Concord Hospital Expands Patient Care With Flexible Network Infrastructure

Technology Needs

- Full refresh of networking services at two recently acquired regional hospitals without any downtime.
- Simplified network infrastructure that can seamlessly extend services across multiple locations.
- Wi-Fi 6E to support next-generation healthcare applications and services.

Extreme Solution Components

- Extreme Wireless™
- ExtremeCloud™ IQ
- Extreme Switching™
- Extreme Fabric Connect™
- Extreme Control™

> "Without Extreme Universal Hardware, it would have been much more difficult to absorb and integrate two regional hospitals. With Extreme Fabric Connect, we were able to complete the integration in a matter of weeks, versus years, without sacrificing uptime, security or a consistent flow of operations."

> "The biggest story here is how easily we were able to deploy a very complex design in a matter of months. To bridge the old network with the new Extreme network and keep it secure was elegant, with no downtime to the organization."

Mark Starry, Chief Technology Officer, Concord Hospital

Concord Hospital, a regional healthcare system in New Hampshire, is a charitable organization that provides high-quality patient care at at three hospitals and several specialty and urgent care facilities in Central New Hampshire.

As part of its mission to expand access to healthcare in the Lakes Region, the hospital acquired two smaller regional hospitals in Laconia and Franklin that were struggling financially and required significant investment to remain open. These hospitals were seen as mission-critical for the state of New Hampshire, as they were the sole providers serving their respective populations. The Concord Hospital IT team was challenged to not only upgrade the network infrastructure and technology experience at the regional hospitals, but to do so in a way that lowered IT costs and did not require interruption in hospital operations – meaning no downtime.

Concord Hospital needed to act fast to bring the new hospitals up to the necessary performance levels. Both had aging, insecure infrastructures – so outdated that the hospital could not risk connecting their systems together over security concerns. By using the functionality of Extreme Universal Hardware and Fabric Connect, Concord was able to extend its own network up to the regional hospitals and then replace old hardware with new switches, keeping all three hospitals online the entire time without ever sacrificing security or downtime.

With a new wired and wireless network in place, Concord Hospital had built the foundation needed to extend new services, including VDI and single sign-on over wireless, to the new hospitals. Previously, medical staff needed to log in to access their EMR upwards of one hundred times a day because the old network could not provide granular, secure application access, which simplified day-to-day work and allowed for new healthcare services, including telehealth visits via Zoom.

"The staff at the new hospitals were ecstatic. The roaming VDI and the enhanced wireless - they've never experienced the fluidity of something like that. It was amazing to them. The technology we brought up there along with the efficiencies to the providers was huge." - Mark Starry, CTO at Concord Hospital.

Results

✓ Reducing Costs

- Extending IT resources from the main campus to regional facilities helped reduce the cost of IT spending.
- Fabric-based network architecture extending across across the health system allowed the combination of Cerner instances, delivering major cost savings system-wide.

Increasing Efficiency and Security

- By eliminating redundancies and automating processes, Concord Hospital lowered the reliance on IT staff to maintain and troubleshoot basic issues and instead dedicate time to higher priority initiatives.
- Concord Hospital's robust network architecture and security measures ensured the protection of sensitive patient data, by segregating legacy systems and implementing strict access controls.

Better Healthcare Experience For Staff

- Healthcare professionals praised the technological advancements for providing a seamless and efficient user experience, contributing to higher job satisfaction and productivity.
- High-performance wireless across all sites supported new devices and applications, including iPads, barcode scanners, label printers, EKG machines, rolling VDI, and badging-in system.
- Features like single sign-on and wireless access eliminated the need for repetitive logins, allowing healthcare professionals to focus more on patient care.