Enhanced Patient Care and Experience

Extreme Networks for Healthcare

Introduction

Technology is having a profound impact in healthcare and transforming the patient experience. Streamlined operational processes, access to information, and uninterrupted connectivity create an environment that is patient-centric and enables staff to enhance care delivery. Digital innovations including IoT devices, smart building technology, telehealth services, and entertainment systems allow patients to be involved in their treatment plan and consume services that are more personalized, safe, and convenient to their lifestyle.

A clinical-grade, cloud driven network is crucial to keep pace with new technology and operate as a smart hospital that exceeds patient expectations. Extreme Networks delivers the end-to-end infrastructure solutions healthcare organizations need to optimize application service delivery and connectivity, while real-time visibility and AI/ML powered analytics enable performance monitoring to ensure the highest quality patient care and experience.

Critical Technology Issues

High-Performance, Clinical Grade Wi-Fi Network

Healthcare organizations are taking notes from the hospitality industry to effectively compete in their consumer-driven environment. Patients and visitors expect a high-performance Wi-Fi network for real-time information, personal device entertainment, and virtual communication with those that matter most. Although patient connectivity is not critical in high-risk situations, it helps foster patient well-being, minimize stress, and keep them informed throughout their stay. In addition, Wi-Fi enables patients to be more involved in their care and treatment plans. Technologies including patient portals and self-scheduling solutions provide transparency and streamline clinical operations, so staff can enhance care delivery.

With a clinical grade Wi-Fi network from Extreme Networks, healthcare organizations have the opportunity to dramatically improve patient care and operational efficiency. Our advanced wireless technology is designed to exceed the needs of healthcare staff, enabling caregivers to remain focused on the life-saving tasks at hand, while patients are empowered in their own care plans. Extreme Networks

knows mobility – our breadth of experience and patented features provide the resilient, secure, and high-performance wireless connection required in healthcare environments. What's more, hyper-segmentation and partitioning capabilities ensure the connectivity and security needs are met for clinician, patient, and visitor devices.

Safe and Reliable Connectivity of IoT and Medical Devices

Healthcare networks and devices are becoming significantly more complex, presenting a growing challenge for the IT staff supporting them. With the rapid adoption of IoT and Wi-Fi enabled medical devices, the infrastructure strategy that organizations implemented five years ago are no longer adequate to ensure safe and reliable connectivity. As a result, unapproved applications and rogue devices gaining unauthorized access or interfering with other devices is now a constant risk to the network. Healthcare is also a 24x7x365 business focused on life, patient, and mission critical activity. There can be no tolerance for downtime; hospitals should be confident that their wireless LAN offers the same reliability as a wired network.

Whether its connecting workstations on wheels, barcode scanners, IV infusion pumps, or phones, the network must be capable of connecting all Wi-Fi enabled applications for real-time clinical care. Extreme Networks provides the cloud-driven network hospitals need to keep all medical devices working together, including older devices which tend to have no embedded security capabilities. By eliminating bottlenecks from the Wi-Fi access points, critical connections are uninterrupted and fault tolerant. For heightened security and privacy, hospitals can automate the onboarding of devices and applications using rule-based policies across the entire wired and wireless infrastructure. In addition, WLANs automatically detect and respond instantly to any wireless threat from rogue devices to network vulnerabilities, simplifying compliance with government regulations like HIPAA , GDPR, and PCI.

Quality and Ease of Receiving Care

Personal medical and IoMT devices, such as take-home monitors, wearables, and inpatient equipment, collect infinite data that provide pertinent information to clinicians and treatment teams in real-time. Technology is also enabling additional care options for patients such as telehealth services that increase personalization and expand the reach of a facility's care. Digital healthcare organizations that embrace these opportunities are more data-centric and available to patients, making them the pioneers in enhancing total consumer health, ease, and quality of care.

Healthcare requirements for scalable and resilient connectivity continue to evolve due to the skyrocketing data volumes, ongoing industry consolidation, migration to value based payment models, and compliance with government regulations. The growing demand for high-bandwidth, fully-resilient, low-latency connectivity extends from the doctor's office, to a clinic, hospital, insurance provider, across town, or across the nation. By implementing a fully integrated end-to-end connectivity solution, healthcare providers gain the ability to dramatically improve operational efficiency and patient care, anywhere.

Optimize Application Service Delivery

IT operations has evolved far beyond connectivity. Healthcare organizations today require proactive monitoring and management of medical devices and their communications with patient critical applications and services. Visibility into medical device communications, location, performance, and patterns of activity are extremely important for optimizing clinical care. Only through a solid network that provides end-to-end, application, and device intelligence can hospitals streamline operations, become more cost efficient, and improve patient safety. The network infrastructure plays a leading role in enhancing an organization's ability deliver innovative healthcare that increases patient satisfaction and improves situational awareness. By using intelligence from network-based analytics, IT can optimize application service delivery and improve overall visibility.

Extreme Networks equips IT with real-time, AI and ML powered analytics to understand how well new systems or devices are being adopted, determine the baseline for each application regardless if it's hosted onsite or in the cloud, and can even understand the slowest work times by department for scheduling changes to streamline operations and enhance care delivery. From a single window, IT gains actionable insight into medical device performance, on-premise and cloud-based applications, subscription licensing, and the overall system workflow.

Comprehensive Service and Support

Hospitals never close and neither does Extreme's 100% insourced Global Technical Access Center (GTAC.) 24/7 support ensures that all questions can be answered promptly to keep the network functioning at all times. Extreme Networks is the only company in the industry that takes an architectural approach to bringing products to market from R&D to product release. As a result, all of our network products, from wireless to wired, are managed by a single network screen for easy management by constrained healthcare IT teams.

Summary

Healthcare organizations today are balancing the complexities of digital transformation with innovative technology, maintaining safety and compliance, and dealing with age-old challenges like streamlining processes and maintaining connectivity – all to drive better patient outcomes. Safeguarding critical patient information and meeting regulatory compliance is essential to protect people, places, and assets from the ever-present threat of breaches. Extreme Networks delivers the end-to-end clinical-grade infrastructure solutions healthcare organizations need to meet the reliability, scalability, security, and intelligence required for life, patient, and mission critical initiatives.

Resources

To learn more, visit the Extreme Networks Healthcare Solution Center.

Solution Guide: Clinical Efficiency and Staff Satisfaction

Solution Guide: Patient Safety, Security, and Privacy

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