

Case Study: Takata Holdings

Critical Issue

Takata's manufacturing facilities depend on information technology. If the company's business systems ever became unavailable, the plants wouldn't be able to ship or receive goods and it wouldn't be long before system unavailability would curtail production. Given the size of Takata's operations, the cost of a long period of downtime would be exceptionally high.

Results

- Protects operations from downtime
- Handles large transaction volumes with negligible impact on system performance
- Allows non-intrusive role swap testing
- Very easy to use and manage

Technologies

Software:

- Assure iTERA HA
- Mix of highly customized application packages and custom-built software
- IBM i

Hardware:

- 2 x IBM Power 570 (production & backup)

Business Challenge

Takata is a major manufacturer of automotive safety products, including seat belts, airbags, child restraints and a variety of other components and electronic systems. Its busy factories run around the clock.

Like all manufacturers, Takata's operations rely on a variety of software applications. If its core business systems were unavailable, the company would immediately lose the ability to ship and receive goods, process orders and interact with its customers and suppliers through its EDI software. Production could continue for a while, but it wouldn't be long before that would be seriously affected too.

Natural disasters and hardware failures are rare, but they happen and, unlike planned maintenance, they can't be scheduled for slow periods. Failing to plan for such contingencies can be extremely costly.

Thus, Takata needed a high availability/ disaster recovery solution that would allow it to continue to function without exception. However, because the company's U.S. operations alone typically process between 2- to 4-million transactions every hour, it needed a cost-effective solution that would have little impact on production performance.

Company Name:

Takata Holdings (U.S.)

Headquarters:

Auburn Hills, Michigan, USA

Industry:

Automotive Manufacturing

Business Environment:

- U.S. operations of Japan-based Takata Corporation
- Manufactures automotive safety systems
- Sales: ¥382,737 million (global, 2012)
- Employees: 36,858 (global, March, 2012)
- 24 x 7 operations

Implementation Team:

Takata and Precisely

Solution

For more than five years, Assure iTERA HA has protected Takata's systems from the threat of downtime by replicating all applications and data—including both user and system data—from the company's production server partitions, which are now consolidated in Auburn Hills, Michigan, to a backup server in Greensboro, North Carolina. Assure iTERA HA stands ready to perform a rapid "role swap" between the two machines so the backup system can assume the production role if the primary server should become unavailable for any reason.

Because the primary and backup systems are geographically separated, if a disaster strikes one it will leave the other unaffected. Thus, without the need to recover any data or applications in the traditional sense, the company will be able to recover from a data center disaster with almost no downtime.

This geographic separation is about to get even greater. The company plans to shift the backup site to another of Takata's facilities in Aschaffenburg, Germany within two months of the time of writing.

Despite the distance between the systems, and despite the large transaction volumes that the company processes, Assure iTERA HA has little impact on the performance of Takata's production systems. And data latency times between the two sites are short.

Takata has not experienced any disasters since installing Assure iTERA HA, but it has tested roll swaps and proved that they work. In addition, the company has had a practical demonstration of the value of Assure iTERA HA's efficient roll swap facility.

Because some of Takata's systems came together as a result of acquisitions of other companies, at one point, one of the production partitions was in Greensboro, while the other production partition was in Auburn Hills. For strategic reasons, including the coming move of the backup site to Germany, the company wanted to centralize both production partitions in Auburn Hills. Using Assure iTERA HA's role swap facility, this was accomplished quickly and with little downtime.

Takata has found Assure iTERA HA's "virtual role swap" feature to be a major advantage when testing the readiness of the backup server to assume the production role. "You can test a lot of things and not affect your users," said Daniel Robbins, senior IT business analyst. "So instead of getting up at 3:00 on a Sunday morning, you can do it during normal business hours. We've gotten to the point where we do a lot of our testing through virtual role swaps."

Takata also finds the company behind Assure iTERA HA to be a great benefit. "Support is very good and Precisely is very flexible as a company," said John Borgne, IT manager—infrastructure. "They provide good turnaround and they operate very nimbly."

"We wanted to switch the roles of our production and backup sites for strategic reasons. Assure iTERA HA took what would have been a pretty monstrous task down to about an hour."

— Daniel Robbins, Senior IT Business Analyst