

Case Study: Fujitsu America

Critical Issue

Fujitsu's BlueCross BlueShield of North Carolina testing and production-staging environment (PSTAGE) used to run in a separate partition on the same physical server as the production applications. After a major upgrade to the core health insurance application an increase in transaction traffic overburdened the production server. To solve this problem, Fujitsu needed an easy, nonintrusive way to switch the staging environment to its disaster recovery (DR) server.

Business Challenge

When Fujitsu acquired BlueCross BlueShield of North Carolina's data center, it assumed responsibility for protecting BlueCross' data and ensuring the continuous availability of its systems. A service level agreement (SLA) promises that there will be no more than four hours of downtime. To meet this commitment without exception, Fujitsu needs real-time data and application redundancy that is easy to manage and use.

Even with this redundancy, Fujitsu continues to create regular data backups. If the backup jobs run on the production system they can slow or even stop critical business applications. Fujitsu must avoid this potential impact on operations.

A further challenge arose recently when Fujitsu upgraded BlueCross' primary application, Power MHS, a health insurance application from DST Systems. Because a number of previous upgrades had been skipped, this represented a major change and required several revisions to external applications.

After the upgrade, the Power MHS application experienced much greater traffic, which affected performance. Fujitsu's testing and production-staging environment ran in a separate partition on the same system. To alleviate the strain on production resources, Fujitsu decided to move this environment to its DR server. It needed a way to easily perform the migration in a non-disruptive fashion.

Organization Name

Fujitsu America

Headquarters

Sunnyvale, California, USA

Industry

Information and
Communications Technology

Business Environment

- Bought BlueCross BlueShield of North Carolina data center
- Subsidiary of Fujitsu
- Employees: 169,000 (global)
- Revenues: US\$47 billion (global)

Implementation Team

Precisely and BlueCross BlueShield of North Carolina

The Solution

When Fujitsu acquired the data center of BlueCross BlueShield of North Carolina, it inherited the Assure iTERA HA solution that protected BlueCross' data and applications. Assure iTERA HA replicates all data and applications from the production server to two secondary servers, one designated as a backup and the other as a DR server.

The primary and DR servers are currently about 12 miles apart in Durham, North Carolina. The plan is to greatly increase this separation by moving the DR server to Dallas, Texas.

This will provide a more reliable DR solution because it will be almost impossible for a disaster to affect both sites simultaneously.

This solution also made it easy for Fujitsu to migrate its testing and staging environment to its DR server. Because Fujitsu uses Assure iTERA HA to maintain a real-time replica of this environment, moving it to the DR machine was simply a matter of performing a "role swap." After the role swap, what was the primary system became the backup and the former backup became the primary system.

There was one concern. Although the company had practiced role swaps five or six times after installing Assure iTERA HA, it had not done so for at least three years. Therefore, the company wondered whether it would still work flawlessly.

As it turned out, "it really worked well," said Belinda Dye, a systems engineer at Fujitsu. "And we plan to do it again. We also plan to move our DR system from Durham to Dallas. We'll then decommission the current headquarters system, which belongs to BlueCross."

The benefits of Assure iTERA HA accrue daily, not just when a disaster strikes or when it's necessary to do a role swap for some other reason. Because Fujitsu maintains two real time replicas of the production systems, one backup and one DR system, it can create tape or virtual-tape backups on one of the replica systems, rather than on the production system.

This provides three benefits. First, it is not necessary to pause applications to run the backup jobs. Second, backup jobs don't place any processing load on the production systems. And, third, because the virtual or physical backup tapes are created at the remote site, they no longer have to be shipped offsite to protect them against a disaster that may strike the primary site.

Dye also reports, "I've been very happy with the support I've received at all hours of the day and night. Even after Americans have gone to sleep you can still get someone very knowledgeable on the phone."

Results

- Enabled the PSTAGE testing system to allocate resources it required on the DR system.
- Assure iTERA HA made it easy to migrate the testing load to the DR machine
- Freed PSTAGE testing resources to be allocated by production and the production backup LPAR
- Protects all data and applications

Technologies

Software

- Assure iTERA HA
- Power MHS (from DST)
- IBM i 6.1

Hardware

- IBM Power Systems MMA p30 7380

"Our backup jobs run on one of our target [backup/DR] systems while our production system is still available to all of our customers."

— Belinda Dye, Systems Engineer