Backup Exec Partner Toolkit

Troubleshooting Guide

To assist partners as they sell and implement Backup Exec solutions and technology, Symantec has released the Backup Exec Partner Toolkit. The Backup Exec Partner Toolkit demonstrates the power of the Backup Exec data protection portfolio by ensuring potential backup servers will perform to expectations, by streamlining the Backup Exec licensing process, and by demonstrating the power of Backup Exec's deduplication technology.

This guide is designed to help users have the best possible experience with the Backup Exec Partner Toolkit by ensuring all prerequisites are in place before running the Backup Exec Partner Toolkit, offering solutions to common problems, and outlining the information that should be collected before contacting Symantec for assistance.

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Introduction

To assist partners and end users as they implement Backup Exec 2012 and the Backup Exec 3600 Appliance, Symantec has released the Backup Exec Partner Toolkit. The Backup Exec Partner Toolkit demonstrates the power of the Backup Exec data protection portfolio by qualifying the hardware configuration of potential backup servers to ensure they will perform to expectations, by calculating front-end capacity amounts to streamline the Backup Exec licensing process, and by demonstrating the storage optimization benefits of Backup Exec's deduplication technology.

The Backup Exec Partner Toolkit is available to Symantec partners and end users at no charge and is available for download from the Symantec Connect portal.

Business Value

The Backup Exec Partner Toolkit includes three tools designed to help partners and end users perform environmental assessments either before or after installing a Backup Exec solution. These are as follows:

- Performance Analyzer
- Deduplication Assessment Tool
- Front-end Capacity Analyzer

The three tools listed above represent key opportunities to Symantec partners and end users who utilize Backup Exec data protection and solutions and technology. Partners and end users are now able to perform pre-installation assessments of IT environments to determine the readiness of the environment for Backup Exec and set expectations around performance and deduplication.

Performance Analyzer

The Performance Analyzer Tool will assess the readiness of one or more server systems to act as a Backup Exec server. Each server's hardware and software configuration is analyzed for performance inhibitors, including any disk and tape backup devices attached to that server.

Deduplication Assessment

The Deduplication Assessment Tool will directly demonstrate the value of Backup Exec's deduplication technology to partners and end users by scanning one or more servers in an environment and offering deduplication ratio and backup storage savings estimates.

Front-end Capacity Analyzer

The Front-end Capacity Analysis Tool will easily and quickly identify the amount of front-end data in an environment and greatly streamlines the process of selling the Backup Exec Capacity Edition, which is licensed against the amount of front-end data in an environment.

Ease of Use

By design, the Backup Exec Partner Toolkit offers a wizard-driven experience that is very easy to use. Simply select the tool to run, identify the servers and associated volumes and application resources to scan, provide associated credentials, and run the selected operation. Upon completion, a results screen is displayed in the form of a report which can be saved to a number of common file formats.

Platform and Application Support

The Backup Exec Partner Toolkit supports Windows 2003, Windows 2008, and Windows 2012 x86 and x64 platforms, including both physical and virtual systems. Front-end capacity analysis is supported for Windows volumes. Deduplication analysis is supported for Windows volumes, Exchange application data, and SQL

application data. Performance analysis is supported for any server running Windows 2003, Windows 2008, or Windows 2012 (x86 or x64).

Availability

The Backup Exec Partner Toolkit is available no charge. Simply visit the Symantec Connect portal to access the Backup Exec Partner Toolkit and related materials.
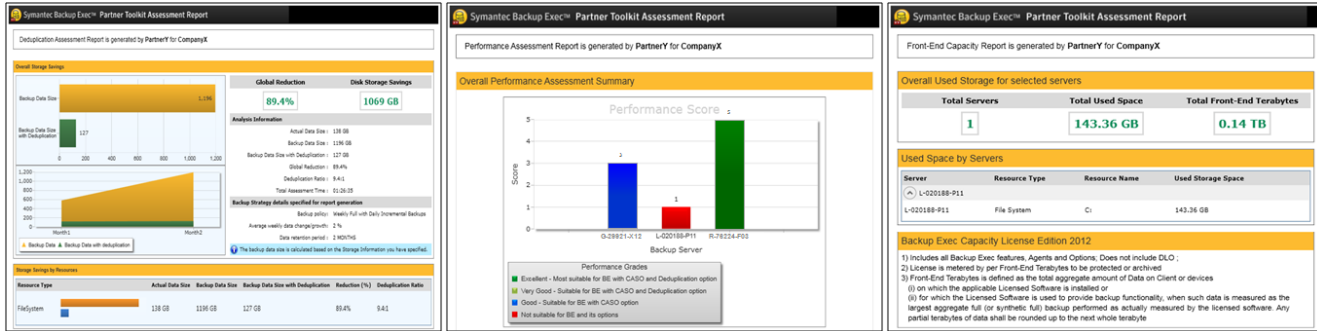

Figure 1: Backup Exec Partner Toolkit Report Screenshots

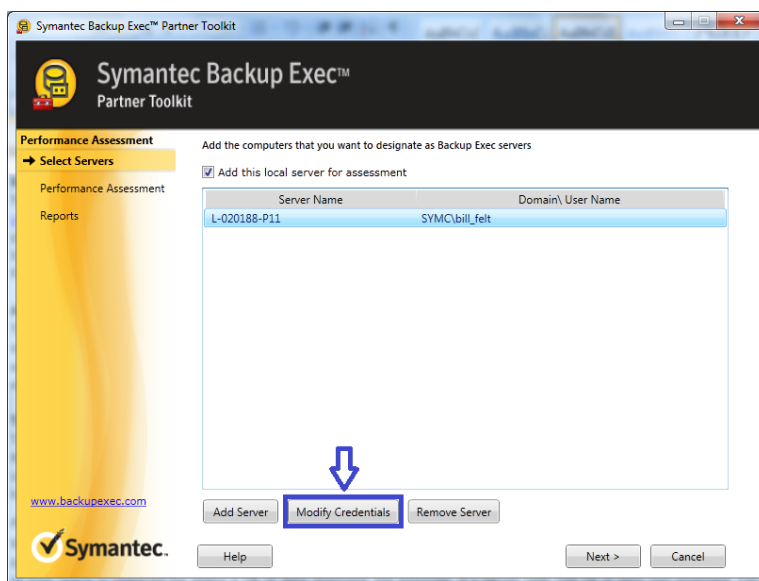# Backup Exec Partner Toolkit Prerequisites and Requirements

1. **Microsoft .NET Framework 4.0**

   You can download the Microsoft .NET framework from the following Microsoft download site: http://www.microsoft.com/en-us/download/details.aspx?id=17851. Ensure that .NET Framework 4.0 and all applicable security updates from Microsoft are in place before running the Backup Exec Partner Toolkit binary. The .NET requirement applies to the system on which the Backup Exec Partner Toolkit binary will be executed, and does not apply to servers that will be remotely assessed using the Backup Exec Partner Toolkit.

2. **Administrator Privileges**

   Both the Backup Exec Partner Toolkit binary itself, as well as the different tool functions within the Backup Exec Partner Toolkit, require administrator credentials in order to successfully scan servers targeted for assessment. You can run the Backup Exec Partner Toolkit using either local administrator or domain administrator credentials.

   When selecting servers to be remotely assessed using the Backup Exec Partner Toolkit, you will be able to manage credentials used to communicate with each remote server.


3. **Temporary Space on Local Disk**

   The Backup Exec Partner Toolkit requires at least 5 GB of free space to be available on the system from which it is being run (e.g. the system on which the Backup Exec Partner Toolkit binary is being executed). The Backup Exec Partner Toolkit extracts itself into the Windows Temp directory for execution, and all toolkit components are removed from that location when assessments have been completed and the user exits the Backup Exec Partner Toolkit.

   Additional Deduplication Assessment Tool Space Requirements

   When running the Backup Exec Deduplication Assessment component of the Backup Exec Partner Toolkit, additional free space is required on each remote server selected for deduplication assessment. For these servers at least 1.5 GB of free space is required for every 1 TB of data analyzed. For example, if a server with 100 TB of data was analyzed, 150 GB of free space would need to be available on that server for

assessment calculations. A temporary folder location is used by the Deduplication Assessment Tool to generate assessment results. The data stored to this folder is automatically removed once the assessment process has completed and results have been analyzed. By default, the Deduplication Assessment Tool will use the '%systemroot%\windows\temp' directory for this purpose. You can change this directory before the scan runs from the resource selection screen and place it on an alternate drive with additional free space if needed. This can avoid failures due to lack of free space.
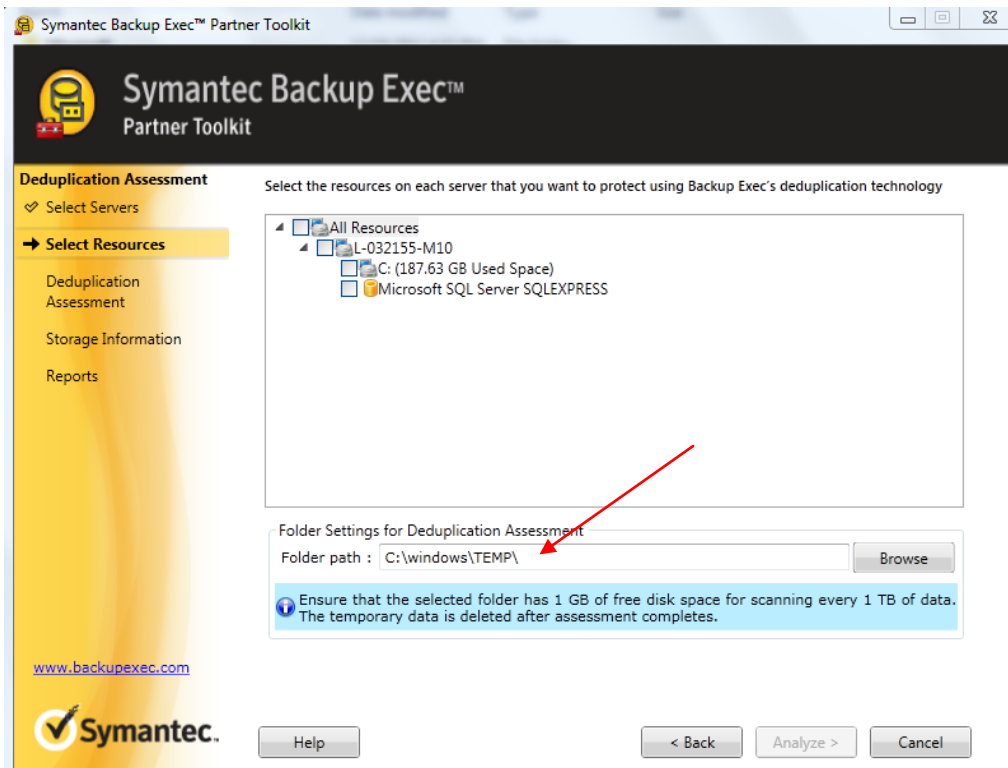
4. **Memory (Physical RAM)**

Although the memory footprint of the Backup Exec Partner Toolkit itself is small, some toolkit components – such as the Deduplication Assessment Tool – require additional memory resources to function properly. Ensure that at least 1 GB of physical memory is available on the system from which the Backup Exec Partner Toolkit binary is being executed.

5. **Processor/CPU**

For optimal performance, it is recommended to run the Backup Exec Partner Toolkit binary from a system that has at least a dual core CPU or higher. Ensure that no other CPU-intensive operations are running while the Backup Exec Partner Toolkit is active.

6. **Installation Disk Space**

The Backup Exec Partner Toolkit requires approximately 5 GB of disk space to be available on the system from which it is being run. However, additional free space may be required. Refer to item #3 above for more information on temporary space requirements during Deduplication Assessment Tool scans.

7. Port Availability

The Backup Exec Partner Toolkit is enabled for automatic self-updates. When run on a system that is connected to the internet, the Backup Exec Partner Toolkit will automatically check for a newer version. For the self-update feature to work, port 21 (FTP) needs to be opened on the firewall. Please be advised that port 21 is not required for scan operations; it is only used to check for the latest version of the Backup Exec Partner Toolkit from Symantec's secured FTP infrastructure.

8. Service Dependencies

The Backup Exec Partner Toolkit depends on several Microsoft services in order to run successfully. Ensure the following services are set to 'automatic' mode and are in a running state before executing the Deduplication Assessment Tool component of the Backup Exec Partner Toolkit:

- RPC (Remote Procedure Call)
- WMI (Windows Management Instrumentation)
- Computer Browser

9. Windows Locale Parameter

It is recommended that the Backup Exec Partner Toolkit be run on Windows operating systems that have the OS locale parameter set to English (United States). When running the Backup Exec Partner Toolkit from non-English Windows operating systems, set the OS locale parameters to English (United States).
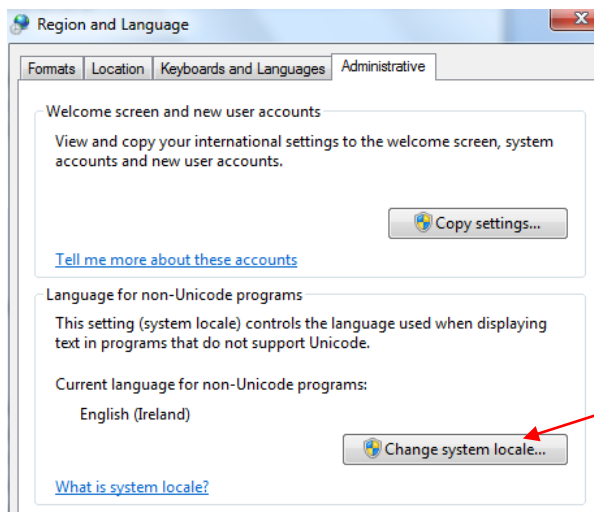
10. Microsoft VSS Writer Status

Timeout errors can occur in volume shadow copy service writers, resulting in lost shadow copies when the Backup Exec Partner Toolkit is performing assessments or during instances of high input/output activity on a system. Some tool components of the Backup Exec Partner Toolkit require VSS writer processes to be stable on the systems being analyzed in order to function successfully. If there is a problem with the VSS writer status on a system being analyzed, some Backup Exec Partner Toolkit functions may be unable to complete successfully and as a result the final reports may contain anomalous data.

Before using the Backup Exec Partner Toolkit to assess a system, particularly the Deduplication Assessment Tool component, run "**Vssadmin list writers**" from a command prompt on the target system. Ensure that the list of VSS writers displayed show a status of 'Stable'.

Backup Exec Partner Toolkit Troubleshooting

The Backup Exec Partner Toolkit is designed to be simple and easy to use. However, environmental conditions may inhibit the ability of the Backup Exec Partner Toolkit or its components from completing assessments successfully. If an error or anomalous condition is present that is not covered in the list of prerequisites above, a debug log will be required by Symantec in order to find the root cause of the issue.

Capturing a Debug Log Output

Follow the steps given below to enable the Backup Exec Partner Toolkit verbose debugging mode, gather the resulting log files, and contact Symantec support for further assistance.

1. Start the Backup Exec Partner Toolkit

2. Accept the license agreement

3. On the Welcome screen, click the "Settings" button
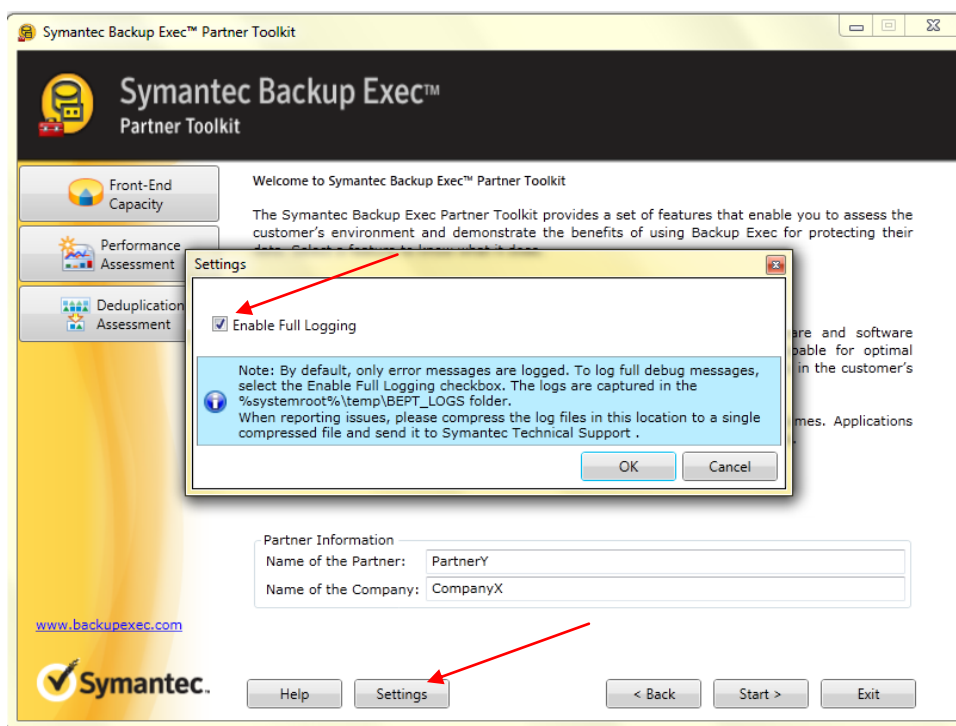
4. Check the "Enable Full Logging" box and click Ok
5. Execute the desired tool function

Upon failure, collect the log files from the '%Systemroot%\temp\BEPT_LOGS' directory, compress with WinZip or similar tool.

Capturing a Microsoft System Information File

It is also recommended that a Microsoft System Information file (.NFO) be gathered from the system on which the Backup Exec Partner Toolkit is being run. Use the following steps to collect the .NFO file from the server in question:

1. Go to Start > Run
2. Type 'MSINFO32' and press Enter
3. Press CTRL + S and save the file on the local disk
4. Compress the .NFO file with WinZip or similar tool

Additional Resources

Link	Description
https://www-secure.symantec.com/connect/BEToolkit	**Backup Exec Partner Toolkit Download**
https://www-secure.symantec.com/connect/forums/backup-and-recovery-tools	**Backup Exec Partner Toolkit Forum**
http://www.symantec.com/business/support/index?page=content&id=TECH178479	**Backup Exec Licensing Guide**
http://www.symantec.com/business/support/index?page=home	**Enterprise Support Portal**
www.backupexec.com	**Backup Exec Family Landing Page**
www.symantec.com/business/products/whitepapers.jsp?pcid=pcat_business_cont&pvid=57_1	**White Papers, Datasheets, Solution Briefs**
www.backupexec.com/compatibility	**Compatibility Documentation**
www.backupexec.com/skugenerator	**SKU Generator and BEST Tool**

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