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OVERVIEW

Backup Exec™ 16 delivers powerful, flexible, and trusted data protection designed for your entire infrastructure regardless of platform: virtual, physical or cloud. With Backup Exec, you get fast, reliable protection of data and systems at every level, as well as advanced integration with the most recent releases of Microsoft® Server, Microsoft® Hyper-V and VMware® vSphere®. In a matter of minutes, you can recover anything including VMs, servers, databases, files, and granular application objects. Protect one to thousands of virtual machines from a single user console, optimizing performance and efficiency. Backup Exec saves time, money and helps ensure your critical information is always protected and easily recoverable.

Veritas and Microsoft have collaborated for more than 20 years to provide businesses with best information management solutions. The Microsoft/Veritas partnership is based on many years of collaboration, development and support, with proven results in enterprises and SMBs worldwide. Veritas' close relationship with Microsoft ensures that Backup Exec customers will receive the highest-quality data protection in Azure cloud. Also, Microsoft Azure Cloud support for Backup Exec continues to expand the off-site storage options available to customers.

BUSINESS VALUE

It's no secret that the industry is rapidly evolving toward hybrid IT architectures and this journey will include extending the on premise data center to both public and private clouds. In fact, a recent Veritas IT survey reports 90% of enterprises will move to a hybrid cloud model over the next 12 months.

Managing and protecting data no matter where it resides is a key success factor when leveraging the cloud. To simplify and accelerate your move to the hybrid cloud, it's important to ensure your data protection solution enables you to easily unify and extend the management of workloads and data whether on-premises, in the cloud, at globally dispersed remote locations, on disk or on tape.

Whether backing up to the cloud, protecting workloads within the cloud, or recovering from the cloud, or connections back to on premise, Backup Exec integrates with a broad selection of cloud service providers to seamlessly unify data protection across the hybrid cloud.

UNDERLYING PRINCIPLES

The cost and flexibility of the cloud are driving organization to consider strategies that leverage the affordability of public cloud services and the agility of private clouds or a combination of the two. Cloud-based backup and recovery offers its own benefits, including a reduction in capital expenses due to the elimination of on-site storage and servers, while still meeting retention and compliance requirements.

While the reduction in costs can be compelling when moving workloads for backup, archiving, and recovery to the cloud, lingering concerns about security and performance may exist, especially for public cloud solutions. At the same time, organizations running production environments in the cloud need a solution that extends current capabilities, enabling the flexible movement of data without creating new processes or additional time and staffing. The ideal solution will not only support the evolution toward software-defined data centers, virtualization, and disaster recovery-as-a-service, but will also modernize recovery and continuity efforts with the nearly limitless capacity to scale and meet elastic demand.
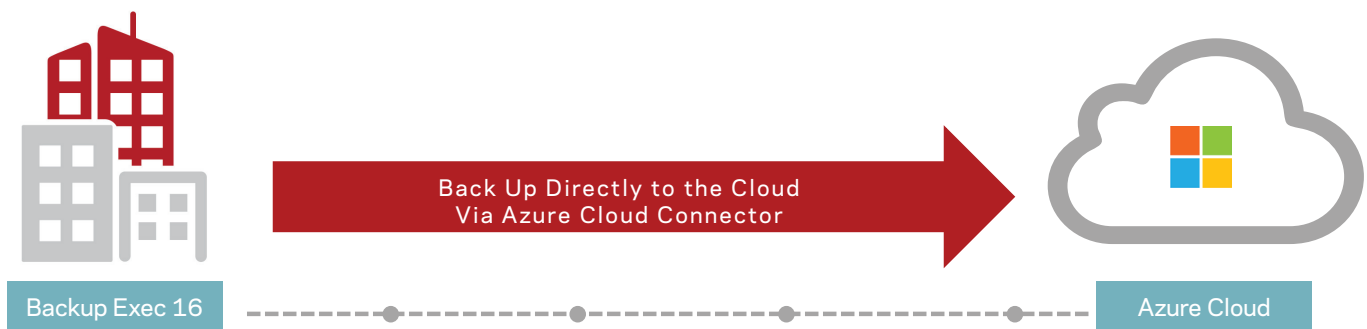
MICROSOFT AZURE CLOUD

Microsoft Azure is an open, flexible, enterprise-grade cloud computing platform. Azure integrates with your existing IT environment through the largest network of secure private connections, hybrid database and storage solutions and data residency and encryption features — so your assets stay right where you need them. Azure Storage is the cloud storage solution for modern applications that rely on durability, availability, and scalability to meet the needs of their customers. Azure Storage is massively scalable, so you can store and process hundreds of terabytes of data and is accessible from anywhere in the world, from any type of application, whether it's running in the cloud, on the desktop, on an on-premises server, or on a mobile or tablet device.

There are two scenarios to consider when integrating your backup and recovery strategy with Azure cloud infrastructure:

Protect Data with Azure Cloud—copy on-premises data to and restore from Azure Cloud storage via the new Backup Exec Azure cloud connector or a Cloud Storage gateway like NetApp AltaVault. Possible backup strategies using the new Azure cloud connector are:

- Data is initially backed up to onsite disk, deduplication storage, appliance or VTL, and a copy is then sent to Azure cloud storage (D2D2C)

- Data is backed up over the WAN directly to Azure cloud (no onsite storage of backup data (D2C)

Protect Data within Azure Cloud Platform—workloads and data are protected within Microsoft Azure cloud environment using Backup Exec infrastructure hosted in Azure Cloud Platform. Possible backup strategies by hosting backup infrastructure alongside workloads in the cloud can be:

- Cloud-to-cloud backup (C2C)

- Cloud to on premise backup

PROTECT DATA WITH AZURE CLOUD

With the ability to optimize data transfer and reduce risk, Backup Exec brings the benefits of Azure Cloud Storage to organizations that want to augment existing on-premises disk and tape storage.

- Seamless integration with Backup Exec 16

- Easy setup means Backup Exec can manage in minutes the backup and recovery of data in and out of Microsoft Azure Cloud

- Leverage the scalability of Azure to store and process hundreds of terabytes of data to support your workload need

- Eliminate tape backups and reduce the storage costs

Backup Exec supports two ways of doing this:

1. BACKUP EXEC 16 AZURE CLOUD CONNECTOR

Backup Exec integrates with Azure cloud via the Backup Exec Azure Cloud Connector (figure 1), allowing IT departments to manage Azure cloud storage for backup and recovery as easily as on premise storage, but with lower costs, scalability, and improved flexibility. Organizations can leverage Azure cloud as a new storage tier or as a secondary off-site location for disaster recovery.
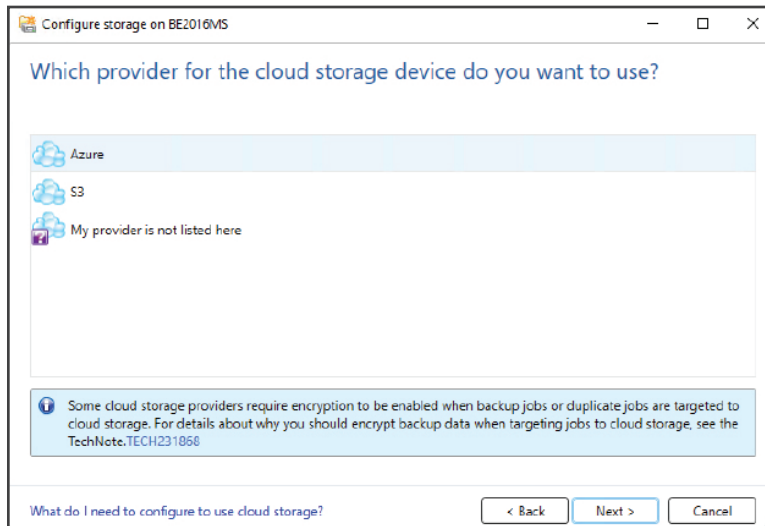

Figure 1 – Backup Exec Azure Cloud Connector under Storage Configuration Wizard
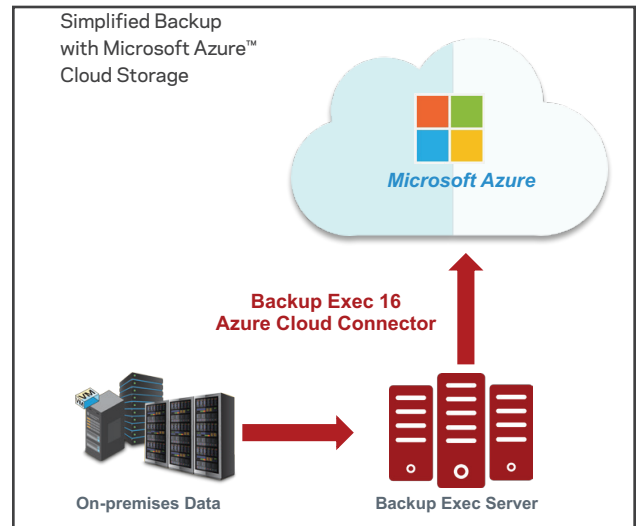

Figure 2 – Backup Exec can transfer and store data in the Azure clouds by using the Backup Exec Azure Cloud Connector

The Backup Exec Azure Cloud Connector enables connections to Azure Cloud hot as well as cool storage tiers.

In this scenario, the on-premises data center runs normal backup operations and backup data is copied to Azure Cloud Storage via the Backup Exec Azure Cloud connector (figure 2).

With this approach, you can move archived data or data that's not frequently accessed to the cloud via the new cloud connector and keep critical data that needs to be accessed more frequently on-premises.

Benefits of this approach with Backup Exec include:

- Visibility of your data no matter where it's located
- Shifts storage costs to a pay-as-you-go OpEx model
- Stores data offsite so it will be available if a disaster should strike
- Operational recoveries are sourced by on-prem storage

Nothing to install

The Backup Exec Azure Cloud Connector does not require an additional license or option for Backup Exec. Backup Exec includes the fully integrated Azure Cloud Connector to attach Azure Cloud Storage containers targets to the organizations. Just enter the interoperability access key, secret key, and choose storage bucket to authenticate and follow the Backup Exec Storage configuration wizard will do the rest for you.

2. CLOUD GATEWAY DEVICE

For organizations pursuing a hybrid approach to cloud adoption, devices such as Microsoft StorSimple or NetApp AltaVault can provide an alternative way to copy backup data to Azure Cloud Storage managed by the gateway device (figure 3).

In this scenario, the on-premises data center runs normal backup operations and backup data is copied to Azure Cloud Storage via the cloud connector or a hardware cloud gateway. This is an ideal scenario if you want to tier your data between different storage options.

PROTECT DATA WITHIN AZURE CLOUD

Organizations looking to shift from CapEx to OpEx spending are moving workloads to the cloud. Backup Exec 16 extends backup and recovery capabilities to cloud to support this evolution. Backup Exec delivers the flexibility to protect data in Azure Cloud without requiring new tools or processes, or additional time and resources.

Figure 3 – Backup Exec can be installed in Azure Cloud to protect cloud-hosted data and workloads

Backup Exec 16 is available as a ready-to-install offering in the Azure Marketplace, Microsoft's online store for public cloud system tools and applications. Images are available in the Azure Marketplace pre-configured with Backup Exec Hybrid use benefits. Customers can install Backup Exec 16 software using the Azure Marketplace template with a one-click deployment to a server hosted in Azure.

Customers benefit immediately from an inexpensive, easy-to-deploy, and easy-to-operate solution to protect Azure cloud workloads. Together with Backup Exec's proven success in on-premise business applications, organizations get a true single management interface for all data: whether virtual, physical or cloud.

Backup Exec in the Azure Marketplace is installed with all features activated for a free, 60-day trial period. At the end of this period, the user must install a valid license to continue using the software. Backup Exec is licensed "BYOL" – Bring Your Own License. Customers must purchase a valid capacity, V-Ray or a la carte license from an authorized Veritas reseller.
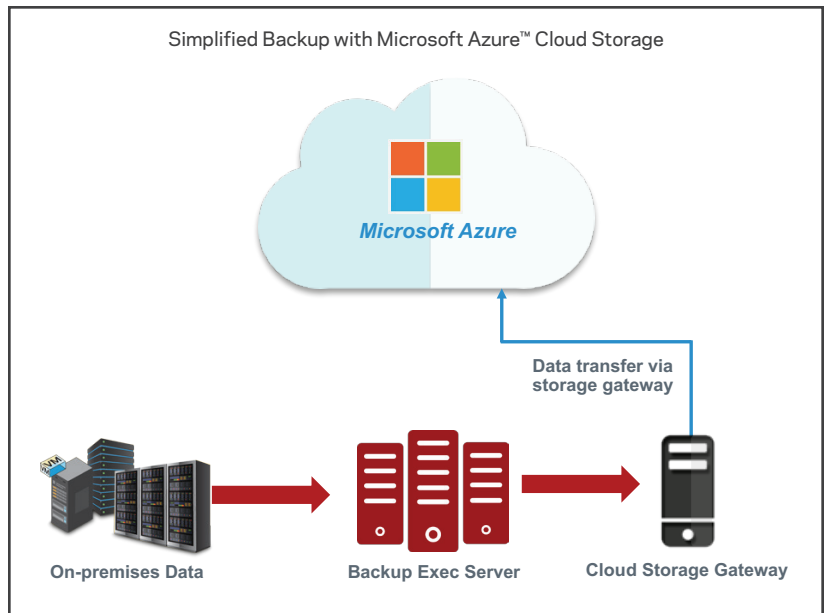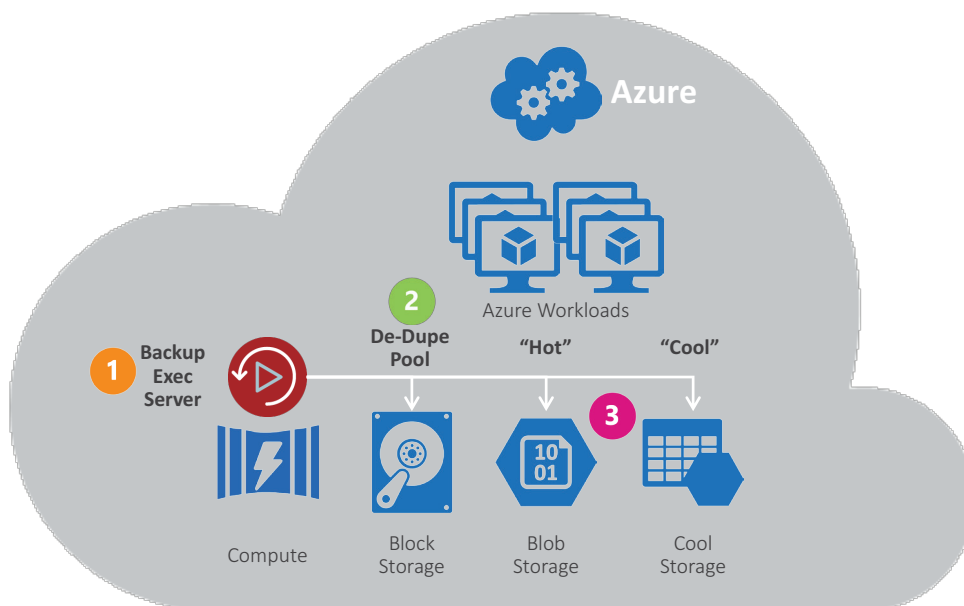
In addition, Backup Exec 16 extends current on-premises policies and procedures to the Backup Exec infrastructure and workloads hosted in Azure Cloud while simplifying management with on-demand configuration.

With Backup Exec, the use of Optimized Duplication (Opt-Dup) can turn a cloud deployment into a DR strategy as well, by providing replication to cloud storage and recovery-in-place when a recovery is needed (figure 4).

Deployment of Backup Exec Server in Azure Cloud allow for the same level of protection as that available in the data center, all while improving security for data in flight and at rest.

Backup Exec 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 Backup Exec 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 Backup Exec infrastructure to protect their Azure cloud storage environment.

Figure 4 – Backup Exec can be installed in Azure Cloud to protect cloud-hosted data and workloads

In this scenario, Azure cloud-based workloads are protected by hosting Backup Exec infrastructure in Azure Cloud alongside the workloads. This provides full visibility and control of cloud-based data protection from the on-premises data center.

Benefits of this approach with Backup Exec include:

- Flexibility and freedom to deploy workloads based on business needs without compromising data protection.
- Single Backup Exec management interface and catalog regardless of workload location.
- Backup Exec Optimized Duplicaiton a.k.a. replication automates replication, backup and recovery of many locations
- Data from remote branch offices and data centers can easily be replicated to and recovered in Microsoft Azure
- Leveraging Microsoft Azure's resources, Backup Exec customers simplify and improve disaster recovery
- Greater visibility across the entire virtual landscape to view data whether it's located in on-premises data center or cloud-based servers.

HOW DO OUR CUSTOMERS GET STARTED?

1. Sign up for an Azure account

2. Microsoft may offer some Azure capacity for free

3. Search for Backup Exec in the Azure Marketplace

4. Deploy the Backup Exec application image into an appropriate Azure machine instance

5. Purchase an appropriate Backup Exec license from an authorized reseller, and install this in the BE server
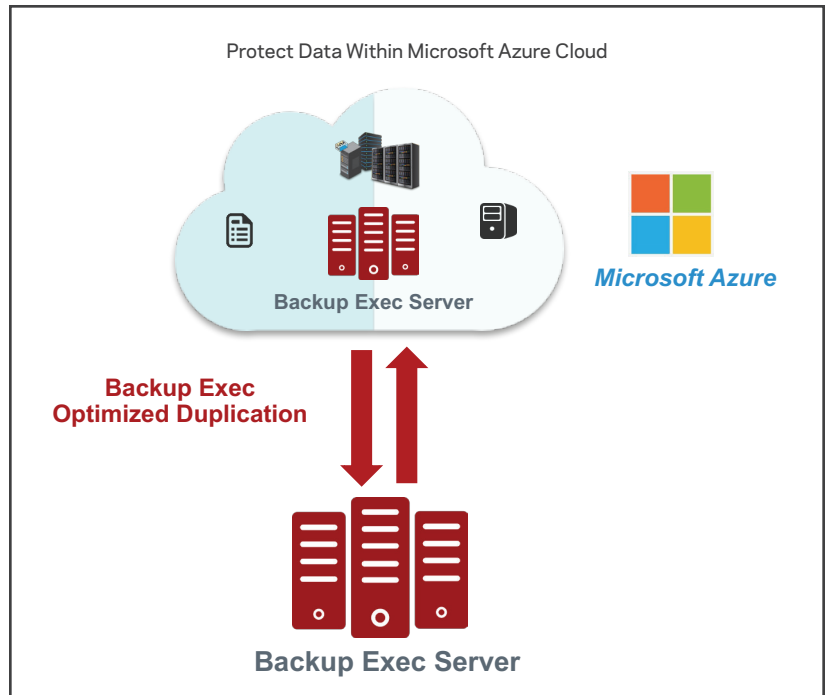
DATA LIFECYCLE MANAGEMENT (DLM)

Backup Exec uses data lifecycle management (DLM) to automatically delete expired backup sets on Azure cloud storage. You specify how long to keep backup data when you create a backup job that is sent to Azure cloud storage. When the amount of time to keep the backup data expires, the data lifecycle management feature deletes the backup sets and reclaims the space unless there are dependent backup sets such as incrementals.

By default, Backup Exec keeps the most recent backup sets that are necessary to restore any backed-up component of a server, even if the backup sets expire. If backup sets are dependent on other backup sets, then Backup Exec does not delete the backup set until all expiration dates on the backup sets are reached. Even if the backup set is displayed as expired, the data is available until all dependent backup sets expire as well.

SECURITY AND ENCRYPTION

All the data is secured using SSL during data transfer from Backup Exec to the cloud-based storage device. Backup Exec encrypts the data inline before it is sent to the cloud, and jobs must have encryption enabled to encrypt the data stored in the cloud storage.

When you encrypt data, you protect it from unauthorized access. Anyone that tries to access the data has to have an encryption key that you create. Backup Exec supports two security levels of encryption: 128-bit Advanced Encryption Standard (AES) and 256-bit AES. The 256-bit AES encryption provides a stronger level of security because the key is longer for 256-bit AES than for 128-bit AES. However, 128-bit AES encryption enables backup jobs to process more quickly.

DOWNLOAD A FREE BACKUP EXEC 60-DAY FREE TRIAL

Veritas provides 60-day, fully functional trialware so you can experience the benefits of Backup Exec including Azure cloud backups. To download a free 60-day copy of Backup Exec including all agents and options, please visit www.backupexec.com/trybe.

SIGN UP FOR AN AZURE SUBSCRIPTION

Before you can start backing up to Azure with Backup Exec, you need a Microsoft Azure subscription. In case you don't already have one, you can simply request a 30-day trial through http://azure.microsoft.com/en-us/.

The sign-up process requires a mobile phone number (to receive a verification code through SMS), a credit card (you won't get billed during the trial, but it is required for proof of identity) and a Microsoft Account username (formerly Windows Live ID). Once you've signed up, you can start your deployment.

Please note that at the time of publication of this white paper, trial subscriptions were given a $200 credit in Azure, but that may not be the case going forward. If you hit that spending limit or pass the 30-day trial period, your account will be suspended; however, you have the option to upgrade the trial to a Pay-As-You-Go Azure subscription.

BACKUP EXEC WITH MICROSOFT AZURE CLOUD BENEFITS

- Simplify data protection to secure, scalable, and remote Azure Cloud Services
- Reduce and convert Capex to a more a predictable and manageable pay-as-you-go Opex cost structure
- Replace your cumbersome and expensive tape backup and administration process with easy-to-use Microsoft Azure Cloud Storage

Simplify Backup

Reduce Costs

Eliminate Tape

Greater Visibility

SUMMARY

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 Backup Exec, organizations can enjoy the peace of mind knowing their information is protected by the Backup Exec platform.

Safeguarding an organization's invaluable data with Backup Exec key business benefits including operational expense reduction. Backup Exec 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 businesses is to replace or augment tape-based off-site storage for disaster recovery readiness.

Regardless of whether organizations have moved workloads to the cloud or want to leverage the benefits of cloud storage for backup and recovery of on-premises data, Backup Exec delivers multiple cloud options in a single platform.

ABOUT VERITAS TECHNOLOGIES LLC

Veritas Technologies empowers businesses of all sizes to discover the truth in information—their most important digital asset. Using the Veritas platform, customers can accelerate their digital transformation and solve pressing IT and business challenges including multi-cloud data management, data protection, storage optimization, compliance readiness and workload portability—with no cloud vendor lock-in. Eighty-six percent of Fortune 500 companies rely on Veritas today to reveal data insights that drive competitive advantage. Learn more at www.veritas.com or follow us on Twitter at @veritastechllc.

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