

# DELIVER THE BEST QUALITY OF SERVICE FOR PUBLIC SAFETY LTE



## THE CHALLENGE

### WHEN IT'S NEEDED MOST, HOW DO YOU ENSURE INFORMATION GETS THROUGH?

From life saving telemetry to real-time video and instant collaboration, LTE broadband brings extraordinary high-speed capabilities for awareness, efficiency and safety – capabilities you'll use to make a difference in your operations and community. In routine situations or in major events, however, too many users trying to access the system at the same time overwhelms capacity and can lead to delays; preventing critical information from getting to the right person at the right time.

Compounding the problem, users who are already on the network are competing with each other for bandwidth to send and receive vital information. The question is, how do you take control of the LTE network and ensure the right information always gets through?

While basic LTE and a few carriers may offer a one-size-fits-all level of prioritization, it's a prioritization that is assigned to the device; not the application, user or situation. While this is a step in the right direction, it really just means that although these devices have higher priority on the network, they are all still competing equally for the same bandwidth.

Compounding the problem, your highly secure LTE virtual private networks (VPN) cannot be accessed by carriers to implement quality of service (QoS) best practices and optimize network traffic.

Prioritization today focuses on the use of large coverage and capacity LTE systems. However, increasingly LTE portable infrastructure, from traditional trailers to new miniaturized systems, will be in constant use to augment networks or provide private secure networks. Initially these small systems will not have the capacity levels provided by larger systems, making the need for public safety grade prioritization and preemption that much more critical.

Your dynamic, constantly changing world requires granular levels of LTE optimization that are only available from a purpose-built prioritization and preemption solution; a solution that is configured by your agency to your unique needs, constantly analyzing the situation and automatically adjusting for the best QoS levels.

# THE SOLUTION

## THE BEST QUALITY OF SERVICE FOR THE BEST POSSIBLE OUTCOMES

### **PRIORITIZE CRITICAL USERS. DEPRIORITIZE NONESSENTIAL COMMUNICATIONS. PREEMPT WHEN NECESSARY.**

The answer lies in two complementary technologies from Motorola Solutions: Priority Manager and its counterpart, Preemption. They work individually or in tandem to arbitrate traffic on the LTE network.

You have told us what works and what doesn't, and we've built upon our long history of know-how and innovation to create the only LTE Priority and Preemption solution that delivers the results you expect.

### **LTE PRIORITY MANAGER**

#### **AUTOMATIC PRIORITIZATION**

In your fast paced environment, you need a solution that continually monitors the situation and automatically adjusts QoS by device, role, location and type of situation based on the range of variables you tailor to your operations.

#### **MANUAL PRIORITIZATION**

When manual control of the network is needed, on-scene incident command, dispatch and other authorized users can make temporary priority adjustments and adjust QoS for the situation as it unfolds with an easy-to-use app.

### **LTE PREEMPTION**

When information absolutely has to get through, for instance in the case of an incident commander sending or requesting information, an emergency such as, "shots fired," ruthless preemption removes low priority users from the system so that higher urgency transmissions can take place. Preempted users will rejoin the network based on their level of priority.

## EVERY SITUATION IS DIFFERENT.

**PRIORITIZE CRITICAL USERS • DEPRIORITIZE NONESSENTIAL COMMUNICATIONS • PREEMPT WHEN NECESSARY**



**ADJUST LTE APPLICATION AND USER PRIORITY IN REAL-TIME  
FOR BETTER DECISIONS AND IMPROVED SAFETY**

# USE CASE OUTCOMES

## PRIORITIZATION AND PREEMPTION DELIVER THE BEST LTE CONTROL

True LTE prioritization and preemption requires second-by-second dynamic granularity at the application, user, incident and agency levels coupled with manual control when overrides are necessary. With Priority Manager and Preemption from Motorola Solutions, you can take control of LTE broadband QoS levels several ways:

 <b>INDIVIDUAL AGENCY CONFIGURATION</b>	Each agency sets the parameters to automatically assign priority based on their unique set of user roles, applications and individual devices.
 <b>DEVICE SHARING</b>	Going beyond device-based only prioritization, user-based priorities enable the flexibility to share devices across shifts while adjusting to the priority levels of the signed-on user.
 <b>DYNAMIC ADJUSTMENTS</b>	The best QoS levels are dynamically delivered across the system by constantly analyzing the network and automatically adjusting for prioritization and preemption.
 <b>USER ROLE ADAPTATION</b>	If users' roles change, for instance if they are activated in a SWAT callout, prioritization and preemption changes with them and adjusts applications and devices to their new levels.
 <b>CAD LINK</b>	Information sent from your computer aided dispatch system (CAD) adds to a solution constantly seeking to provide the best QoS based on real-time information and your operational picture.
 <b>MANUAL CONTROL</b>	Authorized users, including incident commanders and dispatchers, can temporarily adjust priorities manually from the easy-to-use app, giving you extra levels of control.
 <b>PREEMPTION</b>	When necessary, preemption allows higher priority traffic to access and use the network first, with lower priority traffic automatically resuming as capacity permits.
 <b>EMERGENCY PREEMPTION</b>	If imminent danger is declared, preemption elevates the user, devices and key applications to an emergency level, overriding other traffic and providing a clear path on the system for the immediate relay of information.
 <b>EMS VIDEO CALL TO ER</b>	Voice, data and video all combine to give doctors a virtual on-scene presence to better assess the patient's condition, access vital signs and guide treatment at the scene and during transport, leading to better patient outcomes.

# TAKE CONTROL OF THE LTE NETWORK

## TAILOR YOUR PRIORITY AND PREEMPTION QOS

### AUTOMATIC PRIORITIZATION



Set it and forget it. Automatic prioritization and preemption settings tailored to your operations dynamically adjust service based on user's device, role, location and type of operation they face.



### MANUAL PRIORITIZATION



You are in control. Quickly make real-time prioritization decisions based on an unfolding situation and easily make temporary adjustments on the fly.

## PUBLIC SAFETY LTE PRIORITY MANAGER AND PREEMPTION FROM MOTOROLA SOLUTIONS

Our world becomes more complex with every passing moment. Community expectations are rising and personnel safety is an ever-present concern. Real-time information can make all the difference in achieving successful outcomes. Ensure LTE Broadband bandwidth and access are continually being optimized so the right service is available at the right time with Priority Manager and Preemption from Motorola Solutions.

Add the other tools you need to help get the job done quickly and safely with our extensive portfolio of Applications, Devices, Networks and Services designed for mission critical operations.

To learn more about Public Safety LTE Solutions,  
visit [motorolasolutions.com/publicsafetylte](http://motorolasolutions.com/publicsafetylte)

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