



"Being able to do backups without having to interrupt the business is a big deal because we run 24 x 7."

Bill Ryan, systems and network manager, Ply Gem

Business Profile

Company Name:
Ply Gem Industries, Inc.

Headquarters:
Cary, North Carolina, USA

Industry:
Residential Building Products
Manufacturer

Business Size:
Headquartered in Cary, N.C., Ply Gem is a leading North American manufacturer of residential exterior building products. The company produces a comprehensive line of vinyl siding, designer accents and skirting, vinyl fencing, vinyl and composite railing, stone veneer and vinyl windows and doors used in both new construction and home repair and remodeling in the United States and Western Canada. Ply Gem also manufactures vinyl and aluminum soffit and siding accessories, aluminum trim coil, wood windows, aluminum windows, vinyl and aluminum-clad windows and steel and fiberglass doors.

Business Environment:

- Residential building products.
- Operates 24 x 7.
- Nightly data backups take 3 to 4 hours.
- Business systems run on IBM i-based Power 570 servers.
- The business runs on JD Edwards OneWorld ERP software.

Vision Solutions Product:
MIMIX Availability

Implementation Partner:
ProActive Solutions, Vision Solutions, and Ply Gem

Critical issue

Ply Gem never closes. Its manufacturing plants and shipping docks operate around the clock. However, as is the case in most organizations, the company cannot be fully operational unless its business systems are available. When Ply Gem's IBM i-based ERP application, JD Edwards OneWorld, is offline, the company cannot take orders, ship goods, invoice customers, or apply received cash to the books.

Yet, it used to be the case that some downtime was inevitable. For example, the company had to shut down its applications for three to four hours every night while it created backup tapes. And there was always a chance that a disaster, or even a less catastrophic event, could bring down Ply Gem's systems.

Shutting down the business for even brief periods was unacceptable. Thus, the company needed a way to minimize the possibility of all downtime, planned or unplanned.

Results

- Eliminated the impact of nightly backups on business operations.
- Provided a real-time disaster recovery option.
- Gained peace-of-mind.

Technologies

- MIMIX Availability
- IBM i
- JD Edwards OneWorld
- 2 x IBM Power 570 servers

Business Challenge

Nightly data backups used to be a problem for Ply Gem. Though necessary to protect vital data, the company had to shut down its systems for the three to four hours that it took to run the backup jobs. In the meantime, because the company's operations run around the clock, activities that were dependent on those systems stopped. Some work could continue, but when the systems came back online employees had to catch up on the data-entry tasks associated with that work.

What's more, nightly backups failed to protect all of Ply Gem's data. Any data entered into the company's systems during the day was not reflected in the previous night's backup tapes. Thus, if a disaster destroyed the data center, that day's worth of data might have been irrecoverably lost. In a worst case scenario, this could have resulted in the loss of somewhat more than 24-hours worth of data if the disaster struck before the most recent tapes had been shipped offsite.

In addition, recovering the data center from backup tapes after a disaster would have been a lengthy process, resulting in disruptions to the company's operations for an unacceptable period.



Solution

Ply Gem solved these challenges with the help of MIMIX Availability. MIMIX creates and maintains a real-time replica of all of the company's data and applications on a second IBM i-based server. This replica server is available to take over operations when required. At least equally important, it can be used for other purposes—such as creating backup tapes.

The company has been using MIMIX for about six to seven years. In the beginning, MIMIX was employed primarily to eliminate the costly downtime associated with running backup jobs. Because the replica server contains an up-to-date copy of all of the company's data, backup tapes can be created on that system. As a result, there is no longer any need to shut down business applications running on the production server while the backup jobs are running on the replica server. In fact, those backup jobs no longer have any impact on business operations.

In addition to improving employee productivity, eliminating the backup window also helped to reduce errors. In the past, when the systems came back online after the backup jobs finished, employees had to play catch-up and enter transactions that had been recorded on paper during the nightly outage. Sometimes, some data was inadvertently omitted.

At first, Ply Gem set up the backup server beside its production server. Clearly, this would not have provided a recovery option if a disaster struck the data center and destroyed both systems. Fortunately, Ply Gem saw a way to solve this problem.

The company moved the backup system to its IT business partner, ProActive Solutions. MIMIX now replicates data between the two sites over a 100MB fiber connection.

Today, if a disaster were to strike Ply Gem's data center, the company could switchover to the backup system at ProActive. In addition, because the system at ProActive has a tape library attached to it, this solution still allows Ply Gem to eliminate backup downtime.

ProActive provides more than just server co-location services to Ply Gem. "They are a business partner," said Bill Ryan, systems and network manager at Ply Gem. "We rely on them for all sorts of things that relate to System i and System p."

ProActive also provides Ply Gem with first-level support for MIMIX and acts as the interface between Ply Gem and Vision Solutions, when necessary.

So far, Ply Gem has not experienced a disaster, but the ability to continue operations should the primary system become unavailable is more than just a theory. Ply Gem has proven that it works.

Every six months the company simulates a disaster, fails-over to the ProActive site and accesses the backup system to ensure that it's useable and contains all of the company's critical data. Since moving the replica system to ProActive, Ply Gem has completed two of these tests, both of which have been successful.

"Now, we have the peace of mind that comes with knowing that if we have to declare a disaster we can failover to the backup system and continue operations," noted Ryan. Ply Gem is so pleased with MIMIX that it intends to expand the use of the solution to systems throughout the company. Next up, Ply Gem will be using MIMIX to protect its IBM WebSphere portal.



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