GIS Enabled Sustainable Fiber Business Platform

Andrie Singh – Product Manager
Location Based Services
Reliance Jio

Date: 05-May-2023
Contents

1. Fibernet – The Green Substitute

2. Fibernet – Role in the 4th Industrial Revolution

3. GIS – Shaping the 4th Industrial Revolution

4. Jio – Business with a Purpose

5. A Local Cable Operator’s Journey

6. JioFiber Partner – A GIS enabled Fiber Planning Product
Fibernet
The Green Substitute
What is FIBERNET?

Connecting homes / offices / MSMEs / & other businesses through Network Elements
Deforestation, Soil erosion, Water pollution

Electromagnetic Interference

Maintenance

Sustainability

Cost Savings

Increased data transmission

- 50% less repair rate of Fiber Optic Cable
- Reduced signal degradation & disruptions
- Reduced environmental degradation due to Copper Mining

Sustainable Network & Sustainable Business
Fiber – Role in the 4th IR
Enhanced by Geo-Intelligence & Geo-Analytics
Fiber

- Backbone of 5G and above generations of telecom
- Cloud Computing
- Internet of Things
- AI & ML
- AR-VR-XR

4th Industrial Revolution

- Klaus Schwab
- Fusion of technologies
- Blurring the lines between the physical, digital and biological spheres

On the yardstick of sustainability – Optical Fiber is the ONLY alternative continuously enhanced by Geointelligence!!
GIS - Shaping the 4th Industrial Revolution

4IR

Autonomous Vehicle

Disaster Management

Smart Cities

Telecommunication

Internet of Things

Supply Chain Optimization

Network Planning
- Location of cell towers, antennas, fiber optic cables
- Optimize network design

Site Selection
- New cell towers & other telecom infrastructure
- Identify areas where new infrastructure is needed

Asset Management
- Telecom assets like equipment, tower, cables
- Track location condition and maintenance history
- Plan for upgrades & maintenance
Jio

Business with a Purpose
Reliance Jio – Company Basics

A Telecom Major in India at the center of 4IR

Offers affordable and high speed internet services to remote locations

Per capita data and voice usage at 23.1 GB and 1,003 min/mon*

Total traffic was 30.3 Exabytes, driven by increasing traction on 5G and FTTH* (Q4)

Highest 5G rollout with ~60k sites deployed across 700MHz and 3500MHz*

*Reliance Industries Limited- Q4 Result – 2022-23
Reliance Jio – Established 5G Coverage Leadership in India

Initial Rollout in 5 Cities
October 2022

Expanded to >2,300 Cities/ towns
April 2023

Pan India Rollout
December 2023

*Reliance Industries Limited- Q4 Result – 2022-23

Fastest 5G rollout of this scale Globally!
Reliance Jio – Partnership with Local Players

- Major shift in customers from local cable to Jio Fiber/AirFiber
- Players had to adapt and evolve to compete
- Partnered with Reliance Jio to provide bundled services
- Onboarded on a GIS enabled Platform
- Local GIS knowledge to reach remote locations & build last mile connectivity

Fiber is the true backbone of 5G!
Challenges & Opportunities for LCOs

**Challenges**
- Infrastructure Planning & Cost
- Competition
- Customer Acquisition
- Limited Resources

**Opportunities**
- Improved Services
- Increased Revenue
- Community Connections
- Innovation
Everybody has equal opportunity and I think that is true for everything.

- Shr. Mukesh Dhirubhai Ambani
  Chairman - Reliance Industries Limited
Coconut Business
$2.4/Quintal
(1 quintal = 220 pounds)

Pests Infestation led to failed business

Cable Laying – Transformation to an Internet Service Provider

Co-axial Copper Cables’ Business

Pests Infestation

Pomegranate Business

A Case Study

FIBER OPTIC INTERNET (Era)

2015

2012

1970

1970

2012

2015
JioFiber Partner
Building Digital Highways
**Mission**: To create a wired connection across thousands of cities across India, and enable multi-million households’ connectivity

**Vision**: To build a digital ecosystem to empower and enable all Indians
Jio continues to lead in speed & network experience

23% YoY increase in Data traffic

1.8 X increase in quarterly data traffic

439.3 mn net subscribers (Q4’22-23)

*Reliance Industries Limited- Q4 Result – 2022-23*
JFP Network Building Features

- GIS based product to build the last mile connectivity
- Smooth and simple onboarding & offboarding of LCOs
- Work order based execution system for efficient network design, build & operate
- Voice control to provision Zero Touch action for network building
- Auto-spicing which has brought down the splicing time from hours to minutes
JFP Other Features & Process

- Assign Work Orders
- Survey
- Publish Design
- Material Management
- Construction
- Submit to System of Records
- Operations & Maintenance

- Real Time update
- AI Enabled Features
- Single backend
- Auto-Splicing
- Export Report
- Issues logging
- Simple to use

- Map based platform
- Basis WO type - Actions
- Work-order Management
**Demographics**

- Age – 18-50 years
- Status – Married & Single
- Location – Pan India
- Income ~ $3500/annum
- Family – Mostly Joint with dependents

**Mindset**

- Goals – Fast & Efficient Network Planning
- Pain Points – Manually capturing Network data from the ground
- Solution Expected – Digital capturing and storage of Network data

**Contextual**

- Manager/Agent – Both
- Peak use time – 9:00 - 20:00 HRS
- Communication Style – Call/WhatsApp
- Mobile/Web Users – Mobile
- Works from Office/Field - Field

**Tech Skills**

**Local Knowledge**
**Demographics**

- Age – 18-50 years
- Status – Married & Single
- Location – Pan India
- Income ~ $ 5500/annum
- Family – Mostly Joint with dependents

**Mindset**

- Goals – Fast & Efficient Network Planning
- Pain Points – Manually entering network data into systems captured from the ground
- Solution Expected – Automatic capturing and storage of network data

**Contextual**

- Planning /Construction – Both
- Peak use time – 9:00 -20:00 HRS
- Communication Style – Office Chat/Email/Call/WhatsApp
- Mobile/Web Users – Both
- Works from Office/Field - Both

**Tech Skills**

- Local Knowledge
Coconut Business
$2.4/Quintal
(1 quintal = 220 pounds)

Pests Infestation led to failed business
Cable Laying – Transformation to a Local Cable Operator
Co-axial Copper Cables’ Business

Onboarded on JioFiber Partner
Providing bundled services with Reliance Jio

2022
2015
2012
1970
One Opportunity
One Life
Many Generations
WE CARE
With love,
from Jio.