

# Sisters of Mercy Health System Reduces Application Deployment Costs and Cuts Testing Time by 90 Percent with Quest Cloud Automation Solution

Established in 1986, the Sisters of Mercy Health System (Mercy) is the ninth-largest Catholic health care system in the United States. Mercy consists of 18 acute care hospitals, a heart hospital, outpatient care facilities, physician practices, skilled nursing and long-term residential care facilities, clinics, a managed care organization and other health-related services.

Today, Mercy operates in a seven-state area encompassing Arkansas, Kansas, Louisiana, Mississippi, Missouri, Oklahoma and Texas. Health System services are provided by 29,000 co-workers and 4,000 physicians / staff members.

## The Challenge

In 2006, Mercy began implementing a new enterprise resource planning (ERP) system to streamline finance, HR and supply chain operations, and to ensure compliance with stringent health care industry regulations.

At the same time, Mercy was executing a multi-year initiative to consolidate the IT environment, including the reduction of the 32,000 workstations and 25,000 client applications deployed across the enterprise.

While Mercy was able to reduce unique workstations and client applications to 15,000 and 2,000 respectively, the new ERP system implementation forced a rebuild of these components. It created a massive compatibility testing effort to verify operation against 40 core back-end applications prior to rollout.

To achieve full test coverage would have required six years of total testing time based on the existing test lab and manual testing process – a delay that would leave Mercy unable to meet critical ERP rollout deadlines.

“With a three-person QA team, no test automation, and a test lab consisting of eight physical machines, we could only test eight applications per week,” said Chris Marr, QA Team Lead for Mercy. “We had to make some changes and quickly – not only to get the ERP rollout back on track, but to establish a long-term solution for reliably performing a high volume of client application testing.”

## The Quest Solution

Previously, it took five days for Mercy to test a single application. Examining its existing process, Mercy realized it was constrained not only by the time it took a tester to perform manual testing, but also by the time spent on manual set up and tear down of the test environment.

“It was clear that simply automating the test was not going to get us where we needed to be,” said Marr. “We needed a solution that would also automate the test lab including being able to save test environments for auditing purposes.”

Mercy considered several approaches and determined that the ideal solution was HP Quality Center integrated with the Quest Automation Platform’s QA/test solution. The evaluation and implementation of the combined solution was completed in fewer than 90 days.

*“The combination of HP Quality Center and the Quest Cloud Automation Platform increased testing bandwidth ten times while accelerating application testing from five days to four hours.”*

— Chris Marr  
QA Lead  
Sisters of Mercy

## OVERVIEW



### Headquarters

Chesterfield, Missouri

### Services

Provides hospitals, physician practices, outpatient clinics, residential care facilities and health-related assistance.

### Critical Needs

- Robust testing environment to handle test load from ERP implementation of 15,000 workstations and 2,000 client applications
- Keep rollout on schedule

### Solution

Quest Cloud Automation Platform

### Results

- Allowed solution evaluation and implementation in fewer than 90 days
- Reduced single application testing from five days to four hours
- Increased bandwidth from eight to 80 applications tested per week
- Reduced total test coverage from six years to six months
- Increased the reliability and consistency of software testing
- Boosted team productivity by eliminating time for maintaining test lab infrastructure
- Put enterprise rollout of ERP system back on schedule

## CASE STUDY

Quest's QA/test solution accelerates test cycles and application delivery by consolidating pre-production infrastructure and automating the set up and tear down of complex test environments, on demand. It eliminates two pervasive testing barriers: inadequate test infrastructure and the excessive time required to manually provision test configurations. With Quest, development and test personnel worldwide reliably request and securely access test configurations 24x7 to perform manual and automated testing.

"We chose a best-of-breed approach – bringing together the leaders in test automation and test lab management," said Marr. "The integration between Quality Center and Quest was a critical factor in our decision because the solution had to deliver immediate value to meet our aggressive deadlines."

Mercy replaced its manual, time-consuming process with an automated process that orchestrates HP Quality Center, HP QuickTest Professional, the Quest QA/test solution and Microsoft Systems Management Server (SMS): Here's how the process works:

- Tester requests client application and workstation combination to be tested
- Quest's QA/test solution dynamically allocates test lab resources and automatically deploys the requested workstation configuration onto virtual infrastructure, on demand
- SMS automatically installs the requested client application package on the deployed workstation to establish the application under test
- Quality Center launches test sets consisting of automated functional tests performed by QuickTest Professional
- Results are posted to Quality Center following the test runs,
- Quest QA/test solution "Snapshots" save the test environment in its completed state
- Quest QA/test solution automatically tears down the environment – immediately freeing up lab resources for other requests

Saved test environments may be quickly and easily restored to verify results, perform additional testing, and facilitate problem diagnosis and resolution efforts with the application development group.



5 Polaris Way, Aliso Viejo, CA 92656 | PHONE 800.306.9329 | WEB [www.quest.com](http://www.quest.com) | E-MAIL [sales@quest.com](mailto:sales@quest.com)

If you are located outside North America, you can find local office information on our Web site.

© 2010 Quest Software, Inc.  
ALL RIGHTS RESERVED.

Quest, Quest Software, the Quest Software logo are registered trademarks of Quest Software, Inc. in the U.S.A. and/or other countries. All other trademarks and registered trademarks are property of their respective owners. CSV-SistersOfMercyCS-US-EH

## The Bottom Line

Test automation reduced single application testing time from five to three days. Test lab automation further reduced application testing time from three days to four hours. Total testing bandwidth increased ten times, enabling Mercy to test 80 applications per week instead of eight – all without any increase in the demand on test resources.

Mercy estimates it can achieve total test coverage in six months (instead of six years) – time savings that are critical to meeting its ERP rollout schedule.

Finally, Mercy has experienced a boost in team productivity and morale because testers are spending time on more business-critical tasks (e.g., planning and strategy, test case development, documentation, running and analyzing tests) instead of spending excessive time on building and maintaining test environments.

"To provide the best possible support to Mercy, we need to have information and technology systems that are stable, standardized and easy to access through a system like our ERP implementation," said Marr. "With HP and Quest, we'll be able to test and rollout our ERP application quickly, not only improving the quality of our deployment, but also drastically cutting the cost of implementation."

## About Sisters of Mercy

Established in 1986, the Sisters of Mercy Health System (Mercy) is the 9th-largest Catholic healthcare system in the United States. Mercy consists of 18 acute care hospitals, a heart hospital, outpatient care facilities, physician practices, skilled nursing and long-term residential care facilities, clinics, a managed care organization and other health-related services.

Today, Mercy operates in a seven-state area encompassing Arkansas, Kansas, Louisiana, Mississippi, Missouri, Oklahoma and Texas. Health System services are provided by 29,000 co-workers and 4,000 physicians / staff members.

## About Quest Software, Inc.

Quest Software (Nasdaq: QSFT) simplifies and reduces the cost of managing IT for more than 100,000 customers worldwide. Our innovative solutions make solving the toughest IT management problems easier, enabling customers to save time and money across physical, virtual and cloud environments. For more information about Quest solutions for application management, database management, Windows management, virtualization management, and IT management, go to [www.quest.com](http://www.quest.com).