Advanced System Protection with **Symantec Backup Exec System Recovery 7.0**

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Symantec® Backup Exec™ System Recovery is designed to provide advanced protection for systems running Microsoft® Windows® operating systems, enabling flexible recovery to dissimilar hardware platforms, virtual environments, and unattended remote locations. This article outlines the key features and enhancements of Backup Exec System Recovery 7.0.

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Symantec Backup Exec System Recovery 7.0 is a comprehensive disk-based system recovery solution for servers, desktops, and notebooks running Microsoft Windows operating systems, allowing enterprises to quickly recover from system failures or disasters, even when restoring to dissimilar hardware platforms, virtual environments, or unattended remote locations. It is designed to capture recovery points for live Windows-based systems, including the OS, applications, system settings, configurations, and files, without affecting productivity. Administrators can easily save these recovery points to media or disk storage devices—including storage area networks, network attached storage, direct attach storage, RAID volumes, CD/DVD drives, and so on—and then quickly restore them without requiring lengthy and error-prone manual processes.

Key features of Backup Exec System Recovery 7.0 include the Backup Exec System Recovery Manager console, the Restore Anyware™ and LightsOut Restore features, the Exchange Retrieve Option, the Convert to Virtual Disk wizard, and other enhancements.

Backup Exec System Recovery Manager

Backup Exec System Recovery Manager—introduced as part of Backup Exec System Recovery 7.0—allows administrators to monitor and manage multiple Backup Exec System Recovery instances from a centralized console that provides a simplified view of the current protection status of managed systems (see Figure 1). Administrators can use this console to perform key monitoring and management tasks, including the following:

- Viewing real-time status of backup jobs; filtering jobs based on system name, job type, job name, and IP address; and examining errors to troubleshoot problems
- Viewing system details, including volume name, size, amount and percentage of space used, file system type, and last recovery point time and location
- Enabling end users to recover files and folders without administrator intervention through an intuitive, Web browser–based search using Symantec Backup Exec Retrieve
- Defining recovery point policies for groups of servers, desktops, or notebooks with similar requirements, then simply dragging and dropping to deploy the policies
- Generating predefined reports or creating custom reports and exporting them to .csv, .html, .xls, or .xml files for easy distribution
- Enabling varying levels of role-based administration
- Setting default configuration settings for individual systems or groups of systems, including performance throttling, network bandwidth utilization, and notifications through e-mail or Simple Network Management Protocol (SNMP) traps
- Jump-starting recovery point creation on remote systems when jobs are missed

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Backup Exec System Recovery Manager supports centralized administration for existing installations of Backup Exec System Recovery 6.5 and includes access to the Backup Exec System Recovery Download Center, an automated Web site for client download and distribution.

Restore Anyware

The Restore Anyware feature of Backup Exec System Recovery is designed to provide flexible hardware-independent recovery, enabling administrators to easily recover or migrate systems to dissimilar hardware platforms, virtual environments, or unattended remote locations. It can help administrators do the following:

- Reduce recovery times and the need to deploy and maintain identical hardware
- Easily migrate end-user systems without requiring a complete reinstallation
- Convert system recovery points into virtual machines (VMs) for the VMware® or Microsoft Virtual Server virtualization platforms and vice versa, allowing administrators to test patches, applications, and other software in a virtual environment

When used in conjunction with Backup Exec System Recovery Manager, Restore Anyware also helps administrators perform one-to-many management, monitoring, and reporting of Backup Exec System Recovery clients throughout an enterprise IT environment—directly benefiting administrators by eliminating existing redundant IT capacity and the need to purchase identical hardware.

LightsOut Restore

The LightsOut Restore feature of Backup Exec System Recovery uses Symantec pcAnywhere® technology to allow administrators to remotely monitor servers in unattended environments through management controllers such as the Dell™ Remote Access Controller (DRAC), then restore those servers following a failure. This feature installs a customized version of the Symantec recovery environment directly in the file system of each server and places a Symantec recovery environment boot menu option in the Windows boot menu. If a server fails, administrators can boot into the Symantec recovery environment remotely and quickly recover individual files or a full system. LightsOut Restore also enables administrators to add hardware drivers to a Symantec Recovery Disk located in the boot volume, helping ensure that the latest drivers are included during system recovery.

Exchange Retrieve Option

The Exchange Retrieve Option, introduced for Backup Exec System Recovery 7.0, is designed to protect entire Microsoft Exchange servers quickly and easily and enable administrators to perform granular and full system recoveries of Exchange objects from recovery points without requiring full mailbox backups. Before administrators can use this option, they must first capture a recovery point for an Exchange server using Backup Exec System Recovery. They can then use the Exchange Retrieve Option to automatically locate Exchange database files from selected recovery points to prepare for granular recovery; quickly and easily search for and recover Exchange mailboxes, folders, messages, and attachments; and forward these objects directly to Microsoft Office Outlook® e-mail clients if desired.

Best practices to help maximize protection and efficiency when using the Exchange Retrieve Option include the following:

- Select the option to back up your computer, not the option to back up selected files and folders.
- When selecting Exchange server drives to back up, ensure that all drives are selected.
- When choosing the type of recovery point to create, select "Recovery Point Set" rather than "Independent Recovery Point," which helps reduce the size of recovery points.
- Schedule backups to occur when the server is not at its peak load.

Convert to Virtual Disk wizard

Administrators can use the Convert to Virtual Disk wizard in Backup Exec System Recovery (see Figure 2) to convert recovery points directly to VMs for the VMware or Microsoft Virtual Server virtualization platforms. This wizard allows administrators to select the recovery point, choose either VMware virtual disk (.vmdk) or Microsoft virtual hard disk (.vhd) as the VM type, configure the VM settings, and perform the conversion. They can

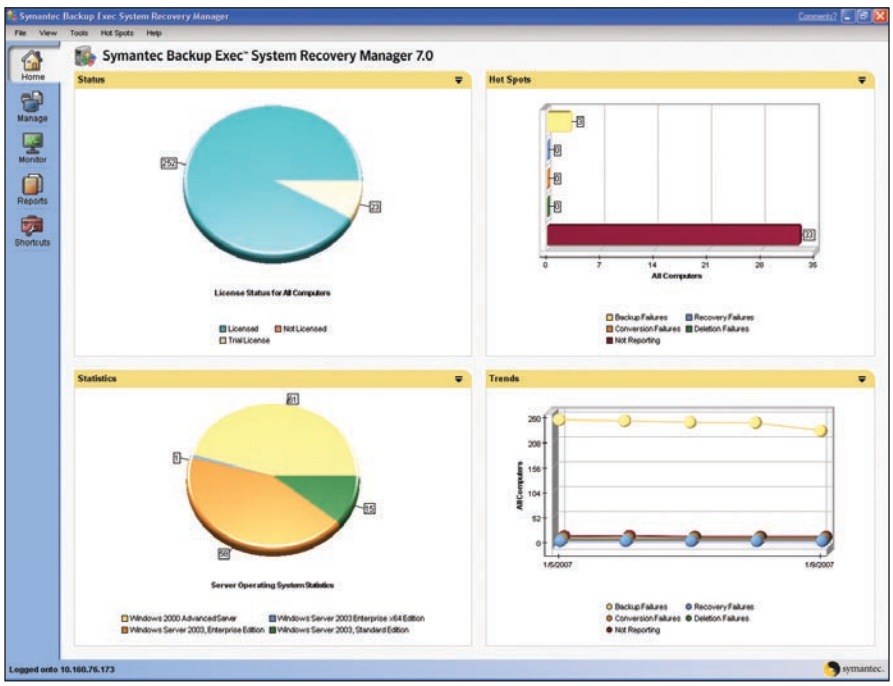

Figure 1. *Symantec Backup Exec System Recovery Manager console*

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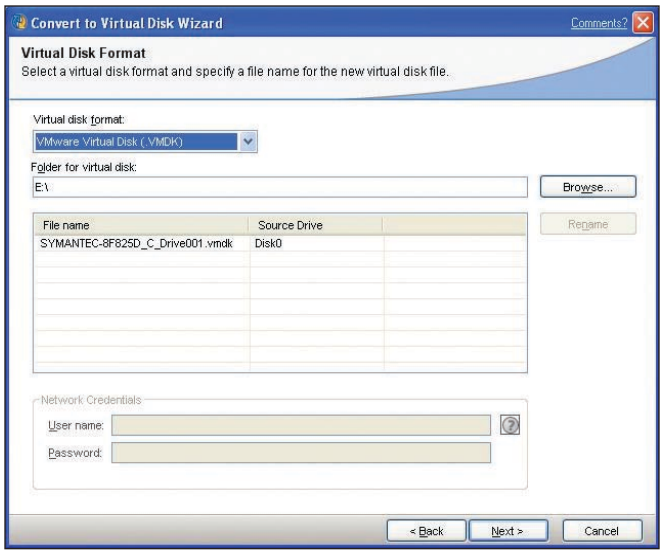

Figure 2. *Symantec Backup Exec System Recovery Convert to Virtual Disk wizard*

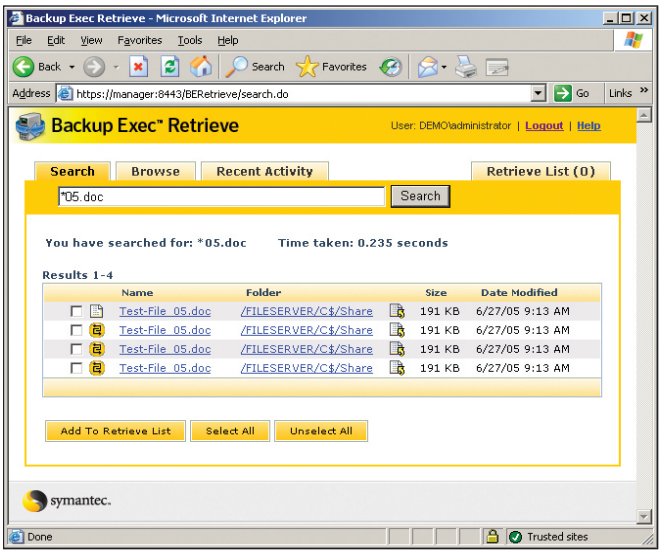

Figure 3. *Symantec Backup Exec Retrieve*

also upload VMs directly to the VM host if desired.

Other enhancements in Backup Exec System Recovery 7.0

In addition to the features and options discussed in the preceding sections, Backup Exec System Recovery 7.0 also includes several other enhancements, including the following:

- **File and folder backup:** Administrators can back up selected files and folders on a different schedule from full system or volume recovery points, and can search for and retrieve previous versions of files when creating separate file and folder backup jobs.
- **Expanded OS support:** Backup Exec System Recovery 7.0 adds support for 32- and 64-bit versions of the Microsoft Windows Vista™ OS and Microsoft Windows Server® 2003 x64 Editions.
- **Custom Symantec Recovery Disks:** Administrators can create and update Symantec Recovery Disks customized for their environment, and can add updated hardware drivers as needed. Backup Exec System Recovery can search the system for drivers not included in the Symantec Recovery Disk.
- **Accelerated Symantec Recovery Disk boot:** Symantec Recovery Disks are now based on Windows Vista, helping reduce the time required for booting and bare-metal system recovery.
- **Indexed recovery points:** Recovery points are indexed, allowing administrators and end users to perform document-level retrieval through integration with Google Desktop Search or Backup Exec Retrieve (see Figure 3), included with Backup Exec 10d and 11d for Windows Servers.

	Supported operating systems
Desktop Edition	• Microsoft Windows 2000 Professional with Service Pack 4 (SP4) or later • 32- and 64-bit versions of Microsoft Windows XP Home Edition and Professional Edition with SP2 or later • 32- and 64-bit versions of Microsoft Windows Vista Home Basic Edition, Home Premium Edition, Business Edition, and Ultimate Edition
Small Business Server Edition (includes Exchange Retrieve Option)	• Microsoft Windows Small Business Server 2000 • Microsoft Windows Small Business Server 2003
Server Edition	• Microsoft Windows 2000 Server with SP4 or later • Microsoft Windows 2000 Advanced Server with SP4 or later • Microsoft Windows Server 2003 and Windows Server 2003 x64 Editions

Figure 4. *Symantec Backup Exec System Recovery 7.0 editions and supported operating systems*

Different editions of Backup Exec System Recovery 7.0 are designed to meet different needs. Figure 4 summarizes these editions and their supported operating systems.

Advanced, flexible backup and recovery

Symantec Backup Exec System Recovery 7.0 and features such as Restore Anyware, LightsOut Restore, the Exchange Retrieve Option, and the Convert to Virtual Disk wizard are designed to offer advanced, flexible protection for Microsoft Windows–based systems while simplifying recovery management. Implementing these tools can help create rapid, reliable system recovery processes for enterprises of all sizes.

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