Case Study:
PennEngineering

Critical Issue

PennEngineering operates around the world 24 hours a day. At certain times of the day the system is more heavily utilized than others, and system downtime is never cost-free. The company needed a way to dramatically reduce the length of its weekly system maintenance window, particularly as it expanded internationally and added more shifts.

Results

Ensures that disaster recovery requirements are addressed for critical business applications.

- Dramatically reduced maintenance windows
- Reduced costs
- Ensures business continuity should a disaster strike
- Protects all data, including data entered during the day

Technologies

Software:

- Assure iTERA HA
- JD Edwards EnterpriseOne (Oracle)
- IBM i

Hardware:

- IBM POWER7 Power 740 for production hardware (720 CBU as a backup server) FloridaEuropean level.

Business Challenge

PennEngineering operates facilities across the United States, as well as in Europe and Asia, but its computer systems are centralized at the company's headquarters in Pennsylvania.

At one time, its U.S. factories ran primarily a single shift, allowing considerable time at night and on the weekends to perform necessary system maintenance.

However, operations in Europe and Asia dramatically reduced the times during which maintenance can be performed without impacting operations, particularly because the factories in China operate on Saturday and Sunday. In addition, maintenance windows are being further constrained by the U.S. west coast operations since a second shift has been added to keep up with demand.

Thus, the cost of downtime was growing, but PennEngineering's systems still required regular maintenance. The company's challenge was to find a way to dramatically decrease the amount of system downtime required for maintenance, thereby reducing the cost to the business.

Company Name

PennEngineering

Headquarters

Pennsylvania, USA

Industry

Manufacturing

Business Environment:

- Makes fasteners and self-clinch fasteners for various industries
- Plants in North America, Europe and Asia Worldwide sales
- Operates around the clock

Implementation Team:

Precisely and PennEngineering

The company also needed a more effective way to recover its data in the event of a disaster. Waiting for recovery from a tape restore was no longer an option.

Solution

PennEngineering chose Assure iTERA HA to overcome its data protection and downtime challenges. Assure iTERA HA captures all data additions and changes—including both user and system data—on PennEngineering's production server in Pennsylvania and replicates them to a backup server located in about 50 miles away.

Because Assure iTERA HA replicates data in real-time, this solution protects all of PennEngineering's data, including data updated after the previous nightly backup tape was created. And because the backup server is remote to the primary server, if a disaster were to shut down the primary data center, the company's facilities around the world would still have access to their data and applications through the backup server.

"Once Assure iTERA was replicating data and we conducted a virtual role swap my Director and I looked at each other and said, 'we're protected now'," stated Adam Phillipps, Director of Technical Architecture. "We don't have risk anymore."

Protecting data and application availability from the consequences of unplanned downtime was a major reason for choosing Assure iTERA HA, but PennEngineering realizes significant value even when everything is running normally. Maintenance windows used to result in system shutdowns that lasted up to eight hours every Saturday night. Factories with shifts at that time could still function, but they had to record transactions manually and enter them into the systems when they were available again. This resulted in a significant duplication of effort and increased the opportunity for errors.

With the help of Assure iTERA HA and a new, higher performance server, the company shaved two hours off the maintenance window.

But this isn't even half the story. PennEngineering was still creating a full backup tape on its production server during the weekly maintenance window, a task that shuts down applications for about four hours. However, because Assure iTERA maintains a real-time copy of all data, the company started creating backup tapes on the secondary system, minimizing the downtime on the production server.

With all the pieces in place, PennEngineering reduced its maintenance window from eight hours to an hour and a half. In addition, the company will now be able to shift the maintenance window to a time when it will have less of an effect on manufacturing operations. The savings are expected to be substantial.

> "Assure iTERA HA allowed us to replicate all ERP transactional data to our DR site and reduce our weekend maintenance window from 8 hours to 1 1/2 hours. That's a big win for our business."
>
> — Adam Phillipps, Director of Technical Architecture