Geo-spatial technology enables & enhances the objectives of Safe City - Smart City

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MapmyIndia (CE Info Systems Pvt. Ltd.)
About Us

“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

BACKED BY LEADING TECHNOLOGY PLAYERS AND VENTURE CAPITAL FIRMS
Safe city is the first step toward a smart city

- 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

- Emergency & Disaster Management
- Public Administration Services
- Information Management
- Critical Infrastructure Management
- Law Enforcement
- Citizen Services
Elements of Safe City

- **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

• **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 etc.

• **Public Services**: Solutions for public to raise alerts in case 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**

**Value Added Services**
- Data Creation Services
- Technology Services (Application Development)
- Integrated & Customized Solutions
- Managed Services
### Map & Data for Pan India

<table>
<thead>
<tr>
<th>Administrative</th>
<th>Addresses</th>
<th>Transportation Network</th>
<th>Points of Interests</th>
<th>Land Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Country</td>
<td>• URBAN</td>
<td>• Road Network (NH, SH, DH, Village Connecting Roads)</td>
<td>• Points of Interests</td>
<td>• All India Coverage for</td>
</tr>
<tr>
<td>• State</td>
<td>• State</td>
<td>• City Arterial, B-class, C-class, D-class roads</td>
<td>• Falling under 180+ different categories</td>
<td>• Green cover: Forest, Parks, Wildlife, Agricultural land etc.</td>
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<tr>
<td>• Districts</td>
<td>• Towns/Cities</td>
<td>• Railway Network: including metro and local</td>
<td>• Ex - Bus Stop, School, College, Mall, Bank, Restaurant, Coffee Shop, Corporate Building, Residential Building etc.</td>
<td>• Water bodies: Ocean, river, lake, pond etc.</td>
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<tr>
<td>• Sub-Districts</td>
<td>• Locality</td>
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<td>• Built-up areas: Residential, commercial, institutional, industrial etc.</td>
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<td>• Towns</td>
<td>• Sub Locality</td>
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<td>• Open areas</td>
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<td>• Wards</td>
<td>• Sub-Sub Locality</td>
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<td>• Villages</td>
<td>• House Number/ House names</td>
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<td>• Postal Boundary</td>
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</table>
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

Wind Cyclone Data

Earthquake Intensity Data

Area wise Income Group Classification
IoT Platform – Hardware & Software

- 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
360° Panoramic View Technology

HIGH RESOLUTION CAMERA WITH SIX SENSORS 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
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
EXAMPLE
Some components of City Surveillance System

- Video Surveillance
- Dispatch Mechanism
- Incident Management
- Forensic Investigation
MapmyIndia Solution Component

Base Maps
IoT Platform
Analytics Services

Video Surveillance
IoT with Dispatch App & AVLS
GIS Map
Sensors/GPS
Navigation
360° Panoramic Images

Dispatch Mechanism

Incident Management
Web GIS Application
Mobile GIS Application
Integrated IoT Platform
Integration with Social Media

Forensic Investigation
Analytics Platform
GIS Map
Value Added Data
360° Panoramic Images
Thank You