



## MIMIX® Helps CCL Package Server Consolidation with Optimum Availability

Consolidating several servers onto just a few or only one larger server can significantly reduce hardware, software and administration costs. But it might also put your company at risk. Before consolidation, each server ran only a portion of your business. If one went down or you had to take it offline for maintenance, other areas of the company would not feel the impact. Now, if your single server is unavailable, it will curtail or possibly even stop operations across the entire enterprise.

CCL Industries Inc. faced that peril when it consolidated five servers, first onto two and eventually down to one server. The company was not willing to accept the ensuing threat to its profitability. Instead, it needed a way to prevent downtime from all causes, including both planned maintenance and unplanned events such as hardware failures and natural disasters. It needed the High Availability offered by Lakeview Technology's MIMIX solution provided by Blair Technology Solutions Inc.

### A Consumer Products and Packaging Leader

Even if you have never heard of Toronto, Ontario, Canada-based CCL, you are almost certainly familiar



with its products. CCL's Custom Manufacturing Division is a world-leading contract manufacturer, producing more than 700 consumer and industrial goods, from hair care to skin care and from cleaners to cooking sprays, delivered in a number of formats, including aerosols, liquids, creams, lotions, pastes and solid sticks. The Container Division is a leading North American manufacturer of high quality, specialty containers. The Plastic Packaging Division produces high-quality plastic tubes and closures, and distributes deodorant sticks for many of today's most successful brands. The Label Division is a leading global producer of decorative labels and promotional products.

In 2002, CCL earned net after-tax income of almost \$21 million (Canadian) on sales of almost \$1.7 billion. At the end of that year, it employed about 7,000 people, located in Canadian, American and European facilities, as well as some operations in Asia.

CCL runs its business on IBM® eServer iSeries™. After consolidating its five iSeries servers, including a mix of models, on to one iSeries Model 820 server, that server assumed sole responsibility for running the company's PeopleSoft® World (formerly J.D. Edwards® World®) and SSA PRMS™ ERP applications for all of its North American facilities. With so much riding on a single server, avoiding downtime became a pressing concern.

While iSeries is one of the most reliable servers on the market today, hardware failures typically cause only a very small proportion of the downtime that most companies incur. In fact, more than 95 percent of downtime



results from planned activities such as database backups and reorganizations and hardware and software upgrades.

Because CCL's head office server supported only North American operations, performing maintenance at night or on weekends would eliminate the impact on administrative staff. Of course, with operations spread across a number of time zones, "at night" is much shorter than for single location companies.

What's more, there are no "off-hours" for CCL's three-shift plants. Without a backup, if the central server went down or had to be taken offline for maintenance, workers in those plants would have to maintain paper records and enter the data manually in the morning. CCL wanted a way to eliminate the inefficiencies and costs that this downtime created.

Equally importantly, CCL needed to protect its vital data. Like many companies, the company takes nightly backups. An agreement with IBM allowed it to use an iSeries server at an IBM facility if a disaster struck CCL's primary server. However, this still left considerable data exposed.

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If CCL took its nightly backup at midnight and a catastrophe destroyed its data center at 11:59 that night, the company would lose a full day's worth of data. The cost of recovering it would be horrendous, as employees would have to re-enter data manually from paper forms. Furthermore, as the company increases the volume of business that it conducts electronically, the available paper backup decreases accordingly, meaning that some transactions may not be recoverable without going to all suppliers and customers to ask them "did you send us anything."

Compounding the problems associated with tape backup is the time that it takes to recover from that medium. Should a disaster strike, CCL would have to retrieve the last backup tape from an offsite vault, ship it

to IBM, load the data onto disk and reconfigure IBM's backup server. All of these activities, not to mention that tape is a relatively slow medium, meant that CCL would require hours, if not days, to recover from a disaster. Clearly, the company needed a better approach.

### **The Search for Optimum Availability**

CCL found the uptime and data protection solution it needed in MIMIX, from Lakeview Technology and its local business partner, Blair Technology Solutions Inc. Founded in 1996, Blair Technology, an IBM Premier Business Partner and a Lakeview Authorized Solution Provider, bases its success on helping its clients to solve business challenges in today's rapidly changing marketplace. It sells, installs and implements High Availability solutions, ERP software solutions, business intelligence applications, and e-business software.

The Blair and Lakeview working relationship is an important element in delivering value to customers. "Lakeview has always been supportive," declared John Blair, founder of Blair Technology. "They provide exceptional resources to help ensure that their solutions fully meet our customers' needs."

MIMIX ensures continuous access to critical data and applications. Its components, used individually or as an integrated solution, form the industry's leading iSeries availability solution. MIMIX DB2 Replicator™ provides real-time replication of DB2/400® data while MIMIX Object Replicator™ does the same for all other non-database objects including application, system, configuration, document library and integrated file-system objects. MIMIX Monitor™ provides a centralized framework for monitoring and responding to specific iSeries events and conditions.

Should an outage occur, MIMIX Replicator and MIMIX Monitor can automatically switch users to a backup system. MIMIX Monitor also includes TCP/IP address impersonation and can respond to alerts from an uninterruptible power supply (UPS). It has the flexibility to monitor most items on an interval, scheduled or continuous basis. In addition, MIMIX Monitor allows users to be switched to the backup server quickly and easily when the primary server requires maintenance.

The selection of MIMIX followed an extensive review process that evaluated a short list of three vendors.

A very favorable experience at a previous employer led Akhil Bhandari, CIO at CCL, to favor MIMIX, but to avoid biasing his technical team's recommendation, he did not tell them about his preference until after they submitted their evaluation.

Advanced technology was an important factor in the decision process. For example, "IP impersonation was critical to us," said Stephen R. Lewis, application systems administrator at CCL. "The last thing that you want to have to do when switching between primary and backup systems is change every PC and server at every site to point to a new host."

Ease-of-use was another MIMIX strength. "After setting up MIMIX, maintenance is almost non-existent in terms of adding new files or objects to existing mirrored environments," explained Lewis. "For the most part, MIMIX automatically adds them into the configuration... it almost runs itself."

Lakeview's role as a leader in the introduction of new technologies was also a factor. "Lakeview was the first High Availability vendor to have a true reorg-while-active tool," declared Lewis. "We run 24x7 and have a number of files that require periodic reorganization to eliminate deleted records. Reorg-while active is extremely useful to us."

After considering the technology, functionality, performance and vendor reliability, the team reached the same conclusion as Bhandari: MIMIX was the best choice to achieve Optimum Availability for CCL.

To implement its MIMIX solution, CCL took an iSeries model 720 servers that became surplus after the company consolidated servers and moved it to another facility about 20 kilometers away. During planned and unplanned downtime events, the backup server will be used to run only critical processes, making the reduced processing power provided by a model 720 server ade-

quate for the company's needs.

The cross-town plant housing the backup server runs on a different power grid than CCL's head office, reducing the likelihood that a power failure will affect both locations. Each location has uninterruptible power supplies to facilitate a planned shutdown with little or no data loss should they lose power. The company also began to consider adding backup generators to the sites after a blackout in August 2003 shut down power to much of the northeastern United States and the province of Ontario in Canada.

The implementation of MIMIX at CCL was somewhat different from most MIMIX solutions in that, at the time, it still had two production servers that needed to be backed up to a single backup server. The consolidation to a single production server will be done in the future. MIMIX easily manages the two-to-one replication of data and objects.

### Peace of Mind

After an expert from Blair installed MIMIX and configured it to meet CCL's unique needs, MIMIX created a replica of CCL's data and objects on the cross-town server. On an ongoing basis, it replicates all data and object changes made on the primary server to the backup server in near real-time.

CCL can now avoid almost all downtime. If its primary system goes down for any reason, it can quickly switch users to the backup server. In addition, the company takes its nightly backups from the second server, avoiding any impact on the primary. It has also been able to prevent downtime when upgrading software by switching users to the backup server during the upgrade process.

CCL's future plans include shifting read-only processing, such as query and reporting functions, to the backup server. Because that system currently serves only as a backup most of the time, it is underutilized. By shifting some of the processing load off the primary server, CCL will be able to defer a costly upgrade.



“After consolidating our servers, we now manage iSeries from a central location, providing us with better change control and better physical control in terms of UPS, file compression and other things,” said Bhandari. “But, there is risk. Before, when we distributed our server eggs across five baskets, if one went down, we would probably still have the other four. Now, with all of our eggs in one basket, if the server goes down we lose everything. MIMIX gives us peace of mind. We know that if a disaster strikes, our data will not be lost and we will be able to continue to serve our customers.”

“CCL tells us that it is very happy with its MIMIX solution,” commented Blair. “In fact, CCL has told us that it is considering further Lakeview Availability solutions for some of its other technology platforms.”

## CCL Industries Inc.

**Core Business:** *Manufacturing*

**Headquarters:** *Toronto, Ontario, Canada*

**Revenue:** *Almost \$1.7 billion (Canadian)*

**Employees:** *7,000*

**Platforms:**

- IBM® eServer iSeries™

**Key Applications:**

- PeopleSoft® World (formerly J.D. Edwards® World®)

- SSA PRMS™

**Information Availability Solution:**

MIMIX® from Lakeview Technology



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