

# Smarter Connections for Responders

## How Mobile Performance Management Promotes Public Safety

Technology has brought sweeping innovations to public safety as patrol cars have been transformed into high-tech mobile offices. Fire trucks and EMS vehicles are following suit as jurisdictions broaden their mobile deployments. Mobile technologies are shifting the way people work and public safety is no exception.

**The Role of Mobile Performance Management.** From the time when mobile data networks first appeared, public safety organizations have equipped their responders with mobile data access. One of the cornerstones of their deployments has been use of Mobile Performance Management software. It secures, optimizes and accelerates data traffic, sparing responders from the complexities of dealing with multiple connections and variable coverage conditions so they can focus on their critical jobs. Here is how this software is being applied in public safety today, and being extended to new uses and workers.

## Use of Multiple Networks

Public safety agencies can't take the risk of poor connections compromising their access to critical data that they need to respond. Therefore they often require multiple connections in order to establish connectivity throughout their jurisdiction. These can include various combinations of a legacy packet radio network, one or more cellular data networks, and departmental Wi-Fi to cover headquarters, parking garages and fueling stations, at police precincts and fire stations. In some jurisdictions, there is a municipal Wi-Fi network to add to the mix. Mobile Performance Management software makes all of these networks behave as a single unified network, switching automatically to the best-available connection and handling the logins transparently without requiring user invention.

## Changing Mobile Access Needs

Legacy packet radio systems are still used in some jurisdictions for dispatch, database access and similar low-bandwidth applications. But now departments are looking to new technologies that demand higher bandwidth. For example, some police departments have installed remote video-surveillance cameras in high-crime areas that the officers monitor from their patrol cars. EMS services are adding the ability to transmit 12-lead EKG data and information from patient care reporting systems directly to the receiving hospital for speeding time-to-treatment.

## Mobile Performance Management and FirstNet

The First Responder Network Authority (FirstNet), a nationwide wireless broadband network dedicated to public safety, is currently being developed. Mobile Performance Management software with its diagnostic capability is playing a major role, helping organizations understand their current coverage and where areas need to be supplemented or overlapped by FirstNet. Since Mobile Performance Management supports any and all wireless connections, agencies that currently deploy the software are ready to make the transition to FirstNet, incorporating it alongside their Wi-Fi and other wireless networks.

With economics dictating that departments preserve existing systems and equipment, it can be difficult getting the older and new systems to run well side-by-side. With its ability to support all connection types, Mobile Performance Management allows legacy and new systems to coexist, routing traffic over the most appropriate connection and allowing departments to extend the life of their systems rather than do a forklift upgrade to access new technologies.

### **Balancing Security and Access for Multiple User Types and Agencies**

In some cases, municipalities with multiple wireless users will support a broad collection of users under one umbrella which can include police, fire, EMS, social services, building and code inspectors, support personnel and others. All of these users have different ways of working and varying needs for application access, security and connection availability. Mobile Performance Management provides an encrypted tunnel that meets federal standards required for police work, and for complying with HIPAA regulations for EMS services. Moreover, security enforcement through adaptive policies allow administrators to define which users and groups may use applications and connections, which must use the secure tunnel, and whether the tunnel can be bypassed.

### **Controlling Traffic Over Various Networks**

Policies are especially useful as police departments are making broader use of video from dashcams and wearable cameras. These cameras push out large quantities of data. Adaptive policies allow IT departments to optimize the video stream for the prevailing network conditions, so that video and voice data is usable despite high packet loss, latency, and jitter common on heavily used carrier networks. Policies can also keep Web traffic off of certain networks, or only allow browser access to certain sites such as the departmental intranet. Meanwhile, the compression and link optimizations applied by Mobile Performance Management also reduce bandwidth consumption, and make applications more responsive.

### **Simplified Management**

Mobile Performance Management works hand-in-hand with mobile-device management suites; while those suites manage the devices, Mobile Performance Management secures, optimizes and accelerates the connections. Adaptive policies make it possible to specify when, where and how management tasks such as software upgrades and antivirus updates are pushed out to the devices. In addition, the compression and link optimizations make it far more practical to use remote-desktop software for monitoring, training and supporting users. Personnel no longer have to make a special trip to headquarters to have their device looked at, which is a real time savings in larger jurisdictions.

### **Streamlined User Access**

As police cars and fire trucks are loaded with more and more technology, the more important it becomes to make it simple for the users. Mobile Performance Management has been shown to sharply reduce the number of support calls and frustration due to issues related to the mobile environment. Instead of repeat logins in order to re-establish lost connections or switch between networks, responders only have to log in once, at the start of the shift, and the software takes care of the rest.

### **Improved Productivity And Faster Response**

By extending the range of applications that can be used effectively from the field, Mobile Performance Management enables a mobile office in every vehicle. It relieves personnel of the need to drive back to stations in mid-shift to do paperwork. In the case of police, that correlates to more officers on the beat and for fire and EMS, more units available to respond to calls. In turn, that leads to more responders distributed throughout the field and faster response time everywhere.

### **Visibility And Troubleshooting**

Mobile connectivity issues are difficult to diagnose, because units are in the field and the root cause of a problem can be in the application, network or at the device level. It often takes time-consuming drive tests and iterative trial-and-error troubleshooting. Mobile Performance Management includes analytics that measure the performance of cellular data networks. It collects information gathered by the individual devices about the quality of connections, uses GIS coordinates to locate where problems occur, and tracks it all over time. It turns this information into precise data coverage maps, detailed application and network and device reports. Diagnostics capability launches immediately when problems are encountered, and delivers complete information for IT about the status of the connections and hardware for fast root-cause analysis and resolution that puts the responder back on the job.

### **Conclusion**

Just as Mobile Performance Management is fundamental technology for public safety today, it will continue to play a vital role in the future as agencies embrace new technologies and extend deployments to additional users. By making mobile applications and networks easier to access and use, they allow personnel to focus on the primary mission to protect the public.