

Manufacturer ensures uptime, slashes IT workload

Ulbrich Stainless Steels & Special Metals protects its data and its business with near real-time replication and quick recovery using Dell disk backup appliances



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Network Administrator, Ulbrich Stainless Steels and Special Metals, Inc.*

Customer profile



Company	Ulbrich Stainless Steels and Special Metals, Inc.
Industry	Metals & Mining
Country	United States
Employees	600
Website	www.ulbrich.com

Business need

To ensure business continuity and reduce costs, Ulbrich Stainless Steels and Special Metals needed to replace its unreliable, time-intensive tape-based backup and recovery solution.

Solution

Ulbrich enjoys near real-time replication with Dell DL Backup and Recovery appliances and AppAssure. IT staff no longer waste time babysitting backups, and recovery takes minutes instead of 24 hours. Plus, Ulbrich will rid itself of both tapes and costly off-site storage, saving \$9,000 annually.

Benefits

- Ensures business continuity with reliable backups and efficient data replication
- Slashes recovery time from 24 hours or longer to just minutes
- Saves IT staff more than 96 hours a week they used to spend babysitting backups
- Saved \$8,000 immediately by obviating the need to purchase additional disk array capacity
- Will save over \$9,000 annually by eliminating the need to purchase tapes and contract with an off-site storage service

Solutions at a glance

- Backup and recovery

At first blush, it might seem that backup and recovery is less important for a manufacturing company than for, say, a software or technology company. Ulbrich Stainless Steels and Special Metals, Inc., however, would beg to differ. As a global manufacturer of precision metal products with locations on three continents, Ulbrich relies heavily on its IT infrastructure for communications, business applications, data access and more, so it cannot afford to have backups failing or to wait days for recovery. And thanks to data protection solutions from Dell, it no longer has to.

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Unreliable tape-based backups put the business at risk

Ulbrich is dedicated to producing and distributing the highest quality materials, from precision rolled strip to hundreds of innovative medical devices. IT systems are critical to the business: They support Ulbrich's industry-leading dimensional control, real-time gauging and statistical process control (SPC), as well as foundational systems such as Exchange, SQL Server and SharePoint. In all, the company has seven terabytes of data, hosted on two physical servers running 137 virtual machines.

Trying to back up all that data with a tape-based system had become a Herculean effort. The process was to use Arcserve Backup to back up the data to disk file servers, where it was kept for two weeks. Then the data was transferred to tape for off-site storage with a third-party service, Iron Mountain. But there were significant problems every step of the way.

First, despite an exceedingly generous backup window of 72 hours, the weekly full backup often failed to complete. "A full backup to disk took 48 to 72 hours," recalls Leonard Charran, network administrator, Ulbrich Stainless Steels and Special Metals, Inc. "Even so, more than 20 percent of the time, the process would not complete within that window and therefore some data simply would not get backed up."

The team was acutely aware of the business risk of not having current backups of all data on disk. "The best we could do was to try to make sure it got backed up the next time," says Charran. "But that increased the odds of some other data being missed the next week. It was like robbing Peter to pay Paul."

Tape-based backup and recovery is expensive and cumbersome

In addition to the risks of data loss in the backup to disk, there were significant costs associated with using tape for longer term storage. "We were never confident in the reliability of the tapes, and they were both time-consuming and expensive," explains Charran. "Every week, we had to create seven to nine new tapes and send them to Iron Mountain, and every six months the tapes would be rotated back to us. Altogether, the cost for tapes themselves, the maintenance contract for the tape backup hardware and the Iron Mountain contract exceeded \$9,000 annually."

Products & Services

Software

Dell AppAssure

Dell DL4000 Backup and
Recovery Appliance

Moreover, IT was spending far too much time babysitting backups, and the nearly constant backups were interfering with business operations. "The weekly backups put everything on hold for the entire weekend, Thursday to Sunday," Charran recalls. "On top of that, the incremental backups ran every night, from 5:00 p.m. to 8:00 the next morning. In total, backups were running 330 hours a month, and we had to be on call throughout it all." To put that in perspective, consider that the average month has only 728 hours total.

Recovery was also slow and unreliable and incurred additional costs

Because the backups to disk were often incomplete, data might or might not be available for recovery when the business needed it. And the off-site tape storage made recovery of data more than two weeks old exceedingly slow. "First we had to physically retrieve the tape from Iron Mountain," explains Charran. "Then we had to read the catalog, import the data from the tape into the application, and then recover it to whatever format it was originally from. From start to finish, this process could easily take 24 hours."

The costs were not limited to the time IT staff spent performing the recovery and the lost productivity of the employees waiting for recovery of their data and applications. Ulbrich also had to purchase additional disk capacity to stage the backups.

Looking for a reliable, cost-effective approach

Though Ulbrich was naturally eager for a new approach to data protection, the IT team was careful to perform due diligence. After evaluating a range of solutions on the market, they found EMC Avamar to be too expensive, and Seagate's cloud-based approach did not fit with Ulbrich's on-premises model.

As a satisfied Dell customer, the company decided to learn about Dell backup and recovery appliances with built-in AppAssure data protection software. "We had been using Dell KACE for application inventory, deployment and patching with great success, and we were in the process of moving from HP to Dell workstations," notes Charran. "Although we hadn't settled on an appliance-based approach to data protection, we decided to demo the DL4000 Backup and Recovery Appliance. We were immediately impressed. The DL4000 offers a turnkey approach that bundles the applications with the storage and server, which makes it far easier to deploy and use."

Simpler and better support was another huge plus for the appliance. "With the DL4000, we have just a single vendor to go to for services and support," Charran says. "Dell provided excellent support throughout the demo and after the purchase. Plus, they provide an online support site that includes all the information you could want about the appliance."

Ensuring business continuity with reliable backups and quick restores

Ulbrich purchased two DL4000 appliances, one for its corporate headquarters and one for a secondary site. Nightly replication between them ensures that the company always has a complete backup of current data, ensuring business continuity. The built-in AppAssure software can take up to 288 block-level snapshots a day, providing recovery point objectives (RPOs) as low as five minutes. And its quick, granular recovery enables near-zero recovery time objectives (RTOs).

Ulbrich opts for snapshots every four hours on weekdays, which limits the risk of data loss to a level the company finds acceptable. "The process is extremely reliable," notes Charran. "Recovery

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Saving IT more than 96 hours a week

In addition to keeping the business safe, reliable backups and easy restores save IT staff at least 96 hours a week monitoring the backup process. "Backups used to run all night and all weekend, and I had to be on call and worry about them all the time. If a backup failed, I'd have to rush to restart it because otherwise data wouldn't get backed up until the following week," explains Charran. "I'm saving at least 96 hours a week with the DL4000 and AppAssure. On the rare occasions when a snapshot fails, I get an email alert, but I don't have to jump right away because the next snapshot four hours later almost always completes just fine, solving the problem for me."

In fact, backup is so automated now that Charran can handle the process without assistance. "Previously, three other people would help me out with the backup process from time to time," Charran says. "Now, with the DL4000 and AppAssure, backups are so easy to manage that I don't need help. The other three people are all free to go back to focusing on their responsibilities on the shop floor."

Both immediate and ongoing savings

On top of ensuring business continuity and reducing IT workload, the Dell solution also delivered significant savings. "By eliminating the need to purchase additional disk storage arrays for staging backup data, the DL4000 appliances saved us \$8,000 right off the bat," notes Charran. "In addition, as soon as deployment is complete, we'll be saving over \$9,000 annually by not having to purchase and maintain tapes and contract with an off-site vaulting service."

A cost-effective solution for today, and tomorrow

With expert sizing guidance from Dell support staff, Charran was able to choose the right DL4000 configuration for Ulbrich. The two appliances handily manage Ulbrich's current seven TB of data — and also provide scalability for the future. "Dell Support helped me make sure we had the right bandwidth and the right specs on the appliances so we can meet our current needs and have room for three to five years of data growth," says Charran. "In fact, the Dell appliances are so fast, reliable, cost-effective and user-friendly that we plan to purchase six more in the coming year for additional domestic and international sites."

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