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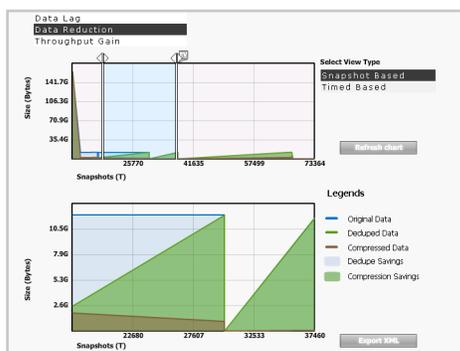
CHALLENGE: To convert the current IT environment from Tape to Disk Based Storage & Replication

AMD is on the cutting edge of clean "green" motor manufacturing, offering a range of yaw gear and pitch control motors to wind turbine companies in the renewable energy sector.

Recognizing that this tape/disk solution was untenable in the long run, AMD transitioned to a replacement SAN-based solution.

Advanced Motors & Drives®

Simple and Affordable Data Storage Keeps AMD Running

Cutting Edge "Green" Motors and Batteries

Syracuse, New York based Advanced Motors and Drives (AMD) is one of North America's leading manufacturers of customized traction and pump motors for customers in the battery-powered vehicle space.

In addition to serving industrial, recreational and utility vehicle manufacturers, AMD is also on the cutting edge of clean "green" motor manufacturing, offering a range of yaw gear and pitch control motors to wind turbine companies in the renewable energy sector.

Now owned by the Kinitek group of companies, AMD remains a true stalwart of the upper New York state economy, providing employment to hundreds of people in its East Syracuse design and manufacturing facilities.

The AMD Datacenter: Physical Servers, AS/400 and Samba

To support continued growth and an evolving product line, AMD uses a wide range of enterprise software applications. These systems, in turn, are supported by AMD's IT team at their modern data center located at the East Syracuse headquarters. A 100% physical environment, the AMD datacenter runs seven Red Hat Linux servers, a Blackberry Enterprise server, an IBM iSeries ERP server, and a host of supporting databases including an IBM AS/400. The data housed in these servers is managed at the primary East Syracuse site, and then replicated to an offsite location at an AMD warehouse.

In addition to maintaining and managing the servers and databases at the East Syracuse datacenter, the AMD IT team has responsibility for end user computing. To ensure that job easier, they rely on the Windows-compatible Samba service to maintain all end user desktops, laptops and printers.

Underpinning their physical server environment are two StorTrends SANs – one at the primary location in East Syracuse and another at their replication site. StorTrends represents a wholesale change for the AMD IT team. Up until their adoption of StorTrends, AMD had relied almost exclusively on a tape-based storage backup to manage and protect their data..

AMD Outgrows Tape, Turns to Disk Based Storage & Replication

Tape isn't necessarily a bad solution for data storage. But as AMD's Information Technology Manager Tom Flood notes, it has limitations. "The tape backup approach became a bottleneck, so we created a rotating schedule to backup different apps on different days. This led to periods of time where no backups existed for some apps."

To augment their primary tape-based storage solution, Tom and his team used disk-based backups (Zip and TAR files). These archives, however, were never moved to a safe location until the tape backup was moved. Restoring these archives was complicated and time consuming (and thus, often avoided).

Recognizing that this tape/disk solution was untenable in the long run, Tom led the effort to identify a replacement SAN-based solution. Past experiences with SANs, however, led to the impression that a number of solutions were, as Tom notes, "crystal china" – complex, complicated technology that only the most knowledgeable storage experts could reasonably operate.

StorTrends
Performance Storage. Proven Value.

> " *The StorTrends product, with its easy and intuitive GUI, makes SAN storage simple. You didn't have to have an engineering degree to create volumes in StorTrends. It's done in just a few clicks. And with a few more clicks, you've got that same volume replicated offsite.* "
>
> *- Tom Flood,*
> *Information Technology Manager*
> *Advanced Motors & Drives*

Tom's impression changed once they were introduced to StorTrends. "The StorTrends product, with its easy and intuitive GUI, makes SAN storage simple. You don't have to have an engineering degree to create volumes in StorTrends. It's done in just a few clicks. And with a few more clicks, you've got that same volume replicated offsite."

StorTrends easy set up process, U.S. based StorAID support organization, and highly affordable pricing structure, are the factors that sealed the deal for Tom and AMD. The Rubicon had been crossed: tape was on its way out and StorTrends disk based storage was on its way in.

IT Quick Facts:

- 100% Physical Datacenter- Linux Red Hat, Blackberry and IBM iSeries Servers

- AS/400 Database

- Two StorTrends SANs - Primary & Secondary with Smap-Assisted Replication

Replication Made Easy

Today, AMD uses the StorTrends SAN for both primary and secondary/backup storage. AMD has one StorTrends array at its primary datacenter in East Syracuse and a second at its replication site. Set up was extremely easy. Tom and team powered up the box when it arrived, plugged it into the network, and began using it within 15 minutes. Two days of testing proved that performance was up to snuff and the array went right into production. AMD now has six volumes thin provisioned (StorTrends allows for both thin and exact) for a capacity of 3.5 TBs. Each StorTrends has usable 11 TBD capacity with a hot spare drive installed.

The primary StorTrends array replicates to the secondary every day at midnight. Data is protected through that process with StorTrends Snap-Assisted Replication (SAR) feature. StorTrends SAR uses a point-in-time snapshot to identify a replication point, only replicating data within that defined window. Once a snapshot is taken with SAR, future snapshots only capture data that this is different than the original. This feature has helped AMD reduce the performance overhead often associated with other snapshot techniques.

In addition to easy and simple replication, the StorTrends array has proved to be a solid performer, providing "amazing speed" according to Tom. For example, AMD used to replicate a PDF directory of thousands of product drawings by copying the directory from one server's hard drive to another. That process typically took upwards of 15 minutes to complete. They now run that process through a shared volume between the primary and secondary StorTrends arrays. What took 15 minutes now takes a couple of seconds.

Support has also been a big positive for the AMD team. With StorTrends StorAID support, Tom gets direct access to solutions engineers. "It's very rare in IT to get direct access to high level engineers in a customer support context. The StorAID team truly understands our business – it's one of the reasons we made the decision to purchase StorTrends."

For more information on AMD, please visit: http://www.nidec-amd.com

For more information about how StorTrends can help your organization, please call AMI at 1-800-828-9264 or visit: http://www.stortrends.com