

Upgrading to Backup Exec 16

The purpose of this technical brief is to describe the Backup Exec 16 upgrade paths and noteworthy upgrade information.

Backup Exec Servers: Direct and Step Upgrade

Backup Exec 2010 R3 Service Pack 4, Backup Exec 2012 Service Pack 4, Backup Exec 2014, and Backup Exec 15 can directly upgrade to Backup Exec 16. Backup Exec 2010 R1 and Backup Exec 2010 R2 need to be upgraded to Backup Exec 2014 before it can be upgraded to Backup Exec 16.

Key Benefits

- Simplified Backup Exec 16 upgrade path
- BE 16 installer upgrades from SQL Server 2005 Service Pack 4 and later to SQL Server 2014 Express Service Pack 2 edition
- Enable Instant GRT is selected by default in a new installation
- Option to opt-out of telemetry is now removed

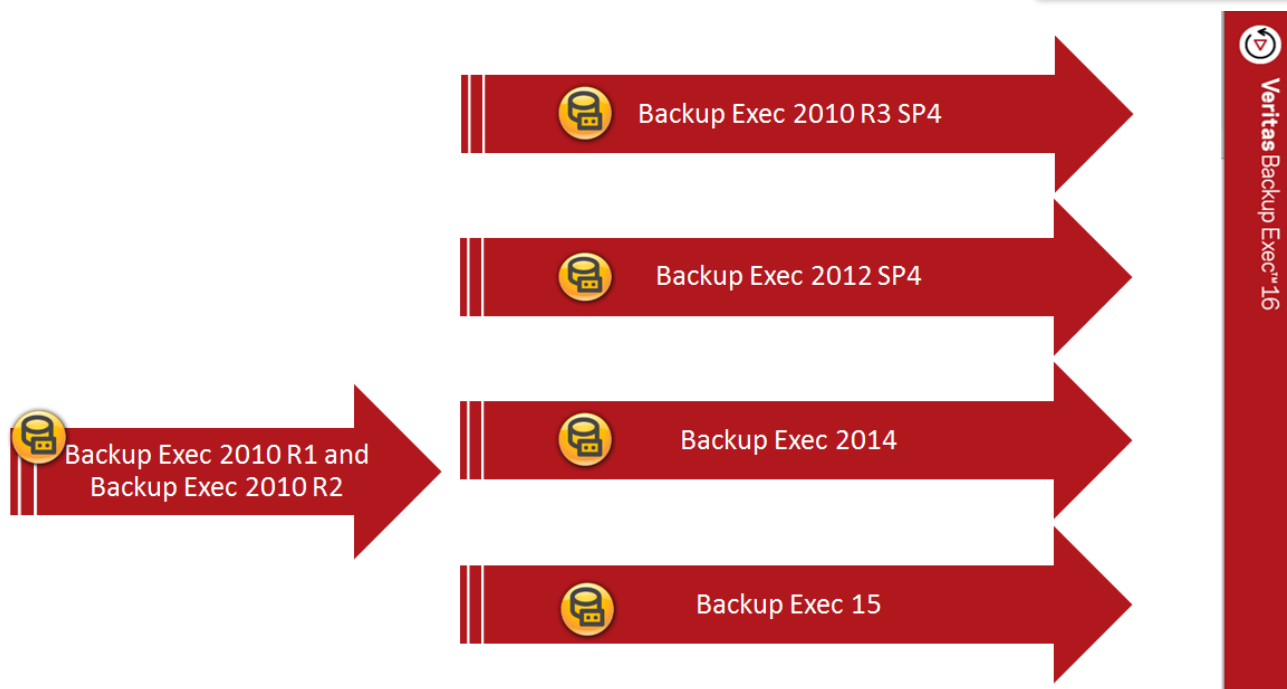


Figure 1 – Backup Exec 16 upgrade paths

Agent for Windows Servers: Direct and step upgrade

Backup Exec Agent for Windows Servers 2010 R3, 2012, 2014, and 15 can directly upgrade to the Backup Exec 16 Agent for Windows Servers. Backup Exec Agent for Windows Servers versions 2010 and 2010 R2 cannot be directly upgraded to Backup Exec 16 Agent for Windows servers. They can either be step upgraded or the older agent can be uninstalled and replaced with the Backup Exec 16 Agent for Windows server.

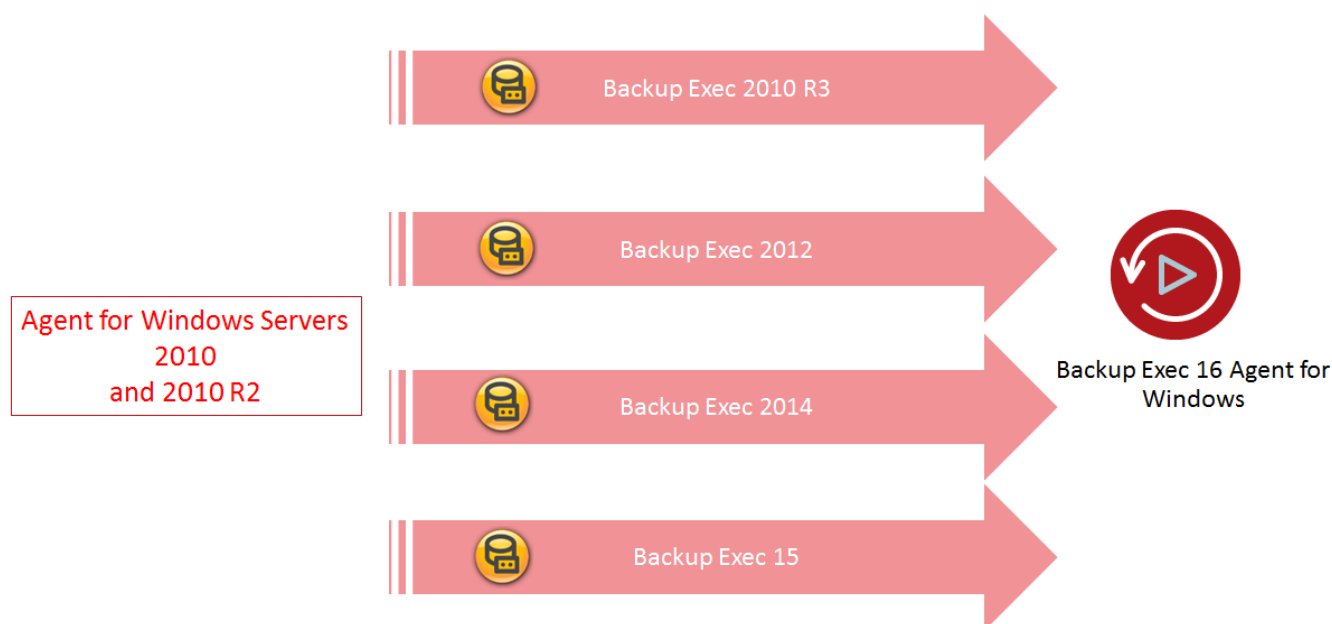


Figure 2 – Agent for Windows Servers upgrade path

CAS and MBES rolling upgrades

A Central Admin Server running Backup Exec 16 can communicate with Managed Backup Exec Servers running Backup Exec 2010 R3 Service Pack 4, Backup Exec 2012 Service Pack 4 - with an on demand patch installed, Backup Exec 2014 Service Pack 2, Backup Exec 15, and Backup Exec 16. Existing jobs to Backup Exec 2010 R3 agents will continue as long as Secure Hash Algorithm - 1 or SHA-1 certificates are valid. Once the certificates expire, the jobs will start to fail. Rolling upgrades from Backup Exec 2010 R3 and communications with Backup Exec 2010 R3 Managed Backup Exec servers will work until the SHA-1 certificates are valid. Backup Exec 2010 R3 agents cannot be newly added to Backup Exec 16. Users are encouraged to upgrade the Managed Backup Exec servers to Backup Exec 16.

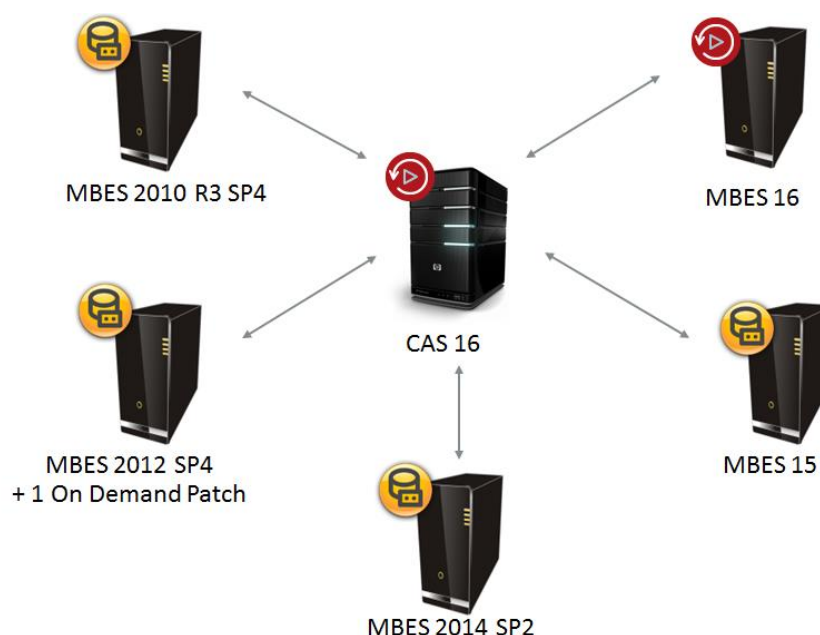


Figure 3 – CAS/MBES rolling upgrades

Remote Administration Console and Backup Exec Server Compatibility

Multiple versions of the Remote Administration console can be installed on the same server. However, a Remote Administration console of a specific version can only communicate with a Backup Exec server of the same version.

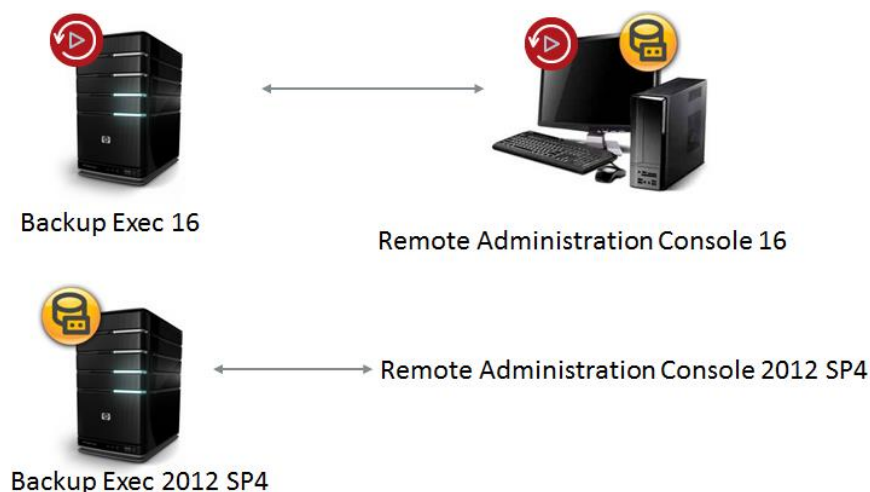


Figure 4 – Remote Administration console and Backup Exec Server communication

Backup Exec database instance changes: Upgrades

Backup Exec 16 installs SQL Server 2014 Express Service Pack 2 as the default database instance. The default instance name *BKUPEXEC* remains unchanged. The SQL version is 12.2.5000.0. Backup Exec installs a 32-bit version of SQL Server 2014 Express Service Pack 2 to provide rollback support during upgrades. The SQL installation package is bundled with Service Pack 2. Veritas Backup Exec 16 adopted SQL Server 2014 Express Service Pack 2 as the default instance for the Backup Exec database because support for SQL 2008 R2 is discontinued by Microsoft. Upgrading to SQL 2014 Express Service Pack 2 keeps the software secure. SQL Server 2014 Express now integrates with Windows updates to pick up fixes meant for resolving installation issues, security issues, and so on during installation.

The minimum requirements for Backup Exec 16 are adequate to meet the SQL Server 2014 Express requirements. The SQL Server 2014 Express Service Pack 2 edition supports all operating systems from Windows Server 2008 R2 to Windows Server 2016. Microsoft limits the size of the database to 10 GB. Backup Exec 16 imposes restrictions on the amount of memory SQL can use during BKUPEXEC installation. SQL can use a minimum of 80 MB or a maximum of $\frac{1}{4}$ the physical memory installed on the system. This is to ensure that SQL does not consume all the memory on the system. The client protocol for the native client is changed to 11 but will fall back to 10 if a newer client is not present. This is applicable for upgrades, migration, and custom instances that the user installs.

The Backup Exec 16 installation will upgrade SQL Server 2005 Service Pack 4 and later to SQL Server 2014 Express Service Pack 2 edition. SQL Server 2005 Service Pack 3, which is installed as part of Backup Exec 2010 R3 needs to be upgraded to SQL Server 2005 Service Pack 4 via Windows updates or manually, after which it can be upgraded to the SQL Server 2014 Express Service Pack 2 edition.

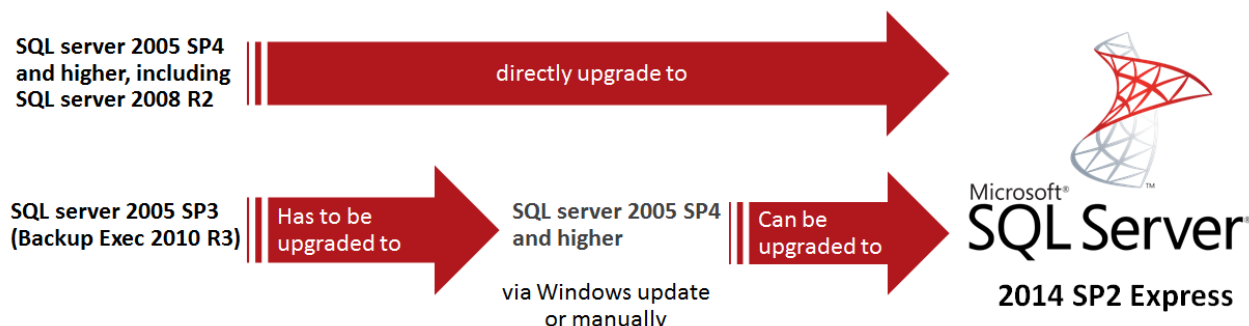


Figure 5 – Backup Exec database upgrade path

Backup Exec database instance changes: User defined SQL instance installations

It is important to note that SQL Server 2005, SQL Server 2008, and SQL Server 2008 R2 Service Pack 1 are all invalid targets for a user defined instance with Backup Exec 16. The minimum supported SQL instance allowed for user defined instances during a fresh install of Backup Exec 16 is SQL Server 2008 R2 Service Pack 2. Upgrades will continue to work if a previously supported version is used for a user defined instance. However, if Backup Exec 16 is uninstalled and reinstalled, these instances will not be valid targets for reinstall.

Backup Exec 16 Instant GRT (Dynamic browse)

Backup Exec 16 also introduces changes to Instant GRT - Dynamic browse. Instant GRT was also known as Quick Catalog in earlier releases. The catalog option Enable Instant GRT is selected by default in a new installation of Backup Exec 16. Enabling the Instant GRT option, by default, helps decrease backup windows for any GRT based backups to disk. If users are upgrading from Backup Exec 2010 R3 and Backup Exec 2012 to Backup Exec 16, the Enable Instant GRT catalog option is selected, by default. Note that Backup Exec 2014 and Backup Exec 15 users upgrading to Backup Exec 16 will retain the catalog option that they had selected before the upgrade. If a new device is added in Backup Exec 16, backups to this new device will use the Enable Instant GRT option, by default.

UPGRADING FROM	CATALOG OPTION SELECTED BY DEFAULT
Backup Exec 2010 R3, Backup Exec 2012	Enable Instant GRT
Backup Exec 2014, Backup Exec 15	<ul style="list-style-type: none"> Whatever was selected in the earlier release. If a new device is introduced in Backup Exec 16, backups to the new device will take the Enable Instant GRT option by default.
New installation of Backup Exec 16	Enable Instant GRT

Figure 6 – Enable Instant GRT option in Backup Exec 16

Instant GRT (Quick catalog) vs Full Catalog

The table lists the differences between Instant GRT, also known as Quick Catalog, and a Full catalog.

	Instant GRT (Quick Catalog)	Full Catalog (Immediate or Scheduled)
Search wizard support for GRT restores	Not available	Can search catalogs from GRT backups for GRT restores
Backup set browse	Instant GRT by dynamically browsing backup sets from GRT backups for GRT restores	Browse catalogs from GRT backups for GRT restores
Catalog job	Cataloging is completed as part of the backup job with no delay	Separate catalog job can be configured to run immediately after backup job or on a schedule
Catalog information collected	Only the minimum required catalog data is collected (faster)	Detailed catalog data is collected (slower)
Catalog data	Smaller; contains minimum required catalog data	Larger; contains detailed catalog data
Time to browse for GRT restore	GRT data in the backup set is read when backup sets are expanded (slower)	GRT data is already available from detailed catalog data (faster)

Table 1 – Difference between Instant GRT and a Full catalog

Changes to telemetry

The option to opt-out of telemetry during Backup Exec 16 and Agent for Windows installations is now removed. Telemetry is now enabled during upgrades and new installations, even if it was disabled earlier. During upgrades to Backup Exec 16, an informational message is displayed in the Installation Review screen, informing the user that if telemetry was disabled earlier, it is now enabled.



Figure 7 – Telemetry Information message

If the user wishes to opt-out of telemetry after the Backup Exec 16 installation completes, the user can do so by going to **Backup Exec Settings > Preferences** and then clearing the **Allow Backup Exec to report anonymous usage information** option.

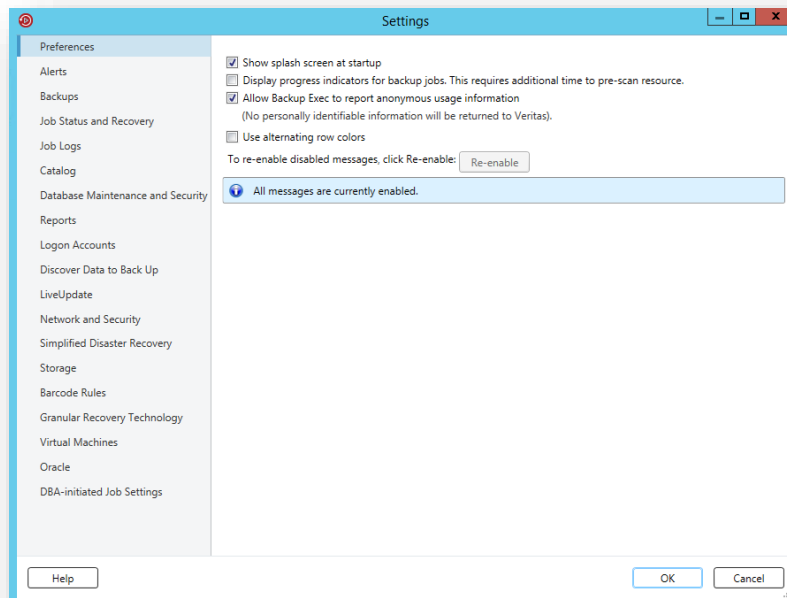


Figure 8 – Clearing Telemetry in Backup Exec 16

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Telemetry status between versions

Major upgrades	Current telemetry status	Telemetry status after installing Backup Exec 16
New install	NA	Enabled
Upgrade	Enabled	Enabled
Upgrade	Disabled	Enabled

Table 2 – Telemetry status for major upgrades

Maintenance installations	Current telemetry status	Telemetry status after maintenance installation
Maintenance [Add license/add, remove feature/repair]	Enabled	Enabled
Maintenance [Add license/add, remove feature/repair]	Disabled	Disabled

Table 3 – Telemetry status for maintenance installations

Summary

Backup Exec 2010 R3 Service Pack 4, Backup Exec 2012 Service Pack 4, Backup Exec 2014, and Backup Exec 15 can directly upgrade to Backup Exec 16. Backup Exec Agent for Windows Servers 2010 R3, 2012, 2014, and 15 can directly upgrade to the Backup Exec 16 Agent for Windows Servers.

A Central Admin Server running Backup Exec 16 can communicate with Managed Backup Exec Servers running Backup Exec 2010 R3 Service Pack 4, Backup Exec 2012 Service Pack 4 - with an on demand patch installed, Backup Exec 2014 Service Pack 2, Backup Exec 15, and Backup Exec 16. The Backup Exec 16 installation will upgrade SQL Server 2005 Service Pack 4 and later to SQL Server 2014 Express Service Pack 2 edition.

The catalog option Enable Instant GRT is selected by default in a new installation of Backup Exec 16. Backup Exec 2014 and Backup Exec 15 users upgrading to Backup Exec 16 will retain the catalog option that they had selected before the upgrade. The option to opt-out of telemetry during Backup Exec 16 and Agent for Windows installations is now removed.

For More Information

Link	Description
www.backupexec.com	BE Home Page
www.backupexec.com/knowledge	Backup Exec Knowledge Base
https://partnernet.veritas.com/	PartnerNet
http://go.veritas.com/training	Backup Exec training courses
www.backupexec.com/compatibility	Compatibility Docs
www.backupexec.com/support	Backup Exec support website
www.backupexec.com/trybe	60-day free trialware for Backup Exec

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