

# ***Public Sector Handheld Computing***

Mobility solutions for government applications



# Why Motorola Handheld Computing?

- *Ruggedness and durability*
- *Processing power for outstanding performance*
- *Ubiquitous wireless connectivity, indoors and out*
- *Data and phone calls on one device*
- *Integrated data and image capture*
- *World-class service and support*



## Handheld Computing Solutions for Public Service

Bridge inspectors. First responders. Social workers. Customs officers. Park rangers. Road crews. Every day, government workers face a mounting set of challenges to protect lives and property, safeguard public health and safety, maintain critical infrastructure, and serve their constituents – all while contending with rising operational costs that can outpace annual budgets. To confront these challenges, government officials, administrators, IT staff, purchasing agents, warehouse supervisors, and other support personnel are looking for tools and technologies that improve response times, enhance situational awareness, and increase operational efficiency and accountability.

Mobile computing is the answer – providing instant information, eliminating paperwork, boosting efficiency, and extending organizational knowledge into the field. And no one is more qualified to bring you this technology than Motorola. With over 30 years of mobile computing experience and more than 70 years of public-sector communications expertise, Motorola has the industry knowledge and product portfolio needed to deliver real-time information securely and seamlessly – whether in the office, in the warehouse, or in the field. Count on a world leader in wireless indoor and outdoor networks to bring you technology that's second nature.

## MC55 and MC75

### Enterprise Digital Assistants



- Full-featured PDA, computer, scanner, camera, cell phone, and GPS
- Compact and lightweight
- Autofocus 2-megapixel color camera with flash
- Drop-resistant
- Protected against dust and water (IP54)
- 1D/2D bar code scanning and image capture
- Networks: WiFi, cellular data WWAN
- Bluetooth 2.0 Enhanced Data Rate (EDR)

## eCitations and Code Enforcement

### The challenge:

#### The high cost of a handwritten citation.

While no one likes to receive a ticket, citation revenue is an important part of every city's budget — especially critical for agencies struggling to maintain service levels for its citizens in the face of budget constraints. The high cost of manual citation procedures is well documented — every year, agencies lose millions of dollars due to errors. For example, in one U.S. city, parking violations represent over three percent of the city's revenue — approximately \$500 million. Yet one third of the 25,000 tickets issued daily were automatically dismissed due to illegible handwriting or technical error, representing millions of dollars in lost revenue. In addition, the time consuming manual processes reduce productivity — more officers or inspectors are required to cover a municipality, translating into higher staffing costs and reduced community service levels.

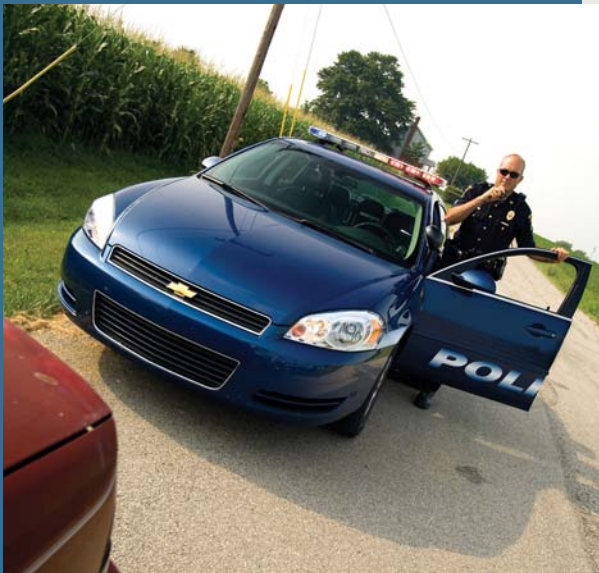
### The solution:

#### Handheld computing automates the citation process.

Motorola's mobile ticketing solution, known as eCitation, easily addresses these issues by automating the citation process. When law enforcement officers and inspectors carry a mobile or handheld computer with bar code scanning capabilities and an eCitation application, a citation can be easily and accurately issued in record time.

- A majority of the required information is automatically entered into the electronic citation form through a quick scan of the bar code or magnetic stripe on a driver's license, or retrieved from a database.
- Drop down menus for violations information further protect against errors, and can automatically populate additional information such as fine amounts and court information.
- After the ticket is completed, a wireless printer with a Bluetooth connection enables on-the-spot printing of the citation — and if the mobile computer is equipped with image capture, the form can include the violator's signature of receipt.

The results of automating the citation process are dramatic. For example, with the traditional paper-based citation system utilized in many law enforcement agencies, a citation takes an average of 12 days to process. eCitation solutions reduce that time to seconds, while reducing paperwork and protecting revenue from loss due to error. Many eCitation systems can pay for themselves in less than 12 months.







***The high cost of manual citation procedures is well documented — every year, agencies lose millions of dollars due to errors. For example, in one U.S. city, parking violations represent over three percent of the city's revenue — approximately \$500 million. Yet one third of the 25,000 tickets issued daily were automatically dismissed due to illegible handwriting or technical error.***

## Biometric Attachment for MC70 and MC75

- Fingerprint Sensor: FIPS 201 certified, 508 DPI
- 0.7 x 0.5 inches
- Same environmental and drop specs as host computer
- Contact and Contactless Card Reader (optional)
  - Contact Card Reader ISO 7816
  - Contactless Card Reader ISO 14443
  - MIFARE/DES fire compliant
  - Light to indicate card reader status



Motorola MC75 Enterprise Digital Assistant with fingerprint reader attachment.

## Identity Management and Verification of Credentials with Biometrics

### The challenge:

**Identity fraud endangers lives and costs money.**

Charged with securing borders, providing services and benefits to those in need, preventing terrorism, tracking offenders, and handling sensitive information, government agencies are seeking more reliable ways to identify their constituents and staff, prevent fraud, and keep dangerous materials out of the wrong hands. They do this in the face of numerous challenges: limited staff and budgets, competing priorities, technology that eases ID forgery, and legal and privacy concerns. Whether it's an immigration officer, a weapons depot security guard, or medical staff at a corrections facility, each needs a way to positively identify those they interact with – quickly, securely, and on-the-spot.

### The solution:

**Portable biometrics bring real-time positive ID to the field.**

Motorola has a comprehensive biometric handheld identity management solution, complete with capture, storage, transmission, and verification tools operating in a seamless mobility environment — Motorola Mobile AFIS.

**Motorola Mobile AFIS (Automated Fingerprint Identification System) delivers four key capabilities:**

- 1:N remote identification – perform searches against remote databases using records transmitted securely via wireless technology from the device
- 1:N local identification – capture and search one or more fingerprint(s) against a portable database stored on the handheld device in situations where communications may be limited
- 1:1 local verification – match one or more fingerprints against other known fingerprints to verify that the two are the same using a contactless smart card, barcode or other secure credential.
- 1:1 remote verification – match one fingerprint against another fingerprint stored at a remote location to verify identity and establish that the record is maintained in the database.

The system also comes with contact and contactless Smart Card support, for two-factor verification. And the MC75's built-in 2-megapixel autofocus color camera enables facial recognition, for a full multi-mode identity management solution. The result: more rapid, accurate identification, leading to reduced fraud, safer streets, and less hassle for law-abiding citizens.

*With a Motorola mobile computer in the hands of your responders, you bring real-time mobile data to the point of activity.*

## Disaster Accountability

### The challenge:

#### Manual accountability at the disaster site.

First response accountability has received considerable attention as government agencies look to strengthen overall disaster response and preparedness in the wake of natural disasters and terrorist attacks.

However, with firefighters, police, rescue, EMS, and other first responders flooding the scene, keeping track of personnel, victims, and assets is no easy task. When every second counts, the paperwork burden and its associated productivity loss can translate into lost lives. Furthermore, with manual systems, critical information often resides on clipboards at the scene and is inaccessible to offsite command centers, evacuation sites, hospitals and other agencies.

### The solution:

#### Improve first response accountability with mobility.

With a Motorola mobile computer in the hands of your responders, you bring real-time mobile data to the point of activity.

- On site at an incident, mobility solutions help rapidly screen, check in, and track first responders. A complete electronic record documents when responders enter and exit an incident scene, providing National Incident Management System compliance.
- Rescue workers can use a mobile computer to record, photograph, and tag all evacuees onsite. With a bar-coded wristband or ID tag, evacuees can be tracked throughout the entire process.
- A Motorola mobile computer equipped with bar code scanning and image capture capabilities enables a rapid and highly accurate inventory of all assets — in minutes instead of hours.

### MC9500-K

#### Rugged Handheld Mobile Computer



- Data and phone calls in one device
- Drop-resistant (6 ft./1.8 m to concrete)
- Interactive Sensor Technology keeps track of device orientation and drops
- Battery indicators display current charge level and battery health
- Monocoque (unibody) construction with internally integrated antennas
- 3.7 inch VGA display
- Dust-tight and protected against water (IP67)
- 1D/2D bar code scanning; 3 MP color camera
- Networks: WiFi, 3G broadband, GPS
- Bluetooth® 2.1 EDR
- FIPS 140-2 security certification







# Asset Management

## The challenge:

### **Cost-effective maintenance of accurate asset records.**

Federal, state, county, and municipal government agencies are responsible for wide variety of assets – from office supplies, fleets of vehicles, and wastewater equipment to munitions, laboratory specimens, and nuclear fuel. Keeping track of these assets is required to ensure timely maintenance and to meet accounting and compliance requirements. But tracking so many varied assets brings a lot of challenges: their geographic dispersal, inaccessibility, difficulty with location, and vastly different description requirements, not to mention the sheer time and expense of getting workers to the assets and completing the required paperwork. The opportunity for data errors is high, as is the cost of errors: for example, if routine maintenance is not performed on critical equipment in a water treatment plant, tap water quality could be affected, putting public health at risk.

## The solution:

### **Automating data capture with mobile computing.**

- Since workers are often mobile while auditing assets and reviewing inventory, Motorola's mobile computers are a natural choice.
- Instead of handwriting data on a paper form, workers scan the bar code or RFID (radio frequency identification) tag on an item — and the form is auto-populated with the right data set.
- Information can be quickly and easily captured — complete with a photograph to document asset condition.
- Instead of transferring the information from the form into a computer, the press of a button can transmit the data on the electronic form directly into back end systems. The automated capture of asset data dramatically reduces errors.
- In the warehouse, a mobile computer can be used to scan incoming shipments and take periodic inventories.
- Fleets of vehicles can be managed with RFID tags or barcodes, eliminating paperwork; or use GPS to provide real-time visibility and improve utilization.

## MC909X-G

### **Rugged Handheld Mobile Computer**



- Drop-resistant (6 ft./1.8 m to concrete)
- Dust-tight and protected against water (IP64)
- 1D/2D/DPM bar code scanning
- Comfortable "gun grip" handle for scan-intensive applications
- WiFi
- Bluetooth 1.2
- RFID option



## MC909X-S

### Rugged Handheld Mobile Computer



- All the features of MC909X-K, but smaller and lighter
- Drop-resistant (6 ft./1.8 m to concrete)
- Dust-tight and protected against water (IP64)
- 1D/2D bar code scanning; image capture option
- Networks: WiFi, EDGE, iDEN
- Bluetooth 1.2

## Inspections and Maintenance (MRO)

### The challenge:

**High cost of handwritten paperwork for inspections and maintenance.**

Every inspection requires access to the inspection history of the building or other asset, as well as the completion of a form to document the inspection. Completion of that form often requires additional data that is resident in central databases, such as code information, case histories, contractor information and more. Often additional forms must be completed on site — such as code violations and warnings. And eventually, the handwritten forms must then be entered into the computer system. When inspection and maintenance functions are performed manually, via paper and pen, worker productivity is reduced, data is put at risk, and service can suffer.

### The solution:

**Bringing computing power to the point of work with mobility.**



Mobile access to business data can eliminate the mountain of paper from inspection and maintenance functions. When workers are outfitted with a Motorola mobile computer enabled with a real-time connection to office systems and databases:

- Physical forms can be replaced by electronic forms that can automate data collection.
- The need to carry physical files, manuals and other documentation can be reduced.
- The ability to automatically transmit completed forms to back end systems eliminates the need to enter information from paper forms into the computer system at the end of the day.
- Work processes and IT mobility architecture are substantially simplified. Inspectors and maintenance personnel are capable of performing administrative duties in just a fraction of the time.

Motorola's computing solutions help bring you: increased productivity, greater capacity, more timely information, better decision making, improved service levels, and most importantly, greater constituent safety and satisfaction.

# Video for Situational Awareness

## The challenge:

**Personnel can't be everywhere at once.**

Veteran officers will tell you there's nothing quite like feet on the ground for increasing public safety. Patrolling, whether by foot, car, water, or aircraft, allows staff to see exactly what's happening in an area with their own eyes. Today, however, as departments are increasingly faced with fixed or shrinking budgets and increased responsibilities, it's difficult to provide all the resources necessary for optimizing public safety – whether in law enforcement, border security, or infrastructure monitoring.

## The solution:

**Let wireless video and mobile computing expand your field of vision.**

Motorola's wireless video technology means surveillance can be deployed quickly, securely and cost effectively – directly to the scene. Whether over WiFi or wide-area networks, video can be streamed to a mobile computer, from a camera on a light pole, in a vehicle, or in the hands of a colleague.

- A Transportation worker can check traffic cameras while at a rest stop.
- A maintenance technician can look at a pipe without climbing into a sewer.
- A prison warden can monitor the most remote corner without distracting staff from other duties.

But that's only the beginning. Many of Motorola's mobile computers can not only play back video – they can capture and stream it as well, bringing field operations to a whole new level.

- A safety inspector can take photos of damage, and file them as evidence – or consult with a colleague on another job.
- A social worker following up on a case file can document a client's responses and living conditions.
- Hospital staff can see the condition of a patient transported by EMS, and give guidance on treatment – saving precious minutes that can make all the difference.



## MC75

**Worldwide Enterprise Digital Assistant**



- Full-featured PDA, computer, scanner, camera, cell phone, and GPS
- VGA-resolution screen (480 x 640)
- Autofocus 2-megapixel color camera with flash
- Drop-resistant (5 ft. /1.4 m to concrete)
- Protected against dust and water (IP54)
- 1D/2D bar code scanning and image capture
- Networks: WiFi, 3G (HSDPA and EVDO Rev. A)
- Bluetooth 2.0 Enhanced Data Rate (EDR)





***When it comes to selecting a provider for your federal, state or local government mobility solutions, choose the industry leader with a long history of proven, innovative technology — Motorola.***

***With Motorola you enjoy technology that is second nature, so your workers can stay focused on the mission — not the technology — providing the productivity increase and instant information access needed to better protect and improve the delivery of services to your citizens.***



**MOTOROLA**

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