FIRE AND RESCUE SERVICE COMMUNICATIONS

MOTOROLA NEXT GENERATION PUBLIC SAFETY
Critical incident information is shared at speed
When it’s crucial that up to date incident information is shared with the right resources at the right time

- The Command and Control system identifies the nearest fire stations to the incident and rapidly issues callouts to available firefighters.

- Part-time firefighters acknowledge callout messages and information on incident participants is quickly relayed to the control centre.

- The incident commander is assisted by digitized information about hazardous materials on the scene and the safest way to deal with the situation.

- Information from previous fire inspections of the building is easily obtained and enables the incident commander to mobilise the most appropriate resources.

Inter-agency communications are seamless
When disaster response procedures are called into action

- At the request of a multi-agency incident command leader, radio network sites are reconfigured to provide priority access to incident participants – ensuring critical messages will get through.

- A dispatcher at the fire and rescue services control centre remotely steers radios used by team leaders onto a common incident talk group - helping the incident commander coordinate the response.

- Sensors combine with video analytics to provide a reliable, early stage fire detection capability – giving fire teams precious seconds that could make an enormous difference and providing critical information about a fire.
PARTNER WITH MOTOROLA AND REAP THE BENEFITS OF THE NEXT GENERATION OF PUBLIC SAFETY COMMUNICATIONS
PREVENTION AND EARLY DETECTION OF FIRES

An array of advanced technologies that include mobile computing devices, video analytics and advanced sensors help to improve fire prevention and early stage fire detection.

ALERT FIRE CREWS

Emergency alerting delivered over the existing mission critical TETRA network reduces operational costs, avoids incremental costs of separate paging networks and supports the drive for greater efficiency.

MOBILISE FIRE CREWS

An integrated command and control system ensures that critical and up-to-date information is delivered to the incident commanders and firefighters at the right time and in the most appropriate format.

ACTION AT THE FIREGROUND

Mission critical TETRA radios and accessories that combine industry leading RF performance with ease of use and ruggedness enhance the safety of fire-fighters at the fireground.

CHECK FIRE EQUIPMENT AND PREPARE FOR REDEPLOYMENT

A robust, integrated asset management system supported by comprehensive services enables reduced ownership and operating costs.
MOTOROLA IS FOCUSED ON DELIVERING ADVANCED TECHNOLOGIES AND SERVICES ALIGNED TO FIRE PREVENTION, EARLY FIRE DETECTION AND EMERGENCY RESPONSE REQUIREMENTS.
Whilst providing rapid response services in emergency situations remains a primary task, Motorola understands that Fire and Rescue services need to dedicate significant time on preventative work. Such preventative measures can be wide ranging and include fire safety inspections as well as ensuring adherence to building design regulations for fire safety.
SUPPORTING FIRE INSPECTIONS

Unless information is provided in a manageable, actionable format, it can very easily become unutilised. One of the benefits of digitised information is in facilitating the process of sharing information across multiple systems and making information actionable. Motorola offers a broad range of mobile computing devices that enable the efficient capture of fire inspection information. With their built in image capture and WAN networking capabilities, various formats of fire inspection data can be readily uploaded to the control centre network and used to update risk planning systems.

Motorola mobile computers combine enterprise class software applications with industry leading bar code scanning and imaging technology. Such capabilities can facilitate the capture of critical information and help to streamline fire inspection activities.

INTELLIGENT VIDEO SURVEILLANCE FOR EARLY DETECTION

Another important part of the preventative toolkit involves using monitoring and sensor technology to give fire and rescue services an early warning of a potential accident. In the case of forest fires, for example, early detection is crucial, and can contribute enormously to bringing about a successful outcome. That’s why we see increasingly, the use of video and sensors in early detection systems for fires.

Monitoring a large number of video feeds using limited human resources may necessitate the use of automated surveillance. With our comprehensive services offering we can help you harness the benefits of intelligent video surveillance and wireless broadband - allowing the management by exception of a large number of video feeds coming into the control centre.

Our intelligent video solution analyses numerous streams for significant events which can be shown to the video operator and help in providing an efficient and reliable fire detection solution. The video solution can also serve as a powerful complement to your existing alarm verification procedures – helping you to avoid the high cost of responding to false alarms.
First responders need to make every second count. This means ensuring that the process from the 112 emergency call to the deployment of fire crews is fast, efficient and seamless. That’s where our Command and Control solution comes in – we can work with you to define and implement specific business rules for call scripts, initial response and associated action plans for different scenarios – these could for example include a system for notifying and alerting standby, part-time and volunteer firefighters, depending on incident characteristics.
Part time or retained firefighters can be alerted with our **Call Out** solution. These messages can then be distributed over the TETRA network to specific firefighters situated within a geo-fenced area. Call Out is a bi-directional alerting system that allows you to flexibly request additional resources based on responses to the initial call out request. The system not only helps you keep track of who has responded to the request, it also helps you eliminate unnecessary call outs - a key factor in reducing the costs of part-time firefighters.
Motorola’s TETRA radios will enable streamlined operations through the support of status messaging and advanced packet data services.
EFFICIENT STATUS MESSAGING

With the Radio Messaging System (RMS) licensed feature, we’ve made it simple to distribute incident information between fire vehicles and the control centre using the TETRA network. For example, by putting their MTM5400 mobile radios into RMS mode, firefighter teams only need to make single button presses on the radio keypad, to register status updates.

The captured status information can be easily processed and used for post incident analysis or even to compile reports to government agencies charged with assessing fire station performance – thus helping to minimise time spent on administrative tasks.

EMPOWERING THE INCIDENT COMMANDER

In the field, timely, relevant information is critical to protecting lives and property. Our Mobile Data solution works over the existing TETRA network and empowers Incident Command by extending control centre information.

With the Mobile Data solution:
- Receive incident information in real time information from the CAD system
- Provide status, automatic vehicle location and crewing information
- Access building plans before arriving at the scene
- Access business intelligence applications such as hazchem databases, hydrant management and risk planning.

FIREGROUND PREPARATIONS

In large incidents involving a wide range of fire stations, Incident Commanders need to be aware of the status of fire-fighters at the fireground.

IN THE EVENT OF

an unplanned incident, your disaster responses may have established procedures for interoperating with other agencies, such as police and emergency medical services. These events can trigger network congestion, due to highly localised usage of the network by multiple users. In these cases it is essential that critical incident participants are given the highest priority for accessing the network. That’s why we created the Subscriber Class by Group feature, a unique capability that helps ensure first responders are provided with priority access over other users in emergency situations. Motorola can work with you to offer guidance on which changes your network provider will need to make to successfully implement this solution for disaster response scenarios.

OVER THE AIR TALK
GROUP RE-ASSIGNMENTS

For incidents involving multiple fire stations, group communications must be seamless to enable coordination at the fireground – especially where fire stations use specific talkgroups. By activating the SDS Remote Control feature on our TETRA radios, Mobile Incident Command or the Control Centre can steer selected radios onto the appropriate incident talk group.
ACTION

We have developed a powerful combination of ergonomic accessories and rugged, high performance radios that are easy to operate - enhancing the safety of firefighters and helping them focus on their mission.
Firefighters have told us that when working in the midst of thick smoke, auditory senses act as an extra pair of eyes. So in an evacuation situation, voice messages must be delivered clearly and efficiently. By activating the red emergency button on our TETRA radios, communication on the relevant talkgroup receives the highest priority, ensuring that firefighters get the call to evacuate instantly.

For large incidents where the deployment of a mobile incident command vehicle becomes necessary, real-time video can increase situational awareness at the fireground. The use of wireless broadband in conjunction with video releases staff from monitoring tasks – potentially reducing the number of firefighters required at the incident area.

Motorola can provide a broad range of easily deployed wireless video solutions that are ideal for the fireground applications. These solutions combine IP cameras with intelligent access points that can be installed on vehicles and enhanced wireless routers, which act as fixed location access points. In addition, we offer portable PCs that can be fitted with wireless broadband cards.

Network coverage can be unpredictable, especially inside buildings. Maintaining contact with firefighters may in some cases be better served using direct radio to radio communications, via TETRA Direct Mode Operation. In such situations the Direct Mode Repeater function available on our MTM5400 mobile radio can improve communications. Offering best-in-class receiver sensitivity and up to 10W transmission power in DMO Repeater mode, the MTM5400 is a powerful solution for extending coverage to critical areas in the fireground. Alternatively, the MTM5400 can function as a DMO Gateway to the trunked network, allowing communications with the control centre and other agencies such as police and emergency medical teams.

This guiding principle supports our rationale for embedding technology that’s second nature across all our mission critical radios. To promote the safety of firefighters, we have developed a portfolio of radios that alongside high performance, offer toughness and ease of use.
We provide a robust and innovative range of scanners for a wide variety of data-capture scenarios. These can help in tracking and maintaining visibility of key assets. For example, permanent barcodes can be etched onto helmets, lights, radios and other critical items. These directly marked parts can be subject to extreme environments and still be read — unlike a traditional label — therefore allowing front line equipment to be managed more efficiently and accurately.
POST INCIDENT ANALYSIS

We offer a range of solutions to help support post incident analysis. For example, for networks based on Motorola Dimetra IP, we can provide a complete logging system for post incident analysis. Our logging solution records and stores all multimedia inputs while appending relevant additional electronic content such as pictures, reports, texts and faxes in one place.

With our TRACES application, you can even identify areas where network coverage may have been deficient during an incident, using data stored on Motorola radios. TRACES is a Motorola-developed application that enables you to gain visibility of network coverage issues, create tailored reports and take corrective action. TRACES provides a real-life view of your network gained from actual radio usage while your firefighters go about their mission critical activities. Once an issue is identified, the data can then be supplemented by more detailed drive testing. With reports generated by TRACES, you can quickly and efficiently notify your service provider of potential network coverage issues prior to incidents and help to ensure that firefighters’ safety is never compromised.

TETRA RADIO MANAGEMENT

Manually programming a fleet of radios is not just time consuming, it also reduces your productivity. By centralising and automating radio programming, software maintenance and upgrades, our integrated terminal management system answers the call for a simplified and efficient approach to managing TETRA radios in the field.
MOTOROLA TETRA RADIOS DESIGNED FOR FIREFIGHTERS

WE OFFER COMPREHENSIVE USER TRAINING FOR ALL OUR RADIOS INCLUDING OPTIONS FOR E-LEARNING AND INSTRUCTOR LED SESSIONS.

MTP830 S TETRA RADIO

ENHANCED USER SAFETY
- “Man down” detector
- Advanced GPS receiver for location services
- Supports a wide range of accessories

RUGGED AND RELIABLE
- Exceeds all 11 test categories of military test standard MIL-STD 810
- Weather resistant, IP55 compliant

EASE OF USE
- Enlarged rotary knob for volume or talkgroup changes
- Easy to use cellular style user interface
- Automatic accessory sensing

MTP850Ex TETRA RADIO

ENHANCED USER SAFETY
- ATEX approvals for use in hazardous environments with explosive gas and dust
- “Man down” detector
- Wide range of ATEX certified audio accessories
- Cellular style user interface for simplified operation

RUGGED AND RELIABLE
- Exceeds all 11 test categories of military test standard MIL-STD 810
- IP65 compliant, delivers best in class ingress protection

EASE OF USE
- Large key pad to simplify gloved operation
- Easy to use cellular style user interface
- Automatic accessory sensing
SERVICE FROM THE START
FOR COMPLETE PEACE OF MIND

Optimising uptime of your Motorola radio is imperative in mission critical situations, lives could depend on it. Take advantage of our range of flexible support packages combining expert technical support, software updates and hardware repair to ensure your radios are maintained to manufacturing specifications and your uptime is optimised.

MOTOROLA TETRA RADIOS
DESIGNED FOR INCIDENT COMMANDERS

MTP850 S TETRA RADIO

ENHANCED USER SAFETY
• ‘Man down’ detector
• Advanced GPS receiver for location services

RUGGED AND RELIABLE
• Exceeds all 11 test categories of military test standard MIL-STD 810
• Weather resistant, IP55 compliant

EASE OF USE
• Easy to use cellular style user interface
• Tactile keypad
• Automatic accessory sensing
A COMPLETE PORTFOLIO OF ACCESSORIES FOR FIRE AND RESCUE SERVICES

For optimum usability, our TETRA radios are optimised for use with a wide range of accessories. These include remote speaker microphones, batteries, chargers and a host of specialist audio equipment – all are fully tested to Motorola’s exacting requirements for product quality and performance. To further ensure optimal performance in a real life situation, all supplied accessories are fully tested with the radio.
MOTOROLA PARTNERSHIPS

BRINGING TOGETHER OUR RESPECTIVE STRENGTHS, AND DEEP INVESTMENTS IN INNOVATION FOR FIRE & RESCUE SERVICES

Through partnerships, Motorola offers a wide range of specialist ATEX approved audio accessories – ideally suited to firefighters working in hazardous environments. These include helmet communication units, large PTT devices for gloved operation and remote speaker microphones.

MTM5400 TETRA RADIO

MT5400 TETRA RADIOS ARE IDEAL FOR FIRE TRUCK INSTALLATIONS

INDUSTRY LEADING PERFORMANCE

• Best in class receiver sensitivity delivers exceptional coverage
• Integrated Repeater and Gateway function with up to 10W transmit power output
• Hardware ready for TEDS High Speed Data connectivity

EASE OF USE

• Easy to use cellular style user interface
• Common user interface across all portable and mobile radios minimises additional training requirements
• Multiple installation options, ideal for fire truck installations
With the current economic conditions, we are seeing that government agencies are increasingly looking to shift from more capital-intense customer owned business models to increasingly operational expense-focused managed service models where a predictable, recurring fee takes the place of a large upfront spend.

To support these new flexible business models, we offer a comprehensive portfolio of services across the lifecycle of mission critical communications solutions - from consultation around initial concepts to design, integration and ongoing solution support. We also offer a range of managed services offerings, encompassing radio software and configuration management, asset management and all aspects of repair and maintenance. These enable you to take care of internal strategic issues, while we take care of your fleet of radios.

Motorola is leading the way to a new generation of public safety solutions. 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.

For more information on our next generation public safety communications, please visit us on the web at: www.motorolasolutions.com