Overview of Symantec NetBackup™
As the established market leader, Symantec NetBackup™ delivers reliable backup and recovery across applications, platforms, and virtual environments. A single console unites the management and reporting of both on-premise and on-cloud information to provide additional operating efficiencies and simplified administration. The NetBackup platform backup and recovery framework has deep VMware® and Microsoft Hyper-V® integration, built-in deduplication to protect the private cloud, and seamless integration with industry-leading public cloud storage providers.

Nothing to install
NetBackup currently supports four of the industry-leading cloud storage providers: Amazon™, AT&T®, Nirvanix™, and Rackspace®. The NetBackup platform includes the plugins to attach any of these cloud storage backup targets to the enterprise. Just enter the credentials to authenticate and an easy to follow NetBackup cloud setup wizard will do the rest for you.

For those who want a private cloud backup solution, but don't want to build their own NetBackup media server, bring in a Symantec NetBackup™ 5220 Appliance—the industry's first heterogeneous cloud gateway for backups.

Business value
As many businesses increasingly leverage the cloud for applications and services, they want to protect and manage those environments with a backup and recovery solution they can trust. By taking the same proven solutions that organizations have come to rely on and extending them to their private cloud or storage providers integrated with NetBackup, organizations can enjoy the peace of mind knowing their information is protected by the NetBackup platform.

Safeguarding an organization's valuable data with NetBackup key business benefits including operational expense reduction. NetBackup can write data to the cloud, enabling end-users with the flexibility to add cloud for operational expense reduction purposes or to serve as part of a global disaster recovery strategy. One of the most common use-cases for cloud storage backup in enterprises is to replace or augment tape-based off-site storage for disaster recovery readiness. The NetBackup platform can provide you with that capability today.

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Integration with cloud storage providers

NetBackup integrates with cloud storage providers via the NetBackup Connector, allowing IT departments to manage cloud storage for backup and recovery as easily as on-premise storage, but with lower costs and improved flexibility. Organizations can leverage the cloud as a new storage tier or as a secondary off-site location for disaster recovery.

Currently, enterprise customers are hesitant to move to the cloud because they feel they cannot get the comprehensive level of data security protection that they get in their physical environments. Also, latency, long backup windows, bandwidth costs, and unmet RTO objectives, are barriers to cloud adoption for large enterprises and their main requirements focus around a single point of control and a uniform method for managing the protection of a diverse range of applications. The diversity and complexity is augmented by the fact that, now, some of the applications may be running in the cloud. A NetBackup platform-based approach enables protection to be applied across a diverse range of applications running either on-premise or in the cloud.

NetBackup will ensure that cloud storage environments are protected and applications running in the cloud can be recovered in the case of a disaster or corruption. When the NetBackup platform is extended to protect a cloud storage environment, customers can feel confident moving their applications to the cloud as they can rely on their existing NetBackup infrastructure to protect their cloud storage environment.

Amazon Simple Storage Service™ and Amazon Elastic Compute Cloud™

Amazon Simple Storage Service™ (S3) is storage for the Internet. It is designed to make Web-scale computing easier for customers and provides a Web services interface that can be used to store and retrieve any amount of data from the Web. It gives customers access to the same infrastructure that Amazon uses to run its own global network of websites. The service aims to achieve economies of scale and to pass those benefits on to customers.

Amazon Elastic Compute Cloud™ (EC2) is a Web service that provides resizable compute capacity in the cloud. EC2’s Web service interface allows users to obtain and configure capacity with minimal friction and is also designed to make Web-scale computing easier for customers. It provides users with control of computing resources and runs on Amazon’s computing environment. Amazon EC2 allows users to pay only for capacity that is used. Amazon EC2 provides customers with the tools to build failure resilient applications and isolate themselves from common failure scenarios.

AT&T Synaptic Storage as a Service™

AT&T has selected a storage solution for their back-end storage offering that is based on an object-orientated design. It is a multitenant architecture that AT&T uses to provide customers, both internal and external, with on-demand storage. AT&T is unique in that the customer pays on usage with no minimum or maximum requirement. This makes the AT&T Synaptic Storage as a Service a flexible and cost-effective offering for those seeking to leverage the cloud.
Nirvanix Cloud Storage Network™
Nirvanix Cloud Storage Network™ (CSN) is a fully-managed, secure cloud storage service. The CSN intelligently stores, delivers, and processes storage requests in the best network location, providing the optimal user experience. The CSN is comprised of standards-based access to integrated services, powered by Nirvanix’s patent-pending proprietary technology and infrastructure.

Rackspace® Cloud Files
Rackspace® Cloud Files is fully integrated with NetBackup. With the complete suite of OpenStack®-based cloud solutions, Rackspace has more than 190,000 customers worldwide and offers an open, fast, and simple cloud experience without the fear of being locked-in to proprietary technologies. Cloud Files, powered by OpenStack, is the ideal cloud storage solution with a simple pay-as-you-go pricing model and no long-term contracts. With Cloud Files, data is triple-replicated and backed by the renowned Rackspace Fanatical Support™.

Private cloud backup
For those who want a private cloud backup solution, but don’t want to install NetBackup, they can bring in a Symantec NetBackup™ 5220 Appliance—the industry’s first heterogeneous cloud gateway for backups.

NetBackup 5220 has a Wide Area Network (WAN) Optimization driver built in to provide two times faster throughput over and above the performance gain from NetBackup Accelerator.

Up to 100 times faster cloud backups
The primary challenge in using cloud storage backup is the need for a large pipe to accommodate backup traffic. With NetBackup Accelerator, users can perform full backups from the site to the cloud storage provider up to 100 times faster only using the bandwidth that’s normally required for an incremental backup.⁵ There is no need to compromise on recovery point objectives.

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Introduction to features

NetBackup Cloud Storage enablement is integrated with the Symantec OpenStorage Technology module and provides features that can enhance the operational experience of backup and recovery from the cloud. These NetBackup 7.5 features include:

**NetBackup Cloud Storage Configuration Wizard**—Incorporated to facilitate the cloud storage setup and storage provisioning. This now happens entirely through the NetBackup interface. If there is no Key Management Service (KMS) already configured, the Cloud Storage Server Configuration Wizard includes steps to create and enable KMS.

**NetBackup Cloud Storage Encryption**—Encrypts the data inline before it is sent to the cloud, interfaces with the KMS to leverage its ability to manage encryption keys, and uses an AES 256 cipher feedback (CFB) mode encryption.

**NetBackup Cloud Storage Throttling**—Controls the data transfer rates between the network and the cloud. The throttling values are set on a per NetBackup media server basis. In certain implementations, users may want to limit WAN usage for backups and restores to the cloud so they do not constrain other network activity. Throttling provides a mechanism for NetBackup Administrators to limit NetBackup Cloud Storage traffic. By implementing a limit to cloud WAN traffic, it cannot consume more than the allocated bandwidth. NetBackup Cloud Storage Throttling lets users configure and control the following:

- Different bandwidth value for both read and writes operations.
- Maximum number of connections that are supported for the cloud provider at any given time.

**NetBackup Cloud Storage Metering**—Enables users to monitor data transfers within the tool through reports. Cloud-based storage is unlike traditional tape or disk media, which use persistent backup images and calculates cloud-based storage costs per byte stored and per byte transferred. The NetBackup Cloud Storage software uses several techniques to minimize stored and transferred data, and as a result, traditional catalog-based information about the amount of protected data no longer equates to the amount of data that is stored or transferred. Metering allows installations to monitor the amount of data that is transferred on a per media server basis across one or more cloud-based storage providers. Metering reports are generated through NetBackup OpsCenter.

**NetBackup Cloud Storage Service Container**—Performs the following functions:

- Controls the configuration parameters that are related to NetBackup Cloud Storage.
- Generates the metering information for the metering plug-in.
- Controls the network bandwidth usage with the help of throttling plug-in.
- On Windows®, it is a standard service installed by NetBackup. On UNIX®, it runs as a standard daemon.

Conclusion

From 2005 to 2020, the digital universe will almost double every two years and grow by a factor of 300, from 130 exabytes to 40,000 exabytes, or 40 trillion gigabytes. This is an extraordinary amount of data. All of it must be stored, backed up, managed, and in many cases analyzed. Enterprises are challenged to reduce costs, and also take on ever increasing data demands. NetBackup platform technologies united with cloud storage solutions can assist customers in managing the entire lifecycle of structured and unstructured data addressing the need for longterm secure and cost-effective data protection.

More Information

Visit our website
http://enterprise.symantec.com

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Call toll-free 1 (800) 745 6054

To speak with a Product Specialist outside the U.S.
For specific country offices and contact numbers, please visit our website.

About Symantec

Symantec protects the world’s information, and is a global leader in security, backup, and availability solutions. Our innovative products and services protect people and information in any environment – from the smallest mobile device, to the enterprise data center, to cloud-based systems. Our world-renowned expertise in protecting data, identities, and interactions gives our customers confidence in a connected world. More information is available at www.symantec.com or by connecting with Symantec at go.symantec.com/socialmedia.

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