Case Study:
Dupré Logistics

Critical Issue

Customers depend on Dupré to move goods nationwide around the clock. System downtime for any reason including hurricanes is not tolerated by its customers. Because Dupré uses IBM i-based Power Systems servers, which are among the most dependable servers on the market, and because the company built power supply and other redundancies into its data center, its systems are close to 99.99 percent reliable.

Nevertheless, that doesn't prevent planned downtime due to maintenance activities such as hardware and operating system upgrades. To protect its ability to serve customers 24/7 without exception, Dupré needs a way to virtually eliminate all downtime, planned and unplanned.

Business Challenge

Dupré Logistics' business never sleeps. That's the plan. However, at one time, sticking to that plan occasionally proved to be difficult. Particularly since Dupré is located in "hurricane alley." Dupré runs its core business applications on an IBM i-based Power Systems server, one of the most reliable business systems in the world. In addition, redundancies such as a backup power generator further reduce the risk of unplanned downtime. However, this alone would not have been enough to keep their business operating if a disaster knocked the entire data center offline.

Regular backups and a disaster recovery contract with Sungard helped Dupré to protect against permanent loss of application availability. In addition, all data, other than data applied since the last backup was created, was protected by these measures. However, about six years ago, Dupré decided this solution wasn't adequate. Recovery times were too long to satisfy the customers' need for 24/7 operations.

What's more, disasters and system reliability were, by far, the least frequent of the company's system availability issues. Most downtime resulted from planned maintenance. For example, a hardware or operating system upgrade could throw the company's vital applications offline for several hours, or possibly more than a day. That was unacceptable.

Client profile

Dupré Logistics

- Operates 24/7
- Uses a mix of custom software and applications from TMW Systems
- Runs its primary systems on IBM i
- Protects about 1 terabyte of data

"Assure iTERA HA is surprisingly affordable. For any company of a certain size that is not doing this, it's like shame on them because they could have had a solution that would help the business so much."

– Stuart Suffern, IT Director

Solution

Dupré decided that it needed to run fully synchronized redundant systems. And those systems had to be geographically distant from each other. That way, if the primary system had to be shut down for maintenance or if it was knocked offline by a hurricane or other disaster, users could be quickly switched to the replica system. Because the backup was remote from the primary system, even if a disaster completely destroyed the main data center there would no longer be a need to perform lengthy data and application recovery operations in order to restore business operations.

After considering its options for enabling this highly available environment, Dupré chose Assure iTERA HA because it proved to be the easiest to use full-featured solution on the market.

Dupré's primary system is in its Lafayette data center. Assure iTERA HA maintains a real-time replica of all of the company's applications and data on an identical server located in a data center in Atlanta, about 500 miles away. The distance between the two centers means that it is almost impossible for a disaster that strikes one to affect the other. Now, when the company needs to upgrade its hardware or software, it can perform the work on the backup system first, switch the users to the backup, upgrade the primary system, and then switch users back. When each system is brought back online after the upgrade, Assure iTERA HA automatically resynchronizes it with the other system.

Dupré has proven that this solution works. For example, the company recently upgraded its backup and primary systems from Power6 to Power7. During this process, Dupré was able to complete a "role swap" (switching the production and backup roles of the primary and secondary systems) in just 22 minutes. This included performing all the necessary checks to ensure that the systems were fully synchronized and changing all of the DNS settings to point to the new site. The role swaps in both directions went off without a hitch. Customers never noticed.

Assure iTERA HA requires little day-today maintenance. Everyone in the IT department has been trained to audit Assure iTERA HA processes. These audits take only five to 15 minutes a day because Assure iTERA HA does most of the work. "Assure iTERA HA does a fabulous job of self-auditing," said Stuart Suffern, IT Director at Dupré. "The person going through the daily audits simply looks at a dashboard-like system monitor that shows the status of both machines, the replication queues, and our roleswap readiness."

Suffern also has high praise for the support he receives from Precisely. "With a lot of software companies, when you call them about an issue they'll tell you,'try this, this and this.' With Precisely, they don't say 'try this, this and this.' Instead, the first thing they do is say, 'Why don't you join me on Webex and I'll take a look at what's going on.' It provides an immediate calming effect because you don't feel like you're on your own. It makes you feel like you're someone important and special; and someone is going to actually look at the issue immediately rather than telling you to wait for a call-back."

Results

- Provides insurance against unplanned downtime
- Minimizes planned downtime
- Requires minimal day-to-day management
- Focuses the company's attention on data center protection best practices

Technology used

- Assure iTERA HA
- IBM i
- Custom third-party logistics applications, as well as TMS, TMT and TL2000 from TMW Systems
- 2 x IBM i Power7 E4B (one production, one backup)