Software

Adopting a service-centric approach to backup & recovery

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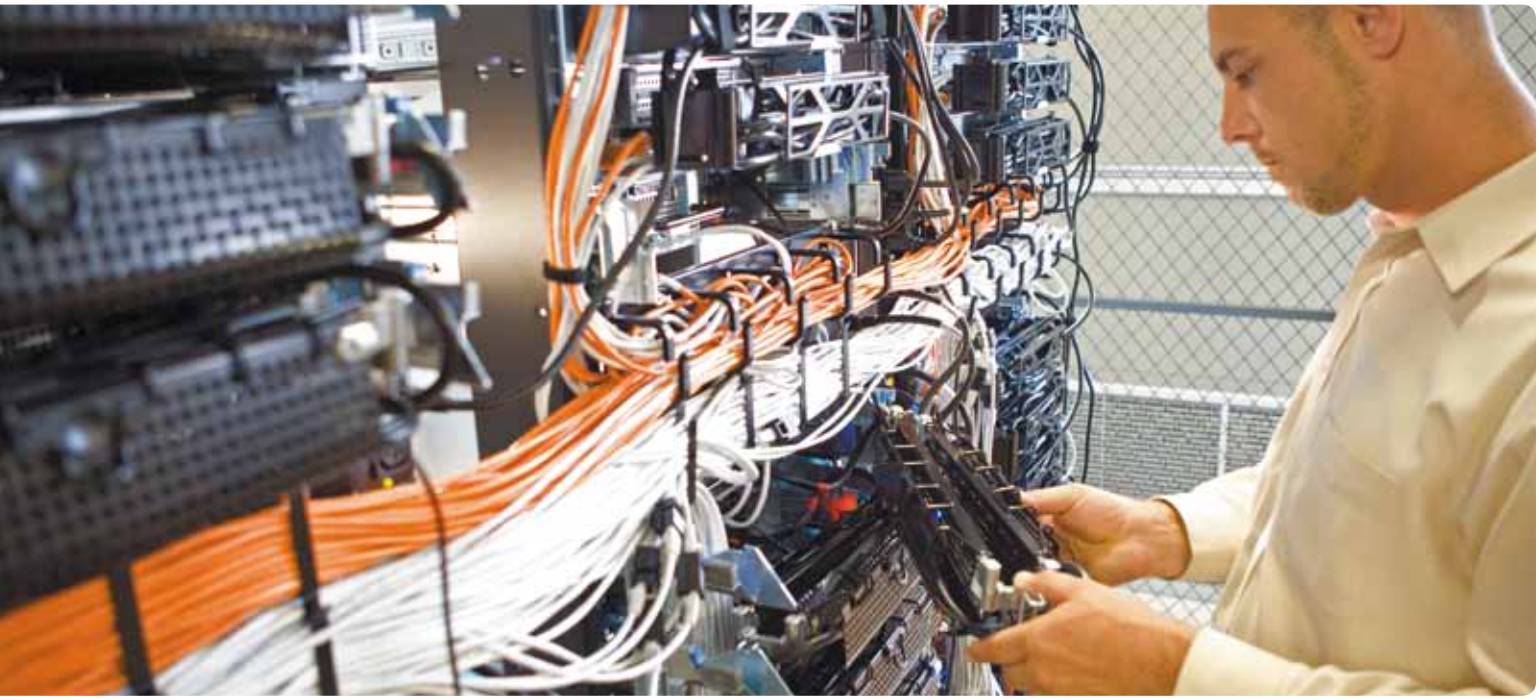

Abstract

This solution brief explores the business challenges driving the need to move beyond traditional backup and recovery practices. Today's IT organizations must shift from an infrastructure-centric view of backup and recovery to a services-centric view, focusing on protecting mission-critical applications and databases, regardless of whether they reside in physical, virtual or cloud environments. Dell's data protection solution, NetVault Extended Architecture (XA), delivers this services-centric approach, enabling organizations to deploy the best-of-breed backup technologies they need, simplifying the management of heterogeneous environments, and empowering administrators to maintain the service levels the business needs.

Introduction

New business demands are driving changes in backup & recovery

Incredible data growth rates, sharply decreased tolerance for downtime, and the growing complexity of the IT infrastructure are rapidly changing the role of backup and recovery: IT is no longer expected to just recover lost data; it's expected to quickly restore business-critical services. It's no secret that IT organizations are trying to manage more data than ever before, and that more of that data is being classified as mission-critical. Customers and employees have become less and less tolerant of data loss and service interruptions. In fact, according to research conducted by the analyst firm ESG, when it comes to mission-critical data, 53 percent of organizations can tolerate one hour or less of downtime before experiencing a significant revenue loss or other adverse business impact.[1]

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Meanwhile, organizations have increasingly adopted a distributed computing model with geographically dispersed resources. Thanks to high-speed networks, commoditized hardware, virtualization and the cloud, the workload for a particular service may be spread across multiple servers (physical or virtual), databases and storage arrays. And that service may rely on a number of supporting services. The best example of this is an organization's Payroll service. It's considered a core business service, but in order for the Payroll service to do its job, it likely relies on the Time-Tracking service and Benefits service. All of these services rely on the underlying technology services. So, it would make sense to manage the Payroll, Time-Tracking and Benefits services as one holistic application with its associated service level.

To complicate matters further, data center technologies have converged and become virtualized. IT has evolved into a thriving yet complicated ecosystem, yet there are fewer IT resources than 5 years ago. An application running on a physical server located in Atlanta today can be easily migrated to a VM hosted in Las Vegas tomorrow.

In this type of environment, administrators can no longer get by with compartmentalized skill sets. To deliver on the pre-defined service levels, they must learn all the ins and outs of the services they support and close the knowledge gap that tends to occur in siloed organizations. They really need to understand what makes a service tick—including all the underlying infrastructure.

The traditional approach to backup & recovery: Focus on infrastructure, not services

Many in IT today take a myopic view of backup and recovery, fixating on the individual components within the infrastructure. That view delivers a flat, single-dimensional view of data protection—a limited approach that supports only the storage administrator role. Having this infrastructure-centric view of backup made perfect sense in a purely physical world, when the only thing that IT needed to focus on was the physical server or the physical host it was backing up. It also made sense in a world where downtime was acceptable, and the job of backup was simply to ensure that lost data could be recovered.

A new approach to backup & recovery: Focus on services, not infrastructure

But that world is long gone. Technology is fluid and administrators are no longer just expected to recover lost data; they're expected to restore entire services—fast.

To deliver the functionality and service levels your organization needs, consider shifting focus away from the individual components and adopting a services-centric approach. Protect the entire service from end to end. This will ensure your organization can meet or exceed

[1] *Enterprise Strategy Group. "Data Protection Survey." 2010*

its service level agreements (SLAs) while working as efficiently as possible.

Also consider empowering all of your administrators with the proper visibility and tools to ensure that no gaps exist in the service delivery—from the front-end client, through the network, to the application stack and servers, and all the way down to the storage infrastructure. Your backup and recovery solution should deliver customized, multi-dimensional views, not just for storage administrator, but for specialists such as DBAs, application administrators, VMware administrators and storage administrators.

Dell is leading the way

Dell's unique position in the market

Dell is different than other leading data protection vendors in that our heritage is not that of a storage or backup company. The company has a 25-year history as an industry leader in the management of applications and databases. This means it has unique experience with and insight into the minds and needs of the people whose job it is to ensure that mission-critical databases and applications are always on and always performing. In short, nobody understands what it means to be DBA or application administrator better than Dell.

It also means that, while other companies have spent the last 25 years building and refining generalist storage technologies, Dell has spent it developing and acquiring industry-leading application- and database-specific backup and recovery solutions—solutions it can now deeply integrate into its enterprise-class data protection solution to provide a level of application-recoverability no other vendor can match.

Dell is also uniquely positioned in another way: Through its Vizioncore lineage, Dell invented virtual machine backup and recovery. Whereas other vendors have retrofitted traditional backup software to accommodate virtual environments, Dell took a "virtual first" approach when building vRanger. More and more mission-critical applications now reside within virtual environments, meaning that best-of-breed VMware protection is a critical component of ensuring service continuity.

Introducing NetVault XA

Dell is now redefining enterprise backup and recovery while staying true to its roots. For the first time, organizations can take advantage of Dell's expertise in application, database and virtualization management and deploy a unified data protection solution.

What is NetVault XA?

NetVault XA is a platform that unites all of Dell's data protection products. It allows organizations to align their backup and recovery operations to specific business and technology services, and it delivers a customized experience for administrators across multiple roles. A flexible yet extensible platform that leverages a set of shared services, NetVault XA simplifies the management of heterogeneous, geographically dispersed environments.

Key benefits

NetVault XA enables a services-centric approach to backup and recovery:

- **Deploy exactly the solutions you need** – NetVault XA enables organizations to manage multiple best-of-breed technologies from a common user interface. The platform will unite Dell's data protection solutions (NetVault, vRanger, LiteSpeed, and Recovery Manager) and allow organizations to deploy the solution(s) right for their environment and business continuity needs—without sacrificing the convenience and simplicity of centralized management.
- **Assign each service the right SLAs** – With NetVault XA, organizations can also protect their business and technology services holistically, and assign the backup, replication and recovery service-

NetVault XA allows organizations to align their backup and recovery operations to specific business and technology services.

NetVault XA delivers a multi-dimensional, role-based end-user experience.

level agreements (SLAs) that are most appropriate for each specific service. They can create new SLAs by defining their own requirements, or adopt the actions recommended by NetVault XA—actions that are based on the organization's unique environment, their data protection solutions in use, and their recovery objectives.

- **Gain unparalleled visibility** – What's more, NetVault XA shatters the single-pane-of-glass approach to backup and recovery. Whereas most management consoles offer a flat, single-dimensional view intended solely for the storage administrator, NetVault XA delivers a multi-dimensional, role-based end-user experience. Through a wide variety of client platforms (Web browser, tablet, smart phone, command-line interface [CLI] and third-party solutions), administrators of all types have the visibility and tools they need to close the gaps that exist in service delivery. They can access to customized views and workflows that enable them to create SLAs for the specific business and technology services they are responsible for managing. In other words, the focus is not just on infrastructure, but on the service.

Think of it as it as the single-pane-of-glass in 3D. Multiple users, with multiple workflows, powered by multiple best-of-breed technologies.

Additional Benefits

Additional benefits of NetVault XA include:

- **Security across the enterprise** – An intelligent and adaptive policy engine enforces specific data protection controls and requirements, enabling IT management to align backup and recovery operations to specific services, regardless of whether the servers, applications and databases its protecting reside on premises or off, or in a physical or virtual environment.
- **Flexibility and scalability** – NetVault XA's modular architecture gives organizations the flexibility to decide for themselves which Dell data protection technologies to deploy (and when to deploy it), thus enabling them to scale seamlessly from SMB to enterprise by leveraging a pay-as-you-grow approach
- **Unified management of on-premise and cloud assets** – NetVault XA can act as a gateway to multiple vendors' cloud solutions, enabling customers to manage both on-premise and cloud assets from a single interface.
- **Role-based reporting capabilities** – With NetVault XA, you can give end users the ability to develop reports that map directly to their specific SLAs, which also means IT can better demonstrate the impact and value of backup and recovery to the entire business.

Conclusion

Traditional backup and recovery practices have struggled to keep pace with today's business needs. In addition to ensuring that the organization has at least one good copy of its data at all times, IT must now also ensure that entire business and technology services can be quickly restored in the event of an outage or data loss. These changing requirements are forcing IT to shift from an infrastructure-centric view of backup and recovery to a services-centric view, one in which the focus is on protecting mission-critical applications and databases, regardless of whether they reside in physical, virtual or cloud environments.

Dell has incorporated this philosophy into its latest data protection solution, NetVault XA. With NetVault XA, organizations can deploy the best-of-breed backup technologies they need while simplifying the management of their heterogeneous environment. They can apply a services-centric approach to ensure their backup and recovery operations are aligned with specific business and technology services. And they can empower their application, database, and virtualization administrators with the visibility and tools they need to maintain service levels for applications they are responsible for managing.

About Dell

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