



eCitations: your ticket to increased revenues and productivity



The challenges: the high cost of the 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. Yet every day, for every hundred tickets issued, approximately 10 of those citations will be dismissed due to errors¹. For public safety officers, building inspectors and more, the task of managing paperwork on the spot can be challenging. They must deal with agitated constituents while completing handwritten forms that must be legible — and accurate. A clerk then later enters handwritten citations into the records system, presenting another opportunity for error to occur. For public safety agencies, the opportunity for data entry error is often three-fold, since the handwritten citations might be entered into as many as three reporting systems — the police records system, the court case management system and the state's citation tracking system.

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 USD. Yet one third of the 25,000 tickets issued daily were automatically dismissed due to illegible handwriting or technical error, representing many millions in lost revenue.

In addition to errors that directly reduce revenue, there are the hidden soft costs that affect agencies. 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 quickly, easily and accurately issued in record time. And when you choose a Motorola eCitation solution, your workers enjoy technology that is second nature — easy to use devices that provide the seamless connection needed ensure uninterrupted access to the back end databases required to streamline and automate the citation process.

KEY BENEFITS

- Significantly reduces errors on citations
- Increases citation revenue
- Improves productivity for law enforcement officers and inspectors
- Eliminates the need for citation data entry staff
- Improves service levels to the community — officers have more time to patrol, and inspectors can decrease inspection and problem resolution cycle times
- Improves on the job satisfaction through a reduction in administrative tasks

An overview of eCitation technology

There are three key components involved in Motorola's eCitation mobility solution: the mobile devices, wireless networks and the mobile applications. Following is a brief overview of each:

Mobile computers

Motorola offers a wide range of mobile computers designed to meet the needs of your applications:

- Rugged mobile computers built for all day outdoor use in the harshest environments as well as cost-effective and compact, durable PDA-style devices
- Support for up to four radios for true inside-outside wireless connectivity — WWAN, WLAN, WPAN and GPS
- Advanced data capture functionality, including integrated bar code scanning and magnetic strip reading for instant capture of information on driver's licenses and other ID cards, as well as image capture
- Integrated advanced voice functionality eliminates the need for mobile workers to carry two devices through a full range of voice capabilities, including walkie-talkie style communications and the ability to extend the desk phone number and functionality to the mobile device

Wireless network connectivity

Motorola can provide the right wireless networking solution for your mission critical government application:

- Public WWAN network connectivity: Motorola mobile devices offer connectivity to public cellular networks, giving you the flexibility to choose the provider that best meets your coverage needs
- Private WWAN/WLAN network connectivity: Motorola's comprehensive wireless networking solutions enable the deployment of a private wide or local area Wi-Fi/mesh-based networks, providing complete control over field-based communications, including network volume, availability and uptime
- WPAN provides on the spot wireless connectivity to peripherals such as mobile printers and headsets
- GPS connectivity provides support for location-based applications

Mobile applications

Our award-winning partner channel offers deep vertical industry expertise and best-in-class applications that have been tested and validated on Motorola platforms, providing:

- Rapid deployment
- Ease of use for rapid adoption
- Seamless integration with your existing business processes
- Easy integration with your existing IT infrastructure
- Faster return on investment

And since Motorola mobile devices are built on a common technology platform, the applications you invest in today can be easily migrated to the Motorola mobile devices of tomorrow. You can easily support changing business needs without the substantial costs associated with new application development — future proofing your eCitation solution and providing superior investment protection.

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 via a real-time connection to the state's Department of Motor Vehicles (DMV) or National Crime Information Center (NCIC) databases. Drop down menus for violations and vehicle 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. And with a real-time wireless connection to the mobile device, the citation information can be immediately transmitted to the appropriate databases. For mobile devices without a real-time connection, the citation information can be uploaded in the office at the end of the day by simply docking the device in its cradle — or if a wireless LAN is in place, the device can upload records automatically as soon as the officer enters the station.

The results of automating the citation process in law enforcement are dramatic. With the traditional paper-based citation system utilized in many law

enforcement agencies, a citation takes an average of 12 days to process² — eCitation solutions reduce that time to seconds. Bar code scanning alone has been credited with eliminating up to 200 keystrokes per traffic citation³ — automating and ensuring the accurate capture of the information contained on a driver's license. And in the state of Iowa, crash reports could take up to 18 months to complete the cycle from reporting officer to the U.S. Department of Transportation, reduced to 8 hours through the real time instant transmission of information to all pertinent parties.⁴

The process is similar for inspections. From building and bridge to food safety inspections, inspectors can access electronic customer records and enter inspection results either via a series of drop down boxes and open notes fields that allow the entry of comments. The need to complete a paper form and later enter the information captured on that form into the computer is eliminated — along with the errors inherent in the 'double touch' of data. Revenues are protected — the potential for lost revenue due to data errors is eliminated. And the resulting productivity increase allows the same number of inspectors to handle more inspections per day, improving the efficiency and velocity of the inspection process.



Motorola's durable PDA-style mobile devices offer the convenience and portability to support police who patrol on foot, bike or horse.



With a Motorola eCitation solution, public safety officers have all the tools they need in hand to issue citations quickly, easily, accurately — and in record time.

The many benefits of eCitation mobility solutions

When you choose an eCitation solution for your agency, you choose a smart investment with significant quantifiable benefits that deliver a rapid payback — often within 12 to 24 months:

Increased productivity: The productivity benefits of an eCitation application extend inside and outside the agency walls — as well as across agencies. Since citations can now be completed more rapidly, officers have more time to spend on patrol instead of administration. And the ability to automatically transmit the citation information to all associated databases eliminates the need for data entry of citations at the station and other government entities, including the court system.

Reduction in errors: By automatically populating forms with electronic data, the many errors inherent in paper and pen-based procedures are eliminated. One major metropolitan police department reduced its error rate from 30 to one percent through the deployment of an eCitation solution.

Increased revenue: The number of citations dismissed due to errors is reduced, resulting in a significant increase in citation revenues. One major city that implemented an eCitation solution realized several million in recaptured revenue the first year.

Reduced costs: The real-time automated transfer of information from the field to back end databases can reduce costs in a variety of areas. For example, data entry clerks can be re-deployed or eliminated,

reducing staffing costs. Automation can eliminate other steps in your processes that can translate into additional savings. For example, in one city, food service inspection forms no longer needed to be preserved on microfilm, saving the department \$100,000 every year.

Improved community service levels: Officers can now spend less time at their desks — and more shift time on patrol protecting their communities. Inspection and complaint resolution cycle times are reduced, since building inspectors can schedule more appointments per day.

Improved on the job satisfaction: Officers and inspectors can spend more time serving citizens and less time on paperwork, improving on the job satisfaction and morale.

A rapid return on investment (ROI): Mobile eCitation solutions provide a rapid return on investment due to the increase in revenue and the reduction in staffing costs — often within 12 to 24 months.

Depend on Motorola for your eCitation needs

Every day, your officers and inspectors will depend on their eCitation solution. When you choose Motorola for your eCitation solution, you get the reliability, security, and manageability and superior uptime this mission critical application demands. Our eCitation solutions are built on easy-to-use technology that is second nature, so officers and inspectors are free to focus on the task at hand — instead of the technology. Seamless inside-outside

connectivity ensures the delivery of information when and where it is needed — multiple radios enable the same device to connect to a wide area network when workers are outside the four walls, and seamlessly switch to an available wireless LAN upon return to the office, enabling the delivery of more cost-effective in-building voice and data services.

Our wide range of mobile computing devices is designed to handle the rigors of all day every day use in the field — from durable or rugged PDA-style handhelds with integrated voice and data devices to vehicle-mount workstations and notebook computers. And our devices aren't just tough on the outside — they're tough on the inside, packed with processing power and Motorola-only features that provide outstanding application performance and pervasive wireless connectivity.

With Motorola, you get the strength of an industry leader and the power of tested and proven end-to-end solutions — including mobile devices, wireless networks, applications, management solutions and a

full range of lifecycle services. And our management solutions bring a new level of simplicity to the management of mobility solutions, enabling you to easily stage, update, monitor and troubleshoot your mobile devices in the field from a single centralized location. Our planning services can help ensure your eCitation solution is designed from the ground up for maximum success, factoring in ease-of-use and user adoption rates as well as wireless connectivity requirements. Our world-class business partners provide best-in-class applications that integrate easily with the existing workflows of your agency to minimize disruption of day-to-day business procedures. And our post-deployment services minimize downtime, helping to keep your eCitation solution running at peak performance every day of the year.

For more information on how Motorola eCitation solutions can help you increase revenues and reduce costs for your agency, please visit us on the web at www.motorola.com/governmentandenterprise

1. Bureau of Justice Assistance and U.S. Department of Transportation 2003 analysis as cited in Senate Bill 587 (SB 587), Judicial Proceedings, Department of Legislative Services, Maryland General Assembly, 2007 Session, Fiscal and Policy Note Revised; Page 4.
2. Florida State University, College of Engineering; Computerization and Automation of Affordable Traffic Data Collection System for the State of Florida, Sitaramaraju Mantena, 2004, Page 15
3. International Association of Chiefs of Police, 2001 as cited in Florida State University, College of Engineering; Computerization and Automation of Affordable Traffic Data Collection System for the State of Florida, Sitaramaraju Mantena, 2004, Page 14
4. Iowa Department of Transportation, 2004, as cited in Florida State University, College of Engineering; Computerization and Automation of Affordable Traffic Data Collection System for the State of Florida, Sitaramaraju Mantena, 2004, Page 14.



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