VERITAS™

Constructing a World-Class Data Protection Infrastructure

Abu Dhabi agency dramatically improves efficiency of highly effective backup solution.

Challenge

Musanada was using an older version of Veritas NetBackup™. Based on a long history with the solution, the team was highly confident in NetBackup's ability to protect critical data, but they wanted to increase efficiency in their data protection processes. Some backups were failing to complete within the backup window, and staff were having to manage a second data protection solution for one portion of the company's infrastructure.

Solution

The organization transitioned to a Veritas NetBackup Appliance in its main data center and worked with Veritas and IT consulting firm MDS UAE to optimize the solution. Now, Musanada is considering tying in NetBackup virtual machines (VMs) to protect cloud-based data and rolling out the Veritas Resiliency Platform.

Outcome

The small IT team has streamlined data protection for all of their production servers which run in a VMware virtual environment, through automation and use of the more intuitive user interface (UI), as well as by leveraging role-based access control that allows VM, Application, and Database admins to handle backup from their tools. All backups are now completing within the backup window, and data restores are 66% faster. The appliance's 99% deduplication and other drivers of efficiency are generating 300,000 AED (approximately US$82,000) in cost savings.

مساندة
Musanada
شركة أبوظبي للخدمات العامة
Abu Dhabi General Services Company

INDUSTRY

Real Estate

EMPLOYEES

Approx 600

HEADQUARTERS

Abu Dhabi

WEBSITE

https://musanada.com/

> "
> *We initially thought we'd lost almost 25 TB of data, [but] we were able to restore everything using NetBackup—it saved us."*
>
> Mohammad Hussein, Senior Infrastructure Specialist, Musanada

Expert Real Estate Support Across Abu Dhabi

The word "musanada" means "to support" in Arabic. It's an appropriate moniker for the Abu Dhabi General Services Company, an entity of the Abu Dhabi government that is also called Musanada. When another Abu Dhabi governmental agency or department needs to expand its physical footprint, Musanada can provide management and support services for the construction project.

"Having a shared construction service for all of the Abu Dhabi government enables our team to specialize," explains Mohammad Hussein, senior infrastructure specialist for Musanada. "When the Department of Health, for example, needs a new building, their internal staff don't have to oversee the construction project." Musanada also offers property management and facilities maintenance to other government entities.

Centralizing these responsibilities in one entity enables the government to retain employees with very specific expertise. For other Abu Dhabi agencies, outsourcing construction responsibilities frees up internal staff to focus on their core competency. "They benefit from Musanada's experience," Hussein adds. "Some projects are complex and require special skills, which Musanada has."

> # From between 12 and 24 hours, down to 20 minutes
>
> ### Acceleration in daily incremental backup of 17 TB Oracle VM

A Great Product in Need of an Update

In supporting agencies throughout the emirate, Musanada relies heavily on an Oracle construction management application that stores all the company's project data, as well as contracts, invoices, blueprints, and other documents. A project management solution, contracting application, facilities management system, and SQL Server databases round out Musanada's core software infrastructure.

All these production servers run in a VMware virtual environment in one of the company's two data centers. Together, the applications have about 100 TB of data on projects worth almost US$70 billion. "If we lost any of the information in these solutions, it would be a disaster," Hussein says. "That's why backups are mandatory."

Musanada has been a Veritas customer for more than a decade. Three years ago, Veritas NetBackup proved its worth when the company experienced a major incident in one of its data centers. A fire alarm misfired, and although there was no fire, the automatic sprinklers deployed, damaging storage hardware.

"We initially thought we'd lost almost 25 TB of data in that incident," Hussein says. "However, we were able to restore everything using NetBackup—it saved us." Hussein has many other stories of smaller-scale NetBackup data recovery events, and all are highly positive. "Users delete information; accidents happen. NetBackup has always been able to recover our data. It's a great product."

Still, Hussein and his team recently decided they needed to replace their tape media backup infrastructure. "The tapes were very slow," he says. "We were having problems completing backups within our backup window."

Additionally, until recently Musanada used a data protection product from a different vendor to protect its SQL Server databases. This created extra work for Hussein's three-person team, who have many other responsibilities in addition to data protection. When Hussein learned that NetBackup Appliances now support SQL Server AlwaysOn high-availability functionality, he knew it was time to refresh Musanada's data protection environment.

Consolidated Backup Management Across a Diverse IT Infrastructure

Two objectives of the project were to accelerate backups and consolidate all data protection operations on one platform. Protection from ransomware and natural disaster were key, as was the ability to protect Musanada's Microsoft 365 environment. When Hussein and his team evaluated an assortment of data protection solutions, several features of the NetBackup Appliance caught their attention.

They liked the potential to consolidate management of physical on-premises machines, virtual machines, and cloud-based systems into a single console. The team also appreciated that application awareness within the NetBackup Appliance could optimize backups to meet each solution's quality-of-service expectations.

"There are complexities in the setup of our Oracle databases and cluster; the other backup systems we considered could not support this environment as effectively," Hussein says. "Across our on-premises systems, virtualized environment, and cloud-based solutions, the Veritas NetBackup Appliance was the best choice. It provides one console to manage all of Musanada's backups. It is cost-efficient, and based on our history with Veritas, we were confident that it would provide the best protection."

The team was also enthusiastic about realizing prospective performance increases with the NetBackup Appliance. "This is dedicated, specialized hardware focused on backups," Hussein says. "The storage and the connections are designed to optimize backup efficiency."

Backups in 20 Minutes, not 20 Hours

Hussein and his team worked with Veritas and IT consulting firm MDS UAE to deploy a NetBackup Appliance in Musanada's primary data center. Then the three organizations worked together to optimize the company's data protection environment. Several benefits became clear right away. First was the expected performance improvement.

"When we tuned the Appliance, NetBackup Accelerator dramatically reduced the time backups and data restores take," Hussein says. "Our largest VM is an Oracle repository that is nearly 17 TB in size and growing by hundreds of gigabytes every month. In our legacy environment, this VM took 12 to 24 hours for an incremental backup. Now, with NetBackup Accelerator, this VM's backups complete in approximately 20 minutes. Even our largest remote servers are backed up in less than an hour."

Improvements in management of the data protection environment are just as impressive. NetBackup Copilot and the SQL AlwaysOn connectivity enabled Hussein to hand off responsibility for monitoring database backups to the company's database administrators (DBAs).

"The web UI has role-based access control, so it provides only the information that a particular backup manager needs," Hussein says. "This enables us to offload some responsibilities to the people who are closest to the data, freeing us up to focus on other tasks." The solution's ease of use, vCenter plugin, and automation of Exchange Server log truncation further reduce the amount of staff time that's required. "Because we are such a small team, having simple and cost-efficient data protection is very important."

99% Deduplication Rate Slashes Costs

Hussein also reports that Musanada is saving money through the new NetBackup solution. In addition to eliminating the costs of the third-party solution that previously protected the company's SQL Server environment, the Appliance has achieved a deduplication rate of 99%, which cuts spending on storage and tape media, ultimately reducing the annual cost of protecting the Musanada environment by 300,000 AED (equivalent to about US$82,000). "NetBackup Accelerator provides full backups for the cost of an incremental backup," Hussein says.

Perhaps most important, the NetBackup environment is reliably protecting Musanada's data. Backups are no longer failing because they can't complete within the backup window, and data restores are both faster and more granular. The company's most time-consuming restore jobs have accelerated from taking eight days to less than 20 hours. Additionally, SAN-based backup for VMware workloads ensure the production network is not impacted by the backup processes.

Musanada is testing NetBackup VMs to protect its cloud-based resources, and is evaluating the idea of installing a second NetBackup Appliance in its disaster recovery (DR) site and using Veritas Resiliency Platform to replicate data back and forth between data centers.

Even now, before these future phases of the data protection transformation come to fruition, Hussein is very pleased with the upgrade to NetBackup Appliances. "If we faced another situation where we lost data, like the sprinkler incident from a few years ago, I would be completely confident in our ability to recover our data," he says. "And having a single platform enables us to recover more quickly. That's how Veritas is helping Musanada mitigate digital security risks."

As Musanada looks toward application modernization in the future, NetBackup's comprehensive support for Kubernetes and VMware Tanzu ensure that the platform in use for today's workloads will provide consistent data protection for future needs as well.

For More Information

Please contact your local Veritas Sales Representative or Business Partner, or visit Veritas NetBackup Appliance

About Veritas

Veritas Technologies is a global leader in data protection and availability. Over 80,000 customers—including 87 percent of the Fortune Global 500—rely on us to abstract IT complexity and simplify data management. The Veritas Enterprise Data Services Platform automates the protection and orchestrates the recovery of data everywhere it lives, ensures 24/7 availability of business-critical applications, and provides enterprises with the insights they need to comply with evolving data regulations. With a reputation for reliability at scale and a deployment model to fit any need, Veritas Enterprise Data Services Platform supports more than 800 different data sources, over 100 different operating systems, more than 1,400 storage targets, and more than 60 different cloud platforms. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.

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