

How to Unlock Agility by Backing up to, from, and in the Cloud

Who should read this paper

This paper offers guidance into how IT professionals can leverage NetBackup – the most scalable solution for enterprise data protection – to enable the confident use of public cloud services for hosting workloads or as storage for long-term data retention, without fear that their information will be left unprotected, SLAs will be jeopardized, or centralized management will be lost. Confidently reduce storage costs, increase flexibility, and unlock IT agility with backup to, from, and in the cloud.

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How to Unlock Agility by Backing up to the Cloud, from the Cloud, and in the Cloud

A common trait across successful businesses is their ability to efficiently adjust business processes to take advantage of trends that have a positive impact on business performance and revenue growth. Trends like “Cloud” can play a key role in enabling dramatic cost reductions for storage or by hosting workloads and improving overall business agility. Perhaps you’re considering the cloud to replace your existing disaster recovery solution or just for the long-term retention of data. The question is how do you make this work without adding more complexity to your current environment and data protection operations, in a way that lowers your overall operating costs?

This report describes three different scenarios for backing up both cloud and on-premises infrastructures so your data is protected and easily recovered. You’ll learn which use cases could work best for your organization based on your unique business requirements.

Utilizing cloud services can take many forms depending on your requirements, including:

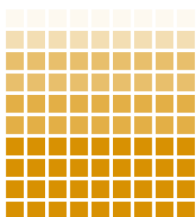
- Backing up workloads hosted in the cloud.
- Using cloud storage for long-term data retention.
- Utilizing a hybrid approach that combines backup for both on-premises and cloud-based workloads and storage.

Symantec believes a hybrid data center will be the most common and preferred model going forward for enterprises. In this scenario, customers will have on-premises and cloud-based workloads that need to be backed up. For effective data protection, you need a backup and recovery solution that has visibility into all of your data, information, and applications regardless if they’re located in the cloud, on-premises, or a combination of both. Symantec NetBackup is the most scalable solution that specifically addresses all of these use cases without adding complexity to your existing environment.

Removing Common Roadblocks to Utilize the Cloud

We work with many IT organizations and often hear common concerns as they consider leveraging more cloud services. Our job is to demonstrate that these challenges aren’t roadblocks and there are solutions that don’t add complexity to their existing operations. Do any of these concerns sound familiar?

CLOUD ROADBLOCKS



TOO MUCH DATA

“I need an efficient way to move my data to/from the cloud”



VISIBILITY/CONTROL

“I need a single point of control that lets me see all of my information”



SLA COMPLIANCE

“I need to know that I can recover when I need to”

“I have a lot of data. I need an efficient way to move it to and from the cloud.”

If you have a great deal of data, the question becomes, “how do you get all that data to the cloud?” You might be concerned about degraded performance in addition to missed backup windows due to sending it through a smaller “pipe” up to the cloud. Redundant information exacerbates the issue by unnecessarily bloating the data that truly requires back up. This is a valid concern and one that’s not to be taken lightly. Satisfying backup metrics is critical so backups don’t impinge on production systems’ performance.

To address this, look for a backup and recovery solution, like NetBackup, that sends data to the cloud in an optimized and efficient manner. NetBackup tracks changes and backs up only those changed blocks of data and pieces them together to form a synthetic full backup in the time it takes to do an incremental backup. Backing up only changed blocks of data means there’s a lot less data to move through the “pipes” – even to the cloud. The synthetic full backup created on the back end ensures the quickest and most efficient recovery, so you get the best of both worlds – fast, efficient backup without sacrificing recovery.

“I need a single point of control so I can easily see all my information.”

41 percent of organizations say their IT budget will stay flat compared to 2013, and 50 percent say staffing levels will stay the same or decrease.¹ Adopting only those processes and technologies that truly simplify and streamline IT operations is essential.

NetBackup is the single point of control so you can easily see all your information – even if sensitive data is kept on-premises and other data, that’s less sensitive, is in the cloud. This approach avoids creating a more complex, siloed environment by managing all backups from a single location. It also simplifies operations, reducing the need for more tools or additional staff.

“I want to be confident I can quickly recover data whenever I need it.”

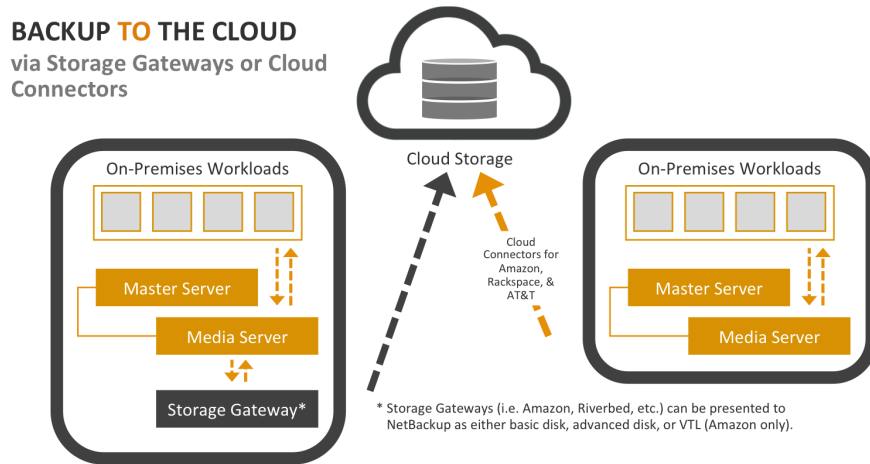
It’s important that the data protection solution you use not only inspire confidence that you can backup your information seamlessly, but also quickly recover critical data, no matter where it’s located – regardless if it’s on-premises or spread across multiple clouds in different geographic areas. NetBackup controls and manages all your backup data, no matter where it’s located, so it’s quick to recover wherever and whenever you need it.

Common Data Protection Scenarios for On-Premise and Cloud Environments

The flexibility of the cloud means you can setup your environment in a variety of ways that best satisfy your unique requirements and budget. NetBackup has the flexibility to support all these scenarios so your data is fully protected and can be quickly recovered.

¹ “2014 IT Spending Intentions Survey,” Enterprise Strategy Group, February 2014.

Scenario #1: Backup TO the Cloud (Moving some, or all, of your backup data to the cloud for long-term retention)



Since the cloud is a great low-cost, low-maintenance storage option, it's an attractive way to reduce IT storage costs. In this scenario, your on-premises data center runs normal backup operations and backup data is moved to the cloud via cloud connectors or a storage gateway. Data can be recovered through NetBackup's self-service portal.

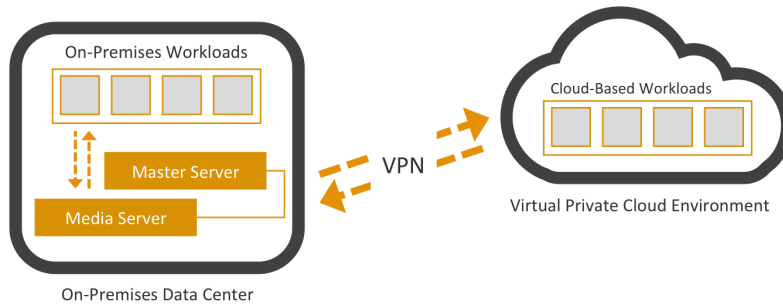
This is an ideal scenario if you want to tier your data between different storage options, such as Amazon S3 and Amazon Glacier. In the case of Amazon, you can move archived data, or data that's not frequently accessed, to the S3 or Glacier cloud via a connector or storage gateway and keep critical data that needs to be accessed more frequently on-premises.

Benefits of this approach with NetBackup include:

- Visibility into your data no matter where it's located.
- Reduces storage costs dramatically.
- Increases redundancy of information, which better assures it will be available if a disaster should strike.
- Reduces latency by using an on-premises storage gateway. Frequently accessed data is kept in cache and provides quicker local recovery than connectors that don't have the same built-in intelligence.

Scenario #2: Backup FROM the Cloud (Backing up cloud workloads, as necessary, to an on-premises data center)

BACKUP FROM THE CLOUD Backing up cloud-based workloads



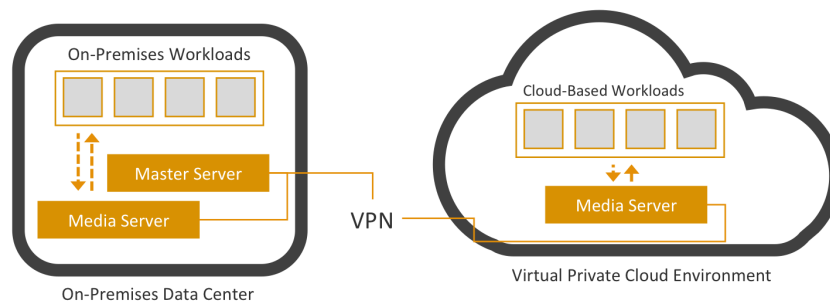
In this scenario, your backup infrastructure is maintained on-premises, and you'd also back up cloud-based workloads to on-premises storage. This is a good setup to use if you have sensitive information you don't want to retain for long periods of time in the cloud for compliance or regulatory reasons. Or if you just want to centralize backup storage to one or a few locations. It still gives you the flexibility, however, to deploy cloud servers as necessary or whenever they're needed.

Benefits of this approach with NetBackup include:

- Gain the flexibility to deploy cloud servers as necessary, increasing IT agility.
- Maintain greater control via a less distributed backup infrastructure.

Scenario #3: Backup IN the Cloud (Both the backup infrastructure and workloads are in the cloud)

BACKUP IN THE CLOUD Backing up cloud-based workloads

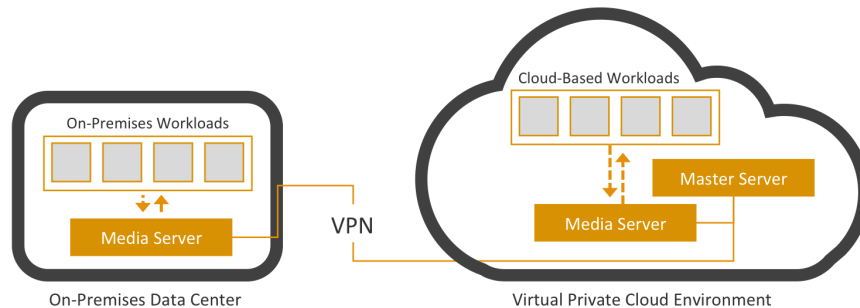


In this true hybrid scenario, you have a mix of on-premises and cloud-based workloads. The backup infrastructure and cloud-based workloads are hosted in a virtual private cloud environment using a service such as Amazon EC2 or Microsoft Azure. In this case, you'll have full visibility and control of your cloud-based workloads through your on-premises data center including quick data recovery through a self-service portal.

Benefits of this approach with NetBackup include:

- Flexibility and freedom to deploy workloads based on business needs without worrying if the data is protected or not.
- Manage all backups, regardless of their location, through a single NetBackup UI
- Gain visibility across the entire landscape—you can see your data whether it's located in your on-premises data center or cloud-based servers.

BACKUP IN THE CLOUD Master in the cloud



It's Your Choice: Cloud-Based or On-Premises Management of Your Backup Infrastructure

With NetBackup, you have the flexibility to choose if your backup infrastructure which consists of your NetBackup media servers, is located on-premises or hosted in the cloud. In either case, your data can be easily backed up and restored, and you'll have complete visibility and control regardless of its location.

A common driver for locating backup management, which consists of the NetBackup management functions and the NetBackup catalog, on-premises (beyond traditionally that's how it's always been done) is to satisfy regulatory requirements for sensitive data. By locating the master server on-site, you maintain greater control of the infrastructure. Workloads can still be deployed in high-performance clouds such as Amazon EC2 or Microsoft Azure as needed, and data can still be stored on less expensive tiers like S3 or Glacier (via storage gateway) in the case of Amazon; management would still be maintained within your own data center.

Or, if increasing disaster recovery readiness is a strategic goal, you can deploy the master server in the cloud. This frees up resources that are often used to maintain a second disaster recovery site and can enable quicker recovery of cloud-based workloads.

The important takeaway is that NetBackup supports flexible configurations for on-premises and the cloud so your data is always backed up and can be quickly recovered.

Next Steps

If you're considering the best approach for leveraging the cloud for data protection, choose one of these scenarios depending on your organization's requirements. Before you begin the transition, though, it's critical to have a data protection solution in place that is heterogeneous in nature and offers the scalability you need now and into your cloud-based future.

NetBackup is the market-share leader in Enterprise Backup and Recovery and the preferred solution for by more Global Fortune 1000 companies than any other vendor. NetBackup can protect your information efficiently, regardless of where it lives, so you can leverage cloud services to drive down costs and increase business agility.

To learn more, download the full presentation of "[NetBackup: Backup to the Cloud, in the Cloud, and from the Cloud](#)" from SlideShare.

About Symantec

Symantec Corporation (NASDAQ: SYMC) is an information protection expert that helps people, businesses, and governments seeking the freedom to unlock the opportunities technology brings—anytime, anywhere. Founded in April 1982, Symantec, a Fortune 500 company operating one of the largest global data intelligence networks, has provided leading security, backup, and availability solutions for where vital information is stored, accessed, and shared. The company's more than 20,000 employees reside in more than 50 countries. Ninety-nine percent of Fortune 500 companies are Symantec customers. In fiscal 2014, it recorded revenue of \$6.7 billion. To learn more go to www.symantec.com or connect with Symantec at: go.symantec.com/socialmedia.

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