ExtraHop

Healthcare IT's Top 3 Pain Points
& How to Fix Them

Survey Results

Introduction

It seems Healthcare IT grows more complex by the hour, and most organizations' ragtag mixture of legacy tools and high-tech systems doesn't help. IT teams are yanked in a dozen different directions at once, from firefighting to managing obsolete and unsecured networked devices to defending against ransomware attacks.

On top of all this, Healthcare IT tends to function with a lean staff and a leaner budget. With those constraints, and patients' lives on the line, how do you even know where to start improving?

Well, ExtraHop decided to ask around. We surveyed 50+ healthcare organizations* about what stresses them out the most, which systems they'd love to improve first, and what obstacles stand in their way.

The answers pointed to three major stressors in Healthcare IT. That brings us to the good news: They can all be solved with a combination of added network visibility and more agile, interoperable practices and technology.

Pain Point #1

Citrix Login Latency (and Associated Troubleshooting)

57% of respondents listed Citrix latency as their most-resented IT hassle. Many hospitals depend on a virtual desktop infrastructure (VDA), namely Citrix, to provide caregivers with secure access to applications on any device.

When Citrix performance slows, the time spent waiting for an application to launch wastes hours per week, both for the healthcare providers who can't do their jobs and the IT teams struggling to find the source of the issue. That, in turn, has a direct effect on patient happiness and health.

"As of 2015, 90 percent of the largest healthcare providers, 100 percent of the US News & World report top hospitals, and all of the top health information technology vendors leverage Citrix technologies."

- Business Wire

How To Fix It

Rethink the Network: Analyze data in motion across the network to understand associations between front-end Citrix behavior and specific application and infrastructure activity.

The only way to easily correlate end-user slowdowns with application behavior is by gaining a comprehensive view of your environment that provides rich context for every front-end problem. As all traffic travels on the network, tapping into those transactions is your key to fast, easy troubleshooting.

If you can analyze individual transactions (think ICA sessions, authentication requests, database queries, etc.) and correlate them with application

performance in real time, you can do more than determine if a problem exists: You can start to solve issues proactively, before anyone is affected.

Which common Healthcare IT hassles do you resent the most?
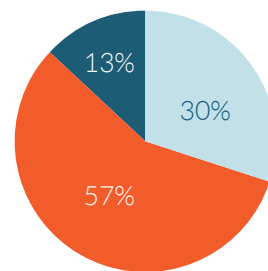
- BYOD
- Trying to determine if a new tool will pay off
- Citrix login latency & troubleshooting

Further Reading

This Citrix blog post, "Use 'The Five Ls' for Troubleshooting Performance Issues," will get you off to a great start. Take a look for ExtraHop's top five metrics for evaluating Citrix performance, as well as specific tips on how to improve each!

Pain Point #2

Data Security

When asked whether or not their exisitng security tools could confidently defend against ransomware attacks, only 13% of respondents said yes.

Even if you invest in powerful perimeter defenses, ransomware is constantly evolving and adapting to new security measures. Alerting for known ransomware won't protect you against new strains, and once hackers make it onto your network without detection, then it's game over.

Healthcare IT teams are also inundated with bring-your-own devices (BYOD), networked medical tools, and so many interconnected systems that it can be incredibly difficult to detect and mitigate suspicious traffic in time—all while staying compliant with strict regulations on medical data.

"If you have an intrusion somewhere in your network, can you then defend against ... lateral movement?"

Rob Joyce, Chief of Tailored Access Operations, National Security Agency

Do you feel confident that your data is safe from ransomware?

22%

13%

65%
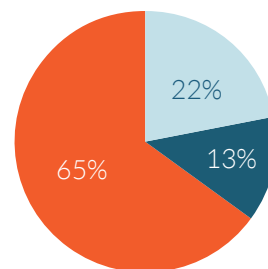
■ Yes

■ No

■ Our security is okay but we're still vulnerable

How To Fix It

Prioritize East-West Visibility:
By monitoring the lateral traffic moving on your network, you have a much better chance of spotting bad actors before you find the ransom note.

Once you can monitor all the traffic on your network, you open two crucial doors when it comes to IT security: First, you'll be able to detect and mitigate ransomware attacks as they happen.

Second, you'll have a roadmap of where an attack originated. Now you can stop attacks in their tracks and understand exactly where your security weak points lie.

Adding this kind of pervasive, comprehensive visibility can also strengthen an existing SIEM solution: Objective network data-in-flight is a much cleaner source of insight than log data, which also suffers from a lack of breadth and reliability.

"If you assume systems will be compromised with advanced targeted threats, then information security efforts need to shift to detailed, pervasive and context-aware monitoring to detect those threats."

- Neil MacDonald, VP and Gartner Fellow

Pain Point #3

Too Many Tools

"Too many tools" won two separate categories: Biggest Roadblock in Practicing Efficient IT, and Area to Improve First.

Healthcare IT's overabundance of tools includes everything from out-of-date networked medical devices to the hodgepodge of monitoring systems often cobbled together over years or even decades. Multiple hospitals and mobile clinics make it even easier to lose track of which tools your organization uses, which are actively in use versus the supposedly decommissioned, and so on:

"We've got an environment with just about every technology you could think of. Consequently, it's very, very difficult to troubleshoot performance from an end-user perspective."

Tim Holt, Senior Director of Enterprise Architecture, Seattle Children's Hospital

This complexity extends to the tools required to monitor all that technology. IT teams are often forced to switch between multiple UIs and data sources in order to solve one theoretically simple problem.

Troubleshooting and performance monitoring delays are time consuming and frustrating in any industry ... but in healthcare, IT inefficiency leads to inefficient patient care.

What's your biggest roadblock re: practicing efficient IT processes?
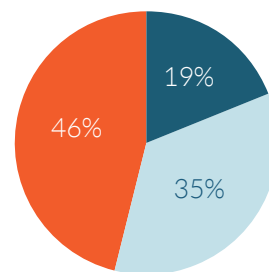
- **Blame game & data silos** — 19%
- **Not enough money for specialized staff** — 35%
- **Too many monitoring tools** — 46%

How To Fix It

Focus on Transaction Monitoring:
Your monitoring solution should allow you to map dependencies and interactions between all your various technologies and systems.

Unless you can see systems interacting with one another and follow transactions across environment tiers, you have no way to determine whether or not a system is performing efficiently—or if it's necessary at all.

Monitoring at the transaction level across diverse technologies and environments will allow you to safely decommission legacy systems, manage applications delivered across multiple physical locations, and reduce reliance on monitoring tools that provide simplistic "up/down" measures of performance.

See how Pheonix Children's Hospital did it!

"[With real-time monitoring] you can take the network data, the storage data, the compute data, and maybe the actual things happening inside the database and time-sync them together. That's much more efficient than looking in six different tools and trying to piece that picture together."

- David Higginson, CIO of Phoenix Children's Hospital

Recap

More Visibility = More Control, Better Quality of Care

While it's certainly possible to streamline your Healthcare IT processes and get rid of obsolete tools, the fundamental stressors—multiple clinics, interconnected systems, and paper-thin budgets—aren't going anywhere. Healthcare CIO Drex DeFord points out the following:

"It's critical to understand how everything connects to everything else. Because today, the 'connections' go far beyond IS. ... They even extend outside our organization, to the patient's home, to cloud providers, and to other health systems, clinic offices, payers, and government."

Drex DeFord

Comprehensive visibility is the only way to get a handle on all those moving pieces, both inside and outside the IT department. You may not be able to fight the system, but you can control it.

These other great resources will help you determine how best to improve visibility in your organization, starting now.

White Paper
LEAN and Visibility Systems in Healthcare IT

White Paper
IT Operational Intelligence for Healthcare

White Paper
How Wire Data Enables Real-Time Healthcare Systems

Blog Post
CIO Q&A: How Health IT Leaders Decide Which Tech to Buy

It's Time to Rethink the Network

Visibility into network activity, especially into the fast growing segment of east-west traffic, is the best way to keep Healthcare IT running smoothly so providers can deliver high quality care. With ExtraHop, you get that visibility with automatic discovery and continuous, real-time monitoring and analytics of all user, device and application activity on your network.

Check out our fully interactive online demo to see what you can do with ExtraHop.

www.extrahop.com/demo

About ExtraHop

ExtraHop makes real-time data-driven IT operations possible. By harnessing the power of wire data in real time, network, application, security, and business teams make faster, more accurate decisions that optimize performance and minimize risk. Hundreds of organizations, including Fortune 500 companies such as Sony, Lockheed Martin, Microsoft, Adobe, and Google, start with ExtraHop to discover, observe, analyze, and intelligently act on all data in flight on-premises and in the cloud. To experience the power of ExtraHop, explore our interactive online demo. Connect with us on Twitter, LinkedIn, and Facebook.

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