



EMERGENCY CALLING AND ALERTING

PRIORITY COMMUNICATION FOR BROADBAND PTT

PRIORITIZE PTT CALLING TO ENHANCE WORKER SAFETY

Whether you are an undercover officer in need of assistance during an arrest, a utility worker injured at a remote job site, or an EMT dealing with a hallucinating patient, you need priority communication with those who can help at the touch of a button.

Compliant with the 3rd Generation Partnership Project (3GPP) Mission Critical Push-to-Talk (MCPTT) standard, Emergency Calling and Alerting from Motorola Solutions makes it possible for those in immediate danger to quickly communicate with the individuals or groups who can provide assistance. With the push of a button, users can declare an emergency to ensure that all broadband PTT communication is immediately routed, with the highest priority, to the designated individual or group. The result is enhanced worker safety, particularly for those working alone.

Let's look at Emergency Calling and Alerting from the perspective of those directly involved in the process, starting with the originator.

INITIATE AN EMERGENCY CALL

Users press a hard or soft dedicated button to initiate an emergency call to an individual or group.



ORIGINATOR

For broadband PTT users whose safety is threatened, declaring an emergency is as simple as pressing and holding the emergency button in the application, or dedicated button on the device or accessory, to place the application in an emergency state. The application will display “emergency declared”, and all broadband PTT calls from the device will be treated as emergency calls with the highest priority.

After entering the emergency state, the broadband PTT user can manually push the same button to place an emergency call. Alternatively, the administrator can set up the user for automatic emergency calling in which the floor is automatically held by the broadband PTT application for 10 seconds. If during that time there is no user interaction, the floor is released. For both manual and automatic emergency calling, the destination will be the same as the recipient(s) of the emergency alert.

Authorized users, such as dispatchers and supervisors, can also originate emergency calls on behalf of specific users, participating in the call in case of a life-threatening situation. Broadband PTT users can cancel their emergency state at any time, or an authorized user (supervisor or dispatcher) can cancel their emergency state for them.

In addition to supporting emergency calls initiated by broadband PTT users, Emergency Calling and Alerting makes it possible for emergency alerts originated by P25 land mobile radio (LMR) users to be shared with broadband PTT users. P25 users who are part of an ISSI interoperability talkgroup can have their emergency calls routed to broadband PTT users with the same priority and preemption as those originated on the broadband PTT system. Providing interoperability for P25-originated emergency calls ensures that any worker whose safety is threatened is able to reach the right resource for assistance, regardless of the network they are using.





RECIPIENT(S)

When an emergency is declared, an alert is sent to an individual user or members of a specific talkgroup, dependent on the information in the originator’s administrative profile. The emergency alert provides all recipients with the identity of the user declaring the emergency and the talkgroup used (if the alert is routed to a group).

Authorized users, such as supervisors and dispatchers, receiving an emergency call can access a display that includes the originator’s location, LTE or Wi-Fi signal strength, and battery level (when the originator is a broadband PTT user). Authorized users also have the ability to cancel the emergency state on behalf of the originator.

P25 users who are part of an ISSI interoperability talkgroup can receive emergency calls and alerts originated by users on broadband PTT systems. The P25 radios with displays will show the name of the user initiating the emergency alert.

TALKGROUP STEERING

Emergency Calling and Alerting provides two modes of emergency call distribution, Talkgroup Steering OFF and Talkgroup Steering ON, to give you the flexibility to set up the routing that works best for your organization’s type and size.

When Talkgroup Steering is OFF, if the emergency call is on the user’s selected talkgroup it preempts any ongoing PTT call. If the emergency call is not on the user’s selected talkgroup, the emergency call is not received. If talkgroup scanning is active, the emergency talkgroup takes the highest priority. If the user does not want to listen to the emergency talkgroup, scanning can be disabled and a different talkgroup selected.

Setting Talkgroup Steering to OFF is particularly useful for small organizations where everyone is responsible for each other’s safety. When an emergency is declared, workers are expected to stop what they are doing and assist the originator. With Talkgroup Steering turned off for all workers, the emergency call preempts all communication on the selected talkgroup, ensuring that everyone on that group is aware that someone needs immediate help.

When Talkgroup Steering is ON, however, an organization can establish an emergency response team with the assurance that those members will always receive an emergency call. For workers for whom Talkgroup Steering is set to ON, an incoming emergency call will preempt any other call in which the user may be participating. If the emergency call is not on the recipient’s selected talkgroup, that user is automatically moved to the emergency talkgroup. If talkgroup scanning is active, scanning is paused until the emergency state is canceled.

For example, larger organizations, or those in specialized industries, may want to train a specific group of workers in emergency response. By setting Talkgroup Steering to ON for those workers and including two or more in each of its talkgroups, organizations can direct all emergency calls to members of its response team, even if they are on another talkgroup at the time the emergency is declared. All other workers with Talkgroup Steering set to OFF, and not on the selected talkgroup at the time an emergency is declared, can continue their activities without interruption.

HIGHEST PRIORITY

An incoming emergency call preempts any other call. If the emergency call is not on the recipient’s selected channel, they are automatically moved to the talkgroup the call is on, and scanning (if active) is paused.

ADMINISTRATOR

The administrator has the ability to turn Emergency Calling and Alerting on or off for each user within the organization. For users who have Emergency Calling, administrators can manage the following parameters:

ALLOW EMERGENCY INITIATION	DESTINATION	CALL INITIATION TYPE
Select Yes or No to enable or disable emergency initiation respectively for the user	Select User Selected Talkgroup or Admin Selected Contact or Talkgroup	Select Manual or Automatic
CANCELLATION	SPECIAL NOTIFICATION	TALKGROUP STEERING
Select Yes or No to allow the user to cancel their own emergency, or limit cancellation to an authorized user.	Select None, For Received Emergency Calls, For Initiated Emergency Calls, or For Both	Select On or Off to activate or deactivate Talkgroup Steering for each user

In addition, the administrator can identify the authorized users on a per-user basis.

SERVICE PROVISIONING

Following up on our earlier examples, small organizations wanting to route emergency calls to all workers would provision each user as shown below:

USER PROVISIONING	
• Allow Emergency Initiation	Yes
• Destination	Select User Selected Talkgroup
• Call Initiation Type	Select Manual or Automatic
• Cancellation	Select Yes
• Special Notification	Select For Both
• Talkgroup Steering	Select Off

Larger organizations wanting to route calls to a specific group of trained workers would use the following parameters:

EMERGENCY RESPONSE TEAM

• Allow Emergency Initiation	Yes
• Destination	Select User Selected Talkgroup
• Call Initiation Type	Select Manual or Automatic
• Cancellation	Select Yes
• Special Notification	Select For Both
• Talkgroup Steering	Select On

ALL OTHER WORKERS

• Allow Emergency Initiation	Yes
• Destination	Select User Selected Talkgroup
• Call Initiation Type	Select Manual or Automatic
• Cancellation	Select No
• Special Notification	Select For Initiated Emergency Calls
• Talkgroup Steering	Select Off

SUMMARY

MCPTT-compliant Emergency Calling and Alerting provides ease of use and fast, secure, reliable communication when it's needed most - to protect a team member's safety during an emergency.

For more information, please visit us on the web at:

www.motorolasolutions.com/en_us/products/command-center-software/broadband-ptt-and-lmr-interopability/wave.html



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