

## AI company saves 50 percent on data storage costs

Cycorp is creating software that thinks and learns like a human. Behind the scenes, NetVault Backup protects its vital data while cutting data storage costs in half.



“We reduced total costs 50 percent with NetVault Backup. This takes into account the extra storage we had to buy on an almost constant basis and the amount of time it took to manage the previous solution.”

*Daniel De Los Santos, Senior Director,  
Information Technology, Cycorp*

### CUSTOMER PROFILE



<b>Company</b>	Cycorp
<b>Industry</b>	Information Technology
<b>Country</b>	United States
<b>Website</b>	<a href="http://www.cyc.com">www.cyc.com</a>

### BUSINESS NEED

Cycorp urgently needed to replace memory constraints on its data-rich product — software that thinks like a human — with nearly unlimited storage and failsafe data protection.

### SOLUTION

Cycorp migrated to a virtual environment and now uses NetVault Backup for backup and recovery and NetVault SmartDisk for data deduplication. With these solutions, the company acquired unlimited storage potential, cut solution costs in half and protected its data for memory-intensive R&D.

### BENEFITS

- Reduced total solution costs 50 percent
- Achieved a 6:1 dedupe ratio
- Saved tens of thousands of dollars on secondary storage costs
- Enhanced business value of legacy data

### SOLUTIONS AT A GLANCE

- [Data Protection](#)

Perhaps it should come as no surprise that the decades-long quest for artificial intelligence can lead to a few storage issues: Building a brain out of software requires a lot of memory. That has certainly been the experience of Cycorp, a small company with the extraordinary ambition to endow machines with human-like understanding.

At one point storage became “a blocking problem that reverberated in almost every aspect of the company,” explains Daniel De Los Santos, Cycorp’s senior director of information technology.

Cycorp is no newcomer to the field, and that was part of the problem. The company has been around in one form or another for 30 years, working to bring a new level of intelligence and common-sense reasoning to software applications: in other words, to build the brain behind the widgets. “We have collected a large amount of data in the last 30 years and this data needs to be online for everyday use, which also means that this data needs to be protected,” De Los Santos says. “Because of this we had to manage growth in two areas: online and backup storage.”

Memory was at the heart of the storage confusion that Cycorp found itself sinking into. De Los Santos says almost everyone was being affected. “It was very difficult to share information in a meaningful and fast way. There were limits on the amount of memory that could be used and our product has above-average memory use.”

#### **HEADING OFF THE THREAT OF DATA DISARRAY**

In fact, while Cycorp was busy dealing with the latest advances in thinking machines, it needed to puzzle out something behind the scenes: how to urgently resolve its storage issues and come up with a new backup strategy to head off the threat of disarray. With data growing 10 percent a year, “there was also the constant concern that we might lose something that was vital,” says De Los Santos.

In the end, his small IT team found a way to adapt and lead the company in a new direction, by migrating from its traditional IT setup to a virtualized environment. But De Los Santos knew they’d need a robust backup and recovery plan to work seamlessly with this new environment.

After exploring the possibilities, De Los Santos chose NetVault Backup software for backup and recovery, along with the NetVault SmartDisk, a software-based add-on for data deduplication. The result: a dramatically lower total cost of ownership and improved service. “We reduced total [data storage] costs around 50 percent. This takes into account the extra storage we would have had to buy on an almost constant basis and the amount of time it took to manage the previous solution,” he says. “If your data footprint is large or even reasonable in size, then the cost is easily justified.”

#### **DEDUPLICATION, THE “KILLER APP”**

Data deduplication handled by NetVault SmartDisk now allows Cycorp to organize and provide enough storage — including retention — for its data. “For us that’s the killer app,” says De Los Santos. “Deduplication has allowed us to follow best practices when it comes to retention and general use of backups.”

“We no longer worry if we can retrieve the data in a timely fashion. We know it is there and can be brought back online post haste.”

*Daniel De Los Santos  
Senior Director  
Information Technology, Cycorp*

#### **PRODUCTS & SERVICES**

##### **SOFTWARE**

NetVault Backup

He preferred to leverage Cycorp's own equipment so his dedupe "appliance" consists of two well-equipped servers running NetVault SmartDisk. According to De Los Santos, NetVault Backup is better than its competitors in at least one specific respect: "the ability to leverage your own hardware to provide enterprise-class solutions."

"One of our SmartDisk servers uses 7TB of deduplicated data to protect 52TB," De Los Santos adds. "This is just astounding and it allows us to have four weeks of data online. The end result is faster restores and, more importantly, peace of mind in knowing where our protected data is located."

In fact, De Los Santos notes, NetVault SmartDisk has lowered Cycorp's hardware costs: "We buy less secondary storage now because of the deduplication that NetVault SmartDisk provides. It also allows you to use your own hardware to host their deduplication software. The savings can be massive. I know we have saved tens of thousands [of dollars]."

Another reason for choosing NetVault Backup, says De Los Santos, is that it's scalable. "We basically know we have unlimited ability to grow. As my environment grows, I know that it will grow

with me, especially NetVault SmartDisk. There is a limit to how much you can dedupe for each machine but if I run into a problem with that limit, all I have to do is drop another server in. Sure, there are licensing costs, but we have unlimited ability and don't have to worry about how much backup space is available. We can always add to it."

#### **CHANGING THE WAY WE WORK**

De Los Santos says NetVault Backup has improved business operations to the point where it has actually changed the day-to-day work experience at Cycorp. "The thing with NetVault Backup is it has allowed us to classify data. It has allowed us to know that we actually have the data."

Virtualization has also lifted some of the constraints on product development. "It has allowed us to suddenly be able to build whenever we needed things," he says. "So we had some special project that needed extra servers. Someone just put a request and said, 'Hey, I need four 64-gig machines,' and within minutes we could execute it for them."

With NetVault Backup, De Los Santos can recover data "at almost wire speed" when dealing with smaller recoveries. Larger recoveries have a bit more overhead but

are close to wire speed as well. "We no longer worry if we can retrieve the data in a timely fashion. We've done restores and test restores and all these kinds of things. We know it is there and can be brought back online post haste."

Cycorp now has a strategy in place, based on NetVault Backup, to safeguard the business based on the value of its data. "We are able to grow our live data without worrying about having the ability to protect or retain it. This is massive for us and allows us to focus on furthering our product."

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