



SMART SOLUTIONS

FOR BRINGING FIBER TO THE HOME

CASE STORY

STREAMLING THE WORKFLOW OF TELECOMMUNICATIONS IN INDIA

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TELESCOPE: ORBIT GT'S MOBILE MAPPING INTERFACE INTEGRATED WITH GENESYS LIDAR AND PANO DATA



With the total number of telecom subscriptions pegged to touch the one billion mark by the end of this year in India, according to the Telecom Regulatory Authority of India; and with the upcoming 4G roll out, there is an immense stress on India's existing telecom network infrastructure. The winner of this fierce competition between the Indian telecom giants simply boils down to how they utilize and upgrade their existing infrastructure in a scenario already congested with multiple players. Optimum route planning of the Optical Fiber Cable as well as efficient management of corresponding assets including precise

location of the cables is the need of the hour. This is where Genesys International steps into the picture to streamline the workflow of telecommunications in a country that is already strained to its limits for space to construct new sites and routes for a next-gen telecom infrastructure.

THE INDIAN CONNECTION

Genesys International has partnered with Orbit Geospatial Technologies this year to become an authorized reseller of Orbit GT Mobile Mapping software products. This partnership has put Genesys in a pivotal position

to be of immense help to ease the current infrastructure crunch scenario faced by India's telecom industry.

CHALLENGES

The continuously evolving telecom technology and intense competition has necessitated very tight financial and inventory controls, maximum utilization of installed physical inventory and high quality of uninterrupted service to the



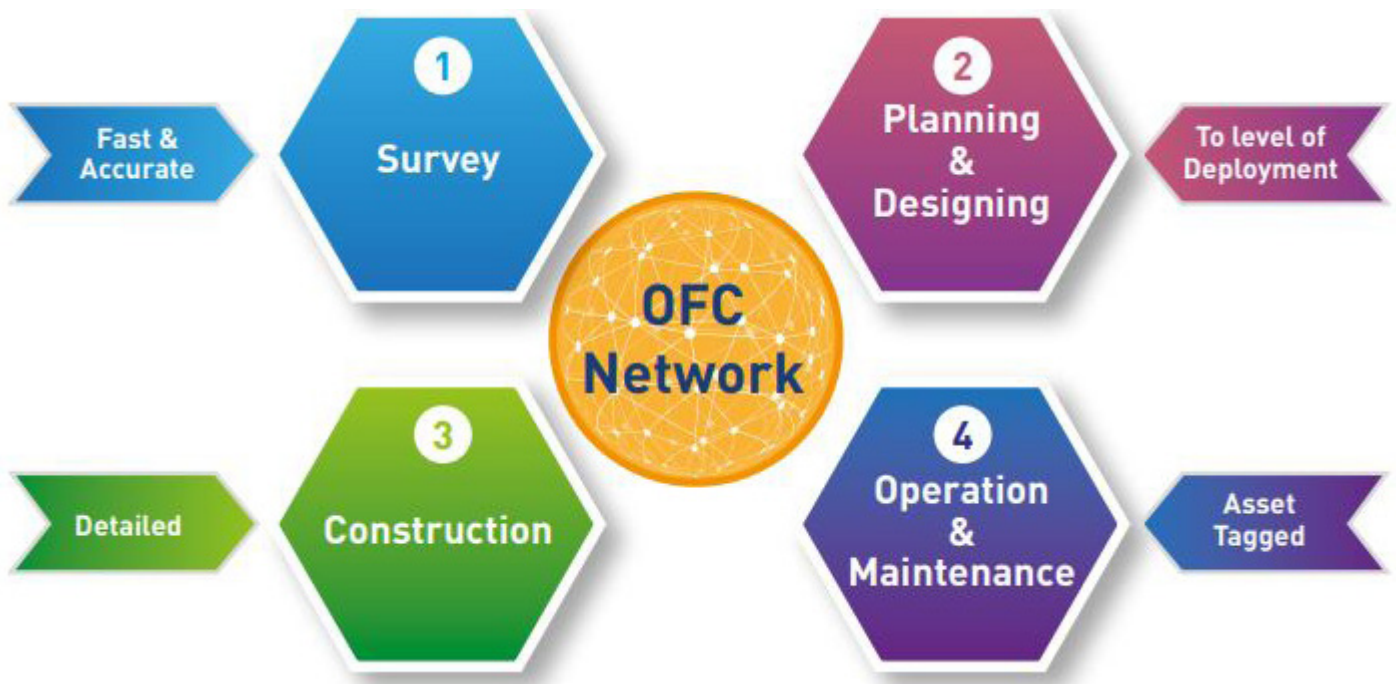
customers. At the same time, resource shortages and budget constraints combined with fast-paced asset maintenance cycles make managing work order backlogs and maintaining infrastructure data crucial for managing the whole value chain. In the event of service interruption, quick access to the network data as well as the ability to locate, diagnose, and respond to the failure has become a challenge. The biggest challenge faced by every Indian telecom company is the absence of a unified platform on which information pertaining to right of way, cable layout location and plans as well as individual asset locations are

available. The space crunch results in different telecom companies intruding each other's right of way resulting in a loss of connectivity during digging or upgradation phase. This is because the location of cables and assets along the route are not accurately known.

THE SOLUTION

Orbit GT's Mobile Mapping software combined with Genesys' state of the art LiDAR Data sets has resulted in a revolutionary shift in the way surveying and mapping is carried out in the Indian telecom industry. For the very first time in India, the

integrated platform TeleSCAPE has resulted in georeferenced LiDAR point cloud data sets that can be viewed on a web-based environment. The integration of LiDAR point clouds coupled with 3600 HD Pano Imagery within Orbit GT's Mobile Mapping software reflects the ground reality as it is. The spatial processing functionality provides the experiential feel of reality on the desktop. This enables countless spatial data derivatives and field reality interpretation capabilities. This facilitates informed decision making processes across the entire project lifecycle as illustrated:



HIGHLIGHTS TELESCOPE INTEGRATED PLATFORM:

- Complete asset inventory on a web-based platform
- Entirely customizable to suit different clients' needs
- LiDAR+Pano data enable the user to accurately measure distances, lengths and heights of every feature visible on screen
- Detailed route survey can be undertaken on a desktopbased environment
- Feature tagging both on site as well as in the office, highlighting deviations, faults, etc.
- Feature extraction from on screen LiDAR data
- Precise location of ROW helps save legal costs due to damage of nearby cables belonging to other companies
- O&M team can be directed to the precise location of the faulty cable or asset, thus saving costly downtime

DELIVERABLES OF THE PLATFORM:

- Maps can be printed directly from TeleSCAPE
- Ability to export video files of a corridor for O&M team to cross reference accurately on field
- Detailed route survey of new corridors helps in planning new OFC laying routes
- Picture of a fault along with its location can be printed making it easier to locate on field
- Geospatially tagged attribute data sets
- Doubles up as a marketing tool as TeleSCAPE can be used to identify potential new connections along survey routes

ABOUT GENESYS

Genesys International Corporation Ltd is the pioneer of the LiDAR technology in India, and is now the largest LiDAR acquisition and processing firm. Genesys has proved globally its expertise across various verticals over 19 years. The firm has an unique blend of understanding the emerging consumer applications around mapping technology as well as capability on the enterprise side to offer innovative solutions revolving around state-of-art remote sensing, LiDAR, aerial survey and photogrammetry techniques. Genesys' capabilities in spatial data acquisition, management and applications over a diverse range of platforms have led the company to work with many global initiatives partnering with several international geospatial majors. Besides providing services and solutions, Genesys owns a vast repository of spatial data with a special focus on the Indian markets.

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