Integrated EHR Solutions and Infrastructure Enhance Health System’s Patient Care

Improved patient safety and clinical efficiency achieved through Healthcare IT partnerships with Cisco and Allscripts

HIGHLIGHTS

CUSTOMER PROFILE
- **Client Name:** Blessing Health System—Blessing Hospital, Illini Community Hospital, Blessing Physician Services, Blessing-Rieman College of Nursing, The Blessing Foundation, Denman Services, Inc.
- **Industry:** Healthcare
- **Location:** Quincy, Illinois
- **Employees:** 2,700
- **Size:** 340 beds and more than 240 physicians

BUSINESS IMPACT
- **Critical Services**—Maintain network availability (99.99 percent uptime)
- **Patient Satisfaction**—Reduced pharmacy turnaround time by 42 minutes per order
- **Delivery of Care**—20-minute reduction in emergency department length of stay
- **Cash Flow**—Achieved annual savings of US$1.4 million

PARTNER PROFILE
Allscripts provides innovative solutions that empower all stakeholders across the healthcare continuum. Its essential technologies include Electronic Health Records, Computerized Physician Order Entry, and Practice Management.

Business Challenge

Located in Quincy, IL, Blessing Health System is the largest and most sophisticated medical center in Western Illinois. Along with five satellite clinics and a small critical access hospital in Pittsfield, IL, Blessing serves patients in 15 counties in Illinois, Missouri, and Iowa. A well-known leader in applying technology to improve medical care, Blessing continues its tradition with major ongoing initiatives to strengthen the organization’s IT infrastructure and adopt a new generation of healthcare solutions. With the priorities of various stake-holders in mind, these initiatives are intended to align the needs of Blessing’s patients, community, and clinicians, with the organization.

A number of requirements existed for these initiatives, both business and healthcare related. Integrated, highly-secure, highly-available systems were necessary to efficiently deploy the best technology, without introducing added risk. Concerns over network security were top of mind for administrators, who sought to protect patient information from unauthorized breaches and to comply with new HIPAA regulations.
The hospital also wanted to keep vital information systems and medical devices running around the clock while minimizing system downtime. Installing a more robust wireless network helped in this area. The new network also better integrated operations with Blessing’s satellite locations, which needed access to technology and records housed at the main hospital.

Perhaps most importantly, administrators needed a stronger platform for delivering sophisticated new clinical systems and wireless solutions. These included: systems to enable doctors and nurses to access Electronic Health Records (EHRs) at the patient’s bedside; deployment of wireless phones in surgery suites; and a variety of clinical solutions designed to help clinicians deliver the best of care to their patients.

**Solution and Outcomes**

Addressing this opportunity head on, Blessing Hospital turned to Cisco and Allscripts—two partners that it had relied on extensively in the past. Cisco had built the hospital’s original network while Allscripts supported Blessing’s move from paper-based charts to electronic charts. The partnership also helped ensure the timely implementation of an enterprise-wide Allscripts Electronic Health Record system. The hospital engaged Cisco to overhaul the network and security infrastructure—creating a resilient IP-based Cisco Medical-Grade Network (MGN)—and partnered with Allscripts to provide advanced solutions that help improve patient care within its hospitals and owned physician practices.

**Clinician and Patient Benefits**

Administrators say the technology initiative was a success, clearly helping Blessing enhance the clinical care it provides to patients across care settings. It also positions the hospital to address changes in the industry, such as health reform and accountable care that require access to timely data. Today, most of the medical hardware in the hospital—from bedside equipment to mobile computers—run on the Cisco MGN, enabling doctors and nurses to quickly and efficiently access clinical information and chart data at the patients’ bedside.

Wireless Cisco® 7925 phones are a key component of the overall solution. In the surgery suite, for example, the phones help eliminate delays in moving patients to their surgical suites. Blessing’s nurses use wireless computers in patient rooms, boosting productivity. “They don’t have to walk back and forth to a central nurse station to find or enter information,” says Jill Mason, CNO at Blessing Hospital. “They can do everything right at the bedside.”

Moreover, thanks to the network and application upgrades, clinicians working at satellite facilities are enjoying faster access to the EHR through integrated security and remote connectivity.

With the underlying Cisco platform in place, Blessing deployed Computerized Physician Order Entry (CPOE), a feature of the Allscripts Sunrise Acute Care™ solution. With CPOE, a physician now enters the medication order directly into the EHR, eliminating hand-written physician orders—one of the largest sources of preventable medical errors. The Allscripts solution also has advanced clinical decision support to check for potential adverse reactions to allergies and/or other medications that may have been prescribed. Care is greatly improved by errors being minimized and orders move more quickly through the system.
Allscripts Sunrise Acute Care has also accelerated pharmacy turnaround time, helping reduce filling time from an average of 61 to 19 minutes per order. The speed boost is due in part to smooth integration between Sunrise Acute Care and Sunrise Pharmacy™, an Allscripts application that streamlines the medication-administration process. Using the solution, pharmacists gain real-time access to patient data and physician orders across the hospital. Faster orders lead to better care, higher efficiency and improved outcomes, each of which is being studied and quantified.

With the Allscripts integrated systems, doctors enter their orders and view results electronically, ultimately speeding up the diagnosis and treatment. “Allscripts has accelerated the retrieval of test results by as much as 15 minutes, decreasing the time patients spend in the emergency department,” says Richard Saalborn, D.O., medical director of the Blessing Hospital Emergency Center. Since Blessing introduced CPOE, the average length and cost of a patient’s stay has declined significantly, generating overall savings of US$1.4 million per year.

Administrators are most proud of improvements to patient safety and quality of care. “CPOE is an important tool our people use to deliver nationally-ranked quality care to every patient, every day,” said Maureen Kahn, Blessing Hospital’s president and CEO.

**IT Staff Benefits**

Behind the scenes, Blessing’s Cisco security and wireless infrastructure and Allscripts clinical solutions are delivering a host of benefits for the hospital’s IT staff.

For example, the MGN infrastructure overhaul included deploying Cisco Adaptive Security Appliances (ASA), which IT administrators say has optimized network security and maintained uptime (to 99.99 percent).

By combining advanced Cisco firewall and VPN technology with adaptive intrusion defenses on a single platform, Blessing created a system that reacts quickly to changing network threats and is easier to manage. Today, authorized users can access the network more rapidly while unauthorized users are more consistently locked out.

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Using the Cisco intrusion prevention solution, the IT staff discovered that one server in their network was getting bombarded with intrusion attempts. “Once we realized that was happening, we were able to lock out the attacker completely,” says Aaron Strong, system administrator at Blessing Hospital. “Without the Cisco solution, we never would have had that visibility.”

The solution also conserves IT resources. For example, the Blessing Health System network administration is centrally located to support Blessing’s sister hospital in Pittsfield while administrators at the main hospital in Quincy can troubleshoot problems at a distance. The smooth integration of Allscripts’ clinical applications and Cisco’s network also helped simplify the overall platform. And because the Cisco–Allscripts’ partnership provides for a single point of contact, IT employees can call one organization for all their tech–support needs.

**Next Steps**

The hospital continues to explore a range of technology innovations that will benefit patients, clinicians, and IT staff. Blessing plans to increase the use of wireless devices to help clinicians collaborate more efficiently. And it hopes to connect more devices (such as Telemetry) to the wireless network to further boost clinical efficiency. The hospital also continues to expand its use of Allscripts solutions for everything from managing health information systems to integrating patient financial information.

The long-term goal remains clear: to achieve the enterprise–wide Electronic Health Record incorporating all patient information across care settings into a single, integrated, universally accessible information system. Blessing is on target to achieve the goal sought by the whole industry. “We have our hospital and physician practice group on the same network, and both on the Allscripts applications,” says Lea Ann Eickelschulte, Blessing Hospital’s administrative director, IT Applications. “Integrated delivery of care using our Cisco MGN with Allscripts is a reality. Physicians at our practice group securely access patient information, in real time, from patient records located at the main hospital.”

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**For More Information**

To find out more about the Cisco Integrated EHR Solutions, go to: http://www.cisco.com/go/healthcare

To find out more about Allscripts Integrated EHR Solutions for health systems, go to: http://www.allscripts.com/sunrise