

Baltimore Police Calls for Services Operations Dashboard

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A background image of a city skyline with several tall skyscrapers under a clear blue sky. The buildings are in various shades of blue and grey, and the overall scene is bright and clear.

Enterprise Geographic Information Services Group

- Ø Coordinate City investment in, and deployment of, Citywide geographic information and technology.
- Ø Manage the City's Geographic Data Warehouse through a clearinghouse for geographic data.
- Ø Maintain and host the City's land base data (streets, parcels, buildings, management areas, etc.).
- Ø Distribute geographic information internally and externally.
- Ø Support agencies in their efforts with technical assistance, project involvement and training.
- Ø Develop GIS internet and intranet applications and services

A photograph of the Baltimore skyline with several skyscrapers under a clear blue sky. The title 'Baltimore Police Department' is overlaid in large blue font.

Baltimore Police Department

ØBPD is the 8th largest municipal police force in the United States

ØBPD's jurisdiction encompasses an area of 86 square miles, 78.3 sq miles of land and 7.7 sq miles on waterways.

ØBaltimore is divided into nine police districts which are each headed by a local police station.

Ø Staffed by nearly 4,000 civilian and sworn personnel.

A background image showing a city skyline with several tall buildings under a clear blue sky. The buildings are in various shades of blue and grey, and the sky is a light, clear blue.

Baltimore Police Department

Ø Police Commissioner Anthony Batts was appointed by Mayor Rawlings-Blake in September of 2012

Ø Their mission is to protect and preserve life, protect property, understand and serve the needs of the city's neighborhoods, and to improve the quality of life of our community.

Ø Every year they handle over 1,000 police reports and approximately 500,000 calls for service a year

Ø The City uses the Tiburon CAD system for recording 911 Calls for Service

A blurred background image of a city skyline with several tall buildings under a clear blue sky.

Project Background

The City purchased the Tiburon CAD 911 system but did not purchase the mapping interface

There was no way to visually see the Calls for Service that were coming into the Call Center

Attempts had been made to figure out how the CFS could be displayed on a map but the City was unable to obtain access to the Tiburon database for real time data feeds and the technology was not available.

CIO Chris Tonjes proposed to the Baltimore Police Department that the solution would be to setup a replication database within the MOIT network

EGIS was then able to **access** CFS data and create spatial views from it.

A blurred background image of a city skyline with several tall buildings under a clear blue sky.

Project Requirements

The BPD provided the following requirements for the application:

- ØView the CFS data that were coming in with different icons for the different call types such as robbery, shootings, and aggravated assaults.
- ØAbility to filter the CFS data according to call types, district, and time period.
- ØBe able to click on the icon and identify information about the CFS, including call narratives.
- ØHave map layers specific to Police management such as districts, posts, camera locations, schools, and parks as well as aerial imagery and base map data.
- ØBe able to access the application at remote locations during special events such as the Grand Prix and Baltimore Marathon as well as include layers specific to the particular event.

A blurred background image of a city skyline with several tall buildings under a clear blue sky.

ESRI Technology Operations Dashboard

ØEGIS determined that the Operations Dashboard, released by ESRI in January of 2013, would provide the proper platform to meet the Police Departments requirements

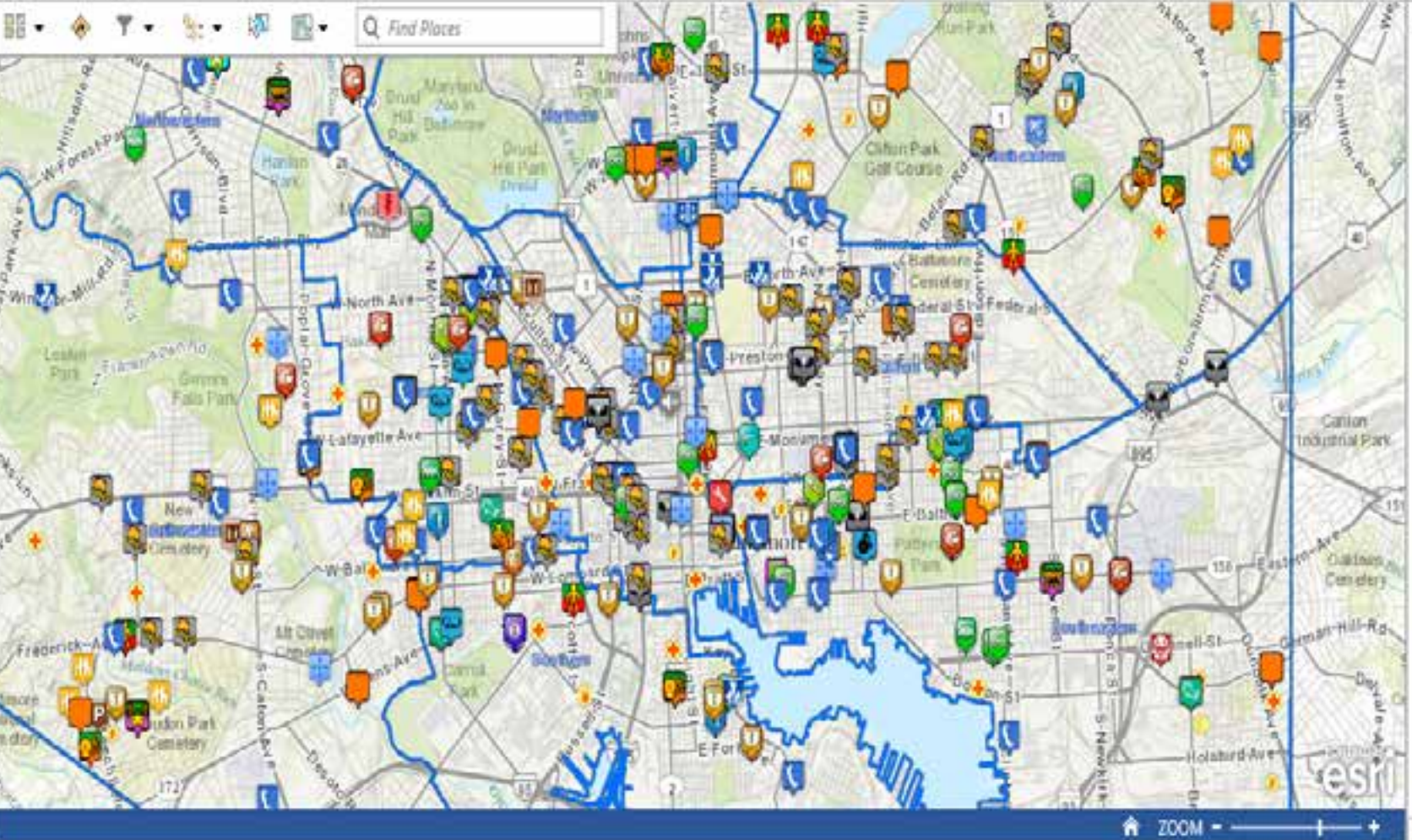
ØThe Operations Dashboard for ArcGIS is a Windows-based app that provides a common operating picture for monitoring, tracking, and reporting an event or system of events across a group of people within an organization.

ØThe Dashboard allowed EGIS to create operational views that included interactive maps, charts and other indicators based on live geographic data defined in a web service.

ØThe Dashboard also provided the flexibility that allowed EGIS to customize the application to meet the specific needs outlined by the Police Department

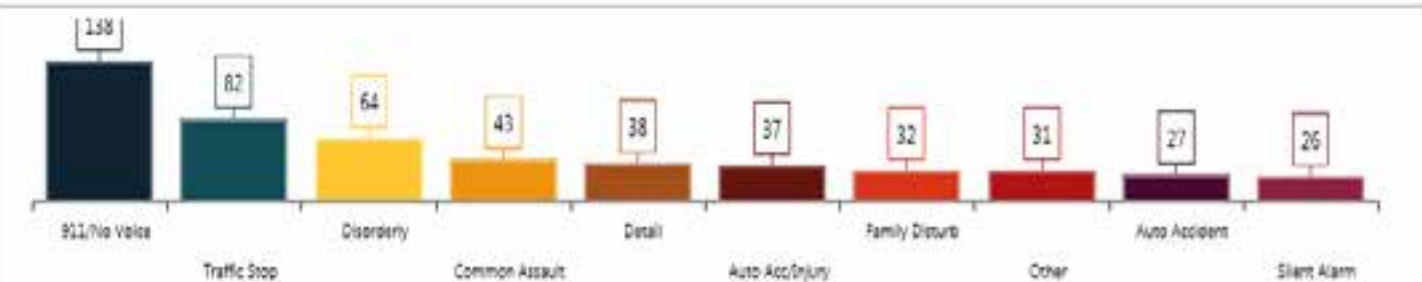
Police Cad Calls

Map Legend



- Police CFS
- call other
 - 911/No Vc
 - ADM POL
 - AED NON
 - ANIMAL C
 - ASSIST FIR
 - ASSIST M
 - ASSIST OI
 - Abduct/pe
 - Abduction
 - Aggrav Asp
 - Animal Dr
 - Armed Per
 - Audible Al

Top 10 Call Types



of Calls - Last... # of Calls

Police Calls: 867

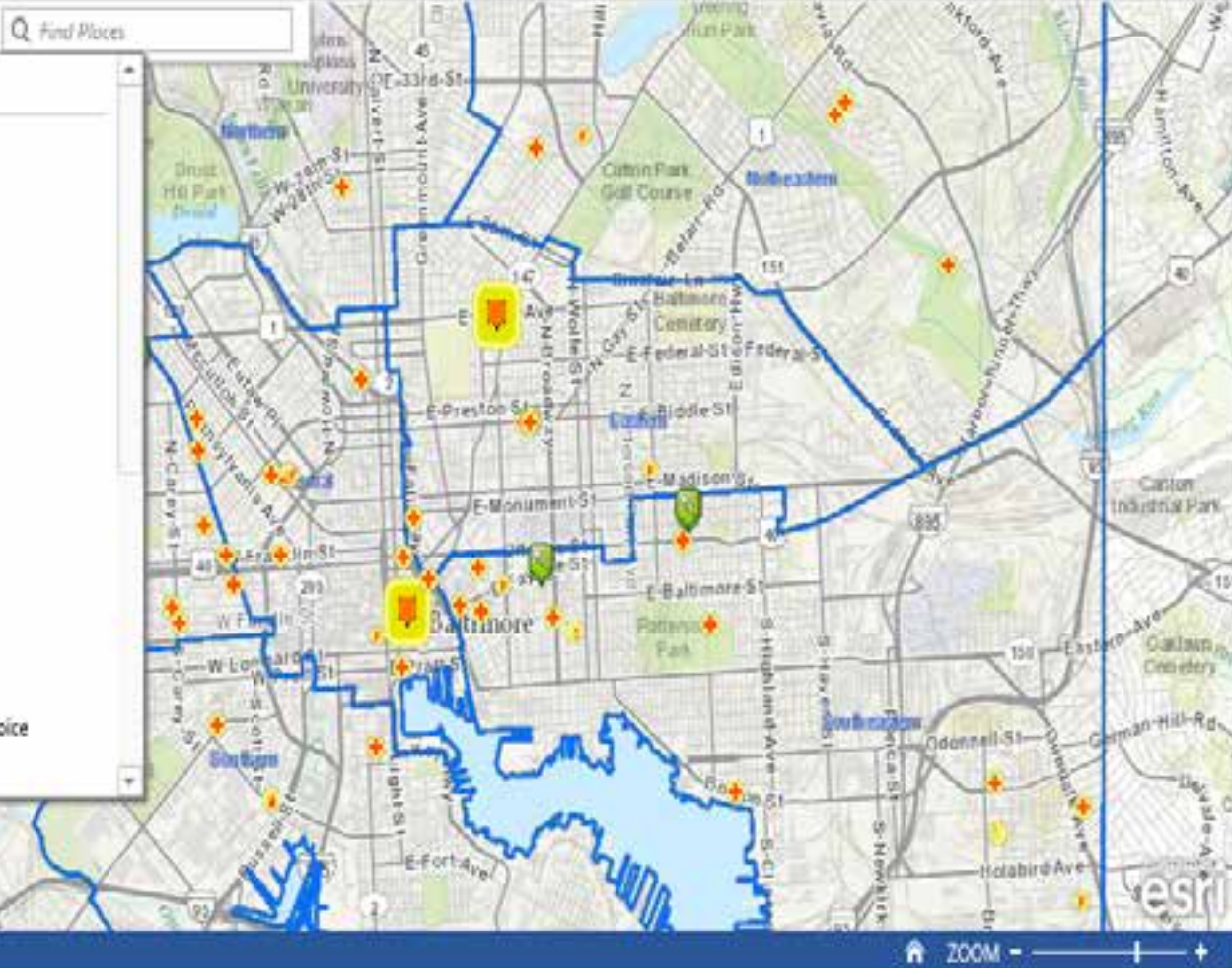
Fire Calls: 85

Police Cad Calls

Map Legend

Find Places

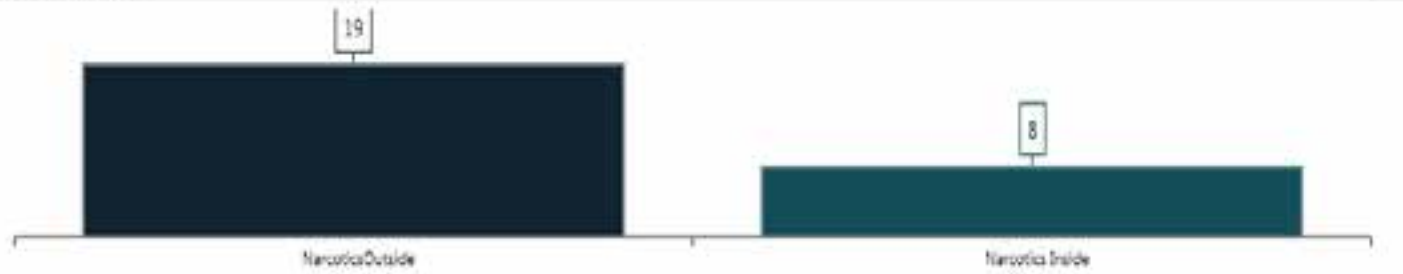
- Police CFS**
- All Features
 - Call Type: Guns
 - Call Type: Auto Accident
 - Call Type: Auto Theft
 - Call Type: Burglary
 - Call Type: Robbery
 - Call Type: Destruct Propty
 - Call Type: Disorderly
 - Call Type: Family Disturb
 - Call Type: Larceny
 - Call Type: Parking Complaint
 - Call Type: Narcotics
 - Call Type: Alarms
 - All Call Types Except 911/No Voice
 - Call Urgency: 1



- Police CFS**
- call other
 - 911/No Vo
 - ADM POL
 - AED NON
 - ANIMAL C
 - ASSIST FIR
 - ASSIST M
 - ASSIST OI
 - Abduct/pt
 - Abduction
 - Aggrav Asi
 - Animal Die
 - Armed Per
 - Audible Al

Top 10 Call Types

of Calls - Last... # of Calls



Police Calls: 27

Fire Calls: 85

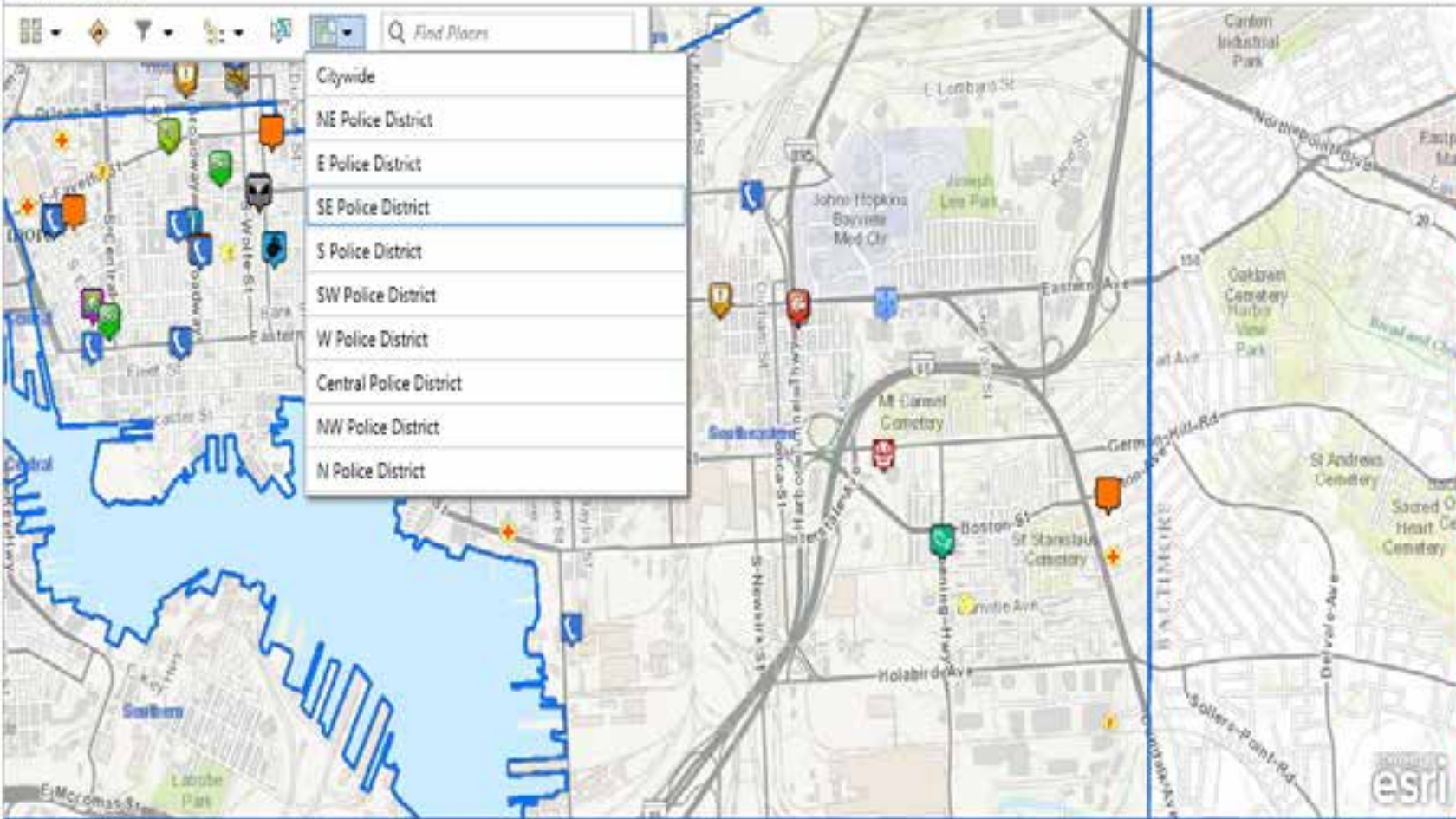
Police Cad Calls

Map Legend

Map navigation icons: Home, Location, Filter, Layer, Refresh, Full Screen, Print, Find Places

Find Places

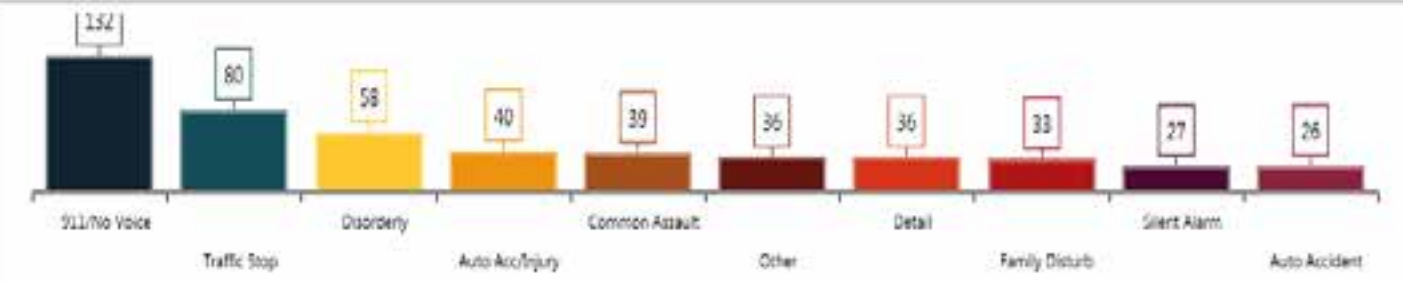
- Citywide
- NE Police District
- E Police District
- SE Police District
- S Police District
- SW Police District
- W Police District
- Central Police District
- NW Police District
- N Police District



- <all other values>
- 911/No Voice
- ADM POL TST CALL
- AED NONBREATH
- ANIMAL CRUELTY
- ASSIST FIRE DEPT
- ASSIST MTA
- ASSIST OFF.
- Abduct/parent
- Abduction other
- Aggrav Assault
- Animal Disturb
- Armed Person
- Audible Alarm

ZOOM - +

Top 10 Call Types



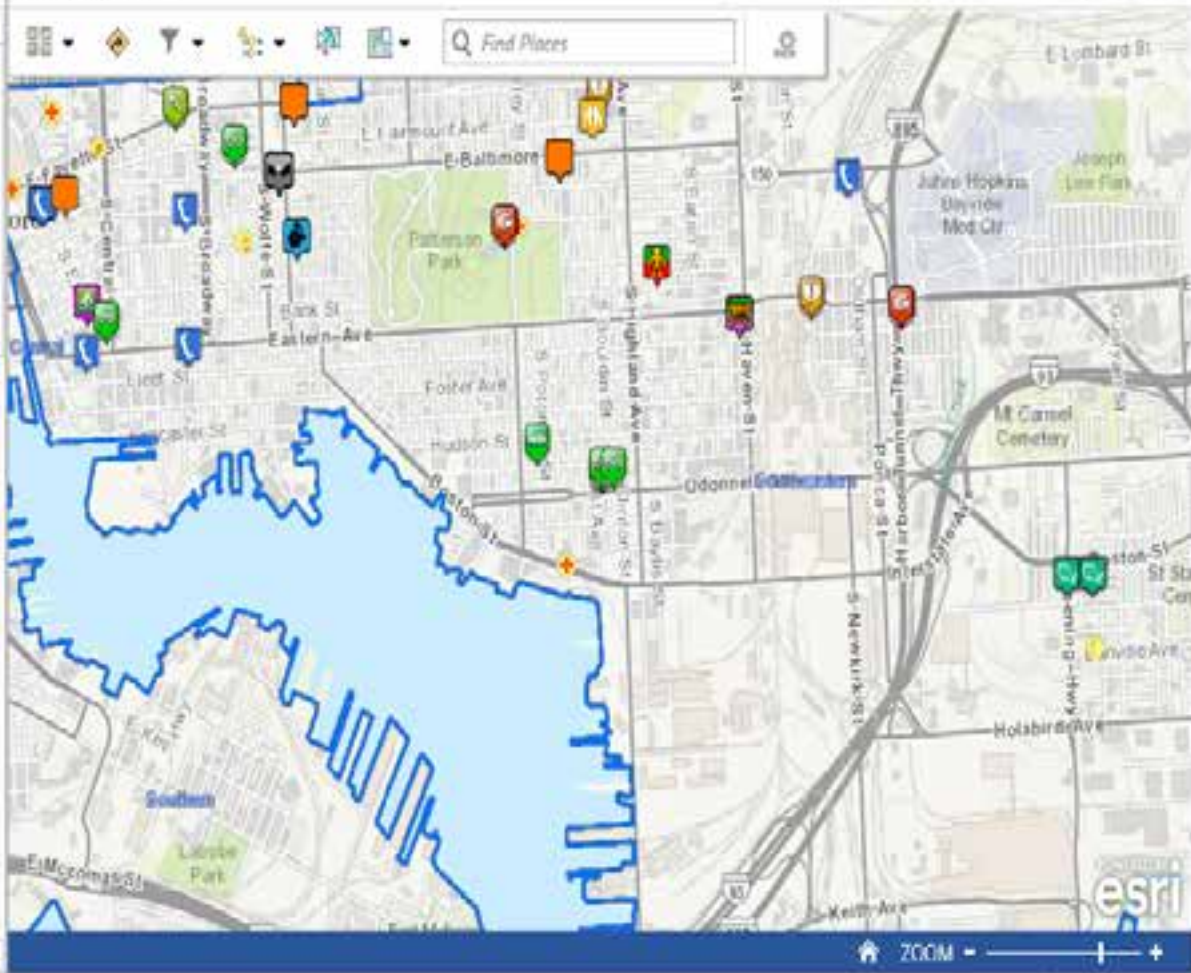
of Calls - Last... # of Calls

Police Calls: 860 **Fire Calls: 81**















Calls List

-  **Burglary**
1008 S BOULDIN ST 12/10/2013 13:22
-  **Burglary**
1008 S BOULDIN ST 12/10/2013 13:22
-  **Burglary**
1008 S BOULDIN ST 12/10/2013 13:22
-  **Silent Alarm**
709 POPLAR GROVE ST 12/10/2013 13:23
-  **Silent Alarm**
709 POPLAR GROVE ST 12/10/2013 13:23
-  **Disorderly**
4662 YORK RD 12/10/2013 13:22
-  ***SEE TEXT**
943 BRUNSWICK ST 12/10/2013 13:23
-  ***SEE TEXT**
042 BRUNSWICK ST 12/10/2013

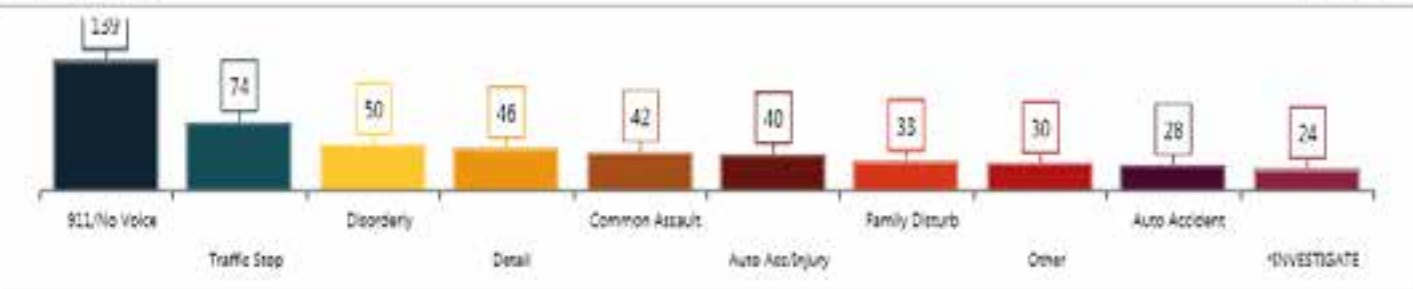
Police Cad Calls



Map Legend

- Police CFS**
-  <all other values>
 -  911/No Voice
 -  ADM POL TST CALL
 -  AED NONBREATHIG
 -  ANIMAL CRUELTY
 -  ASSIST FIRE DEPT
 -  ASSIST MTA
 -  ASSIST OFF.
 -  Abduct/parent
 -  Abduction other
 -  Aggrav Assault
 -  Animal Disturb
 -  Armed Person
 -  Audible Alarm

Top 10 Call Types



of Ca...

Police Calls: 840 **Fire Calls: 77**



Users

ØThe CFS Operations Dashboard is installed and used primarily within the City Watch Center

ØIt has been used during major events such as the Grand Prix and the Baltimore Marathon

ØThe Police Commission, the Mayor, CIO and several other high ranking officers access the application when needed.

ØSeveral laptops have the application installed, providing the ability to take it into the field if necessary

ØThere are plans to also install the application within each of the individual police districts once primary users have been identified and trained.



CITY OF BALTIMORE P12
WARRANT # 5
EMERGENCY STORAGE
284-12005 04/20/13



Technical Issues

- Ø The dashboard runs on Windows 7 or higher and .net framework 2.5+. The Police department operated with Windows XP so they had to upgrade many of their machines.
- Ø Several data type issues limited the functionality of the dashboard. Because of the inflexibility of the CAD data and bugs in the dashboard, sorting of fields based on dates and integers was complicated to work through in the list widget.
- Ø Inflexibility of the CAD data meant that the use Event Layers was the only option to display the data which the dashboard doesn't seem to work well with.
- Ø Dynamic data display with certain graphic cards was an issue and necessitated a change to the web.config file to use a different drawing method.
- Ø Time based queries in the dashboard did not seem to function correctly resulting in the creation of many time period based web map services.

A blurred background image of a city skyline with various skyscrapers under a clear blue sky.

Future Plans

Ø Changes are constantly being made to the Dashboard based off on feedback and increasing use

- ✓ Some changes are simple to make such as changing the reporting section from the bar graph to a call display window
- ✓ Other changes will be made as new functionalities and enhancements are released by ESRI

Ø The City is currently in the process of upgrading the current CAD system to Tiburon's newest release.

- ✓ The new release of CAD will have the mapping component available

A blurred background image of a city skyline with several skyscrapers under a clear blue sky.

Questions/Comment

For additional information or questions please feel free to contact us:

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