



# **Improving Business Process in the City of Boston**

## **The Value of GIS Integration**

**- Claire Lane, GIS Manager, City of Boston -**



# The City of Boston

- Among the oldest of American Cities
- 600,000 residents, doubles each day
- Ranked 20<sup>th</sup> in size, higher in most sports
- Land area of 48.5 square miles
- Hub of higher education, medical and biotech institutions
- 20,000 employees
- Annual operating budget \$2.6 billion
- Governed by a strong Mayor and City Council
- IT Budget of \$19 million operating funds and \$13 million capital funds





# CRM Goals

- Customer Service Vision
  - 24x 7 access
  - Centralize operations
  - Reduce the number of misdirected calls
- Business Drivers
  - Close the loop
  - Consistency
  - Faster response
  - Relieve 911 congestion
  - Follow-up
  - Cost reduction

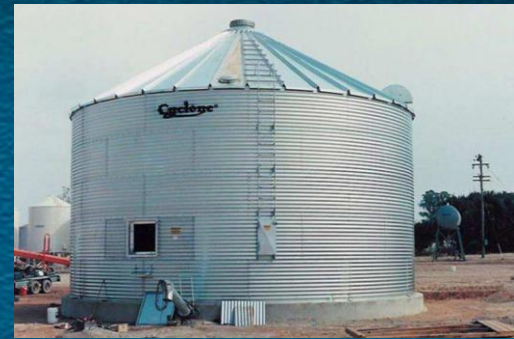


# CRM in Boston

- Mayor's 24 Hour Hotline live October 2008
- Public Works, Parks and Transportation
- 16,000 average calls per month
- 2% average monthly calls abandoned
- 18% of calls generate a Service Request
- 8% of Service Requests generated via Self-Service



# From Silos...



- Historically, systems were developed in silos driven by individual, isolated business needs
- Resulted in rigid architectures, multiple technologies, and difficult custom-integration challenges
- Recent pressure to increase the utility of the information stored in these application silos



# ...to Enterprise



# GIS Integration Requires Both Strategy and Tactics

Tactical Win with CRM

The screenshot displays the Lagan ECM WorkStation interface, which integrates a CRM system with a GIS map. The interface is divided into several sections:

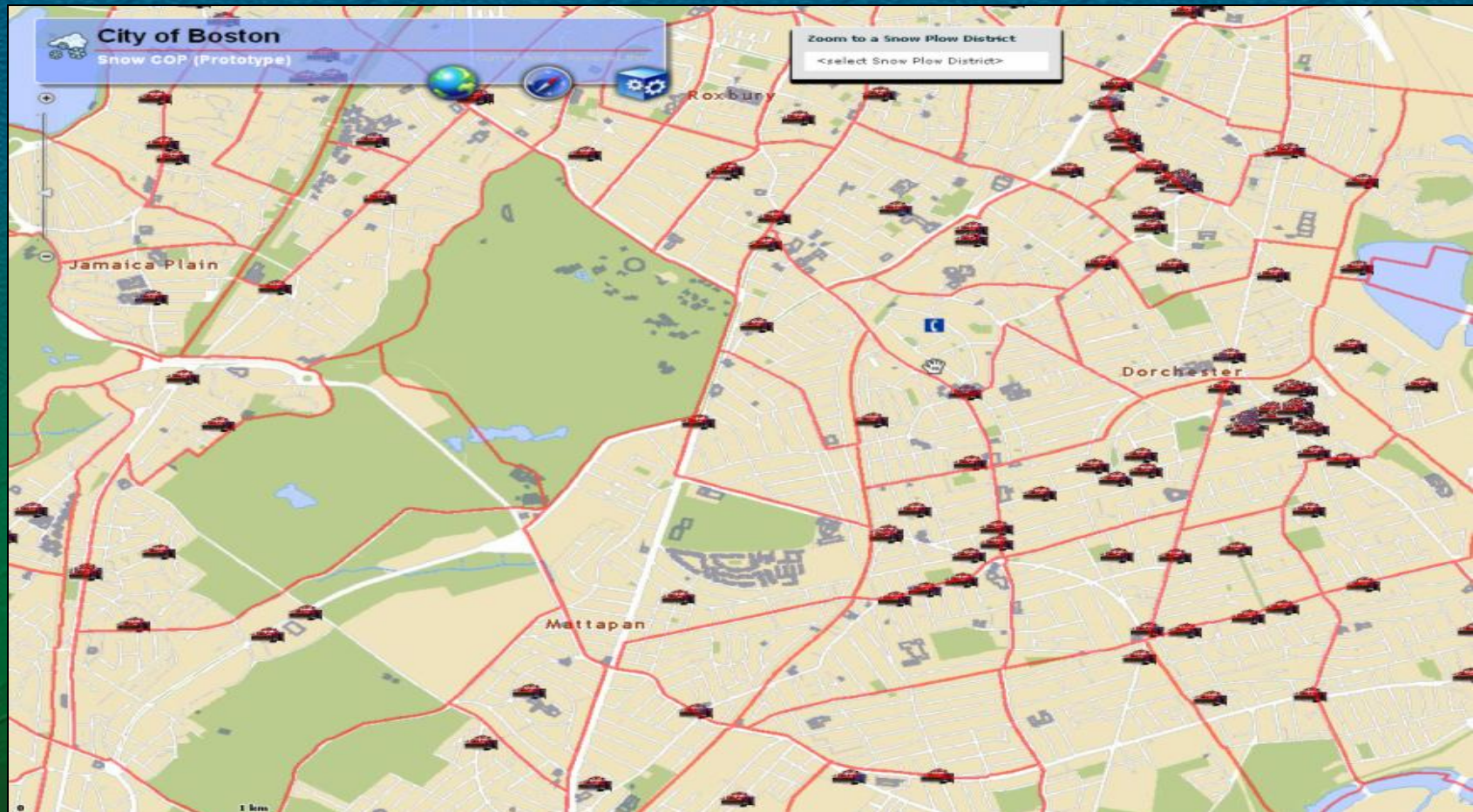
- Customer Service Guide:** Provides instructions on how to handle location issues. It states: "What is the location of the issue? If location of the issue is the same as caller's current address, click 'Submit to Lagan' to set Brief Details. If the location of the issue is not the caller's current address, search for and select address or intersection of the issue. Once selected, click 'Submit to Lagan' to set Brief Details."
- Address Found / Address NOT Found:** A section for managing address status.
- Brief Details:** Displays information for the individual "Jerry Kelley", including contact details: "(617) 594-1220 (Unknown)" and "bobby.am@bostonbruins.com (Unknown)".
- Current Case:** Shows the "Reporter: Jerry Kelley" and "Address: NOT FOUND".
- Search Results:** A table listing search results for the query "130 bowdoin". The table has columns for Address, Places, Streets, Intersections, and Service Requests. The results show multiple entries for "130 Bowdoin St" in Boston, with ZIP codes 02108 and 02122. The "Selected Address" is "130 Bowdoin St".
- Map:** A street map showing the location of "130 Bowdoin St" in Boston. A red polygon highlights the queried building. A pop-up window titled "Addresses in Queried Building" lists several addresses, including "1 Ashburton Pl, Boston 02108" and "130 Bowdoin St, Boston 02108".

The interface also includes a navigation bar at the top with options like "File", "Constituent Interactions", "Case Management", "Go", "History", and "Help". A search bar at the top right contains the URL "http://zbtalk/lagandev/Default.aspx?lastname=Kelley&firstname=Jerry&streetnumber=&streetname=&city=&".



# SnowCOP...A Successful Partnership

Combining CRM Service Request Data with GIS and GPS





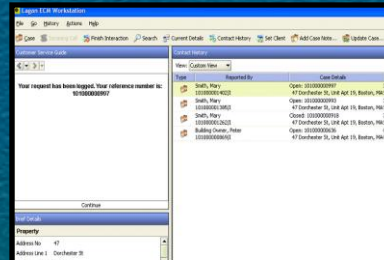
# BAR Integration



A resident calls to report a street light outage



The Call Center operator logs the service request and gives the caller a tracking number



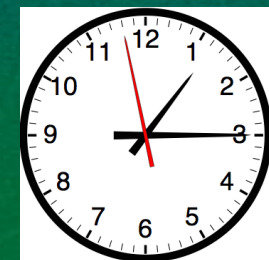
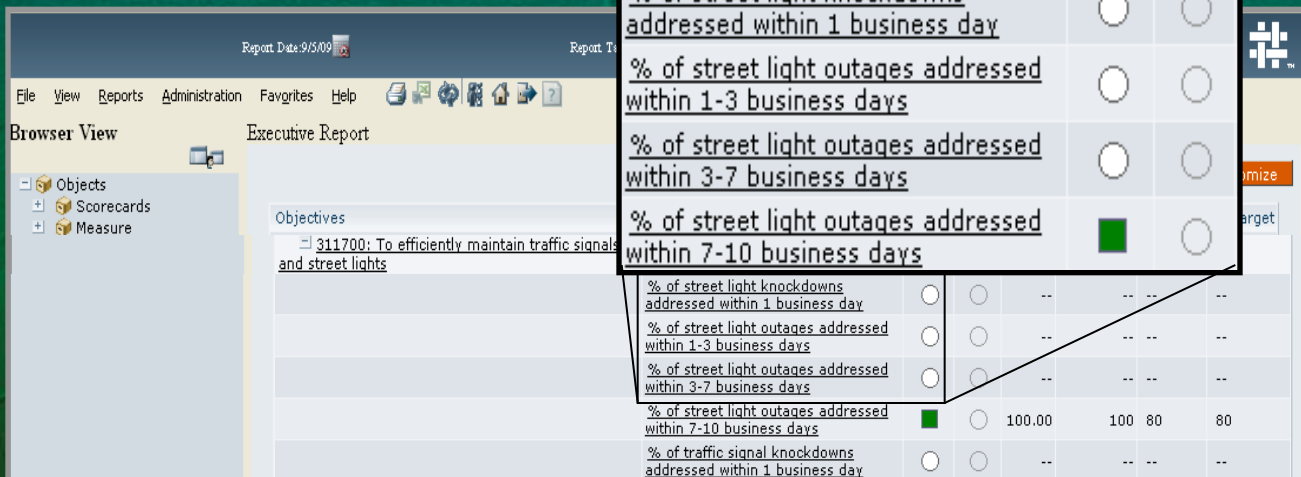
The system generates a work order that is sent automatically to the Street Lights Division



A crew is dispatched to perform repairs




The resident receives email confirmation that work has been performed



Time to Complete Task is Captured and Informs New BAR Measures



# Public Facing Data Hub



## City of Boston GIS Data Hub

[Contact Us](#) [FAQ](#)

### Business Data

### Mayor's Hotline

Click on the link at the right to search, map, and report on live data from the City of Boston Mayor's 24-hour Hotline database.

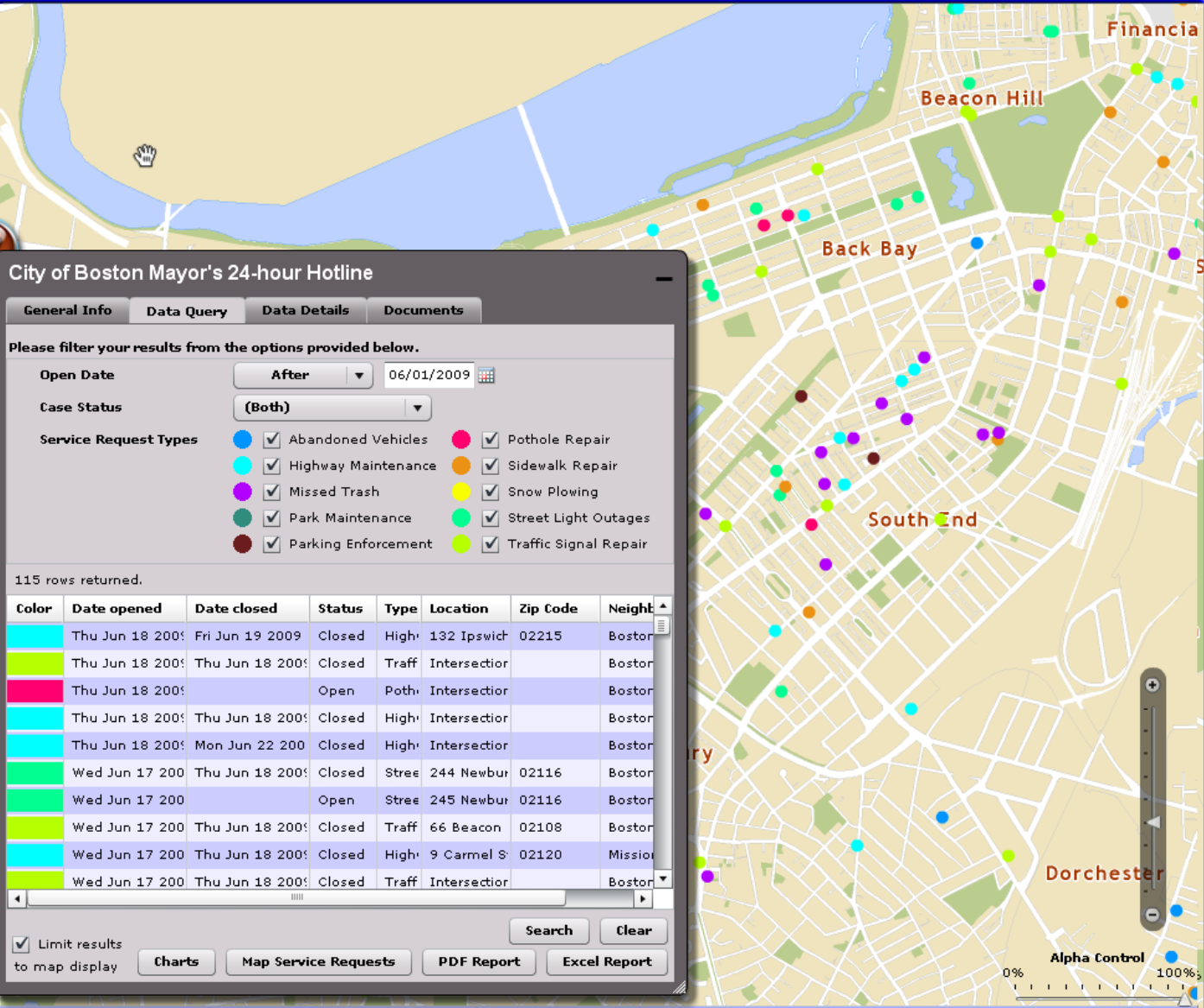
### Boston Police

Click on the link at the right to search, map, and report on live data from the Boston Police Department Data database.

### Stimulus Projects

Click on the link at the right to search, map, and report on live data from the Economic Stimulus Projects database.

[GIS Data](#)  
[Map Gallery](#)



Map labels: Financial District, Beacon Hill, Back Bay, South End, Dorchester.

### City of Boston Mayor's 24-hour Hotline

**General Info** | **Data Query** | **Data Details** | **Documents**

Please filter your results from the options provided below.

**Open Date** After 06/01/2009

**Case Status** (Both)

**Service Request Types**

<input checked="" type="checkbox"/> Abandoned Vehicles	<input checked="" type="checkbox"/> Pothole Repair
<input checked="" type="checkbox"/> Highway Maintenance	<input checked="" type="checkbox"/> Sidewalk Repair
<input checked="" type="checkbox"/> Missed Trash	<input checked="" type="checkbox"/> Snow Plowing
<input checked="" type="checkbox"/> Park Maintenance	<input checked="" type="checkbox"/> Street Light Outages
<input checked="" type="checkbox"/> Parking Enforcement	<input checked="" type="checkbox"/> Traffic Signal Repair

115 rows returned.

Color	Date opened	Date closed	Status	Type	Location	Zip Code	Neighborhood
Cyan	Thu Jun 18 2009	Fri Jun 19 2009	Closed	Highway	132 Ipswich	02215	Boston
Yellow	Thu Jun 18 2009	Thu Jun 18 2009	Closed	Traffic	Intersection		Boston
Pink	Thu Jun 18 2009		Open	Pothole	Intersection		Boston
Cyan	Thu Jun 18 2009	Thu Jun 18 2009	Closed	Highway	Intersection		Boston
Cyan	Thu Jun 18 2009	Mon Jun 22 2009	Closed	Highway	Intersection		Boston
Green	Wed Jun 17 2009	Thu Jun 18 2009	Closed	Street	244 Newbury	02116	Boston
Green	Wed Jun 17 2009		Open	Street	245 Newbury	02116	Boston
Yellow	Wed Jun 17 2009	Thu Jun 18 2009	Closed	Traffic	66 Beacon	02108	Boston
Cyan	Wed Jun 17 2009	Thu Jun 18 2009	Closed	Highway	9 Carmel St	02120	Mission
Yellow	Wed Jun 17 2009	Thu Jun 18 2009	Closed	Traffic	Intersection		Boston

☒ Limit results to map display

**Search** **Clear**

**Charts** **Map Service Requests** **PDF Report** **Excel Report**



# Address Creation Using SAM

Windows Internet Explorer

http://localhost:2884/AddressMaintenance/Flex/AddressMaintenanceMain.html?debug=true#

City of Boston  
**S.A.M.**  
Street and Address Management

New Building... Address C... Landmarks Queue Address M... Street Ma...

**New Building Address** Newbury St

**Street Number Assignment**

Enter a street number to create a new address.

☒ Identifying Address  
☐ Ranged Street Number

Street Number:  Street Name: Newbury St

**This street number is available for use.**

Here are some nearby addresses

[2 Newbury St \(Active\)](#) [4 Newbury St \(Active\)](#)  
[5 Newbury St \(Active\)](#)

[Previous](#) [Next](#)

**Building Number: 12621**

Addresses 2 addresses.

- 2 Newbury St (Primary)
- 2 Newbury St Ste 5 (Secondary)

[View Associated Parcels](#)

100 m  
300 ft

Alpha Control



# Original Concept

Goal: Help Constituents Report Problems So We Can Improve the City

See



- Constituent **sees** a problem in the City they would like to see fixed.

Select



- Constituent opens City of Boston iPhone application and **selects** the appropriate service request.

Shoot



- Constituent **shoots** a photograph of the issue they are requesting service for.

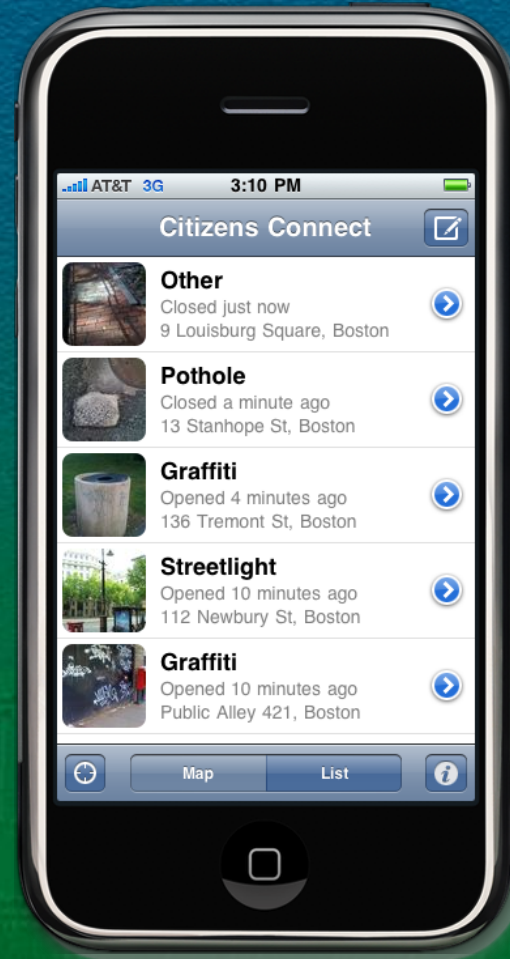
Submit



- Constituent **submits** the request, sending the service request type, the photo, and the x / y coordinates of the issue to the City. The City sends back a confirmation number.



# Citizens Connect







**Thank you!**