



# MedSolutions Enables Continual Service Improvement for Applications and Infrastructure



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—Joseph Steele, VP of IT Infrastructure, MedSolutions

## COMPANY PROFILE

MedSolutions provides intelligent cost-management services to healthcare insurance organizations, including national and regional commercial health plans and federal and state government agencies.

## CHALLENGE

MedSolutions sought to continually improve service levels but first needed the ability to measure and correlate application performance across tiers.

## SOLUTION

With the ExtraHop system, MedSolutions gained operational intelligence that benefited the entire IT organization.

## BENEFITS

- Performance baselines for all tiers of the environment
- Greater collaboration across multiple IT groups
- Reduced risk for new application rollouts
- Quick deployment with no agents or overhead

## KEY FIGURES

- Multiple custom-developed and packaged software applications, including a call-center application and an online portal
- Two datacenters
- 70% virtualized server infrastructure
- 33 million individuals served

## Challenge

When doctors order diagnostic images or specialized testing, their offices must check with the healthcare insurance provider first. Often, these doctor’s offices will contact MedSolutions. Throughout the United States, healthcare payor organizations rely on MedSolutions’ cost-management and diagnostic-accuracy services, which combine clinical expertise with advanced analytics, to ensure good outcomes for patients while eliminating fraud and unnecessary procedures.

“Care providers depend on MedSolutions to do their job, and in the healthcare world even small delays in workflow negatively impact the level of care and are unacceptable,” explains Joseph Steele, VP of IT Infrastructure at MedSolutions. “Our leadership team is committed to continual improvement in our service delivery. For our IT organization, that means measuring our performance, identifying areas for improvement, and then supporting efforts to fix what’s wrong.”

## Solution

To support continual improvement, MedSolutions needed a solution that would be able to provide real-time operational intelligence to the entire organization.

The scope of the project covered multiple custom-developed and packaged software applications running in two datacenters with 70% virtualized server environments.

“We were looking for a solution that would provide real-time visibility into performance across tiers as well as historical measurements that would enable us to track our progress,” says Steele. “ExtraHop was the only product we evaluated that could easily capture application traffic as it crossed through our converged network, load balancers, and vast numbers of application and database servers. Because of this holistic coverage, we now have one place to look when trying to determine the root cause of an issue. ExtraHop is more than just a monitoring tool for one group. It provides value to every IT team.”

Working with local solutions provider Bedroc, MedSolutions implemented the ExtraHop system in their two datacenters. “Implementing the ExtraHop appliances was a breeze,” says Steele. “Unlike agent-based APM tools, the ExtraHop system did not require us to change our systems, schedule downtime while installing software, or add any overhead to our servers or network.”

Many teams at MedSolutions use the ExtraHop system to gain operational intelligence:

- **Network engineers** tune and troubleshoot network devices, identifying sources of network congestion.
- **Systems administrators** monitor server health, authentication infrastructure, domain name services, and other critical IT infrastructure services.
- **Database administrators** gain insight into how applications are using the database.
- **Application architects** compare the performance of proposed changes against historical application baselines.
- **Application developers** reduce risk for application rollouts with holistic visibility during staging and in production.
- **Senior IT management** monitor service levels for customers and support IT management decisions.

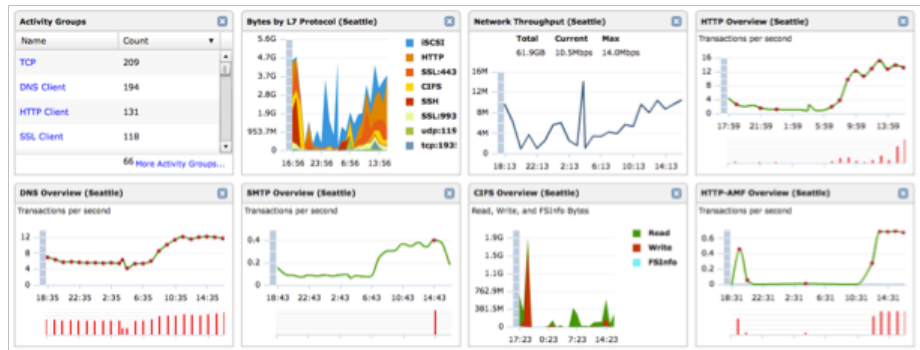
### Benefits

Equipped with operational intelligence for its entire IT portfolio, the IT organization at MedSolutions is able to continuously find ways of improving performance and efficiency.

“With ExtraHop, MedSolutions has a real-time, holistic view of all of our applications and infrastructure,” says Satish Dave, CIO at MedSolutions. “This operational intelligence enables us to quickly answer questions and take action to improve performance and efficiency.”

**ExtraHop Networks provides a passive, network-based approach to application performance management (APM) built to ensure that business-critical transactions do not fail.**

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The ExtraHop system enables MedSolutions to understand how various elements of the application delivery chain interact and contribute to performance.

### Support for All Applications

MedSolutions had considered an agent-based monitoring solution for the tier-one ERP system that underlies its cost-management service. After discussing the capabilities of the ExtraHop system with Bedroc and ExtraHop, MedSolutions found that it could achieve deep performance visibility without agents. Beyond that critical function, the ExtraHop system also supports all other applications in production at MedSolutions in real time, both custom-developed and packaged software applications. As a result, MedSolutions plans to use the ExtraHop system to support an upcoming Citrix VDI rollout and other strategic initiatives.

“With ExtraHop, we gain visibility for all our applications in production without having to worry about modifying our systems or installing agents,” says Steele. “The ExtraHop system is completely nonintrusive. It does not add load to our servers or network and never requires downtime for an update.”

### Continual Improvement Efforts

The ExtraHop system provides baseline performance and trending to support IT decisions. “We use the ExtraHop system to understand the normal behavior of our network and systems and then to find opportunities for improvement,” explains Steele.

In one case, MedSolutions identified a misconfiguration in their F5 BIG-IP application delivery controller (ADC) that was adding network latency. “Using the ExtraHop system, we saw a high number

of retransmission timeouts on LAN segments behind our load balancers,” says Steele. “Upon investigation, we found that we had misconfigured the TCP profiles of those devices to WAN settings instead of LAN settings. By identifying and solving this issue, we dramatically improved the experience of our employees using our corporate network.”

### Application Lifecycle Management

MedSolutions uses the ExtraHop system to support application updates and new rollouts. “We use ExtraHop in our staging environment so that we can spot misconfigurations or inefficient application flows before deploying to production,” says Steele. “As an example, we identified an extremely slow transaction in one of our in-house applications. With ExtraHop, we not only spotted the slow transaction but saw that call was generating a 30MB response, which ultimately the application was not using. With ExtraHop, we’re deploying faster with fewer issues in production.”

### Greater Collaboration Among IT Groups

With a shared view of application and network behavior, IT groups at MedSolutions are now collaborating more effectively.

“Most monitoring tools are specialized for one particular area,” says Steele. “ExtraHop spans many different functional areas, enabling us to view, share, and collaborate on findings. Without this unified view, we would have to rely on multiple monitoring tools and try to correlate disparate data elements, an inefficient and ineffective alternative.”

