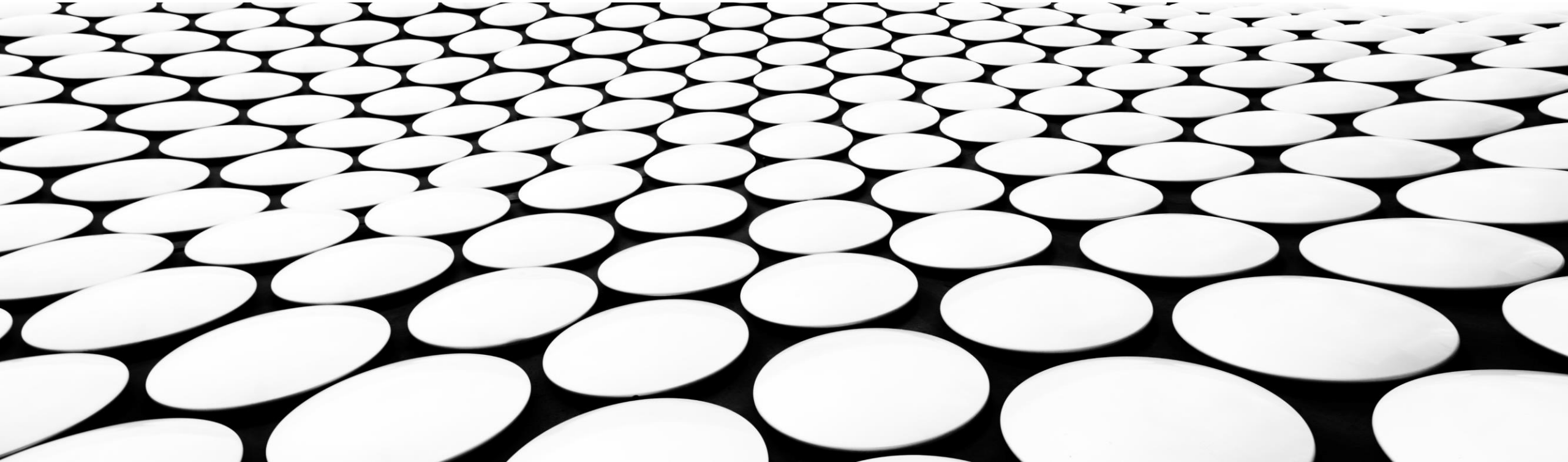
RIGSTAR INDUSTRIAL TELECOM

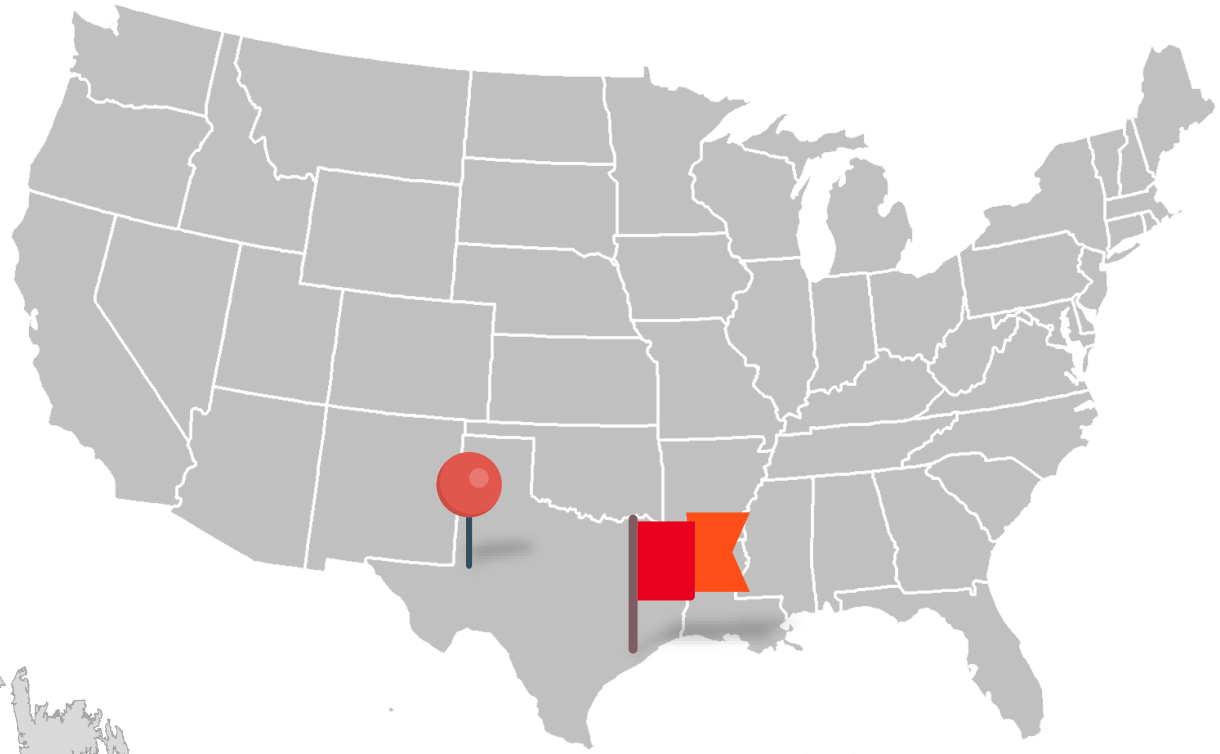


WHO IS RIGSTAR INDUSTRIAL TELECOM?

- **Experienced** – Established in 1998
- **Daniel Grisdale** (President & CEO) & **Brent Grisdale** (Director of Business Dev. US)
- **Rick Sperandio** (President – US Operations) **Coralee Mazurek** (COO)
- **Certified Non-Dominant Carrier -** CRTC
- **Communication Solution Specialists** – Systems Integrator
- **Data Centre** – Located in downtown Calgary, AB - Connected to (4) Tier 1 ISP’s
- **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

Formerly PICS Auditing

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

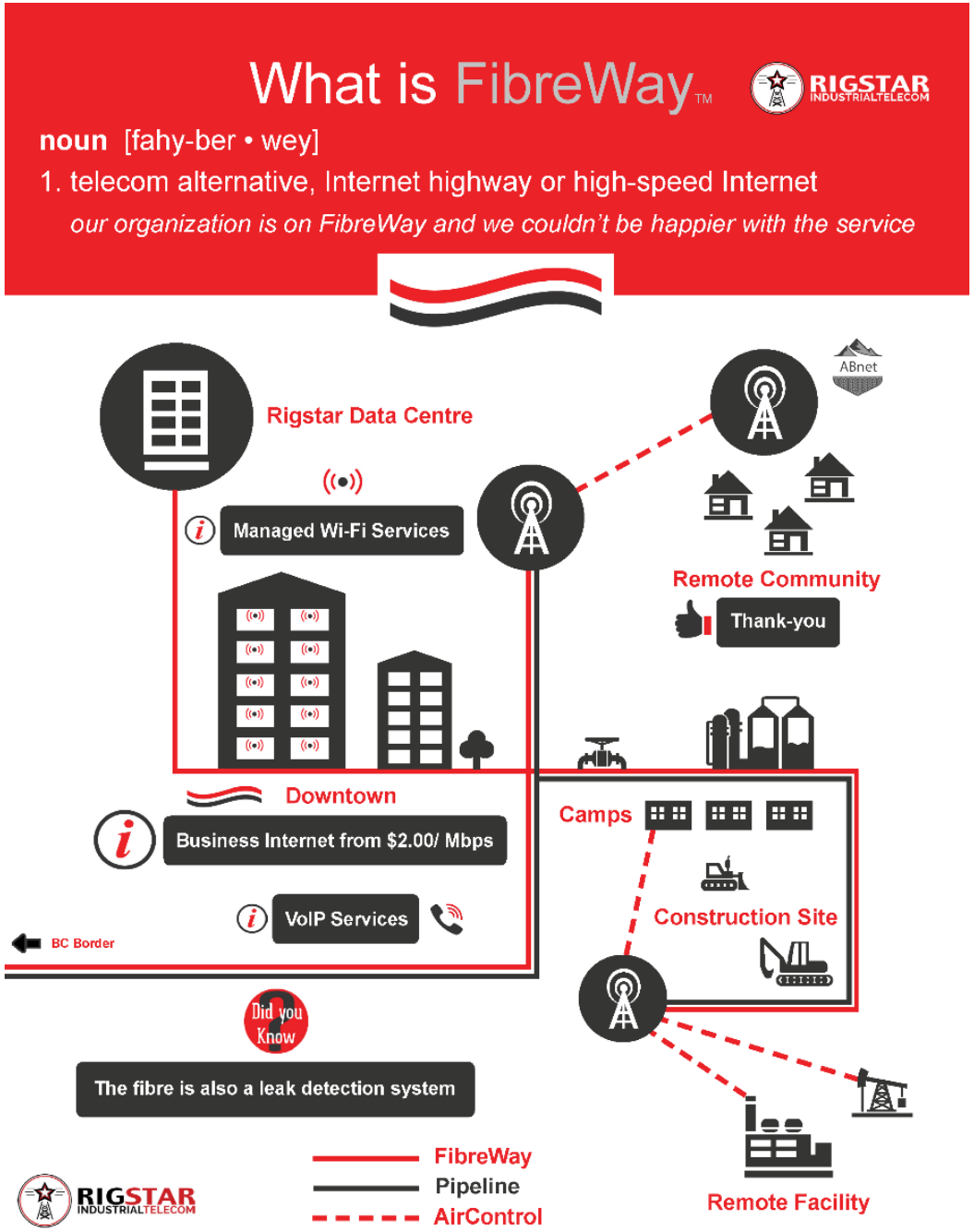
RIGSTAR INDUSTRIALTELECOM

Rigstar Data Centre

Calgary, AB to Houston, TX

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

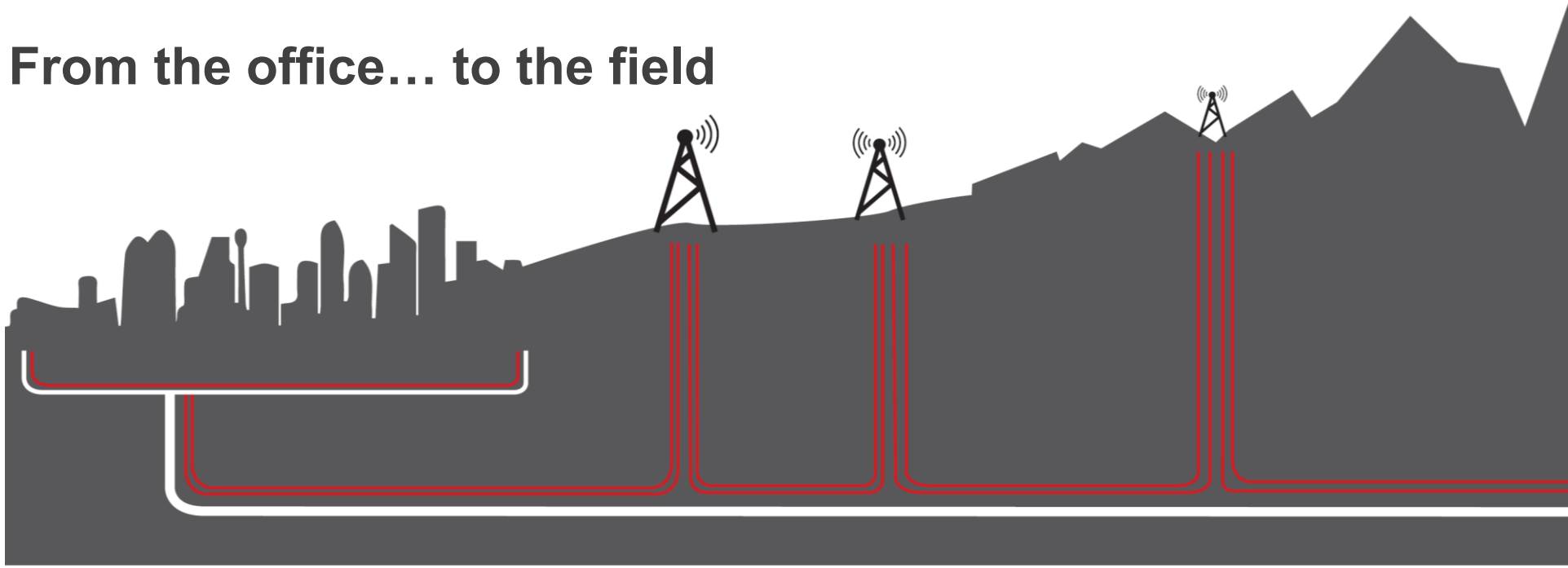
Internet Service Provider



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

FibreWay™

From the office… to the field



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

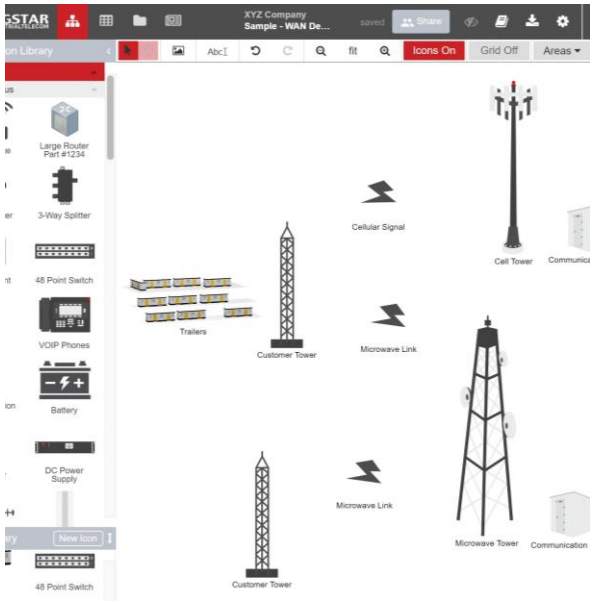
Pipeline of Connectivity

- VoIP Services
- Managed Wi-Fi Services
- IP Television Services
- Video Monitoring

Network Design
(installation & support)

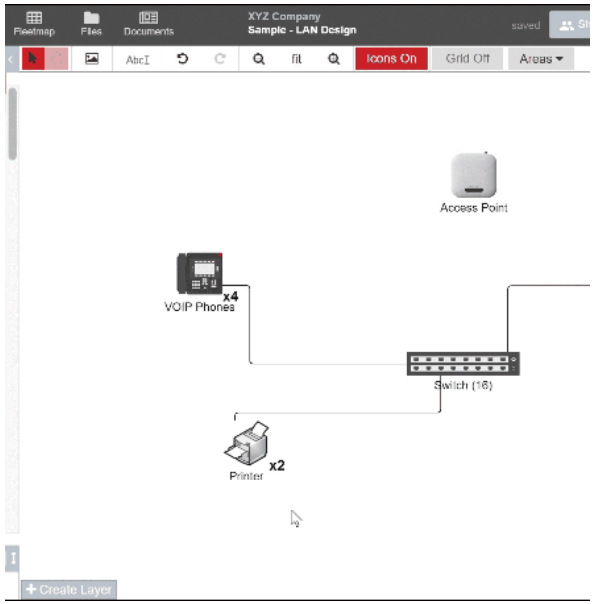
Wide Area Networks (WANs)

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



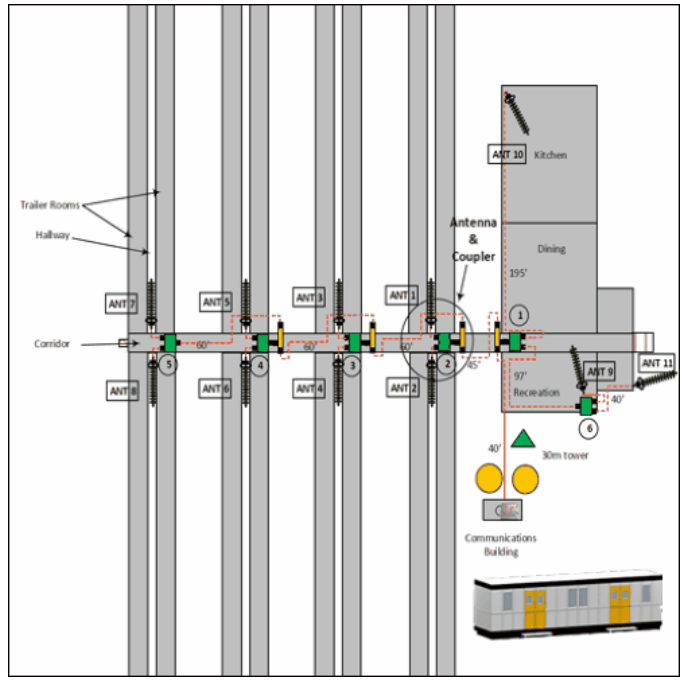
Local Area Networks (LANs)

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

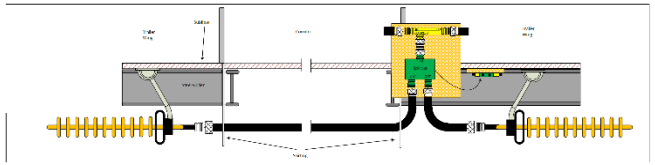


Cellular Enhancement (installation & support)

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



Design



Tower/Engineering

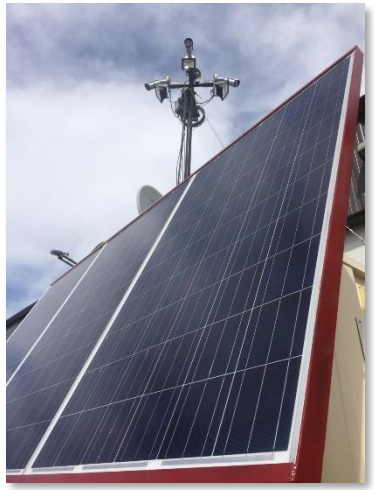
- **Engineering – Network of 10 P.Eng's**
  - Radio Frequency (RF)
  - Telecom
  - Civil
- **Tower Construction**
  - Project Management
  - Inspection
  - Maintenance
- **Portable Towers**
  - CSA Approved
  - Purchase
  - Rental

Fiber Optics - Design
(installation & termination)

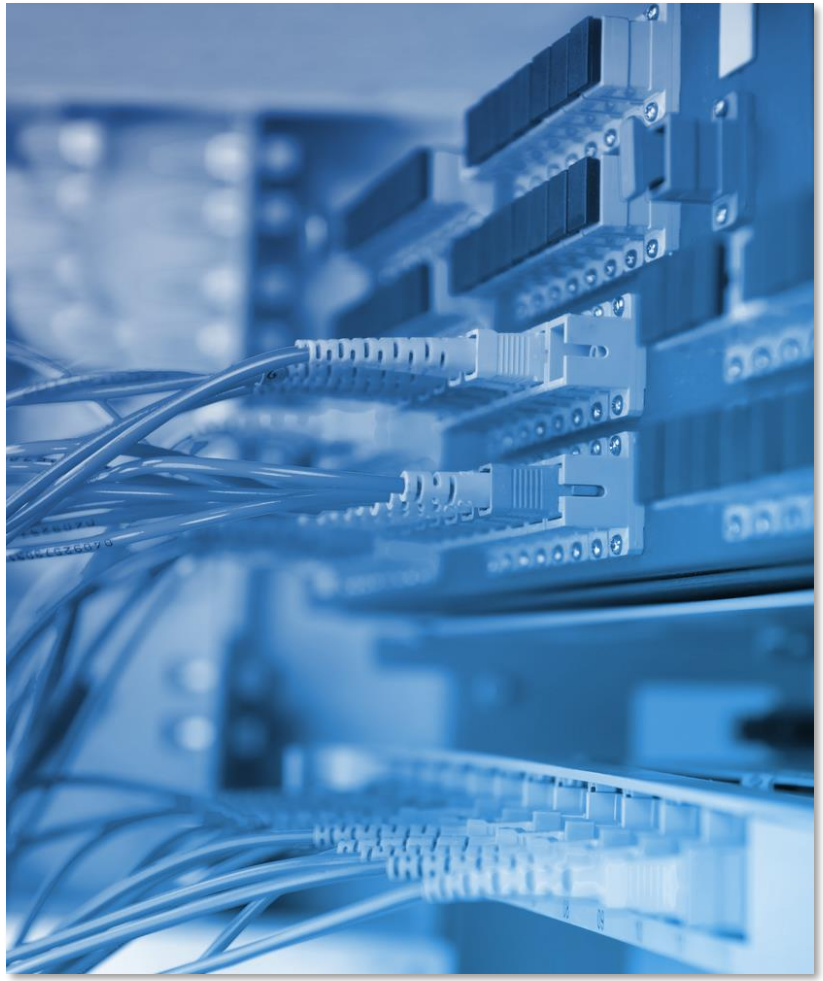
- **Installation**
  - SMF and MMF
  - Trenching – Direct Burial
  - Patch panel
  - Indoor/Outdoor
- **Termination**
  - Fusion Splicing
  - Inspection
  - Maintenance
- **Testing**
  - OTDR
  - ORL
  - Network audit services

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 Center)

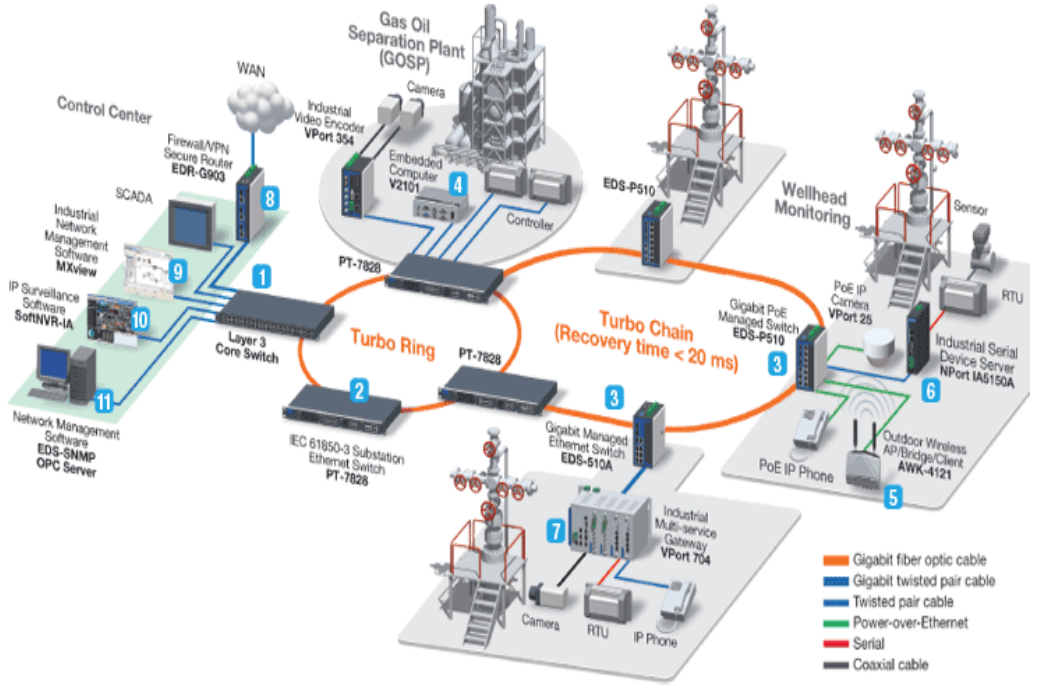


- **24/7 Monitoring**
  - Real-time threat detection
  - Network Visualization
  - Detect Deviations
  - Immediate Alert Notification
- **Certified Network Analysts**
  - 24/7 Live Customer Support
  - Tier 1,2, and 3 Support
- **Network Security**
  - Detect Internal Threats & External Attacks
  - Protect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

SCADA

SCADA Field Network
(design/install/support)

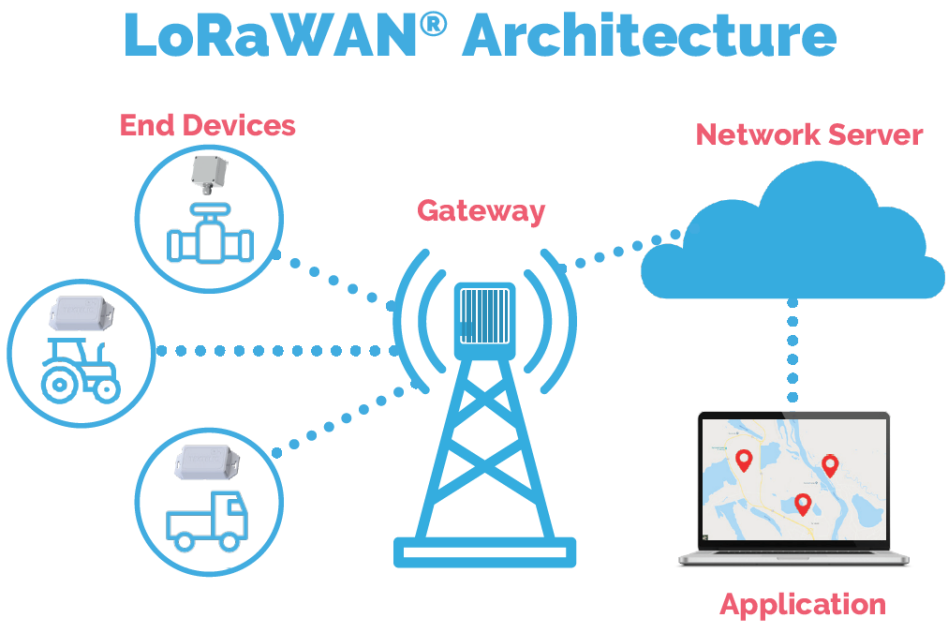
- **High-availability Performance**
  - End-to-end Network Design
  - Simplify Physical & Virtual Networks
  - Increased Flexibility
  - Cost Reduction
  - Increased Manageability
  - Enhanced Security



IIoT
(LoRaWAN)

Industrial Internet of Things (IIoT)

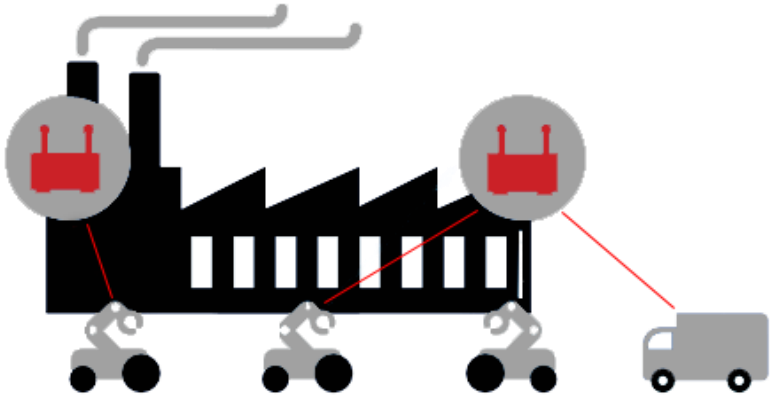
- **LoRaWAN - Designed for Networks requiring:**
  - Ultra Long Lifecycle Deployments
  - Extended Range Communication
  - Low Complexity Deployment
  - Low Volume Data Processing
  - Low Power
  - Network Operation in Unlicensed Band



Private LTE
(design/install/support)

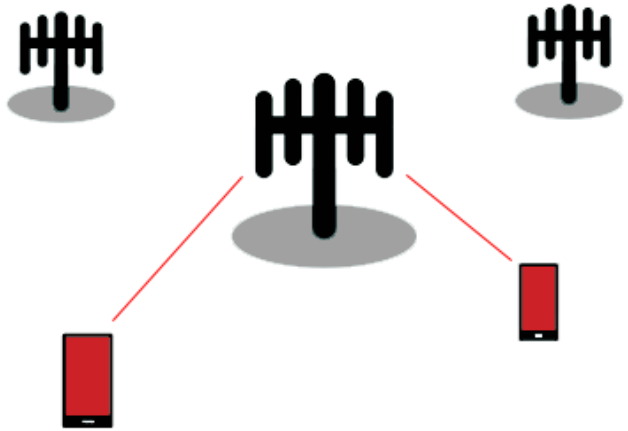
Private LTE Networks

- 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)

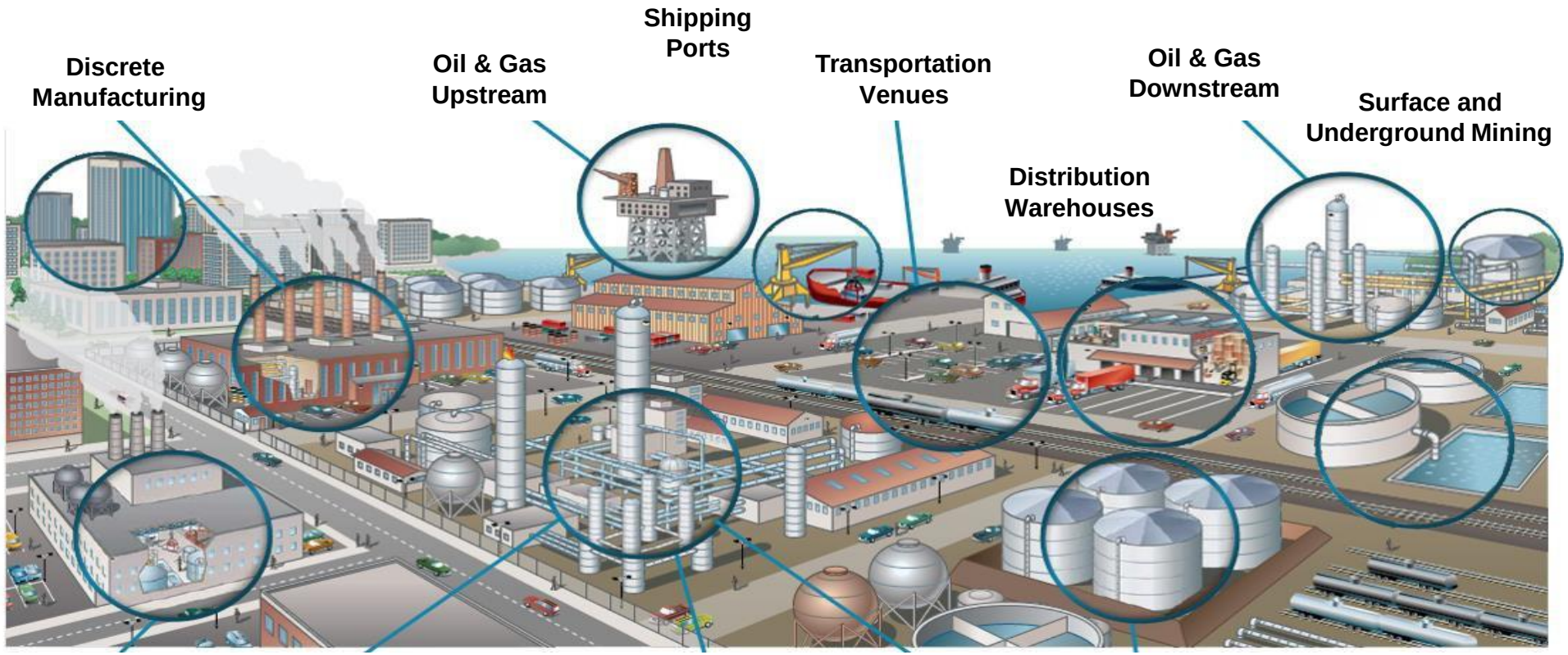


Image provided by Harbor Research

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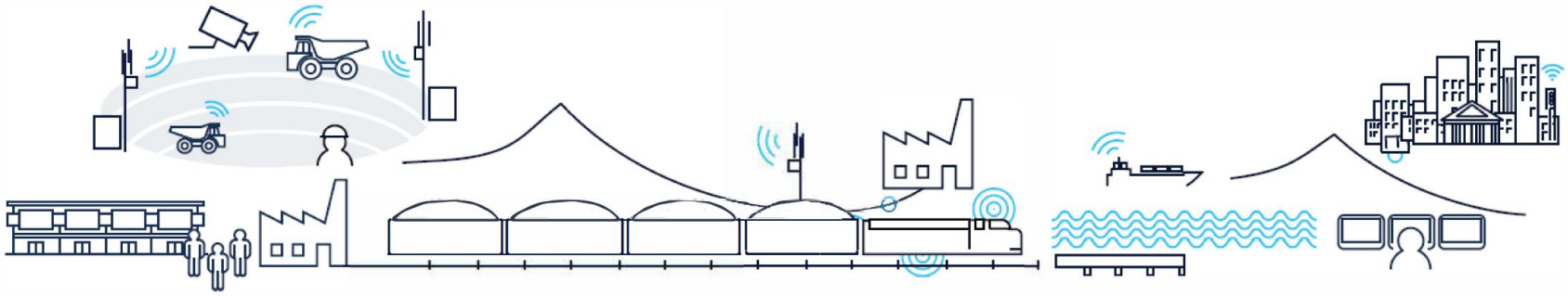
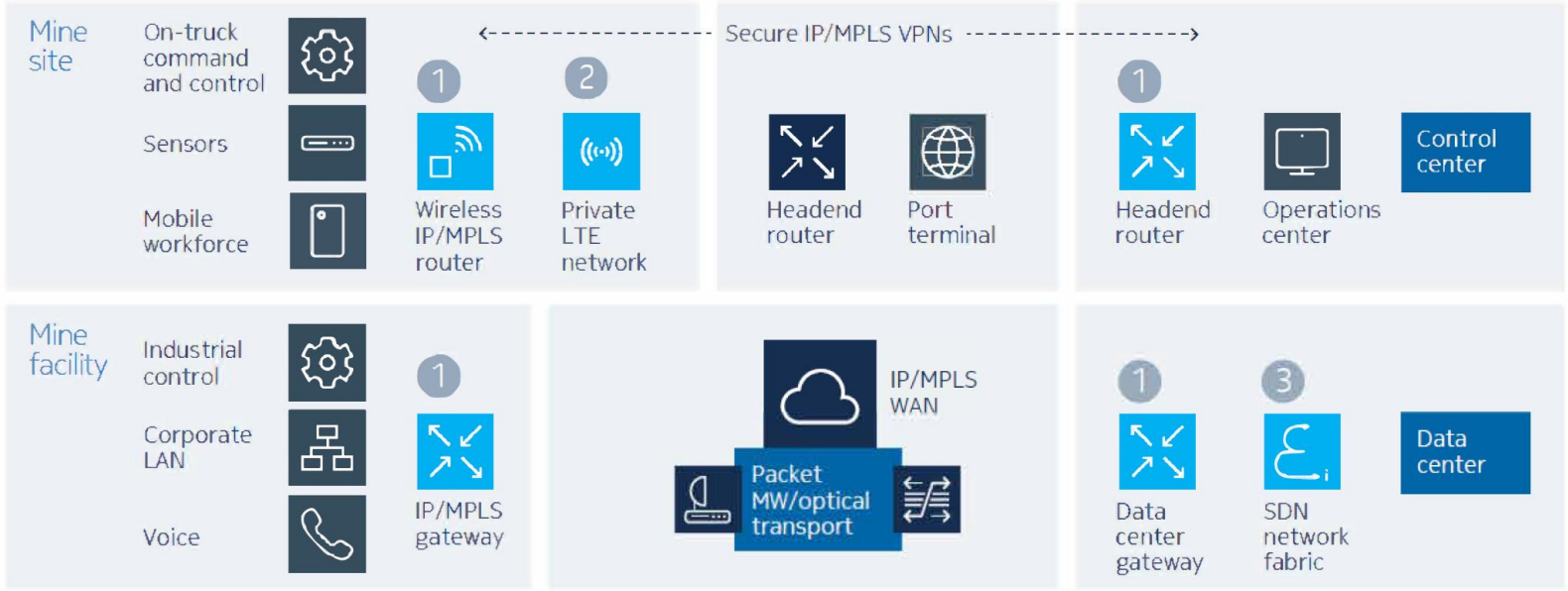
Mining Network
transformation blueprint

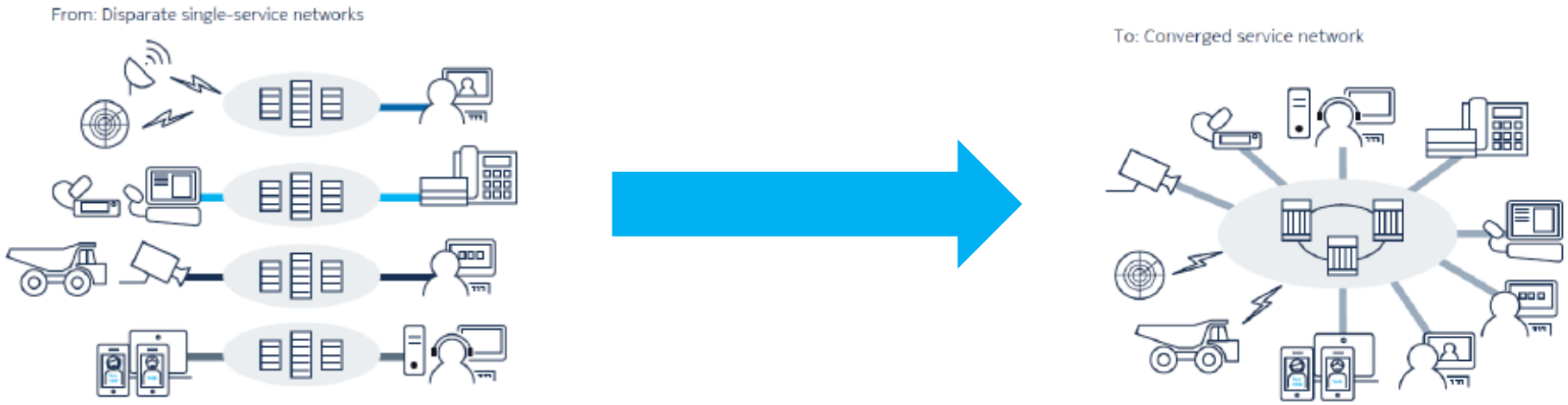




Transformation

The network is the nexus of the Industry 4.0 revolution

Digital technologies require ubiquitous broadband network infrastructure



The network needs to be resilient, QoS – enabled and secure

The network also needs to be smart to adapt to mining operations

PROJECT EXPERIENCE

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Husky Energy

Moose Mountain – LBVC1

Husky Energy

“On our Moose Mountain project Rigstar was more than accommodating when we had communication requirements. They were always available on short notice to provide service and/or equipment that met Husky’s requirements for this project”

- **Mike Weber, Logistics Coordinator**

- (2) Portable Towers – 106’ and 60’ (reduced footprint)
- Cellular Enhancement
- Remote Internet
- (4) VoIP Systems – Desk sets/Conference

TC Energy

- 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

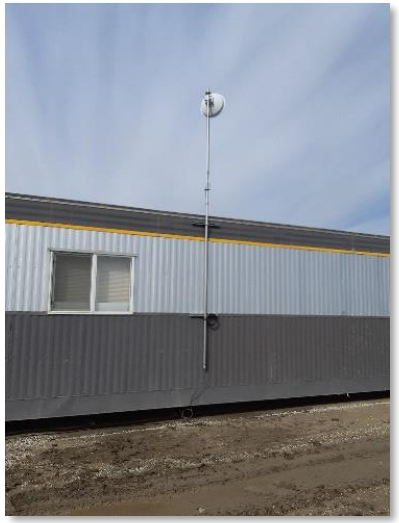
TC Energy

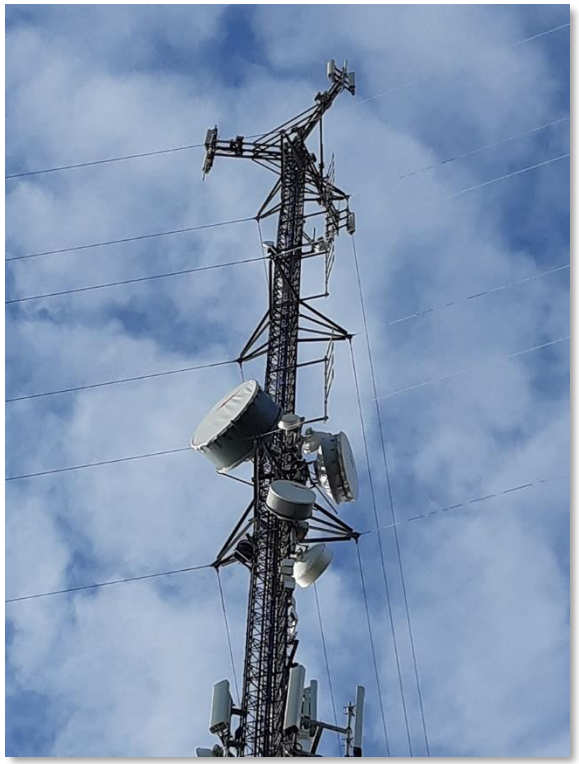
Coastal GasLink

CGL

- Telecom Service Provider (3-Year Contract)
- 12 Camp Sites (over 400 miles)
- High-Speed Fiber & Microwave WAN
- Two-Way Digital Trunked Radio Systems
- Business Office LAN, Video, Phone, and Print services
- Television Services (Headend assembly and installation)

Graham Construction

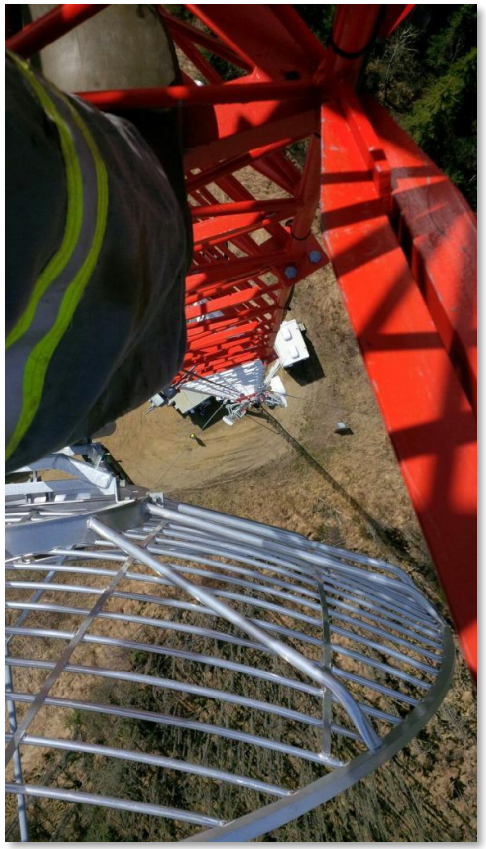




- WAN Deployment
- Installed and commissioned wireless PTP
- Scalable 200Mbps connection

Carmon Creek

Shell



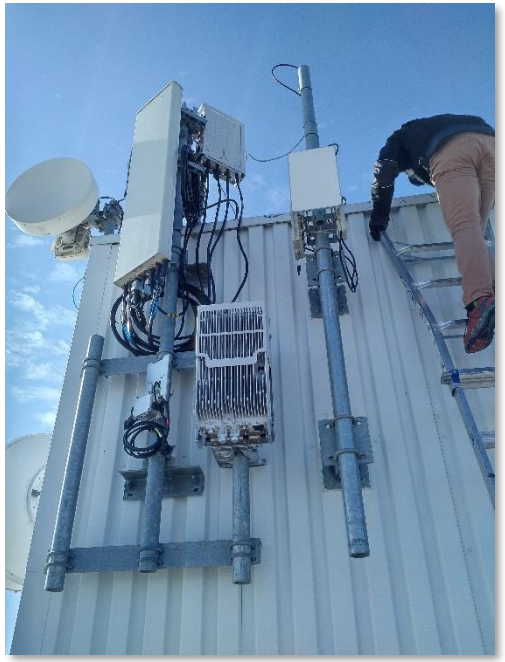
- BASE Station Installs
- RAS Antenna Installation
- RDL3000 Subscriber Units
- WAN – Installation & Support
- Worked directly with Shell’s network team and AT&T
- 24/7 Support

Civeo

Red Earth

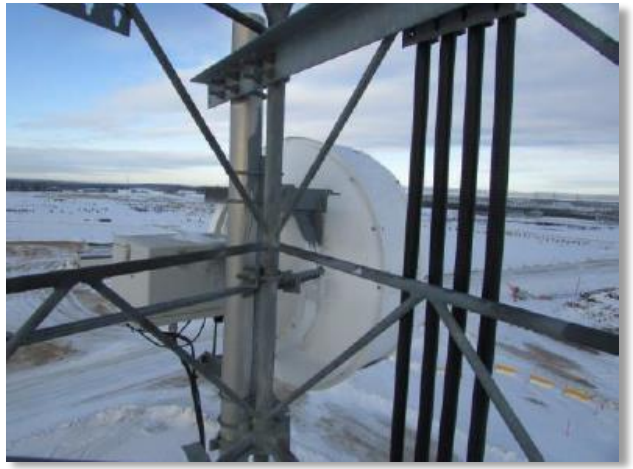
- WAN Design, Installation
- Tower Construction
- 24/7 Network Support

Freedom Mobile



- **ODU 2+0 Microwave**
  - Decommissioned existing radios, installed cabling and licensed radios
- **700MHz Upgrades**
  - Installed Antennas, AirScale Unit, OVP’s, Battery Bank, fiber installation
  - Cutover, PIM Testing, Antenna Sweep, OTDR Testing, Grounding
- **600MHz Upgrades**
  - Installed Antennas, DC Cabling, OVP’s, Fiber installation
  - Cutover, PIM Testing, Antenna Sweep, OTDR Testing, Grounding
- **Technical Support**
  - After hours troubleshooting – Microwave Links, Jumper Cables, Cabling

Suncor Energy



- **(8) Tower Inspections – Fort McKay**
  - Performed Tower Inspections, Engineered Drawings and Reports
- **Microwave**
  - Installed 3 Links
  - 24/7 Network Monitoring

TC Energy

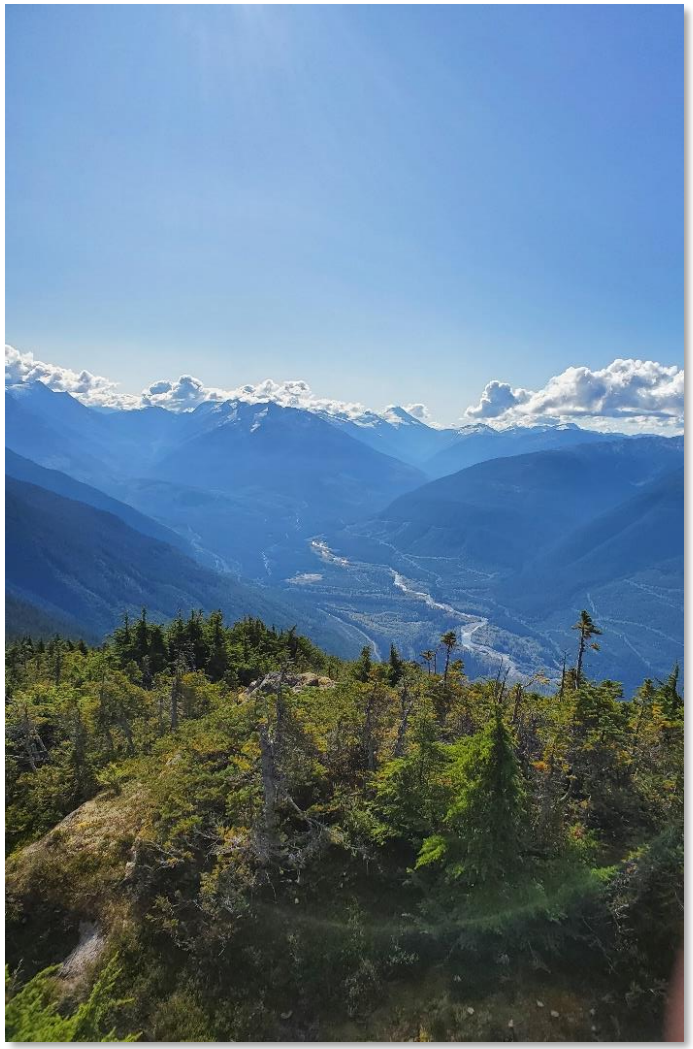
Coastal GasLink – Mountain Top Repeater

CGL

TC Energy

Coastal GasLink

CGL



TC Energy

Coastal GasLink

CGL

THANK-YOU

Questions?

RIGSTAR INDUSTRIALTELECOM