Symantec Backup Exec™ 2010
Agent for VMware™ Virtual Infrastructure

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VMware Virtual Infrastructure Protection

VMware's Virtual Infrastructure 3 (VI3) and now vSphere 4.0 have become widely adopted in organizations looking to virtualize their IT environments to save cost. As a result of larger numbers of systems becoming virtualized, companies are looking for ever more efficient backup and quicker recovery of their virtual systems to maintain business productivity and cost savings that server virtualization delivers. This includes not only the guest virtual machines, but also the applications that have also been installed on those guest virtual machines such as Microsoft Exchange®, SQL Server®, and Active Directory®. A lost VMware server could impact productivity up to several hours, or even days, for multiple departments while the IT administrator struggles to recover the virtual environment and the individual guest virtual machines.

Administrators looking to protect their VMware environment clearly understand the frustration and time involved with backup technology that was not built specifically for protecting virtual environments. Administrators and companies who have not had to experience recovering a guest virtual machine using basic backup and recovery tools will face several limitations in quickly recovering their data with these older backup tools designed only for physical systems including:

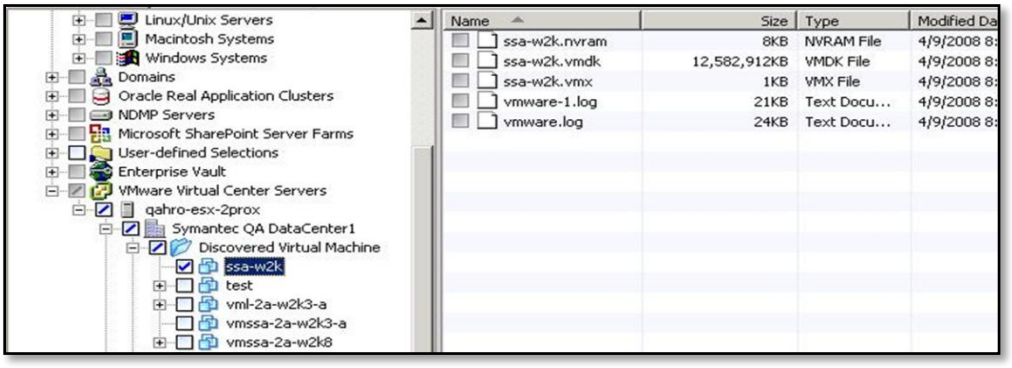
- Taking guest virtual machines off-line during backup in order to protect them completely
- Slow file-by-file backups that backup the redundant data in each Guest virtual machine over and over
- Recovery of a single file typically requires a long restore of the entire guest virtual machine
- Separate backups for applications like Microsoft SQL, Active Directory, and Exchange inside of Guest virtual machines

Improving Backup and Recovery for VMware Environments

Backup Exec 2010's Agent for VMware natively incorporates VMware's latest backup technology, vStorage API's for Data Protection technology, to help eliminate these challenges while further improving them to provide faster backups with less overall storage consumption through:

- VMware "Ready" certified integration with VMware vStorage API's for Data Protection for online backup of all Guest virtual machines while they are online and running
- vSphere block-level Incremental and Differential backups that quickly only backup what has changed in the Guest virtual machine since the last backup that can be optionally deduplicated for increased storage savings
- Integrated Granular Recovery Technology to provide a single-pass, high-speed, backup of the virtual machine while providing the ability to recover the entire Guest virtual machine or individual files/folders within the virtual machine to the original or alternate location
- Improved Microsoft VSS integration for properly protecting applications such as Exchange, SQL, or Active Directory as part of the entire guest virtual machine with Granular Recovery Technology support for individual item or database recovery from Exchange, SQL, or Active Directory

The easy to use Backup Exec interface can communicate with VMware's vCenter servers to walk Administrators through the process of identifying the necessary ESX / vSphere hosts, Groups, and guest virtual machines for fast and simple backup and recovery.



Key Business Benefits

- NEW! Protects both online and offline Windows and Linux® Guest virtual machines using VMware-certified integrated VMware vStorage API's for Data Protection
- NEW! Faster block-level backups including Incremental/Differential support to further reduce backup windows and storage costs
- NEW! Granular Recovery of Exchange, SQL and Active Directory from a single pass backup
- NEW! Integration with Backup Exec 2010's Deduplication Option for reduced storage costs
- NEW! Protects VMware Template files for simple recovery
- Integrates with vCenter for automated discovery of VMware ESX 3.x and vSphere 4.0 Hosts
- Single Pass Backups for complete virtual machine recovery, or individual file/folder level recovery

Platform Support

- vSphere 4.0 and 4i
- VMware ESX/ESXi 3.5
- vCenter 2.5 and 4.0
- All VMware Supported Storage Infrastructures- FibreChannel SANs, iSCSI SANs, NFS, Direct Attached Storage

The Backup Exec 2010 Agent for VMware Virtual Infrastructure leverages Symantec's innovative Granular Recovery Technology (GRT). The GRT feature helps IT Administrators to save time and money by enabling them to restore individual files and folders within a guest virtual machine from a single-pass image backup of the entire guest virtual machine. There is no need to take the guest virtual machine offline or to perform a separate file-by-file backup on the guest virtual machine to be able to restore single files from within a .vmdk file or the entire virtual machine. Additionally, Backup Exec 2010 now provides granular recovery of virtualized applications and data inside a guest virtual machine, such as Microsoft Exchange, SQL, or Active Directory. Granular recovery of these applications is done from the original image-based

backup of the Guest virtual machine. A separate Backup Exec Database or Application Agent-specific backup of the application is no longer required.

Note: To be compliant with Symantec licensing, the corresponding application agents must still be purchased and the license key installed on the Media Server. The Database or Application Agent is installed inside of the Guest virtual machine but is used only very briefly during the backup to gather application-specific data.

Features and Benefits

Integrated with VMware Virtual Infrastructure 3 (VI3) and vSphere 4.0	Supports and integrates with all key VMware technologies including vStorage API's for Data Protection, *vCenter, VMotion, ESX/ESXi, and VMware Tools.*
Block-level Incremental and Differential Backup	Supports fast block-level Incremental and Differential backups of vSphere virtual machines to ensure only the changed data of the virtual machine
Embedded Granular Recovery Technology (GRT)	Included GRT technology provides the ability to restore individual files and folders inside of guest virtual machine *without* restoring the entire guest virtual machine(*Windows guest machines only)
Application Protection with Granular Recovery Technology	Protection applications such as Microsoft Exchange, SQL, and Active Directory inside of Guest virtual machine while they are online and running with the ability to recover individual objects like emails, mailboxes, AD user accounts, or SQL databases
Deduplication of VMware Data	Integration with Backup Exec 2010's Deduplication Option provides even further reductions in storage costs of virtual machine backups and can be combined with the block-level Incremental and Differential backup capabilities for fast and space efficient backups
VMware Template File Protection	Provides the ability to easily protect VMware Template files alongside of the Guest virtual machines
Automatic Protection of New Virtual Machines	Backup Exec 2010's Dynamic Inclusion feature ensures that newly added or created Guest virtual machines are automatically protected without the administrator having to manually add them to the backup

Licensing Backup Exec 2010 Agent for VMware Virtual Infrastructure

The Backup Exec Agent for VMware Virtual Infrastructure is designed to accommodate the needs of large and small deployments whether it's a single ESX / vSphere host or a robust, multi-ESX / vSphere, VirtualCenter managed environment. It is licensed simply on a ***per-ESX / vSphere host*** basis.

Example Scenarios	Customer Environment	Licensing
Protecting three (3) ESX or vSphere hosts with eighteen (18) guest virtual machines total	Three (3) ESX host systems with eighteen(18) shared guest virtual machines	Qty: Three (3) Backup Exec 2010 Agent for VMware Virtual Infrastructure licenses.
Protecting three (3) SQL Servers in 3 Guest virtual machines	Three (3) Microsoft SQL 2008 servers installed in three (3) separate Guest virtual machines	QT: Three (3) Backup Exec 2010 Agent for Microsoft SQL Server licenses

Integrated Data Protection

Symantec Backup Exec 2010 Agent for VMware Virtual Infrastructure is one of several agents and options which enable administrators to design and easily implement a comprehensive data and system protection solution for any virtual environment. For specific application recovery of Microsoft Exchange, SQL, Active Directory, proper transaction log truncation, application level/object level recovery inside of a guest virtual machine (i.e. database, mailbox, message, object, AD user account, etc), additional Backup Exec Agents licenses are still required. However, actual separate Database or Application Agent backups are ***no longer required*** to be performed for those specific applications. The following optional Agents are priced separately and are available from your Backup Exec reseller.

- **Agent for Exchange Server**
- **Agent for Active Directory**
- **Agent for SQL Server**

Note: Protection of other applications such as SharePoint, Oracle and Lotus Domino still require the application agents to be deployed in the guest virtual machine and a separate backup be run for complete protection of these applications.

For More Information

Symantec Enterprise Sales Support: 800-745-6054
Backup Exec on the Symantec Web Site: www.backupexec.com

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