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# Enrich your GIS by Citizen Feedback

D.Dighal , Hexagon-Intergraph

# Mobile Alert - Crowdsourcing

Crowdsourcing (definition):

To utilize labor, information, etc., contributed by the general public, often via the internet for no compensation

Crowdsourcing can be applied to a wide range of activities and tasks, from searching for answers to searching for missing people

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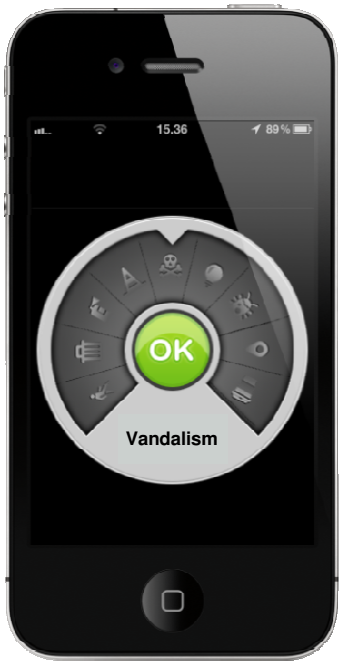
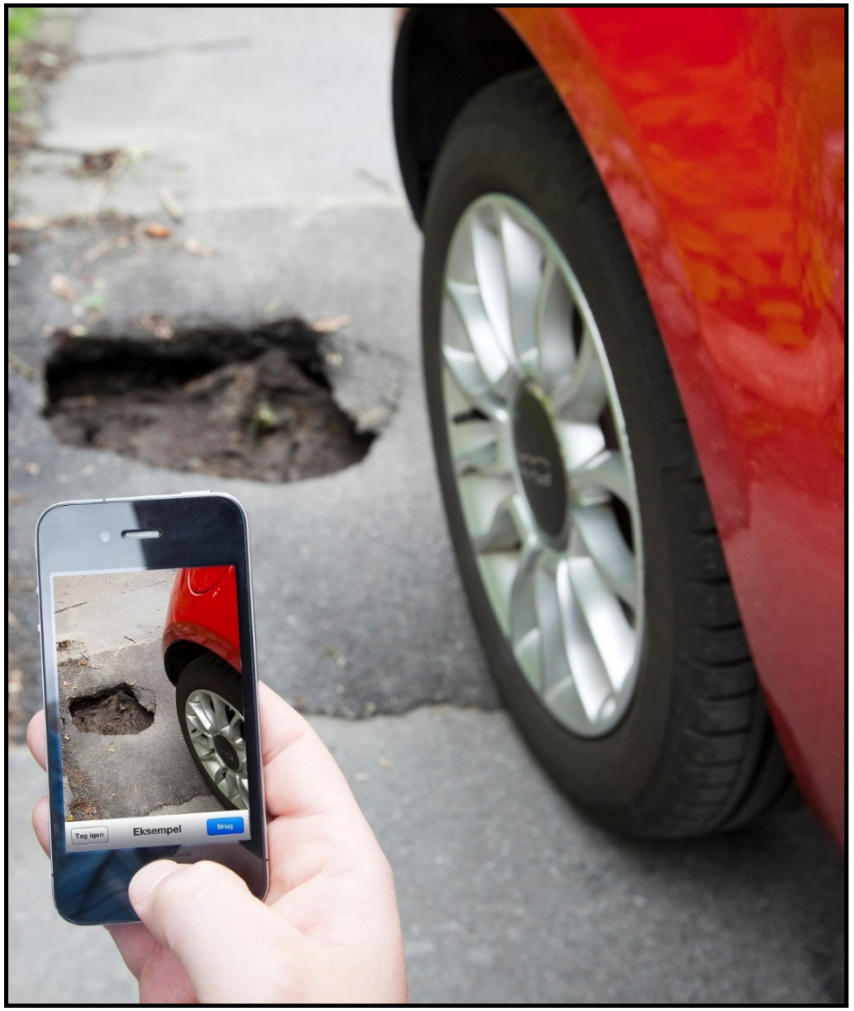
# Product Description

Intergraph's Mobile Alert is a cloud service that provides crowd-sourced incident information to subscribing organizations, e.g. local governments or utilities.

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# Key Features & Benefits

- Provides citizens a simple app to send incident information to the authorities (e.g. pot holes, grafitti, broken sign posts, missing street lights etc.), thus allowing community members to assist in public works
- Pinpoints incident locations using photos and GPS locations uploaded by the citizens themselves
- The client app is available for Apple iPhone,Android smartphones, Windows Store and is a free download from the respective app stores
- Incidents are stored in the cloud and are available to subscribing organizations can access the information via a client portal and through WMS and WFS services
- Mobile Alert is an Intergraph hosted solution for subscribing customers. All installation, software upgrades, support and maintenance of the system is done by Intergraph

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# Mobile Alert - Benefits and Overview

- All government agencies, utilities and transportation organizations want to make the best use of thier time, resources and $$$. Citizens report events and incidents today using websites, phone calls, 3-1-1, but they need access to a computer, the internet, a website, or they need someone to pick up the phone - and then they have to remember, where and what they saw. Knowing exactly where an event or incident is located and it's magnitude is extremely helpful. Mobile Alert takes the guesswork out of a citizen reported incident. GPS is used for location and a picture is sent to indicate the importance or severity. This allows for proper prioritization and size of field crew needed to respond.

- **1 in 5 people have smart phones globally. By 2015, 2 billion people will have a smart phone. 78% access the internet with their smart phone compared to 64% use PC's**. Mobile Alert allows citizens to report incidents with the same device they use in their daily lives for Facebook, Google+, Twitter, e-mail, etc.

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# Mobile Alert - Benefits and Overview

Mobile Alert is a cloud service that provides crowd-sourced incident information to subscribing organizations, e.g. local, regional, governments, utilities and transportation authorities

Mobile Alert client is free and available for iOS and Android mobile devices, downloadable from the respective Apple and Google Play app stores

Mobile Alert is an Intergraph hosted solution for subscribing customers. All installation, software upgrades, support and maintenance of the system is done by Intergraph.

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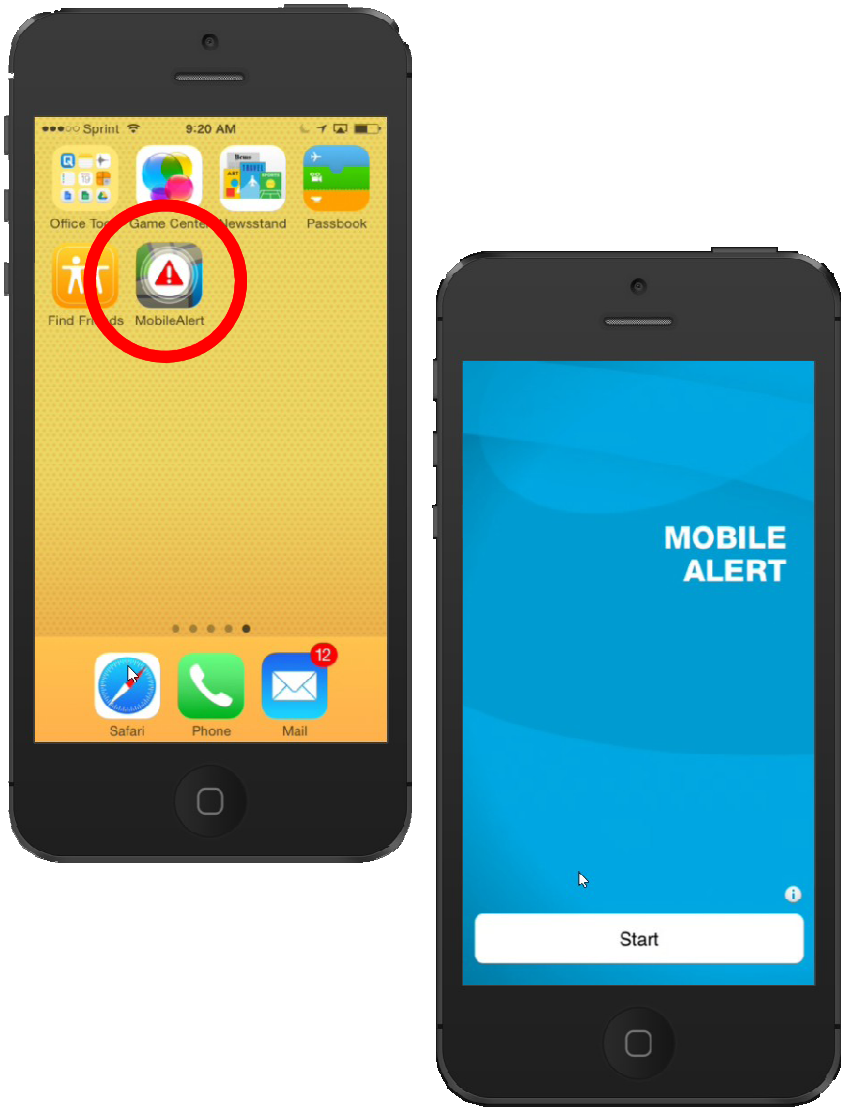
# Mobile Alert - Key Features




- Starts just like any other iOS or Android app on your smart phone or tablet
- Engages the device camera automatically, to take a phone of the event or incident to report. Citizen or user gets a chance to review the photo before sending the event or incident
- Uses the device's GPS to pinpoint the location of the event or incident given the signal strength and accuracy of the GPS
- Optionally, allows the user to position the event or incident on a Bing Maps display if the GPS is determined to be weak

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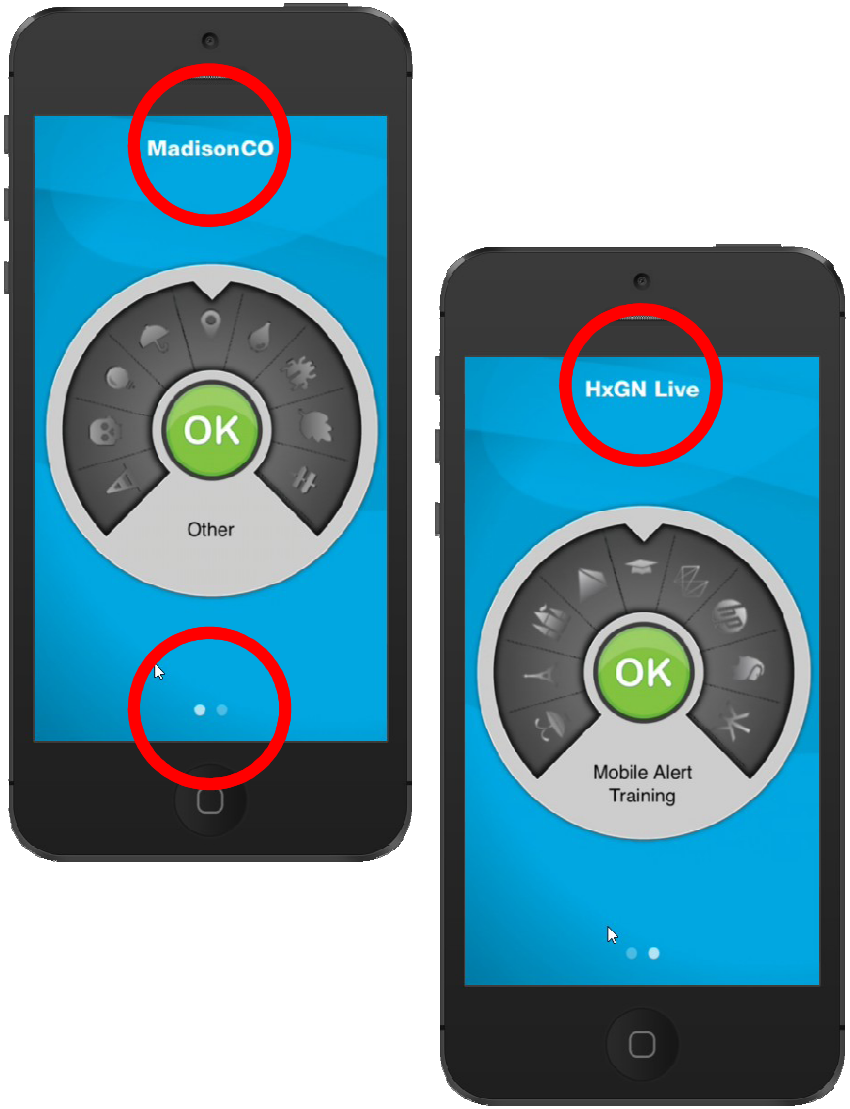
# Mobile Alert - Key Features




- Categorize the event or incident with an easy-to-use wheel that uses both graphics and text to describe each category
- Categories are dynamic based on user or citizen's location using subscribing organization's area of interest or political boundary
- Categories can be easily customized to match the types of events or incidents reported by varying departments (e.g. one set of categories for roads department and other for utilities)
- In the case of overlapping areas of interest, just *swipe* between the each subscribing organization's set of categories

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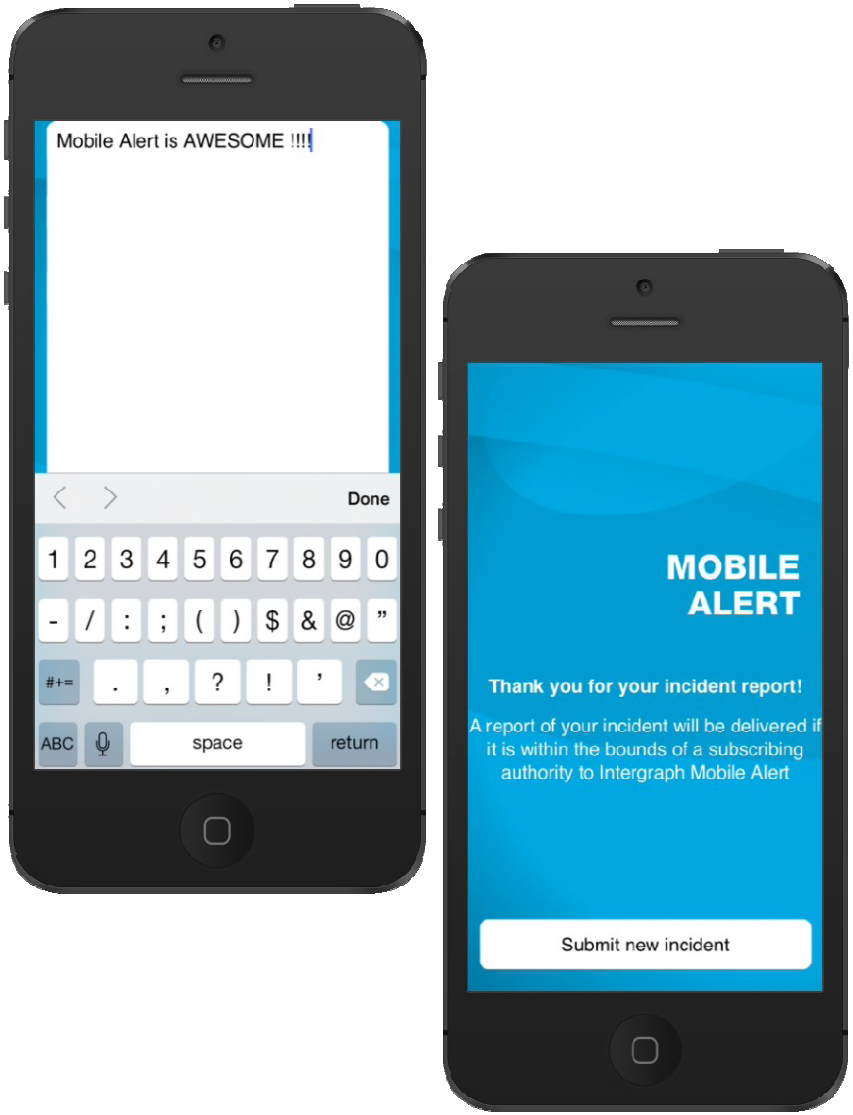
# Mobile Alert - Key Features




- Mobile Alert is completely anonymous
- Allows the user or citizen to provide a comment about the event or incident if the category itself it not enough
- In just a few quick and easy steps, taking less than 30 seconds, a citizen or user can record and send an event or incident to a subscribing organization.
- Mobile Alert is available globally, localized in several languages and configures the language itself based on the device's language/culture setting

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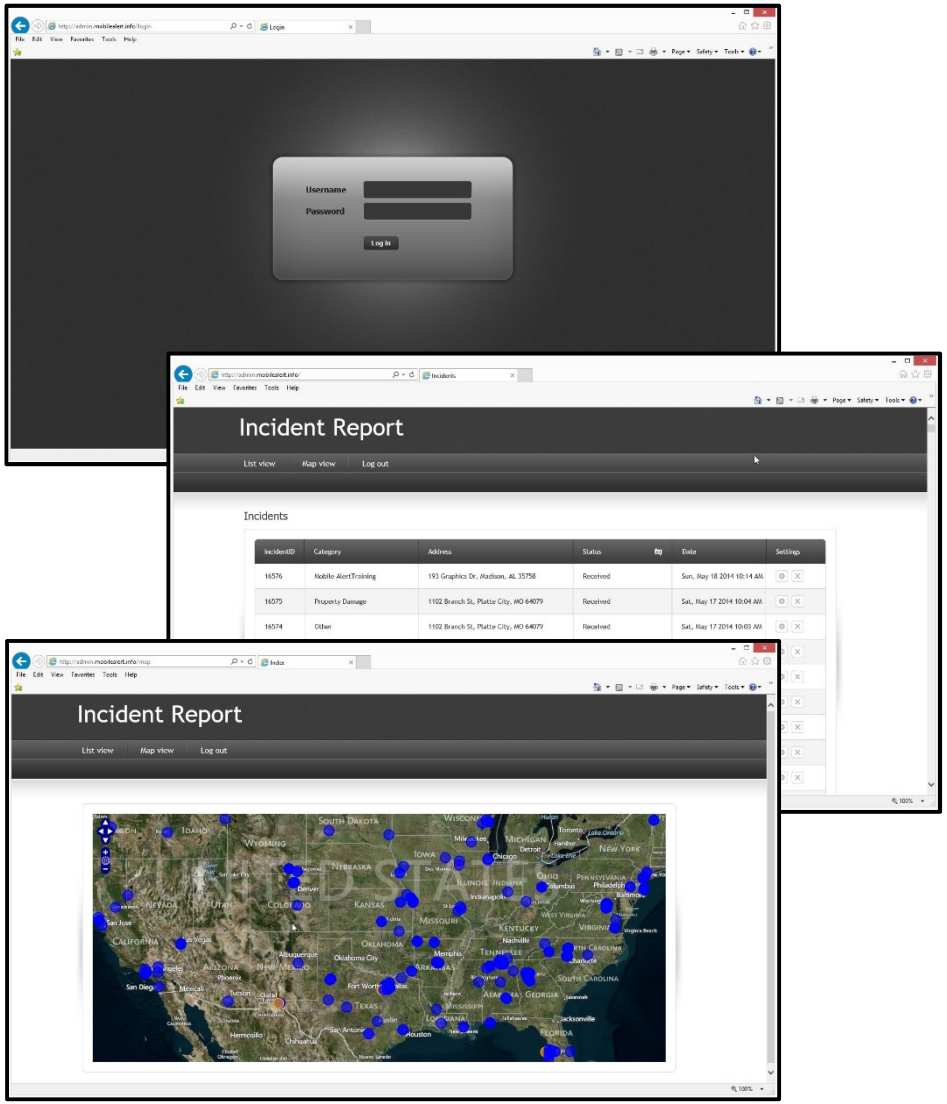
# Mobile Alert - Key Features




- Normally, in less than 5 minutes, the incident or event is received and processed and an e-mail is sent to a subscribing organization with details of the event or incident and links to the photo and Bing Maps display with marker to the address
- Intergraph-hosted backend service supplies subscribing organizations with access to all recorded events or incidents via the Mobile Alert Portal using username/password authentication
- Review all incidents recorded in the subscribing organizations area of interest or political boundary in either a list view or map view

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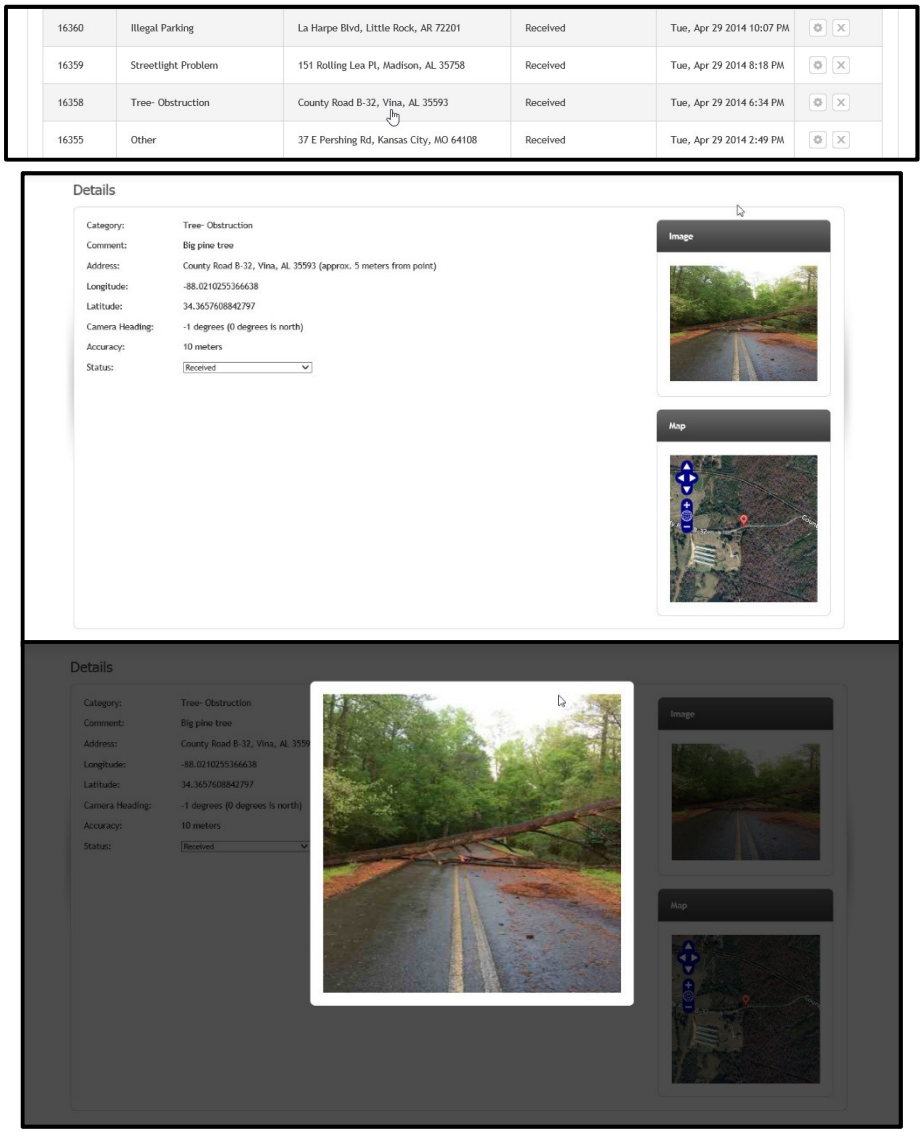
# Mobile Alert - Key Features




- E-mail can be directed to appropriate personnel at the subscribing organization based on category
- Access individual events or incidents from the list view or map view. Track and modify the status of each as well.
- For each event or incident the user at the subscribing organization can see the category, address and accuracy information, photo and Bing Maps display which provides geographic context or neighborhood where event or incident is located.
- WFS service is provided that allows subscribing organization to retrieve all incidents within the area of interest to other clients for further geoprocessing

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# Integrating Mobile MapWorks

# Integrating Mobile MapWorks

- WFS service is provided that allows subscribing organization to retrieve all incidents within the area of interest to other clients for further geoprocessing
- Mobile MapWorks is a field inspection and editing application available on iOS and Android tablets.
- Mobile MapWorks supports the game OGC-compliant WFS service as Mobile Alert making it a perfect candidate client for Mobile Alert events and incidents that need resolution by field crew and personnel
- Imagine a citizen reporting an event or incident and a field crew around the corner getting it on their field tablets in less than 5 minutes.

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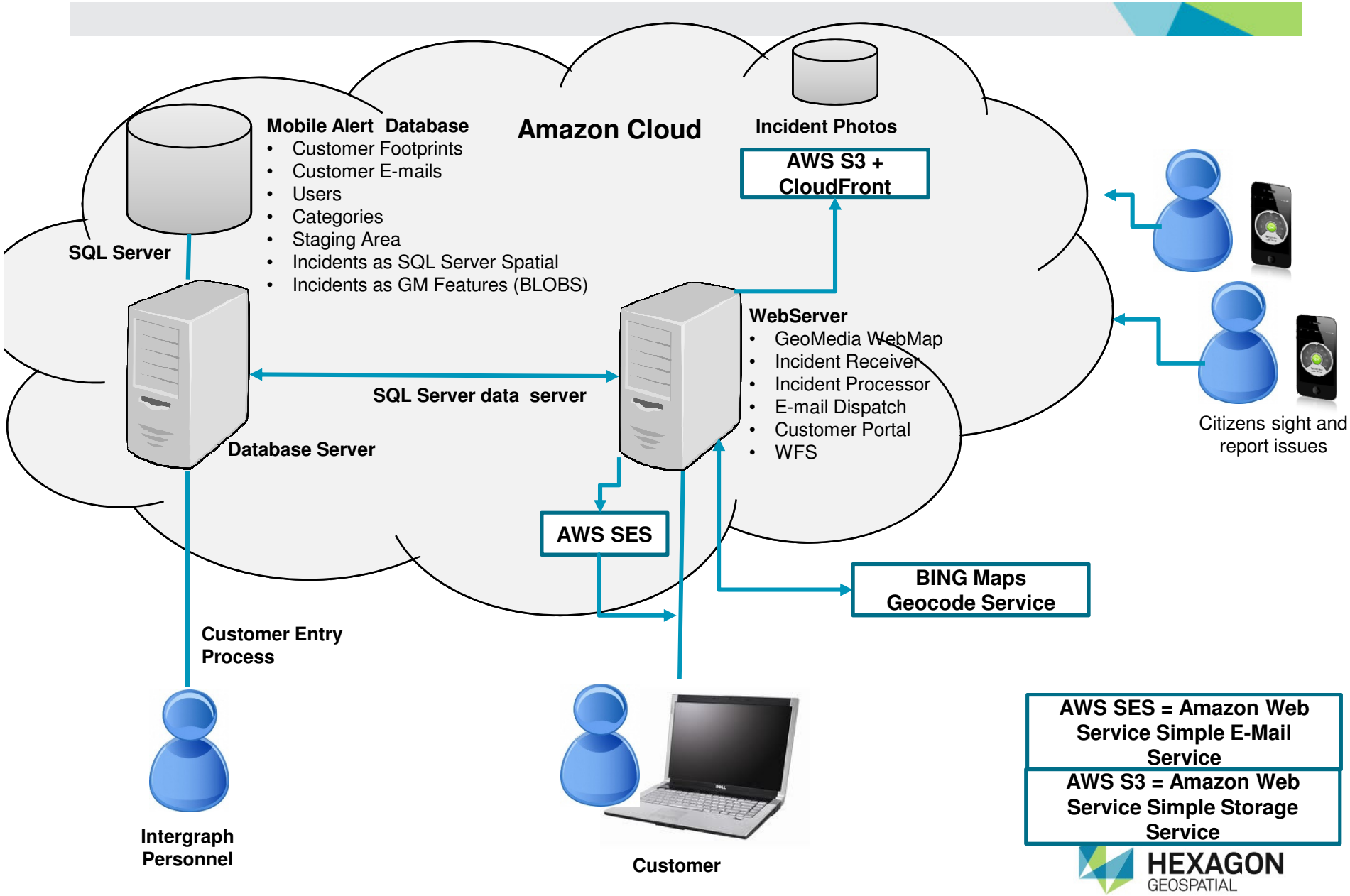
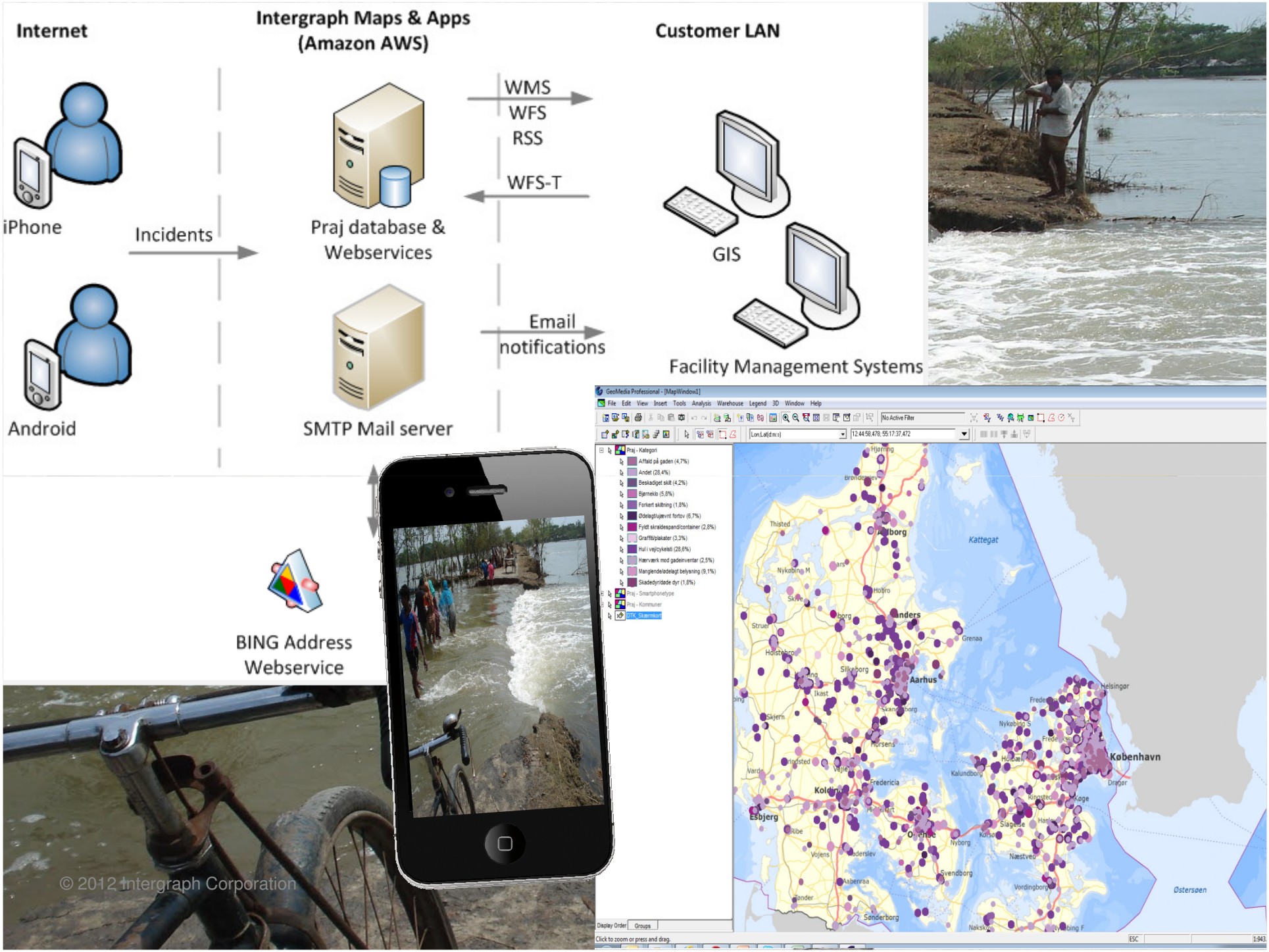
# Product & System Architecture

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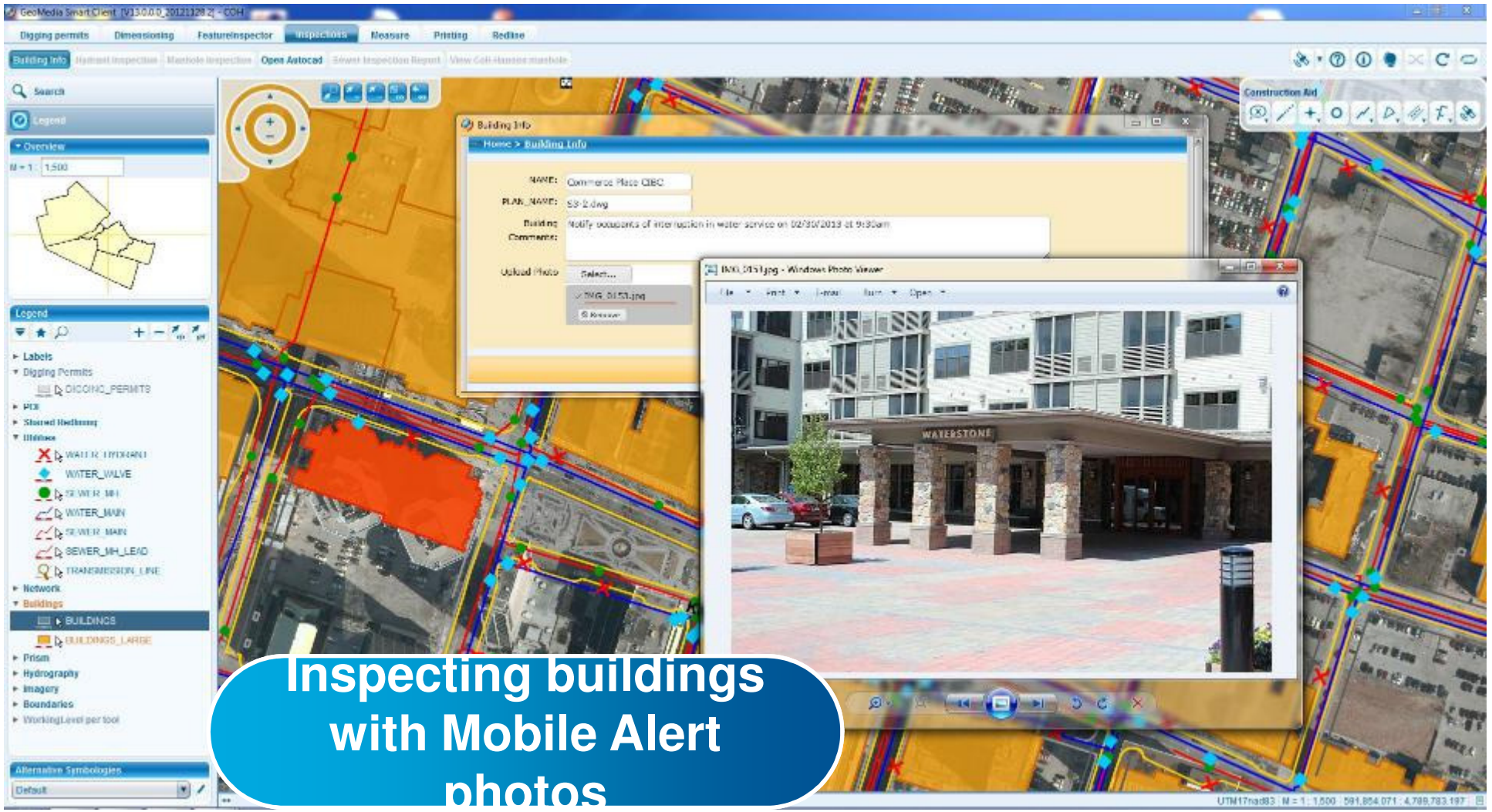
Intergraph Maps & Apps
(Amazon AWS)
Customer LAN
iPhone
Android
Incidents
Praj database &
Webservices
SMTP Mail server
WMS
WFS
RSS
WFS-T
Email
notifications
GIS
Facility Management Systems
BING Address
Webservice
© 2012 Intergraph Corporation

# Public Works Asset Management

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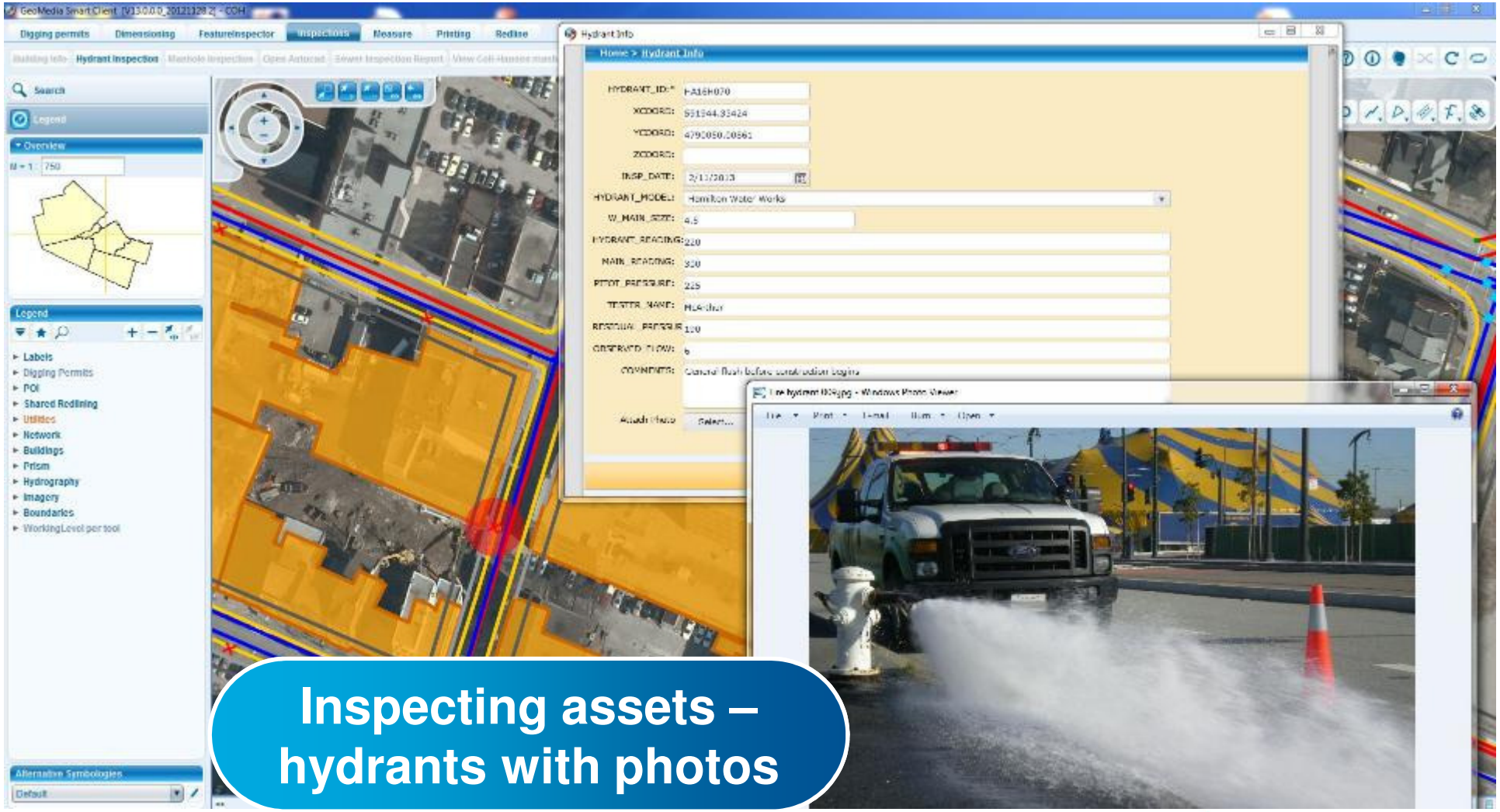
# Public Works Asset Management

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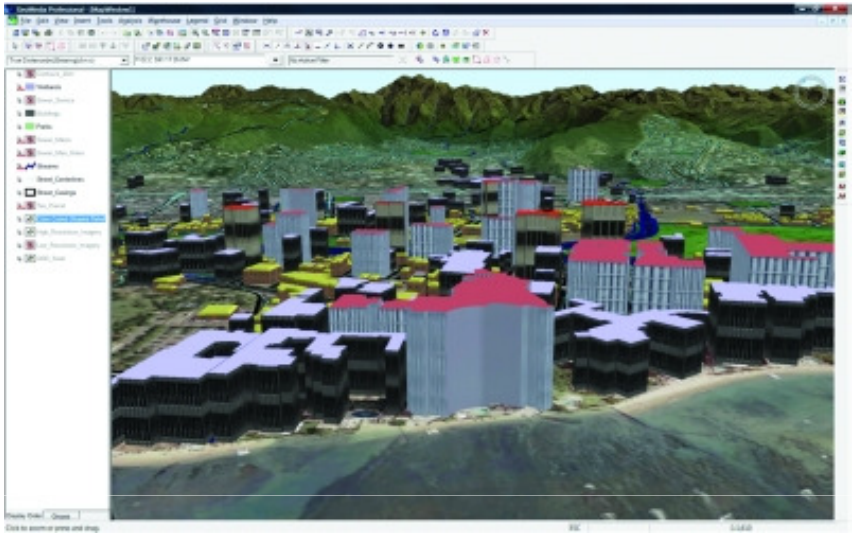
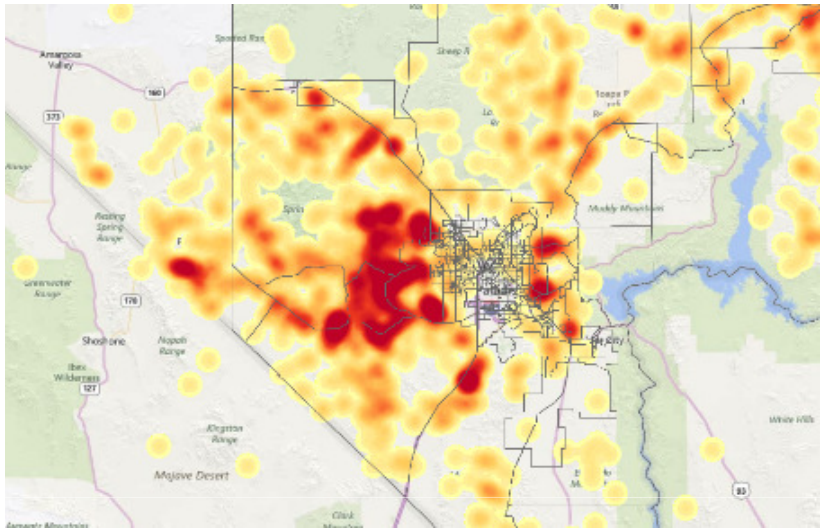
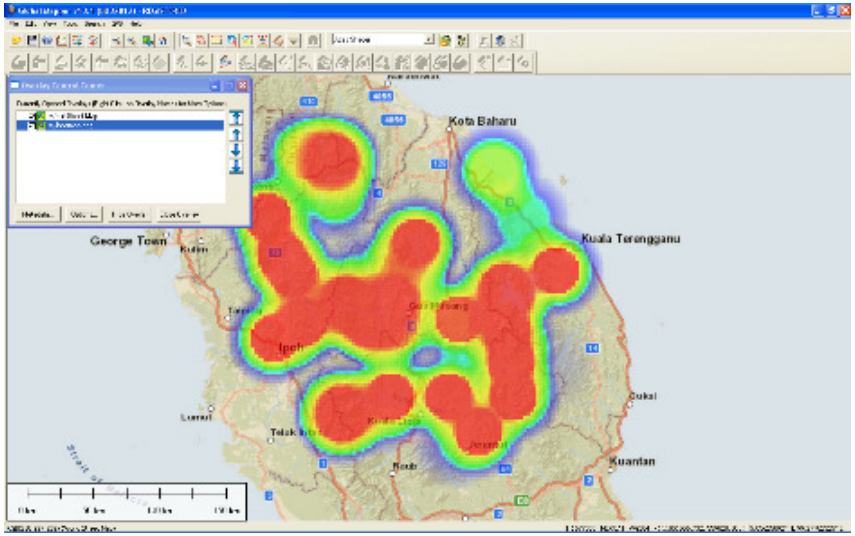
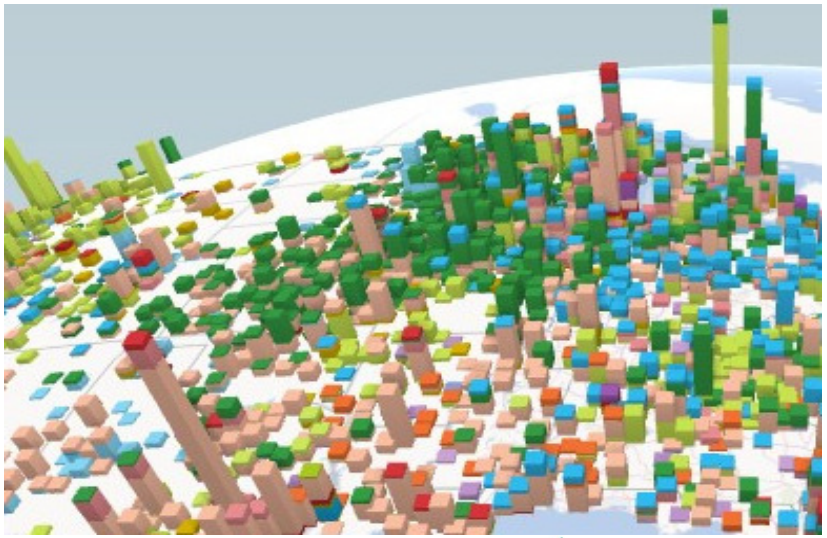
# Proximity & Frequency Analysis





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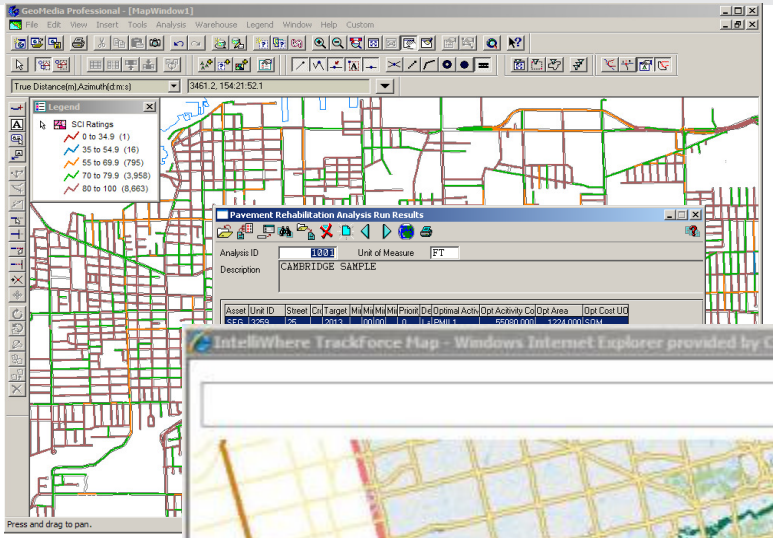
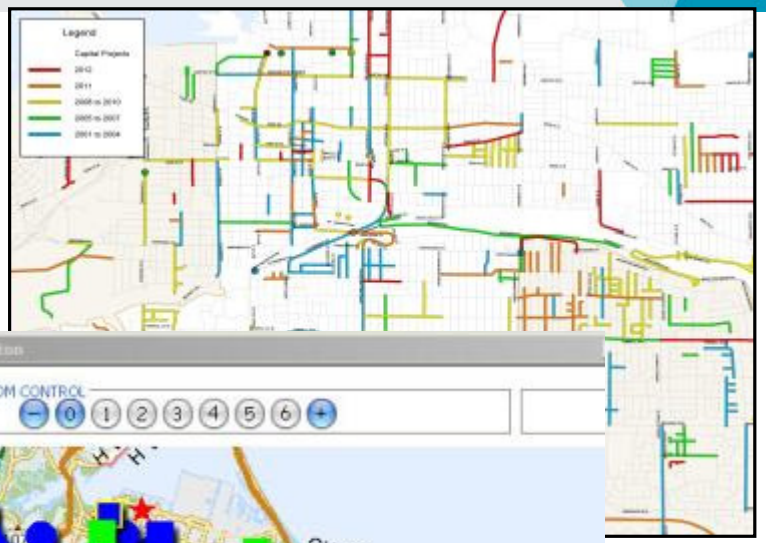
# Few More Applications



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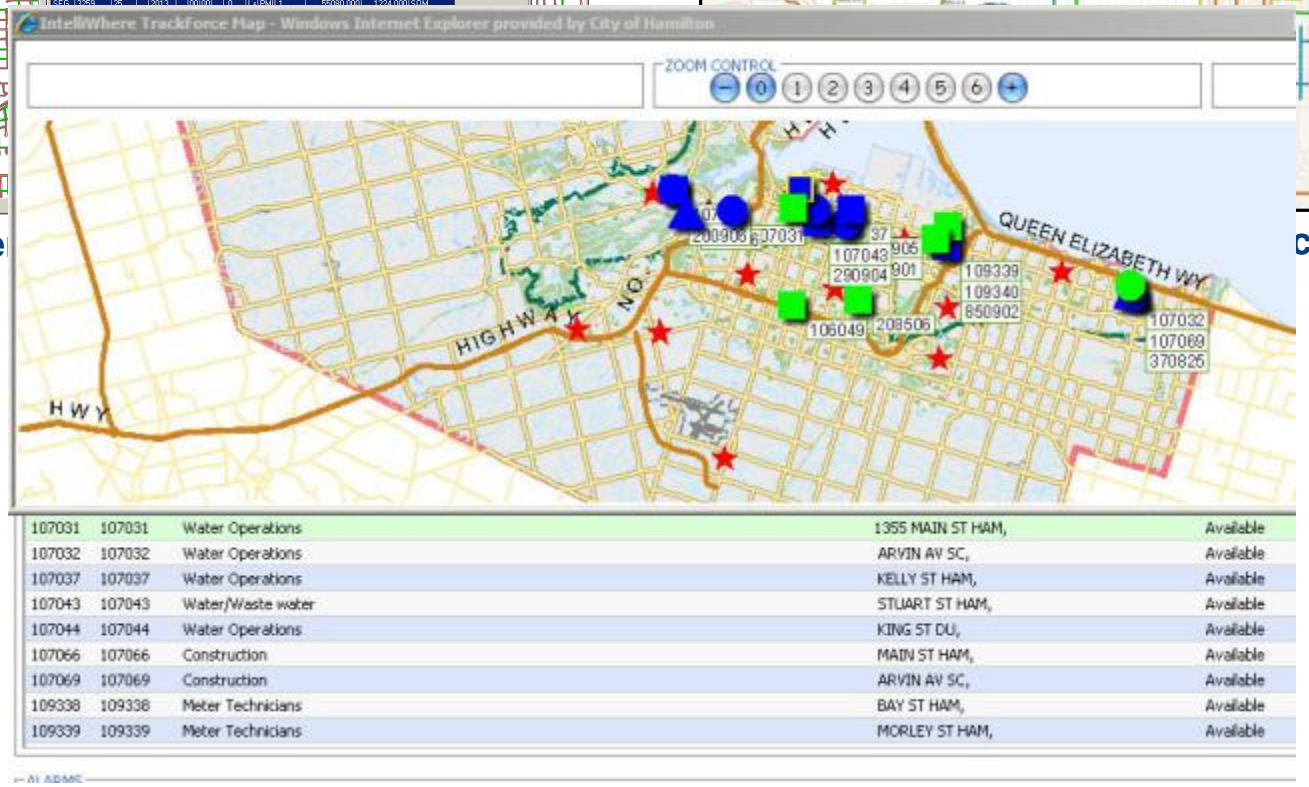


| | | | | |
|---|---|---|---|---|
| 107031 | 107031 | Water Operations | 1355 MAIN ST HAM, | Available |
| 107032 | 107032 | Water Operations | ARVIN AV SC, | Available |
| 107037 | 107037 | Water Operations | KELLY ST HAM, | Available |
| 107043 | 107043 | Water/Waste water | STUART ST HAM, | Available |
| 107044 | 107044 | Water Operations | KING ST DU, | Available |
| 107066 | 107066 | Construction | MAIN ST HAM, | Available |
| 107069 | 107069 | Construction | ARVIN AV SC, | Available |
| 109338 | 109338 | Meter Technicians | BAY ST HAM, | Available |
| 109339 | 109339 | Meter Technicians | MORLEY ST HAM, | Available |

**Mobile Workforce  Tracking**

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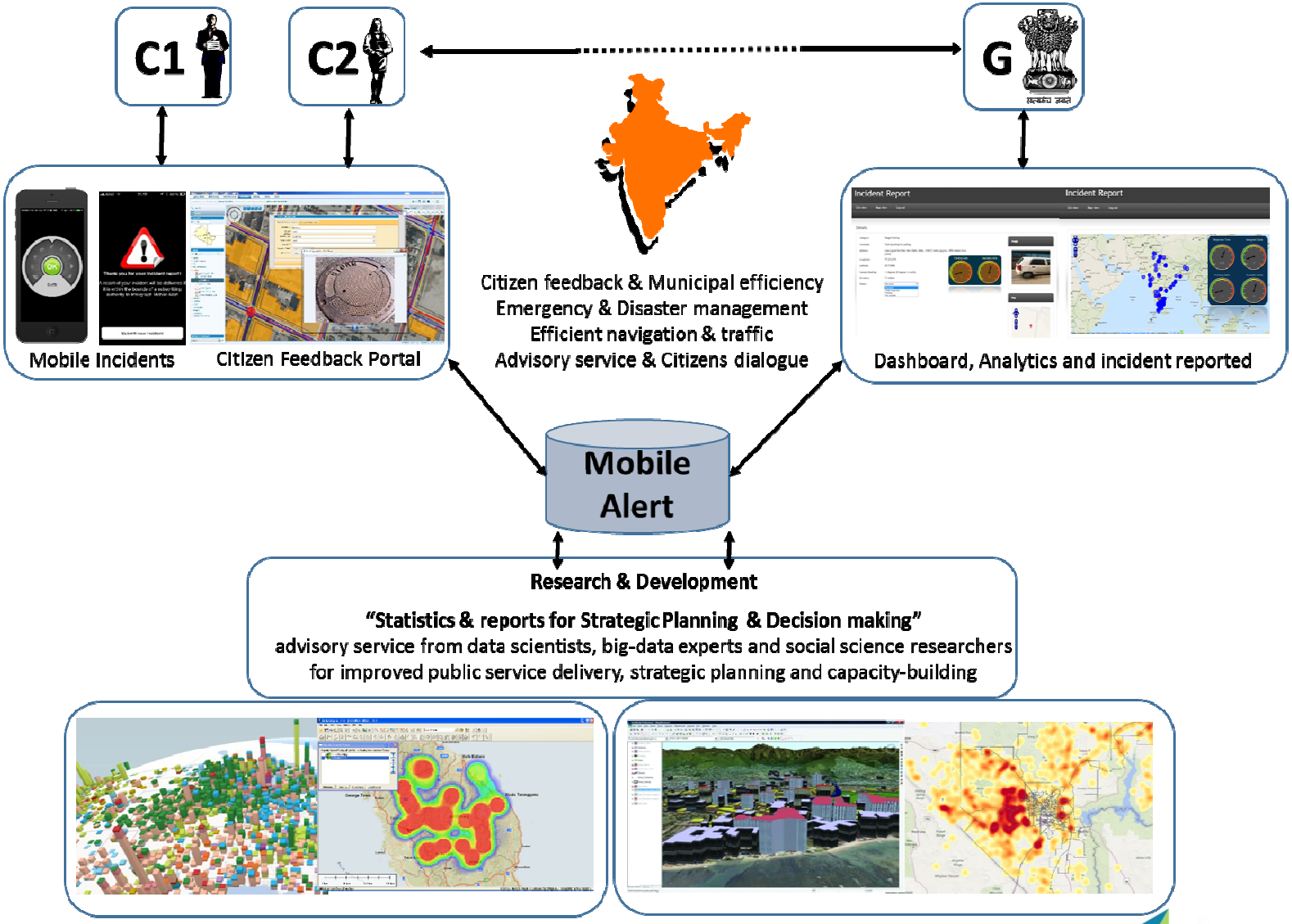
# Functional Architecture

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Utilize The Power of a Photo

# Thank You