



# 5.3

Continued from October 5, 2004 Item 5.5

NEIGHBORHOOD SERVICES  
DEPARTMENT

CITY OF SACRAMENTO  
CALIFORNIA

1231 I STREET, SUITE 400  
SACRAMENTO, CA  
95814

September 22, 2004

City Council  
Sacramento, California

Honorable Members in Session:

**SUBJECT: CODE ENFORCEMENT WIRELESS COMPUTING**

**LOCATION AND COUNCIL DISTRICT: Citywide**

**RECOMMENDATION:**

This report is provided for information only.

**CONTACT: Max Fernandez, Neighborhood Services Area Director, 808-7940  
Josh Pino, Code Enforcement Manager, 808-6518**

**FOR COUNCIL MEETING OF: October 5, 2004**

**SUMMARY:**

The Neighborhood Services Department's Code Enforcement Division handles more than 34,000 code enforcement cases annually. Code enforcement officers and inspectors meet this challenge with the aid of wireless computers, which allows for more time in the field and quicker response times. This report provides information on the use of this technology.

**BACKGROUND:**

The Challenge

The City of Sacramento's Code Enforcement Division responds to over 40,000 calls annually and handles more than 34,000 cases related to nuisances, graffiti, abandoned vehicles, substandard buildings, abandoned buildings, emergency situations related to dangerous buildings and even some fire prevention issues. Inspectors must balance a caseload of 100-150 cases on an ongoing basis. The challenge facing the department

was how to keep inspectors in the field as much as possible and still provide real-time access to City systems and databases for both data entry and retrieval.

#### The Response

The Code Enforcement Division implemented a wireless VPN (virtual private network) solution. This allows code enforcement officers and inspectors out in the field to access any City system they need (such as the case-management, permitting, GIS and e-mail systems) and to use the Internet to research and locate property owners.

The mobile unit is comprised of Panasonic laptop computers, and Sierra Wireless modems running over the Sprint and Verizon CDMA networks. They hook into the City's virtual private network gaining secured access to any and all City systems necessary to address the problem at hand.

#### The Results

The new system has proven successful in providing staff with almost instantaneous access to information on cases and property ownership. This has resulted in inspectors and code enforcement officers being able to spend more time in the field since they do not need to return to the office for research, nor do they have to call office staff for information. Because officers spend more time in the field, there is a reduced need for office space. Use of the laptops in the field also eliminates the need for a desktop computer in the office. In addition, inspectors can now send photos back to the office for discussion with staff there while they are still at the site.

Contact with property owners and other interested parties has been expedited. The laptops and printers allow the officers to process their paperwork in the field. For example, courtesy letters, notice and orders, etc. can now be delivered personally and quickly. Also, idle time in the field has been eliminated. Now, while waiting for property owners or contractors to arrive, inspectors can catch up on their paperwork and update their files right from the car. It's like having a complete office in the front seat of the car. As a result, remediation of code violations has been expedited and case turn-around time has been reduced effectively reducing the complaint backlog.

Perhaps the greatest benefit to date has been the ability to respond quickly to emergencies, especially when there is no office staff available. Inspectors responding to fires, collapsed buildings and similar emergencies during evening hours can now research both property ownership and other case information immediately.

#### The Future

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The advent of higher speeds is nearing and Sprint PCS has selected the city of Sacramento as a test site. Once the evaluation is completed, the new air cards will be installed allowing for connection speeds between 300 – 500 kbps. We will soon be testing docking stations for the laptops that can be used in the office in lieu of separate desktop computers. Additionally, plans are being made to reconfigure future offices to reflect the reduction in workspace needs.

City Council  
Code Enforcement Wireless Computing  
September 22, 2004

**FINANCIAL CONSIDERATIONS:**

There are no fiscal impacts associated with this report.

**ENVIRONMENTAL CONSIDERATIONS:**

None.

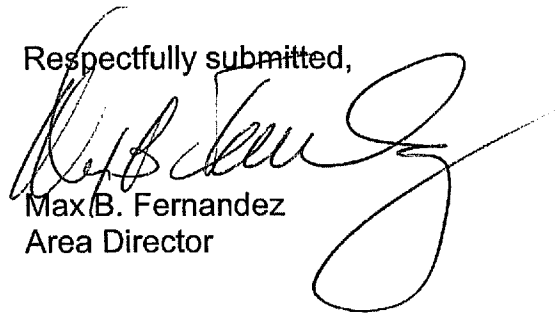
**POLICY CONSIDERATIONS:**

Improving the effectiveness and service delivery of the Neighborhood Services Department is consistent with the City's goal to enhance and preserve the neighborhoods.

**ESBD CONSIDERATIONS:**

No goods or services are being purchased under this report and is, therefore, exempt from ESBD considerations.

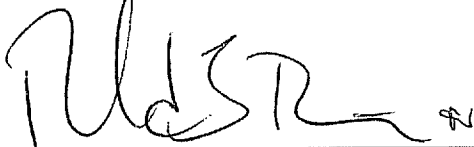
Respectfully submitted,



Max B. Fernandez  
Area Director

Richard J. Ramirez  
Deputy City Manager

**FOR CITY COUNCIL INFORMATION:**



Robert P. Thomas  
City Manager

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# Code Enforcement Division

Wireless Computing

Solution

# History

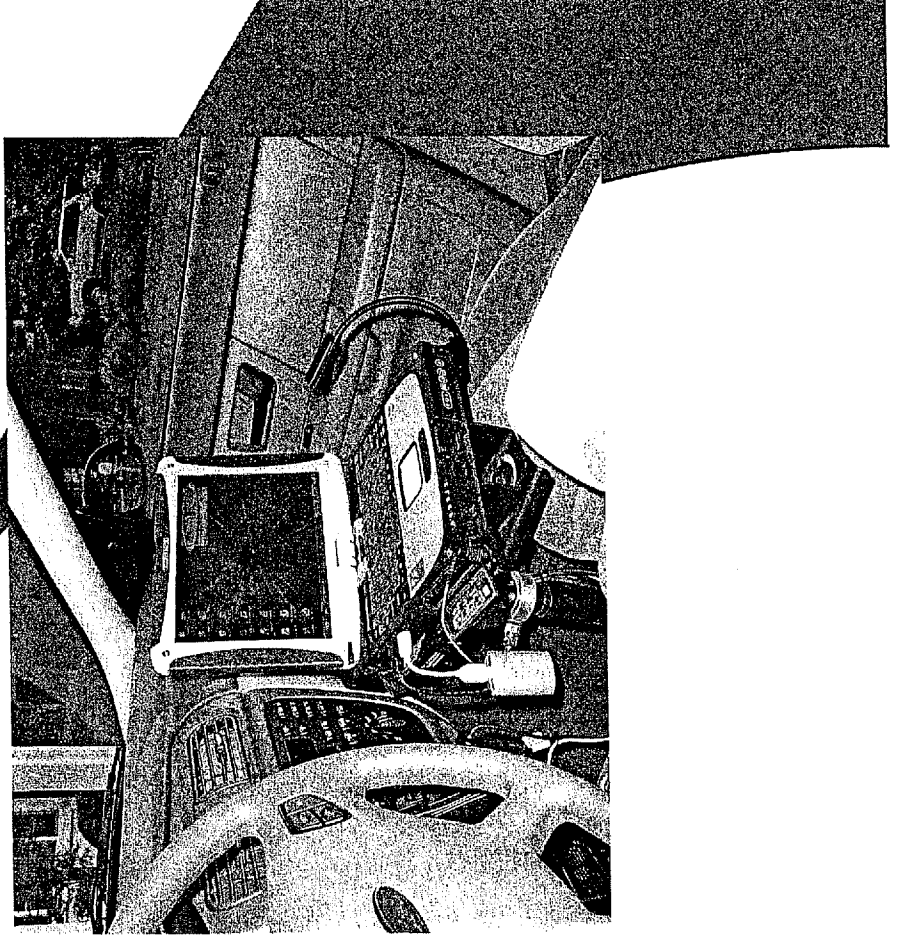
- Visit to GTC – Spring of 1999
- Worked with IT staff to mitigate security concerns
- Established first wireless connection through AT&T Wireless (First city in US)
- Purchased hardware – laptop, air card, etc.
- Installed software
- Field test

# How does it work?

- Wireless modem connects to provider's service (Approx. 100 – 150 kbps)
- Virtual Private Network (VPN) is established with city server
- User connects to program within city system. I.e., Group Wise, internet, case management system, etc.

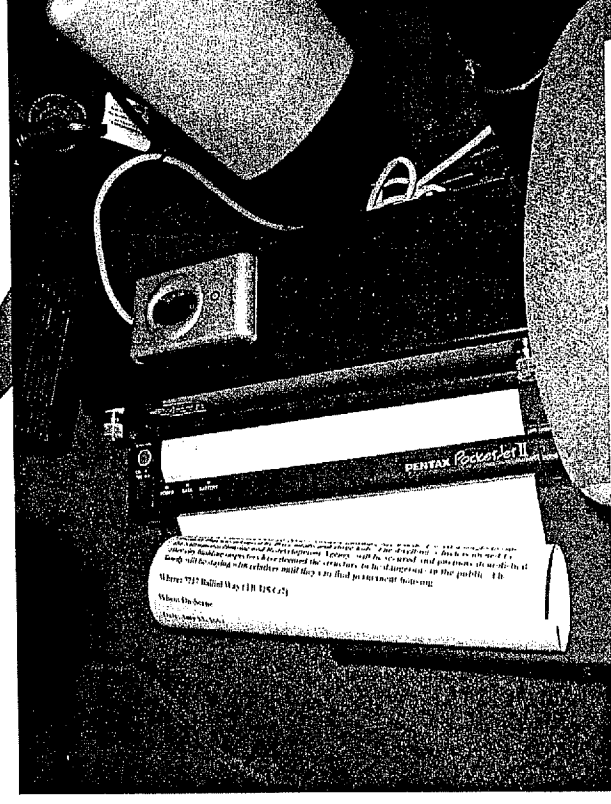
# Hardware

- Laptop or Tablet PC
- Wireless Modem
- Car Mount
- Printer
- External Antenna



# Hardware Cont'd

- Panasonic CF-18
- Gateway/Motion
- Computing Tablet PC
- Sierra Wireless
- Sprint/Verizon/AT&T  
air cards/modems
- Pentax Printers
- Antenna Plus



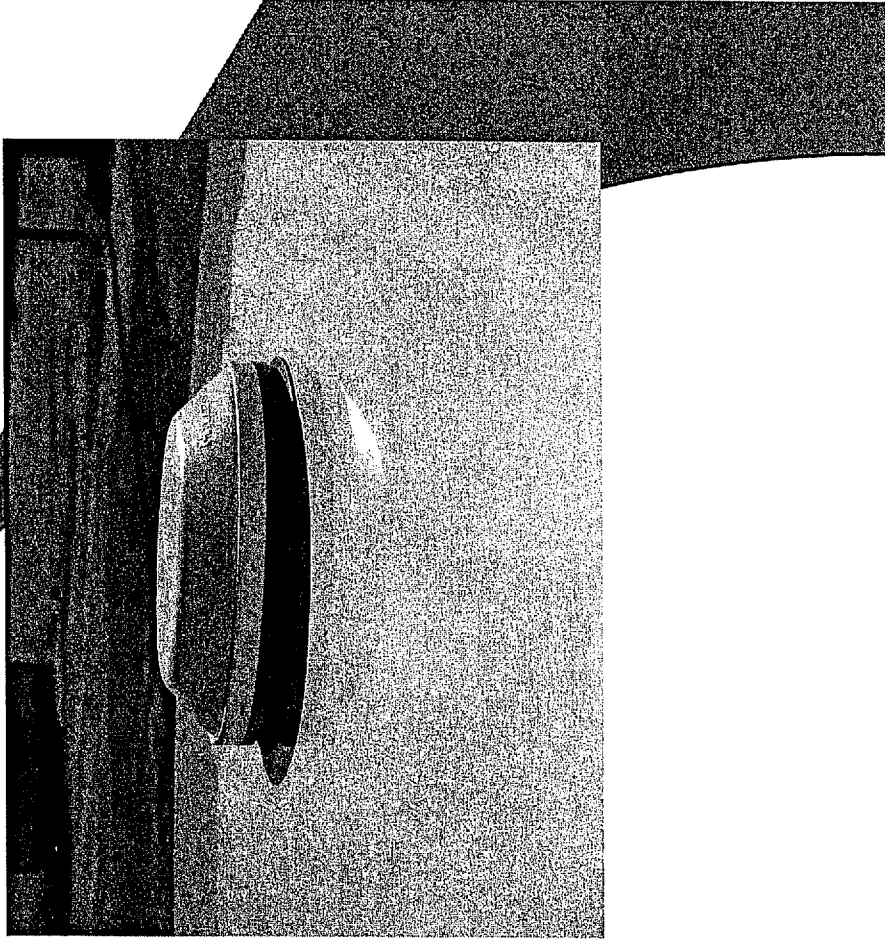
# Software



- VPN (Check Point)
- Client applications
  - Permitting
  - Case management
  - E-mail
  - Internet
  - Etc., etc....
- Specialty programs

# What Next?

- Increased air speeds  
by 2005 – Approx.  
384 kbps = DSL
- Improved accessibility  
via the internet
- Movement of large  
files
- Streaming video



# Advantages

- Complete access to files/records in the field
- Automated routing of complaints, permits, etc.
- Extended field hours
- Field issuance of permits
- Reduced need for office space
- Pictures and video can be sent from the field
- Etc., etc., etc...

# Building Collapse

- Inspector uses wireless connection to locate owner
- Owner is contacted
- Forms & pictures are sent to attorney
- Case information is entered into case management system
- Inspector never goes to the office that day & the building is successfully demolished w/i hours

