

## Case Study: Boyd Gaming

### Critical Issue

Boyd Gaming can't afford downtime in its 24/7 environment. Excellent customer service and data integrity are critical to the company's success in the gaming industry. The company looked for an HA solution that would help them avoid out-of-synch conditions and achieve repeatable role swaps.

### The Challenge

Looking to examine its high availability (HA) strategy and enhance its capabilities, Boyd Gaming brought in IBM® System i veteran Jim Ravens as Business Recovery Manager.

"When I came on board, the mandate from my boss Marv Magnani, Application Services Manager, was to achieve successful, repeatable role swaps, no matter what it took," said Ravens.

The team was looking for an HA solution that would be easy to manage and help them avoid out-of-synch conditions.

At an IBM Technical Conference in Las Vegas, Magnani learned about Assure iTERA HA from Precisely. Both Magnani and Ravens took a closer look at the product and were very encouraged. Assure iTERA HA looked very simple and efficient to them, particularly because of the way remote journaling was incorporated into the solution.

### Solution

The lease on the IBM® System i Model 740 on which Boyd Gaming ran its back-office financial applications was close to expiration, and the company decided to upgrade to a new model 820. There were still a few months on the lease when Ravens had the idea to bring in the new machine early to use as an HA target box to evaluate Assure iTERA HA. IBM even let Boyd Gaming have the machine early at no extra charge to conduct the test.

The plan was to install the HA software, have the application data fully replicated, and successfully perform a role swap in three days. Within the three days, Assure iTERA HA was installed and the role swap was not only executed successfully, it was completed in about five minutes.

### Company Name

Boyd Gaming Corporation

### Headquarters

Las Vegas, Nevada (U.S.)

### Industry

Gaming Entertainment

### Business Environment

- Boyd Gaming began operations in 1975 and today is one of the most experienced and most geographically diversified companies in the gaming industry
- Owns and operates 17 gaming facilities in seven states
- Portfolio of gaming properties spans the nation, from the gaming meccas of Las Vegas and Atlantic City to the emerging gaming markets of the Midwest and South

### Precisely Product

Assure iTERA HA

When the test was complete, Ravens and Magnani were very excited about the potential of Assure iTERA HA. But before switching entirely, they wanted to perform one final test. They planned to install Assure iTERA HA on their two IBM System i Model 820 frontoffice machines that run the hotel and gaming applications. Then they planned to role swap to the target machine, and finally, run these applications for a month on that machine before switching back.

Once Assure iTERA HA was installed on these machines and all selected data replicated, Ravens did a role swap and successfully moved all users and interfaces to the second machine. For six weeks, Boyd Gaming ran hotel and gaming applications on its backup machine without encountering any data integrity problems or having any objects go out of sync. At the end of the six weeks, Boyd then reversed the role swap without incident. Boyd was now happy to select Assure iTERA HA as its exclusive System i HA solution.

As Ravens continued to use Assure iTERA HA, he realized a variety of unexpected downtime-reducing benefits. For example, when he did the final migration to the 820 machine, the replication process within Assure iTERA HA simply preloaded all of the necessary data on the 820 without the need for a manual tape backup and restore. In fact, when he was ready to pull the plug on his old machine, he simply did a role swap, moved the interfaces and let IBM take away the old box.

"We saved the users about six hours worth of downtime," says Ravens. "The only downtime that users experienced was the time it took to take the cables off of the 740 and connect them to the 820."

Assure iTERA HA also saved considerable downtime when Ravens upgraded the operating system from V5R1 to V5R2 on his front office 820 machines. Because Assure iTERA HA can continue mirroring even when source and target machines are on different levels of the OS, mirroring never had to be suspended.

Another significant benefit was realized when, for the first time, Ravens was confident enough in the integrity of the target data to move the data warehousing, report generation and tape backup processes to the target machine, thus relieving the source machine of this overhead. And since tape backups could now be done on the target machine, downtime was also eliminated for this process, about five minutes.

## Results

- Planned and unplanned downtime reduced.
- Out-of-synch conditions between the production and backup systems eliminated.
- Role swaps execute in as few as 24 seconds.
- Downtime during hardware migration and operating system upgrade reduced to a minimum.

## Technologies

- Assure iTERA HA
- Two IBM® System i 820 servers
- Gaming, hotel and financial applications essential to the business

"Assure iTERA HA for IBM i is very simple and efficient, particularly because of the way remote journaling is incorporated into the solution. We regularly and successfully test the role swap process, and we have seen role swaps execute in as little as 24 seconds."

- Jim Ravens,  
Business Recovery Manager,  
Boyd Gaming