

ENSURING BUSINESS CONTINUITY



Grace under pressure: How we physically moved 60tb of data

At 9:45PM on a Friday evening, 60tb of data started their physical journey over the roads of Long Island, New York. They rolled through the Bronx, crossed the Hudson River via the George Washington Bridge, and landed in Cedar Knolls, New Jersey just before midnight. Before daybreak, the data was live. Here's how it all happened.

A Decision is Made

The story begins in the spring of 2015, when ITsavvy initiated plans to relocate its Long Island, New York data center. Several factors led to the decision. Long Island's geology as a low-lying peninsula makes it prone to storm surges and rising sea levels. Flooding has always been a concern for the Long Island community. In 2012, Hurricane Sandy severely impacted many ITsavvy clients. A data center on Long Island was considered to be a risk.

Further, large metropolitan areas like New York City bring certain vulnerabilities to residents and businesses. From a strategic standpoint, it is most desirable to store redundant data in more remote locations. Stored data that is securely offsite and in the cloud can enable business continuity even if a brick-and-mortar operation is shut down. ITsavvy wanted to deliver that kind of confidence to its clients. The data center needed to be relocated.

OVERVIEW

Industry
Technology

Client Profile

When ITsavvy decided to combine its two East Coast data centers, it took a year of planning, testing and deployment. It was a go big or go home endeavor, and the selection of MIGRA as the moving vendor augmented an atmosphere of complete confidence. The result is a state-of-the-art, fully redundant and compliant operation that brings reliability and business continuity to ITsavvy clients.

Business Situation

ITsavvy needed to move its Long Island data center to a less vulnerable location. It was decided to combine its New York and New Jersey data centers, but physically moving 60tb of data would be a significant challenge.

Solution

ITsavvy engineers redesigned the expanded site and significantly upgraded its capabilities. ITsavvy partnered with MIGRA Systems to physically move data and components to the new site.

Benefit

- ITsavvy clients now have more secure data stored in a facility with all new upgraded switches and firewalls and a multi-point redundant mesh network. Virtual desktop data is now on all solid-state disks. The servers are secure and on high ground in a state-of-the-art operation.

The Location is Selected

Once the relocation decision was made, a location had to be found. It turned out that was the easy part. When ITsavvy acquired i-Works in 2013, it gained deep storage, backup and disaster recovery expertise. More importantly, i-Works already leased data center space in Cedar Knolls, New Jersey. The state-of-the-art Cedar Knolls Data Center is an enterprise-level, fully-compliant, self-sustaining facility that features high-density colocation capabilities, redundant power and cooling, comprehensive security features and is above the FEMA 500-year flood plan. It remained safe and dry during Superstorm Sandy. The decision was made to merge the two data centers into one expanded and redesigned space in Cedar Knolls.

Max M., Senior Project Delivery Manager, was put in charge of the relocation. MIGRA Systems was selected as the physical migration vendor. Much of the work during the months prior to the move was spent reconsidering the data center configuration. Top of the list was reducing its footprint. “Originally we had 50 to 60 devices in our Long Island center,” Max explained. “By employing virtualization, we were able to cut the size of the move in half. We also assessed the efficiency of legacy hardware. We ended up decommissioning a number of devices, which have since been repurposed in our Configuration Lab.”

The Final Preparations

Once the footprint was established, Max’s team started laying out the new data center with a Visio diagram. A Senior Systems Engineer configured and designed a new multi redundant client-facing VMware vCenter server environment. Another Senior Systems Engineer configured, designed and implemented a complete enterprise network environment for the new datacenter. Then cabinets were laid out, and all of the cables were prerun and pre-labeled. Labels were placed on devices in the Long Island center indicating their network names, their rack elevations and the apps they would run. The MIGRA team was brought in to compile a comprehensive asset inventory and document the day-of-the-move plans. “I like to have three contingency avenues. There’s no need to be flustered if Plan A falls through,” Max said.

The schedule was agreed upon. Clients whose systems would be affected by the move were notified to prepare for system downtime from 6:00PM on Friday, April 22 to 6:00AM Monday, April 25, although hosted Exchange email and phone lines would remain up. Two clients, however, required uninterrupted data access for their 24-hour operations: a

“Constant communication is the key to success for critical projects like this.”

Samuel Lolla, Managing Partner,
MIGRA Systems

logistics company and a pediatric medical center. Special considerations were made for their data to be migrated separately ahead of the move so they would not experience any downtime.

Since the Cedar Knolls data center was taking on a new configuration, Max's team tested and retested the system many times, making tweaks along the way. One month before the move, a freeze was instituted so no further changes could be made in the design. The final relocation team was established, and assignments were made. Two weeks before the move, all team engineers were put on hot standby, with no PTO days allowed.

Moving Day Arrives

At 6:00PM on the day of the move, Max ordered the data center power down to begin. The MIGRA team already had been onsite, familiarizing themselves with the move-from and move-to facilities, and packaging and protecting noncritical equipment. The remainder of the inventory took a little over three hours to pack up.

MIGRA had done over a thousand data center moves, and this was by no means its largest, so ITsavvy had complete confidence in their capabilities. "To allay any concerns, we provided Max's team with GPS trackers so they could follow the movements of the vehicles while they were in transit," said Sam L., Managing Partner at MIGRA. The trip took under two hours, arriving just before midnight. The movers positioned the racks and other devices into their new locations. Max's team patched everything into the backs of the servers with the prelabeled cables. Around 4:30 AM, the first data went live. Although clients were told to anticipate being offline the entire weekend, some were notified as early as Saturday afternoon that they would be coming back online. By Sunday evening, all client accounts were up.

The Success

After a post mortem review the following Tuesday, the relocation team was released back to their regular positions, two weeks ahead of schedule. By everyone's standards, the data center relocation was a resounding success, timed perfectly like a graceful ballet.

"I have to give a lot of credit to Max and his team," Sam said. "They knew their network inside and out. The time they spent upfront to reduce the footprint was very, very smart."

"Physically moving data is a big, big challenge. I was counting on each and every member of the ITsavvy team. They completed their roles to perfection."

Max M., Senior Project Delivery Manager

In return, Max had high praise for MIGRA. “They understood our concerns and the stresses associated with this kind of undertaking. Their professionalism and attention to detail was invaluable.”

ITsavvy clients now have more secure data stored in a facility with all new upgraded switches and firewalls and a multipoint redundant mesh network. Virtual desktop data is now on all solid-state disks. The servers are secure and on high ground. Best yet, there is plenty of room to grow.

FOR MORE INFORMATION,
please contact an ITsavvy Client Executive.

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