MOTOROLA
PUBLIC SAFETY LTE
When the moment requires vigilance, Public Safety LTE delivers video to nearby squad cars to avert a potential incident. Equip your first responders with the real-time visibility and heightened situational awareness they need to keep themselves, and the people and cities they protect, safe.

A FEW SECONDS FROM NOW
A DISPATCHER WILL SEE LIVE VIDEO OF
TWO LITTLE GIRLS WALKING TO SCHOOL
AN ELDERLY WOMAN WALKING HER DOG
A SUSPICIOUS MAN LOITERING AT THE CORNER

When the moment requires vigilance, Public Safety LTE delivers video to nearby squad cars to avert a potential incident. Equip your first responders with the real-time visibility and heightened situational awareness they need to keep themselves, and the people and cities they protect, safe.

YOUR CHANCE TO PROTECT IS RIGHT AROUND THE CORNER. WILL YOU BE READY TO KEEP THEM SAFE?
TRANSFORMING PUBLIC SAFETY WITH BROADBAND INNOVATION

RICH-MEDIA INFORMATION ANYTIME, ANYWHERE
DESIGNED TO THE STANDARDS
BUILT FOR PUBLIC SAFETY
BACKED BY EXPERIENCE AND VISION

Today, the most advanced mobile broadband technologies on the planet are available to public safety, delivering unprecedented access to real-time, multimedia information anywhere, anytime.

Fueled by open standards, shared intellectual property, a rich ecosystem of developers and the promise of scaled economies, LTE has been selected for the future of public safety mobile broadband.

Public Safety LTE will enable powerful solutions for better protecting our first responders and the communities they serve, with the priority, control, security and performance at the core of mission critical operations.

Connecting advanced multimedia services to today’s mission critical voice and offering a new collection of innovative data devices to join the trusted two-way radio, Public Safety LTE is a critical ingredient in delivering the next generation of public safety communications.

THE POWER OF MOBILE BROADBAND FOCUSED ON PUBLIC SAFETY NEEDS

A STANDARDS-BASED APPROACH
Technology standards play a vital role in ensuring networks, applications and devices are compatible with one another for the successful movement of information.

BUILT FOR PUBLIC SAFETY
First responders entrusted with protecting life and property have unique, specialized communications needs. Successful operations require robust and reliable networks, hardened user devices and applications built to meet the needs of public safety organizations.

EXPERIENCE AND VISION
Backed by over 85 years of experience in serving public safety, Motorola has the most comprehensive vision for next generation public safety communications, combining advanced new technological capabilities with the reliability of the industry’s most trusted mission critical voice solutions.
**MOTOROLA STANDARDS-BASED LTE SOLUTION**

**BUILT TO MEET PUBLIC SAFETY REQUIREMENTS**

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Motorola has teamed up with Ericsson, the world’s leading provider of technology and services to telecom operators, to deliver LTE technology leadership and market scale advantage to public safety. The undisputed leader in LTE development and standardization, Ericsson offers field-proven stability, throughput, and latency – key factors for Public Safety LTE end users. Ericsson will provide standards-based products for LTE access and packet core networks, along with related services, and ensure that the LTE mobile broadband technology meets the mission-critical demands of Motorola Next Generation Public Safety solutions.
APPLICATIONS BUILT FOR PUBLIC SAFETY
DELIVERING THE MOST CRITICAL INFORMATION

LTE VOICE SERVICES
Connect public safety LTE users to each other or to P25 users with secure, high-performance voice PTT services. Optimized for public safety, the LTE PTT solution has familiar P25 features like group scan, priority override, late join and other first responder group management call features. The solution operates with integrated P25 common call controller services to provide a unified PTT experience, allowing P25 and LTE users to easily collaborate. With common vocoding techniques for both P25 and LTE, Motorola’s LTE PTT solution lowers latency and enhances voice quality by eliminating the transcoding found in many gateways.

Fully integrated with the LTE solution, our VoIP telephony uses advanced scanning techniques so users on a telephone call can be notified of critical PTT activity and won’t miss calls.

DYNAMIC RESOURCE PRIORITIZATION
Public Safety LTE systems immediately prioritize those users most critical to serving an incident, de-prioritize nonessential users and, when necessary, pre-empt.

The user’s profile, determined by agency, individual, role, home serving area, incident level and participation, distinguish service tiers and dynamically adjust quality of service (QoS) and prioritization based on individual, application and incident.

DATA SECURITY
Mobile Virtual Private Networks (MVPN) designed to work with Public Safety LTE systems provide end-to-end encryption, safeguarding sensitive information transmitted over the air in a wireless environment. Because it is designed to work with LTE QoS mechanisms, MVPN can safely protect the payload data while providing the necessary flags for QoS and prioritization handling.

REAL-TIME MULTIMEDIA INTELLIGENCE
Video applications designed for real-time wireless streaming are aware of the constant changing signal quality inherent with wireless broadband. As a user’s signal quality changes, video parameters such as resolution and frame rate automatically adjust to best fit the capabilities of the broadband connection and the device screen specifications.

UNIFIED SERVICES ACROSS MULTIPLE COMMUNICATION NETWORKS
Integrating Public Safety LTE with Project 25 and enterprise data networks opens the opportunity to deliver an enhanced capability of mission critical voice augmented with broadband multimedia applications. This unification can support common mapping of talk-groups and multimedia-groups, enabling services such as Push-to-Image and Push-to-Video mapped to voice talk-groups.

NATIONWIDE INTEROPERABILITY WITH LOCAL CONTROL
BRINGING TOGETHER THE ADVANTAGES OF STRONG COOPERATION BETWEEN PUBLIC SAFETY LTE AND CARRIER 3G AND 4G

Through an alliance with Verizon Wireless, Motorola’s Public Safety LTE solution delivers a true private and public solution with an operational framework to support nationwide interoperability using both public safety LTE networks and Verizon Wireless networks.

This solution provides public safety with the ability to determine and set policies that best fit their operating needs on their private LTE broadband network, along with the ability to roam onto a nationwide public carrier broadband network for extended coverage.
LEARNING FROM USERS ON THE FRONT LINES
At its foundation, Motorola’s design methodology depends on close collaboration with those who most intimately use our technology.

Motorola is using standardized open market LTE components to build a broad selection of LTE devices optimized for use by public safety and government enterprise users.

COMMUNICATING ANYWHERE
Multi-mode devices will allow public safety users to connect on their private networks as well as wireless carrier networks.

BUILDING AN ECOSYSTEM OF SUPPLIERS
LTE promises public safety a rich ecosystem of devices spurred by large communities of global developers, as well as steep cost declines emerging from the economies of scale for carrier LTE deployments worldwide.

MOTOROLA PUBLIC SAFETY LTE DEVICES

HANDHELD DEVICES
• Total mobility with smart devices offering interfaces designed for public safety
• Superior survivability and performance for public safety environments

IN-VEHICLE MODEMS
• Wide-area connections to mobile applications in vehicle
• Higher grade radio performance for reliable network connections
THE POWER OF MOTOROLA
SUPPORTING YOU EVERY STEP OF THE WAY

A COMPREHENSIVE SERVICE PORTFOLIO
Motorola offers a full spectrum of services to partner with public safety agencies in developing a technology and operations strategy, establishing a business plan, designing and deploying an optimized network and managing ongoing support.

TURN-KEY PUBLIC SAFETY LTE SYSTEM
End-to-end system designed to optimize mission critical operations and enable interoperability with public carrier networks, two-way radio systems and the broader enterprise data network.

IMPLEMENT RAPIDLY TO MEET DEADLINES
Unparalleled expertise and experience in deploying large-scale public safety networks that marry IP-based networks with optimized transport of broadband mobility services across wide and local area networks in the most challenging environments.

SHORTEN USER ACTIVATION TIME
Motorola’s SIM provisioning service simplifies the provisioning process by programming SIMs specific for your network, pairing them with user equipment before it ships and enabling services to dramatically reduce the activation time for your users.

SUPPORT THE MOBILE BROADBAND SYSTEM
LTE system performance and continuity assured with 7 x 24 x 365 network monitoring and triage. Emergency response teams can engage directly with development, production and factory engineers for rapid resolution.

SECURE DATA, PROTECT AGAINST THREATS
Defend against threats and protect data resources for gap-free security across the entire next generation communications platform from applications and services, IP transport, Public Safety LTE, radio networks, down to the data on a user’s device.

MULTI-TECHNOLOGY, MULTI-VENDOR PLATFORM
An experienced team of Motorola IT professionals can manage the broadband multimedia platform supporting the public safety and government member agencies to minimize total cost of ownership.

ACCELERATING PUBLIC SAFETY LTE
PROVIDING INDUSTRY LEADERSHIP, DRIVING CRITICAL PUBLIC SAFETY INNOVATIONS AND SUPPORTING A GLOBAL DEVELOPMENT COMMUNITY

FIRST MISSION CRITICAL LTE NETWORK FOR RIO DE JANEIRO DURING BRAZIL 2014 WORLD CUP 2014
FIRST LA RICS REGIONAL LTE NETWORK DELIVERS MISSION CRITICAL DATA FOR 80+ AGENCIES 2014
FIRST DEMONSTRATION OF PUBLIC SAFETY LTE SWITCHOVER TO CARRIER ROAMING 8/7/2011
FIRST ALLIANCE FOR PUBLIC AND PRIVATE NATIONWIDE PUBLIC SAFETY LTE 2/23/2011
FIRST BROADBAND VIDEO TO WORLD’S FIRST PUBLIC SAFETY LTE DEVICE 11/9/2010
FIRST PUBLIC SAFETY LTE DEVICE MODULE USING STANDARD COMPONENTS 11/9/2010
FIRST OVER-THE-AIR DATA SESSION USING IN-FIELD PUBLIC SAFETY NETWORK 10/28/2010
FIRST LTE 700 MHz BTOP FEDERAL BROADBAND GRANT AWARD 8/19/2010
FIRST DEMONSTRATION OF LTE PRIORITIZATION AND CONTROL 8/1/2010
FIRST DEMONSTRATION OF LTE RUTHLESS PRE-EMPTION 8/1/2010
FIRST PUBLIC SAFETY LTE AWARD WITH SAN FRANCISCO AREA BAYWEB NETWORK 7/29/2010
FIRST PUBLIC SAFETY APPLICATIONS DEMONSTRATED OVER LIVE LTE NETWORK 11/17/2008
ENHANCE PUBLIC SAFETY OPERATIONS
FOR DAY-TO-DAY, PLANNED EVENTS AND CRITICAL OPERATIONS

THERE’S NO SUCH THING AS A ROUTINE TRAFFIC STOP
OFFICERS MUST KNOW THEIR ENVIRONMENT AND CONTROL THEIR EXPOSURE

A clear view of the scene ahead is paramount; when a car door slams, an officer can see what just happened even though he was focused on completing a report.

- Share in-vehicle video with team and dispatch
- Scan license and connect to remote databases for fast identity verification
- Instantly read plates for lookup and auto-match against hot list
- Officers return to patrol quickly with in-field reporting and submission

A CITY CELEBRATES, EVENTS ARE PLANNED
CENTRAL COMMAND COORDINATES ACROSS THE GOVERNMENT ENTERPRISE

Integrated command connects multiple agencies, serving public safety, public service and public works, for a shared, real-time operational picture and effective event coordination.

- Coordinated command center
- Video surveillance
- Citizen inquiries and requests submitted through social media
- Perimeter security ensured with immediate match of individual to credentials
- Ability to push tasks to mobile workers

SHARE NETWORK RESOURCES ACROSS THE GOVERNMENT ENTERPRISE

OFFICER NOTICES A TRAFFIC LIGHT IS DAMAGED
Instantly sends map coordinates to a centralized municipal database.

A UTILITY TRUCK DRIVES PAST A SUSPECTED VEHICLE
Instantly sends map coordinates to police dispatch.
CONNECTING TEAMS TOGETHER
FOR A COORDINATED RESPONSE AND SAFER COMMUNITY

A BARRICADED SUSPECT TAKES HOSTAGES
DECISIONS MADE IN THE FIRST MINUTES CAN DETERMINE THE OUTCOME

Resources are dynamically prioritized for the most critical responders and real-time, shared situational awareness empowers a coordinated response across multiple agencies.

- Intelligent video streaming
- Remote control of surveillance devices and bomb disposal robots
- Rapid file transfer for images, floor plans and manuals
- Multiple agencies coordinate response with PTT over LTE

AN OVER-TURNED TANKER BRINGS TRAFFIC TO A HALT
POLICE, FIRE, EMS, STATE, FEDERAL AND MUNICIPAL AUTHORITIES RUSH TO ACTION

Evacuation needs are considered, state highway workers prepare for clean-up and nearby schools are notified so that buses can be rerouted.

- Alarms, sensors and triggers
- Instant access to hazmat procedures
- Remote experts communicate directly with on-scene responders
- Dynamic mapping and monitoring applications for weather and traffic
- Remote medical services

CONNECTING FEDERAL, STATE AND LOCAL JURISDICTIONS

BORDER PATROL AGENT IN PURSUIT
Share real-time video and location information with local law enforcement.

CROSSING STATE LINES DURING PRISONER TRANSPORT
Status update and location information shared with local authorities.
ON THE MOVE WITH MOBILE BROADBAND

VIRTUAL PARTNER WHERE EVER YOU GO

INSTANT ACCESS AT YOUR FINGERTIPS
Instantly connect into records, databases and other back office systems while on foot.

COMMUNICATE ANYWHERE
Roam and interoperate beyond your home network on other public safety or carrier networks.

STAND UP TO DAY-TO-DAY USE
Robust hardware designed to survive harsh weather and the beating of every day use.

IN THE MOVE WITH MOBILE BROADBAND

INFORMATION TO THE VEHICLE
Share real-time, multimedia information between the command center and the LTE-enabled vehicle for greater situational awareness

REAL-TIME VIDEO STREAMING
Enable live video streaming within the vehicle while dynamically adapting the stream to optimize the LTE capacity

INSTANT, IN-FIELD REPORTING
Interface with the records management system in the command center to enable field-based reporting and work flow management
IN A FEW SECONDS
A STOLEN VEHICLE WILL TURN DOWN THIS STREET
THE DRIVER WILL BE IDENTIFIED AS AN ARMED FUGITIVE WANTED IN THREE STATES
BACK-UP UNITS WILL BE ON THE WAY

When the moment brings danger, arm your first responders with the situational awareness they need to execute their plan. Combine mission critical voice with secure, streaming broadband multimedia. Unify voice, data and video on one system, connecting the entire government enterprise, and linking public safety with commercial systems. Equip your first responders with the real-time information they need, wherever they are, so they can react with confidence, and better keep citizens and the cities they protect, safe.

YOUR OPPORTUNITY TO BENEFIT FROM PUBLIC SAFETY LTE IS COMING. WILL YOU BE READY?
TRUSTED IN 5-ALARM FIRES.

TRUSTED IN ACCIDENTS WITH LIFE THREATENING INJURIES.

TRUSTED IN TENSE HOSTAGE SITUATIONS.

TRUSTED IN MAJOR HURRICANES, EARTHQUAKES AND OTHER NATURAL DISASTERS.

TRUSTED DURING THE WORLD’S LARGEST SPORTING EVENTS.

MOTOROLA CREATES INNOVATIVE PUBLIC SAFETY SOLUTIONS TRUSTED BY FIRST RESPONDERS FOR MORE THAN 85 YEARS.

Motorola is leading the way to a new generation of public safety solutions by combining advanced new technological capabilities with the reliability of the industry’s most trusted mission critical solutions to provide real-time sharing of crucial voice, data and video communications where they’re needed most.

To learn about Motorola Next Generation Public Safety and how your organization can benefit from Public Safety LTE, visit motorolasolutions.com/publicsafetyLTE