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Success Story

Growing Concierge Medical Group Improves Range, Reliability and Security of Network Using Zyxel Nebula Cloud-Managed Network Solution

Managed Service Provider
INDUSTRY

Kehr Technologies, Inc.
CUSTOMER

Plano, Texas
REGION

Managed WiFi Solution
SOLUTIONS

Overview

Challenge

Finding reliable, secure wireless network connectivity throughout a medical office

Benefits

- Fast and easy deployment
- Cloud Management
- Simple licensing model
- Premium performance with greater capacity and more coverage through smart antenna technology
- Reliable wireless connectivity
- Enterprise security

Solution

Zyxel Nebula Delivers Complete High-Performance, Secure, Cloud- Managed Network Infrastructure

Includes security gateways, PoE switches, and smart antenna access points.

"When we deployed Zyxel at Diamond Physicians, they immediately had an upgrade in their security."

Bob Kehr
Chief Technology Officer
Kehr Technologies, Inc.

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Kehr Technologies, Inc. - Plano, Texas

Headquartered in Plano, Texas, and founded in 2005, Kehr Technologies, Inc., is a managed service provider that provides a comprehensive suite of information technology products and services to small and medium businesses.

Kehr Technologies maintains HIPAA compliance and 25 percent of its clients are in the medical industry. According to Bob Kehr, chief technology officer, the company's in-depth specialization in operating systems, networks and databases enables them to provide a technology solution to just about any challenge a small business would encounter.

Diamond Physicians

Diamond Physicians is a membership medicine concierge group with three locations in Dallas-Forth Worth area. Established in 2012, the mission of the medical group is to provide affordable healthcare services by lowering the cost of healthcare down to the true cost of care while providing exceptional service 24 hours a day.

According to Dr. James Pinckney II, chief executive officer and founder, Diamond Physicians employs five doctors and 15 staff members. The medical group leverages technology to eliminate barriers to care by allowing their clients to communicate securely with their doctor via text, video chat or phone.

The Challenge

Lack of Reliable, Secure Wirless Network Connectivity Throughout Medical Office

Diamond Physicians heavily leverages technology to deliver state-of-the-art services to its clientele so network connectivity within the office must not only deliver maximum performance and reliability, but must also provide a secure HIPAA-compliant environment. Dr. James explained, "We're always looking for cutting edge technologies that can help us improve from a security standpoint, from a connectivity standpoint, from a speed standpoint."

"My clients and I need to be able to connect to the network with our various mobile devices when we're in the office," Dr. James said. "We use a lot of touch screen applications on the IPAD and we often present data on a big screen television. I need instant connectivity, so if I'm working with a client or doing a presentation for a Fortune 500 company, I can't have any performance issues with my network."

According to Dr. James, the medical group began realizing connectivity issues with their wireless network after they expanded their 2,100 square foot office last year to add an additional 900 square feet. "I wasn't able to receive a signal in my own personal office which was relocated to the furthest reaches of the facility from our telecom closet," he explained. This issue would be amplified by plans to add an additional 1,500 square feet to the office space.

In addition, Dr. James was concerned about the need to have all of Diamond Physicians' offices connected seamlessly so that data could be shared between physicians and clients at any location at any time without the risk of the data being hacked or intercepted.

"With the network failing, we were forced to figure out a different solution to keep our premium Diamond Physicians brand from being adversely affected," Dr. James said. "I had to make an immediate change."

Kehr Technologies' expertise in network technology and the unique security and compliance requirements of the medical industry made it an ideal managed service provider to address the network requirements of the growing medical group.

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The Solution

Zyxel Nebula Delivers Complete High-Performance, Secure, Cloud-Managed Network Infrastructure

According to Bob Kehr, there were a number of requirements that were considered in the selection of the equipment for the network infrastructure at Diamond Physicians. He explained that the wireless LAN needed to be based on 11ac to provide the fast connection required to support the bandwidth-intensive applications employed in the office. He also explained that the solution needed to deliver extended range and seamless roaming to provide connectivity to all client devices throughout the office space.

The Zyxel NSG200 Nebula Cloud Managed Security Gateways, NSW100-28P 24-Port Gigabit Ethernet Nebula Cloud Managed PoE Switches and NAP303 802.11ac Dual-Radio Smart Antenna 3x3 Nebula Cloud Managed Access Points were selected to provide the secure high-performance, Cloud-managed solution at Diamond Physicians.

Kehr stated that the product quality, cloud-management capability and technical support are the reasons that he deploys Zyxel equipment. "Nebula has given us a lot of visibility into what's actually happening on the client's network and it allows us to make changes on the fly without having to actually be on site or remote in to a client computer," he explained.

Deploying the Nebula system is simple, according to Kehr. "It's really as simple as plugging the devices into power, putting a network connection on it and letting it connect to the Internet," he explained. "When we go onsite it's a matter of bolting the equipment into the rack, plugging it in, connecting the cables, and we're good to go. It's really very simple - a very efficient way to actually install the equipment because we can configure everything ahead of time and it's just plug and play."

Benefits

Benefits – Improved Range and Reliability, Proactive Management to Eliminate Network Downtime

Kehr explained that the Nebula solution delivered immediate benefits to Diamond Physicians. "When we deployed Zyxel at Diamond Physicians, they immediately had an upgrade in their security," he said. "The wireless LAN gave us much better reach and reliability and we found that the connectivity within the building for all devices was greatly improved. We even use the PoE switch to provide both power and connectivity to the desk phones."

"Nebula helps us to be much more efficient in the way we service our clients," said Kehr. "We can access the network from anywhere and in many cases we know when there's a problem with the network before the client realizes it. This enables us to take proactive steps to resolve problems before they impact the network. The ability to see what's going on without remoting in often saves us a truck roll. It's an enterprise grade solution even though the pricing isn't necessarily what you would expect for the value you're getting."

"They were able to improve our network, improve our connectivity, improve our security, and it's just been a beautiful relationship that really has boosted the value of our business," said Dr. James about Kehr Technologies and the Zyxel Nebula solution. "The clients may not see it, but when they're in our office they know that they are in an environment that is secure and basically unhackable."

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Products Used

- Complete networking, security and application control over the cloud
- Zero-touch site-to-site VPN
- Secure networks with Next-Gen Firewall and Best in Class UTM Security Services*
- Built-in DHCP, NAT, QoS, and VLAN management
- Static route and dynamic DNS support
- Identity-based security policies and application management
- Cloud management and cloud statistics

NSW100-28P • 24-Port Gigabit Ethernet Nebula Cloud Managed PoE Switch

- Advanced L2 switching features
- 56/100 Gbps non-blocking switch fabric (GS2200-24/24P: 56 Gbps, GS2200-48: 100 Gbps)
- 4 Dual-personality (RJ-45/SFP) GbE interfaces
- Port security and enhanced 802.1X port authentication
- MAC freeze and intrusion lock
- 8 IEEE 802.1p hardware priority queues
- WFQ, WRR, and SPQ queuing algorithms
- IEEE 802.3af Power over Ethernet (PoE)(GS2200-24P)
- PoE Power consumption mode for energy saving (GS2200-24P)

NAP303 • 802.11ac Dual-Radio, Smart Antenna 3x3 Nebula Cloud Managed Access Point

- Cloud-managed, dual-radio 3x3 MIMO 802.11ac AP
- Supports combined data rates of up to 1.75 Gbps
- Smart antenna provides breakthrough performance
- Self-configuration and zero touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client Steering
- Industry-leading receive sensitivity at as low as -102 dBm
- Tool-less bracket design simplifies installation

About Zyxel Communications
Focused on innovation and customer-centricity, Zyxel Communications has been connecting people to the Internet for nearly 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for telcos and service providers, business and home users. Zyxel is building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play. Zyxel, Your Networking Ally.