



CASE STUDY

Improving the Health of Medical Care Systems



CUSTOMER Boston-based Partners HealthCare is a large integrated network of hospitals that includes Mass General, Dana Farber and Brigham & Women's.

CHALLENGE Identify and resolve application availability and performance problems in a distributed environment.

SOLUTION Reflectent's EdgeSight™ end-user systems management software

- RESULTS**
- Desktop downtime reduced to near 0%.
 - Reduced costs by eliminating unnecessary desk-side visits.
 - Improved application and system performance across distributed clinical devices.
 - Time-to-resolve metrics improved by faster problem identification.
 - Increased performance and availability of internally developed applications.

Medical staff at the Partners HealthCare network of hospitals requires immediate and reliable access to patients' medical records to ensure proper and prompt patient care. There are 27,000 desktops throughout the organization's distributed environment of seven hospitals. Of them, 2,800 are in open patient care areas and are considered "ownerless" because doctors and nurses use whatever system is closest at hand to access patient information.

Because these devices are shared, no single user has responsibility for reporting application or device availability issues and therefore problems typically go unreported or unidentified. Medical personnel simply move on to the next system to perform their jobs. This challenged and frustrated medical staff and IT support alike – especially when multiple workstations experienced problems.

Partners HealthCare, like most large organizations, had solutions to monitor network and server performance but these didn't provide a full picture of the state of applications and systems on end-user devices. Partners sought to proactively detect and remotely monitor whether or not there was a problem on these desktops. "The traditional tools just weren't working for us," said Ethan Fener, Partners Associate Director of Application Development. "We needed a better way to identify and resolve performance issues to ensure application and desktop availability."

The organization also required a solution that would automatically monitor all of the active applications running on the clinical devices – both off-the-shelf and internally developed – everything from hospital information systems and nurse scheduling applications to imaging software and dietary menu selection. Bottom line: Partners required a solution that worked within its architecture, was easy to deploy, would provide real-time data, scale to potentially tens of thousands of machines and not break what was already in place.

A REAL-TIME SOLUTION TO A LONG-STANDING PROBLEM

Partners became aware of Reflectent's EdgeSight end-user systems management software as a possible solution to these challenges, and after determining it offered the best solution on the market, put the software through its rigorous implementation process. This process includes everything from a 14-page questionnaire to a pilot test to ensure it wouldn't conflict with other applications. The software met the challenge and was soon rolled out to 2,800 devices throughout Partner's network

“The EdgeSight solution deployed seamlessly and began collecting useful data immediately. Instantly we had the power to identify and update specific devices which were not performing well; devices that previously would sit unused.”

Ethan Fener

*Associate Director of
Application Development
Partners HealthCare*

“The Reflectent support team has been 100% responsive to our requests. They’ve been great in terms of working with us to customize the reports to meet our objectives.”

Mindy Hynes

*Information Systems
Project Specialist
Partners HealthCare*

of hospitals. “The EdgeSight solution deployed seamlessly and began collecting useful data immediately” recalls Fener. “Instantly we had the power to identify and update specific devices which were not performing well; devices that previously sat unused.”

“As soon as we deployed EdgeSight, the results were stunning. We were able to reduce the number of unavailable clinical devices by 70% in the first month alone.” Over time, the number of unavailable devices was reduced to near zero. This allowed Partners’ Information Systems group to change its help desk approach. Previously when a machine locked up, historical data – which would have provided insight into the cause – got lost upon reboot. Now, because the EdgeSight agent is continuously recording data locally, Partners can look at exactly what was going on prior to a reboot and forensically piece together why the device froze.

In addition, rather than first sending out a field tech to visit a device directly, Level 2 help desk techs first review and analyze EdgeSight reports using the software’s intuitive UI to identify a machine that is not performing. If a problem can’t be fixed remotely, a problem ticket is opened and a field tech dispatched. As a result of having better visibility into problems on the desktop, Partners is able to allocate resources more appropriately, dispatching higher-cost resources only when needed.

**MEANINGFUL METRICS PROVIDE
A WEALTH OF INFORMATION**

EdgeSight comes with more than 100 standard reports capturing metrics on application performance, errors and crashes as well as connections with servers and network resources. Partners is also able to monitor the health of each device by reporting on CPU utilization, memory and hard disk availability. In addition, EdgeSight provides the ability to create custom reports; Reflectent worked with the team to create a profile of standard and custom reports that best meets their needs. For example Partners wanted the ability to analyze how well applications were performing before and after

a system or OS upgrade. “The Reflectent support team has been 100% responsive to our requests,” says Mindy Hynes, Information Systems Project Specialist. “They’ve been great in terms of working with us to customize the reports to meet our objectives.”

“EdgeSight provides us with a wealth of information we lacked previously – especially around network utilization and performance,” adds Hynes. “So when people are complaining, not about things being broken but things being slow, we can actually look at how a desktop is maintaining its connection and response time to a particular server, whether it’s a file server or a database server.” EdgeSight maintains that information locally and reports it up to the central server daily, so Partners can profile normal behavior and benchmark against that.

Partners also uses EdgeSight to manage software utilization. EdgeSight monitors which applications are actively being used across all devices. As a result, Partners is able to better manage license compliance and reclaim and redistribute under-utilized licenses rather than purchasing new licenses when requests are made. The organization can also use this information in maintenance negotiations with vendors.

**PUTTING THE FOCUS BACK ON
PATIENT CARE**

Implementing EdgeSight to monitor and manage the performance and availability of Partners hospitals’ end-user devices and applications has met a critical need for the medical personnel that rely on these systems. Prior to the deployment, Partners’ physician and care providing community experienced continual frustration with unavailable clinical devices because they were an impediment to delivering optimum patient care. “Before, all we had were users calling to say a system was slow or not performing without any more than that to go on,” says Fener. “Now we have smiling users and objective data because of the proactive approach we can take with EdgeSight.”