

Navayuga GeoPortal Application Framework for Building Smart Cities



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Background

- In 2008 Navayuga was awarded with a Delhi State SDI project of Rs.120 Crore
- Geospatial data creation of for all the realworld features in 3D in 1:2000 scale.
- Development of GeoPortal for Line department governance
- Navayuga has developed the project successfully
- The project has been awarded with National e-Gov (Gold Award) in 2013-14 for Innovative use of GIS in governance.

Overview

- Requirement Study
- Database and Application Design
- Collection of Quality Datasets
- Database Management through Tools
- Elements of Navayuga GeoPortal

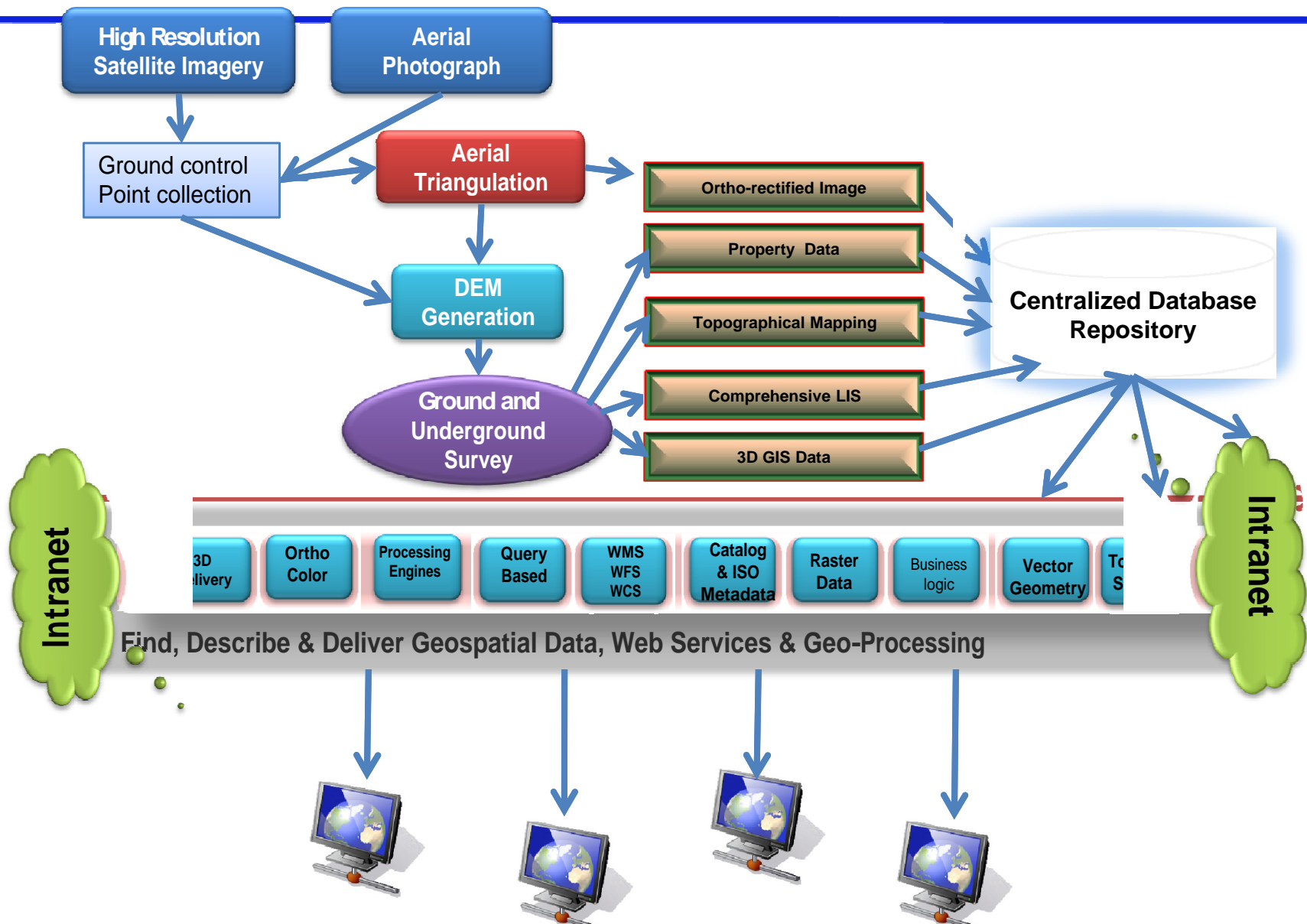
Introduction

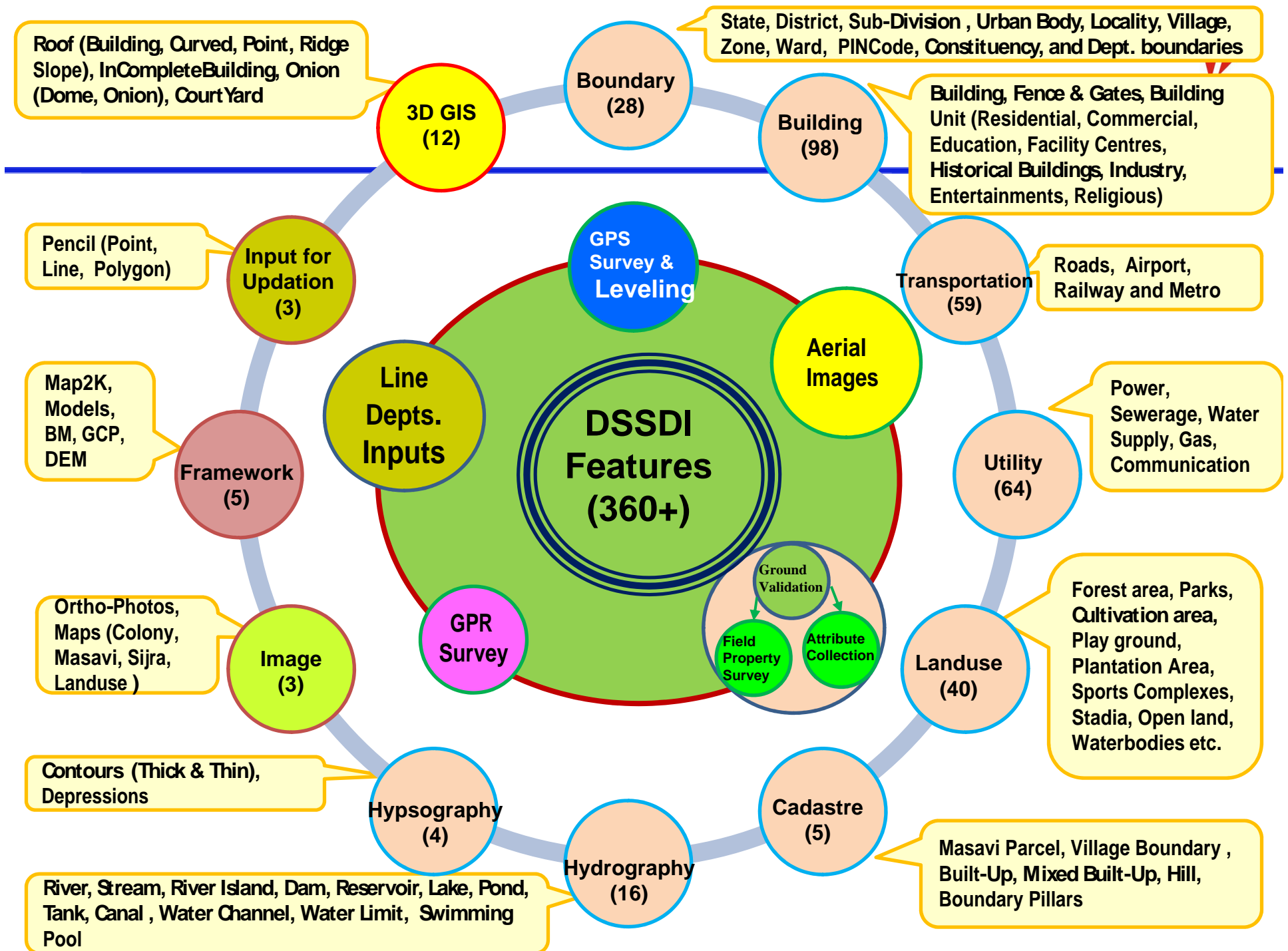
- Technology is changing at a very fast pace
- Paradigm shift in solving real world
- Aerial photos, high resolution satellite imagery and LiDAR techniques in creating large scale maps in both 2D and 3D
- Data Creation and Updates
- Value added applications for governance and citizen centric services.
- Only after the applications are used, the perception of the ROI is assumed to be achieved.

NGP – Delhi Case Study

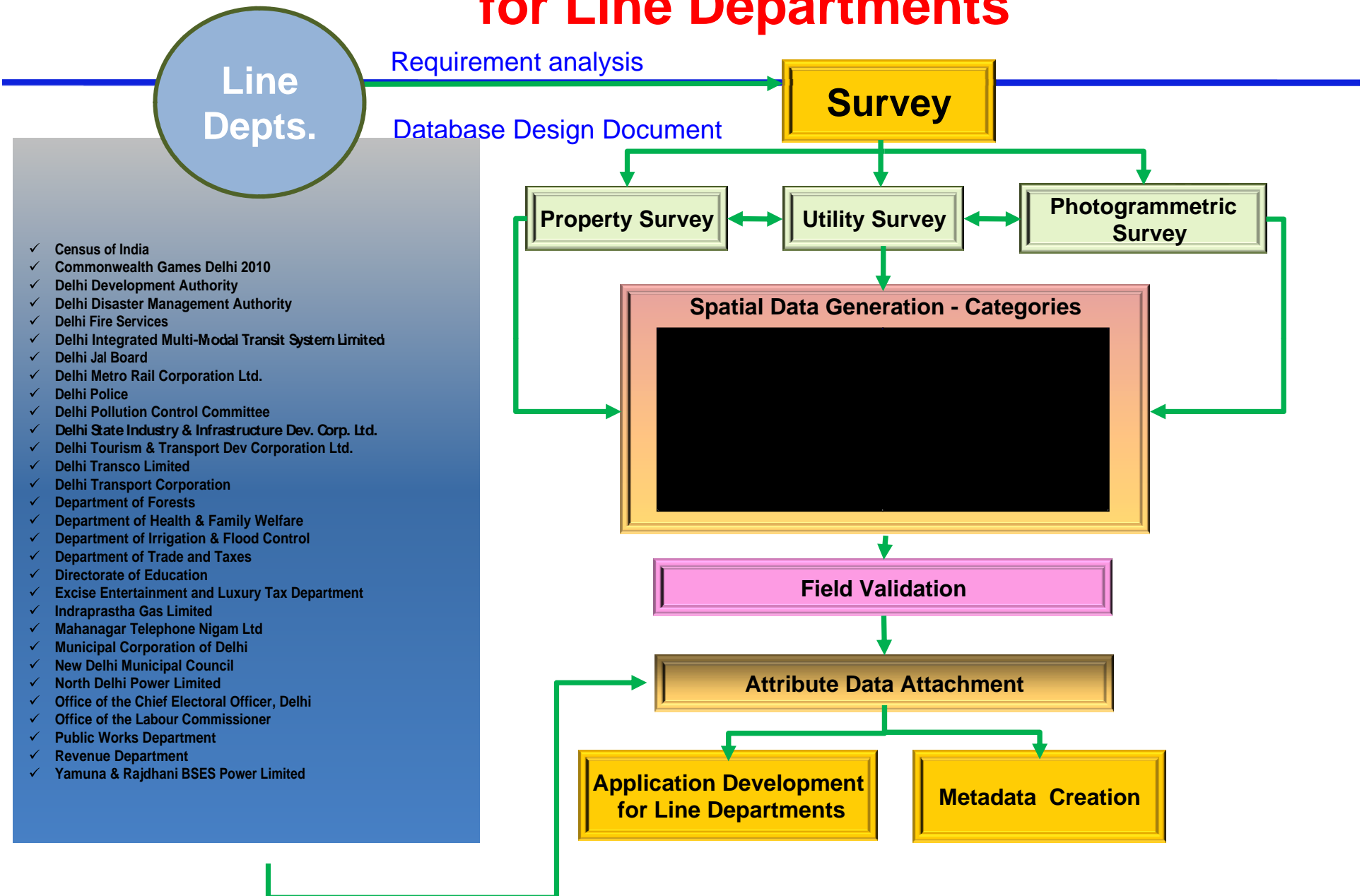
- Navayuga GeoPortal Framework - National Capital Territory for Government of Delhi
- Web based application framework has been developed and deployed in a secured intranet
- Beneficiary - 29 line departments of Delhi based on their functional requirements.
- Database design and application design.
- The Navayuga GeoPortal framework is flexible and can be easily applied to meet the requirements of any state government quickly and effectively in a cost effective manner for building smart cities.

Delhi SDI Data Generation Workflow

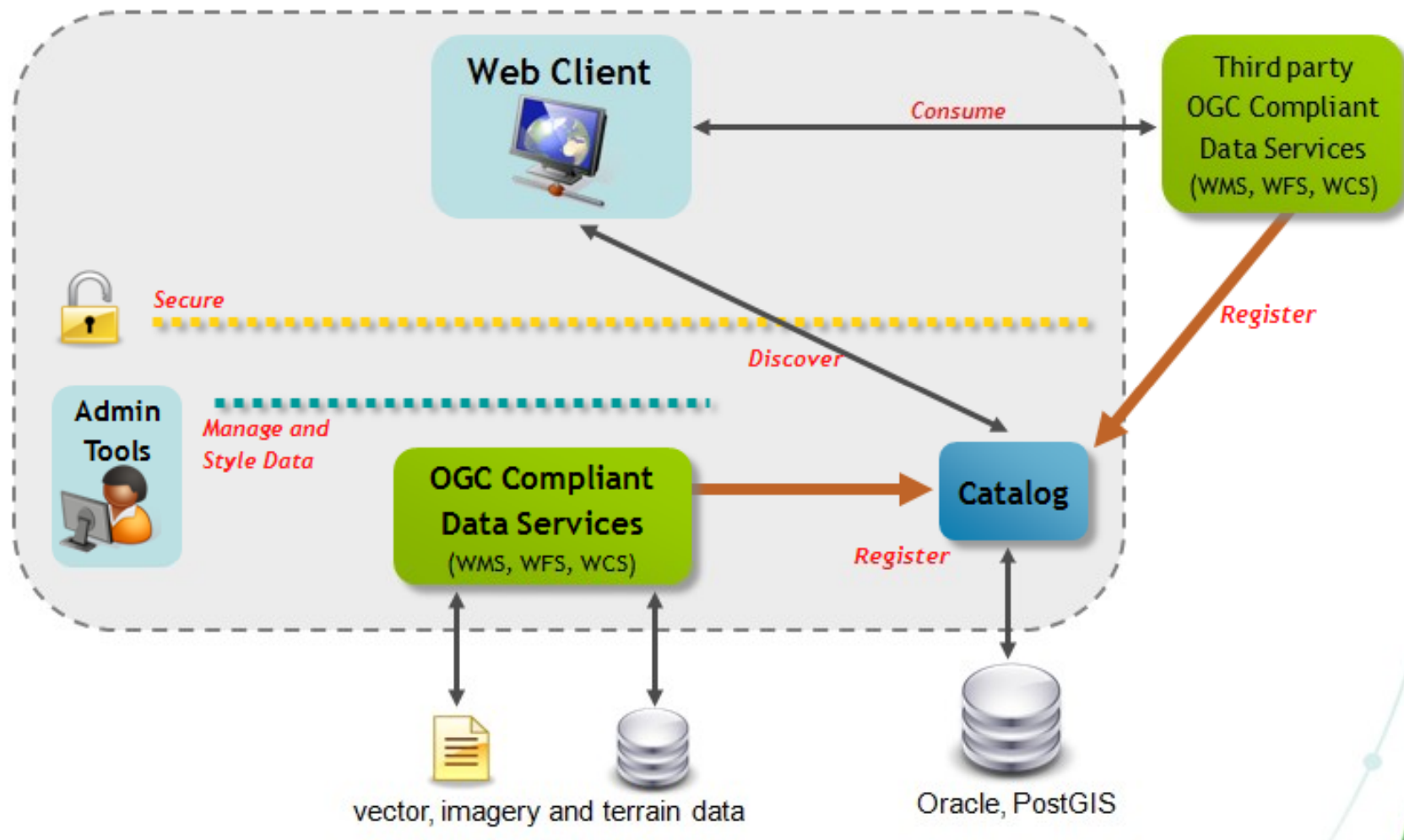




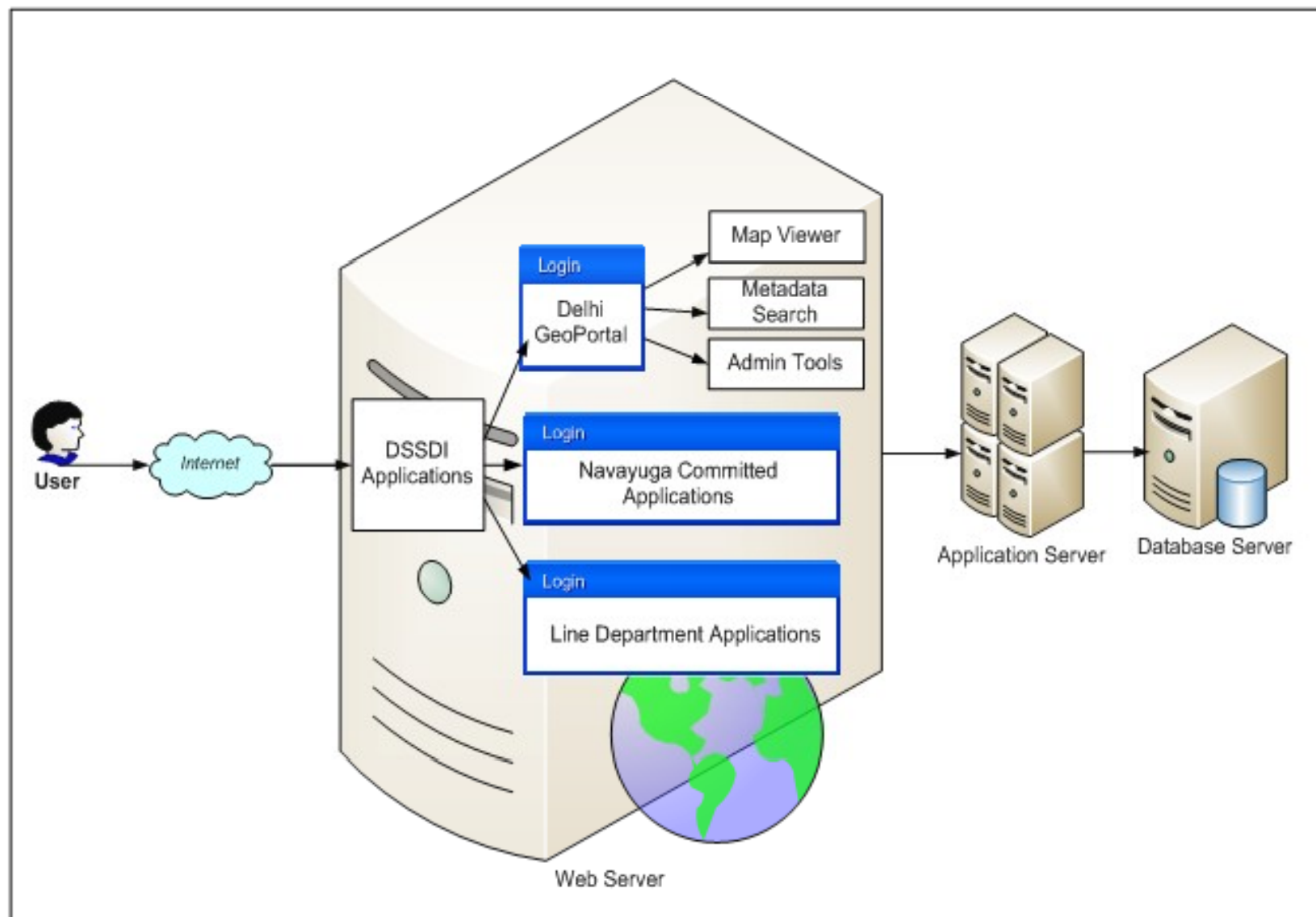
Application Development for Line Departments



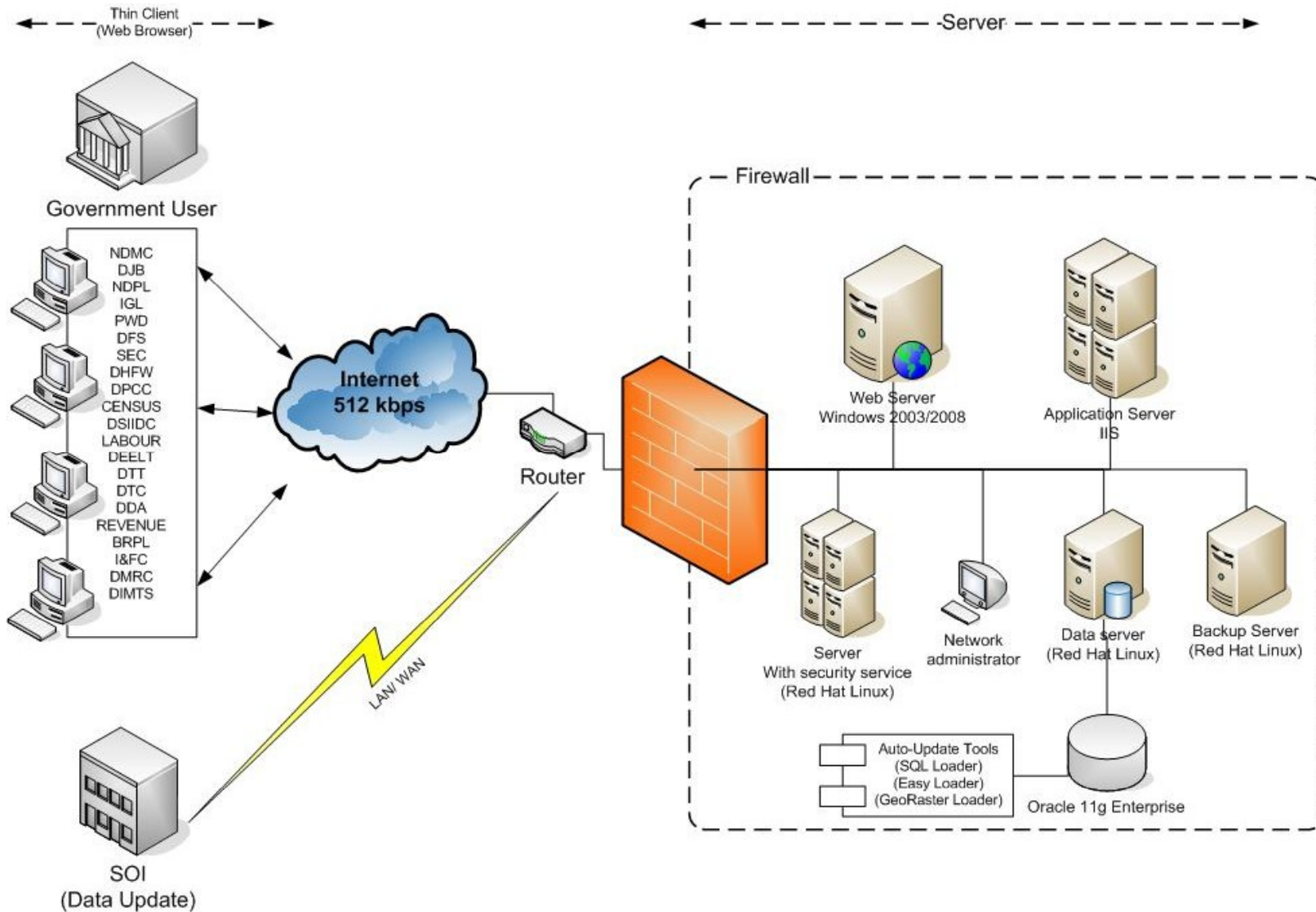
OGC Server - Workflow



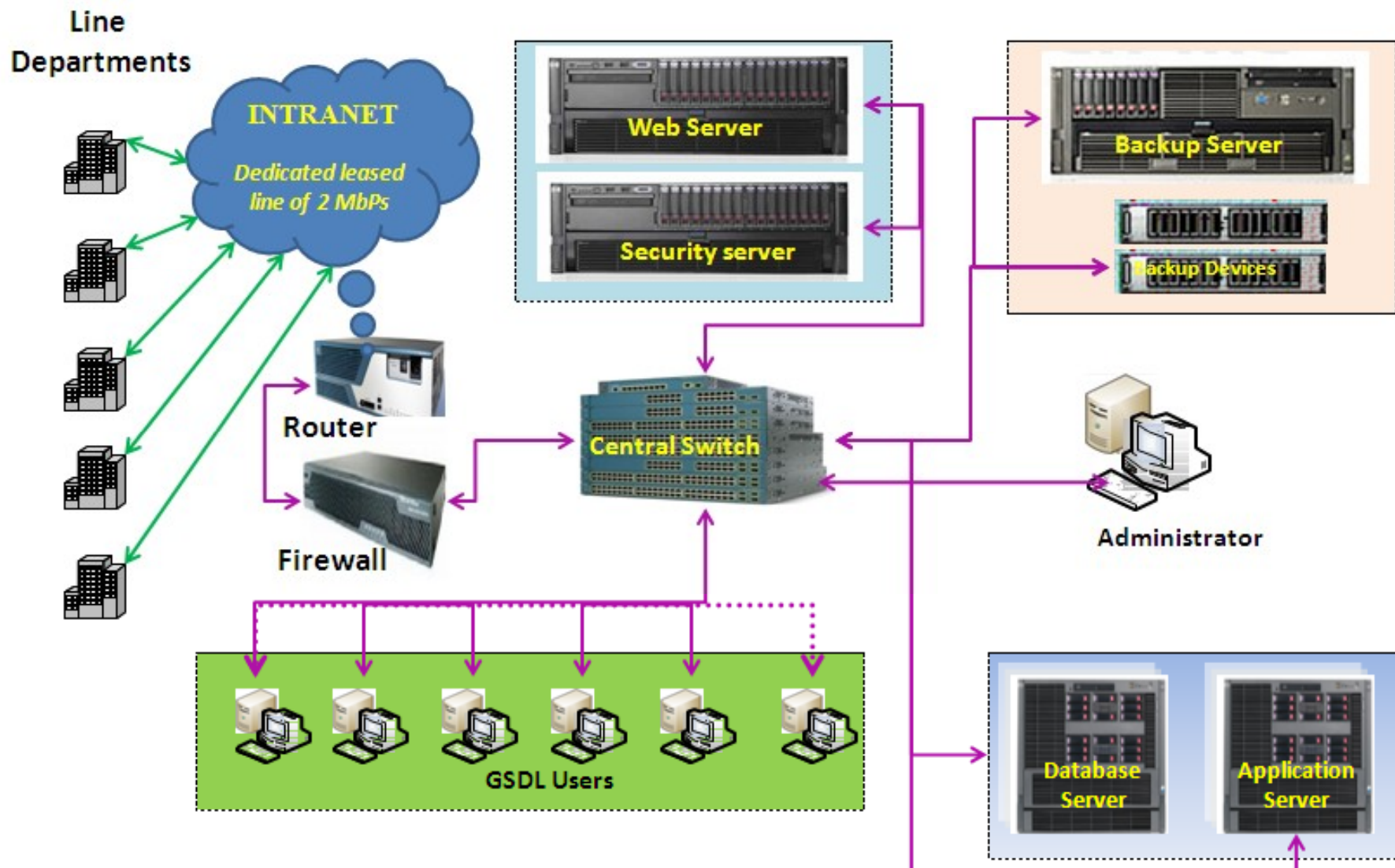
Logical Design




Physical Design



Architecture – DSSDI GeoPortal



Delhi GeoPortal



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Delhi GeoPortal

Survey of India (SOI) on behalf of Delhi Government is executing an integrated geospatial information system including 3D database of Delhi (DSSDI).

The work includes generation of base map and creating land / property information, generation of 3D pictorial data base, creation of DSSDI portal and applications for various stakeholders of Government of Delhi with maintenance for a period of 5 years.

The data will be used for City planning, Urban development, Utility Management, Traffic Management, Property tax collection, Pollution and Environment Monitoring, Security Management, Hazards and Disaster Management, Change Detection Analysis of building construction, Planning for future commonwealth games at Delhi.

This project is being full-fledged operational from the Office of The Project Director, DSSDI, Survey of India, Delhi with full assistance from Navayuga Spatial Technologies.

Login Here

Map viewer

User Name

Password

Don't have a GeoPortal ID ?
Signing up is easy. Signup...

News & Events

News

- Appeal from CM
- Appeal from Police Commissioner

Events

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Site powered by Navayuga
This site is best viewed in 1024 X 768
Use IE 6.0/7.0 , Mozilla Firefox 2.0/3.0



Delhi GeoPortal



Welcome To Delhi GeoPortal

|| One Stop Entry For
Line Departments
in Delhi ||



Login

Select Department	▼	*
Username :	<input type="text"/>	*
Password :	<input type="password"/>	*
<input type="button" value="Login"/>		



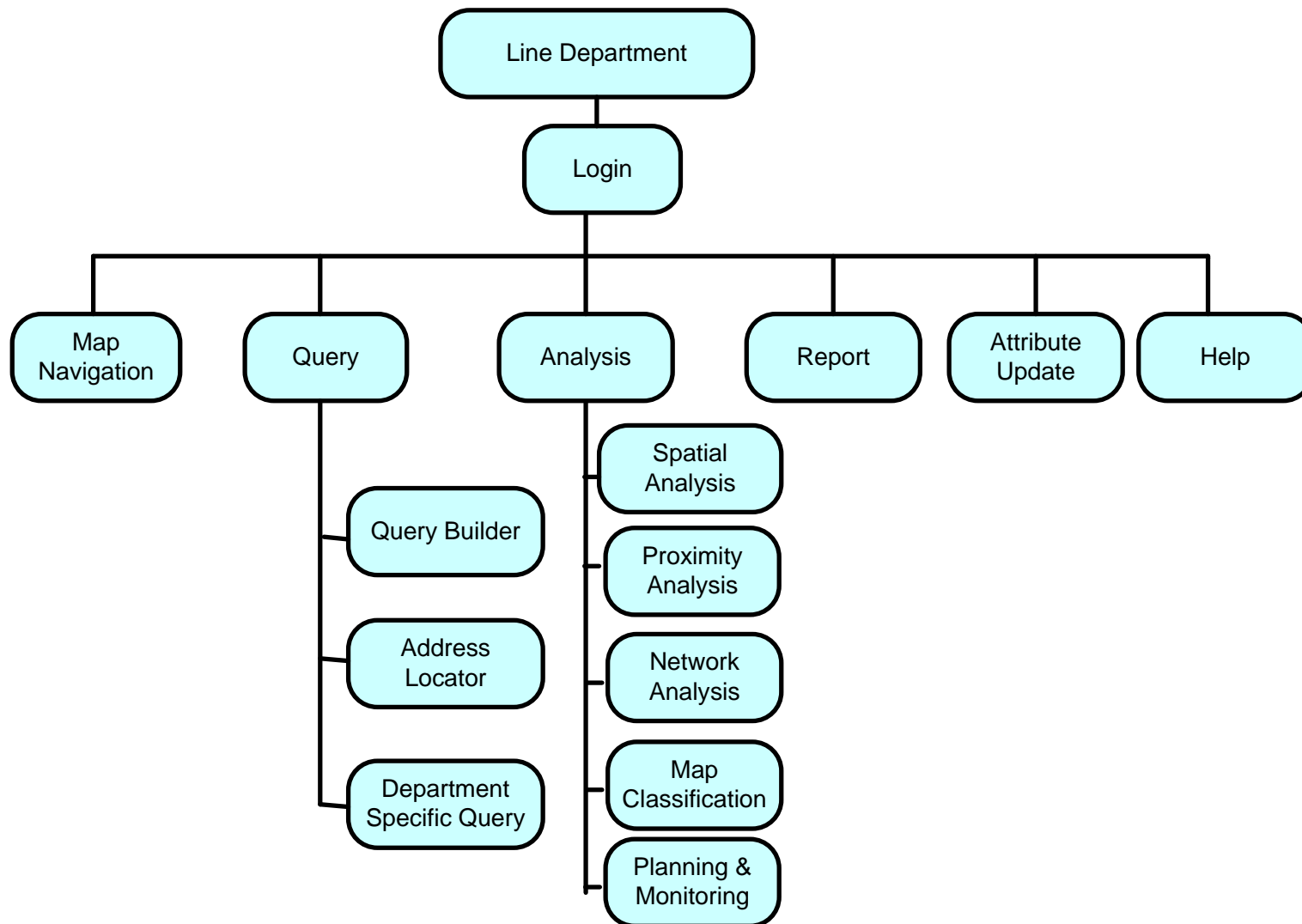
Survey of India

Powered by:

NAVAYUGA



Navayuga GeoPortal - Functionality

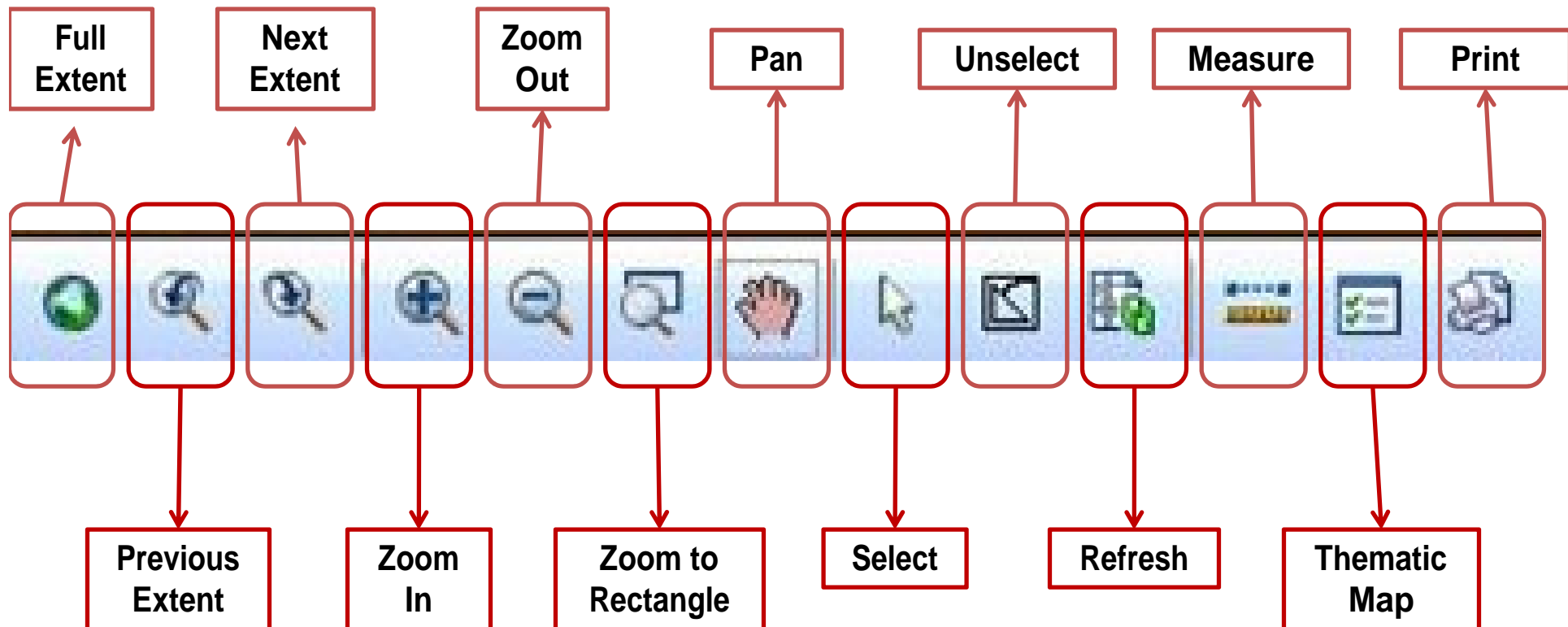


Go To Map

The screenshot displays the PDM (Plan Dig and Monitor) web application interface. The interface is divided into several sections:

- Top Navigation Bar:** Contains buttons for **Layers**, **Plan**, **Dig**, and **Monitor**. A **Navigation Toolbar** is also present.
- Header:** Features the **PDM Plan Dig and Monitor** logo and a **Logout** button.
- Left Panel:**
 - Layers:** A list of spatial layers including DIGSAFEREQUEST, Planning, PlanningManhole, Boundary, Delhi State Boundary (1), District Boundary (9), Subdivision Boundary (27), Village Boundary (354), DJB Division Boundary (24), DJB Zone Boundary (69), Underground Reservoir Technical Boundary (121), STP Technical Boundary (8), WTP Technical Boundary (11), and Assembly Boundary (70).
 - Properties:** A section for displaying properties of selected features, currently showing "None Selected".
- Map View:** A large map area showing the spatial distribution of the layers. The map is divided into regions: NORTH WEST, NORTH EAST, WEST, CENTRAL, EAST, SOUTH WEST, and SOUTH. A **Navigation Control** (a vertical slider) is located on the right side of the map.
- Bottom Bar:**
 - Coordinates:** Displays the current coordinates (e.g., 863264.536508, Y: 3150334.013226 (METER)).
 - Selection status:** Shows the number of features selected (e.g., 0 features selected).
 - Scale:** Displays the current scale (e.g., 1: 394284).
 - Frame Size:** Shows the map frame dimensions (e.g., 63.53 x 32.87 (mi)).

Navigation Toolbar



Application – Plan Dig and Monitor



The image shows a screenshot of the 'PDM Plan Dig and Monitor' application interface. The header features a blue banner with a fort on the left, the title 'PDM Plan Dig and Monitor' in the center, and a warning sign on the right. Below the banner is a 'DIG STATUS UPDATE FORM' with various input fields. At the bottom, there are 'Close' and 'Update' buttons, with a red circle and arrow highlighting the 'Update' button.

PDM Plan Dig and Monitor

DIG STATUS UPDATE FORM

Project Name:

Work order:

Place/Area/Address:

Depth of Dig(meters):

Number of Man power:

Nature of Sanitation Facilities:

Traffic diversion/Disturbance: ☒ YES ☐ NO

Date of Commencement :

Nature Excavation:

Intersecting Street:

Particulars of the Award:

Department/Agency Awarding contractor:

Nature of Machineries:

Nature of Medical Facilities:

Nature of Safety Measures:

Proposed End Date :

Click here for Dig Extension Date:

Dig Start Date:

Extended End Date*:

Proposed End Date*:

Award Details of Extension*:

Dig Update Or Close Section

* Mandatory Input Required

Update

Navayuga GeoPortal - Functionality

» **Attribute query**

Select Tables For Search :
 Select

Having :

Condition :

Having :

☐ Case Sensitive

Conditions :

» **Address Locator**

Locality :

Block/Phase :

Sector/Pocket :

Building Name :

» **Civil Engineering Department**

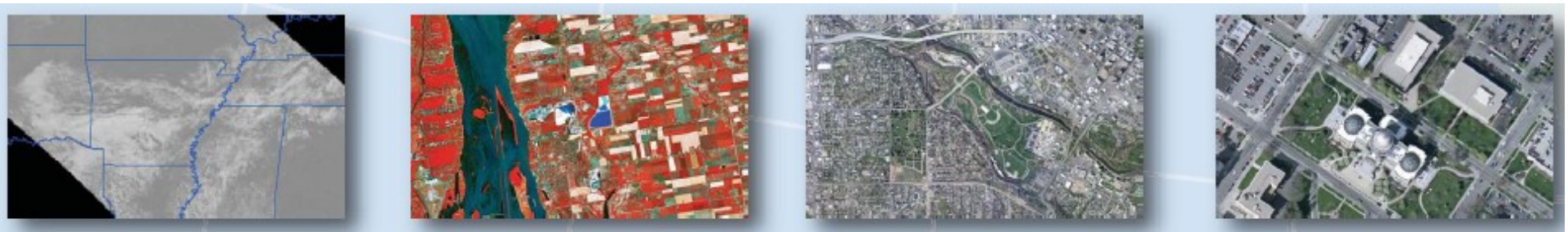
Feature :

Division :

Service Center :

Summary

- Navayuga GeoPortal is highly flexible
- Currently operational in Delhi Control Centre
- Serving 29 line departments
- Can be replicated in any Govt. Department quickly
- Advanced functionalities can be integrated
- Cost Effective



Thank You

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