

# CLEMIS Deploys MW810 Mobile Workstations to Enable “Virtual Office” in Squad Cars



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– Tim McRae, CLEMIS Technical Operations Supervisor

## **Situation: Rapid information access for public safety responders in the field**

In the public safety world, information is power. Whether it’s warning officers of prior incidents at a particular address, giving them the ability to quickly run license plate numbers, or matching a set of fingerprints to a mug shot, information can speed operations and save lives. Equally important is a rugged, reliable Mobile Workstation that enables fast, easy access to the data.

## **Solution: Motorola MW810 Mobile Workstations provide critical data at officers’ fingertips**

Based on a scorecard that measured performance, features, software, and other criteria, CLEMIS chose the Motorola MW810 Mobile Workstation. Designed specifically for public safety applications, the MW810 was chosen for its powerful computing platform, superior display and keyboard ergonomics, and the ruggedness that rises to the public safety challenge.

## **Results: Faster response, more informed decision making, enhanced operations**

The MW810 turns patrol cars into mobile offices, allowing officers to quickly look up critical data that enhances situational awareness, improves officer safety, increases number of warrant arrests, recovers more stolen vehicles, eliminates duplicate data entry, and improves the quality and accuracy of field reports. In addition, information is available in real-time, providing transparency and timely response to media requests.

### **CLEMIS, Oakland County, MI**

- Promoting communication and sharing of criminal justice information
- Consortium of over 200 public safety agencies
- 8,000 users
- Covers 5,000 square miles
- 1 million tickets written per year

### **Motorola Solution**

- More than 600 MW810 Mobile Workstations
- Several hundred legacy MW800 and MW520 Mobile Workstations still in use

### **Results:**

- Greater resource utilization and faster response
- Enhanced officer safety through situational awareness
- Higher report quality and data integrity
- Improved organizational communications through access to shared data



“On the front end, the MW810 has increased productivity because officers can search the information themselves without having to call into the station to ask someone else to do it. On the back end, it eliminates duplicate entry, and once the officers enter the data, it’s immediately available to supervisors, investigators, and the Records Section for release through the Freedom of Information Act.”

– Lt. Michael Lyczkowski, Public Information Officer, City of Troy Police Department



Headquartered in Pontiac, MI, CLEMIS brings state-of-the-art computer technology to first responders in more than 200 agencies.

Over 40 years ago, Oakland County, Michigan formed the Courts and Law Enforcement Management Information System (CLEMIS) to provide access to state-of-the-art computer technology to public safety agencies through the county, including the FBI and Michigan State Police. Since its founding, CLEMIS has grown to encompass seven counties spanning 5,000 square miles, 43 court jurisdictions, and serving over 200 public safety agencies throughout southeast Michigan. Today, CLEMIS provides centralized access to shared data delivered at lightning speed to public safety first responders in the field to enhance operations and maximize the state’s criminal justice database.

### **SITUATION: Knowledge is power**

In the public safety world, “information is power” takes on a whole new meaning. Whether warning officers of prior incidents at a particular address, giving them the ability to quickly research license plate numbers, or matching a set of fingerprints to a photo, information can speed operations, reduce costs, and – most important – save lives.

When CLEMIS first launched the centralized database, there was no standard for the type of mobile data computer the officers could use in their patrol cars. As a result, a mix of equipment including tablet computers, laptops, and Motorola MW520 and MW800 mobile data computers were used to access the database from the field. In 2007, CLEMIS decided to standardize on one hardware platform in order to reduce costs for their members and have a single hardware platform to simplify training and software imaging.

“We were looking for factors like ruggedness, reliability, and the ability to withstand the temperature extremes that these units are subjected to in a squad

car,” says Tim McRae, CLEMIS technical operations supervisor, Department of Information Technology. “We also paid close attention to ergonomics and usability issues, such as backlit keys, bright screen, and a detachable keyboard that could be used even with gloves on.”

CLEMIS held a selection process to choose the right solution and gave vendors an opportunity to present their proposals directly to representatives from its member agencies and staff.

### **SOLUTION: Motorola MW810 Mobile Workstation**

Based on a scorecard that measured performance, features, software, and other criteria, CLEMIS chose the Motorola MW810 Mobile Workstation based on its powerful computing platform, superior display, keyboard ergonomics, and the re-use potential for MW800 displays, keyboards, and mounts. In addition, the MW810 fixed-mount workstation operates in hotter and colder environments, provides a greater array of connectivity options, and with removable keyboards and enhanced screen design, the workstation is easier for officers to use in the vehicles.

“We found that officers who had laptops and tablets never took them out of the vehicle. Added to that is the complexity of docking stations, docking ports, and resulting service problems, and we chose to go with a fixed mount unit,” says McRae. “It was a unanimous vote of our governing body, made up of Police Chiefs and Representatives from (over 200) member agencies.”

The Motorola MW810 is the most advanced fully-rugged fixed-mount computer on the road. Optimized for wireless communications in public safety vehicles,

the MW810 provides reliable, secure wireless connectivity and computing power for mission-critical applications. The embedded high-performance computing platform is optimized for seamless mobility, enabling access to information even at highway speeds.

CLEMIS has already begun replacing the agencies' tablets and laptops with the MW810 Mobile Workstations. The MW810s are also replacing Motorola MW520 Mobile Workstations, first installed over seven years ago. (Even after so many years in patrol cars, the tough MW520s "just won't die," claims Jamie Hess, Chief of CLEMIS Division.) Today, over 600 MW810s have been shipped to over 45 CLEMIS member agencies. Some of those agencies are already using previous-generation MW800 workstations, whose displays and keyboards can be re-used with MW810s.

"There was no question that the MW810 was the best choice," says Hess. "It has met every expectation the officers had and is the best we've ever used."

#### Computing power for mission-critical applications

Applications are a critical part of enabling operational efficiency, faster response, and increased officer safety through informed situational awareness and with quick, easy access through the MW810 Mobile Workstation, officers can increase productivity and safety through CLEMIS applications, such as:

- **License Plate Recognition:** Plate capture in motion and database comparison in less than a second
- **Fingerprint ID:** Searches and compares over 625,000 fingerprint impressions per second
- **Facial Recognition:** Used with suspect's fingerprint background check to quickly confirm identity
- **Fire Records Management:** Mobile inspections and reporting of fire prevention compliance
- **Auto Impound and Evidence & Property Management:** Imports data from the CLEMIS NetRMS (Records Management System), eliminating the need for duplicate entry

The MW810's ability to integrate and provide lightning-fast access to critical third-party applications allows 911 dispatch centers to send the most appropriate units to a scene. "We have real-world examples where these systems were used to locate homicide suspects within minutes and send pictures and data about those suspects to all our units within seconds, enhancing officer safety. It's a great way to expedite and use that data," says Hess.



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#### RESULTS: Faster field response, more informed decision-making, greater safety

As a member of the CLEMIS consortium, the City of Troy Police Department relies on the MW810 workstations to keep officers safe and productive in the field. Giving them quick access to critical data before a call, especially if there is an 'officer safety' caution attached to the LEIN entry, the MW810 also provides an easy method to file a report after the event without having to return to the station.

Officer safety relies on situational awareness and the mapping feature and access to aerial photos provide critical data, especially on primary runs. Officers can locate addresses much more quickly and can easily learn the building's layout to determine the best way to approach, especially when responding to a potentially volatile situation.

#### Faster response = increased productivity

"On the front end, the MW810 has increased productivity because officers can search the information themselves without having to call into the station to ask someone else to do it," says Lt. Michael Lyczkowski, Public Information Officer, City of Troy PD. "On the back end, it eliminates duplicate entry, and once the officers enter the data, it's immediately available to supervisors, investigators, and to the records department for release through the Freedom of Information Act."

In fact, because access to the data is so quick and easy, City of Troy officers are more likely to run the data on every traffic stop. "It may seem that officers are doing more work than before because they look up the information themselves," says Lt. Lyczkowski. "But it's actually quicker for them to look up the data than call and ask for it, and we've found they are recovering more stolen vehicles and making more warrant arrests because of the technology."

#### Ease of use

The MW810 makes it easier for officers in the field to access the data and use the CLEMIS applications from the patrol car. With 1200 NIT of adjustable brightness, users can easily read the display, even in direct sunlight; customizable buttons enable instant access to frequently-used functions; and the wide viewing angle allow both driver and passenger to view the same screen. Officers can also file a report from the field while sitting in the patrol car with the removable keyboard, which they can put on their laps or lean against the steering wheel, preventing them from having to twist or turn their bodies in an uncomfortable position.



#### MW810 Mobile Workstation

- **Design:** Fully rugged (MIL-STD-810G); detachable, full-size keyboard; glove-friendly touch screen
- **Temperature range:** Operating temperature  $-22^{\circ}\text{F}$  to  $+161^{\circ}\text{F}$  ( $-30^{\circ}\text{C}$  to  $+72^{\circ}\text{C}$ ). Storage temperature  $-61^{\circ}\text{F}$  to  $+185^{\circ}\text{F}$  ( $-52^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ ).
- **Expandability:** Supports a large number of external devices and wireless connections
- **Changes, Upgrades and Repairs:** Simple and cost effective, saving thousands of dollars per vehicle

“The MW810 with its form factor fits very well in the squad cars, allowing us to locate the CPU in a more convenient place,” says Ryan Wolf, Analyst Programmer, City of Troy Police Department. “It’s a better fit for our officers too because they can slide the keyboard over to the driver. With a laptop, you’re more restricted where it can go and how it fits into the vehicle.”

#### Rugged and easy to support

Ruggedness is also a critical feature and the nature of public safety demands that the tools of the trade must stand up to the challenge. “Police cars are often involved in high speed chases and sometimes they crash,” says McRae. “The MW810s are built to last and stand up to the most demanding conditions.” In addition, the MW810 can withstand extreme temperatures, an important attribute as the City of Troy has reached record high temperatures of  $104^{\circ}\text{F}$  ( $+40^{\circ}\text{C}$ ) and record lows of  $-21^{\circ}\text{F}$  ( $-29^{\circ}\text{C}$ ).

In addition, supportability and easy maintenance is critical because if the mobile device is down, the

squad car is down too. “From a support point of view, our end users can image their device from a USB thumb drive in less than 20 minutes,” says McRae. “We can either fix the computer in 20 minutes or replace it in 10 minutes. It’s very easy to support.”

#### Bottom line: the right tools are a matter of life and death

The appropriate tools of the trade are important in any industry but for public safety, the right tools can mean the difference between life and death. Every facet of a police officer’s job involves their mobile computer and anything a computer can do to enhance safety is critical.

“As a retired cop myself and a part-time cop now, one of the most important things about the MW810 is that it does what the cops need,” says McRae. “It doesn’t make their jobs more difficult; it doesn’t place their lives in danger by messing with a computer that doesn’t work right; and it doesn’t force them to pay attention too long to record keeping rather than law enforcement.”



**MOTOROLA**

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