With the installation of Motorola MW810 Mobile Workstations in its fire apparatus, the Rogers Fire Department reduced its response time to emergency calls by 25 seconds — an eternity when responding to a fire.

**SITUATION**

The City of Rogers, AR, Fire Department wanted their emergency responders to have as much real-time information en route and at the scene as possible to help improve response times. They tried using consumer-grade laptops in some of their 18 front-line emergency response apparatus, but they were too slow to power up and not robust enough to stand up to the rigors of the job. Any sustainable, long-term solution also had to be compatible with existing municipal systems and scalable to take advantage of future enhancements.

**SOLUTION**

The Department installed Motorola MW810 Mobile Workstations in their fire trucks and other emergency response vehicles. The Rogers Fire Department addressed these challenges by switching from laptops to Motorola MW810 Mobile Workstations in their fire-fighting apparatus. The firefighters have come to trust these rugged, fixed-mount devices as they change statuses, find routes and view incident data as it is collected at the 911 center. They wired the workstations in always-on mode, avoiding system boot-up time. The ergonomic MW810 displays are bright enough to be seen in bright sunlight and are built to withstand the harshest environments.

**RESULTS**

The successful installation of mobile workstations seamlessly interfaced with existing systems and resulted in a 25-second reduction in response time to emergency calls. The Rogers Fire Department has seen improved response times to calls, better information en route, and firefighters who can’t imagine how they were able to do their job before the solution was implemented. All this leads to a safer community and citizens who get a better return on their tax dollar.
PROTECTING A THRIVING BUSINESS CENTER IN NORTHWEST ARKANSAS

“This is a vibrant, diverse and fast-growing community with public safety demands on our 110 firefighters that you might expect in a larger city such as Tulsa or Omaha,” says Fire Chief Tom Jenkins. Nestled in the northwest corner of the state of Arkansas, Rogers is home to the first Walmart store and many other large businesses the fire department protects.

While Walmart’s corporate headquarters moved just west to Bentonville, hundreds of their vendors and suppliers have setup large satellite offices in Rogers. In addition, poultry and meat giant Tyson Foods and national intermodal transportation leader JB Hunt are located in Rogers. So while the residential population of the town is 60,000, the daytime business population under the protection of the fire department in the metropolitan area can grow to 100,000.

TWO YEARS OF TRYING TO GET IT RIGHT

In a 2009 strategic planning session, the department identified challenges to having critical information in the field. The emergency call information they received was in the form of a radio dispatch. So the firefighters had to always have an ear tuned to catch the information, be able to hear it over the ambient noise in the station, and retain the information while they were putting on their gear and rushing to get out of the station.

Even printing the calls in the station wasn’t sufficient since the information could not be updated when the situation changed — as emergency situations always do. So the department set out to find a data solution that would provide dynamic information delivered in a real-time format in a manner that could be ergonomically adjusted and used effectively in bright environments and harsh conditions.

The city attempted to implement a mobile data solution citywide for police, fire and municipal use with consumer-grade laptop computers. Trying to adapt a device not made for a vehicle, they introduced many single points of failure such as power management, lack of ruggedness, and unreliable Wi-Fi coverage. Eventually they abandoned the laptops and went back to the drawing board. They decided they had to get a solution made for in-vehicle use specifically.

THE BEST CHOICE TO KEEP OUR CITIZENS SAFE AND OUR FIREFIGHTERS CONNECTED

“Even when we compared Motorola’s in-vehicle solution to the one competitor we could find, only Motorola’s workstation had status buttons that the firefighters could easily press to change their status in the field, providing dispatchers with valuable information they never had before. The more reliable information our dispatchers have about the status and location of the firefighters in the field, the more reliably they can make decisions about resource allocation when we have multiple operations going on,” Jenkins says.

“All these factors made it easy to convince the ‘powers that be’ the Motorola solution was the best. It’s difficult to install computers in fire apparatus because each of them is different: the electrical systems are different, the chassis can be built by a different company than the rest of the apparatus, and they contain all sorts of equipment you wouldn’t find in other vehicles. But Motorola was so confident in their product, they assured us there would be no difficulty in installation and integration. And they were right. Motorola’s MW810 Mobile Workstation was the hands down best choice to keep our citizens safe and our firefighters connected,” says Chief Jenkins.
DEMO MODEL WINS PRAISE FROM FIREFIGHTERS

Motorola provided and installed a demonstration model in one of the department’s fire apparatus. The department used it for more than three months to be completely certain that it was the right solution, addressing all the single points of failure they had uncovered with their previous attempts using consumer-grade laptops.

The firefighters became huge advocates for the device in the field when they saw how bright the display was and how easy it was to use even with their gloves on while maneuvering in the cramped quarters of the apparatus cabin.

“This was critical,” Chief Jenkins says, “because the mayor was only going to fund the initiative if we got it right this time. We needed to be sure that this was the exact right solution. And it was.”

IT WORKS WHEN YOU NEED IT

Firefighters now get accurate directions to the scene of the emergency, can report accurate performance times back to the station, and are able to see the status and location of all other units in real-time.

“This was critical. We needed to be sure that this was the exact right solution. And it was.”

— Fire Chief Tom Jenkins

TWENTY-FIVE SECONDS IS AN ETERNITY

One of the most impressive results that has been seen since the implementation of the Motorola solution is a 25-second reduction in response time from when a call is received by the dispatcher to the moment the apparatus leaves the station. “Our drivers can’t afford to wait to pull out of the station for an onboard computer to boot up,” says Jenkins. “These units are always on and already booted up.”

Twenty-five seconds can mean the difference between a fire being contained and it spreading to a second or third room. “A fire can double in size every 60 seconds. So 25 seconds makes a huge difference not only in how you are going to attack a fire, but also in staffing and equipment. Our average response time is lower than it has ever been.”

INTERFACE WITH EXISTING CITY SYSTEMS SEAMLESSLY

While at first, the city IT department was unfamiliar with the Motorola workstations, they quickly found they were easy to configure and integrate with the existing systems. They have become advocates of the systems and have been recommending them for other city agencies.
One invaluable software integration that seamlessly worked with the MW810 Mobile Workstation is the department's gap coverage application that helps maintain a data connection even if the responders move out of wireless coverage areas. It caches the network activity and sends it when the mobile workstation comes back in range. “This provides us reliability in our system when we have to go to a rural part of the county,” adds Jenkins. “And the Motorola workstations interfaced seamlessly.”

The versatility of the system went beyond the expectations of the department in every task they added to the workstation. “It’s because it’s fundamentally a good rugged computer that rises to the challenge every time,” he says.

FUTURE PLANS
Currently the systems are installed in 90 percent of the apparatus the Rogers Fire Department utilizes. “The system has become crucial to everything we do,” says Jenkins. “With the first wave of installations, we didn’t install them on our staff vehicles, reserve trucks or the emergency vehicle we maintain at the airport. We quickly realized that was a mistake and we’re installing them on these apparatus as well because the firefighters actually feel at a disadvantage without it.”

“It’s because it’s fundamentally a good rugged computer that rises to the challenge every time.”
— Fire Chief Tom Jenkins

For more information visit www.motorola.com/MW810