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**(Systems Pvt. Ltd.)**



*“Making Our World Better Through  
Maps & Location Technologies”*

Founded

1992

Employees

750+

Consumer Base

5,000,000+

Enterprise Clients

5000+

Certification

ISO 9001-2008

Head-Quartered in New Delhi and presence in 90 cities across India

Flipkart



Z  
ZENRIN

QUALCOMM

BACKED BY LEADING TECHNOLOGY PLAYERS AND VENTURE CAPITAL FIRMS

# Safe city is the **first step** toward a smart city

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- Geo-spatial technology has a relevant & strong role to play in the Smart City Programme as **location being a common key factor in every aspect of Smart City.**
- Safety of people & infrastructure is of **prime importance** and is a key element of smart city programme.
- A centralized information system based on geospatial technology is a **powerful framework** which integrates every element & aspect of a safe city with location information.
  - Thus answering the question where, when, what and how. Further, enabling the objectives of safe city.

# Elements of Safe City



# Elements of Safe City

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- **Information Management:** Solutions that enable detection of crime indicators, forecasting of crime occurrences with location insight and information to fight against crime.
- **Law Enforcement:** Location based solutions to support law enforcing bodies like Police for preventing crime and maintenance of public order
- **Emergency & Disaster Management :** Solutions that enhance preparedness against natural disasters (earthquakes, floods, cyclones etc.)
- **Public Administration Services:** Location based solutions assisting the agencies for preventing spread of infection and diseases thus ensuring public safety and security

# Elements of Safe City

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- **Inter-Agency Collaboration** : Centralized Platform or Solutions that enable sharing of information in real-time among independent agencies which are tasked to ensure security.
- **Critical Infrastructure Management** : Solutions for protecting critical infrastructures and public facilities like flyovers, bridges ec.
- **Public Services** : Solutions for public for raise alerts incase they notice any breach to safety and security. Mechanism for agencies to reach citizens .





**WHAT MAPMYINDIA HAS FOR SAFE CITY**

# MapmyIndia Readily Available Components for Safe City

Map &  
Data  
For  
Pan India

Value  
Added  
Data with  
Location

IoT  
Platform  
(including  
AVLS,  
Listener &  
Dispatch)

Navigation  
&  
Route  
Optimization

Location  
Analytics

360°  
Panoramic  
View  
Technology

Sensors  
&  
Devices

APIs &  
SDK

Data Creation Services

Technology Services  
(Application Development)

Integrated & Customized  
Solutions

Managed Services

MapmyIndia™



# Map & Data for Pan India

Administrative

Address

Transportation Network

Land Cover

Points of Interest

3D

Route Guidance

Traffic

Regional Content

Administrative

- Country
- State
- Districts
- Sub-Districts
- Towns
- Wards
- Villages

Addresses

- **URBAN**
- State
- Towns/Cities
- Locality
- Sub Locality
- Sub-Sub Locality
- **House Number/ House names**
- Postal Boundary
- **RURAL**
- State
- Districts
- Sub-Districts
- Villages
- Postcodes

Transportation Network

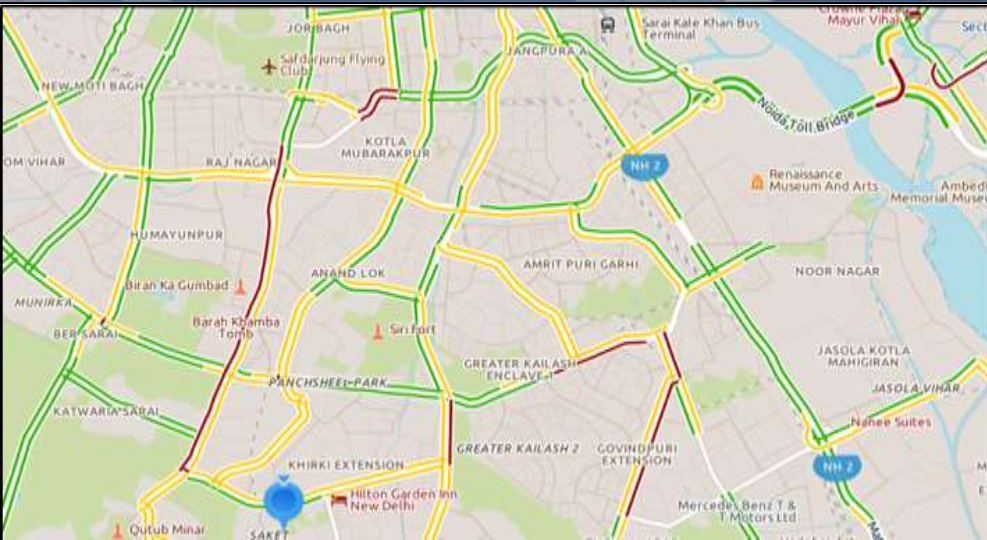
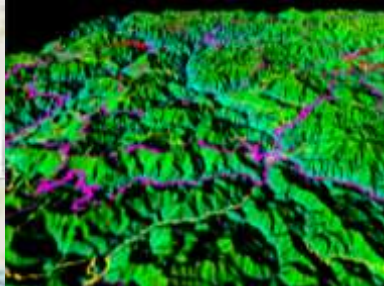
- **Road Network** (NH, SH, DH, Village Connecting Roads)
- City Arterial, B-class, C-class, D-class roads
- **Railway Network:** including metro and local

Points of Interests

- **Points of Interests**
- Falling under 180+ different categories
- **Ex- Bus Stop, School, College, Mall, Bank, Restaurant, Coffee Shop, Corporate Building, Residential Building etc.**

Land Cover

- **All India Coverage for**
- Green cover: Forest, Parks, Wildlife, Agricultural land etc.
- Water bodies: Ocean, river, lake, pond etc.
- Built-up areas: Residential, commercial, institutional, industrial etc.
- Open areas



# Value Added Data with Location – For Planning

## Location Added Census data (2001 and 2011)

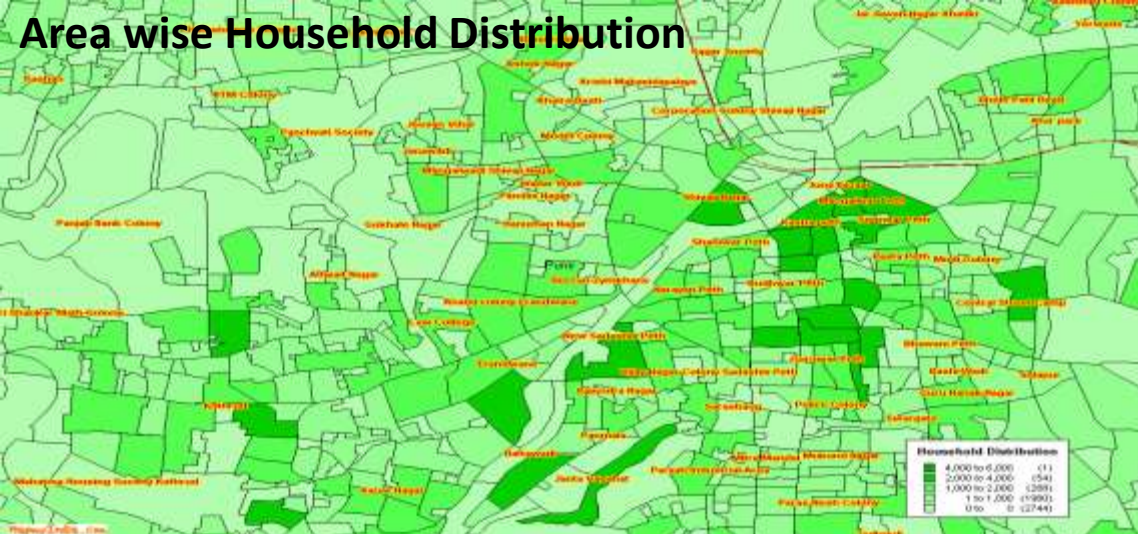
- **Demographics**, at following levels of granularity
  - Country
  - State
  - District
  - Sub-district
  - Town
  - Village
- **Amenities data** (rural) at following levels of granularity
  - Country
  - State
  - District Level
  - Sub-district
  - Town/Ward/Village
- **Asset data urban** (4-wheelers, 2-wheelers, TV, Radio, Banking Facilities) at following levels of granularity
  - City Level
  - Town/ Ward/Village

## MapmyIndia Derived Data

- **Number of households** at the following level of granularity
  - City
  - Area (Area is a locality/ward within a city)
- **Income distribution** across 4 income groups (Annually)
  - Number of Households in Income Group 0 - 1.5L
  - Number of Households in Income Group 1.5L - 5L
  - Number of Households in Income Group 5L - 10L
  - Number of Households in Income Group 10L – Above
- **Pincode** association for
  - All villages
  - All localities with boundaries
- **Rural Potential Index**
- **Hazard Data**



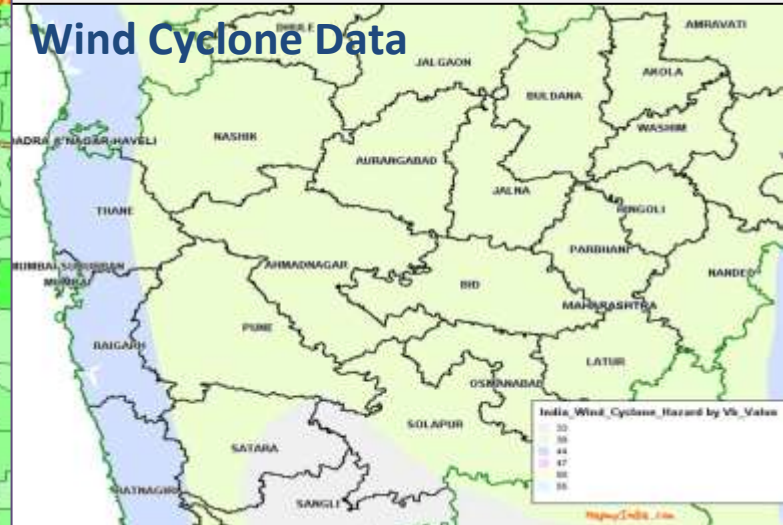
# Area wise Household Distribution



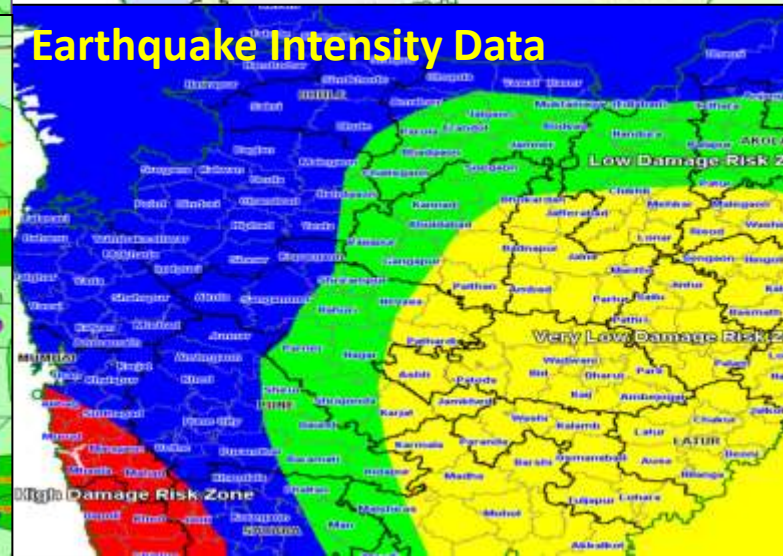
# Area wise Income Group Classification



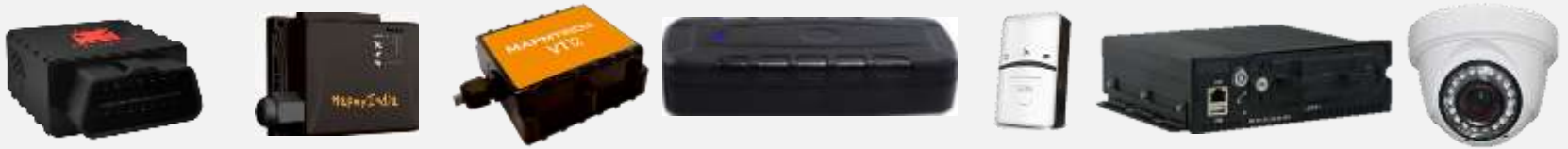
# Wind Cyclone Data



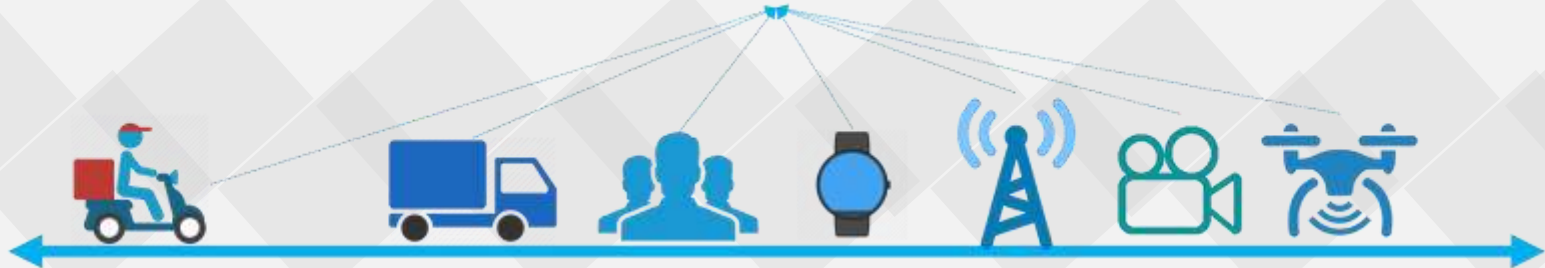
# Earthquake Intensity Data



# IoT Platform – Hardware & Software



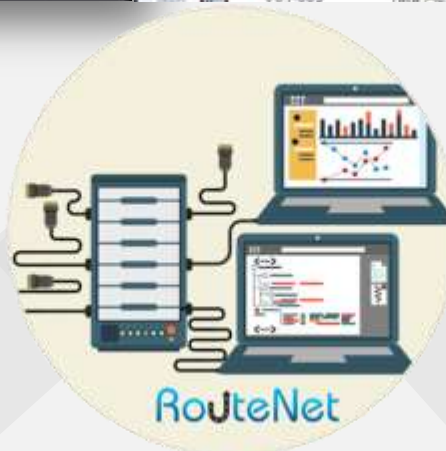
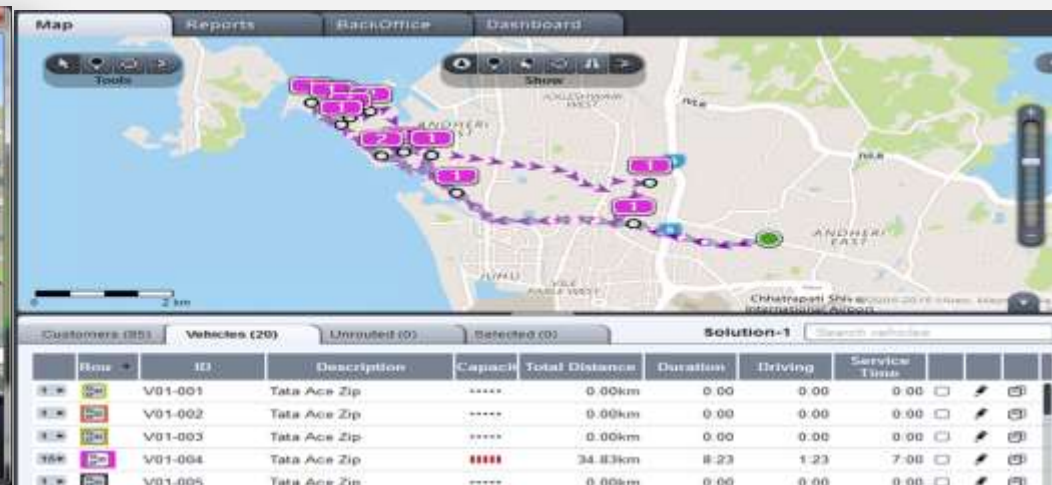
Connectivity Layer (Mobile Data Network)



- The objective of Intouch is to gather information from 'connected' devices with location as the primary input.
- Each device has a specific use case whether used for vehicles, people or objects.
- Single Window Platform



# Navigation & Route Optimization



# Location Analytics



Measurement Tools

Measurement Result

Search through Mapinfo

Heat Map

Attribute: Injured (No. of Persons)

Hot Radius: 8

Max Intensity: 100

Min Intensity: 10

Accident Locations

Measurement Tools

Measurement Result

200 Kilometers

Search through Mapinfo

Address: [Enter an address or place]

Get Location

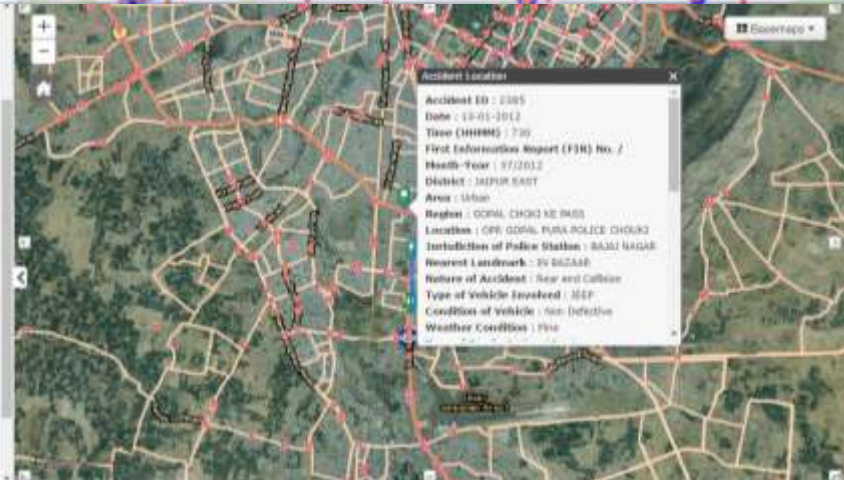
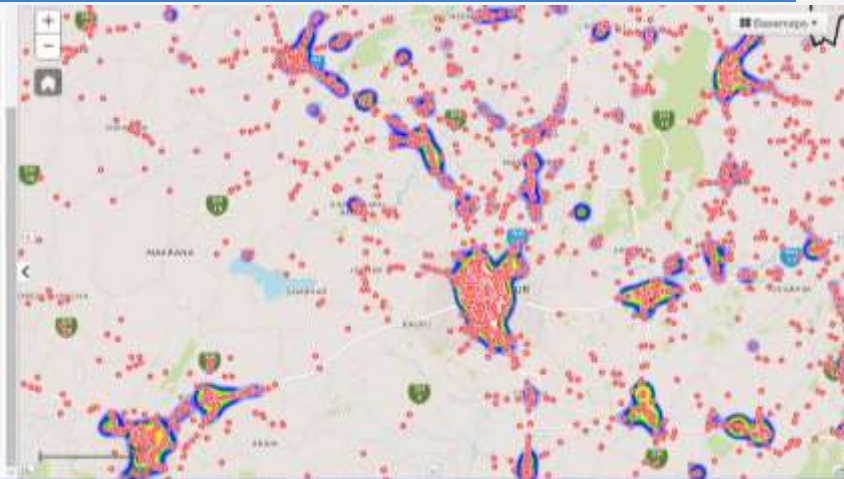
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# 360° Panoramic View Technology



## HIGH RESOLUTION CAMERA WITH SIX SENORS TO CAPTURE PANORAMIC VIEW

- 30 Megapixel resolution at 7 frames per second
- Three recording modes (Distance, time and manually)
- Coverage is 360 x 160 degree (whole world except the cars rooftop)
- Geo-referenced Images



## MapmyIndia's RealView





# APIs & SDK

## Advance Map APIs – Web APIs / Mobile SDK



Interactive  
Map

Auto-  
suggest

Geo-coding

Reverse  
Geo-coding

Routing

Driving  
Distance

Nearby

Hybrid  
view

Place  
Details

## Telematics & Tracking APIs

## Traffic APIs

## Navigation APIs & SDK



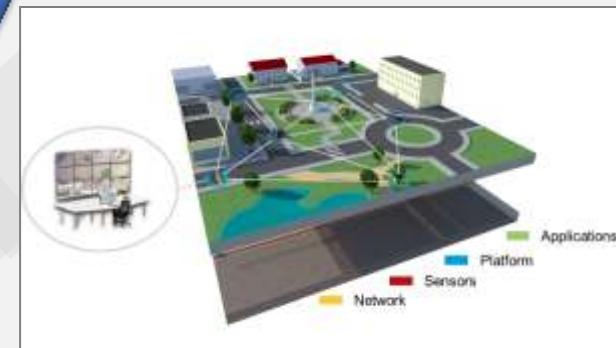
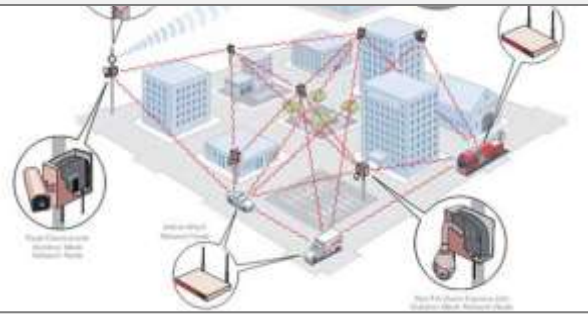
APIs



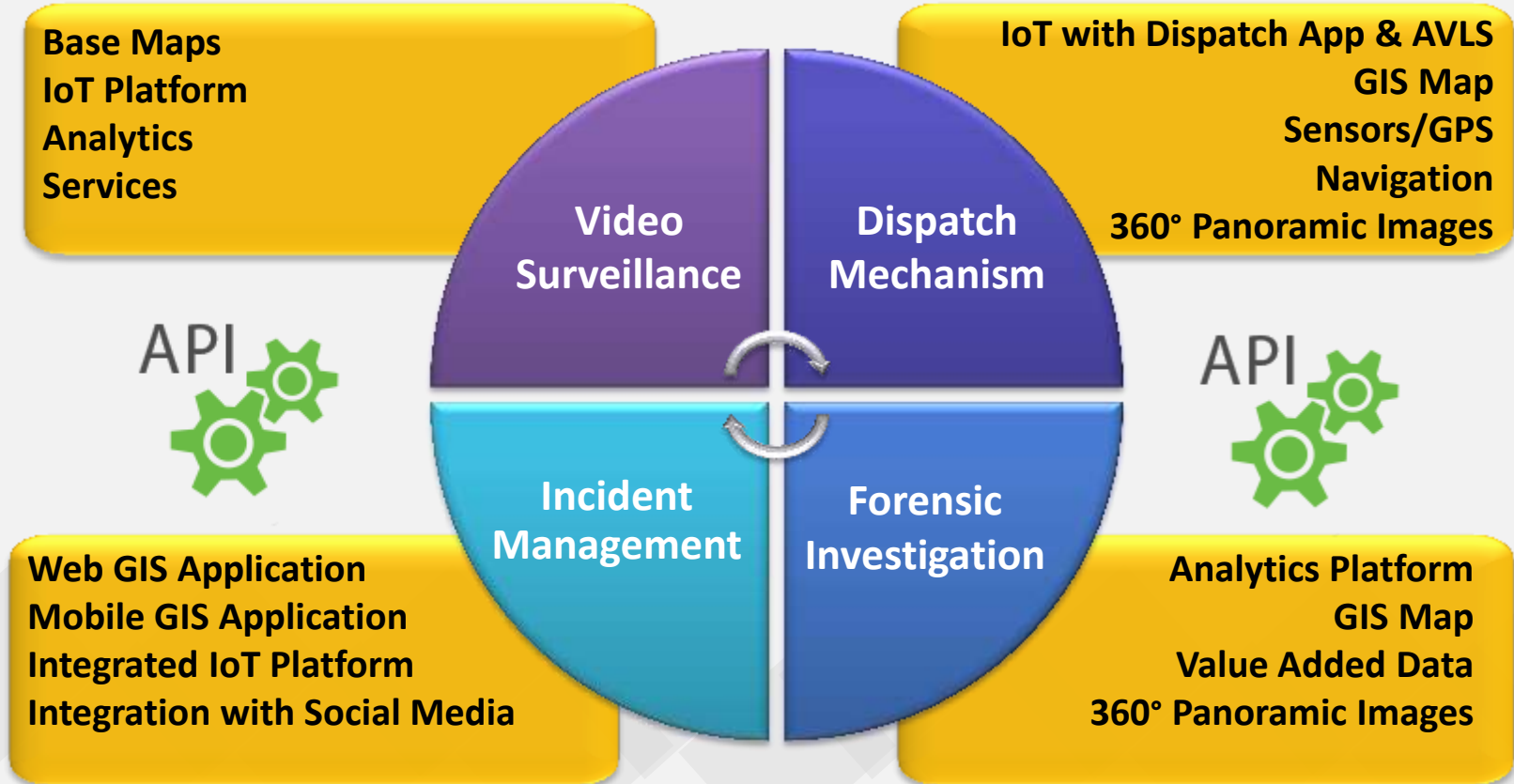
**EXAMPLE**



## Some components of City Surveillance System



# MapmyIndia Solution Component



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# Thank You

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