



Lepton

# Lepton Software

FTTx/Fiber Network Digital Twin

# YOUR DIGITAL JOURNEY BEGINS HERE



**Planning**

**Managing**

**Operations/Tracking**

**Sales/Customer Experience**



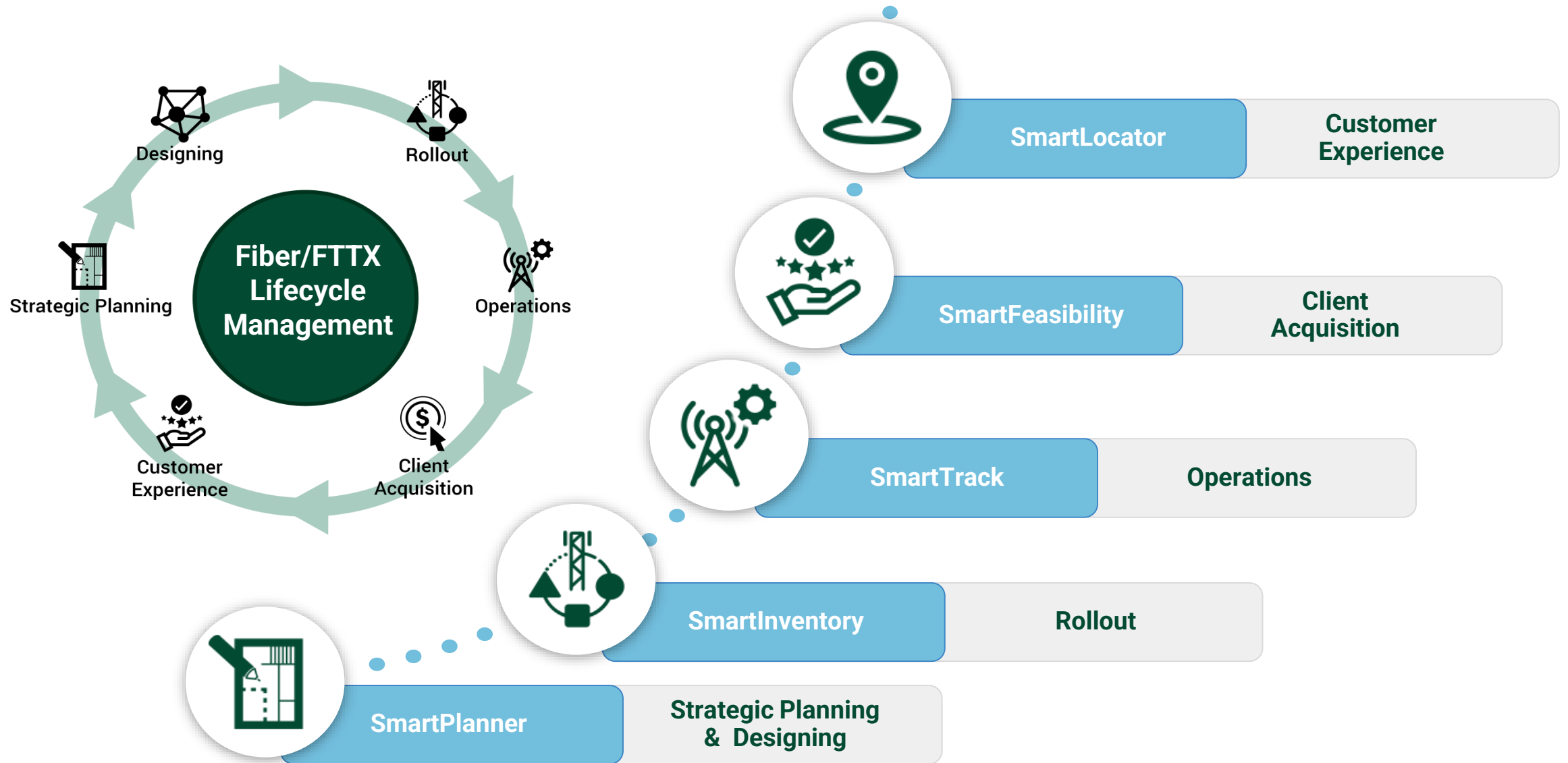


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**NetworkAccess<sup>©</sup>**

Design . Build . Operate . Monetize

# Digital Journey from Plan to Cash - NetworkAccess



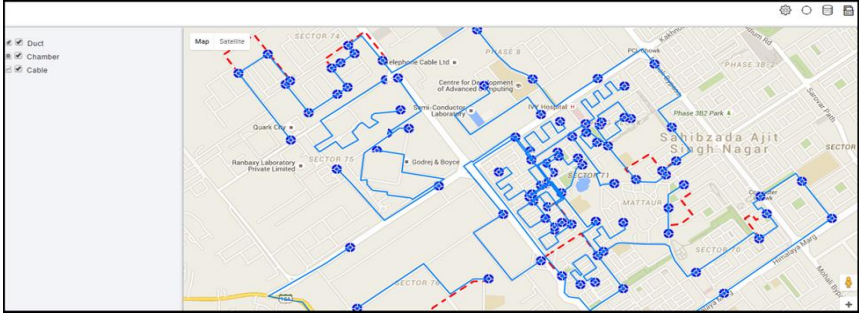
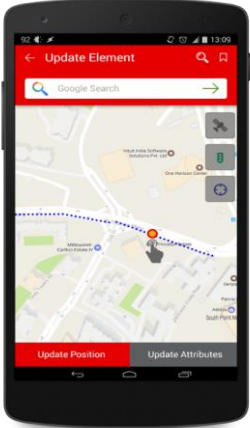
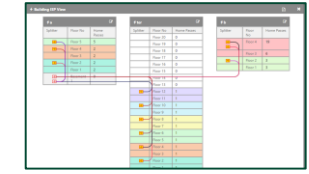


# FTTx Network Planning Process - SmartPlanner



Strategic Planning

Low Level Design



Field Survey/ROW

Editing the Design

Detailed Design

As built



Optical Link Budget Settings

Optical Link Budget Settings

Wavelength (nm)  Enter a numeric value

Connector Loss (dB) 1.5 Coupler Loss (dB) 1.5 Splice Loss (dB) 0.1

Upstream/Downstream Default

Upstream (nm) [Customer-POP]

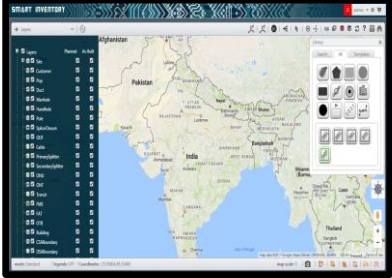
Downstream (nm) [POP-Customer]

Loss Configuration (dB)

Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength
1100	1200	1310	1490	1500	1550	7800	850	9900
2.5	0.67	0.67	0.365	0.5	0.1	0.0	0.0	0.0

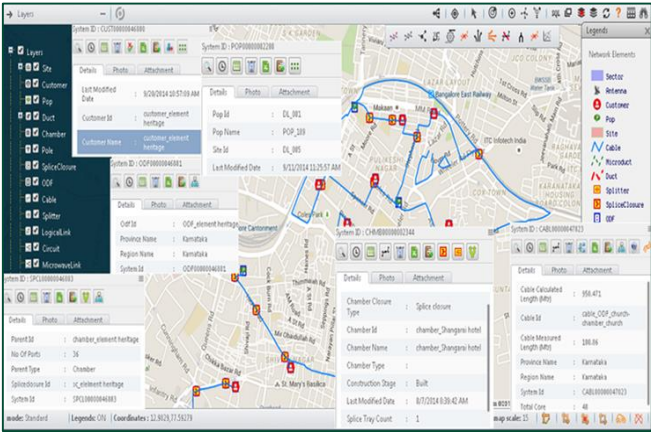
Patching Loss (dB)

Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength	Wavelength
1100	1200	1310	1490	1500	1550	7800	850	9900
0.26	0.26	0.26	0.26	1.0	0.05	0.0	0.0	0.0

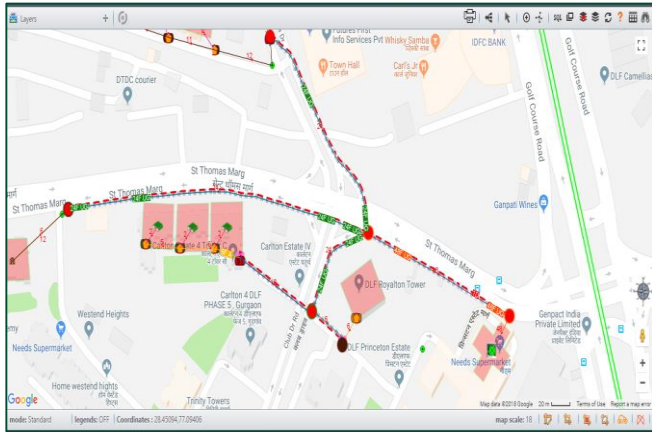


# Create Network Digital Twin – SmartInventory

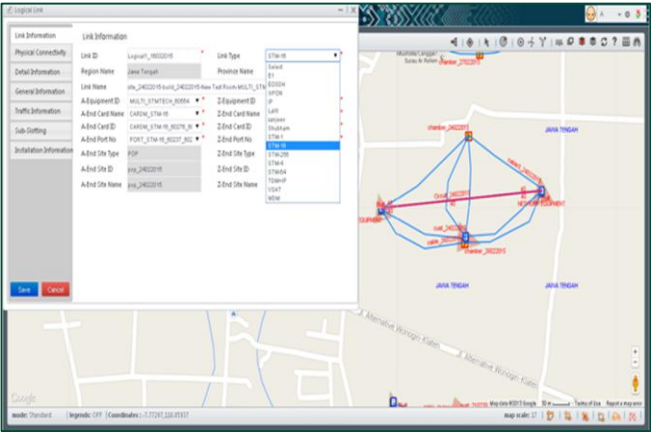
## Outside Plant Views



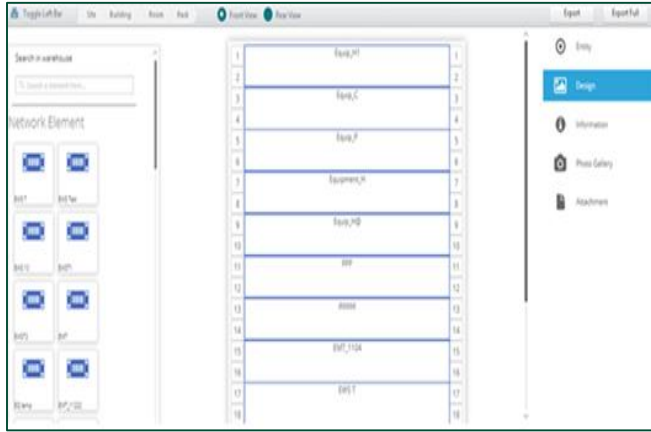
## Field Views



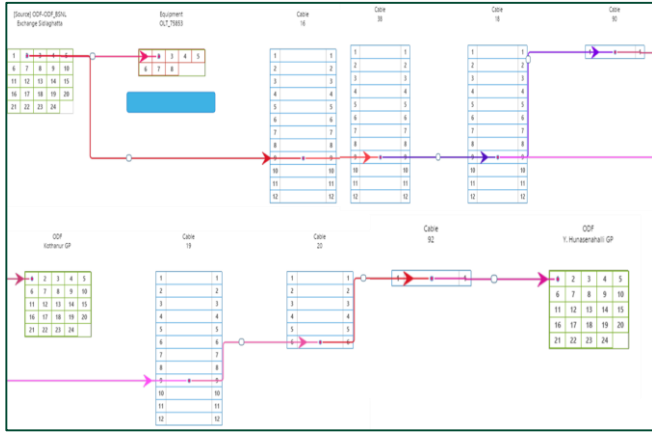
## Circuit Views



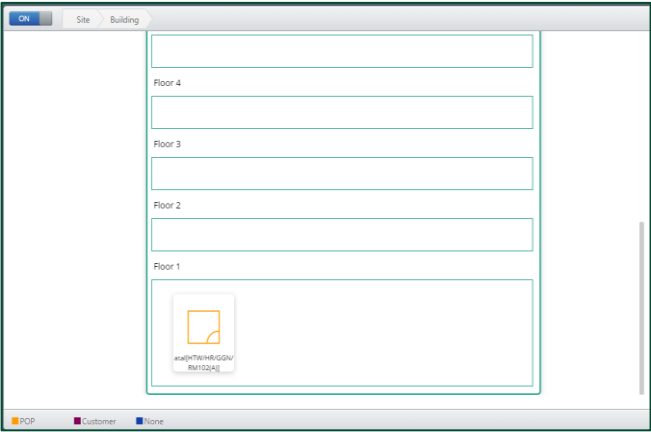
## Rack Views



## Schematics Views



## Vaults and Floor Plan Views



# What You Can Perform



ISP



Infrastructure Provider

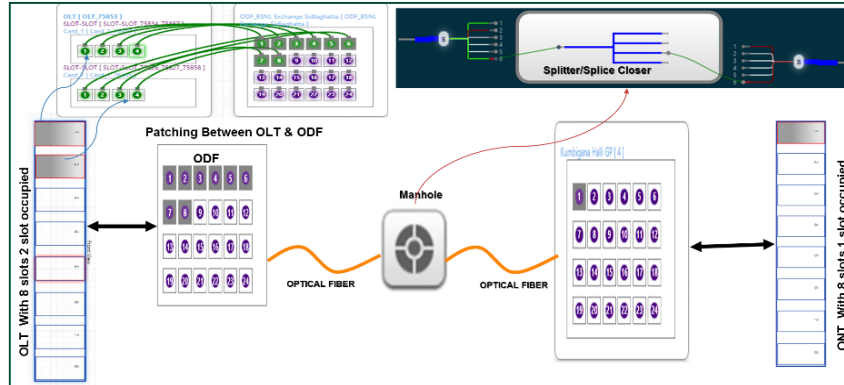


Telco



TowerCo

Correlate all Aspects of your Network

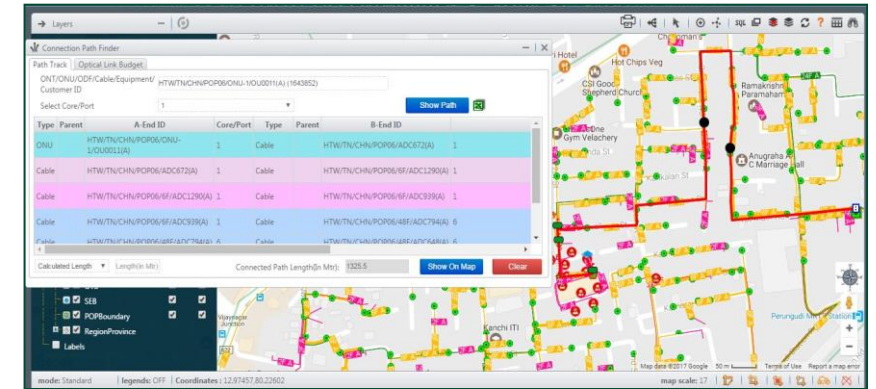


Connection path from POP to customer

Building ISP View

Splitter	Floor No	Home Passes
Splitter a	Floor 5	20
Splitter a	Floor 4	2
Splitter a	Floor 3	2
Splitter a	Floor 2	2
Splitter a	Floor 1	2
Splitter a	Basement 1	0
Splitter c	Floor 12	1
Splitter c	Floor 11	1
Splitter c	Floor 10	1
Splitter c	Floor 9	1
Splitter c	Floor 8	1
Splitter c	Floor 7	1
Splitter c	Floor 6	1
Splitter c	Floor 5	1
Splitter c	Floor 4	1
Splitter c	Floor 3	1
Splitter c	Floor 2	1
Splitter c	Floor 1	1
Splitter c	Basement 1	0
Splitter c	Basement 2	0
Splitter b	Floor 4	2
Splitter b	Floor 3	2
Splitter b	Floor 2	3
Splitter b	Floor 1	3

Manage the End to End Network/capacity/Utilisation



Access Information Throughout Organization

Location	B Location	Cable No.	No of Spare Duct	Physical Length (in meter)	OF Cable Size	Fiber Number	Ring Equipment	Physical No Utilization
alai arbini	Indonesia Power head office	2	0	2608.41	96	73-78	Hathway[-10 -1] & XDM 110/9	27.08
idakara complex	Rusun Tebet	3	0	2483.92	96	73-78	Hathway[-10 -1] & XDM 110/9	25
edukaan alaysia	Harris Hotel	2	0	1652.48	96	73-78	Hathway[-10 -1] & XDM 110/9	27.08
alai arbini	Indonesia Power head office	2	0	2608.41	96	73-76	Hathway[-10 -1] & XDM 110/9	27.08

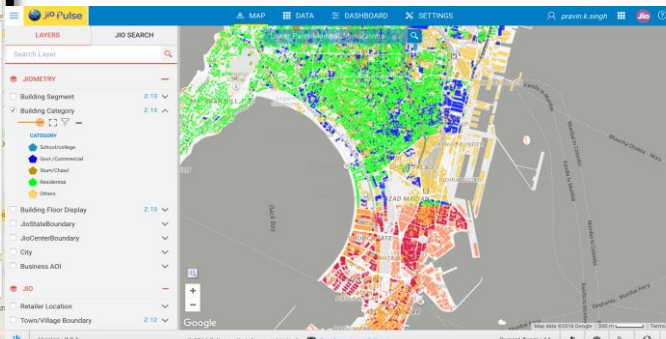
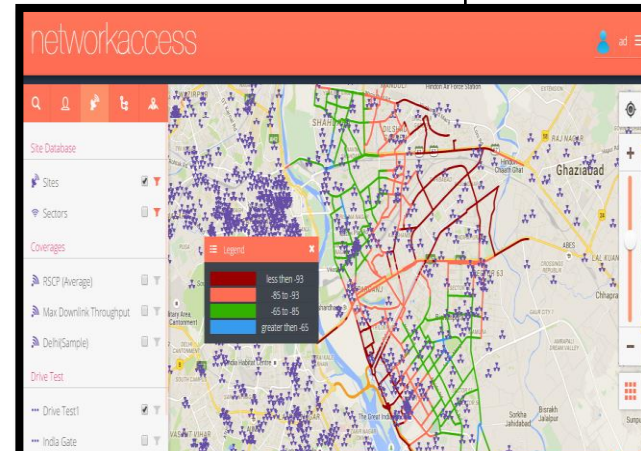
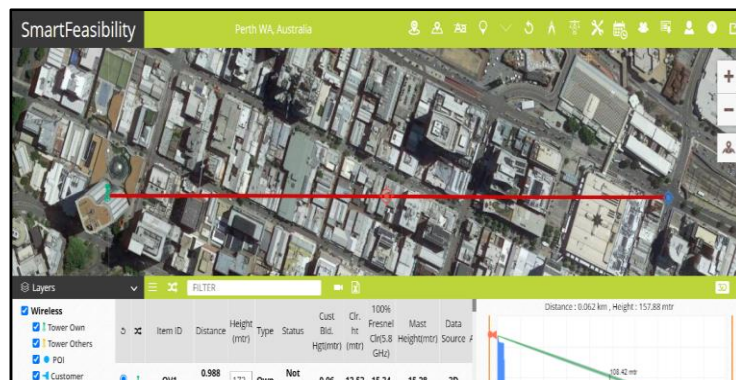
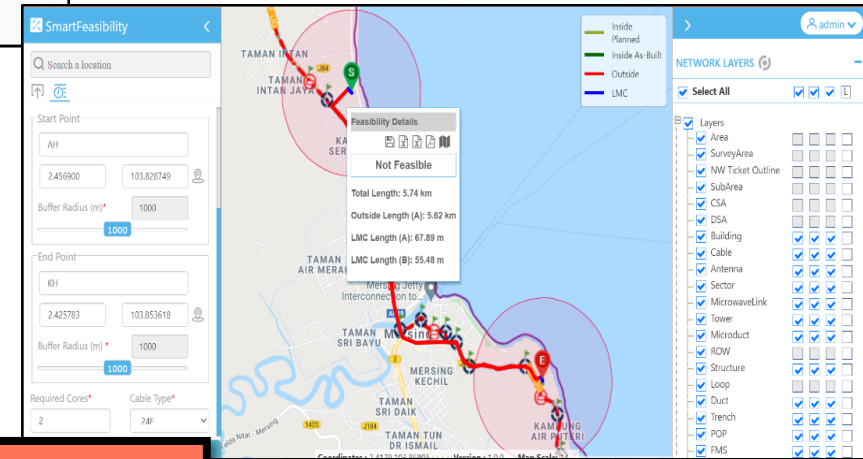
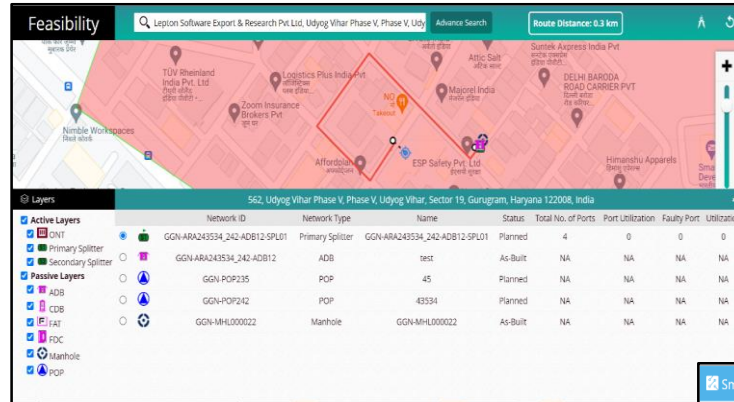






# Improve Sales and Customer Experience

- Find RF Coverage levels
- Enable sales team with atsite service qualification tool
- Customer self service portal
- Perform Enterprise Service Qualification







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# Case Study





**GUJARAT**  
**FibreGrid**

## GFGNL GIS Project Objective



- To capture network architecture, inclusive of Active and Passive Inventory for PAN Gujrat on GIS based Telecom Inventory Solution
- Flexible solution to capture the various use cases. Such as:-real time network utilization, As-built and BOM/BOQ, Actual mapping of network location and fault locations on GIS platform on real time basis with the help of Mobile app and Web app.

## Lepton Solution

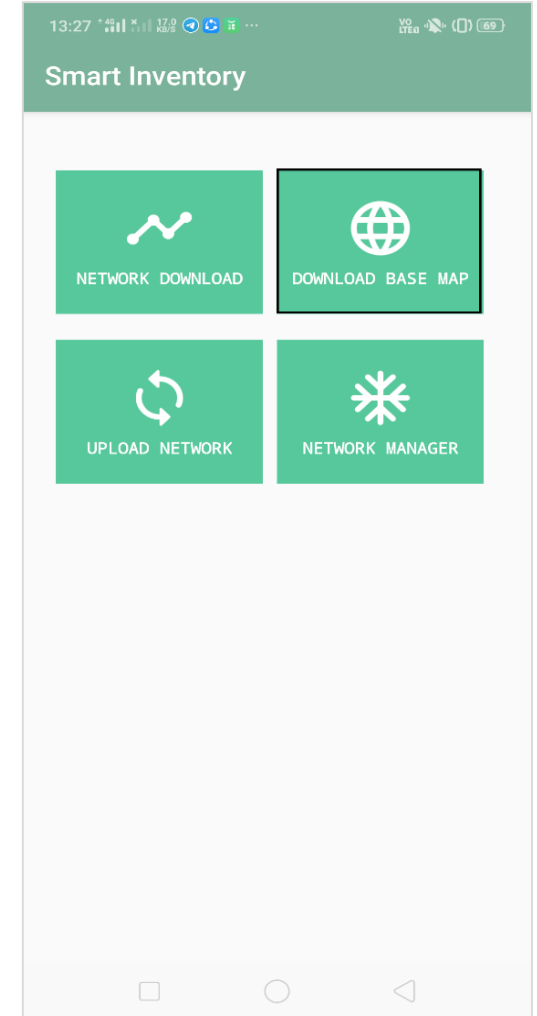


- Deployed NetworkAccess to capture fiber network on GIS based web and mobile platform.
- Customized NA to maintain and track different stages of network rollout (Survey, Planning, roll-out and O&M stage Fault locations).
- Integrated with third party systems(NMS,EMS, ERP & project management).
- Mobile application workflow for QA/QC
- Long term on-site operational support to keep track of the health of the network.

## Benefits to the Client



- Mapping of their complete Network Inventory of OSP, ISP and logical along with construction specifications for cross verification of standards specifications. Linking the payment to PIA to network in GIS>
- Meeting the SLA by identifying the faulty fiber quickly and accurately





# What They Had To Say About Us

*“Lepton’s Network Inventory is one of the best tools that has helped us in planning and implementing our prestigious project, i.e., to create OFC infra highways. Lepton is supporting our requirements and assisting us to onboard the field crew with the tools necessary for efficient operations.”*

*- Mr. Dharmendra Sharma, Director (Technical & Infrastructure) at GFGNL*



<https://youtu.be/xu0tLiL9uGg>

# Deployment Footprint

Deployed  
**Globally**



Serving **450 million**  
Subscribers

**4** **Access Technologies**  
GPON, IP/MPLS, Cellular,  
Active Ethernet

**144** **Million km**  
Fiber 

**15** **Million**  
Assets


More than **75% Market Share** in Deployment in India



# Outcomes

**80%** Reduction in Survey For Fiber Feasibility 

**30% Improvement**   
in Field Force Productivity

**25%** Improvement in Inventory Utilization 

**65%** reduction in time and effort for **FTTX Network** Planning

**90%** Increase in Customer Satisfaction 

Your Digital Journeys starts with Power of **NetworkAccess**

# Our Products

## Network Access

Highly visual GIS based telecom network inventory and analytics platform for both wireless and wireline

## Smart Market

Location intelligence platform to make informed business decision for planning, expansion and operational optimization.

## Smart Data

Smart map-based data platform to support business decisions by providing precise location-based data like demographics, POI spread, economic activities, etc.

## rFMap & 3DMap

Highly accurate 2D, 2.5D and 3D maps for urban planning, wireless network planning, RF network planning and optimization

# rfMAP



## Maps for Network Planning & Optimization

Global Coverage

Maps available from 1m to 100m resolution including 3D maps

Mapped more than 150+ countries and 1500+ cities

Compatible with all planning tools

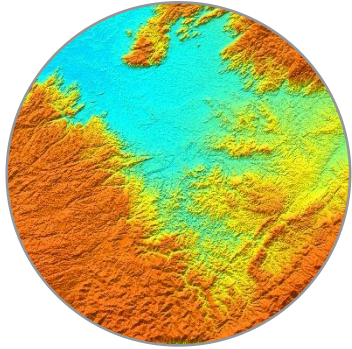
Recognized industry leader, and preferred vendor for leading equipment vendors

- Deep understanding of different geodata requirements for different wireless applications - 2G, 3G, LTE, 5G, satcom, Wi-Fi, Microwave, Wimax, etc.
- Large field force to create more accurate geodata
- Strong in-house R&D capabilities
- On global vendor list of major equipment suppliers

**80% of wireless network have been planned or optimised on rfMap**

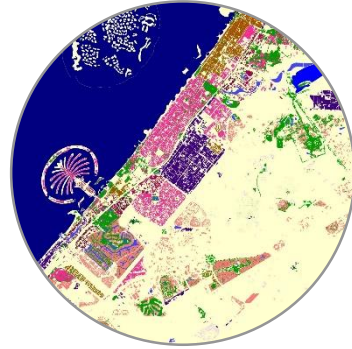


# Components of rfMAP<sup>©</sup>



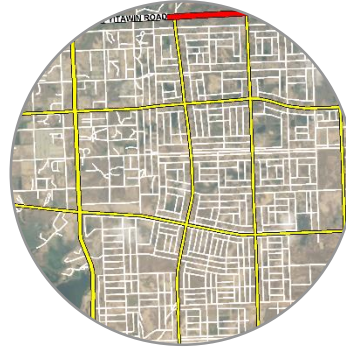
## DTM

Stereo imagery and topographic maps generated terrain database



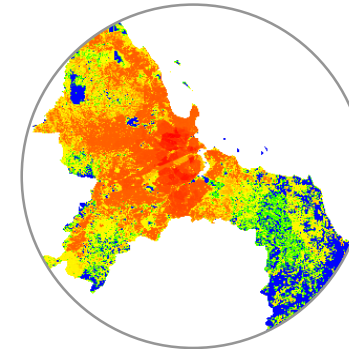
## Clutter

High resolution satellite imagery updated clutter data classified into 12-25 classes



## Road Vectors

Street level road & rail network created and updated from latest high resolution satellite imagery



## Population Map

Highly accurate projected population dataset sourced from local Census Agency



## 3D Map Dataset

High resolution stereo imagery generated 3D Map dataset with 1m accuracy





# 3D Building Map

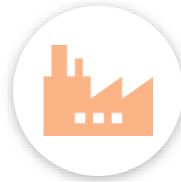
# Company Overview

More than  
**25** Years



Leader in Location  
Intelligence & Analytics

Serving  
**8+** Industries



Like FMCG, Retail,  
Automotive, Telecom,  
Banking, etc.

More than  
**300**



Product Specialist, Data  
Engineers, and Telecom GIS  
specialists

Highly Responsive

**24x7**



Dedicated Support Team



JAPACs Fastest Growing  
Company for Google Maps



Best Location  
Intelligence Partner of  
the Year for Telecom  
Vertical in Asia



Top Five Product Companies at  
NASSCOM Product Conclave-  
North

Premier Partner

Google Cloud

Authorized Partner

pitney bowes



Authorized Partner

InfoVista

Strategic Partner

vodafone

!idea



# NetworkAccess Customers



# Contact Us



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