

# Geospatial for National Development Programs

Restructured Accelerated Power Development and Reforms Program  
(RAPDRP) in Karnataka  
by

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# Presentation Summary

Infosys GIS Practice Over View

RAPDRP Project

Challenges faced during Execution

Present Status

Business Benefits

# Infosys Overview



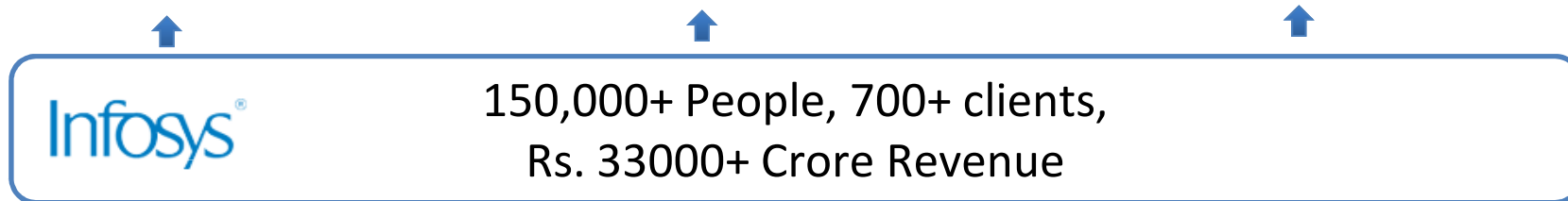
**Global experience** across industry verticals with **large Energy, Utilities and GIS Verticals**



**India focus & Building tomorrow's nation**  
Executing projects of National Importance  
– IT CPC, RAPDRP, DIPP-eBiz, SEBI, Orissa Power, State Portals, India Post, MCA



First Indian company listed on Nasdaq  
Zero debt company  
First to Adopt & Implement IFRS in India  
25 work locations across India



**Strong partner alliances**



**Focus on Quality**  
CMMI Level 5, TL9000,  
ISO 9001-2000, ISO  
27001, BS15000  
Role Model in Corporate  
governance

**Strong GIS Practice**

500+ person years of Experience  
120+ GIS Professionals



## RAPDRP Project

- R-APDRP is Gol's initiative with focus on establishment of baseline data and fixation of accountability, and reduction of AT&C losses through strengthening & up-gradation of Sub-Transmission and Distribution network and adoption of Information Technology during XIth Plan
- Proposed to cover urban areas—towns and cities with population of more than 30,000 (10,000 in case of special category states)
- Projects under the scheme shall be taken up in Two Parts
  - Part-A will cover projects for establishment of baseline data and IT applications for energy accounting/auditing & consumer services **(Infosys is the IT Implementing Agency for the project in Karnataka and NIIT GIS Ltd is the GIS Solution Provider)**
  - Part-B will cover System improvement, strengthening and augmentation etc. **(This is not in scope of work for ITIA)**

## RAPDRP Project - Contd...

100 Towns

5 ESCOMS (BESCOM, CESC, GESCO, HESCO, MESCOM)

60+ lakh Consumers

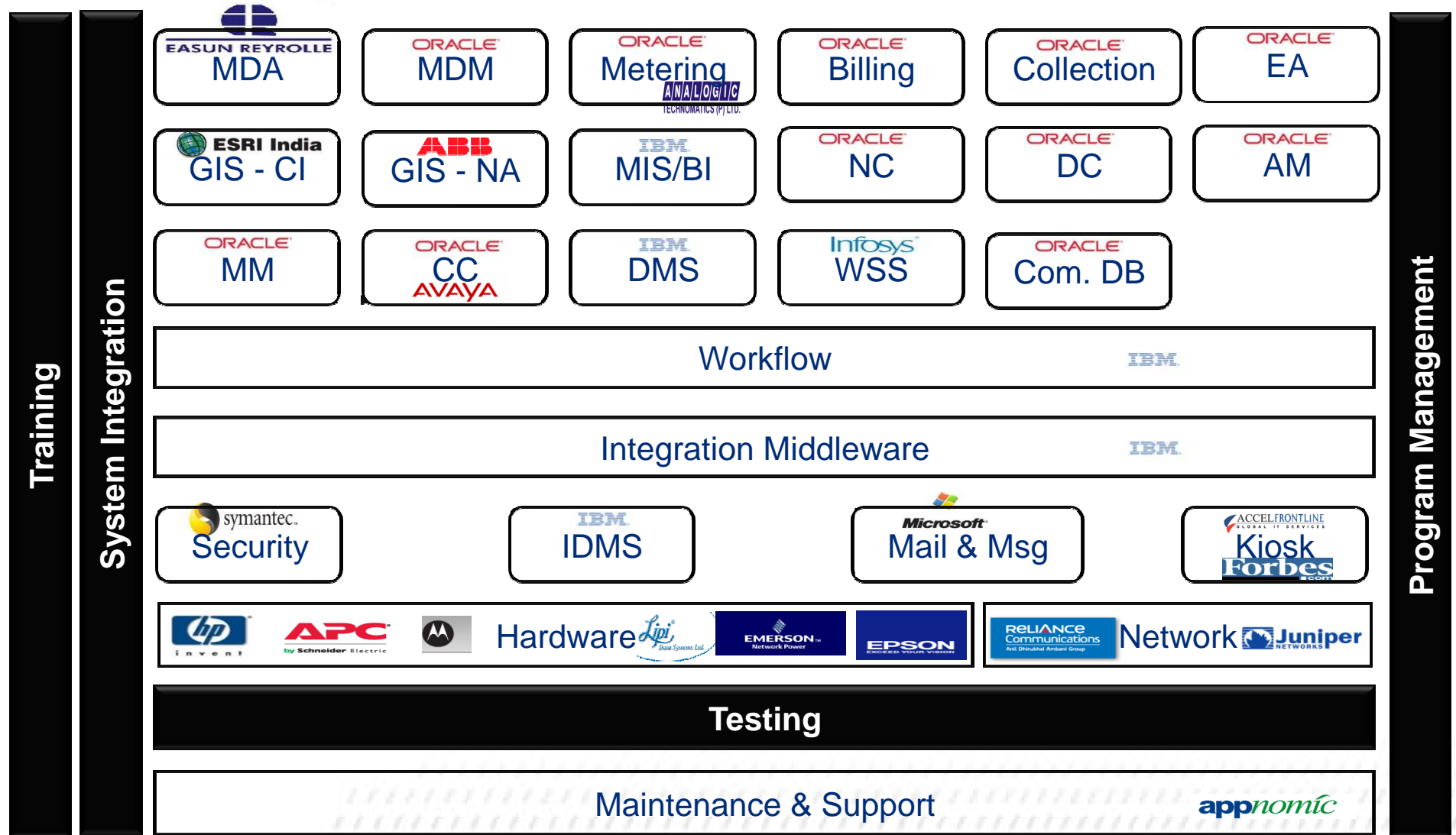
57000+ Km Network

End to End Implementation ( Providing the Infrastructure, Software, setting up DC, DR, GIS Customer and network Survey, 17 Modules)

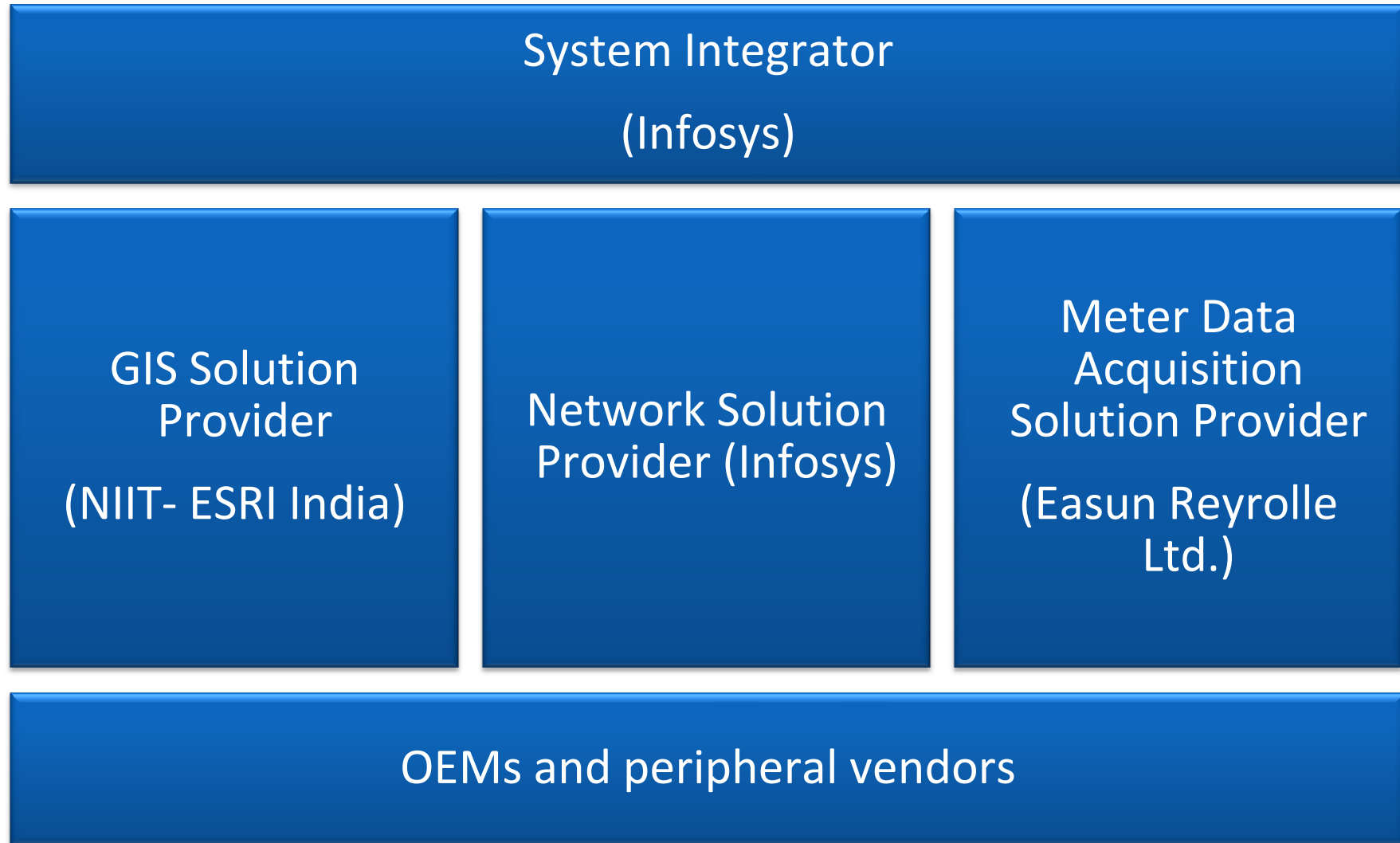
## RAPDRP Project – Scope

1. Module : Energy Audit
2. Module : New Connection
3. Module : Disconnection & Dismantling
4. Module : GIS based customer Indexing and asset mapping
5. Module : GIS based integrated network analysis module
6. Module : Commercial database of customers
7. Module : Centralized Customer Care Services
8. Module : Management Information System (MIS)
9. Module : Web Self Service
10. Module : Identity and Access Management system
11. Module : System Security Requirement
12. Module : Meter Data Acquisition
13. Module : Metering
14. Module : Billing
15. Module : Collections
16. Module : Asset Management
17. Module : Maintenance Management

# RAPDRP Project – Solution Stack



## RAPDRP Project – Implementation Partners





## RAPDRP Project – GIS Scope

GIS based customer Indexing and asset mapping

- Consumer Survey (HT and LT)

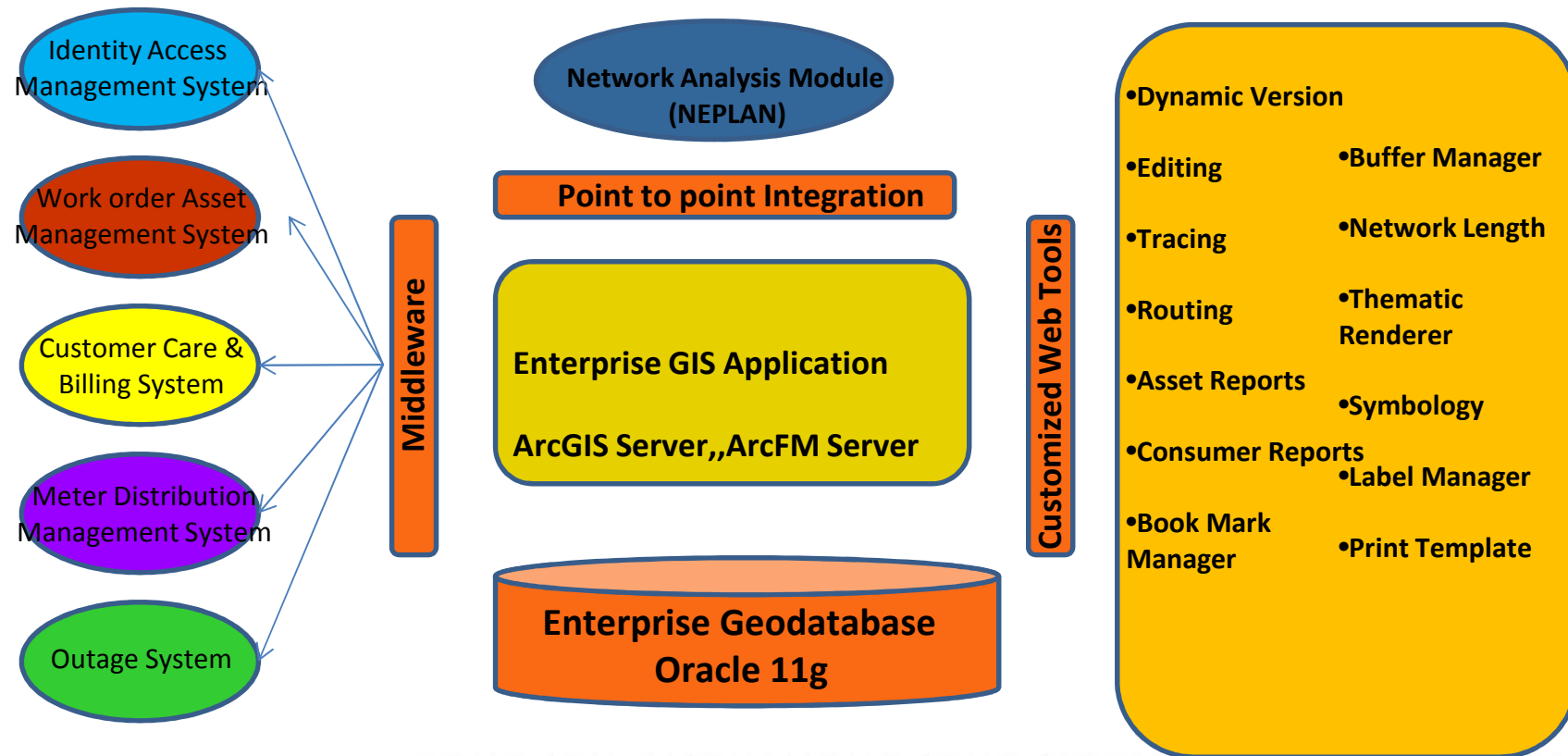
- Network Survey (HT and LT)

- GIS Application

- Interfaces with WAMS, CCB, MDM, IDAM and Network Analysis Software

GIS based integrated network analysis module

# RAPDRP Project – GIS System Architecture



## Challenges faced in GIS Execution

- The availability of cloud free Satellite Data (Cartosat, Quickbird, GeoEye)
- The availability of Skilled Manpower for the Survey and Data Creation
- Validations and Sign-offs by Utility
- Incremental Updates
- The clarity on the SRS requirements

## Present Status

- Survey Completed in all the towns
- Data Approved – NW in 85 towns and CI in 73 Towns
- GIS Solution deployed in live in 54 Towns

## Business Benefits

- Identification of the Customer on the network using RR No, Account No so that Utility can reach the Customer fast for operation and maintenance
- The availability of the latest Network data in the system
- The ability to identify the area served by a point using tracing tool
- The ability to generate the Single Line diagrams for HT and LT networks based on the near real time data
- The identification of Joints in a cable
- The identification of Change over points
- The ability to generate the optimal route plan for the meter reading, maintenance works
- The ability to conduct the feasibility analysis for New Connection, the estimation of technical losses
- The ability to measure the lengths of the proposed lines and hence in the preparation of cost estimates before approval
- Tight workflow process by linking with Asset Management System

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## Q & A





# THANK YOU

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