Housing developer builds resiliency with DRaaS

Lightning strike puts disaster recovery plan to the test

By Ann Bednarz
Assistant Managing Editor, Features, Network World
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When Steve Werner joined Milhaus, the company was gearing up for a growth spurt that took it from roughly 80 employees in 2015 to more than 270 employees today. Upgrading the company’s IT infrastructure was a priority for Werner, who is the first director of technology at the Indianapolis-based company, which designs, builds and manages luxury apartments in urban areas.

“They went from a very small business to a pretty good sized business in a short amount of time. But we were still running on small business hardware, with a small business backup plan,” Werner says. The company’s IT gear was running in an old server closet with no air conditioning. “It couldn’t handle all that we were adding to it,” Werner says. “Everything was about to melt down.”

Milhaus moved to a new corporate headquarters early last year, which included a new server room. “We totally re-architected the infrastructure for the business,” Werner says.

As part of the IT overhaul, Werner set out to provide better protection for Milhaus’ telecom, file and accounting services. In the past, Milhaus had file-level cloud backup, but no recovery provisions for its servers. “If a server were knocked out, we would have had to rebuild the server from scratch, which could take days,” Werner says. “We needed to be able to recover a lot faster than that.”
“Creating an infrastructure that could handle the growth, handle the number of people – that was the first step. Step number two was disaster recovery. We needed real backup, and a real way to bring this stuff up that didn’t require rebuilding systems from scratch.”

In particular, Milhaus’ phone systems are core to business operations. It’s still the primary way for residents and prospective tenants to reach sales and support staff. Milhaus not only designs and builds apartment buildings, but also manages the buildings after construction. At 12 of its sites, Milhaus provides the phone services. “It’s important for me to make sure that those phones are always available at those sites,” Werner says.

Network services also extend beyond the corporate headquarters. It varies from property to property, but Milhaus might offer high-speed internet, wi-fi, TV, and home automation services to the residents of its luxury apartments. “We build our own networks at the buildings, all through the buildings, all the way into the units. Basically, we buy the internet pipe in bulk and we distribute it to the units,” Werner says. “You move in, and on day one you have fiber optic-based high speed internet.”

Moving to the cloud

Flexibility, affordability and access to specialized expertise are driving interest in disaster recovery as a service (DRaaS), particularly among small and midsize businesses, and adoption has grown steadily in recent years. According to research firm Forrester, 40% of enterprises have already adopted enterprise DRaaS, with another 24% planning to do so.
Milhaus checked out several providers before selecting Online Tech, based in Ann Arbor, Mich., that offers hybrid cloud, colocation, disaster recovery and offsite backup services. Online Tech hosts Milhaus’s DRaaS environment at their data centers, along with file-level and image backup services.

The fact that Online Tech offers geographical diversity was a draw; it operates seven data centers in three states. Support for cross-hypervisor failover and failback was also a priority for Milhaus, which is standardized on Hyper-V. The Online Tech service is powered by Zerto’s virtual replication technology, which enables cross-hypervisor replication across VMware and Microsoft hypervisors and multiple sites with native multi-tenancy.

Getting everything moved over and replicated through Zerto at Online Tech’s data center in Michigan took several months. “There were bumps in the road, but Zerto’s engineers worked with us,” Werner says.

In December, Milhaus had its first planned test of the disaster recovery environment. “I thought ‘It can’t work this way.’ But literally, a couple of clicks and the server is up, and you’re able to log into it, and it’s just as fast as turning the VM on here, directly on the hypervisor,” Werner says.

A few months later, Milhaus had an unplanned test, thanks to a lightning strike. “We lease some land right next to our building for a cellular tower, and lightning hit the cellular tower, apparently, traveled down into the ground, hit our ground wire, and then traveled into our server room,” Werner says. “It took out all of our switches in the server room. It was major network damage.”

While technicians worked on-site to see if they could restore or replace the IT gear, Werner reached out to Online Tech. “We got on the Zerto-based portal with them, and all the servers came up, just like in the test, within minutes.”

In the end, Werner was able to get Milhaus’ core services – in particular its VoIP phone services – back online without doing a complete failover. “I didn’t want to go ahead and effect the DNS changes at that point. But everything stood up and worked perfectly as it should have in the event of a disaster.”

Looking ahead, Werner aims to move some of the company’s most critical services to a more high-availability cloud environment.
“We can’t provide high-availability power, and obviously we can’t insulate well enough from lightning strikes and things like that,” he says. Probably Milhaus will enlist Online Tech to further insure reliability.

“Now we’re looking to move those tier-one services out to their cloud, so they’ll be replicating directly between two of their data centers. And then we have less worry that we’ll go down.”

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