

# Smart City Management Solution



## Solution Summary

Vayam Technology's smart city solution based on GIS technology enables integration with different smart city components like transport, safety, citizen services, asset management, disaster & emergency management. The solution based on Esri ArcGIS technology supports advanced automation and real-time integration of city monitoring and management system. The solution offering varies from Geo database creation in 2D and 3D format to integrate these solutions with Smart Applications and devices for Spatial Decision Support and Action.

## Solution Description

The solution is based on ArcGIS desktop for data creation, ArcGIS online and Geo event Processor.

The ArcGIS technology provides the base for the SMART city right from the geodata generation to the smart application integration on different platform with spatial analysis. This spatial analysis provides a cognitive intelligence for action and decision support.

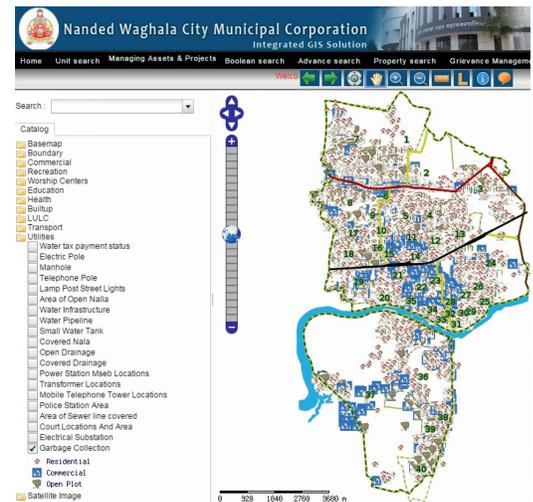
### Solution Components

- Traffic and Transportation
  - Transit management system for city transport system, whereby the vehicles are tracked on real time basis over the GIS maps and registration of emergency calls from the vehicles
  - Generation of traffic details of the road and geospatial analysis of the problems in terms of infrastructure gaps, like points of bottlenecks, accident points etc
  - Integrated traffic management in real time using sensors which sends real time data of traffic and the GIS integrated analytics for decision support related to traffic like managing signals, route diversion etc
- Security and Surveillance
  - Integration with emergency management system. If a distress class is made from any geographic location, the address may be traced over the map and simultaneously another GIS system can track the nearest patrolling vehicle equipped with GPS system. The emergency location may be immediately transferred to the dashboard installed in the vehicle with instructions for necessary actions. The dispatch may be also made on handheld devices of police
  - Surveillance system through video analytics enabling 24 hours monitoring through CCTVs and projecting that over GIS Map for location based analysis and spatial coverage
- Integrated workflow system for urban land management for land use management by development authorities
- GIS based integrated e-governance services for municipality for
  - Online tracking of tax payers and non-tax payers
  - Citizen's grievance redressal: Compliant registration location and workflow management supporting decision support
  - Waste management
  - Tracking functioning of electric poles and other utilities
  - Tracking development in city as per city planning norms
  - Effective city service provision by sending the detailed locations to service crews for maintenance and management of services
  - Different municipal service provision status, like schools, health, bus stops etc

- Asset management of utilities.
  - The solution helps create comprehensive inventory of utility network components and their spatial locations. It provides the capability to monitor and explore the health of the network by generating alerts for scheduling maintenance, testing and replacement of assets under Smart city and this can be integrated to mobile application for task allocation to the field crew
  - The utilities may also integrate the live data received from SCADA system with GIS systems for day today asset management
  - GIS based Asset management solution also projects the demand and supply and the gaps in the network
  - The complete solution may be availed by any of the utilities like water supply, storm water drains, sewage system, electricity, city gas services and telecom services

## Key Features

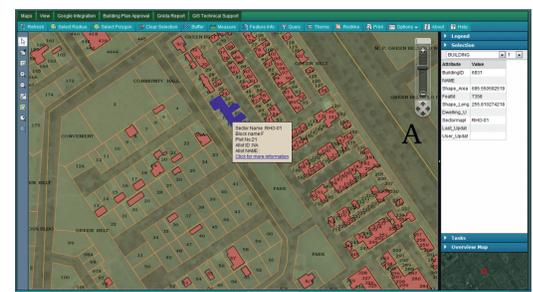
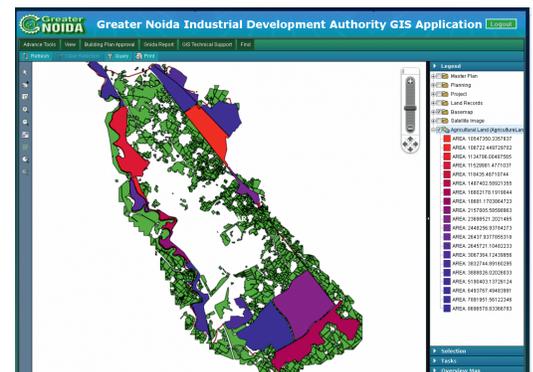
- Advanced map visualizations, highlight concentrations and enables interactive analyses
- Enterprise GIS for asset planning, management, operation and maintenance
- Integrated workflow systems
- Geospatial data base integration with products and applications such as billing and smart meters
- Publishing of the thematic maps for actions by various departments
- Live spatial information generated by integration with smart devices using Geo-Event processor
- GIS integrated analytics for performance monitoring of services



## About the Partner

M/s Vayam Technologies Limited (Vayamtech) is one of the fastest growing and a leading Information Technology organization in India providing end-to-end IT solution and services to clients from different areas / sectors viz. Government (Centre / State), PSUs and Corporates. Founded in 2000 and headquartered in New Delhi (India), the company has turnover of more than 600 crores during FY 2014-15.

Vayamtech Technologies Limited is an SEI CMMI level 5, ISO 9001:2008, ISO 27001:2005 and ISO/ IEC 20000 certified IT Solutions Company. Vayamtech has proven tools and methodologies utilized over more than 200 successful engagements. We utilize our experience in large scale e-governance projects and bring value to our customers with our domain experience, project management and technical expertise. Vayamtech offers an integrated portfolio of IT and IT enabled services delivered through a proven GLOCAL (Global and Local) model.



## Follow us

[facebook.com/esriindia](https://facebook.com/esriindia)

[linkedin.com/company/esriindia](https://linkedin.com/company/esriindia)

[twitter.com/esriindia](https://twitter.com/esriindia)