



## Overview

3i Infotech is currently developing and implementing a city-wide mobile application for the Department of Homeless Services (DHS) Outreach and Drop-In Center Mobile Computing Project.

The Outreach and Drop-In Center Mobile Computing Device Project eliminates the various collection methods currently being utilized, consisting of a variety of computerized database and paper based systems, and provides a complete electronic entry system from Handhelds/Tablets and Drop-In Center computers. The client information collected will form a complete centralized database with the ability to automatically check duplication at every level and allow for coordination among the service providers. This collected data will be available for analysis to determine the effectiveness of the programs and contract management engaged by DHS.

Through the Outreach and Drop-In Center Mobile Computing Device Project, DHS will introduce the use of standardized, city-wide technology to its Outreach and Drop-In Center providers in an effort to enhance the programs' ability to provide a continuum of care to New York City's street homeless population. The mobile computing device system will support the day-to-day activities of Outreach and Drop-In Centers by providing services, performance management, tracking, and reporting. It is a mechanism to collect critical client-specific information and to provide seamless coordination of services and to expedite the process of placement into housing.



Mobility Solutions

## Impact and Effect

3i Infotech's solution provides an open application that supports the Curam data model currently utilized by the City of New York and DHS. The application supports the initiative of DHS for a future migration into the City's standardized platform for case management by:

- Streamlining the current service delivery model
- Decreasing the duplication of activities by Outreach and Drop-In Center workers
- Improving the continuum of care provided to street homeless clients, with a focus on housing placement

By using the Curam requirements capture methodology, the 3i Infotech solution includes a detailed document that focuses on the activities and functions that support Outreach and Drop-In Center providers including

- Capturing client data at the point of contact
- Tracking activities that lead to permanent housing
- Recording of housing placements
- Encompassing the workflow typically experienced by Outreach and Drop-In Center staff



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# Government Services

## Mobile Solutions - Public Sector

**3i Infotech Inc.** is one of the most successful providers of end-to-end Mobility Solutions for State & Local Governments in the US. As a **Microsoft Gold Certified Partner** for Mobility and Custom Development Solutions, we have a proven track record in developing and implementing a broad range of Microsoft Platform based Handheld and Mobility Solutions. While most mobility providers focus on a single component of the solution, our comprehensive solutions include devices, user interface applications, servers and integration functionality as well as helpdesk and support.

### Key Differentiators

**System Integrator** – As an innovative mobile solutions integrator, we match the best products and services combination solutions for our clients.

**Application Development** – We have proven expertise in developing inventive mobile and wireless solutions by customizing commercial off-the-shelf solutions.

**System Support Experience** – We have designed, delivered and maintained some of the most complex mobile solutions in the industry.

### Our Mobile Solutions

**InspectCheck™** – Solutions for Health, Safety, Fire, Sanitation, Building and Vehicle Inspections

**TicketWorks™** – A Violation, Citation and Ticketing solution for Law and Code Enforcement

**AssetWatch™** – Asset Management & Tracking System



*3i Infotech is also a DoITT Approved Vendor for New York City and an OGS Vendor with the State of New York, specializing in developing Wireless Handheld solutions that are complete, integrated applications.*



Mobility Solutions

## Our Customers

**New York Police Department** – Installation of over 2000 handheld units to write parking citations citywide; NYPD issues more than 3 million tickets per year using these handheld devices. Applications meet Electronic Signatures Records Act requirements for security and verification.

**New York Sanitation Department** – Automation of the DSNY existing ticketing process with a 'Store & Forward' citation solution; Completed Notices of Violations generated from 350 handheld devices are distributed across seven sites located within the City and uploaded daily to a Central Site and Enforcement Headquarters.



**San Jose Police Department** – 3i Infotech's TicketWorks™ application streamlines the SJPD data collection process in the field with 175 handheld units while improving efficiency. 3i Infotech is providing a complete end-to-end solution on a single platform, leading to data quality and reliability across the City.

**New York Department of Homeless Services** – The Outreach and Drop-In Center Project for DHS has eliminated numerous data collection methods being utilized and provided a complete electronic entry system for 50 Handhelds/Tablets and Drop-In Center computers. Collected information forms a complete centralized database with the ability to automatically check duplication at every level and allow for coordination among service providers. The application enhances DHS programs' ability to provide a continuum of care to New York City's street homeless population.

### 4 Continents ♦ 40 Countries

*Over 500 Customers in Banking, Insurance, Manufacturing, Retail, Distribution, Consulting, and the Public Sector*



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Case study

## New York City Department of Sanitation



At a glance

Industry: Government

**Applications:** Inspections and Citations

**Program Results:** DSNY turned to Intermec for its 751 Series Mobile Computers to automate the process and improve upon the number and quality of citations issued.

Winner of the *City of New York Excellence in Technology Award: Best Application Serving an Agency's Needs*

### New York Department of Sanitation Increases Revenue with Accurate and Efficient Handheld System

In addition to collecting more than 12,000 tons of refuse and recyclables a day, the Department of Sanitation of New York (DSNY)'s 200-some enforcement and sanitation police agents write approximately 400,000 violation notices per year to city property owners for various "quality of life" infractions of the city's laws and rules. There are about 260 different types of violations related to sanitation issues, including offenses such as illegal dumping, dirty sidewalks and canine-related violations.

Up until recently, the DSNY has used handwritten summons-issuing procedures. This process is prone to producing summonses containing errors such as a wrong address, misspelled name or other incorrect or illegible information. This results in the summonses being "thrown out" in court. In addition, it was difficult for agents to track repeat violators, who are subject to higher fines.

"It was very difficult to identify multiple violators and keep track of exactly how many summonses people received that have been adjudicated within the last 12 months," says Steven Stam, Chief Information Officer, DSNY. "Agents would have to walk around with 1/4-inch-thick

booklets containing adjudications and look them up – not a very efficient solution."

#### The search for a solution

Stam acknowledged that the DSNY was losing additional revenue collection and employee productivity opportunities by relying on a handwritten system. Therefore, the department looked for a more efficient, accurate and consistent system for issuing summonses. With the help of 3i Infotech, a provider of mobile and wireless applications, DSNY selected Intermec 751 handheld computers and compatible printers for streamlining data collection and summonses issuance. Approximately 60 handhelds were implemented in Manhattan in June.

"This system provided the most consistent software and easiest-to-use physical characteristics," Stam says. "It was also a hardened solution, something that obviously could stand up to the wear and tear of everyday use by our agents."

To ensure agents had the most up-to-date, accurate data on hand when issuing summonses, DSNY gathered information from the Department of Finance tax records, City Planning lot number records as well as data from the Housing

Preservation Department. The department then synthesized all of this information into one property database. This database is downloaded into the handhelds for the entire City of New York, which represents approximately 1.1 million pieces of property.

This property database also includes adjudication data, which reflects a multiple-violator file. After a DSNY agent enters a valid address, the summons locks in on that exact property. As the agent fills out the violation, the appropriate legal wording appears with one to three layers of variables. For a dirty sidewalk violation, for example, variables could include cigarette butts, chewing gum, etc. This enables agents to use the exact legally preferred wording associated with each violation.

"The most desirable wording including legal text is being used consistently without errors, eliminating administrative dismissals [in court]," Stam says. "This helps to eliminate previously lost revenues as a result of inaccurate ticketing."

In addition to the handhelds, DSNY agents carry portable printers while on duty. The printers dispense clear, neat and easy-to-understand copies of the summons. At the end of their shifts, agents go back to the work location and put their handheld devices into their cradles where they are charged. Information is unloaded from the handhelds onto a local server and updated address information is loaded onto the devices. The information is then processed through the central server, which identifies property owners and alternate addresses where the summons must be served by mail.



Additional copies of summonses are printed and can be mailed to up to three different people. The Environmental Control Board (ECB), which is the adjudicating body, also receives both the data, as well as a secured image version of the summons. This way, ECB judges can easily pull up a copy of the summons on their computers prior to or during court proceedings to ensure they have the most accurate and up-to-date information at all times.

#### **Finding value**

This system is very different from the DSNY's handwritten system. For example, with the handwritten system, all tickets had to be key-punched and imaged into a microfiche system. The expense and time associated with keying and microfiche have been eliminated with the implementation of electronic versions of summonses.

The new system also allows agents more time to issue additional tickets, potentially resulting in more revenue for New York City, especially when it comes to poster violations. Agents issue tens of thousands of tickets per year for poster (attaching signage to poles, walls and property) throughout the city. One summons can be issued per poster, so agents collect and accumulate posters, bringing them back

to an office. Agents would then spend days and weeks issuing summonses, manually issuing about 50-80 in an eight-hour day per person. The handheld system has helped DSNY agents more than quadruple that rate, therefore allowing the agent to spend more time in the field.

"Instead of taking a day off field work to issue 50-80 poster summonses, we can do that in one or two hours," Stam says. "Therefore, the agent is then free to go out into the community and collect more posters, which increases our productivity and revenue. Also since we maintain who the multiple violators are, the handheld device automatically identifies them and issues the appropriate violation number with the appropriate higher fine amount."

From its implementation in June to the middle of September, DSNY issued approximately 20,000 tickets. The department is in the process of rolling out the system citywide, including 350 handheld devices, by January 2007. So far, the implementation has been very smooth and the DSNY agents enjoy using the handheld system. However, the biggest plusses to the organization are labor and cost savings and increased revenue.

"The value to the city is in reducing data entry and data management costs, being able to issue more consistently higher quality and higher-value summonses," Stam says. "And to some extent, we expect to issue more poster summonses and be more likely to collect more revenue from them."

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Case study

## San Jose Police Department (SJPD)

That's the eTicket!



### At a glance

**Industry:** Public Sector

**Market:** Law Enforcement

**Application:** Field Service

**Product:** Intermec CN3 mobile computer

**Partner:** 3i Infotech, Inc.

## Intermec's CN3 Mobile Computers Help San Jose Police Department Optimize Processes

If you received a ticket in San Jose, Calif. six months ago, you would have to sit and wait for the officer to fill out a form in order to receive the citation. Once complete, the officer would ask you to press hard when signing the citation so the signature was legible on four copies. One copy of the citation went to the courts, one to the auditing department, one to the police department and another to you.

Once the officer submitted the ticket, each copy was separately processed, causing efforts to be duplicated between the organizations. With the deployment of Intermec's CN3 mobile computers and 3i Infotech Inc. software solution, an Intermec accredited partner, this process was expedited and streamlined, ultimately reducing the number of errors made when tickets were transcribed and saving valuable labor and funds.

### The Ticket to Manual Inefficiencies

Prior to using Intermec's CN3 mobile computers, all of the processes associated with criminal, moving and municipal violations were manual. When an officer

stopped a violator, he or she recorded the driver's details, information regarding the incident and the ensuing court dates with pen and paper. Prone to human error, this process caused additional labor when information was recorded inaccurately, as well as caused potential trial delays.

Many times officers neglected to fill in certain boxes or entered incorrect data. This created extra labor for both the quality assurance process and for the officers who would be required later to complete necessary paperwork to fix the error or risk the citation being thrown out in court.

Once the ticket was issued, it was then sent to the records division for quality control. If the ticket did not pass the quality assurance process, the check person issued an amendment form, attached it to the original ticket and returned it to the officer to correct. If the information on the ticket was validated, one copy was sent to the courts and entered into their database, and another copy was sent to the police department and entered into a separate database.

By segmenting the process for entering violations into the system databases, there was more opportunity for error. Two different data entry departments meant two separate opportunities for mistakes. Using this system, the SJPD was averaging a 10 percent annual error rate. Two systems for data entry also meant twice the labor—something the SJPD needed to optimize during budget cuts.

### The Ticket to Optimizing Resources

Based in the heart of Silicon Valley, San Jose Police Chief Robert L. Davis knew there had to be a way to leverage technology to optimize the agency's processes. Three years ago, the department began researching different solutions that might fit the department's needs.

"We needed a device that was rugged enough for the officers to use out in the field," said Davis. "We also needed a device with an extended battery life, write-on screen capabilities and a card-swiper that could read drivers' licenses. The software solution needed to enable us to swipe the violator's driver's license and at a later time download the information to the police department's data base, and after, to the court's database."

After viewing several presentations, SJPD opted for a bundled solution developed by 3i Infotech and Intermec. The result is a paperless eCitation system that enables San Jose police officers to connect to the city court's database via the handheld computers after docking the device at the end of a shift. With the CN3's Bluetooth wireless technology, officers are also able to connect wirelessly to mobile printers and print tickets in real time.

Now, when citizens are pulled over for a traffic violation, the arresting officer simply swipes the violator's driver's license to record the driver's personal information. The officer then identifies additional details regarding the citation using the CN3's touch screen. Drivers sign the ticket on the screen or on a printed hard copy. In the first two weeks, 1,000 citations were issued with less than a two percent error rate. SJPD hopes to lower this rate to zero percent.

"The San Jose Police Department can now spend more time on education and enforcement as opposed to citation entry and correction," said Davis.

### The Ticket to New Capabilities

Six hundred total SJPD officers will eventually be trained to use the new

solution, and as many as 300 officers could be using the solution at any given time in the field. While only 50 Traffic Officers currently use the CN3 units, SJPD plans to deploy units to the entire patrol division in the near future.

"The officers absolutely love it," said Davis. "They feel it's a great tool for them to use in the field because it's quick, efficient and helps eliminate the need for burdensome paperwork."

Various features of the solution are being deployed in stages. Currently, the SJPD uses it as a device for issuing citations; however, the solution has many additional capabilities that will be deployed at a later date. For example, the SJPD is planning to add in-field fingerprint identification using Cognent's BlueCheck™ fingerprint reader, which will help eliminate motorists who may be wanted on outstanding warrants from providing false identity. With the success and growing ROI from the first deployment phase, SJPD looks forward to extending their capabilities. In the near future, SJPD anticipates more municipalities will adapt similar solutions so a widespread database can be created, resulting in a more efficient enforcement service and better protection for citizens.

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## Mobility and Wireless Solutions

TicketWorks™, 3i Infotech's mobile ticketing application, is used by Law Enforcement Departments to issue tickets, violations and citations efficiently. This software operates on mobile devices to automate ticket issuance in the field. In addition the solution has a comprehensive back-office application to process the issued tickets. The back-office application can easily integrate into agency databases and systems for data interchange.

TicketWorks™ improves data collection, prints an accurate citation, and eliminates the need to re-enter data into additional systems.

TicketWorks™ is a cost-effective solution that reduces the amount of time spent issuing tickets, creates a secure record of the information and automates the reporting process.

TicketWorks™ enables enforcement officers to accurately and effectively write and issue tickets by entering information on a handheld device. Officers are given the ability to select relevant information from pre-populated lists, which reduces time, effort and the potential for errors. The printed ticket is easy to read, and more difficult to dispute.

GROUP-TYPE-CODE	
< Back	Next >
System Time: 12/07/2005 02:21 PM	
Occurrence Time	
12/07/2005	02:21 PM
Group	
S-Action	
Type	
Action	
Violation Code/Short	
S05-Throw-out-Vehi	
Summary	
Littering, sweeping, casting any material s garbage, paper, dust or rubbish into or up	
Help Action Cancel	

  

VIOLATION DETAILS	
< Back	Next >
Group: S-Action	Code: S05
Property: Action	
Sec/Sub: 16-118(1)	
Short: Throw-out-Vehicle	
At T/P/O I did observe (Who in vehicle) throw-out (Throw out what?) (Location) from a vehicle, (Year) (Color) (Make) (Model) (State) License Plate # (License plate #).	
Help Action Cancel	

TicketWorks™ ensures that the entire process is streamlined, from the initial entry of the information through the reporting and data collection analysis, to ensure that Law Enforcement Agencies save time and money.

### Features:

- Electronic data capture
- Pre-defined lists and options
- Printing to portable printer
- Advanced security features
- Wireless or Direct Synchronization
- Customizable to Department requirements

### Benefits:

- Simplifies ticket writing
- Reduces paperwork
- Ensures data integrity
- Enhances data analysis
- Increases officer productivity
- Integrates with Department network



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