

# What's new in Backup Exec

# What's New in Backup Exec releases and its feature packs

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## What's New in Backup Exec releases 2012 to Backup Exec 16 and its feature packs

This article lists the new features added from Backup Exec 2012 to Backup Exec 16 and its feature packs. For more information on these features, see the Backup Exec Administrator's Guide.

### What's New in Backup Exec 16 Feature Pack 2

Item	Description
Backup Exec™ CloudConnect Optimizer	Backup Exec users benefit from the Backup Exec™ CloudConnect Optimizer as it tunes the Write Connections setting to ensure successful backups and improved data rates based on the network bandwidth.
S3-compatible cloud storage	You can now configure S3-compatible cloud storage with Backup Exec. For more information, refer to the following technote:  <a href="http://www.veritas.com/docs/000126210">http://www.veritas.com/docs/000126210</a>
Support for new cloud storage regions	Backup Exec users benefit from cloud storage choices through support for the following cloud storage regions, enabling greater flexibility and economy: <ul style="list-style-type: none"><li>■ Microsoft Azure Government Cloud</li><li>■ Microsoft Azure Germany</li><li>■ Amazon Government Cloud</li></ul> Review the Backup Exec Hardware Compatibility List (HCL) for supported cloud storage regions. You can find the HCL at the following URL:  <a href="http://www.veritas.com/docs/000017788">http://www.veritas.com/docs/000017788</a>
Support of Regional storage class for Google	To improve accessibility of cloud storage data, Backup Exec supports the Regional storage class for Google cloud storage.

<b>Item</b>	<b>Description</b>
Dedupe to Cloud with OpenDedupe OST Connector	<p>The OpenDedupe OST Connector provides integration between Backup Exec and OpenDedupe.</p> <p>The Backup Exec™ Configuration Tool for OpenDedupe is a tool that simplifies the configuration of OpenDedupe volumes for use by Backup Exec. For more information about this configuration tool, refer to the following technote:</p> <p><a href="http://www.veritas.com/docs/000127295">http://www.veritas.com/docs/000127295</a></p>

## What's New in Backup Exec 16 Feature Pack 1

<b>Item</b>	<b>Description</b>
Recovery Ready feature	Recovery Ready validates the integrity of a protected VMware or Hyper-V virtual machine backup. The validation job runs tests and ensures that the virtual machine and its data can be reliably recovered if necessary. This helps IT operations smooth recovery in the event of data loss.
Enhanced resiliency for Instant Recovery	Enhanced resiliency increases the data and application availability of VMware and Hyper-V virtual machines that have been Instantly Restored. This improves business continuity in case the Backup Exec server or the VMware or the Hyper-V server must be restarted. As soon as the restart is complete or network reconnected, virtual machines restored with the "Instant Recovery" feature are brought back online automatically.
Support for new private cloud-based storage providers	Backup Exec broadens cloud storage choices through support for the following private providers, enabling greater flexibility and economy: <ul style="list-style-type: none"><li>■ Dell EMC Elastic Cloud Storage (ECS)</li><li>■ RedHat Ceph Storage</li></ul>
Direct-To-Cloud	Backup Exec users benefit from enhanced Direct-To-Cloud features that increase flexibility for their cloud implementations: <ul style="list-style-type: none"><li>■ Back up data directly to cloud.</li><li>■ Direct configuration of cloud storage devices.</li><li>■ Global settings to configure the read and write connection to a cloud storage device.</li><li>■ Improved clarity of cloud storage device properties.</li><li>■ A new Cloud Storage Summary report.</li></ul>

Item	Description
Support of Infrequent Access Storage tier for Amazon S3	<p>To improve the economy of cloud data storage, Backup Exec now supports the following tiers for Amazon S3 Cloud Storage:</p> <ul style="list-style-type: none"> <li>■ Standard</li> <li>■ Standard_IA (Infrequent Access)</li> </ul>

## What's New in Backup Exec 16

Item	Description
User interface	Backup Exec has updated rebranding for Veritas Backup Exec 16.
Support for Microsoft Azure storage cloud	<p>Backup Exec supports Microsoft Azure Storage cloud as a backup target. Backup Exec supports writing backup data to and restoring data from Microsoft Azure Blob storage.</p> <p>For more information about Microsoft Azure Storage cloud requirements and configuration, see "About cloud-based storage devices" in the Backup Exec 16 Administrator's Guide.</p> <p>For the list of supported cloud providers, see the Backup Exec Hardware Compatibility List at the following URL:  <a href="https://www.veritas.com/support/en_US/article.000017788">https://www.veritas.com/support/en_US/article.000017788</a></p>
Support added for Windows 2016 Server	<p>Backup Exec 16 supports Windows 2016 Server. All operating system features supported by Backup Exec on a Windows 2012 R2 server are also supported on a Windows 2016 server.</p> <p>This includes agent-based backup of a Windows 2016 server including Hyper-V virtual machines.</p>
Support for VMware vSphere 2016	Backup Exec supports VMware vSphere 2016.

# What's New in Backup Exec 15 Feature Pack 5

Item	Description
Support for private cloud storage devices	<p>Backup Exec supports backups to private cloud-based storage devices. Configure a private cloud storage server in your environment, create a cloud instance, and then configure a cloud storage device in Backup Exec for the private cloud storage server. You can now select this cloud storage device as the destination device for backup jobs or duplicate backup jobs.</p> <p>For more information about cloud-based storage devices and their configuration, see "About cloud-based storage devices" in the Backup Exec 15 Administrator's Guide.</p> <p>For the list of supported private cloud providers, see the Backup Exec Hardware Compatibility List at the following URL:</p> <p><a href="https://www.veritas.com/support/en_US/article.000024527">https://www.veritas.com/support/en_US/article.000024527</a></p>
Instant recovery of VMware virtual machines	<p>Backup Exec now supports instant recovery of a VMware virtual machine. You can instantly recover the virtual machine without waiting to transfer the virtual machine's data from a backup set and users can access it on the vCenter or ESX/ESXi host immediately.</p> <p>For more information about this feature, see "About instant recovery of a VMware virtual machine" in the Backup Exec 15 Administrator's Guide.</p>
Instant recovery of Hyper-V virtual machines	<p>Backup Exec now supports instant recovery of a Hyper-V virtual machine. You can instantly recover the virtual machine without waiting to transfer the virtual machine's data from a backup set and users can access it on the Hyper-V host immediately.</p> <p>For more information about this feature, see "About instant recovery of a Hyper-V virtual machine" in the Backup Exec 15 Administrator's Guide.</p>

<b>Item</b>	<b>Description</b>
Renamed options for delayed catalog and quick catalog	<p>On the Backup Job Options dialog box, Delayed Catalog in the left pane is changed to Instant GRT. The Delayed Catalog options dialog box is also renamed to Instant GRT and Full Catalog options.</p> <p>In addition, the option Do not run a delayed catalog. Instead, run a quick catalog operation as part of the backup job is renamed to Enable Instant GRT.</p> <p>For more information about Instant GRT, see "Configuring Instant GRT and full catalog options to improve backup performance for GRT-enabled jobs" in the Backup Exec 15 Administrator's Guide.</p>

## What's New in Backup Exec 15 Feature Pack 4

<b>Item</b>	<b>Description</b>
Reduce virtual server backup time with an enhanced cataloging feature (also known as Instant GRT)	<p>To reduce the cataloging time for a backup job, you can now choose the quick cataloging option on the Delayed Catalog Options dialog box. This option runs the catalog operation as part of the backup job and collects only the minimum required catalog information. However, when you browse the backup sets for individual items that you want to restore, Backup Exec reads and displays the granular information in the backup sets.</p> <p>The new option is named <b>Do not run a delayed catalog operation</b>. Instead, run a quick catalog operation as part of the backup job.</p> <p>For more information about quick cataloging, see "Configuring delayed catalog options to improve backup performance for GRT-enabled jobs" in the Backup Exec 15 Administrator's Guide.</p>

# What's New in Backup Exec 15 Feature Pack 3

<b>Item</b>	<b>Description</b>
Auto-detection of existing database files before installation failure	<p>If Backup Exec database (BEDB) files from a previous installation of Backup Exec are detected, the Backup Exec installation wizard provides the option to use the new database files or use the existing database files.</p> <p>If you choose to use the new database files, the old database files are copied to a different location. However, if you use the existing database files, the installation may fail if the existing database files are from a different version of Backup Exec.</p> <p>This feature is not supported when you use the command line (silent mode) to install Backup Exec.</p>
New Configuration Validation feature	<p>This new feature provides information about configuration issues. It detects configuration errors and deviations from recommended settings, and provides recommendations for best practices. On the Home tab, a new Configuration Tasks widget provides a summary of configuration tasks that need attention. From the widget on the Home tab you can click a link to view the Configuration Tasks dialog box, which provides details about each configuration issue as well as actions that should be taken to resolve the issues. Additionally, direct links are provided from the Configuration Tasks dialog box to the location in the user interface where you can adjust settings to correct the configuration issues.</p>



<b>Item</b>	<b>Description</b>
Improved backup and restore times for Hyper-V and VMware	Backup Exec now automatically skips the data in the Pagefile.sys file during Hyper-V and VMware backup jobs. Pagefile.sys is a virtual memory swap file that Windows uses to swap applications in and out of RAM to and from disk when the operating system begins to run out of RAM. The data in the Pagefile.sys file is not relevant after data is restored. By skipping the data in this file during backup jobs, backup and restore times can be reduced. In addition, storage space can be increased. Backup Exec skips the data in the Pagefile.sys file automatically. You do not need to enable any options. For VMware, the data in Pagefile.sys is skipped only for full backups. For Hyper-V, the data in Pagefile.sys is not skipped for offline backups.
Support for new versions of VMware	Backup Exec now supports VMware versions 6.0 U1 and 5.5 U3.
New options for Hyper-V incremental backups	<p>You can now choose the processing method to use for Hyper-V incremental backups. The standard processing method reads the whole VHD or VHDX disk and performs fingerprinting on the entire disk, and then backs up the changed blocks that are identified. The faster processing method writes all changed blocks to a differencing disk and then backs up only the differencing disk.</p> <p>You can set the processing method for Hyper-V incremental backups from Configuration and Settings &gt; Backup Exec Settings &gt; Virtual Machines.</p> <p>For more information about this feature, see the topic titled Configuring Hyper-V incremental backup settings in the Backup Exec 15 Administrator's Guide.</p>

<b>Item</b>	<b>Description</b>
New Exchange High Availability Server option	You can now select the <b>Back up from the preferred server configuration only</b> option. Use the passive copy first and if not available, use the active copy. Job fails if copies are not available in the preferred server configuration. This option lets you back up from the preferred server configurations that you specify as the preferred server source. The passive copy is used as the first backup source and if it is not available, the active copy is used. If the copies are not available in the preferred server configuration, the job fails.

## What's New in Backup Exec 15 Feature Pack 2

<b>Item</b>	<b>Description</b>
Tag as business-critical options	The new Tag as business-critical option on the Backup Selections dialog box lets you select which resources are most important to you. This option prioritizes the backup of the resources that are the most critical to your business so that the items that are tagged as business-critical resources are backed up in priority order.
Enhanced support for Microsoft Exchange	Backup Exec now supports backups and restores of Exchange 2016 databases. In addition, support is now available for Exchange 2013 SP1/2016 Database Availability Groups (DAG) without a cluster administrative access point.
Support for Microsoft Exchange 2016 on Hyper-V and VMware virtual machines	Backup Exec now supports backups and restores of Exchange 2016 on virtual machines.

<b>Item</b>	<b>Description</b>
Support for cloud storage devices	<p data-bbox="779 269 1212 477">Backup Exec supports backups to cloud-based storage devices. You can use the cloud connector to back up data to a cloud storage device. You can add a cloud storage device, and then select the cloud storage as the destination device for backup jobs or duplicate backup jobs.</p> <p data-bbox="779 494 1212 581">For the list of supported cloud providers, see the Backup Exec Hardware Compatibility List at the following URL:</p> <p data-bbox="779 598 1212 624"><a href="https://www.veritas.com/support/en_US/article.000017788">https://www.veritas.com/support/en_US/article.000017788</a></p>

# What's New in Backup Exec Feature Pack 1

Item	Description
	Enhancements for Hyper-V and VMware virtual environments

## Item

## Description

The following new features were added:

- A new Virtual Machine Backup widget on the Home tab shows you the number of virtual machines that are backed up using agent-based backups and using virtual-based backups. From the widget, you can view a list of the virtual machines that use agent-based backups.
- The option to back up virtual machines from the Details pane on the lower portion of the Backup and Restore tab. You can select a virtual machine in the Details pane, and then click the new Backup button, or right-click the selected virtual machine to access the Backup options.
- A new Hypervisor column on the upper pane on the Backup and Restore tab shows you the name of the VMware or Hyper-V host or manager that is associated with a virtual machine. This column is blank if a virtual host or manager is not detected for a virtual machine.

**Note:** This column is disabled by default.

- A new wizard helps you create a backup job when you select a virtual machine from the list of servers on the upper portion of the Backup and Restore tab. The wizard provides options to create a virtual-based backup or an agent-based backup. If you select a virtual-based backup, but you have not yet added the virtual machine's host to Backup Exec, the wizard enables you to add the host.
- The Agent for VMware and Hyper-V is now selected for installation automatically for Not for Resale (NFR) and Capacity Edition licenses.

**Note:** The Agent for VMware and Hyper-V is not automatically selected for installation for Trial Editions of Backup Exec.

<b>Item</b>	<b>Description</b>
Enhanced support for security certificates	<p data-bbox="790 279 1220 453">Backup Exec 2015 Feature Pack 1 has deprecated SHA-1SSL certificates and introduced SHA-256 (SHA-2) SSL certificates. The SHA-2 certificates offer improved security for communication between the Backup Exec server and any agents.</p> <p data-bbox="790 470 1220 696">The new certificates have no effect on backward compatibility for any remote computers that are running the Agent for Windows or the Agent for Linux versions 2012 or later. However, you must eventually upgrade any older versions of the agents to ensure that the Backup Exec server can communicate with them.</p> <p data-bbox="790 713 1220 1095">Veritas recommends that, when you upgrade from Backup Exec 2010 R3, you upgrade all managed Backup Exec servers and agents as soon as possible to avoid losing any trust relationships. If you upgrade a managed Backup Exec server or agent before the SHA-1 certificates expire, Backup Exec automatically deploys SHA-2 certificates and any operations continue uninterrupted. If you let the SHA-1 certificates expire before you upgrade the managed Backup Exec servers or agents, you must reestablish any trusts with the Backup Exec server.</p>

# What's New in Backup Exec 15

Item	Description
Backup Exec Capacity Edition Lite	<p>Capacity Edition Lite is a new Backup Exec edition that is a more affordable way to manage your Backup Exec deployment. It provides comprehensive backup and recovery and protects physical and virtual environments. It also includes access to most of the Backup Exec agents. You can purchase terabytes up to the amount that you will need to protect your environment. Each terabyte you purchase includes one Backup Exec Server and an unlimited number of clients and servers.</p> <p>The Capacity Edition Lite includes the following agents:</p> <ul style="list-style-type: none"><li>■ Agent for Applications and Databases</li><li>■ Agent for Windows</li><li>■ Agent for Linux</li><li>■ Agent for VMware and Hyper-V</li></ul> <p>For details on updated licensing and pricing, see the Backup Exec Licensing Guide at the following URL:</p> <p><a href="https://www.veritas.com/support/en_US/article.000024885">https://www.veritas.com/support/en_US/article.000024885</a></p>
Backup Exec Database encryption	<p>The Backup Exec Database is now encrypted for additional security. When you install or upgrade Backup Exec, it automatically creates a database encryption key. The database encryption key is used to encrypt information such as login account credentials and the keys that are used for encrypted backup jobs, for example.</p> <p>Veritas recommends that you export the Backup Exec Database encryption key to a secure location so that you can access it later if it is needed. For more information about exporting the database encryption key, refer to "Exporting the Backup Exec Database encryption key" in the Backup Exec Administrator's Guide .</p>

<b>Item</b>	<b>Description</b>
Agent for VMware	<p>The Agent for VMware now includes the following features:</p> <ul style="list-style-type: none"><li data-bbox="790 352 1220 499">■ Support for VMware vSphere 6.0. You can find a list of compatible operating systems, platforms, and applications at the following URL: <a href="https://www.veritas.com/support/en_US/article.000017788">https://www.veritas.com/support/en_US/article.000017788</a></li><li data-bbox="790 508 1220 586">■ File/folder-level GRT and application-level GRT backups and restores of virtual machines that have GPT partitioned disks.</li><li data-bbox="790 595 1220 708">■ File/folder-level GRT and application-level GRT backups and restores of virtual machines that have disks up to 16 TB in size.</li><li data-bbox="790 716 1220 795">■ Ability to run a Backup Exec server on a virtual machine that uses Windows 2012 R2.</li><li data-bbox="790 803 1220 864">■ Hotadd of SATA disks inside guest virtual machines.</li><li data-bbox="790 873 1220 933">■ Ability to back up and restore virtual machines on vSAN datastores.</li><li data-bbox="790 942 1220 1055">■ SSL certificate handling. Backup Exec checks that the SSL certificate's thumbprint matches, but it does not check the validity of the certificate.</li><li data-bbox="790 1064 1220 1124">■ Ability to back up and restore Virtual Volume (vVol) datastores.</li><li data-bbox="790 1133 1220 1168">■ Ability to select the SAN transport mode for restore jobs.</li></ul>



## What's New in Backup Exec 2014 Service Pack 2

Item	Description
Backup Exec Agent for Oracle	<p data-bbox="790 354 1193 406">The Agent for Oracle now supports Oracle 12c</p> <p data-bbox="790 430 1166 454">New features supported for Oracle 12c:</p> <ul data-bbox="790 472 1220 1281" style="list-style-type: none"><li data-bbox="790 472 1220 673">■ Support for multitenant architecture Backup Exec supports the new multitenant architecture that is introduced in Oracle 12c. In this new architecture, the Oracle database functions as a multitenant container database (CDB) that includes zero, one, or more PDBs.</li><li data-bbox="790 683 1220 829">■ New SYSBACKUP privilege for RMAN For Oracle 12c and later, the Oracle agent supports backup and restore tasks only with a user that has SYSBACKUP privileges.</li><li data-bbox="790 840 1220 1038">■ Backup Exec supports a non-administrative user for ORACLE_HOME on Windows. From Oracle 12c and later versions, the Oracle services can run with a non-admin Oracle user. However, installation can be done only with the user that has administrator privileges.</li><li data-bbox="790 1048 1220 1281">■ Oracle agent supports the backup and recovery of Oracle 12c on the following configurations:<ul data-bbox="822 1135 1198 1281" style="list-style-type: none"><li data-bbox="822 1135 1198 1222">■ Standalone Database (Single or Multiple instances) on Windows and Linux</li><li data-bbox="822 1229 1198 1281">■ Oracle Real Application Clusters (RAC) on Windows and Linux</li></ul></li></ul>
Bug fixes	<p data-bbox="790 1308 1220 1395">Backup Exec 2014 Service Pack 2 contains many bug fixes. To see a list, refer to the following technote:</p> <p data-bbox="790 1413 1220 1435"><a href="https://www.veritas.com/support/en_US/article.000023641">https://www.veritas.com/support/en_US/article.000023641</a></p>

# What's New in Backup Exec 2014

Item	Description
Enhanced conversion to a virtual machine	<p>The following enhancements were made to the conversion to a virtual machine feature:</p> <ul style="list-style-type: none"> <li>■ Support for incremental backups.</li> <li>■ Standalone conversion, which is a conversion that runs without a backup.</li> <li>■ Support for disks that are larger than 2 TB (for VMware or for Hyper-V 2012 or later).</li> <li>■ Support for exclusion of non-critical data from the conversion.</li> </ul>
Push-installation of the Agent for Windows to virtual machines	<p>The Add Server wizard lets you push-install the Agent for Windows to the virtual machines that you select. You can choose to install the Agent for Windows on all of the guest virtual machines that need it or on specific machines only.</p>
Enhanced V-Ray Edition	<p>The V-Ray Edition is designed to back up and restore virtual machines and virtualized applications in VMware and Hyper-V environments. It includes the Deduplication feature, the Agent for Applications and Databases, and the Agent for VMware and Hyper-V. It is licensed according to the number of cores on the host. The Backup Exec V-Ray Tier A license is available for hosts that have 6 or fewer cores in a socket. The Backup Exec V-Ray Tier B license is available for hosts that have 8 or more cores in a socket.</p>
Updated job scheduling	<p>Backup Exec has an updated scheduling feature which offers improved flexibility and more control over your job scheduling. You can now select any specific days of the month to form a pattern that reoccurs every month. You can exclude individual dates for jobs. You can also restrict hourly recurrences to a designated block of time, such as business hours.</p>

<b>Item</b>	<b>Description</b>
Backup source ordering	When you create a selection list for a job, you can now assign the order in which backup sources are backed up. Adjusting the order can be helpful if you need a specific source to be backed up before others, for example.
Editing multiple backup selections	You can now edit the detailed backup selections for multiple jobs at the same time. Previously, you could only edit the selections that the backups had in common.
Backing up multiple servers or applications	You can back up multiple servers or applications at once using Backup Exec. You can back them up as part of one backup definition or you can back them up individually in separate backup definitions.
Mixed backup methods	You can now create backup definitions that use both the incremental and differential backup methods in the same backup definition. Additionally, you can select agent or data-specific backup methods. For example, you can use a specific backup method for Microsoft SQL data that backs up and truncates the transaction log. You can mix full, incremental, and differential backup methods within a single job template to back up multiple types of data using data-specific backup methods.
Delayed catalog operations	You can configure a delayed catalog operation for any backups that are enabled for Granular Recovery Technology (GRT). GRT-enabled backup jobs require more time to catalog because of the granular information that they contain. You can now run the catalog operation as a separate job or you can schedule the catalog operation to avoid conflicts with your backup resources. You can also choose to not run a delayed catalog operation.

<b>Item</b>	<b>Description</b>
Improved credentials management	<p>You can now select a logon account and test it for use with a server or other backup source. Testing a logon account can help you determine if you have the appropriate credentials for a backup job before you attempt to run the job. The Logon Account Wizard now includes more guidance to help you select and configure the right kind of logon account for your backup job.</p> <p>Backup Exec also automatically checks your credentials in the background while you work to ensure that you can access your backup sources. If Backup Exec detects that you cannot access a backup source because of an issue with your credentials, it sends you an alert.</p>
Restore Wizard enhancements	<p>You can start restore jobs by launching the Restore Wizard directly from the following:</p> <ul style="list-style-type: none"><li data-bbox="790 861 1099 888">■ From a job in the Jobs views.</li><li data-bbox="790 892 1184 944">■ From a backup set in the Backup Sets view.</li><li data-bbox="790 951 1112 977">■ From media in the Media view.</li></ul>
Support for user-mode drivers	<p>Veritas kernel-mode tape drivers and <code>tapeinst.exe</code> are no longer installed if Backup Exec 2014 is installed on Windows Server 2012 and later. The Backup Exec 2014 hardware compatibility list (HCL) does not list any drivers that require kernel-mode drivers. If you use older or unsupported tape devices, test the devices before you use Windows Server 2012 and later to determine the functionality in case kernel-mode drivers are required.</p> <p>Veritas user-mode drivers now access all supported tape devices. User-mode drivers have accessed most tape devices for multiple previous versions of Backup Exec.</p> <p>User-mode drivers are more stable, and are patched without restarting the server. Hardware devices that run user-mode drivers are easier to support and maintain.</p>

<b>Item</b>	<b>Description</b>
New information available on the Storage tab	<p>Two new columns appear on the</p> <ul style="list-style-type: none"> <li>■ Active and Scheduled jobs - Displays the number of storage operation jobs, backup jobs, and the restore jobs that run on this device. Click the text in this column to see details of the jobs that are running or that are scheduled to run.</li> <li>■ Parent device - Identifies the parent device if there is a relationship between devices. Examples include a relationship between a tape library and a tape drive, or between a storage array and a virtual disk. You must select the List view to see this column. Additionally, storage capacity monitoring is now available for disk cartridge media.</li> </ul>
Support for scheduling some storage operation jobs	<p>You can schedule some storage operations as recurring jobs. You can also specify a schedule and a recipient for notification when these jobs run.</p> <p>Storage operations that you can schedule include the following operations:</p> <ul style="list-style-type: none"> <li>■ Scan</li> <li>■ Inventory</li> <li>■ Eject</li> <li>■ Clean</li> <li>■ Import media</li> <li>■ Export media</li> <li>■ Export expired media</li> <li>■ Unlock a robotic library's front portal</li> <li>■ Erase</li> </ul>

<b>Item</b>	<b>Description</b>
Automatic deletion of expired backup sets and reclamation of disk space on disk-based storage, including disk cartridge media	<p>You can install a Backup Exec server on Windows Server 2012/Server 2012 R2 computers. Additionally, you can use the Agent for Windows to back up and restore data from Windows Server 2012/Server 2012 R2 computers.</p> <p><b>Note:</b> You cannot install a Backup Exec server or the Agent for Windows on ReFS volumes or any volumes that have been enabled for deduplication in Windows.</p> <p>You can use the Agent for Windows to back up and restore data from Windows 8/8.1 computers.</p> <p><b>Note:</b> Backup Exec does not support restoring the WindowsApps folder for Windows Server 2012 R2/8.1 computers on which Desktop Experience is enabled.</p> <p><b>Note:</b> Backup Exec does not support restoring WIMBoot based systems.</p>
Support for Windows Server 2012 in Simplified Disaster Recovery	<p>Simplified Disaster Recovery (SDR) supports Windows Server 2012.</p> <p>For specific operating system requirements for Simplified Disaster Recovery, see the Backup Exec Software Compatibility List at the following URL:</p> <p><a href="https://www.veritas.com/support/en_US/article.000017788">https://www.veritas.com/support/en_US/article.000017788</a></p>
Job Monitor tab	<p>The Job Monitor provides a single location to monitor and manage all of your backup, restore, installation, and storage operation jobs.</p>

<b>Item</b>	<b>Description</b>
Details pane on the Backup and Restore tab	<p>The new Details pane is located on the lower portion of the Backup and Restore tab, under the list of servers. The Details pane provides additional details for the server that is selected in the list of servers. The Details pane lists the resources for the selected server and the selection status, backup status, and logon account information for each resource.</p> <p>When a Hyper-V host or VMware host is selected from the list of servers, the Details pane includes additional information and functionality. It provides details about the last 7 days of backup jobs, the date of the last backup, and the date of the next scheduled backup. In addition, it includes the ability to restore data and to filter the list of guest virtual machines.</p> <p>Note that the Details pane for Hyper-V and VMware provides a combination of current information and historical information. In addition, it includes the resources that may not appear in the list of servers, such as:</p> <ul style="list-style-type: none"> <li>■ Virtual machines that do not have the Agent for Windows installed.</li> <li>■ Non-Windows virtual machines, such as Linux or Mac.</li> <li>■ Virtual machines that do not have a GRT-enabled backup.</li> </ul>

<b>Item</b>	<b>Description</b>
Deduplication feature	<p>The following new features are available:</p> <ul style="list-style-type: none"><li>■ Improved data integrity and recoverability</li><li>■ Support for 64-TB storage</li><li>■ Increased queue processing speed</li><li>■ Improved cache loading performance</li><li>■ Improved garbage collection performance</li><li>■ Improved deduplication performance, that includes the following items:<ul style="list-style-type: none"><li>■ Improved rehydration</li><li>■ Compression of segments that were previously uncompressed or were compressed inefficiently.</li><li>■ Ability to bypass the Windows localhost IPC bottleneck</li><li>■ Improved client-side directory cache management</li><li>■ Enhanced stream handler for backups of EMC and NetApp file systems</li></ul></li></ul>
Agent for VMware	<p>The Agent for VMware now includes support for VMware ESX/ESXi/vSphere/vCenter 5.1 and 5.5.</p> <p>In addition, the VSS Copy backup method is now supported. A full VSS backup is performed by default. However, the option to enable the VSS Copy backup method is now available in the Virtual Machines backup options.</p>
Agent for Hyper-V	<p>The Agent for Hyper-V lets you back up and restore Hyper-V virtual machines that are hosted on Microsoft Windows 2012 and 2012 R2.</p>



<b>Item</b>	<b>Description</b>
Agent for Microsoft SQL Server	<p>The Agent for Microsoft SQL Server includes the following new features:</p> <ul style="list-style-type: none"><li>■ Differential and Incremental backup methods for use with conversion to virtual jobs.</li><li>■ Automatic backup method that lets you back up an entire SQL instance even though some databases do not support log backups.</li><li>■ Attributes that provide the status of a SQL database in the Backup Selections dialog.</li><li>■ Full backups are automatically run on SQL databases if you run an incremental backup and one of the following occurs:<ul style="list-style-type: none"><li>■ A new SQL database is added to the backup selections.</li><li>■ A full backup was not previously run on the database.</li><li>■ A product other than Backup Exec ran the latest full backup of the database.</li><li>■ A full copy was the only backup method used to back up the database.</li></ul></li></ul>
Agent for Microsoft Exchange Server	<p>The Agent for Microsoft SharePoint now supports the following:</p> <ul style="list-style-type: none"><li>■ Granular Recovery Technology (GRT) of Microsoft SharePoint 2013</li><li>■ Claims-based authentication for Microsoft SharePoint 2010 and Microsoft SharePoint 2013</li></ul> <p>The Agent for Microsoft SharePoint includes the new log backup method that backs up the data that is contained in the transaction log.</p>
Agent for Enterprise Vault	<p>The Enterprise Vault Agent now supports Enterprise Vault versions 10.0.3 and 10.0.4.</p>

<b>Item</b>	<b>Description</b>
Agent for Linux	<p>The Agent for Linux now supports the following:</p> <ul style="list-style-type: none"><li>■ RHEL 5.9, 6.3, and 6.4. AOFO is supported on these RHEL versions including RHEL 5.8 and 6.2</li><li>■ SLES 11 SP2 with AOFO and OES 11 SP1</li><li>■ Ubuntu 12.04 and 12.10</li></ul>
Agent for Lotus Domino	<p>The Agent for Lotus Domino now supports the following:</p> <ul style="list-style-type: none"><li>■ IBM Notes and Domino 9.0 Social Edition</li><li>■ The Copy on Restore option</li></ul> <p>Using this option, you can restore a Domino database with a different name. Thus, eliminating the need of deleting the current database. Backup Exec assigns the copied database a new database ID and a replica ID to avoid conflicts with the database that is online. Users do not experience any disruption because production database is always available. You can use this copied database to extract individual items such as emails.</p>

## What's New in Backup Exec 2012 Service Pack 3

<b>Item</b>	<b>Description</b>
Bug fixes	<p>Backup Exec 2012 Service Pack 3 contains many bug fixes. To see a list, refer to the following technote:</p> <p><a href="https://www.veritas.com/support/en_US/article.000017635">https://www.veritas.com/support/en_US/article.000017635</a></p>
Backup Exec Agent for VMware	<p>The Agent for VMware supports ESX/vSphere/vCenter 5.5 and hardware version 10.</p>

<b>Item</b>	<b>Description</b>
Backup Exec Agent for Microsoft Exchange Server	You can now restrict access to users and grant permissions, which limit them to run only backup, restore, or Granular Recovery Technology operations.

## What's New in Backup Exec 2012 Service Pack 2

<b>Item</b>	<b>Description</b>
Support for Windows Server 2012	Backup Exec 2012 Service Pack 2 supports Windows Server 2012 with some limitations. You cannot install a Backup Exec server on a Windows Server 2012 computer. However, you can use the Agent for Windows to back up and restore Windows Server 2012 computers with their operating systems and legacy features. You cannot install the Agent for Windows on ReFS volumes or any volumes that have been enabled for deduplication in Windows.
Conversion to Windows Server 2012 Hyper-V host	This version of Backup Exec includes support for conversion of a physical computer to a Windows Server 2012 Hyper-V host. See the Backup Exec Administrator's Guide Addendum for special considerations for this type of conversion.
Backup Exec Agent for Hyper-V	The Agent for Hyper-V lets you back up and restore Hyper-V virtual machines that are hosted on Windows Server 2012. This version of Backup Exec supports the Windows VHDX file format and Microsoft incremental backups.
Backup Exec Agent for VMware	The Agent for VMware supports ESX/vSphere/vCenter 5.1 and hardware version 9.

<b>Item</b>	<b>Description</b>
Backup Exec Agent for Microsoft Exchange Server	<p>The Exchange Agent supports the following:</p> <ul style="list-style-type: none"><li>■ Microsoft Exchange Server 2010 SP3</li><li>■ Microsoft Exchange Server 2013 with Cumulative Update 1 (Non-GRT only)</li></ul> <p>For instructions on restoring individual items in Exchange 2013 to a recovery database using Exchange Management Shell, refer to the following Technote: <a href="https://www.veritas.com/support/en_US/article.000041328">https://www.veritas.com/support/en_US/article.000041328</a></p>
Backup Exec Agent for Microsoft SQL Server	<p>The SQL Agent supports the following:</p> <ul style="list-style-type: none"><li>■ Microsoft SQL Server 2008 R2 SP2</li><li>■ Microsoft SQL Server 2012 SP1.</li></ul> <p>However, you cannot install the Backup Exec Database on a Microsoft SQL Server 2012 instance.</p> <p>Additionally, SQL Server 2012 availability group databases can be backed up and restored using the host instance on the primary node. However, specific support for availability groups is not provided in this release.</p>
Backup Exec Agent for Microsoft SharePoint	<p>The SharePoint Agent supports the following:</p> <ul style="list-style-type: none"><li>■ Microsoft SharePoint 2013 (Non-GRT only)</li><li>■ Claims-based authentication for Microsoft SharePoint 2010 and Microsoft SharePoint 2013.</li></ul> <p>For instructions on restoring individual SharePoint items in SharePoint 2013, refer to the following Technote: <a href="https://www.veritas.com/support/en_US/article.000017640">https://www.veritas.com/support/en_US/article.000017640</a></p>

# What's New in Backup Exec 2012

Item	Description
New user interface	Backup Exec has a new user interface that features a server - centric model that lets you easily back up and restore servers and multi-server distributed applications. With Backup Exec's new tabs, you can move throughout the main areas of the application quickly to monitor and configure backup and restore jobs. Backup Exec's new ribbon bar lets you quickly set up and schedule backups, launch restores, and configure storage.
Updated Home Tab and management	The Home tab is a central location from which you can quickly access or view the Backup Exec features that you use frequently. From the Home tab, you can manage alerts, view server status, monitor disk storage utilization, and more.  Servers or applications can be grouped into logical containers for easier monitoring.
New backup paradigm	A new backup paradigm eliminates the need to create policies to combine multiple related operations in a backup job. For example, you no longer have to create a policy to include scheduled full and incremental backups in a backup job. These backups are now created and scheduled as part of the backup workflow.  Simplified scheduling lets you configure the most convenient run times for your backup jobs.
Guided restore	The Restore Wizard guides you through a process that is designed specifically for the type of data that you want to restore. For example, when you restore application data, you are prompted only with the options that apply to that application's data. The Restore Wizard guides you through restoring an entire server, file and folders, volumes, and application data.

<b>Item</b>	<b>Description</b>
Interactive alerts	<p>Alerts are now associated with their source. You can easily distinguish and respond to alerts that are associated with servers, jobs, and storage devices. Global active alerts appear on the Home tab, so you can monitor all Backup Exec alerts at a glance.</p>
New storage handling	<p>A wizard helps you to configure all of the following types of storage:</p> <ul style="list-style-type: none"><li>■ Data</li><li>■ Tape</li><li>■ Deduplication</li><li>■ Network</li><li>■ Cloud storage</li><li>■ Storage pools</li></ul> <p>Disk storage is easier to create now that Backup Exec chooses the best location to store your backups. Backup Exec provides storage trending, and capacity monitoring and reporting.</p>

<b>Item</b>	<b>Description</b>
Simplified Disaster Recovery	<p>Backup Exec Simplified Disaster Recovery (SDR) replaces Intelligent Disaster Recovery (IDR).</p> <p>SDR provides the following new features:</p> <ul style="list-style-type: none"><li>■ Pre-built 32-bit and 64-bit recovery DVDs are included with the product media so you can quickly recover from any supported operating system.</li><li>■ SDR keeps disaster recovery (.dr) information for the systems that the Backup Exec server backs up, so you can conveniently recover a system to its last backup.</li><li>■ SDR tracks critical backup sets so you can quickly recover a failed computer to a bootable point, after which you can complete the recovery with a recovery wizard</li><li>■ SDR no longer requires you to have the original Windows installation media available when you create a bootable recovery disk.</li><li>■ SDR uses Veritas System Recovery Restore Anywhere technology to restore backups to computers with dissimilar hardware.</li></ul>
Conversion to a virtual machine	<p>You can back up a physical computer and convert it to a virtual machine either simultaneously with the backup job or after the backup job. You can also convert an existing backup set to a virtual machine. This feature enables business continuity for both Hyper-V and VMware environments</p>

<b>Item</b>	<b>Description</b>
Improved method of updating the Backup Exec server and remote computers	<p>When you use LiveUpdate to update the Backup Exec server, the Backup Exec services are restarted only once, regardless of the number of updates that are installed.</p> <p>When a Backup Exec server is updated, an alert is generated to warn you that the remote computers need the same update. You can update the remote computers immediately, at a scheduled time, or on a recurring schedule. You can also update a group of remote computers together.</p>
Reporting improvements	<p>Reports include the following improvements:</p> <ul style="list-style-type: none"> <li>■ Color-coding highlights important data and prominent titles.</li> <li>■ Improved sizing of the information that is included in the reports.</li> <li>■ New columns provide additional information</li> <li>■ Reports in HTML or PDF can be assigned to notification recipients.</li> </ul>
Enhanced search for restore	<p>You can now perform a search of backed up data with more granular detail. For example, you can search for mailbox data by subject, SQL databases by name, and SharePoint data by document name. You can also copy and save the search criteria to use for future searches.</p>
Improved notification	<p>You can configure Backup Exec to notify people by email or text message when alerts occur. Backup Exec uses SMTP for email notifications and supports SMTP authentication. Notification email messages can be sent to any email address, including Microsoft Outlook, Lotus Notes, and Web-based email applications such as Gmail or Yahoo mail.</p>
Discover data to back up	<p>You can configure Backup Exec to browse the network and discover application data and servers that have not been backed up.</p>



<b>Item</b>	<b>Description</b>
True image restore for synthetic backups	<p>True image restore is now automatically enabled by default. For true image restore, Backup Exec collects the information that is required to detect files and the directories that have been moved, renamed, or newly installed from a tar or zip archive. With true image restore enabled, Backup Exec compares path names with path names from the previous full or incremental backup. If a name is new or changed, the file or directory is backed up.</p>
Checkpoint restart enhancements	<p>Checkpoint restart now supports restarting from points of failure on volume, file, and folder backups of local and remote servers.</p>
New PowerShell interface	<p>The Backup Exec Command Line Applet has been completely redesigned to support PowerShell commands.</p> <p>You can find more information in the following location:</p> <p>Installation Directory \ Modules \ BEMCLI \ about_BEMCLI_Cmdlets.help.txt</p>
Deduplication feature	<p>The following new features are available:</p> <ul style="list-style-type: none"> <li>■ Optimized duplication for backup sets that are enabled for Granular Recovery Technology. This enables off-site replication to be more efficient. Optimized duplication is available for OpenStorage devices from selected vendors. You can find a list of compatible devices at the following URL: <a href="https://www.veritas.com/support/en_US/article.000017788">https://www.veritas.com/support/en_US/article.000017788</a></li> <li>■ Improved deduplication ratios for Hyper-V backups when the Granular Recovery Technology feature is enabled.</li> <li>■ Improved deduplication across virtual machines.</li> <li>■ Linux client-side deduplication, which allows a Linux client to locally deduplicate data and send it directly to a deduplication disk storage device or to a PureDisk appliance.</li> </ul>

<b>Item</b>	<b>Description</b>
Agent for VMware	<p>The Agent for VMware now includes the ability to eliminate unused sectors from backups of Windows-based basic, dynamic, and GPT disks. This applies even if the disks are on a non-VMFS-based datastore, such as NFS or iSCSI</p> <p>The Agent for VMware now includes the following new features to provide compatibility with VMware's vSphere 5.0:</p> <ul style="list-style-type: none"><li>■ Locks and unlocks the virtual machine automatically during backup and restore operations to prevent activity by the Distributed Resource Scheduler (DRS) and Storage Distributed Resource Scheduler (SDRS).</li><li>■ Enables the capabilities of the DRS and SDRS to be preserved.</li><li>■ Provides the ability to redirect the restore to the most recent hardware version that is supported by the destination virtual environment. This includes hardware version 8.</li><li>■ Supports the following restore options when Datastore Clusters and SDRS are present:<ul style="list-style-type: none"><li>■ Restore to the original location from where the data was backed up.</li><li>■ Restore to an unmanaged datastore.</li><li>■ Restore directly to a datastore cluster. The SDRS properties are maintained.</li><li>■ Restore directly to a datastore within a datastore cluster. The SDRS properties are not maintained.</li></ul></li></ul>

<b>Item</b>	<b>Description</b>
Agent for Hyper-V	<p>The following new features are available:</p> <ul style="list-style-type: none"> <li>■ Automatic disk optimization, which transfers only the virtual disk sectors that are in use. This reduces the amount of data that is transferred across the network and the amount of storage that is required.</li> <li>■ Support for incremental and differential backups.</li> <li>■ Support for granular recovery of individual items from Microsoft SharePoint.</li> <li>■ Improved deduplication ratios for Hyper-V backups when the Granular Recovery Technology feature is enabled.</li> </ul>
Agent for Microsoft Exchange Server	<p>The Exchange Agent now provides the ability to restore mailbox or public folder items into PST files, which can be opened in Outlook or distributed to users.</p>
Archiving feature	<p>Archiving is now easier to perform as a result of being integrated as a stage in the backup workflow.</p>
Agent for Microsoft SharePoint	<p>The following new features are available:</p> <ul style="list-style-type: none"> <li>■ Database or Granular Recovery Technology (GRT) restores from differential backups and incremental backups. Restore jobs combine the last full backup with any differential backups or incremental backups to restore data more efficiently.</li> <li>■ The ability to redirect the restore of a SharePoint site to another site and redirect the site to a new path.</li> <li>■ The ability to search for SharePoint metadata in the Backup Exec catalog. The improved search feature makes it easier to locate the information that you want to restore. After you locate the data, you can restore it directly from the search result screen.</li> </ul>
Agent for Mac	<p>The Agent for Mac now allows backups of critical Macintosh server entities.</p>

<b>Item</b>	<b>Description</b>
Agent for Linux	The Agent for Linux allows backup of critical Linux server-based entities. The Agent for Linux also includes the capability to back up open files.
Agent for Enterprise Vault	The Enterprise Vault Agent now supports Enterprise Vault v10.