



## AltaLink

AltaLink, Canada's only fully independent transmission company, is responsible for the maintenance and operation of approximately 11,600 kilometres of transmission lines and approximately 260 substations in Alberta. Serving 85 per cent of Alberta's population, AltaLink provides a transmission system that continues to meet the growing electricity needs of Albertans.

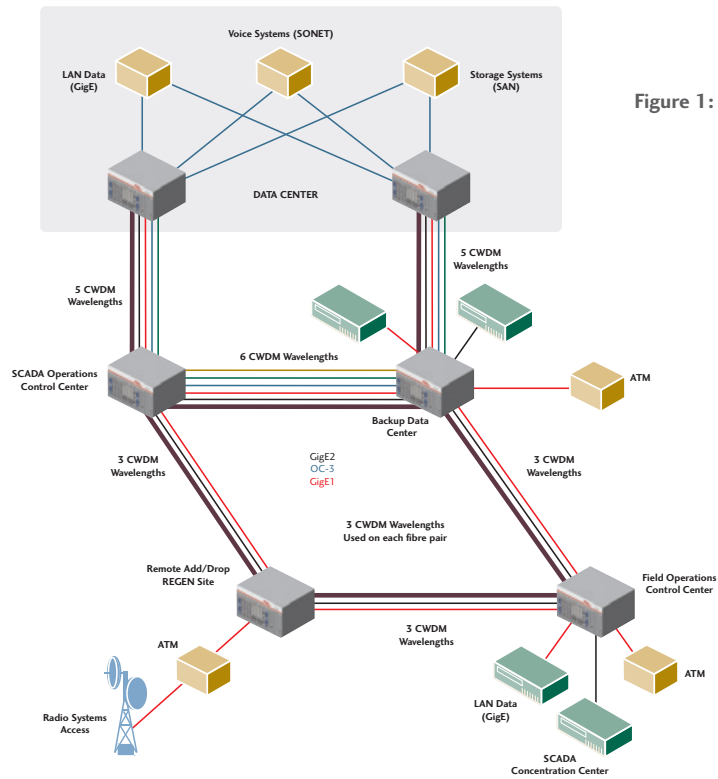
### BUSINESS ISSUE

Due to construction in Calgary, AltaLink's line-of-sight microwave system was faced with new obstructions. AltaLink needed a replacement network that would run its SCADA (supervisory control and data acquisition) system as well as run the corporate LAN.

### MERITON SOLUTION

The AltaLink application is a six-node network connecting locations around Calgary. AltaLink has deployed the Meriton architecture, comprising:

- 3300 OSM, metro access devices;
- 8600 NMS, network management systems; and
- 8300 EMS, element management systems



**Figure 1: Resilient Six-Node Network of 3300 OSMs.** Ethernet switches are used to aggregate multiple 10/100M Ethernet inputs from the corporate and SCADA networks onto Gigabit Ethernet optical signals carried over the CWDM backbone network. The Ethernet switches use fast spanning tree algorithms to protection switch data if a network failure occurs.

Long-reach CWDM SFPs provide regional distance support, plus they radically reduce sparing costs. The versatility of the 3300 OSM's optical fiber cross-connect (OFX) card allowed the same card type to be used across the network for both optical add/drop applications, and optical regeneration when required.

The CWDM transport solution provided by Meriton allowed legacy OC-3 level ATM voice/data transport, to be carried over the same fiber transport network, as Gigabit Ethernet for internal corporate email and Internet access, and Gigabit Ethernet SCADA control network traffic transport.

**BENEFITS**

- **Low total cost of ownership:** The Meriton systems provided the best balance between value and performance. The Meriton solution was more cost-effective than SONET, and provided increased capacity via leased fiber.
- **High level of scalability:** WDM provides outstanding scalability for AltaLink's network, with excellent options for future growth and expansion.
- **Fast installation:** AltaLink's network was installed in record-setting time, enabling the transmission provider to establish quick connectivity among its various sites.
- **Security:** Separate wavelengths offer network diversity (i.e. Corporate LAN is separate from SCADA network).

**TESTIMONIAL**

"Deploying a Meriton high-speed network has given us a resilient, high-capacity network that is flexible, scalable and most importantly manageable," said Clinton Struth, Senior Telecom Engineer for AltaLink. "It was a very positive experience for our team, and we believe the results give us the reliability and scalability we require in our market."



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**ABOUT MERITON NETWORKS INC.**

Meriton Networks Inc. has developed the industry's first unified end-to-end Agile Optical Networking (AON) architecture, a crucial element for carrier and enterprise migration to next-generation IP services networks. A flexible, scalable, future proof infrastructure capable of multi-service, multi-topology support, the Meriton AON architecture equips telecommunications networks with the capabilities needed for the Broadband Revolution, including rapid service deployment with one-time node engineering and zero-touch, automated provisioning under a unified control plane. With metro access, metro core and regional extension products, all fully managed by a best-in-class suite of network planning and management tools, Meriton Networks gives network operators a single source for the rapid, cost-effective delivery of high-speed services.

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