



Transforming Telecom Industry with Lidar Engineering

A leading telecom operator was planning an expansion to areas beyond the urban boundaries. It was a highly naxal-infested, most critical and difficult region of Bastar, India. Planning and engineering design required information on layouts of new routes and topographical details of the terrain. Defining execution methodology before the excavation activity began was of utmost importance especially when it has to be done in crowded areas.

An expert in GIS, Genesys proudly took this task and carried out a detailed route survey (DRS) in two rings of architecture – Ring 1 (405 km) and Ring 2 (431 Km) – with 25 m on each side for OFC route planning. A unique Mobile mapping solution was deployed which captures 360-degree Panoramic Images along with geo-referenced LiDAR Point Cloud Data through vehicle-mounted sensors. Both these data sets were integrated to create a seamless desktop-walkthrough of the route corridor with precise measurement. 'As is' ground reality was made available to enable informed decision-making in planning, O&M and business. Field information such as Graph book, Measurement book, Fiber information such as Drum & Blowing was integrated with geo-referenced 'As-built' drawing verified against 360 Degree Panoramic Imagery. Viewer application embedded with the analysis tools allowed verification of BoM and derive other reports.

Key benefits:

- Quick identification of fault location
- Visualization of ground reality on desktop
- Verification of BoM
- Updated asset inventory
- Reduction in time consumed compared to traditional survey methods