

# JOA MANUFACTURES LAN-LIKE PERFORMANCE ACROSS INTERNATIONAL WAN



Curt G. Joa (“JOA”) is a privately held specialty machine builder based in Sheboygan Falls, Wisconsin. For 70 years, the company has been a leader in the design and manufacture of custom machinery designed for the production of disposable hygiene products, including diapers, sanitary napkins, medical equipment, and related products.

JOA has extensive experience in the field of high-speed, web-based product manufacturing. This includes process and product development capabilities, concept validation, and testing expertise. Hundreds of businesses have turned to JOA to create a wide variety of “engineered to order” machines, with deployments in over 55 countries throughout the world.

*“AN AVERAGE USER DIRECTORY HOLDS 50 GB OF INFORMATION. SOME FOLDERS HOLD OVER 4,000 FILES. THIS PRESENTS A UNIQUE CHALLENGE WHEN USERS ARE REQUIRED TO SHARE THIS INFORMATION ACROSS DISTRIBUTED LOCATIONS.”*

— PAT WAGNER, JOA MIS MANAGER

JOA’s business requires real-time interaction between employees, contractors, and customers. These individuals are constantly sharing exceptionally large files across JOA’s WAN, including 2D and 3D models, simulations, prototype drawings, and other project files created using Autocad, Solid Edge, and

other advanced design tools. The company relies heavily on its Novell file servers and Microsoft email as a way of sharing business-critical information between its main corporate facilities, located in the United States and Germany.

“An average user directory holds 50 GB of information,” said Pat Wagner, MIS manager at JOA. “Some folders hold over 4,000 files. This presents a unique challenge when users are required to share this information across distributed locations.”

## A PLAN FOR APPLICATION DELIVERY

Given the difficulty of browsing, opening, and saving CAD files across the WAN, remote JOA users were strongly advocating the deployment of local servers in the company’s European headquarters in Germany. However, the company resisted this move for a variety of reasons, from cost savings to better risk management through centralized storage backup.

It would have cost JOA over \$60,000 to setup the appropriate IT infrastructure in Germany, including server hardware, storage, maintenance contracts, and local IT resources. At the same time, the company feared that it would lose control over its ability to backup resources in Europe, and that multiple servers might result in duplicate sets of data that were not in synchronization with one another.

“Server distribution presented numerous costs and risks that the company was not willing to take,” said Wagner.

Customer: JOA



## JOA Quick Facts

- Designs and manufactures custom machinery
- Deployment in over 55 countries throughout the world
- Main corporate facilities in the U.S. and Germany
- Difficulty sharing CAD files across high-latency, low-bandwidth links

## Silver Peak Results

- Reduced WAN traffic by over 90%
- File open/saves reduced from 1 hour to a few seconds (60x improvement)
- Saved \$60,000 in upfront costs by centralizing servers and storage

While the company was serious about keeping control of their applications in Wisconsin, users in Europe were experiencing “unbearable” delays when performing routine tasks. Something had to be done.

“It was taking 2–3 hours to open and save a 3D drawing,” said Wagner. “Users joked about how they would plan their family vacations around these file transfers.”

#### THE RIGHT WAN DESIGN

As user complaints continued to mount, JOA’s IT department began to explore different WAN acceleration solutions.

They first tried basic compression techniques using appliances from Packeteer. Unfortunately, the performance gains they received were negligible.

“Bandwidth was only a small part of the problem,” said Wagner. “We needed a solution that could also address the long latency between Wisconsin and Germany, which was greater than 150 milliseconds.”

JOA then turned to F5’s Wanjet product. But, after a free trial that lasted almost a full year, the company still did not see significant performance gains across their WAN, particularly when it came to directory browsing.

The company then approached Tacit Networks to see if Wide Area File Services (WAFS) was the answer. However, they quickly learned that this technology could not address the

breadth of applications required in the JOA environment. Specifically, the Tacit solution (and WAFS in general) did not address JOA’s need to accelerate Novell file services, email, and the company’s Workwise™ ERP application.

JOA eventually turned to Silver Peak’s NX family of appliances. With Silver Peak’s Network Memory™ technology, JOA was able to reduce over 90% of their WAN traffic by delivering duplicate information from local data stores on Silver Peak appliances. In addition, TCP acceleration techniques helped to overcome the latency experienced between the United States and Europe. Because the Silver Peak solution works at the Network Layer of the ISO stack, it was able to accelerate all of the applications in the JOA environment.

On average, file opens and saves that used to take 1 hour across JOA’s WAN now take a few seconds. 3D files, which used to take 2–3 hours to transfer, now can be accessed in less than 1 minute.

“The performance difference is remarkable,” said Wagner. “We’ve actually received written testimonials from remote users commending us on the improvements we’ve made to our WAN.”

From modeling to manufacturing, Silver Peak has become an essential tool for remote collaboration and real-time information exchange throughout the JOA environment.

*“The performance difference is remarkable,” said Wagner. “We’ve actually received written testimonials from remote users commending us on the improvements we’ve made to our WAN.”*