Case Study

La Crosse Technical Consultants (LTC)

With Panzura, Steel Detailer LTC Eliminates Data Delivery Latency, Adds Disaster Recovery

As a steel detailing company on the leading edge of technology and innovation in the industry, La Crosse Technical Consultants (LTC), in conjunction with some of the industry's leading steel fabricators, supplies detailed shop drawings; the latest in 3D modeling; standard part drawings / gather sheets; and project tracking controls for projects of any size. LTC prepares fabrication files and drawings to an individual fabricator's shop standards or detailing style, coordinating projects from inception to conclusion.

LTC hosts all its work data in its Los Angeles data center, with most of the actual detailing work being done in one of its two remote offices – West Salem, Wisconsin, which has 15 end users, and Cebu, Philippines, with an additional 30 end users.

To facilitate better project communication with its clients, LTC has integrated state-of-the-art Tekla Structures modeling software into its detailing process. The use of Tekla Structures leads to more timely and accurate results, and ensures the precision of the model itself. Tekla Structures is a model-based software application for customers in construction, infrastructure, and energy industries. The basic functionality of Tekla Structures is similar to that of other BIM applications for structural design. Telka software, like other AEC applications, consists of very large files, or a high number of smaller files, making transmission and sharing of data a time-consuming headache.

File Open Challenges and More

The overwhelming issue that LTC was dealing with was the delay in the transference of files between its remote locations. On many occasions, files between Wisconsin and Cebu wouldn't open. The Los Angeles data center was opened in an attempt to overcome this problem. However, it was not an issue of file size, or of bandwidth. The culprit causing the bottleneck was latency. For instance, there was a 270ms latency in the transference times between Wisconsin and the Philippines. And this was per file. When multiplied by hundreds or thousands of files, these delays were placing tremendous hurdles on staff productivity. In addition, other engineering and steel fabrication companies needed to share these files in a timely manner. Delays in data delivery resulted in workflow disruptions, slower project cycles, and customer dissatisfaction. Another issue recently made evident was the heightened need for data security in the event of a major disaster, as in a monster typhoon. For LTC, protecting and securing data from a crippling disaster event is critically important.

Previously, LTC had employed Windows file servers with Riverbed Steelhead appliances to optimize data traffic and bandwidth utilization across a wide area network (WAN). The Los Angeles data center was running 100Mbps, Wisconsin was at 50Mbps, and the Cebu office had 20Mbps. Riverbed was used for data compression but the results were negligible and it did not alleviate any of the latency issues. Delivery times still were very slow.

With Panzura, LTC saw immediate results:

- **Reduced file transfer latency to near zero**
- **Inherent data protection with cloud redundancy**
- **Improved workflow and productivity**
- **Cost benefits of a cloud solution**

Solution: Access, Collaboration, and Security

LTC uses Tekla software, which has many of the same attributes and issues as AutoCAD software. So in searching for a solution, the company needed relief from similar problems – opening, collaborating, and sharing files quickly and securely while also protecting data in the case of disaster. The company searched several options but, after attending a presentation on the product, selected the Panzura Freedom Collaboration, with SMB, as the solution of choice. And in an example of the ease of acquisition and usage of Panzura products, LTC made its initial purchase online, via Amazon. This decision dovetailed the Panzura solution with the Amazon S3 cloud storage for LTC.

Before, it took more than 20 minutes to open a series of files. With the addition of more Steelheads, bandwidth improved noticeably, however latency persisted and it still took a long time to open a file, which led to remote applications timing out. Once again, the problem wasn't bandwidth, it was the ability to open remote files without latency. As latency was the issue, and distance makes a difference, LTC chose to put all its data in the Los Angeles office as it was closer to its Philippines office than Wisconsin. Los Angeles is the location from which partner companies connect, via VPN, to access needed files. However, LTC likes the idea of moving partner access to the Amazon compute cloud and using a single distributed cloud file system, plus the S3 data store, to connect its physical sites to a virtual AMI instance.

> *"Panzura was able to quickly set up a global file system solution that allowed worldwide collaboration for our shop drawings and 3D modeling files. Delays to accessing those files were eliminated. Data security was ensured. And at all of our offices, productivity rose. From concept to working solution, the entire process took less than two months."*
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> — Joel E. Sell, Prresident, LTC, Inc.

Benefits Attained

Panzura enabled LTC to address file access issues by leveraging the flexibility, efficiency, and cost benefits of the cloud. The solution enabled easy file opens, lookups, locks, closes, unlocks sharing, data protection, and disaster recovery via replication in the cloud.

The Panzura solution not only enabled file sharing among remote offices, but also provided a pathway that enabled partners to share the same information. In addition, with Panzura's built-in disaster recovery abilities, LTC was able to overcome the massive setbacks that were created by Super Typhoon Haiyan (local name: Yolanda), the strongest tropical storm ever to hit land.

Today, business is moving ahead smoothly. Offices in Wisconsin and the Philippines are sharing data as if the files were all local. Wait times for data files have been reduced from dozens of minutes to just a few seconds. File locking provides the version controls needed when dealing with multiple touches from multiple offices. Business continuity is assured as disaster recovery of files is embedded in the Panzura solution.

With the ability to radically shorten the time between file exchanges, LTC was able to undertake projects that just a few months previous, before Panzura, could not meet demanded timelines. Now with Panzura, a major contract to provide stadium steel construction has been undertaken by LTC. From concept to implementation, LTC found an easy pathway to its file open problem. Working with Panzura and its cloud providers, LTC obtained just the right combination of products and processes it needed as it moves forward with its global operations.

For more info, please visit us at: www.panzura.com.

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