



# GIS for Planning, Design, and Management of Next Generation Communication Networks

We at RMSI, provide domain specific network & GIS solutions that address the entire communications industry landscape including telecom, cable, and broadband services. Our key capabilities include network design, drafting, and migration services for both OSP and ISP using industry leading CAD and GIS technologies.

These are complimented with our strong application development capabilities for enterprise application integration, technology up-gradation/migration, and developing customized solutions for data conflation, network data migration, and automating critical processes and workflows.

RMSI has successfully developed solutions for complex projects for a range of global clients. Our solutions enable clients to achieve operational efficiencies, optimize capacity, and active required throughputs. We have experience on all leading industry platforms such as Synchronoss SpatialNET, ESRI suite, GE Smallworld, and other custom OSP applications.

### **Solutions**

#### Network Planning and Design (Copper/Fiber/HFC)

- Backbone, Distribution, and Access Network Design
- Detailed Documentation Splicing, BOM, BOQ, SLDs, CAPEX
- As-built Updates in GIS
- Physical Network Inventory Database Management

#### **GIS Data Management**

- Data Cleansing
- Data Migration

- Legacy Data/PLRs Conversion
- Landbase and Facility Network Mapping
- Engineering Work Order Posting
- Data Conflation for Accuracy Improvement

#### **Application Development**

- Web GIS Application
- Technology Upgradation & Migration
- Custom Applications/Tools

SUCCESS STORY

## Fiber Network Design for Broadband Services Rollout (FTTP)

A leading national broadband service provider in Australia, wanted fiber network design and drafting services as part of the larger national broadband services rollout program (FTTP).

RMSI is providing network planning and design services in both CAD and SpatialNET technologies. Key solution highlights include detailed study of the existing infrastructure , route designing with pit and pipe for field survey and rod & rope , designing considerations , detailed designing of other passive optic network (PON) elements , detailed documentation such as Bill of Materials, Bill of Quantities/Services, Splicing details, SLDs and CAPEX details, updation of Asbuilts and building network connectivity in GIS, and updation of asset information from AS-builts into physical network inventory database.

RMSI also developed a structured project management workflow to ensure seamless coordination of work between offshore designers, and onsite field surveyors and network construction vendors



99.5% On-time deliveries

Over 90% designs accepted with zero errors in first iteration

## Telecom Network Facilities Migration and Data Cleansing

A leading telecommunications provider in North America wanted to spatially correct its existing network facilities (OSP) with respect to its latest landbase.

RMSI developed an Autodesk based migration tool kit to migrate facilities on to the new landbase without any data loss or connectivity issues. This included generating links between existing and new landbase, migrating the linear parent features using RMSI conflation algorithms and migrating associated point features using custom tools. Further, the migrated facilities were assembled to create a seamless mega-tile for each wire center. RMSI posted the mega-tile to the client-specified server (OptiNT) and performed white-space management, wherever required.

Additionally, RMSI used a Data Management Tool (DMT), to logically extract and cleanse data errors such as incorrect terminal addresses, footage to CO splice, missing /incorrect cable lengths, orphan elements and broken connections already existent in the input data prior to data migration. RMSI's solution helped to improve the attribute data accuracy and network connectivity resulting into a traceable and complete network for the client. RMSI performed migration of 60,447 plant location records (PLRs) spread across 202 wire centers by ramping up 500+ resources to meet the aggressive timeline.



MIGRATED 60,447 PLANT LOCATION RECORDS

**202 WIRE CENTERS** 

RAMPED UP TO 500+ RESOURCES IN 4 MONTHS



**SUCCESS STORY** 



The industry is going through a rapid transition, categorized by consolidation, increased consumption of internet based value added services, and adoption of next generation networks.

# **Key Industry Challenges**

- Data consolidation for unified networks
- Increased customer expectations for connectivity and higher bandwidth
- Tighter integration of business systems with enhanced data integrity
- Consolidation of multiple disparate legacy databases
- Overlapping services between telecom & cable providers, driving competition and industry reorganization



# **RMSI Value Proposition**

- Designing efficient networks that optimize existing infrastructure usage
- Deep domain expertise on both OSP and ISP networks for Copper, FTTX and HFC
- Robust client engagement model backed by powerful project management frameworks, workflow systems, and proven methodologies
- 'Follow the Sun' model for time and cost optimization
- Year on year productivity and efficiency gains passed on to the client

## **About RMSI**

Over 3500+ professionals work with us

Technology Partnerships - Esri, Oracle, Microsoft, GE, **BEA Systems** 

Quality Certifications - CMMi level 5, ISO 27001, ISO 9001:2015, ISO 14001:2004, OHSAS 18001:2007

Strategically located three development centres in India, and five global subsidiaries in U.S, Canada, U.K, U.A.E, & Australia

> Track record of having implemented some of the largest geospatial projects across the world



# **Technology Skill Sets**





















