



“ALCATEL-LUCENT IS CHOSEN TO HELP ALTALINK IMPLEMENT THEIR DIGITAL NETWORKING STRATEGY”

Many electrical transmission providers such as AltaLink, Western Canada's only fully independent electric transmission company, are faced with the market environment where TDM and ATM availability is declining. Providers such as AltaLink also need to support the proliferation of new corporate video and data applications and are therefore looking at migrating their mission-critical services to a new network with attention to latency requirements, cyber security, and improved management. In addition, addressing greater regulatory requirements with more emphasis on reporting operating data is of growing concern.

The greater regulatory requirements placed more emphasis on AltaLink's ability to provision, manage and operate critical services while reporting actual operating statistics, and the necessity to adhere to reliability benchmarks for teleprotection (TPR), Supervisory Control and Data Acquisition (SCADA), or other services. Additionally, the company needed to maintain and migrate the services running on its legacy network and ensure cyber security during the transition.

AltaLink's decision to upgrade its operational communications network originally was triggered by the realization of pending obsolescence of the ATM and TDM solutions while other factors helped bolster the case for change. AltaLink had a need for more IP-based services and, because their division is an internal service provider to the various business units that use the network, they decided to implement a carrier-like model with centralized management and provisioning.

Working closely with Alcatel-Lucent, AltaLink built a compliant and cost-effective Internet Protocol/Multiprotocol Label Switching (IP/MPLS) infrastructure with a visually oriented network management system. With IP/MPLS, the available bandwidth is distributed between services as and when needed, creating unprecedented efficiencies. IP/MPLS is also the only IP based solution capable of supporting the demanding network requirements of today's utilities.

The centralized carrier model they implemented allows them to eliminate duplication in manpower and services for IP and SCADA management, provisioning and reporting. And Alcatel-Lucent's professional services lessened the learning curve for personnel and saved AltaLink a year on deployment.

Between April and September 2010, AltaLink deployed 24 nodes and migrated important services such as teleprotection onto its IP/MPLS network.

“Although this started out as an equipment upgrade, once we got our heads wrapped around the capabilities of MPLS centralized management technology, that certainly steered our strategic goals a bit,” says Clinton Struth, Principal Engineer, AltaLink “We knew that a few had gone down this path before us, but none with 100 percent of their services centralized under one network. It was a complete and utter migration to a new technology that we knew would pay off in a significant way. This was really a transformation.”

“We probably don't even know yet all the ways in which we are ultimately going to use this network,” says Clinton. “There are so many different solutions that are possible now that we couldn't do before. Since MPLS brings point to multi-point communications to the table, that in turn can be used to provide additional fault tolerance, redundancy and resiliency to any number of given services, whether voice, data or internet access.”

Alcatel-Lucent is very excited to be selected as the chosen vendor to help AltaLink implement their 'Digital Networking Strategy', this is a great endorsement of our IP/MPLS offerings and underscores this customers confidence in our ability to deliver” said Kamal Ballout, Vice President, Global Energy Systems Integration Division

What began as a maintenance upgrade driven by sourcing concerns has developed into a transformational change for AltaLink's communications and control network, yielding superior, centralized management of its transmission infrastructure to ensure more reliability, security and cost efficiency. By successfully engineering the network to support critical applications such as SCADA and teleprotection, this next-generation smart grid is fully addressing current needs -- supporting legacy assets while remaining flexible and ready for further smart grid enhancements in the future.

“I would challenge you to find another vendor that can match Alcatel-Lucent's offering in MPLS – a migration strategy, a legacy interface and even a new technology to ensure future capacity. It's pretty much unmatched in the utility industry.” said Clinton



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anywhere—empowering them to save energy and money every day. All while helping support your mission-critical operations with uncompromising reliability and security. With solutions running in more than 80 power grid networks, Alcatel-Lucent’s deep expertise is enabling smarter energy management and usage with smart communications – bridging the gap between energy and communications – and bringing the Smart Grid to life.

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