

Enabling the Mobile Experience for Field Workers



Overview

- NYC's Efforts to Engage Citizens via Mobile Devices
- Human Services/HRA's application of mobile technology for field agents
- Solution Overview – Challenges and Opportunities
- Economics – Return on Investment



New York City's Digital City

Engaging Citizens - Contests, NYC DataMine, Facebook, Twitter, NYC Media, Notify NYC

NYC Digital website content:

- Home
- About NYC Digital
- Digital Road Map
- Mission
- News
- NYC Apps
- NYC Social Media
- SMART
- Jobs
- Contact NYC Digital

ROAD MAP FOR THE DIGITAL CITY
ACHIEVING NEW YORK CITY'S DIGITAL FUTURE

EXECUTIVE SUMMARY
New York City is one of the world's leading digital metropolises. As Part I: State of the Digital City discussed, New York City government engages over 25 million people a year through more than 200 digital channels including NYC.gov, mobile applications, and social media. As a pioneer in Open Government, New York City government has unlocked thousands of public records, spending

four million
202,0

Priorities for Achieving New York City's Digital Potential

NYC BigApps Hackathon
Coming soon

Connect. DoITT.

DoITT Connects:

10,000 employees	230,000 Businesses	8 MILLION Residents	48 MILLION Visitors
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- connects City agencies to a modern data center to improve services to New Yorkers
- connects City employees to technology, telecommunications & project management
- connects City employees with technology and telecommunications support 24/7/365
- connects City public safety employees through a dedicated wireless broadband network
- connects City employees with voice, data, and video communications
- connects City residents, visitors & businesses to vital services & information
- NYCStat connects and empowers New Yorkers with statistics about the performance of City agencies
- NYCDataMine connects New Yorkers and developers with raw data from City agencies
- NYCGIS connects New Yorkers and City employees with digital mapping to improve service delivery
- VENDORManagement connects and enhances agencies' ability to ensure that taxpayers are getting the best value from the City's investment in state-of-the-art information technology
- MOBILEApps connects New Yorkers to City services via mobile telephone applications
- SOCIALNetworking connects New Yorkers to a more open and transparent City government
- Franchises connects New Yorkers by negotiating and enforcing cable television, fiber optic, public pay telephone, and mobile telecommunications equipment franchise contracts
- DIGITALInclusion connecting New Yorkers in communities of need with modern technology

MTA **APP QUEST** NYC **BigApps**

The Challenge | Submit Application | Discussions

The MTA is challenging software developers to use MTA data to create new apps that improve the transit experience of its 8.5 million daily riders.

FOLLOW THIS CHALLENGE

Notify NYC

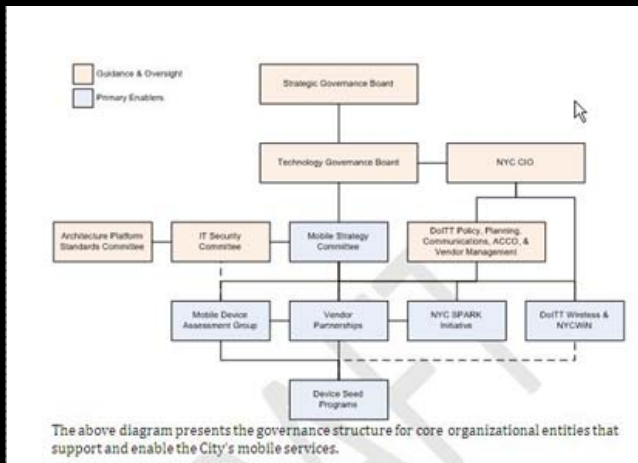
(We'll let you know when important things happen)



Michael R. Bloomberg, Mayor
Carole Post, Commissioner
communications@doitt.nyc.gov

Laying the Groundwork for Mobile Solutions

- Mayor appoints Chief Information Officer
- NYC Wireless Network
- NYC Wi Fi Parks
- APPLE Seed Pilot
- Mobile Device Committee



Mobile Device Strategy

- **NYC Mobile Policies and Standards**
 - For development, deployment and ongoing support
 - Mobile Device Management
 - Security
 - Procurement
- **Recommendations /Findings**
 - Support use of mobile tablets by City agencies.
 - Tablet has potential to replace laptop.
 - NYCWin can provide connectivity.
 - Potential for High Return on Investment.

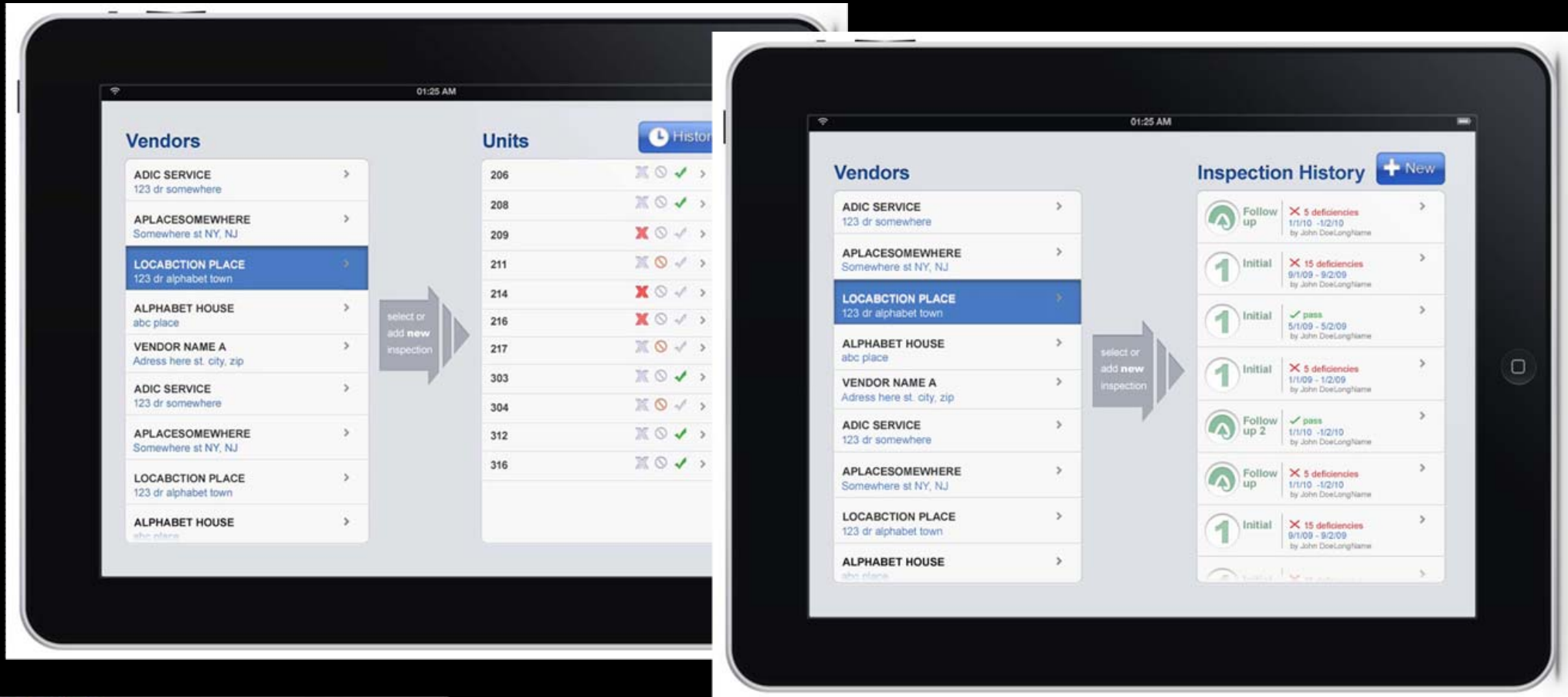
Conclusions

1. The pilot demonstrated that a mobile device can provide a viable platform for enhancing the productivity of City workers.
2. Mobile tablet devices can have a high return-on-investment potential.
3. The iPad can be used to access existing back-end systems securely.
4. A mobile tablet device has the potential to replace laptops for certain functions.
5. NYCWiN can be used to provide workers using iPads with connectivity.



Human Services and Mobile Computing

- iPad app developed for Housing Inspectors
 - Emergency housing units are inspected 4 times per year
 - 21,313 Inspections conducted per year
 - New app reduces data entry time and eliminates errors from transferring paper data to web application.



Adult Protective Services Field Worker Technology Needs

- Easily accessible from different locations.
- Keeps the focus on the client.
- Minimizes paperwork and streamlines operational processes.
- Supports data entry while in the field.
- Provides ticklers, activity monitoring and shared calendaring.
- Supports reporting and analysis.
- Facilitates sharing data with other systems.
- Eliminates the need for multiple tools.



Typical day for a mobile agent

Pre-Visit: Preparing for Customer Visit



Case worker visits customer, armed with complete customer data and all relevant information

During the Visit: At the Customer Site



Case worker captures data real-time., including signatures and images.. Submits task

After the Visit



Case is automatically synchronized with backend systems and instantly processed

End of Transaction



Case worker completes his/her tasks;; Clients' needs are met

Step 4. End of Transaction

The Challenge

- Client needs to wait for resolution

The Solution

- Increased client satisfaction
- Better quality care
- Timely care and attention to clients in need
- Increased reliability/auditability
- Decreased cost
- Decreased compliance violations



Clients in Crisis: Facilitating Access to Community Services



it Services



Private Companies



Government Services

This Week

Day Week

18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
17	18	19	20	21	22	
	<p>Juan Williams 9 am (718)976-1234 Abuse Investigation 0% </p>	<p>Juan Williams 12 pm (718)976-1234 Abuse Investigation 0% </p>	<p>Mary Ellen Thomas 9 am (718)976-1234 Abuse Investigation 0% </p>	<p>Juan Williams 10 am (718)976-1234 Abuse Investigation 0% </p>	<p>Juan Williams 9 am (718)976-1234 Abuse Investigation 0% </p>	
	<p>Mary Ellen Thomas 12 pm (718)976-1234 Abuse Investigation 100% </p>	<p>Juan Williams 3 pm (718)976-1234 Abuse Investigation 0% </p>	<p>Juan Williams 12 pm (718)976-1234 Abuse Investigation 0% </p>	<p>Juan Williams 1 pm (718)976-1234 Abuse Investigation 0% </p>	<p>Mary Ellen Thomas 12 pm (718)976-1234 Abuse Investigation 0% </p>	
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- 20
- Mary Ellen Thomas
 9 am
 (718)976-1234
 Abuse Investigation
 - Juan Williams
 12 pm
 (718)976-1234
 Abuse Investigation

CONTACT



Case ID: **APD9374598493**
 Gender: **Female**
 DOB: **08/14/1931**
 Age: **79**
 Race: **Caucasian**
 Primary Language: **English**
 Primary Caregiver: **John Thomas**
 Relationship: **Spouse**
 Home: **(718)976-1234**
 Mobile: **(718)951-1234**

Case Detail

WARNINGS:
 HISTORY OF DOMESTIC VIOLENCE
 DANGEROUS ANIMALS ON PREMISES
 FIREARMS IN THE HOME
 HISTORY OF DRUG ABUSE

LOCATION

Home Address:
 7930 Queens Boulevard
 Apt. #301
 New York, NY
 11101

MAP



PORTFOLIO

- Add
- ▼ Financial Information
 - Assets
- ▼ Manage Assessment
 - Assesment
- ▼ Eviction Information
 - Risk Of Eviction
 - Housing Court
 - Tenant Representatives
 - Tenant Notifications
 - Future Rent Payments
- ▼ Client Characteristics Part B
 - Self Endangering Behaviors
 - Assistance With Daily Activities
 - Other Services

[New Appointment](#)



Today ▼ ◀ Day Week ▶ Wednesday

17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13

Appointment Details Route Map

PORTFOLIO

Add

- ▼ Financial Information
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 - Assistance With Daily Activities
 - Other Services
 - Actual Or Threatened Harm
 - Relative and Other Supports
 - and Disabilities

HousingCourt ✕

Housing Court

Did the client go to housing court?
 Yes No

If Yes, specify date of appearance.

If Yes, specify index number (L&T).

Was a judgement/stipulation needed?
 Yes No

If Yes, describe.

Camera



Implementation Strategy

Focus on **High Risk** Clients



Visit outcome
Eviction Outcome
Access Order Outcome



Life threatening situation
Flag Abuse, Exploitation, Neglect Risk
Client Death





Benefits to Field Workers

- **Reduce Travel Time** (Reduce office visits, lowering costs)
- **Ability to handle Increased Caseloads** (More cases with fewer caseworkers)
- **Provides Faster Response for emergencies** (Carry the iPad all times)
- **Enter Data Anytime** (home, train, dinner ...)
- **Disaster Preparedness** (Available when needed)
- **Improves Client Care** (accuracy, dependability, performance)
- **Personal Assistant** (Information when needed)
- **Leverage Location Assessments** (Intelligent mapping)

Solution Overview

- **Leverage existing technologies**
 - **PDFs and Intelligent Forms**
 - **Google Search, Maps**
 - **Calendaring**
 - **Camera/Video**
- **Leverage Existing Infrastructure**
 - **NYCWin**

Advanced Technology

- **Augmented Reality** (Camera view with data overlay)
- **Simulations** (Training - Interview with Simulated Character)
- **Graphical User Interface** (2D and 3D Graphics)
- **Video Conferencing** (Apple Facetime Application)

Augmented Reality



•Camera view with data overlay



Interactive Simulations

- **Advanced Education and Training**
- **Simulated Interviews**
- **Simulated Investigations**

Video Conferencing



- Facetime from Apple
- Supervisor Assistance
- Group Meetings
- Remote Interviews
- Distance Learning

Fujitsu Tablet PC



•2008 Device Tested in Field for recording assessments

Samsung Galaxy Tab



•Google Android OS, Java, 7" Screen, Runs Smartphone and Tablet Apps



Solution Development Requirements

- **Device independent** solution for a field worker
- **Seamless user experience** for workers who are offline
- **Integrate/ reuse** existing systems and form capabilities
- **Fast** Implementation
- **Flexible deployment** options
- **Optimized user experience**



Return on Investment

- Regain one day of field work (Data Entry Fridays)
- Increase number of productive customer visits
- Reduce exposure to risk of fines from non-compliance
- Reduce litigation and audit costs
- Reduce paper and indirect costs

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