

# VERITAS STORAGE FOUNDATION 5.0 FOR WINDOWS SUPPORT FOR EXCHANGE 2007 README FILE

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This patch enables Storage Foundation 5.0 for Windows (SFW 5.0) support of VSS based backup and restore operations with Microsoft Exchange 2007. This patch should be installed only on servers running Microsoft Windows Server 2003 Standard x64 Edition, Enterprise x64 Edition, or Datacenter x64 Edition.

Please refer to the Symantec Technical Support web site, <http://entsupport.symantec.com>, for the latest information about SFW 5.0 and associated service packs and patches.

This readme file has the following topics:

- [Support provided by this patch](#)
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## Support provided by this patch

For Microsoft Exchange 2007, SFW 5.0 supports the VSS operations based on Flashsnap that had existed with earlier releases of Microsoft Exchange. This patch provides additional support for the Microsoft VSS Writers when the Local Continuous Replication (LCR) and Cluster Continuous Replication (CCR) features of Exchange 2007 are enabled. LCR and CCR are only available on servers running Windows Server 2003 (x64 Editions).

### VEA GUI

If replication is enabled for Exchange 2007, the VEA GUI does not display the hierarchy of active store writers and replica store writers correctly. After applying this patch and enabling replication for Exchange 2007, the display of the Microsoft Exchange Replication Service instance of the Microsoft Exchange Writer is enabled and displayed correctly. It appears as the Microsoft Exchange Writer Replica in the VEA GUI and is displayed in the tree view of the VEA subordinate to the VSS Writers node.

Right-clicking the Microsoft Exchange Writer Replica node displays a context menu that shows VSS Snapshot, VSS Snapback, and VSS Refresh selections. Restoring the replica with the VSS Restore operation and the Schedule VSS Snapshot operation for the replica are not supported.

No other changes are made to the VEA GUI or to the SFW wizards after applying this patch.

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**Note:** The Prepare command is required before using VSS Snapshot. For more information about snapshots, see the *Veritas Storage Foundation Administrator's Guide*.

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**Note:** The Quick Recovery wizard in the Solutions Configuration Center does NOT support Exchange 2007 and is not changed by the installation of this patch. For more information about Quick Recovery using Microsoft Exchange 2003, see the *Veritas Storage Foundation and High Availability Solutions Quick Recovery and MSCS Solutions Guide for Microsoft Exchange*.

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### MSCS environment

In an MSCS environment, you have to manually set the dependency of the Microsoft Exchange database instance to the Volume Manager Disk group resource so that it fails over in the correct sequence.

### VCS environment

SFW supports the VSS operations based on Flashsnap in a VCS environment. However, the name of the Exchange Virtual Server was not recognized. After applying this patch, the Exchange Virtual Server name appears as the VCS Resource name for Exchange 2007.

### vxsnap CLI command

After applying this patch and enabling replication for Exchange 2007, a new vxsnap CLI command option is made available to take a snapshot of a Microsoft Exchange Writer Replica (Microsoft Exchange Replication Service instance of the Microsoft Exchange writer) or of a Microsoft Exchange Writer (Microsoft Exchange Service instance of the Microsoft Exchange writer).

In the command, you can specify the replica store writer to take the snapshot of the replica or the active store writer to take the snapshot of the active store. If the replica store writer or the active store writer is not specified, then "Microsoft Exchange Writer" is used as a default.

For example:

```
vxsnap -x snapdata.xml create writer="Microsoft Exchange  
Writer Replica" component=SG1 backupType=COPY -E -O
```

specifies that the VSS Writer, Microsoft Exchange Writer Replica, is used to take a snapshot of the replica.

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**Note:** The Prepare operation must be completed on the volumes that contain the replica before taking a snapshot of a replica. This can be done using the VEA GUI or the vxsnap prepare CLI command. When using the CLI, the vxsnap prepare command must specify the Microsoft Exchange Writer Replica.

For example:

```
vxsnap prepare component=SG1/writer="Microsoft Exchange  
Writer Replica" source=L:/harddisk=harddisk2
```

For more information about vxsnap command, see the *Veritas Storage Foundation Administrator's Guide*.

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### Using a Snapshot of a Replica for Database Recovery

A snapshot of a replica can be used to restore an Exchange database to the point of failure (POF) or be used to restore a complete Exchange storage group to a point in time (PIT).

Taking a snapshot of a replica can be done with the VEA GUI by using the VSS snapshot wizard or with the vxsnap CLI command (described above). Taking a snapshot of a replica automatically takes a snapshot of all the volumes that the replica uses.

To restore the database from a snapshot of a replica, you must first manually perform a "Restore-StorageGroupCopy" on the storage group, and then perform the restore on the active writer. (The restore operation on the replica store writer is not supported.)

Originally for SFW 5.0, a manual dismount of the database was required before the restore operation. After applying this patch, the dismount of the database is automatically done as a part of the restore operation.

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**Note:** In a VCS environment, applying this patch automatically dismounts the database and sets the database for overwrite by restore as a part of the restore operation. However in an MSCS environment, a manual dismount of the database and manually setting the database for overwrite by restore are both required.

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**Note:** When SFW 5.0 fails to automatically dismount the database during a restore operation, the restore operation fails. The restore operation can be performed again after manually dismounting the databases and manually setting the databases for overwrite by restore.

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To perform the restore on the active writer, use the Exchange Management shell to execute the following cmdlets:

■ Dismount Database cmdlet

```
dismount-Database -Identity <DatabaseIdParameter>  
[-DomainController <Fqdn>]
```

■ RestoreStorageGroupCopy cmdlet

```
Restore-StorageGroupCopy  
-Identity:<Server>\<StorageGroupName>  
-ReplaceLocations
```

Additional considerations when running the RestoreStorageGroupCopy cmdlet:

- The LCR copy is automatically disabled when running the Restore-StorageGroupCopy cmdlet
- If a schedule for snapshots exists for the active store, running the RestoreStorageGroupCopy cmdlet makes the schedule invalid. The schedule becomes invalid because it no longer has updated volume/plex information to take the snapshot. In this situation, the user must delete the invalid schedule before performing the restore operation.

For more information about the Exchange Management shell and cmdlets, refer to the Microsoft Exchange 2007 product information at <http://www.microsoft.com>.

After completing the "Restore-StorageGroupCopy" on the storage group, you would use the VSS restore wizard or the vxsnap restore command to complete the recovery operation.

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**Note:** Although applying this patch allows you to restore the database from a snapshot, restoring just the database log files is not supported by this patch.

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An example of a PIT recovery procedure from a snapshot of a replica of an Exchange storage group, SG1, that contains two databases, DB1 and DB2, on an Exchange server, TestExch, would be as follows:

1 Run Dismount Database cmdlet on DB1 and DB2 databases.

```
Dismount-database -Identity TestExch\SG1\DB1  
Dismount-database -Identity TestExch\SG1\DB2
```

2 Run RestoreStorageGroupCopy cmdlet on SG1 storage group.

```
Restore-StorageGroupCopy -Identity TestExch\SG1  
-ReplaceLocations
```

3 Run Mount Database cmdlet on DB1 and DB2 databases.

```
Mount-database -Identity TestExch\SG1\DB1  
Mount-database -Identity TestExch\SG1\DB2
```

**4** Perform refresh.

```
vxsnap refresh
```

**5** Perform VSS restore operation using snapshot of replica.

```
vxsnap -x snapdata.xml restore RestoreType=PIT  
writer="Microsoft Exchange Writer"
```

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**Note:** For this example, assume that the snapshot of the replica was performed with

```
vxsnap -x snapdata.xml create writer="Microsoft  
Exchange Writer Replica" component=SG1 backupType=COPY  
-E -O
```

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For an MSCS environment, there are additional considerations when restoring the database.

- After performing the refresh operation, the user must manually dismount the databases before performing the restore operation.
- If CCR is enabled, then the user must disable the circular logging feature before restoring the database.

## Installing the patch

This section describes the requirements and procedure for installing this patch.

### Installation requirements

The following must be installed before installing this patch:

- SFW 5.0 or SFWHA 5.0
- SFW FlashSnap feature
- Microsoft .NET Framework version 2 (x64)  
Installed at default location (%SystemRoot%\Microsoft .NET )

In general, Microsoft Exchange 2007 can be installed before or after installing this patch. However, when setting up a single copy cluster configuration on a volume that is in a cluster dynamic disk group, this patch must be installed BEFORE installing Exchange 2007. (Applying this patch is a prerequisite before installing Exchange 2007 in a single copy cluster configuration.)

For more information about the installation requirements for Microsoft Exchange 2007, refer to the product information at <http://www.microsoft.com>.

### Installation procedure

This patch is installed by running the SFW 5.0 Exchange 2007 support.msi.

- To install the patch from the command line, navigate to the location of the msi and enter the following command with the appropriate log file name:  

```
msiexec /i "SFW 5.0 Exchange 2007 support.msi" /log  
<logFileName>
```

You will be prompted to reboot your system to complete the installation.
- To install the patch from the command line in silent mode, navigate to the location of the msi and enter the following command with the appropriate log file name:  

```
msiexec /i /quiet "SFW 5.0 Exchange 2007 support.msi"  
/log <logFileName>
```

An automatic reboot of your system occurs to complete the installation.

## Uninstalling the patch

This section describes the and procedure for uninstalling this patch.

### Uninstallation procedure

This patch is uninstalled by running the SFW 5.0 Exchange 2007 support.msi.

- To uninstall the patch from the command line, navigate to the location of the msi and enter the following command with the appropriate log file name:

```
msiexec /x "SFW 5.0 Exchange 2007 support.msi" /log  
<logFileName>
```

You will be prompted to reboot your system to complete the uninstallation.

- To uninstall the patch from the command line in silent mode, navigate to the location of the msi and enter the following command with the appropriate log file name:

```
msiexec /x /quiet "SFW 5.0 Exchange 2007 support.msi"  
/log <logFileName>
```

An automatic reboot of your system occurs to complete the uninstallation.