

Dental Provider Gains Efficiencies With Converged Network

Willamette Dental improves productivity and support for growth with Cisco-based voice and data network solution from Qwest.

EXECUTIVE SUMMARY
<p>WILLAMETTE DENTAL</p> <ul style="list-style-type: none"> • Industry: Healthcare • Location: Hillsboro, Oregon • Number of Employees: 1,300
<p>BUSINESS CHALLENGE</p> <ul style="list-style-type: none"> • Productivity of dental office staff was hampered by lack of adequate phone service • Network capacity limited growth, and lack of redundancy put company at risk for business disruption • Company lacked the capacity and resiliency to implement electronic dental records application
<p>NETWORK SOLUTION</p> <ul style="list-style-type: none"> • Cisco switches and routers reduce equipment needs while adding more capabilities and improving manageability • Cisco IP phone system provides enhanced call features, a common phone system across the enterprise, and survivability in the event of outages
<p>BUSINESS RESULTS</p> <ul style="list-style-type: none"> • Cisco phone system is saving more than US\$85,000 a year in staff time previously spent checking messages and routing calls • Monthly long-distance bill for enterprise has gone from US\$13,000 to US\$8,000. • Total monthly cost of the network has decreased by 15 percent, while providing triple the bandwidth to support growth

Business Challenge

Willamette Dental is making a lot of people smile in the Northwestern United States, and may eventually change the face of dentistry around the country. The company's founder, Eugene Skourtes, broke with the long-standing model of independent dental offices by offering managed care over fee-for-service. Skourtes believed that this model would provide a stronger financial incentive for promoting healthy teeth, as well as making expensive dental procedures more affordable.

When Willamette Dental opened in 1970, it had one office in Portland, Oregon. Today, the full-service dentistry organization has more than 60 offices throughout Oregon, Washington, Idaho, and Nevada. All appointments are scheduled through a call center in Hazel Dell, Wash. where courteous agents are available six days a week to answer as many as 72,000 calls a month from 350,000 patients.

While the company was expanding, its voice and data facilities were falling behind the technology curve. When Don Mason joined the company as IT director in 2005, he immediately began making lists of all the areas where their infrastructure was failing

to keep up with the growth of the business. "Each office had its own phone system, and we could only manage a handful of them remotely," says Mason. "The dental offices had limited intra-company calling capacity and the few lines were continuously in use. Administrative offices could transfer patients to local offices, but not the reverse, so the patient had to hang up and dial back in—not good customer service. We had limited voicemail in the dental offices, and no message-waiting indicator light on the phones that had it, so users were constantly checking voicemail to see if they had messages."

In addition, the administrative centers were using a seven-year-old private branch exchange (PBX) that had not been updated since it was installed. Mason calculated that it would cost US\$250,000 just to bring the system up to date and implement a comprehensive maintenance plan.

“We were not just solving an old problem with our network. We were building an infrastructure that would take us into the future and support our continued growth”

—Don Mason, Director, Information Technology, Willamette Dental

Two weeks after he joined the company, Mason was informed that the company's corporate office was relocating from Beaverton, Ore. to Hillsboro, Ore. “Immediately I recognized the opportunity to collapse many different projects into one, and upgrade our whole network as part of this move,” says Mason.

The headquarters move also triggered another unplanned move: IT decided not to set up its own data center at Hillsboro, but decided midway through the project to co-locate its data center, adding a new location to the network.

Network Solution

The IT team's list of projects included migrating 65 different phone systems to one common voice over IP (VoIP) phone system, as well as replacing the point-to-point Frame Relay Network connecting all offices with a more resilient, mesh Multiprotocol Label Switching (MPLS) network. “Once we decided to go with MPLS, we also decided to deploy full T1 lines to every dental office. We wanted to solve today's capacity constraints, but we were also thinking ahead to our VoIP and electronic dental record projects.”

Mason's IT team knew that they wanted to standardize on Cisco® Unified Communications voice and data systems. “I have a high degree of confidence in the Cisco brand, particularly the reliability of their equipment,” says Mason. “Having one management language with Cisco IOS greatly simplifies our day-to-day administration. I also like the fact that their equipment has so much functionality. I have a router and a switch that handles both voice and data traffic, so I don't need to install a phone switch. Before we standardized, we probably had 15 different switch types and five router types from different vendors. Some were unmanaged. Now we have four switch and router models from Cisco, and all of them can be managed remotely. The Cisco Unified Communications Manager has a Web-based interface, so we can administer the phone system from anywhere. Because we can manage all of the equipment centrally, my team is not traveling to remote locations all the time. We standardized our environment and maximized our manageability.

“We also got a very competitive offer from Cisco Financing, so we were able to finance the network through Cisco,” says Mason.

One of the IT group's highest priorities for the new network was to improve resiliency and survivability. Mason recalls being in a managers' meeting where they were debating the need to upgrade the network to protect against service outages. The very next day the company experienced a 34-second power outage at the Beaverton location. It took the phone system down, which took the call center down. “It took us a whole day to fully resolve the problem” says Mason.

Mason's team was still in search of a local service provider to partner with on the implementation, and they turned to Qwest. “They knew the Cisco equipment and had expertise in both voice and data, as well as multisite deployments, which was a perfect match for our needs,” says Mason.

“They were also willing to do a tremendous amount of knowledge transfer about the Cisco phone system, so that we could handle as much of the ongoing maintenance as possible.”

The Cisco Unified Communications Manager cluster was brought up first for the Hillsboro corporate office during June. The dental office installations followed at a rapid rate of ten to twelve per week, followed by the Hazel Dell call center in mid-August. The data center was moved over the Labor Day weekend, and the company moved to its new headquarters at the end of September. “We never missed a beat—everything was on schedule,” says Mason.

The Cisco 3845 Integrated Services Routers serve as DS-3 endpoints for the data center and Hazel Dell call center. The routers also aggregate 11 PRI circuits.

Business Results

The president of the company was away during the headquarters move. Assuming that such a massive disruptive in operations would be fraught with problems, the first question that he was asked when meeting with some of his peers was, “How badly did the move go?” His answer was, “Fine, no problems that I’ve heard of at all.” Mason’s team takes that to be the ultimate compliment on how well the move was planned, how perfectly the new systems performed, and the quality of support they received from the Qwest-Cisco team.

There are more quantitative results, too.

The total cost of the network has decreased by 15 percent, while Willamette Dental has tripled its bandwidth to support growth. The network has given the company business continuity assurance that it lacked before. “I have one vendor for hardware and one vendor for data & voice, so when things go wrong, I don’t have to worry about vendors pointing fingers at each other when there is a problem. I just get results. The Cisco-Qwest partnership has been very good for Willamette Dental.”

Long-distance call costs have dropped by up to US\$1.5 cents a minute — a typical monthly long-distance bill went from US\$13,000 to US\$8,000. Mason expects to bring more savings to the company by adding Web conferencing to the network by year’s end, which would allow the company to hold its quarterly managers’ meetings over the Web. “Over 120 people attend that meeting, so it would save us an enormous amount of money and travel time when we can conduct these meetings over our network.”

Offices can now transfer calls anywhere in the company. Anyone who has voicemail has a message-waiting light on the phone. These might seem like minor contributors to company success, but minutes add up, as Mason demonstrates when he calculates that the time wasted by personnel throughout the company dialing in for phone messages added up to a whopping US\$63,000 a year in staff time. He also estimates that the company is saving US\$25,000 annually in staff time previously spent just routing phone calls.

“We also have a dialing plan with a long view now. We have 60 offices now, but we could grow to 100 offices in the next 10 years. Now we have a phone system that will take us there and well beyond,” says Mason. “We were not just solving an old problem with our network. We were building an infrastructure that would take us into the future and support our growth.”

Next Steps

At the present time, the remote dental offices all maintain paper-based records. Willamette Dental plans to go paperless with electronic dental records across the organization. “When you have 60 offices across multiple states, you need to be able to transfer charts around in emergency

situations and for consultations. In addition, we have internal functions like auditing and patient relations that need access to chart data. It would save a considerable amount of time if they didn't have to travel to review charts," says Mason. "We expect to add another 10-20 PCs per office when we go live with the eDental deployment," says Mason, "and now we have the foundation to support the next leap forward."

PRODUCT LIST

Routing and Switching

- Cisco Catalyst 3560 Series Switch
- Cisco Catalyst 6509 Series Switch
- Cisco 2811 Integrated Services Router
- Cisco 3845 Integrated Services Router

Voice and IP Communications

- Cisco Unified Communications Manager
- Cisco Unified IP 7900 Series
- Cisco Unity
- Cisco Unified Contact Center Express

For More Information

For more information about Cisco Integrated Services Routers, go to: <http://www.cisco.com/go/isr>

To find out more about Unified Communications, go to: <http://www.cisco.com/go/unifiedcommunications>.

For more information about Cisco Catalyst Switches, go to: <http://www.cisco.com/go/catalyst>



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