Symantec Backup Exec 2010
Agent for Microsoft Hyper-V™

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Microsoft Hyper-V Protection

Microsoft's Hyper-V has quickly become a compelling choice for organizations that have standardized on the Microsoft Windows 2008 and 2008 R2 Server platform. For this reason, companies are more dependent on an efficient backup and quick recovery solution for their virtual systems and the host systems to maintain business productivity. If human error and hardware or software failure result in the corruption or loss of a Hyper-V server, there is a greater concern beyond losing a single server. The loss of a Hyper-V host will have a ripple effect across all of the virtual servers hosted on the Hyper-V server. This includes the applications that have also been installed on those Guest virtual machines such as Microsoft® Exchange, SQL Server®, and Active Directory®. An accidentally lost Hyper-V server could impact productivity up to several hours, or even days, across multiple departments while the IT administrator struggles to recover the virtual environment and the individual Guest virtual machines.

Administrators looking to protect their Hyper-V environment understand the frustration and time involved with backup technology that was not built specifically to protect virtual environments like Microsoft Hyper-V. Administrators and companies who have not had to experience recovering a Hyper-V server or online Guest virtual machines using basic backup and recovery tools will face several limitations to quickly recovering their data with these older backup tools including:

- Installing a backup agent inside of each Guest virtual machine
- Protection of Cluster Shared Volumes and highly-available virtual machines in Windows 2008 Hyper-V R2
- Recovery of a single file typically requires a long restore of the entire Guest virtual machine
- Taking Guest virtual machines offline during backup in order to protect them completely
- Concerns about ensuring applications running inside of the Guest virtual machines can be recovered
- Restoring Guest virtual machines in a disaster recovery situation to original or alternate Hyper-V servers

Improving Backup and Recovery in Hyper-V Environments

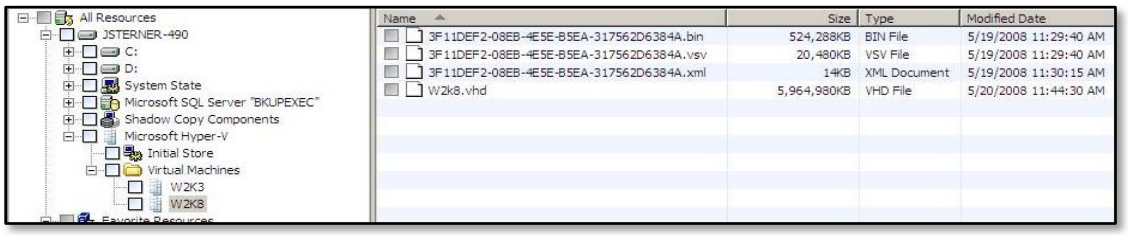
Most restores involve recovering from "small disasters" of lost, deleted, corrupted or overwritten user files and folders. If not quickly resolved, these "small disasters" can quickly escalate into larger issues. In situations where an individual file, folder, email, contact, database, or Active Directory User Account is lost or corrupted, recovery of the entire Guest virtual machine is typically required unless a second separate file level backup is performed of each Guest virtual machine's data. This requires a backup Agent or Client installed in each Guest virtual machine. This "two pass" backup of both an entire Guest virtual machine and its files is not an efficient use of backup time, storage space, or resources.

Symantec Backup Exec 2010's Agent for Microsoft Hyper-V dramatically reduces the time to recover from small and big disasters by protecting the entire Hyper-V host and all of its Guest virtual machines together, while still allowing for individual granular file and folder recovery from inside of Guest virtual machines. New in Backup Exec 2010, granular recovery of a Guest virtual machine application such as Exchange, SQL and Active Directory, may also be achieved without running a second pass backup of the application inside of the virtual machine.

Only the Backup Exec 2010 Agent for Microsoft Hyper-V leverages the innovative Granular Recovery Technology (GRT), to provide the ability to restore individual files and folders within a Guest virtual machine from a single pass backup of the entire Guest virtual machine. A single backup of a Hyper-V host with the Agent for Microsoft Hyper-V includes;

- Protecting the Hyper-V host configuration data
- Protecting both Windows and *Linux Guest virtual machines
- Protecting applications such as Exchange, SQL, or Active Directory as part of the entire Guest virtual machine

The easy to use Backup Exec interface walks Administrators through the process of identifying the necessary Hyper-V hosts and Guest virtual machines for fast and simple backup and recovery.



Key Feature Benefits

- NEW! Complete protection for Hyper-V 2008 R2, including Cluster Shared Volumes (CSV)
- NEW! Protection of Live Migration-enabled virtual machines
- NEW! Optional deduplication support of virtual machines
- NEW! Virtual Application Granular Recovery Technology support for object level recovery of virtualized applications SQL, Exchange, and Active Directory
- Single agent protects the entire Hyper-V host and all Windows and Linux Guest virtual machines
- Single Pass Backups for complete virtual machine recovery or individual file/folder level recovery

Platform Support

- Microsoft Windows 2008 Hyper-V (including R2)
- Microsoft Windows 2008 Hyper-V Core Server (including R2)
- All Supported MS Guest OS's for Hyper-V including Linux

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Backup Exec 2010 Agent for Hyper-V now also includes support for Microsoft's newest version of Hyper-V, Windows 2008 Hyper-V R2. This includes comprehensive protection of the new Cluster Shared Volumes (CSV) that can be used to cluster Hyper-V host systems and perform LiveMigrations of Guest virtual machines between Hyper-V R2 hosts. Backup Exec 2010 Agent for Hyper-V automatically protects the highly-available (HA) configuration of Guest virtual machines on a Hyper-V R2 CSV and can recover the Guest virtual machine with this configuration intact. Backups of CSV volumes can be done without impact the LiveMigration process.

Features and Benefits

Single Agent to Protect Hyper-V Host and All Guest Virtual Machines	Performs backups of all online and offline Guest virtual machines on a Hyper-V host system using Microsoft VSS snapshots
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 virtual machines only).
Application Granular Recovery of Microsoft SQL, Exchange, and Active Directory objects from within the virtual machine	Eliminate need for separate application backups of data inside of Guest virtual machines. Backup Exec's GRT technology requires only one backup, saving space on vital disk and/or tape media and ensures each backup completes quickly.
Support for Windows 2008 Hyper-V R2 Cluster Shared Volumes	Easily protect large Hyper-V clusters with Cluster Shared Volumes without impact LiveMigration or the cluster configuration of Guest virtual machines
Dynamic Inclusion of new Guest virtual machines	Automatically include newly added or created Guest virtual machines in backups without having to manually add them to a backup job
Disk to Disk or Disk to Tape Backup and Recovery	Flexible backup and recovery capabilities allow for backup to disk for fast recovery or backup to tape for long-term storage.

Licensing Backup Exec 2010 Agent for Microsoft Hyper-V

The Backup Exec Agent for Microsoft Hyper-V is designed to accommodate the needs of large and small deployments of Hyper-V – whether it's a single Hyper-V host or a multi-node Hyper-V clustered environment. The Backup Exec Agent for Microsoft Hyper-V is licensed on a ***per-Hyper-V host*** basis including Hyper-V clusters. 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.

Scenarios	Customer Environment	Licensing
Protecting two Hyper-V hosts with four (4) Guest virtual machines	Two (2) Hyper-V host systems with four (4) Guest virtual machines running Windows and Linux	**Qty: 2 of Backup Exec 2010 Agent for Microsoft Hyper-V licenses.** *Licensed per Hyper-V host.* **Note: Agent for Windows Systems licenses or Agent for Remote Linux/Unix Servers licenses are included for any Guest virtual machine hosted on the protected and licensed Hyper-V host for granular file/folder recovery. Application level or granular application level recovery requires a separate Backup Exec Application or Database Agent License Key. Please see the **Integrated Data Protection Section** below.
Protecting three (3) SQL Servers in three (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 Hyper-V 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 to be installed. 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**
- **Agent for Active Directory**
- **Agent for SQL**

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

Contact your Symantec Reseller or Symantec Enterprise Sales Support: 800-745-6054
Backup Exec Web Site: http://www.backupexec.com