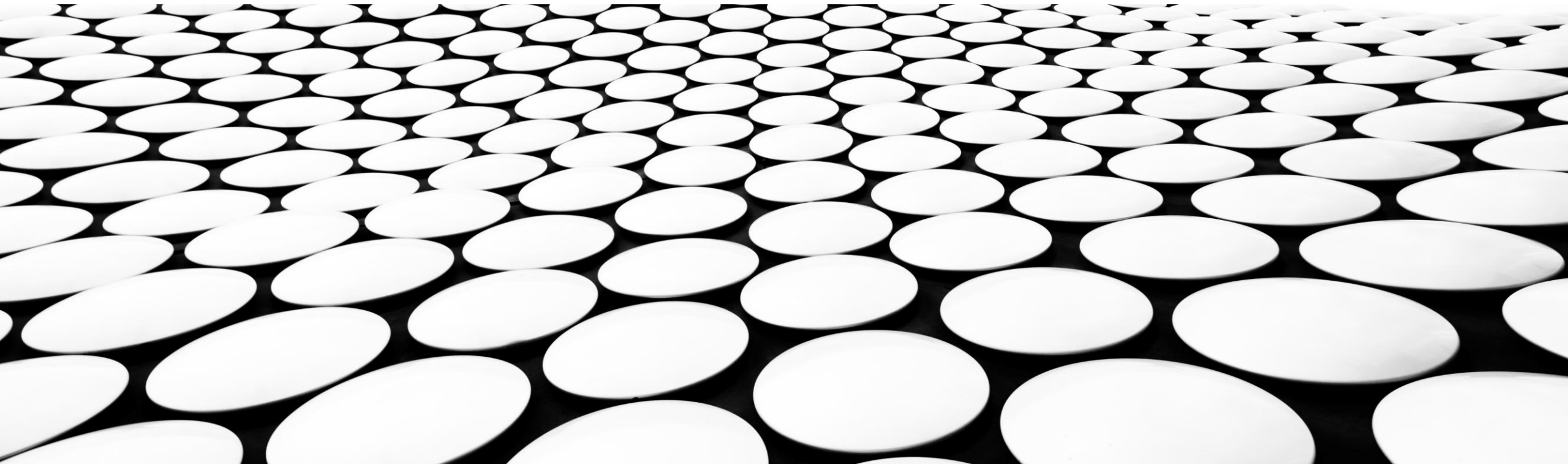




RIGSTAR
INDUSTRIALTELECOM

CORPORATE OVERVIEW



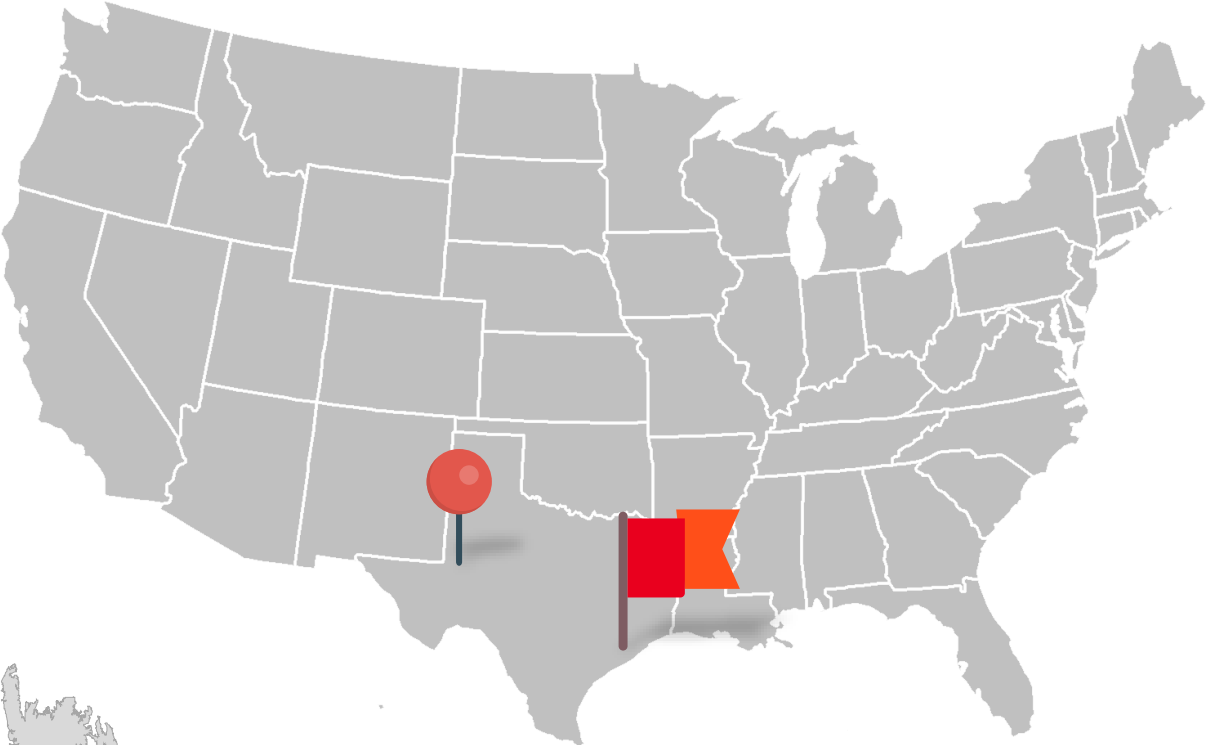
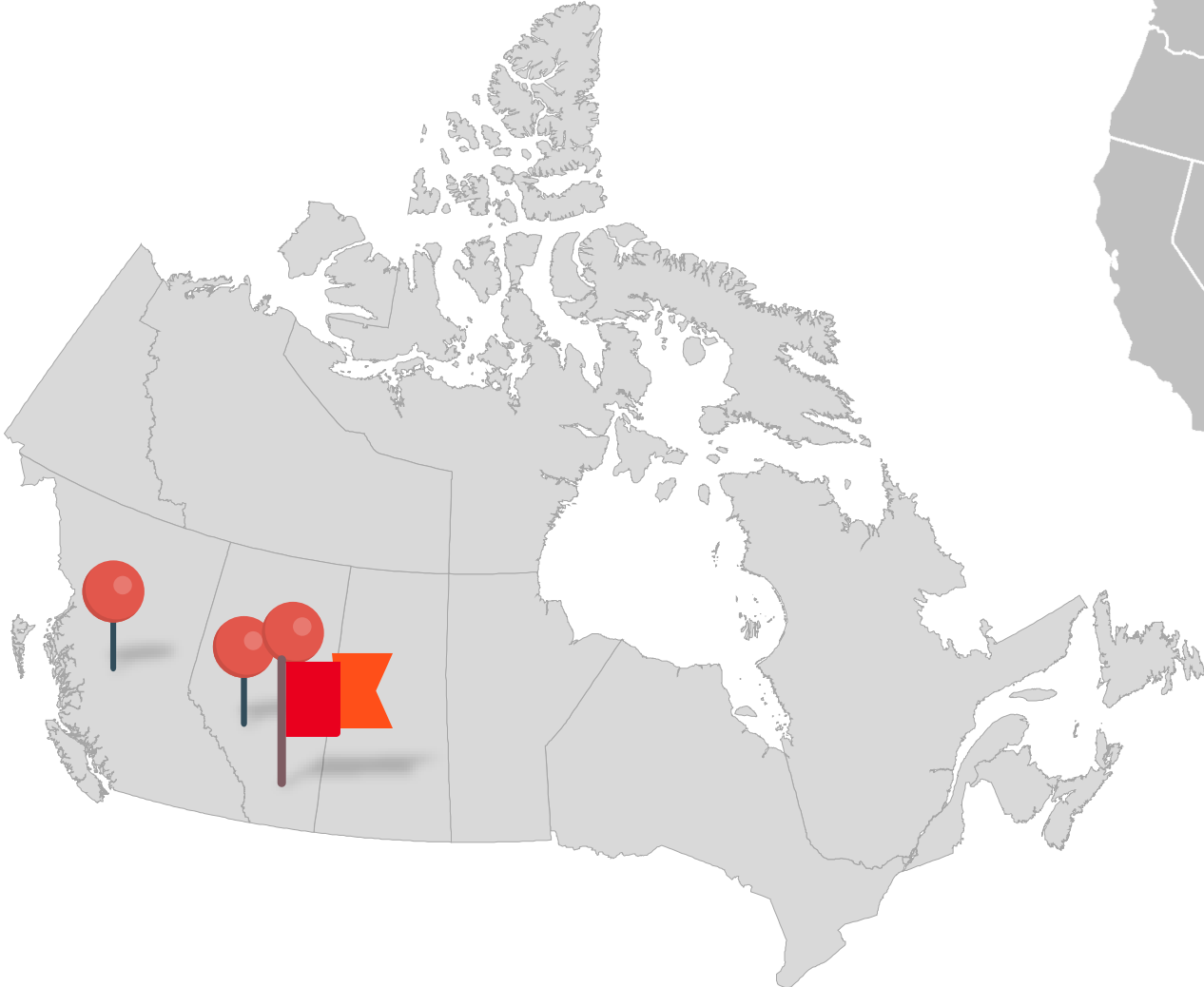
WHO IS RIGSTAR INDUSTRIAL TELECOM?

- **Experienced** – Established in 1998
- **Acquired ABnet (ISP) - 2006**
- **Daniel Grisdale (CEO) & Brent Grisdale (Director of Business Dev. US)**
- **Coralee Mazurek (President/COO) Rick Sperandio (President – US Operations)**
- **Certified Non-Dominant Carrier - CRTC**
- **Communication Solution Specialists** – Systems Integrator
- **Data Centre** – Located in downtown Calgary, AB - Connected to (4) Tier 1 ISP's
- **Private LTE** – Design, Build, Support
- **IoT Network (ABnet)** – Launched in 2021
- **Network Operations Centre** – 24/7 live support
- **Rapid Deployment** – Telecom Specialists servicing Canada and the US



RIGSTAR
INDUSTRIALTELECOM

OFFICE LOCATIONS



RIGSTAR
INDUSTRIALTELECOM

Health & Safety

- Current ENFORM Certificate
- ISNetworld & HSE Canada Compliant
- Avetta Certified
- Comply Works Certified
- COR



Quality Management

- Defined and documented procedures – Rigstar Close Out Reports
- Quality is constantly measured
- Consistent processes and procedures
- Management control & reporting
- ISO 9001:2015 Certification (In progress)



PRIMARY OFFERINGS - SERVICES



RIGSTAR
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Calgary, AB to Houston, TX



- Fully Redundant – (4) Tier 1 Upstream Providers
- Private Wave – Interconnect between key locations
- Connections to Zayo & Cogent

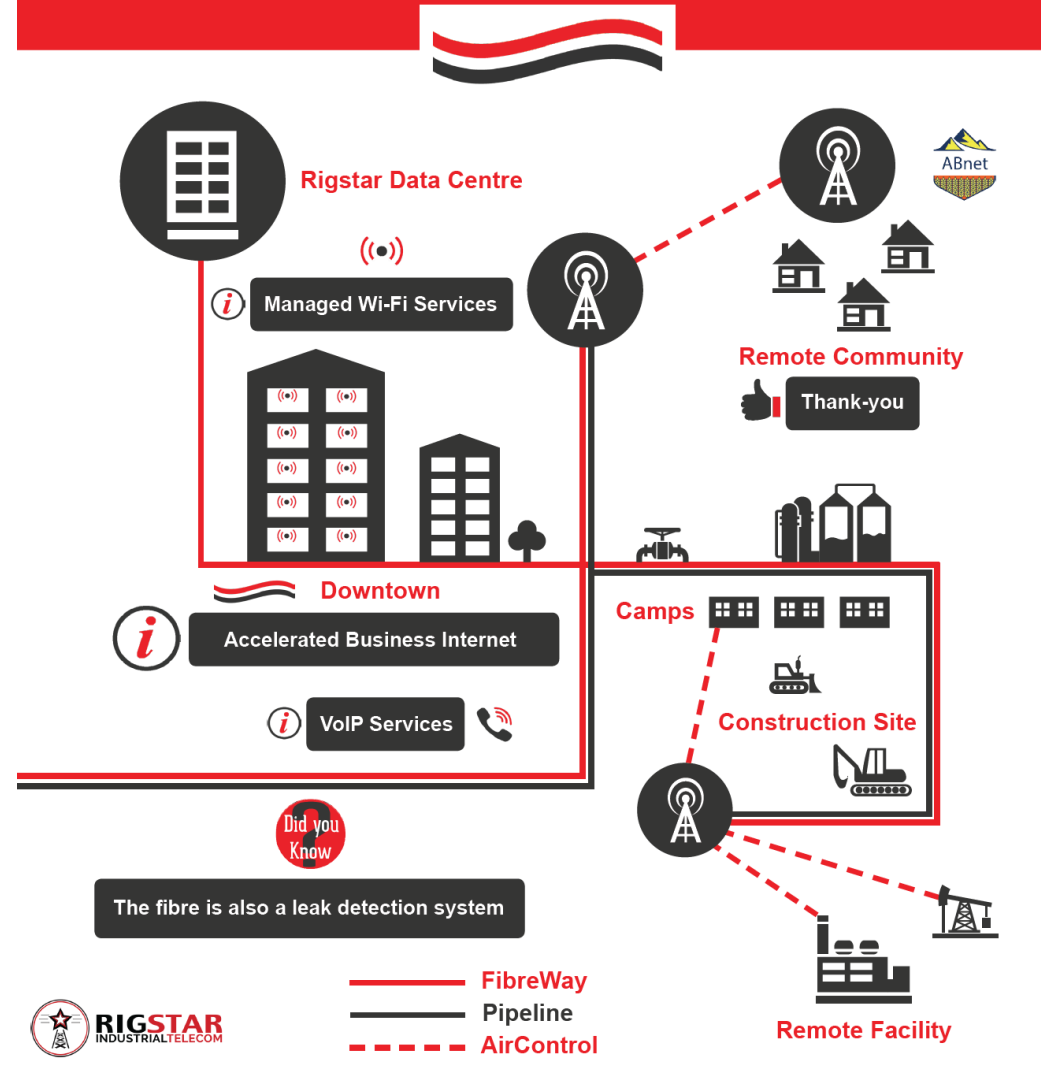
What is FibreWay™



noun [fahy-ber • wey]

1. telecom alternative, Internet highway or high-speed Internet

"our organization is on FibreWay and we couldn't be happier with the service"

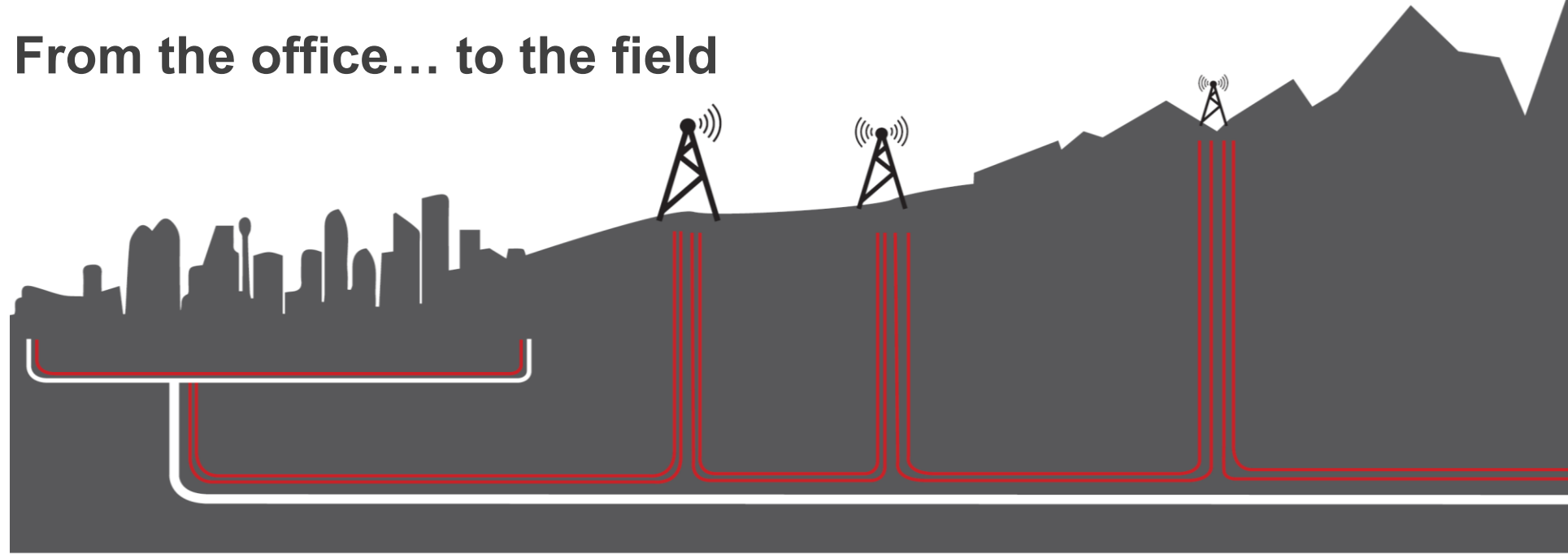


- Industry Leading SLA's
- Burstable or Dedicated Connection
 - Commercial/Residential
- Dedicated Network Team
- VoIP Services
- FibreWay™
 - Low Cost/Secondary Circuits
- Last Mile Carrier Extensions



Internet Service Provider

From the office... to the field



FibreWay™

- **Fully Redundant Internet Services – Accelerated Internet Speeds**
- **Secured Private Network(s) - From the office to the field**
- **Fibre Optics**
 - *High-Speed Internet / Big Data Transfer / Private Wave*
 - *Pipeline Leak Detection*
 - *Industrial Monitoring*

Pipeline of Connectivity



■ VoIP Services



■ Managed Wi-Fi Services



■ IP Television Services

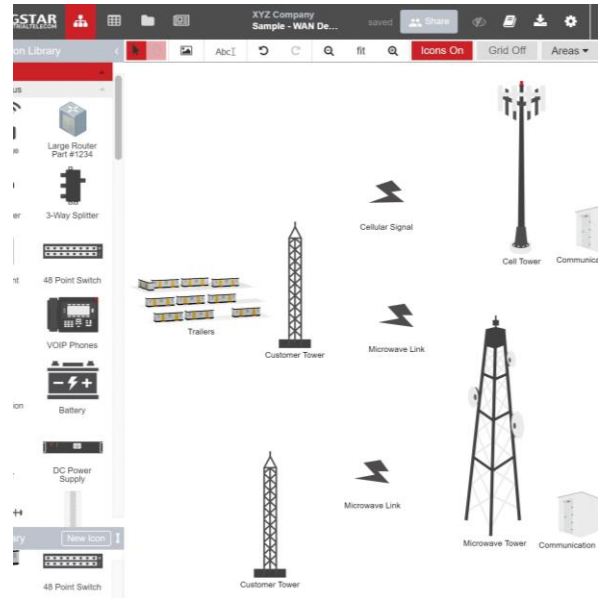


■ Video Monitoring

Network Design (installation & support)

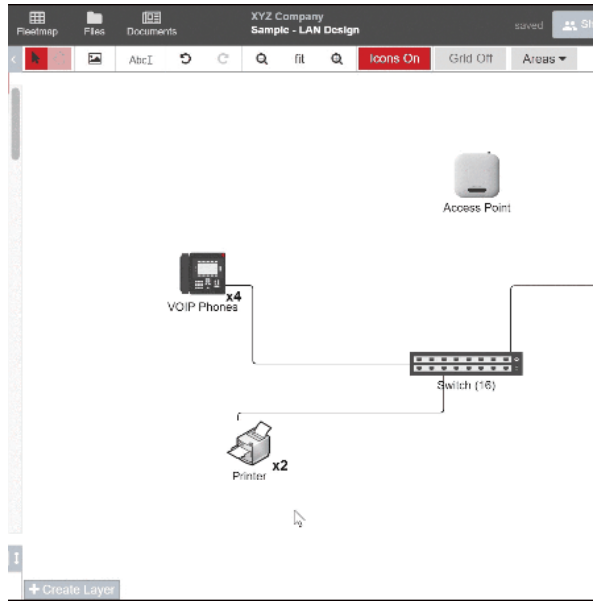
Wide Area Networks (WANs)

- Private Lines
- Switching (MPLS)
- Fibre
- Wireless
- Cellular



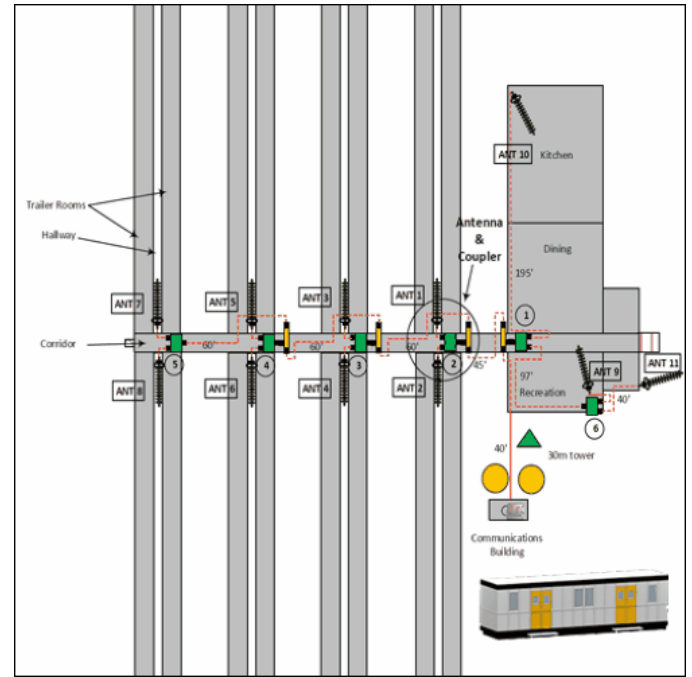
Local Area Networks (LANs)

- Wi-Fi
- Ethernet (Cabling)
- Access Points
- Routers
- Switches

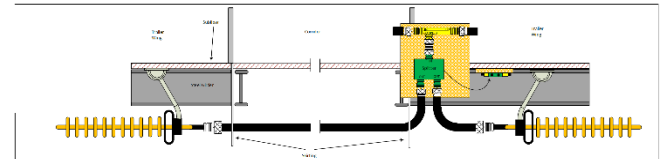


Cellular Enhancement (installation & support)

- **Carrier Grade**
 - Macrocell
 - Microcell
 - Picocell
- **Distributed Antenna Systems**
 - iDAS
 - oDAS
- **Cellular over Wi-Fi**
 - Procurement
 - Managed services
 - 24/7 support



Design



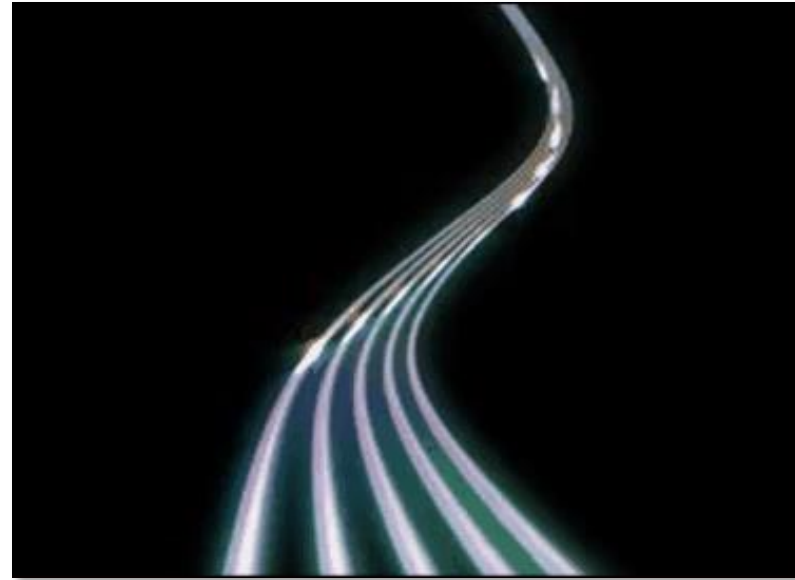
Tower/Engineering

- **Engineering – Network of 10 P.Eng's**
 - Radio Frequency (RF)
 - Telecom
 - Civil
- **Tower Construction**
 - Project Management
 - Inspection
 - Maintenance
- **Portable Towers**
 - CSA Approved
 - Purchase
 - Rental



Fibre Optics - Design (installation & termination)

- **Installation**
 - SMF and MMF
 - Trenching – Direct Burial
 - Patch panel
 - Indoor/Outdoor
- **Termination**
 - Fusion Splicing
 - Inspection
 - Maintenance
- **Testing**
 - OTDR
 - ORL
 - Network audit services

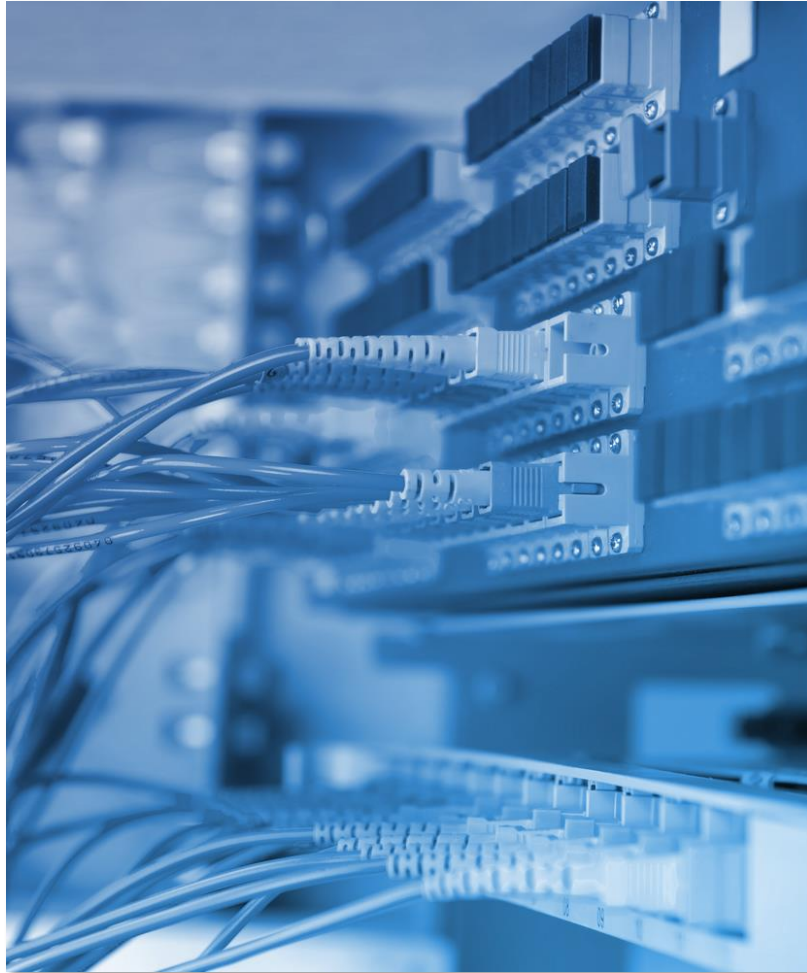


Remote Monitoring

- **Solar-based**
 - 4 Camera System
 - Intelligent Monitoring
 - Osperity Software
 - High-powered LED's
- **Time-lapse Construction**
 - Cloud-based
 - Archived Video/Images
 - Customized Delay
- **24/7 Support**



24/7 NOC (Network Operations Centre)

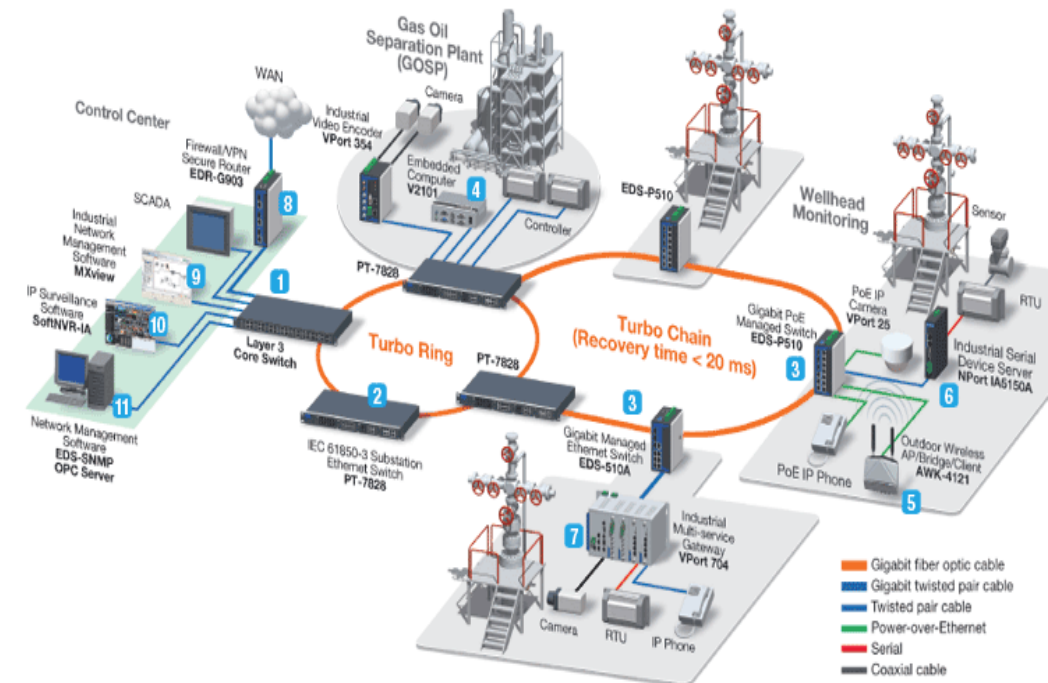


- **24/7 Monitoring**
 - Real-time threat detection
 - Network Visualization
 - Detect Deviations
 - Immediate Alert Notification
- **Certified Network Analysts**
 - 24/7 Live Customer Support
 - Tier 1,2, and 3 Support
- **Network Security**
 - Detect Internal Threats & External Attacks
 - Protect against emerging threats

SCADA

■ High-availability Performance

- End-to-end Network Design
- Simplify Physical & Virtual Networks
- Increased Flexibility
- Cost Reduction
- Increased Manageability
- Enhanced Security

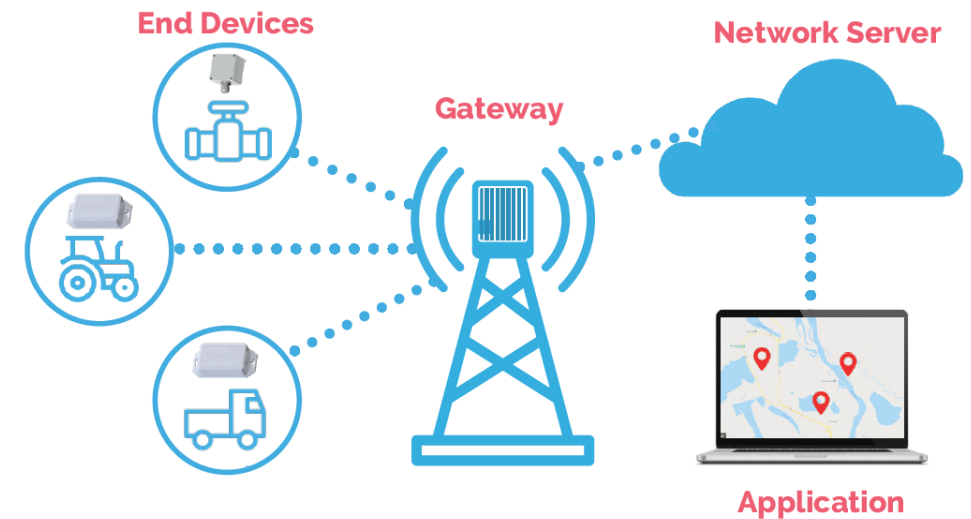


SCADA Field Network
(design/install/support)

Internet of Things (IoT)

- **LoRaWAN - Designed for Networks requiring:**
 - Ultra Long Lifecycle Deployments
 - Extended Range Communication
 - Low Complexity Deployment
 - Low Volume Data Processing
 - Low Power
 - Network Operation in Unlicensed Band

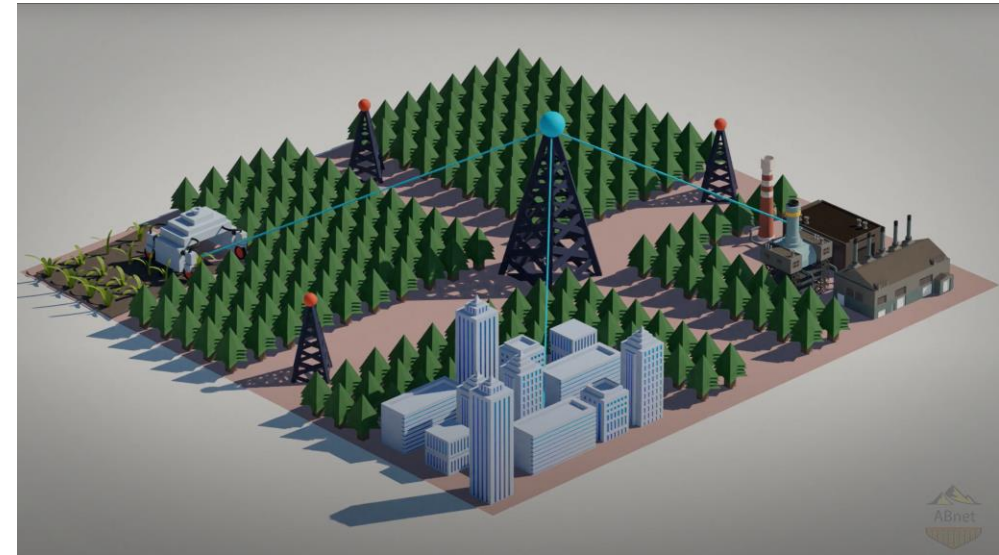
LoRaWAN® Architecture



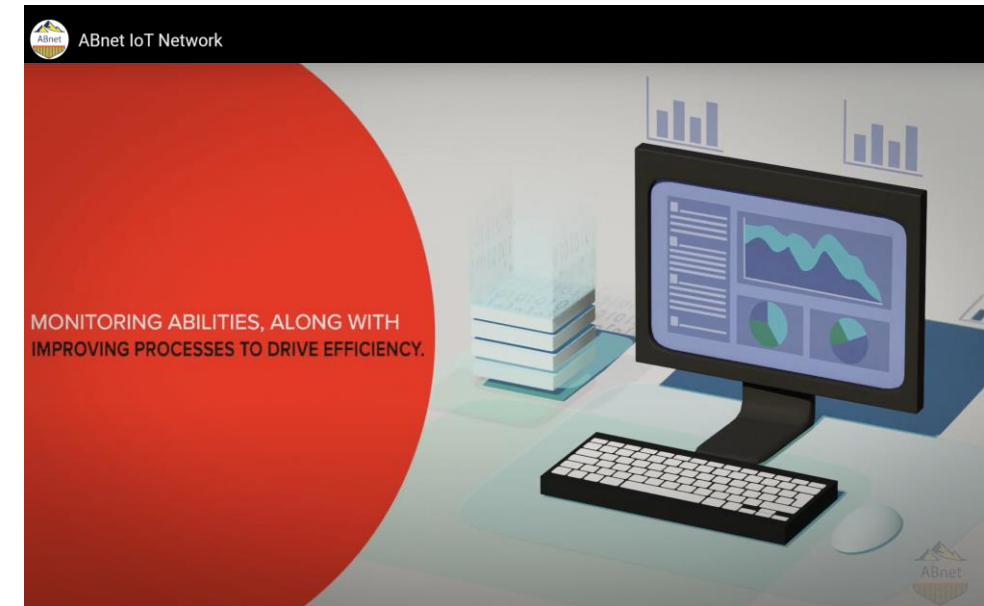
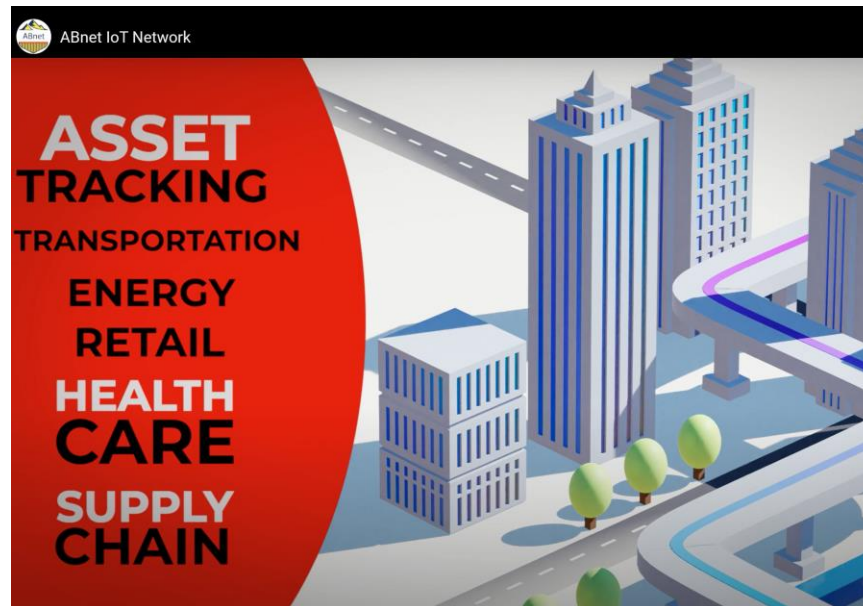
ABnet IoT Network



- Launched in 2021
 - Powerful & Secure Network
 - Engineered for Maximum Uptime
 - Extended Coverage Area
 - Cost Effective
 - Flexible & Customizable Solutions



ABnet IoT Network



Applications

- Meter Monitoring (Consumption)
 - Real-time – demand-based pricing
 - Dynamically respond to changing household habits
 - Home offices, Online school, Electric vehicles
- Utility Vaults – Water level
- Substation Security
 - Cabinet Doors
 - Humidity
 - Station Battery
- Mobile Generating Monitoring
 - GPS
 - Fuel Level
 - Engine Run Time
 - Oil Pressure
- Weather Monitoring
 - Regional historical data to assist with forecasting (usage)
- Monitor Carbon Footprint
 - Report on progress
 - Qualify for incentives



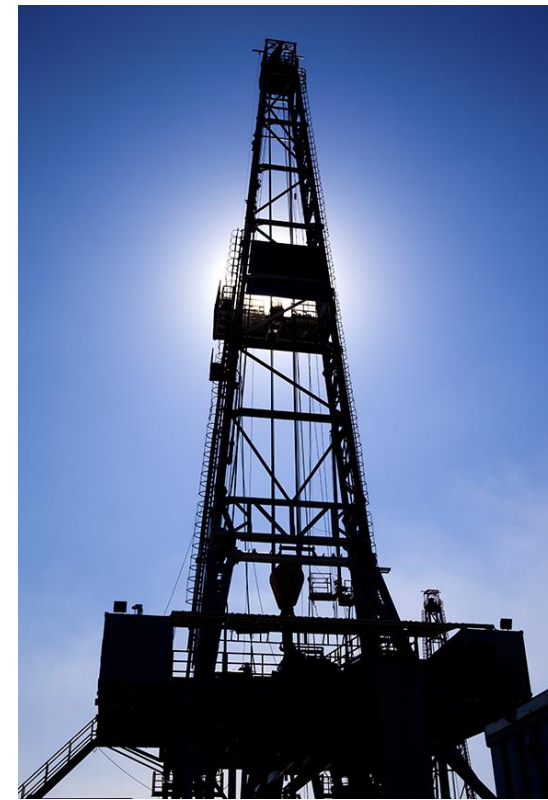
Applications

- Optimize Supply Chain and Asset Tracking
- Improve Safety and Efficiency
 - Forecast degradation long the tracks
- Streamlining Logistics – Management and Operations
- Increase Resource Management Effectiveness
 - Preventative maintenance
- Weather Monitoring
 - Regional historical data to assist with forecasting
 - Extreme weather conditions



Applications

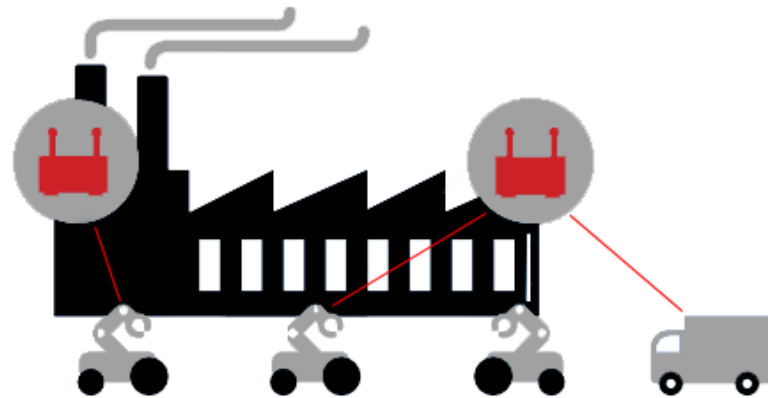
- Predictive/Preventative maintenance
- Pipeline and Equipment monitoring
- Tank monitoring
- Location intelligence
- Emissions/Acoustic monitoring and control
- Real-time machine and sensor integration
- Maintenance workflow
- Plant dashboards
- Asset tracking and monitoring
- Fleet monitoring
- Well Management
 - Remote areas
- Environmental monitoring



Private LTE (design/install/support)

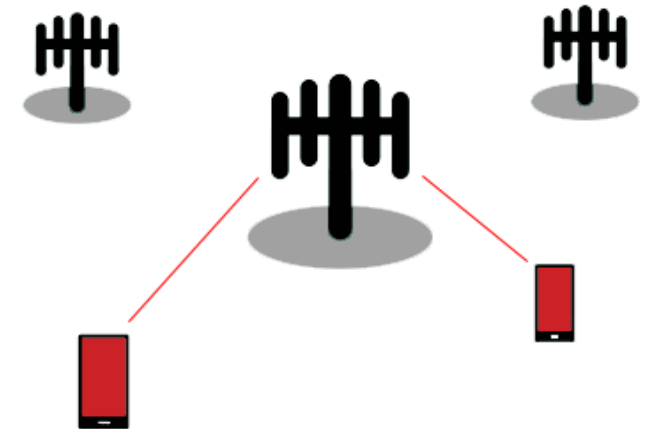
Private LTE Networks

- Managed Locally
- Dedicated Equipment
- Local Coverage
- Optimized for Local Service



Carrier Public LTE Networks

- Managed by Service Provider
- Equipment shared with other traffic
- Wide-area Coverage
- Generic/Voice Data Services
- Work with Carriers to extend LTE



Private LTE
(industries serviced)

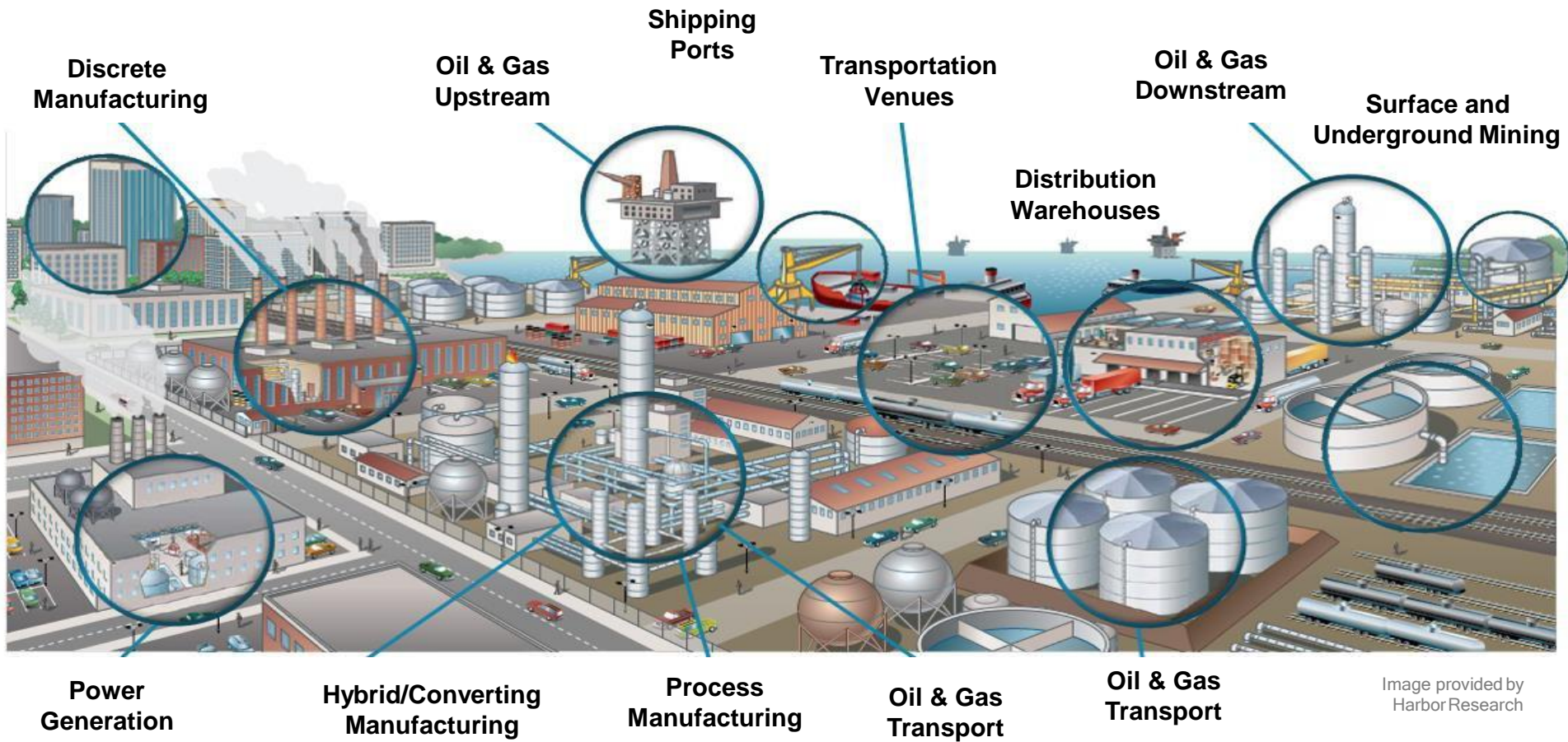


Image provided by Harbor Research

PROJECT EXPERIENCE



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- Skid installation & Equipment upgrades to over 50 sites in the US
- Installed WAN & LAN solution to over 300 sites throughout US and Canada
- Pre-programmed & Installed all VoIP Desksets/Conference Phones/AP's

Coastal GasLink

CGL

Primary Telecom Provider

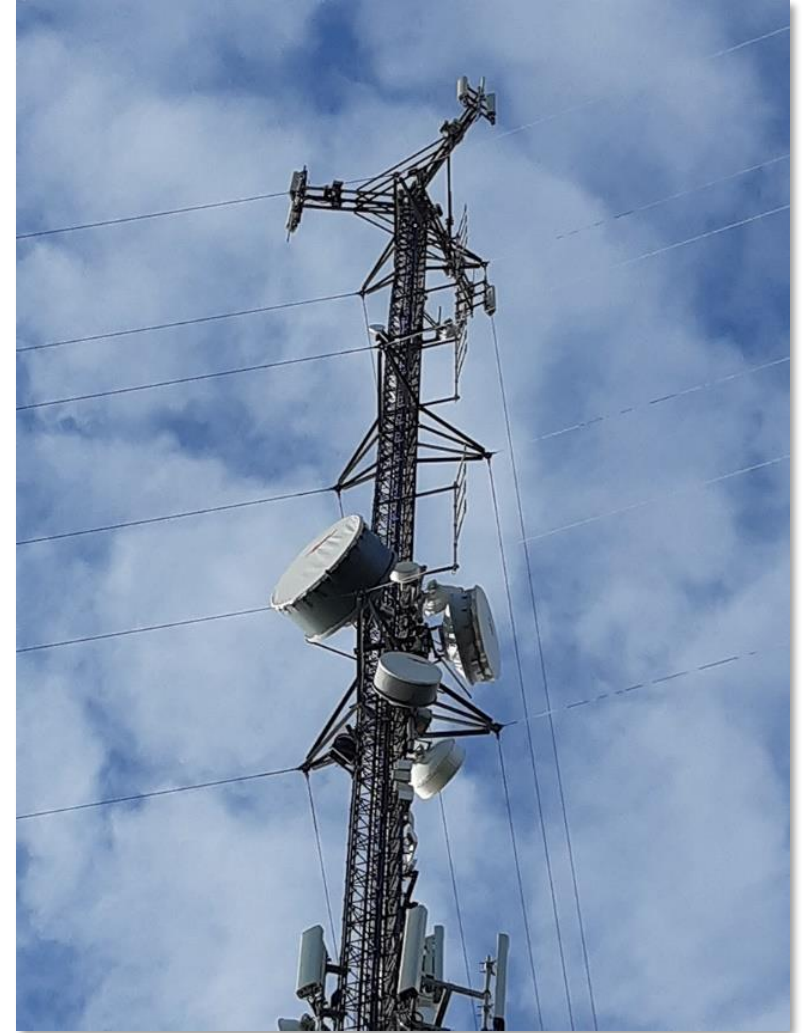


- Telecom Service Provider (3-Year Contract)
- 16 Camp Sites (over 600km's)
- High-Speed Fiber & Microwave WAN
- Two-Way Digital Trunked Radio Systems
- Constructed 8 Mountain-top Repeaters
- Business Office LAN, Video, Phone, and Print services
- Television Services (Head-end assembly and installation)
- 24/7 Customer Support – Rigstar Network Operations Centre (NOC)

GRAHAM



- WAN Deployment
- Installed and commissioned wireless PTP
- Scalable 200Mbps connection



Graham Construction

Red Earth



- WAN Design, Installation
- Tower Construction
- TV Services
- 24/7 Network Support



Tulliby, AB - Onion Lake, SK



- (2) 150' Tower Builds
- Permitting/Industry Canada
- Licensed PTP





Freedom Mobile

- **Microwave Swap**
 - Decommissioned existing radios, installed cabling and licensed radios
- **700MHz Upgrades**
 - Installed Antennas, AirScale Unit, OVP's, Battery Bank, Fibre installation
 - Cutover, PIM Testing, Antenna Sweep, OTDR Testing, Grounding
- **600MHz Upgrades**
 - Installed Antennas, DC Cabling, OVP's, Fibre installation
 - Cutover, PIM Testing, Antenna Sweep, OTDR Testing, Grounding
- **Technical Support**
 - After hours troubleshooting – Microwave Links, Jumper Cables, Cabling

Hardisty



PCL Construction

- Leveraged existing Rigstar backhaul
 - 20km's from the site - PTP
- Deployed a 106' Portable Tower
- LAN installation
- 24/7 Network Support



Super Major – Oil & Gas



- Fibre Optic Installation/Splicing
- Tank Battery to the Well Pad
 - Real-time monitoring capabilities
- 95,000+ feet of fibre installed
- 110,000+ feet duct proofed
- 85+ Well Pad telecom enclosures installed

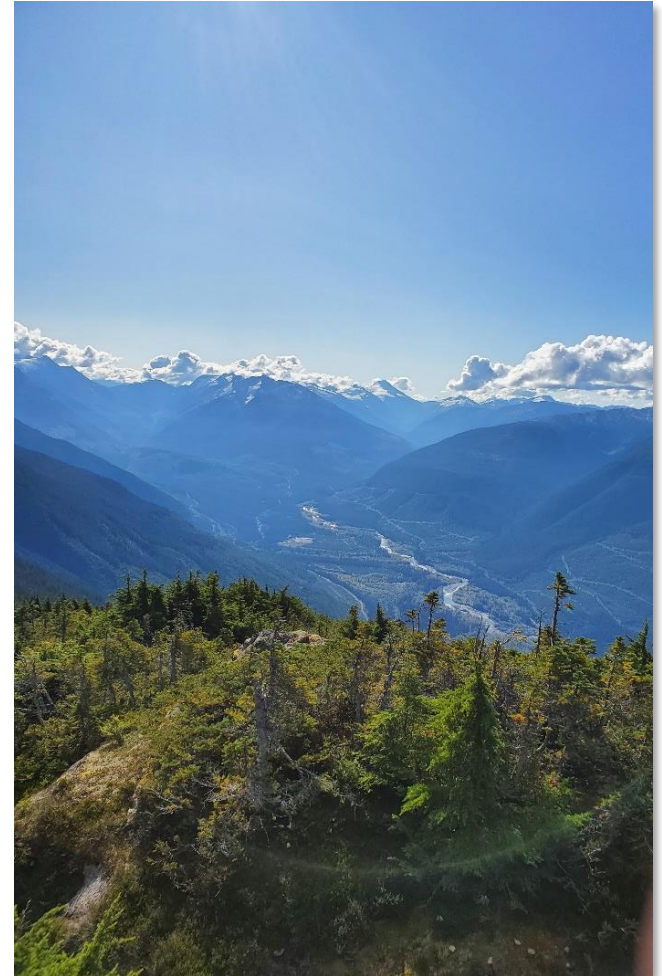
Permian/Delaware
Basin

Coastal GasLink – Mountain Top Repeaters

CGL



Coastal GasLink



TC Energy

Coastal GasLink

CGL



TC Energy

Coastal GasLink

CGL



TC Energy

Coastal GasLink

CGL



TC Energy

Let's Get Connected

We're always accepting new projects. Have a question?

1.866.535.2418 info@rigstar.ca



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