

Geo Intelligence Asia Conference 2012

6th Annual conference and exhibition on Defence & Homeland Security

**Building Integrated GIS Intelligent Solutions Using
GIS- Ready Data, Devices and Applications**

**Rakesh Verma, Managing Director
MapmyIndia**

MapmyIndia Empowers India's Defence & Homeland Security with India's best Geospatial Data & Technology built by Indians



**HIGH-RESOLUTION & 3-D
MAPPING & SURVEY**



**NAVIGATION, TRACKING
AND POSITIONING DEVICES**



**SOFTWARE APPLICATIONS
& SYSTEMS INTEGRATION**

INTRODUCTION

1. Establishment of Robust and Responsive GIS Infrastructure for
 1. Timely Decision Making by appropriate Commanders/ Headquarter
 2. Real time Dissemination of decision
2. Requires following basic components of GIS Infrastructure
 1. **Maps and Data**
 2. **Devices- Navigation and Tracking**
 3. **Software- Applications**

GIS Infrastructure- **Maps & Data**

1. Envisaged GIS Infrastructure – Maps & Data
 1. Base Map - High Resolution Large Scale land based maps of entire country
 2. Mapping of Defence specific assets
 1. Cantonment mapping
 2. Country border fencing mapping
 3. Mapping of Assets such as Underground Optical Fiber Cable (OFC) Routes
 4. VA/VP locations
 5. Updation, Digitisation and Geo- referencing of existing disparate Defence Maps (Paper and Digital)
 3. Full 3D model both indoor & outdoor

GIS Infrastructure- **Maps & Data**

| VIDEO 1 | VIDEO 2 | VIDEO 3 |
|---|--|--|
| Indoor – 3D Building | Outdoor – 3D City model | Outdoor – 3D City show-box model with selected landmarks containing real textures |
|  indoor mapping 15 sec .3gp |  outdoor.3gp |  aura 15 sec.3gp |

MapmyIndia' Expertise:

- GISready high- resolution map of entire India as well as products
- Procurement of Satellite Imagery, Image Registration and Geo-referencing, Superimposition of man made structures including Towers, buildings, 3D Terrain/ Surface Model, POI Survey , RF/ Radio/ Mobile Mapping

GIS Infrastructure- **Devices**

1. Envisaged Infrastructure

1. Customised, Ruggedized Devices for Indian conditions of Roads and Signal Quality
2. Life Cycle requirement of Defence Forces
3. Working on GPS & Non GPS Satellite Navigation System
4. Multi technology Communication platform ie GSM, CDMA, BWA, 3G, Narrow Band FM (CNR), U/VHF Radio, SATCOM etc

GIS Infrastructure- **Devices**

MapmyIndia's expertise:

Navigation

Portable (PND)

Portable and Connected (CARPAD)

Fixed and Connected (IN-DASH)

Tracking

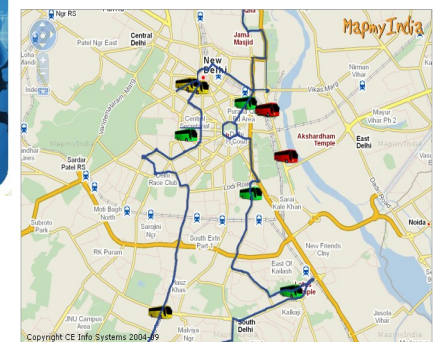
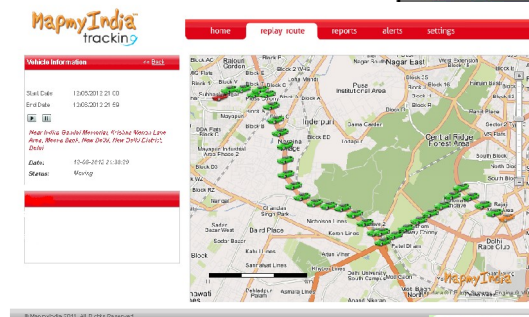
Vehicle Tracking: Convoy Security Soln

Personnel Tracking

Asset Tracking: Estate/ Cantt Patrolling

Intelligence Collection

MapmyIndia



GIS Infrastructure- Geo-Applications

1. Envisaged Infrastructure

1. Applications should be capable of

1. Emergency Response
2. Geo planning
3. Tracking and Dispatch services

2. Additional Important capability to include

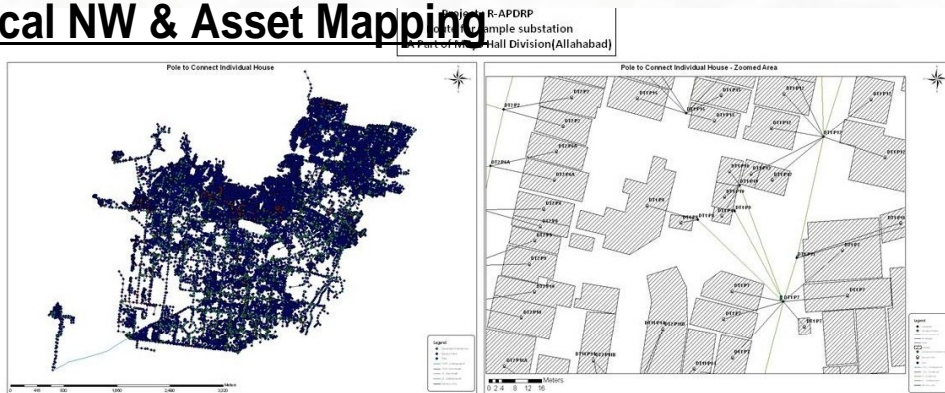
1. Be hosted on Captive Private Network of Defence and Homeland Security or Public Network
2. Virtual Web Based support
3. Developed on Open source architecture or on platform of choice
4. User friendly GUI, Screen based applications requiring NO technical expertise or knowledge of end user

GIS Infrastructure- **Geo-Applications**

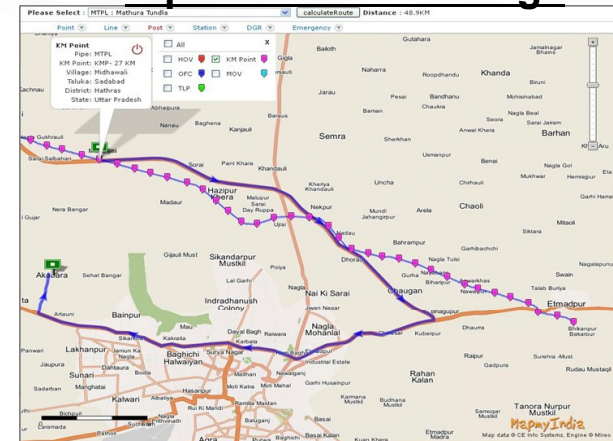
MapmyIndia' Expertise:

MMI solution built with the above parameters as a focus.

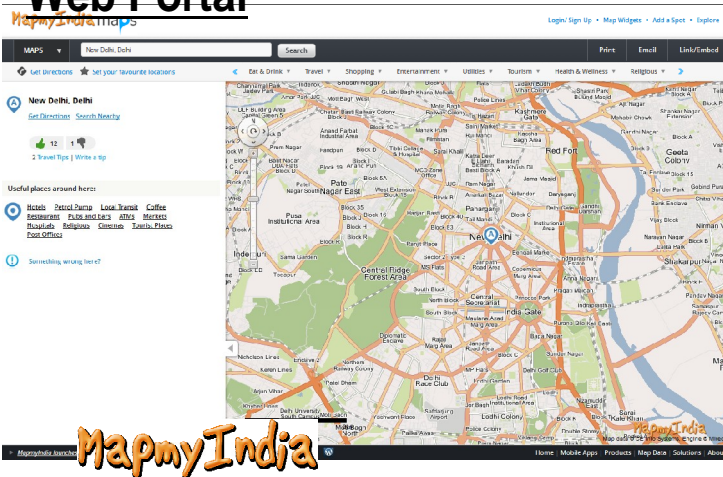
Electrical NW & Asset Mapping



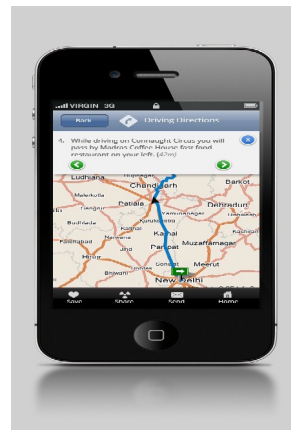
Pipeline and Chainage



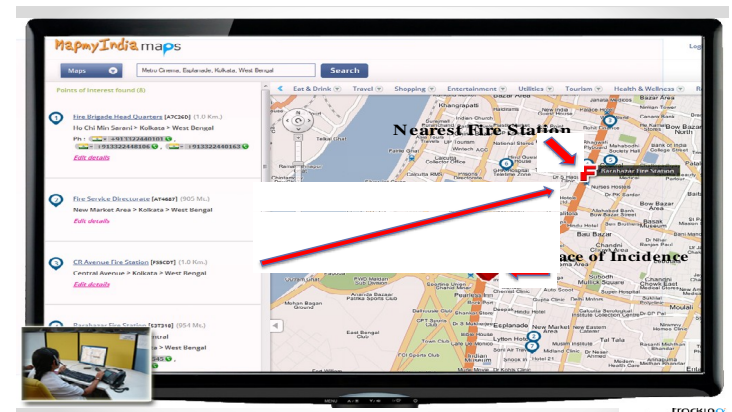
Web Portal



Mobile Applications



Emergency Response



GIS Infrastructure- Support & Maintenance

1. PAN India presence of trained and professional Engineers for on the site maintenance
2. Experience: MMI has supplied
 1. GISsoftware to Indian Army
 2. Large scale maps (incl J&K) to MoD
 3. Tracking devices to CI Units and Mechanised Forces
 4. Navigation devices to Personnel of Defence Forces
 5. Client Server based application to Navy



CONCLUSION