

Optometry Clinic Improves Efficiency with Converged Network

Coldwater Vision Center improves productivity and simplifies administration with a converged voice and data network from Critical Edge Tech.

Executive Summary
<p>Coldwater Vision Center</p> <ul style="list-style-type: none"> • Healthcare • Coldwater, Mississippi • 12 employees
<p>Challenge</p> <ul style="list-style-type: none"> • Center needed to meet government and agency requirements while growing the business • Phone system lacked communications features and hampered productivity • Satellite office not connected by WAN or to the phone system
<p>Solution</p> <ul style="list-style-type: none"> • New network infrastructure to support converged voice and data network • IP telephony for a standardized phone system across the enterprise and enhanced call features • New voice and high speed Internet termination points
<p>Results</p> <ul style="list-style-type: none"> • Solution fosters a stronger professional culture and improved patient service • Unified Communications connects offices, saves on toll calls • Administration simplified for converged voice, data, wireless, and video network • Solution supports and enables ongoing implementation of electronic medical records

Business Challenge

The partners at Coldwater Vision Center were grappling with a problem common to many small medical service practices. The technology requirements of their optometry practice and administrative demands continued to grow. As a small center, with two locations in northern Mississippi, Coldwater Vision tended not to fit a specific category when it came to technology.

“We were too small to get help from the big companies, but too big not to have the technology in place,” says Dr. Kristopher May, managing partner at Coldwater Vision. “We needed a technology remodel, but the investment it required was a substantial amount of money for us. I felt like we were in a position that was becoming increasingly difficult.”



The center's aging phone system had reached its limits, with a lack of support for voicemail and after-hours call service.

These two areas were critical to the center's ability to provide high levels of patient care and to meet the terms of insurance contracts. When the phone system went down, the center could not get service response quickly enough. They found themselves spending hours dealing with technical support, time that would be better spent focusing on patients and the business. They even looked into hiring a full-time IT person, but could not afford to pay for the level of data expertise they needed. The center also needed a better way to handle patients who called in with after-hours emergencies, not just to provide the high level of customer and patient care it strived for, but also to meet the terms of insurance contracts.



Medical services practices, such as Coldwater Vision Center, are finding themselves in a rapidly changing environment that includes government pressure to implement Electronic Medical Records (EMR) systems, increasing standardization of information for insurance and billing, and Health Insurance Portability and Accountability Act (HIPAA) regulations from the federal government. In addition to these challenges, the healthcare industry is adopting new technologies, such as Picture Archiving and Communications Systems (PACS), which require a strong network foundation. The clinic's existing network could not support the bandwidth required to transmit the retinal scans that have become an integral part of their optometry practice. Further, insufficient power conditioning left their network equipment vulnerable to damage after electrical surges. Dr. May and the Coldwater Vision partners committed themselves to getting the right technology in place to meet the growing requirements of the medical industry while expanding the business.

For help they reached out to Critical Edge Tech, LLC, a Cisco® Premier Certified Partner with specializations in Express Foundation and Express Unified Communications, headquartered near Memphis, Tennessee.

"We market only to businesses in the SMB space," says Michael Allsup, chief manager of Critical Edge Tech. "We followed Cisco closely as it increased its focus on this space. There are a lot of SMB-sized organizations within 100 miles of Memphis, and we have really focused our product expertise to serve these businesses."

Solution

In reviewing the center's existing phone and network, and speaking extensively with the partners and staff, Critical Edge got a thorough understanding of the business needs and how the center could use wireless access and improved security. Allsup and the Critical Edge team recommended the Cisco Smart Business Communications System as part of a converged voice and data network solution for Coldwater Vision.

"The Smart Business Communications System was the best fit for Coldwater Vision," says Allsup. "It handles the data, voice, wireless, security, and video all in one appliance. It addressed all of Coldwater Vision's pain points with a new, robust infrastructure to support growth."

The project started with deployment of a network infrastructure to support the converged solution. This infrastructure included new cabling, rack, patch panel, cable manager, and uninterruptible power supply to increase speed, add more capabilities, and improve network manageability. New Cisco switches and routers were deployed including a Cisco Catalyst® Express 500 Series switch with Power over Ethernet (PoE) and a Cisco 871 Series Wireless Router. The Cisco Unified Communications 500 Series for Small Business, running Cisco Unified Communications Manager Express, was chosen to provide IP telephony service with enhanced call features and standardized phone service across all Coldwater Vision Center locations. The solution also included Cisco Unity Express for integrated voice messaging, Cisco Unified IP Phones 7970 series with color touch screens, and Cisco IP Communicator to bring SoftPhone capabilities to PCs. New voice and high speed Internet termination points were arranged with the local service provider. Cisco 521 Wireless Access Points were deployed to support staff mobility, and Axis PoE video cameras provided enhanced security in the center's lobby and parking lot.

Critical Edge also chose the Cisco Monitor Director, an automated remote monitoring tool designed specifically for SMB-focused Cisco Partners and IT service providers that enables Critical Edge Tech to provide the center with comprehensive 24-hour remote real-time monitoring and management of data and voice services.

“We really felt this investment was critical for our business, but it was a major financial commitment for a business our size,” says Dr. May. “Cisco Capital did a great job working with Critical Edge to identify promotions that we were eligible for and enabling us to build in three years of Cisco SmartNet service. It really shows the completeness of a Cisco solution, from pre-sales, to working with Critical Edge to identify the best solution, to working with us on financing. Should something go wrong, we have rock-solid service to back us up.”

Results

“We have gone from days where nothing worked to everything working perfectly, every day, all the time,” Dr. May says. “We have gone through lightning strikes and power outages with the new system with no problems. The network is faster, it doesn’t crash, and we have this elegant system that enables us to put forth a very professional image.”

Dr. May admits that the idea of running a phone system on a network made him nervous. “We are out of business without a phone. We absolutely rely on a phone to bring in business and to provide service to our patients,” he says. “It just took time to learn the differences and understand how VoIP works.”

Now Coldwater Vision Center can connect to its other office 60 miles away with three-digit dialing. Dr. May says that it has unified the offices while saving money on toll calls. When a phone needs to be moved to a new area, they no longer need to pay someone to come in and move it. They simply carry the phone to the new location and plug it in.

“The Cisco solution enables us to provide our patients with a continuity in care,” says Dr. May. “In our business you cannot afford mistakes. Cisco Unified Communications has driven a shift in culture and professionalism in our business. It gives our patients a stronger feeling of confidence, because their message gets to the right person. We’re a busy office with 12 employees seeing more than 50 patients a day, and the phone system enables us to stay on top of everything.” Whether Dr. May is at the office or giving a lecture in another state, he can log in via secure VPN and review daily accounting figures and other information.

The network, with more speed and higher availability than the center has ever had, has enabled the practice to start an ongoing implementation of EMR, with the goal of becoming a paperless office. It will also support new applications that will help the center keep up with the growing demand for data from government agencies and insurance organizations.

“The Cisco solution enables Coldwater Vision Center to run a professional and efficient business, enables us to provide the very highest level of care and service to our patients, and positions us for growth and whatever the future may hold, while saving money on toll calls and system maintenance,” says Dr. May.





For More Information

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

Product List

Routing and Switching

- Cisco Catalyst® Express 500 Series Switch with PoE Cisco 871 Series Wireless Router

Voice Communications

- Cisco Smart Business Communications System:
- Cisco Unified Communications 500 Series for Small Business with Cisco Unified Communications Manager Express for telephone call processing and Cisco Unity Express for voice messaging and automated attendant
- Cisco Unified IP Phones 7970 Series
- Cisco IP Communicator

Wireless

- Cisco 521 Wireless Express Access Points

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