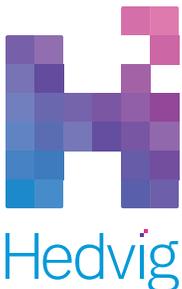


Maximizing business agility with Hedvig

Pittsburg State University (PSU) is located on the plains of Southeast Kansas with an enrollment of over 7,000 graduate and undergraduate students. It is also the home of the Kansas Technology Center, a state-of-the-art technology program in the largest academic building in Kansas.



Business Challenges

Many of PSU's faculty and staff live just across the state line, in or near Joplin, Missouri. On May 22, 2011, a mile-wide F5 tornado tore through Joplin, killing 158 and causing \$2.8 billion in damage. Several organizations in Joplin with hardened datacenters sustained damage from the 200 mph winds packed inside that F5 mega-vortex. Some of them were offline for significant periods of time. "This was a wake-up call to us at Pitt State," said Tim Pearson, Assistant Director in charge of IT Infrastructure and Security at PSU. Until this time, PSU employed what most would consider "standard" methods of data protection and security. The Joplin tornado made it abundantly clear to the IT professionals at PSU that "standard" wasn't good enough when you live in Tornado Alley!

PSU began a process to distribute its compute and storage infrastructure to improve survivability should an event similar to the Joplin tornado strike Pittsburg. "In addition to moving half of our production VMware compute stack to our DR site on the other side of campus, we also purchased some used EqualLogic gear to replicate our storage to the DR site multiple times each day. In addition, we leveraged the State of Kansas Research and Education Network and relocated some old storage to the datacenter at Wichita State University across the state," said Pearson. "We replicated our backups to Wichita every night," he added. These actions significantly enhanced the survivability of PSU's virtual environment using the then-available technology and budget.

It wasn't until there was a significant increase in the failure rate of the spinning disks in their old EqualLogic SANs that Pearson began to raise red flags to university leadership about the aging condition of some of the university's most critical IT infrastructure. University president Steve Scott, who had taught Computer Science classes earlier in his career, understood completely the risk the university was facing if they didn't act. Federal grant money was identified that could potentially be programmed to fund the upgrade.

Pearson created a task force consisting of System Administrators, Datacenter Admins, and Senior Network Engineers and began the process of developing an RFP for new compute and storage. The task force did independent research on current technology, identified the players in the market, and determined the kinds of features the various vendors had to offer. They also identified some design goals for any new infrastructure. These included enough compute horsepower to run PSU's critical VMware workload in both on-campus datacenters, along with real-time replication and automatic failover of the storage layer between at least the two on-campus datacenter locations — and preferably to Wichita State as well. In addition, external iSCSI and/or NFS connectivity was required to allow PSU's other stand-alone Unix and Linux

ABOUT PSU

> In the heart of Tornado Alley in the Midwest

> Like most universities, had put off upgrading virtual infrastructure due to economic downturn, the tepid rate of the ensuing recovery & continuing ripple effects it was having on state revenue fall over the USA



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—Tim Pearson,
Assistant Director of
IT Infrastructure &
Security, PSU

hosts to use the new storage. "It was at about that stage in the process that Google helped me find Hedvig," said Pearson.

Hedvig Solution

Pearson downloaded several technical documents from Hedvig's website and began to familiarize himself with the design philosophy and feature set Hedvig offered. "I knew after 10 minutes of reading that Hedvig could be a serious contender for our storage layer," said Pearson. "They offered such an elegant, robust, scalable, and flexible distributed storage model. It really put them in a class different from most of the other vendors out there," he said.

As part of the RFP evaluation process, Pearson's task force paid special attention to vetting Hedvig's track record with its customers. He explains: "We liked what we saw from Hedvig, but felt we needed to do a thorough job of vetting the company and the product before moving forward. Hedvig arranged for us to speak with several of their longer-term customers whose use cases were similar to what we wanted to deploy. Some were about our size, and one dwarfed us— both in the amount of storage they had and in the number of hosts they had consuming that storage. The most memorable outcome of those conversations was the universally glowing reports we got on Hedvig's support, along with statements about their willingness to let customer needs influence the enhancement process as new versions of Hedvig were developed."

Hedvig's proposal eventually won the day at PSU. "Hedvig was at or near the top of the list on the rubric items we used to evaluate RFP responses. When the product you think is one of the best fits also provides a focused and remarkably technical support team, it makes the decision process quite straightforward. The members of our evaluation task force unanimously recommended Hedvig's proposal after our evaluation process was complete," said Pearson.

Hedvig's solution not only satisfied all the requirements of PSU, but also gave them a glimpse of what they can achieve in future. With Hedvig's object storage capability, backup integrations, container support, and hybrid-cloud/multi-cloud deployments, PSU insured that their solution is future-proof, as well.

Results

PSU's Hedvig deployment has been up and running now for a couple of months. They've completed the migration process from the old BladeCenter compute and iSCSI storage systems and have new HPE distributed computing resources and a 3-site, distributed Hedvig storage environment in their place. "So far, so good. We've already learned that the reference calls we made and the glowing reports we got about Hedvig support were accurate. They've been great to deal with — start to finish," said Pearson.



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ABOUT HEDVIG

Built by software engineers of the world's largest distributed systems, Hedvig delivers modern storage for enterprise compute environments running at any scale. Customers such as LKAB, Scania, and GE use the Hedvig platform to transform their storage into a fundamental enabler of digital business strategies.

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