MORRISON INDUSTRIAL EQUIPMENT MAKES A QUICK, PAIN FREE CLOUD MIGRATION

EXECUTIVE SUMMARY

Customer:
Morrison Industrial Equipment

Location:
20 locations throughout Michigan and Indiana with headquarters in Grand Rapids, Michigan

Industry:
Industrial Equipment

US Signal Services

+ Enterprise Cloud
+ Disaster Recovery as a Service with continuous data protection
+ US Signal-owned and Maintained IBM P Series Server
+ Cloud Migration

Results

+ Approximately $5,000 savings per month in labor and power costs
+ On-going savings resulting from not having to manage on-site data centers or DR solution

About the Customer

Morrison Industrial Equipment Company provides new and used forklift sales, service, parts, and rental services to customers in Michigan and Indiana. Headquartered in Grand Rapids, Michigan, adjacent to the Grand River — a river notorious for flooding, Morrison knew its in-house data center would eventually be at risk. At one point over a two-week period, the river had surged four feet.

The Situation

Although Morrison has 20 locations in addition to its headquarters, it operates with a very small, lean IT staff. Everything had been virtualized, so most tasks were performed remotely. That meant the staff didn't have to spend much time in the company's computer room. However, the on-site facilities still had to be maintained, which did take the staff away from more strategic initiatives.

Steve VanderZouwen, Morrison's IT manager, determined there was no reason the company needed its own data center. A multi-tenant cloud environment could deliver the necessary compute, storage, and network resources, provide a disaster recovery solution, and offer benefits such as security and scalability more cost-effectively. It would also free up staff time.

He estimated his staff could shave off at least an hour of its workload every day if it wasn't dealing with data center maintenance. The company could also realize savings from not running power for an on-site facility.

The Challenge

There was a great deal of apprehension about embarking on a cloud migration. Would the company get the same performance as it had in its on-site data center? Would it have the required speed? Would a move cause downtime?

There was also the question of how to go about making such a move. As VanderZouwen commented, "Moving to the cloud wasn't just going to be a matter of packing up a truck and moving everything to another site."

The biggest challenge, however, was how to handle Morrison's IBM P series server. While the company had 35 virtual servers, its IBM P series server wasn't virtualized. That server ran the company's main business applications and communicated with all the virtual machines.

Any move was going to require that the server be included since all of Morrison's business-critical applications revolved around it. Few companies were eager to take on the complexity of combining virtualized and non-virtualized resources — a challenge that would require a hybrid IT approach and a hardware investment by the service provider.

The US Signal Solution

US Signal was the only IT service provider that said it could accommodate Morrison's needs. As part of its solution to Morrison's IT needs, US Signal invested in an IBM P series server and installed it in the data center that would also power Morrison's cloud environment.

The US Signal team then went to work on setting up the actual migration to its multi-tenant enterprise cloud.

The first step was to fully understand Morrison's objectives in moving to the cloud, as well as their concerns. The team then explained the tools it would be using, and worked with the Morrison IT staff to create a project timeline with measurable goals.

Tools were inserted into Morrison's virtual environment so the US Signal team could understand the workloads and resources and then match them in US Signal's environment.

Open communication was going to be critical to the success of the migration project. A clear picture of the topology of Morrison's current "as-running" environment would also be essential.

To help with the latter, VanderZouwen and his team identified all of Morrison's applications and their dependencies. They then shut down their data center and brought their applications back up in the sequence they would be needed once in the US Signal environment. Everything was documented.

US Signal took that documentation and, working with the Morrison team, meshed it with their methods of procedures (MOPs) to clearly define the roles, responsibilities, and steps entailed in the migration process. VanderZouwen says US Signal's MOPs were one of the things that impressed him the most.

"It's one thing to plan a trip somewhere — in our case, a move to the cloud. But it's nice to have a road map to get you there. US Signal's MOPs laid out everything, so we knew what to do and what to expect."

Before the migration started, the US Signal team installed software on Morrison's existing equipment. A large screen TV was set up in the offices so the teams could watch the pre-testing processes to ensure that the desired results could be achieved prior to the actual migration process. All servers were in sync between the Morrison and US Signal environments within 6-10 seconds.

According to Jim Schuyler, a US Signal senior architect, because the processes were laid out so well and both teams understood the structure and responsibilities entailed in the migration, the team could have multiple components running simultaneously.

"As we were failing over one application, we could be restoring another and validating yet another," Schuyler explained. "It helped us meet the timeline so Morrison could be up and running in the new environment the next day."

There was also a network delivery component that facilitated the migration.

"We didn't want to wait until a connection was built to the Morrison headquarters to commence testing," Schuyler explained. "So, we set up everything via VPN across Morrison's existing connectivity to begin the transfer. We were then able to cut over to the MPLS by the time the company was live on its direct connection."

US Signal set aside a full Sunday for the migration starting at 8 a.m. with the goal to be finished up by 6 a.m. the next morning. VanderZouwen says a conference bridge was set up between the two companies, and the teams stayed in communication the whole time. US Signal's professional services team was also on the call in case any emergencies arose.

"This project wasn't just about bringing up servers. We couldn't just think about firewalls or workloads," Schuyler explained. "With 20 facilities, in addition to Morrison's headquarters, we had to make sure all the company's users could connect."

The migration was successfully completed well ahead of time. There was no unexpected downtime, and the applications are meeting Morrison's performance requirements.

Business Results

The migration was completed with a recovery point objective of 0, came in under budget, and was completed in less time than was provided in the allotted maintenance window — all with no surprises or obstacles.

While VanderZouwen says he doesn't have an exact figure to site in terms of the savings generated by the migration project, he estimates Morrison is saving approximately $5,000 a month between labor and power costs. Yet another benefit of the move to US Signal: peace of mind.

"If you ask our CEO if he sleeps better at night because of US Signal, he'll say 'yes" because he no longer worries about a flood or thunderstorm causing downtime. US Signal's disaster recovery solution has us covered," VanderZouwen says.

Final Words

The Morrison case study offers some important factors to help ensure a successful migration.

Among them:

+ Documentation is necessary both for understanding the customer's environment and for understanding and working through the migration process.

+ Open, two-way communication is essential to keep everyone on the same page and working together.

+ Clear timelines must be established upfront, and collaboration is required to meet them.

+ There are any number of resources available for a migration job. Using the right ones can make all the difference. Ensuring the resources are readily available is crucial, even if it's a matter of getting the right people on the phone to help solve a problem.

ABOUT US SIGNAL

US Signal is a leading data center provider, offering connectivity, cloud hosting, data protection, and disaster recovery services — all powered by its wholly owned and operated, robust fiber network, US Signal also helps customers optimize their IT resources through the provision of managed and professional services.

201 IONIA AVE SW, GRAND RAPIDS, MI 49503 / USSIGNAL.COM / 866.2.SIGNAL