DragonWave

Rural Electric Utility Boosts Capacity and Reliability of SCADA Network with Packet Microwave

Case Study

Fast Facts

Customer:
• Forked Deer Electric Cooperative

Solution Provider:
• Future Technologies
  www.futuretechllc.com

DragonWave Solution Highlights:
• Horizon Compact
• Zero-footprint, all-outdoor
• Rapid deployment
• 400 Mbps scalability
• Low latency
• Advanced QoS support with 8 levels of prioritization

Benefits:
• Highly scalable future-proof network for SCADA and IP video surveillance traffic
• Lowest total cost of ownership

Background

Forked Deer Electric Cooperative is a rural utility providing critical services to approximately 10,000 homes spanning several counties in the state of Tennessee. With 8 substations spread across a large territory, Forked Deer was in need of a highly reliable, yet cost effective, network solution to interconnect these sites.

Challenge

Forked Deer's network, which consisted primarily of legacy unlicensed wireless, was notoriously unreliable and could no longer handle increasing Supervisory Control and Data Acquisition (SCADA) traffic demands. In addition, the utility was planning to deploy IP surveillance cameras at each of its substation sites, driving the need for much more capacity and significantly improved latency performance.

To improve their substation communications network, Forked Deer opted to establish high-capacity links to each site. Deploying fiber to every site was problematic due to high cost for longer spans and right-of-way restrictions which prevented running fiber to some locations. Forked Deer determined that a high-capacity wireless solution would help it cost effectively reach all of its substation sites. However, the long spans and high reliability needed, meant that only a licensed point-to-point microwave system would meet their requirements.

"We were looking for a dependable solution for our mission critical data to be delivered at fast data rates and high availability. Through our review of the available products in the market place, Dragonwave differentiated themselves via their product portfolio and overall customer service. **"**

- Brian Vaughn, IT Supervisor, Forked Deer Electric Cooperative

Operating in licensed frequencies from 6 to 38 GHz, the Horizon Compact is a high-capacity, packet microwave system with improved efficiency and simplified operations. Because the radio and modem are integrated into a single outdoor unit, Horizon Compact is a zero footprint solution – eliminating rack congestion and minimizing collocation space.

Solution

HORIZON COMPACT

SOLUTION

Working with integration partner, Future Technologies, Forked Deer evaluated several vendors before selecting DragonWave's Horizon Compact solution. "We selected the Dragonwave's Horizon Compact product to address the required capacity flexibility, as well as the rapid deployment requirement. Through the software scalability and it's all outdoor form factor we were able to meet these requirements from Forked Deer", said Chris Cappiello, Business Development Manager at Future Technologies. The Horizon Compact provides several important benefits to the Forked Deer Electric Cooperative:

High Reliability & Availability	• Mean Time Between Failures (MTBF) of over 68 years • Multiple protection options for carrier-grade availability.
Packet-Based	• The Horizon Compact is a native IP solution, optimized for packet-based traffic.
Flexible Deployment	• Horizon solutions available in all-indoor, split-mount and all-outdoor configurations
Rapid Installation	• Horizon systems can be deployed in days, compared to 6 months or longer for wired solutions
Low Latency	• Ideal for real-time applications including IP video
Remote Scalability	• The Horizon Compact supports on-demand remote scalability up to 400 Mbps per radio.
Cisco Certified Solutions	• DragonWave is a Cisco Developer Solution partner, ensuring seamless connectivity with Forked Deer's Cisco fiber WAN.

SUCCESS STORY

With its new network in place, Forked Deer is enjoying a new level of capacity and reliability that easily supports its growing SCADA and IP video traffic while offering plenty of scalability to enable future services.

"**The DragonWave solution gives us the scalability we need to meet all of our future capacity requirements, while delivering excellent network performance and availability. Installation of the system was very simple; we were up and running in a matter or hours."**

- Brian Vaughn, IT Supervisor, Forked Deer Electric Cooperative

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