

## Case Study

# Delivering Ethernet Services over SONET

## Delivering Ethernet Services over SONET Quantum Communications, Oregon, USA



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Patrick Cahill, Network Administrator, Quantum Communications

### Challenge

To cost-effectively deliver Ethernet services over a SONET network to widely dispersed rural locations throughout central Oregon

### Solution

RAD’s RICi-T1 provides an intelligent, easily managed and affordable solution to carry Ethernet services over a SONET network, while ensuring reliable Quality of Service (QoS) and remote management capabilities.

### Benefits

- Quickly and affordably extends an Ethernet service footprint to areas where deploying a fiber network is not economically feasible
- Fast ROI from additional revenue streams enabled by extended service capabilities
- Remote in-band management capability to eliminate costly “truck rolls” to distant locations
- QoS reliability for real-time voice and video applications

## ***RAD Cost-Effectively Extends Ethernet Service Footprint of Central Oregon Service Provider Running Ethernet over a SONET Network Brings Next-Generation Services to a Geographically Dispersed Region***

Quantum Communications is a competitive local exchange carrier (CLEC) serving the small cities and vast stretch of rural regions that comprise Central Oregon. With an installed fiber network connecting the city of Bend with the population centers of Redmond and Madras, Quantum provides businesses in these areas with everything from traditional TDM services to next-generation Ethernet and virtual private network (VPN) services.

While Quantum’s fiber network offers these services to the larger population centers, a key objective for Quantum was to provide out-of-network coverage for the surrounding, geographically dispersed regions not directly connected to their fiber network.

### ***The Powers of Management***

The answer to Quantum’s challenge was to leverage its extensive, existing TDM-based SONET network as transport for next-generation Ethernet services. After comparing RAD’s RICi-T1 with a selection of competitive products from other manufacturers, Quantum selected the RICi-T1 to carry out their objectives. “RAD’s RICi-T1 was chosen based on its feature set, as well as its attractive price,” states Patrick Cahill, Quantum’s Network Administrator. “When working with other vendors’ products in a bridging mode, they are not manageable in the way we need them to be” continues Cahill. “However, the RICi-T1 has the ability to transparently pass all the traffic, while still allowing us full remote control.”

The RICi-T1’s superior manageability greatly reduces Quantum’s maintenance costs and system downtime as they can troubleshoot network complications via an SNMP connection, a Web browser or Telnet from their central site. This enables them to manage customer located units remotely, saving expensive “truck rolls” for service visits.



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***“The installation is really simple, you can get a bunch of RICi-T1s ready in a short amount of time...and the learning curve is minimal. I could teach a novice how to use it in one half hour.”***

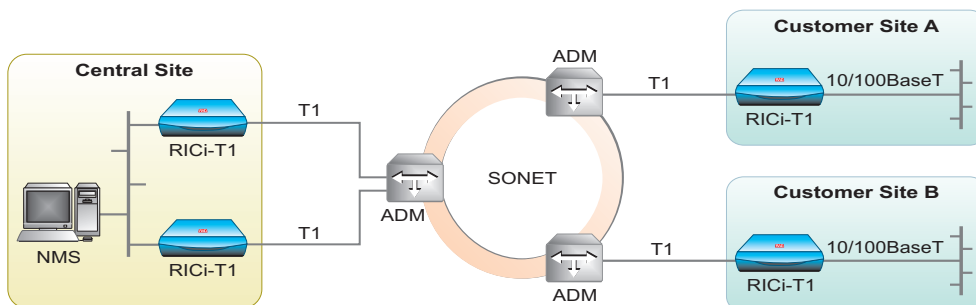
Patrick Cahill, Network Administrator, Quantum Communications



### ***Each According to Their Needs***

The RICi-T1 also enables Quantum to offer service level agreements (SLAs) with differentiated QoS levels. With SLAs, Quantum can offer customers like Central Oregon’s multi-location regional hospital the high levels of QoS necessary to provide real-time reliability for critical applications, such as medical seminar videoconferencing or data transmission for centralized, remote patient monitoring. Meanwhile, businesses with less urgent data transmission needs, for applications like email and general Internet access, can subscribe to a less stringent and less expensive SLA.

Differentiated SLAs mean that each customer pays only according to their specific needs; not an averaged flat rate that overcharges some and undercharges others. Better still, as a customer’s data transmission needs change, so can their SLA...with just a few strokes of the keyboard. The RICi-T1 not only enables Quantum Communication to deliver leading-edge next-generation data communications throughout the rural Oregon service area, but also to attract and maintain customers with a range of competitive rates.



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