

## Improve Backup Performance by Upgrading to Symantec Backup Exec™ 12.5 with Service Pack 2

*Test Report to Show How Existing Backup Exec  
Customers Can Improve Backup Performance and  
Reduce Backup Windows by Upgrading to Backup  
Exec 12.5 with Service Pack 2*



# Improve Backup Performance by Upgrading to Symantec Backup Exec™ 12.5 with Service Pack 2

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## Executive Summary

This test report illustrates how Symantec Backup Exec™ 12.5 for Windows® Servers with Service Pack 2 (SP2) provides faster backup times compared to previous versions of the product. By upgrading to Backup Exec 12.5 with SP2, Backup Exec customers can dramatically improve their backup speed and overall performance, reduce backup windows, and maintain business productivity.

## Test Highlights

Compared to prior versions of Backup Exec, Backup Exec 12.5 with SP2 provides:

- 40 percent plus performance improvement in backup transfer rates of a Windows Server® 2003 OS Volume
- 70 percent performance improvement in backup transfer rates of a Windows Server® 2008 OS Volume
- 100 percent performance improvement in incremental backup of Microsoft® Exchange 2003 and 2007

## What Drives Customer Upgrade Decisions?

In late 2008, Symantec ran a call program that reached over 1,000 customers known to be using older versions of Backup Exec, to provide them with an update on the current release, Backup Exec 12.5. When asked "What is your primary driver for upgrading to the latest version of Backup Exec?" over 50 percent of the respondents named "performance" and "speed" (grouped as performance from here on in this document) as key influencing factors.

What is **Your Primary Driver** for **Upgrading** to the latest version of Backup Exec?

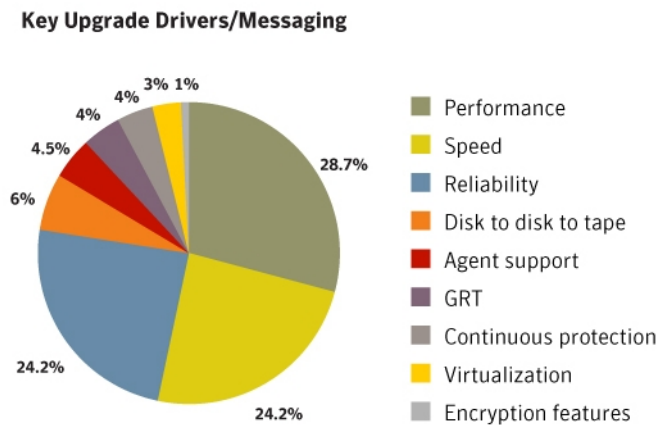


Figure 1: Symantec 2008 call program to over 1,000 Backup Exec customers.

## Why Backup Performance Is Important

All backup jobs have some performance impact on the system that is being backed up. For example, for the period of time that a system is being backed up, the hard drive is busy reading files for the purposes of the backup, and its full bandwidth is no longer available for other tasks. For this reason, backup jobs are typically run in the evening or over the weekend when other system resources are minimal and the backup job will have the least amount of interference on normal business operations. If a backup extends past the allotted backup window, a decision is made whether it is more beneficial to abort the backup job or to lengthen the backup window. By improving backup performance, administrators can reduce their backup windows and maintain overall business productivity.

## Testing Backup Exec Backup Performance

On May 18, 2009, Symantec announced general availability of Backup Exec 12.5 SP2 (available via FileConnect). In addition to new fixes and enhancements provided, SP2 was engineered to provide enhanced performance for Backup Exec 12.5, and to earlier versions of Backup Exec. The following section shows testing between Backup Exec 12.5 with SP2 and earlier versions of the product, as listed in the table below:

Version	Release Date	New Features
Backup Exec 12.5 SP2	May 2009	Service Pack for Backup Exec 12.5
Backup Exec 12.5	September 2008	Agents for VMware and Hyper-V
Backup Exec 12	February 2008	Windows Server 2008 Support
Backup Exec 11d	November 2006	Granular Recovery Technology
Backup Exec 10d	October 2005	Continuous Protection Server

## Testing Configuration

The testing configuration consisted of the following: Media server used was P4 3 GHz with 4 GB of RAM, running Windows 2003 with SP2 x64 Edition, x86 for 9.0 and 10.1. Backups were to a backup-to-disk folder on local disk2. Resources were backed up from a remote server with an Intel® Xeon 3 GHz with 8 GB of RAM over a dedicated 1 GB network. The OS on the remote server was Windows 2003 R2 x64 (x86 for 9.0 backups) and Windows 2008 Enterprise x64 with SP1. The tests were run three times in each test scenario.

## Recovery Performance

This report does not include recovery performance results at this time. Backup Exec 12.5 with SP2 provides performance enhancements related to backup processes only. In relation to backup performance, Granular Recovery Technology (GRT),

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a Symantec Backup Exec patent-pending technology, allows administrators to easily restore granular items (such as emails and documents) in Microsoft applications and virtual server environments from a single pass backup, thereby reducing storage requirements and administrative time. For more information on Backup Exec recovery performance, and the benefits of GRT, see the [Tolly Group Report](#) "Faster Exchange and VMware Recovery with Symantec," which can be sourced at the Tolly Group website (registration required), or the Symantec white paper, "[Fast and Simple Recovery of Your Critical Microsoft Applications.](#)"

### Test 1: Backup Transfer Rates of a Windows Server 2003 OS Volume

The first test compares megabyte per min (MB/Min) backup transfer rates of a OS volume, in this case drive C, running Windows Server 2003 on the test machine, using different versions of Backup Exec. The results show that when running this task, Backup Exec 12.5 with SP2 provides an approximately 40 percent performance improvement when compared to earlier versions of Backup Exec.

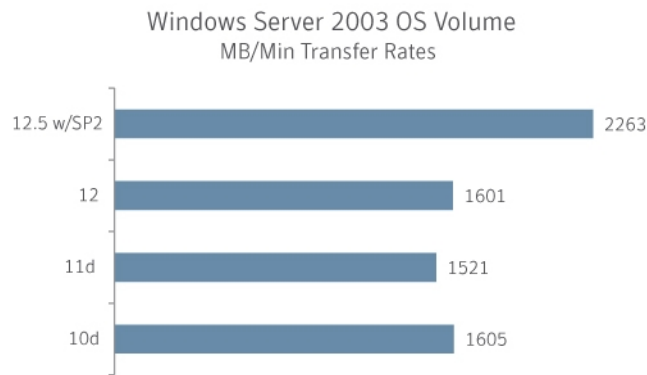


Figure 2: Test results showing OS volume transfer rates of Backup Exec 12.5 with SP2 compared to earlier releases, when running Windows Server 2003.

### Test 2: Backup Transfer Rates of a Windows® Server 2008 OS Volume

The second test compares MB/Min backup transfer rates of a complete OS volume of a Windows Server 2008-based test machine, using different versions of Backup Exec. In this test, the results are even more compelling than in Test 1, with Backup Exec 12.5 with SP2 providing 70 percent or greater performance improvement when compared to earlier versions of Backup Exec (note: Backup Exec 10d does not support Windows Server 2008 and was therefore not tested in this section).

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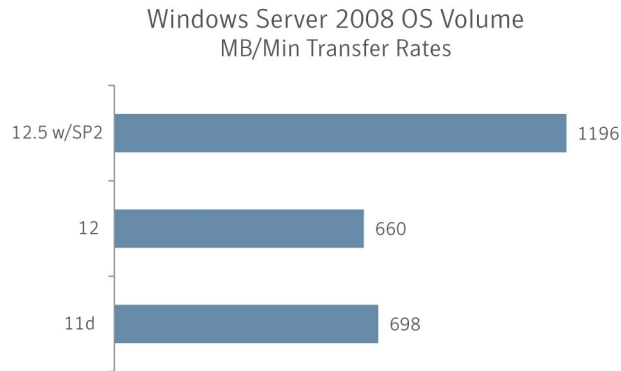


Figure 3: Test results showing OS volume transfer rates of Backup Exec 12.5 with SP2 compared to prior releases, when running Windows Server 2008.

### Test 3: Microsoft Exchange 2003 Incremental Backup Transfer Rates

This test compares incremental backup performance of Microsoft Exchange 2003, using different versions of Backup Exec. The results show that Backup Exec 12.5 with SP2 provides a greater than 100 percent performance improvement in transfer rates than earlier versions of Backup Exec.

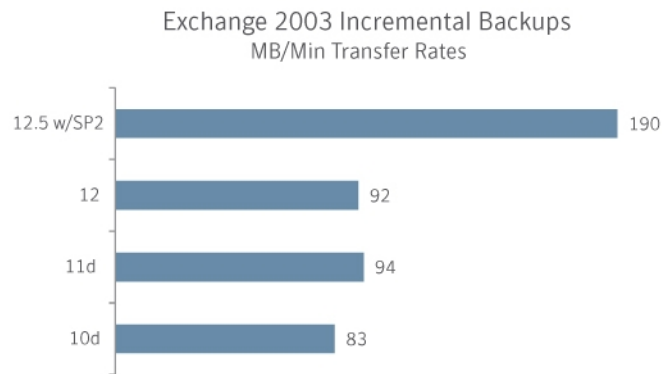


Figure 4: Test results showing the incremental backup performance of Microsoft Exchange 2003, using different versions of Backup Exec.

### Microsoft Exchange 2007 Incremental Backup Transfer Rates

Test results for Microsoft Exchange 2007 effectively mirror the Exchange 2003 results shown in Test 3, providing a 100 percent performance improvement in transfer rates when compared to earlier versions of Backup Exec.

## Why It Makes Sense to Upgrade

Tests show that Backup Exec 12.5 with SP2 provides faster backup times when compared to previous versions of the product. By upgrading to Backup Exec 12.5 with SP2, customers running older versions of the product will gain considerable range of enhanced features and functions, such as dramatic improvement in their backup performance, along with reduced backup windows, allowing them to maintain business productivity.

## How to Upgrade

For more information on specific features and enhancements in Backup Exec 12.5 with SP2, visit:

<http://seer.entsupport.symantec.com/docs/324928.htm>.

To download Backup Exec 12.5 SP2, go to:

- 64-bit: <http://seer.entsupport.symantec.com/docs/324920.htm>
- 32-bit: <http://seer.entsupport.symantec.com/docs/324919.htm>

Current Backup Exec 12.5 customers can download SP2 via LiveUpdate within the Backup Exec console.

## Why Symantec Maintenance

When upgrading to Backup Exec 12.5 SP2 we strongly encourage you to also renew or upgrade your support to Symantec Essential. Essential Support Services helps keep your business running by ensuring you can resolve any critical backup and recovery challenges any time of the day or night, 365 days a year. In addition, you always have access to the latest product versions and updates absolutely free for the life of your maintenance. Stay protected by ensuring you can easily support the latest OS, Microsoft updates, hardware, and virtual environments.



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Symantec is a global leader in providing security, storage and systems management solutions to help consumers and organizations secure and manage their information-driven world. Our software and services protect against more risks at more points, more completely and efficiently, enabling confidence wherever information is used or stored.

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