COHESITY

CASE STUDY

# BYU Life Sciences IT Simplifies Data Management with Cohesity

BRIGHAM YOUNG UNIVERSITY

**INDUSTRY**
Higher Education

**USE CASE**
Backup and Recovery
Disaster Recovery

**DATA SOURCES**
VMware on VxRail and Nutanix

**CHANNEL PARTNER**
Compunet

Effective data management is critical to research universities. At Brigham Young University Life Sciences College (BYU), the IT staff protect a variety of data—much of it regulated—for students as well as faculty members working as instructors and researchers. Today, Cohesity helps the Life Sciences IT organization effectively support scientific grant studies and learning by ensuring mission-critical workloads are always available and secure. Since deploying Cohesity, BYU IT has simplified and strengthened its data protection while reducing its data center footprint.

## Challenges

Although BYU's Life Sciences IT team had working backup and recovery products in the past, none was optimal for the limited staff with other IT system responsibilities. Initially, the team backed up VMs using Bacula Systems, which was a lengthy process. "We'd start backing up using Bacula to a Netapp SAN on Friday evening and when we came in on Monday morning, we'd find it still backing up," remembers Danny Yeo, Director Computing Technology & Services, Life Sciences IT, BYU. The team switched to Veeam, which was an acceptable solution, however, when the NetApp SAN started exhibiting issues, the team had to use a different storage target for its backups. The solution was not ideal, requiring manpower resources to monitor and ensure that backups were reliable.

### Key Benefits

- 2-hours to stand up and make Cohesity work versus three months and zero backups with the prior solution
- Simplified data management for hybrid cloud
- Strengthened security with built-in ransomware protection

> "My main concern with any technology we acquire is that we don't need additional manpower to run it. Cohesity didn't take much time or effort to install, and day after day, it's simple to use as an enterprise-class, reliable data management platform for backing up our mission-critical workloads."
>
> **Danny Yeo**, Director Computing Technology & Services, Life Sciences IT, Brigham Young University

That experience led the team to adopt a hyperconverged infrastructure solution with three nodes on premises for 150 virtual machines (VMs), 45 of them identified as mission critical that "under no circumstances, should they be down," says Yeo. Yet because the software created and kept snapshots on the same servers, the Provo-based team also established a remote site in BYU's Salt Lake Center to provide greater redundancy. That solution worked, including storage constraints when deletion of older backups did not automatically free up capacity for newer backups, and not providing an easy way for BYU Life Sciences to optionally extend backup into the cloud.

When that product was acquired by another vendor, BYU's Life Sciences IT team felt it was time for another change, and it adopted Dell EMC VxRail and IDPA (Dell EMC's replacement for Avamar and Data Domain), hoping it would further simplify backups and data management. Yet after three months of initial setup and configuration, Dell engineers were unable to get IDPA to work at all.

## Solution

At this time, BYU began to investigate modern data management solutions including Cohesity and Rubrik. The team chose Cohesity believing it would be a great fit because it simplifies operations on-prem and in the cloud while delivering security, peace of mind, and overall being a superior product.

Today, BYU backs up its research and administrative workloads—VMware VMs from VxRail and Nutanix—to Cohesity. BYU uses Nutanix to support classroom instruction workloads, particularly Nutanix Frame virtual desktop infrastructure (VDI). The implementation provides instructions to students in a classroom setting using Linux desktops and specific life sciences applications integrated with backend GIS systems. All-in, BYU has three Cohesity nodes deployed in a cluster in production with replication to a second three-node cluster in Salt Lake to ensure business continuity for mission-critical VM and VDI workloads.

"We thought the Cohesity platform would be priced out of our range, but we were pleasantly surprised at its affordability for both on-prem and at our remote site," said Yeo. "Cohesity provides backup both the way we envision it today, and with the option to go to the cloud in the future."

BYU expects to always operate a hybrid IT environment, so both data management ease of use and cloud integration are important. "We're not going to have to put a bunch of connectors, a lot of gateways, or other technologies in to adopt cloud," said Yeo. "But we want cloud capabilities because if the campus network is down, we still have service-level agreements to meet, especially with government grants, and Cohesity can help us manage our data in a hybrid approach."

While BYU IT staff is excited to leverage Cohesity for its cloud capabilities, the team is even more excited that capabilities like archiving, protecting cloud workloads, and SiteContinuity are all very easy to implement and configure. There is no added complexity to adopt these additional multicloud workloads.

Security is also a priority concern. Cohesity backups are immutable, defending data from cyberattacks. If the College experiences a ransomware attack, it can quickly roll to the last, clean backup. "Ransomware is foremost in my mind. I'm concerned that it's just a matter of when," said Yeo. "So immutability is really key because we can go back and course correct. If Cohesity didn't have ransomware recovery capabilities, we would not have purchased it."

## Results

It took BYU two hours to get the two Cohesity clusters set up and configured. Then the data management platform was backing up workloads within the next half hour, according to Yeo, who was impressed that it happened so quickly.

"The setup really was easy, painless, and trouble-free. We spent three months and the last product never did get working," said Yeo. "Cohesity meets all of our requirements—shorter backup windows, ease of use, simple restores, and excellent support experiences."

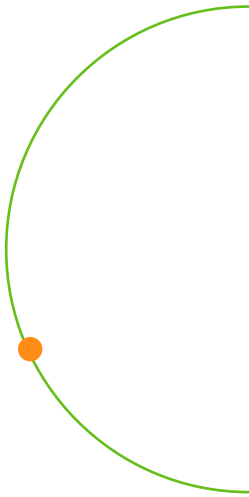
BYU IT has just one person working on backups on a daily basis. That employee, according to Yeo, is very happy with Cohesity because "now he doesn't have to work past five o'clock."

With Cohesity, BYU has achieved the following benefits:

- Two hours to stand up and make Cohesity work versus three months and zero backups with the prior solution
- Simplified data management for hybrid cloud
- Strengthened security with built-in ransomware protection

## About BYU

Brigham Young University has more than 33,000 students, the largest undergraduate enrollment of any private university in the U.S. Its three sister institutions—BYU Hawaii, BYU Idaho and BYU Utah—which make up the church education system were founded to assist individuals in their quest for perfection and eternal life.



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