Midwestern Health Insurance Company Builds High-Speed Network

Priority Health used the reliability and scalability of a fully meshed MPLS network to connect its multiple sites.

EXECUTIVE SUMMARY
PRIORITY HEALTH • Health Insurance Provider • Grand Rapids, Michigan, USA • 460,000 members
BUSINESS CHALLENGE • Connect multiple remote locations • Achieve high-speed connectivity with QoS • Enable VoIP and video
NETWORK SOLUTION • Fully meshed MPLS VPN Network
BUSINESS RESULTS • Improved productivity • Voice and video with QoS • Positioned for rapid, cost-effective growth

Business Challenge

Founded in 1986, Priority Health is a nationally recognized health insurance company, with headquarters in Grand Rapids, Michigan. As part of its corporate goals to expand its service territory, Priority Health acquired non-profit Care Choices in 2007, and immediately began planning for integrating Care Choices facilities in Farmington Hills and Jackson, Michigan with three other existing locations. In the process, Priority Health's Network Engineering Team identified a number of key characteristics required of the planned implementation.

The first requirement was that their packet-switched network must have Multiprotocol Label Switching (MPLS) as the foundation for data transport. "We were already using MPLS for our intranet," says Priority Health IT Manager, Jake Roersma, "so we were comfortable with its any-to-any access method, cost-efficiency, and ability to be easily segmented." High-speed connectivity to the remote offices was also necessary for a company that transmitted reams of virtual paperwork daily, where even small increases in throughput have a big impact on productivity.

Adding to the volume of network data was the fact that Priority Health had made adoption of Voice over IP (VoIP) a strategic focus, with eventual deployment to all locations planned. Future rollouts also included video to enable the time and travel savings of videoconferencing. Both video and VoIP required Quality of Service (QoS) to be implemented across the network to protect against poor user experiences.

Finally, the new implementation required characteristics of Disaster Recovery (DR) and security. Priority Health already maintained a Data Center (DC) in Grand Rapids; the Care Choices acquisition delivered a second DC. "We specified a Dual Entrance fiber build at both DCs, so we could accommodate a number of connectivity options," says Roersma, "and provide virtually instantaneous failover if there were any disruptions at either DC."

> **"US Signal had not built a solution like this before. But, based on prior experience, we knew they could manage it successfully."**
> — Jake Roersma, IT Manager, Priority Health

Network Solution

Though Priority Health considered other options, including Layer 2 Ethernet, the company ultimately opted for MPLS. "We'd already self-deployed MPLS at our main campus in Grand Rapids, so having a full carrier-supported MPLS scenario was appealing," says Roersma. Roersma contacted US Signal Company, a Midwest-based telecommunications infrastructure provider of network services, IP transport, and collocation facilities.

"There were some challenges," says Pamela Ouvry, US Signal Company channel manager. "They needed a quick turnaround and a very competitive price. They'd just acquired the Care Choices facilities and needed them connected by August 1 the following year, which gave us only about 20 weeks." Plus Priority Health insisted on a Carrier Supporting Carrier (CSC) Virtual Private Network (VPN) model that allowed Priority Health to interconnect their MPLS networks over a provider MPLS backbone, eliminating the need for Priority Health to build and maintain their own MPLS backbone. "It made sense, but for us it was an approach that we'd never tried before, so we made sure to apply extra time and attention," says Ouvry. After mulling numerous options, Priority Health selected US Signal based largely on successful past engagements and US Signal's promise to have the facilities fully networked by the looming August deadline.

US Signal won the contract largely because it won Priority Health's confidence. It started because Priority Health and its parent Spectrum Health have built their own infrastructures based on Cisco® products and technologies, making network integration a much simpler task. In addition, Priority Health had previously engaged US Signal, and that relationship worked out so well that Priority Health had full confidence that US Signal could fulfill the terms of the contract.

An essential element to the solution is the unique partnership between US Signal and Cisco. "Our solutions," says Ouvry, "are delivered over a Cisco IP Next-Generation Network that is reliable, scalable, and flexible enough to grow with customers to meet evolving needs." "But also key," says Roersma, "is that US Signal is a smart, nimble company; if they don't have a standard product, they'll create it."

US Signal (www.ussignalcom.com) is a full-service fiber optic solutions provider, offering a wide range of carrier class telecommunications solutions to carrier, wholesale, and enterprise customers. The company has built and developed one of the most comprehensive fiber optic

networks in the Midwest. As a full-service solutions provider, US Signal offers unlimited high-speed capacity, dark fiber, and collocation services, and also works with customers to design and build new network construction projects.

Priority Health and US Signal agreed to deploy the CSC option, connecting sites in Farmington Hills, Holland, Jackson, and Traverse City, Michigan, as well as the two DCs in and near Grand Rapids. All network traffic was to be routed through the US Signal mesh network, or cloud, to help ensure optimal resiliency in the event of a network interruption. Another important element of the solution was the addition of a QoS add-on to every circuit to supplement voice and video traffic and prioritize enterprise applications.

> **"Priority Health liked the solution, not only for the bandwidth and QoS, but the reliability and DR of mesh connectivity. This solution can grow as their needs grow."**
> — Pamela Ouvry, Channel Manager, US Signal Company

Prior to turning up the service, US Signal needed to upgrade equipment at both DC sites, including router enhancements and fiber builds. "It began with a substantial hardware upgrade on the existing Cisco core and edge routers," says Ouvry. "We went from point-to-point circuits to a combination of DS3, Gigabit Ethernet, Ethernet over TDM, and more to handle virtually any access method imaginable; it's really an incredibly flexible architecture." Additional upgrades included migration to new Cisco 7609 SIP/SPA (SPA Interface Processor cards/Shared Port Adapters) technology to accommodate these connections and create an extensible design enabling voice, video, and data service prioritization. "The rest was a simple turn-up of the service, which we planned to do within hours of the site work being completed," says Ouvry.

In fact, not only did US Signal complete the hardware upgrades and fiber build on time, it was accomplished a full two weeks ahead of schedule. "We really appreciated the team effort at US Signal," says Roersma. "Getting us connected so much quicker than we'd planned allowed us to start realizing productivity gains and DR capabilities that much sooner."

Business Results

Priority Health has identified two primary benefits since the implementation: end users report that their online services are noticeably faster, making them much more productive. And on the technical side, IT staff has been able to better utilize centralized deployment of enterprise desktop applications, such as adjudication programs, to end-users over MPLS.

One of Priority Health's goals for VoIP was to create a centralized contact center where calls could be answered in a standardized way, promptly and effectively. Today, all calls are routed into one of two DCs and then forwarded to offices in Farmington Hills, Grand Rapids, Holland, or Traverse

City, depending on the caller's origin and service needs. "We've gotten a lot of compliments on the overall voice quality. That's especially helpful since we're tasked with maintaining the customer contracts we acquired from the Care Choices merger, so we're able to offer Care Choices clients a continuity of quality service," adds Roersma.

Adding another layer of confidence to the solution is Priority Health's new DR posture, especially regarding the contact center's ability to continue receiving calls in the event of a network failure. "That's the beauty of MPLS over a mesh network," says Roersma. "In the event of a disruption, the network reroutes itself in milliseconds, and calls are not dropped."

Next Steps

Service area growth remains a core strategy for Priority Health, and over the next couple of years, they hope to add a number of new sites to serve their growing subscriber base.

> **"Opportunities like this present the chance to take the solution further."**
> — Jake Roersma, IT Manager, Priority Health

"We've got a couple of new projects that we're starting now," says Roersma. "We're expanding the reach of our videoconferencing technologies into a couple of sites with video cards. And, with the inherent ability of MPLS to provide logical segmentation of traffic, we're creating a better guest network for our partners, vendors, and guests. Opportunities like this present the chance to take the solution further."

For More Information

To find out more about the innovative solutions Cisco is delivering to the Healthcare industry, visit http://www.cisco.com/web/strategy/healthcare/index.html. You will discover how today's collaborative Connected Health community uses Cisco Medical-Grade Network solutions to help improve caregiver efficiencies and enhance the patient experience.

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