLS.

## **Streaming Video**

An optional feature for the WAVE PTX Government mobile or dispatch applications, enables users to stream live video at the push of a button to individuals, groups, or dispatchers. This helps to enhance the understanding of the situation with a real-time view of events as they happen.



## **ACCELERATE THE FLOW OF INFORMATION WITHIN YOUR AGENCY**

It is a data-driven world and speeding the flow of information to the people that need it will decrease response times and increase efficiency. The WAVE PTX Government mobile application provides responders with the instant PTT communications and other advanced features on their smartphone or tablet needed to get crucial information and intelligence to the right people, wherever they may be, whatever network they are on.

## **ADVANCED PTT CALLING**

With the WAVE PTX Government mobile application, users can make or receive calls from pre-defined groups, ad hoc groups, or individual users. Authorized users can also utilize broadcast calling to deliver important information quickly to a very large group, with broadcast calls taking precedence over any on-going PTT communication.

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## **LOCATION AND MAPPING**

Users can access a map display to check their current location, share their location,

or send an arbitrary location. Authorized users can use the map to display the location of talkgroup members for which they are a supervisor and tap a member's map icon to initiate a PTT call. In addition, geofencing allows authorized users to define a geographic area to track the location activity of talkgroup members, receiving a notification whenever they enter or leave the fenced area.

## TALKGROUP SCANNING WITH PRIORITY

Talkgroup scanning allows users to select up to eight talkgroups to monitor, scanning the configured list of groups for active calls. A configurable number of scanned talkgroups can be designated priority groups, with calls on higher priority groups preempting calls on lower priority groups.

## **INTEGRATED SECURE MESSAGING**

Integrated Secure Messaging makes it possible for users to push as well as receive messages with multimedia content, including texts, images, videos, recorded audio, and documents, as well as location data. The multimedia exchange can be with an individual user as well as groups, and users have the ability to forward messages and view past messages in the history folder.

## **TALK GROUP AFFILIATION**

Users and dispatchers can target a specific talk group for all PTT communications to never miss a call.

## **TALK GROUP REMOTE AFFILIATION**

Allows dispatchers to remotely change a users talkgroup affiliation.

## **OPERATIONAL STATUS MESSAGE**

Quickly send predefined messages such as on-duty, on-route, or at the incident to dispatchers and other authorised users.

## **USER ROLE BASED LOGIN**

Users can select their role and associated contacts talkgroups and permissions when logging onto the App.

## **MCX TALKGROUPS**

The MCX talk group supports up to 300,000 users with 3,000 users concurrently affiliated to the Talk Group.

## **SIMULTANEOUS AUDIO SESSIONS**

Dispatcher can monitor voice activity and control audio assignments on multiple groups simultaneously.



## **DISPATCH FROM ANY INTERNET-ENABLED LOCATION**

WAVE PTX Government Dispatch Application offers a browser-based dispatch application that provides online access to all the communication tools needed to manage resources and coordinate an effective operation. Available from any Internet-connected PC, dispatch allows organizations to use push-to-talk communications to effectively manage their day-to-day operations, with easy access to key features such as PTT calling, talkgroup scanning, call recording, and GPS location information.

## **PTT CALLING**

With the WAVE PTX Government Dispatch Application, dispatchers have the ability to make or receive calls from pre-defined groups, ad hoc groups, or individual users. Dispatchers can also use broadcast calling to deliver important information quickly to a very large group, with broadcast calls taking precedence over any on-going PTT communication.

## **CALL RECORDING**

Call Recording allows the dispatcher to record important PTT calls in which they are a participant either manually or automatically, with the recordings stored for playback or export.

## **TALKGROUP SCANNING WITH PRIORITY**

Talkgroup scanning allows dispatchers to monitor up to 20 talkgroups, scanning the configured list of groups for active calls. A configurable number of scanned talkgroups can be designated priority groups, with calls on higher priority groups preempting calls on lower priority groups.

## **LOCATION AND MAPPING**

Dispatchers can use a map-based display to quickly identify the location of one or more users, with automatic and on-demand location updates, in-map communication, and location history and replay. Location history allows dispatchers to track the path a user has traversed on the map for a specific duration.

In addition to location history, geofencing allows dispatchers to define a geographic area to track the location activity of all talkgroup members, receiving a notification whenever they enter or leave that area.

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# REAL-TIME VIEW OF INCIDENTS AS THEY HAPPEN

An optional service based on the 3GPP MCVideo standard, Streaming Video makes it possible for users to push live video to individuals, groups, or dispatchers to enhance their understanding of the situation with a real-time view of incidents and events as they happen.

Streaming Video allows a WAVE PTX Government Mobile Application user to push video, with audio, from their device's integrated camera(s) (front or back). The recipients can be any WAVE PTX Government contact or talkgroup assigned to the user that is also capable of receiving video calls.

The user broadcasting the video will see the live image being sent in the WAVE PTX Government Mobile application. The video broadcaster can also participate in a PTT audio call while streaming the video.

Users receiving the live video stream will see the video and hear the audio in the WAVE PTX Government Mobile application. While receiving a video stream, recipients can continue to get PTT audio calls, switching between the video session and PTT call as needed. Recipients can also leave an ongoing video call and rejoin later, assuming the video call is still in progress.

The Streaming Video feature also allows a dispatcher using the WAVE PTX Government dispatch application to pull live video from a user. The live video stream can either start once the targeted user has accepted the request, or it can automatically start upon receipt of the request, unless prohibited by the user.



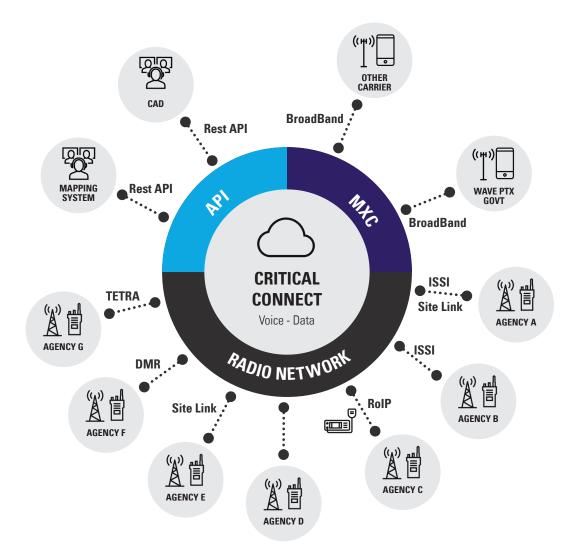
Whether broadcast by a user or pulled by a dispatcher, WAVE PTX Government Streaming Video increases clarity and improves situational awareness, resulting in faster, more accurate communication in the moments that matter.



WAVE PTX GOVERNMENT DISPATCH STREAMING VIDEO

# IMPROVED INFORMATION FROM THE FRONTLINE

Paramedics need to provide physicians with real time video information on critical patients while in route to a trauma center. Paramedics and trauma personnel use WAVE PTX Government Mobile application and streaming video for real time video communication. By combining the speed and efficiency of PTT with the power and flexibility of video communications, paramedics are able to get patients the care they need quickly.



## **CRITICAL CONNECT - INTEROPERABILITY MADE EASY**

Effective responses in complex emergencies hinges on effective multi-agency communication. Personnel arriving on scene want to help resolve the situation and assist where they are needed most and that level of coordination requires the immediacy of seamless pushto-talk communications.

Critical Connect, our cloud-based interoperability service, makes it possible for agencies to dynamically connect with other agencies, as well as personnel outside of LMR coverage, to provide seamless PTT communication whenever and wherever needed. With the ability to set up connections in two clicks, as opposed to two days or two weeks, agencies can quickly adjust their interoperable communications as the unexpected occurs.

Critical Connect enables messaging between APX, APX NEXT and WAVE PTX Government for public safety users, and supports location sharing between APX, APX NEXT and WAVE PTX Government.

The combination of WAVE PTX Government and Critical Connect provides an expansive unified communications platform, linking various LMR systems and broadband networks, to share voice, data, and video between networks, agencies, and applications.

## WAVE PTX GOVERNMENT PACKAGES AVAILABLE



Choose one of the Mobile Client **Application Packages** 



Choose one of the Dispatch **Application Packages** 



**Choose Video Streaming** as optional for one of or both Mobile and Dispatch Application Packages



Choose one of the Critical **Connect Packages** LMR is optional for all Packages

## **Mobile Application Packages**

#### MOBILE SAFEGUARD

Entry level client for safe working supporting key features such as, encrypted group calls, radio integration, multimedia messaging and location, enhanced emergency services functions such as emergency call and ambient listening. It supports a single user profile with up to 96 talk groups and 250 users per talk group

#### **MOBILE SAFEGUARD MULTI-ROLE**

SafeGuard Feature Set plus: MCX Talkgroups (300,000) Registered

• Talkgroup Affiliation (3000 Max)

Offers capabilities in addition to Safeguard package including, MCX Talk Groups, operational status messaging, Talk Group Affiliation and User Role-based login. It supports up to 60 user profiles each profile supports up to 96 Talk Groups. The MCX talk group supports up to 300,000 users with 3,000 users concurrently affiliated to the Talk Group.

#### **MOBILE SAFEGUARD MULTI-ROLE PLUS**

Offers enhanced features in addition to Safeguard Multi-Role including user and group profiles, remote talk group affiliation, supports usage reporting,

#### **Key Features:**

- PTT Group and Private Calling
- Presence and Alerts
- Secure Messaging and Multimedia
- · Location & Mapping Services
- Administrator and User Managed Contacts/Groups
- · Enhanced Emergency Services
- User Check and Monitor
- Ambient and Discrete Listening
- Single profile 96TG (250 users per TG)



 Operational Status Message • User Role-Based Login (Multi Profiles 20 x 96 Talk Groups)

## SafeGuard Multi-Role Feature Set plus:

- Usage & Other Reporting
- Talkgroup remote affiliation
- . User and Group Profiles

**Key Features:** 

## **VIDEO STREAMING**

An optional feature whereby users can stream live video at the push of a button to individuals or groups to enhance the understanding of the situation with a real-time view of events as they happen.



- · Video Streaming To/From Users and Talkgroups
- Requires Associated WAVE PTX License (1:1 Parity)

# **Dispatch Application Packages**

## DISPATCH SAFEGUARD

Entry level Integrated web-based Broadband Dispatch Console supporting key features such as, encrypted group calls, radio integration, multimedia messaging and location, enhanced emergency services functions such as emergency call and ambient listening and Dynamic Area-Based Talkgroups.

## **DISPATCH SAFEGUARD MULTI-ROLE**

Offers additional capabilities to Dispatch Safeguard including MCX Talk groups (MCX talk group supports up to 300,000 users with 3,000 users concurrently affiliated to the Talk Group), Operational Status messaging and simultaneous audio

## **DISPATCH SAFEGUARD MULTI-ROLE PLUS**

Offers enhanced features in addition to Dispatch Safeguard Multi-role including LMR location and messaging, Interop patching (requires Critical Connect Patching ), Talkgroup Affiliation/ Monitoring, remote Talkgroup Select

- PTT Group and Private Calling
- · Presence and Alerts
- Secure Messaging and Multimedia
- Location & Mapping Services
- · Administrator and User managed contacts/groups
- Integrated Web-Based Broadband Dispatch Console
- Enhanced Emergency Services
- · User check and Monitor
- · Ambient and Discrete listening
- Dynamic Area-Based Talkgroups

## Safeguard Feature Set plus:

- MCX Talkgroups (300,000) Registered
- Talkgroup Affiliation (3000 Max)
- Operational Status Message
- · Simultaneous Audio Sessions

#### SafeGuard Multi-Role Feature Set plus:

- LMR Location and Messaging
- . Interop Patching (requires CCP)
- · Talkgroup Affiliation / Monitoring
- Remote Talkgroup Select
- Messaging Package (BB2LMR)





## VIDEO STREAMING

An optional feature whereby users can stream live video at the push of a button to individuals or groups to enhance the understanding of the situation with a real-time view of events as they happen

## **Key Features:**

- Video Streaming To/From Users and Talkgroups
- Requires Associated WAVE PTX License (1:1 Parity)

# **Critical Connect Packages**

## STANDARD (VOICE ONLY)

Includes the Standard package and offers additional capabilities to enhanced Broadband (site interface)

· Enhanced Broadband (site interface)

extra licenses and hardware required.

## PREMIUM (VOICE ONLY)

Plus included

P25 Auto roaming available

• E2E Radio encryption available

Includes the Plus package and offers additional capabilities to enable P25 Auto roaming available and End to End (E2E) Radio encryption available

## LMR optional

## PLUS (VOICE ONLY)

Provides interoperability between Broadband and Astro via (ISSI), Interoperability is delivered as basic P25 (Linking and Manual Roaming) with Critical Connect Encryption and On-premise DSR/ HA WRG (Wireless Radio Gateway)

Standard included

## STANDARD (VOICE ONLY)

Enables the use of Radio over IP (RoIP) devices for connectivity excludes RoIP hardware



Including 4 Voice Talkpath available (per RoIP box)

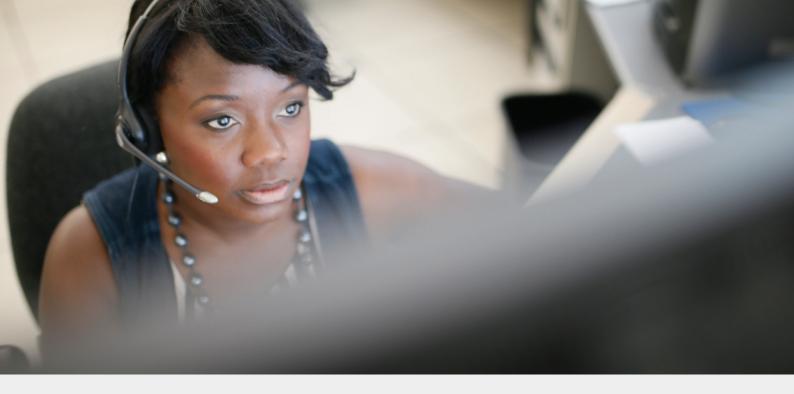
## **Key Features:**

- Broadband (ISSI)
- Basic P25
- (Linking and Manual Roaming)

- Critical Connect Encryption
- On-premise DSR/HA

You are unable to mix and match packages between Mobile and Dispatch eg if you purchase Mobile Multi-Role you must also purchase Dispatch Multi-Role.

You can buy a Mobile Package without purchasing a Dispatch Package. If you purchase a Dispatch package you must also purchase a Mobile package All critical connect packages work with all safeguard packages.



## **SUMMARY**

To be most effective, your agency needs a unified communications solution that brings together broadband PTT, land mobile radio and Wi-Fi interoperability to seamlessly connect all agencies serving the public good.

WAVE PTX Government provides public safety users with PTT communication that is unbounded by coverage, area, network technology or device type. Together with Critical Connect, they provide the combination of network technologies, devices and interoperability necessary to seamlessly connect all agencies serving the public good.

It's an Always Connected world, and WAVE PTX Government is the right solution to ensure that first responders, secondary responders, and others have access to the right information, people, and applications whenever and wherever needed.

## **A PROVEN SOLUTION**

Motorola Solutions has been at the forefront of PTT technology for more than 90 years with proven solutions used by hundreds of thousands of public safety and commercial customers daily. We are proud to be in a position to provide the combination of network technologies, devices and interoperability necessary to enhance the service you provide to your community.

We build broadband PTT that is unbounded by coverage, area, network technology or device type, helping you more effectively communicate whenever and wherever. Applications across our Unified Communications portfolio enhance collaboration and increase productivity with the push of a button, helping everyone stay connected, safe and informed.

Backed by the industry's first and only mission-critical ecosystem, our portfolio is transforming the broadband experience. Combined with command center software, video intelligence and analytics and world-class services, our ecosystem is the technology lifeline your mission depends on. Our mission is to never stop advancing it.

To learn more about WAVE PTX Government, visit

## motorolasolutions.com/WAVEPTXGovernment

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