

Deploys RAD Solution for Data and Telephony Integration

Case Study



Deploys RAD Solution for Data and Telephony Integration Bolivian Electricity Company



RAD's solution enables technical and humanitarian assistance to be extended to rural communities and localities difficult to access geographically

Challenge

Ensure transmission and control of PLC and SCADA control systems between more than 15 sites.

Solution

Ethernet switches are connected to RAD's Optimux-XLE1 optical multiplexers.

Benefits

- Value added services such as subsidized public telephony and data can be introduced for the first time to isolated, rural communities.

SCADA and PLC Transported over Fiber Optic Infrastructure

The Bolivian Power Company (known locally as COBEE, the Spanish acronym for Compañía Boliviana de Energía Eléctrica) has integrated its SCADA, PLC, data information and telephony transport services by deploying Optimux-XLE1 optical multiplexers manufactured by RAD Data Communications.

The deployment resulted from COBEE's need to ensure transmission and control of the PLC and SCADA control systems networks, which are indispensable for electrical power generation and transport networks, while enabling value added services such as subsidized public telephony and data.

Connects More Than 15 Hydroelectric Generating Sites

COBEE's network is based on a drop-and-insert system that covers the company's fifteen-plus hydroelectric generation sites. It brings telemetry transport and control to energy systems, data access connectivity to Ethernet networks and public telephony services to areas of the country where they have been unavailable until now. An added benefit of this solution is that it enables technical and humanitarian assistance to be extended to rural communities and localities that are difficult to access geographically.

In addition, the Ethernet switches connected to the Optimux-XLE1 optical multiplexers concentrate video surveillance applications from the power generating stations. These are transported over the fiber network in tandem with other applications, which provides an additional level of security in preventing network failure and minimizing downtime.

Functions Flawlessly in Harsh Climactic Conditions

Despite the region's harsh climatic conditions and the severe electromagnetic radiation that affect the region in which the RAD equipment was installed and is now operating, the Optimux units coexist in a relatively aggressive environment, successfully meet all required operational standards and interact fully with adjacent application systems.



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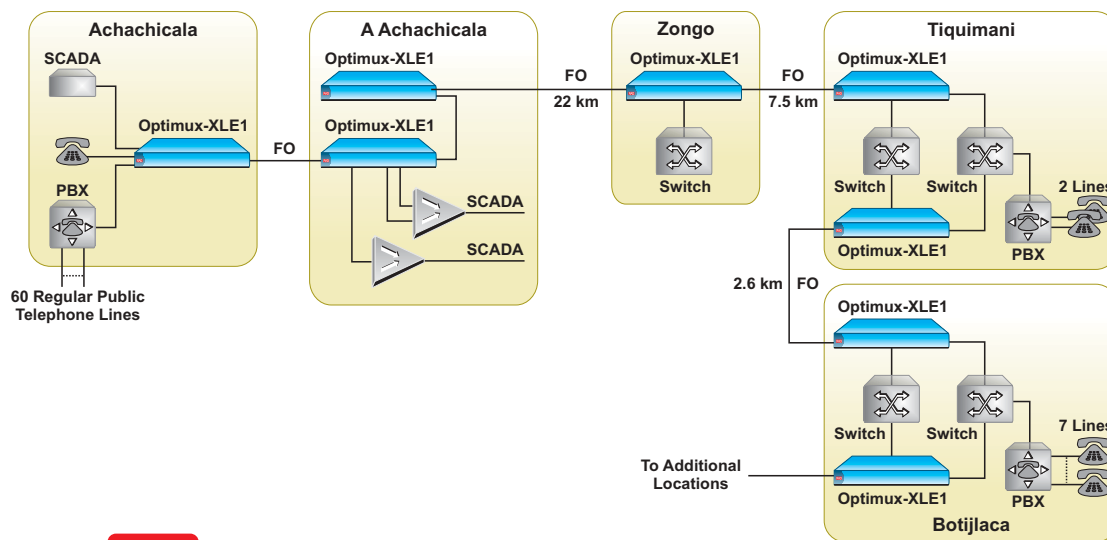
Eduardo Maradei, General Manager, RAD América Latina



“We’re always proud to hear that RAD technology responds to the diverse requirements and needs of our end users, but in this specific case, the benefits also resonate throughout the society as a whole,” stated Eduardo Maradei, General Manager of RAD América Latina. “With this solution, therefore, RAD is demonstrating its unwavering commitment to an evolution in technological innovations that are designed to improve client productivity while simultaneously promoting technology as a tool for social development,” Maradei added.

RAD’s local partner was Procom, its authorized distributor in Bolivia and the project’s integrator.

COBEE has a track record of 78 years in electrical generation, and is one of the leading electric energy firms to have made a significant impact on Bolivia through its social, economic and technological contribution to the country. Its holdings are comprised of ten hydroelectric plants in the Zongo Valley, four in the Miguillas Valley, a small facility in La Paz and the el Kenko thermoelectric plant, which has a total generating capacity of 240.5 megawatts. Over the past several years the firm has invested US\$70 million in expanding the capacity of the Zongo plants and US\$360 million in planning the expansion of the Miguillas plants.



data communications

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