



# Steward Health Care Diagnoses Application Issues with Insights from Wire Data



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## CUSTOMER

Boston-based Steward Health Care System serves more than one million patients annually with 11 hospitals and over 100 ambulatory care clinics.

## CHALLENGE

With its increasingly complex IT environment, Steward Health Care was experiencing difficult-to-troubleshoot performance problems that inhibited the productivity of doctors and nurses.

## SOLUTION

By deploying ExtraHop, Steward Health Care gained contextual insight into its wire data so its IT organization could deliver better application performance.

## BENEFITS

- Improved application response time and stability
- Increased troubleshooting efficiency
- Insight into Citrix XenApp delivery
- More time for doctor-patient interaction
- Higher satisfaction among medical staff

## Challenge

Steward Health Care System has grown rapidly—more than doubling the number of hospitals in its network over the last four years. In addition to this rapid growth, Steward Health Care has had to manage a wide proliferation of mobile devices—from more than 900 workstations on wheels (WOWs) used by front-line hospital staff to tablets and laptops used by doctors and nurses in ambulatory care clinics.

“Originally, we had six semi-connected hospitals, and adding five more exponentially increased IT complexity,” says Mat Demers, Director of Systems Engineering for Steward Health Care.

In total, Steward Health Care delivers over 200 different applications, including MEDITECH, athenahealth, and eClinicalWorks for electronic health records (EHR), and their performance is critical for both employee productivity and the quality of patient care. “When a task that should take seconds takes minutes, the department workflow gets disrupted—and many tasks on the nursing floor are repeated, so those delays can literally add up to hours over a long shift,” says Adam Hanson, Senior Director of Enterprise Infrastructure and Solutions Engineering for Steward Health Care.

## Solution

Steward Health Care deployed ExtraHop to gain critical insight into its wire data—all L2–L7 communications between systems—and see performance issues in context, so they can be quickly understood and resolved.

### Quick Standup and Easy Maintenance

Within an hour of installation, the ExtraHop appliance was providing useful, actionable information. “Often, you buy something and it’s so complicated that it takes weeks of staff time to get value out of it,” says Hanson. “But ExtraHop is almost plug-and-play in terms of the standup process, which is a huge departure from traditional monitoring tools. Even better, it requires nearly zero maintenance. The simplicity of ExtraHop was as advertised.”

### From Context and Correlation to IT Insights

With ExtraHop, Steward’s IT teams are able to correlate reported incidents with activity across the application delivery chain—right down to the precise workstation, user session, application, and servers involved—and gain complete visibility across all layers.

“If a nurse pulls a patient’s medical records, it’s typically not a very linear communication path,” says Hanson. “That single mouse-click involves calls to multiple data sources, across the 30-or-so file servers that hold code for

the application, and then reassembling and presenting it through Citrix XenApp. None of our other monitoring tools enabled us to correlate those inter-server communications and especially Citrix delivery—and that’s the type of stuff we’re using ExtraHop to really understand.”

**Benefits**

With contextual insight provided by ExtraHop, Steward Health Care is more efficient and effective in its IT troubleshooting. This has led to improved experiences and less frustration for medical staff.

**Faster Resolution for “Nonobvious” Problems**

On average, network engineers and system administrators at Steward Health Care spend up to two hours each day troubleshooting “nonobvious” performance issues—the kinds of problems that are not tied to a hardware failure or resource overutilization. ExtraHop is helping to increase these employees’ productivity by enabling them to identify root causes faster.

“We used ExtraHop to pinpoint the cause of a slowdown for one of our 12 eClinicalWorks EHR deployments that our ambulatory clinics use, which was due to how our production and replica databases

**ExtraHop is the global leader in real-time wire data analytics. The ExtraHop Operational Intelligence platform analyzes all L2-L7 communications, including full bidirectional transactional payloads. This innovative approach provides the correlated, cross-tier visibility essential for application performance, availability, and security in today’s complex and dynamic IT environments.**

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were racked in our datacenter. It was not an easy thing to diagnose—all we could see was that there were lots of timeouts and just overall a bad user experience,” says Demers. “ExtraHop provided the critical information we needed to not only solve the problem but prevent it from happening again.”

**More Time for Patients**

By speeding application performance for MEDITECH and eClinicalWorks, Steward Health Care is saving caregivers hours per day. “With ExtraHop, we’re freeing doctors and nurses to spend more time with patients instead of waiting for the application, or even worse—resorting to paper and then manually re-entering data later,” says Hanson.

**Greater Stability Through Proactive Management**

Steward Health Care uses ExtraHop to create performance baselines and track developing trends so the IT organization can proactively respond to changes in the environment. “ExtraHop enables us to understand what normal looks like and see if there is unusual spikes in communications between particular hosts for a particular protocol, error rates, or response-time latency, and whether that correlates with calls to our help desk,” says Hanson.

