
ETERNUS VSS Hardware Provider Installation Information

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About ETERNUS VSS Hardware Provider

ETERNUS VSS Hardware Provider (hereinafter referred to as "VSSHP") is a program that is compatible with the Microsoft Volume Shadow Copy Service (hereinafter referred to as "VSS") interface, and that creates shadow copies of volumes in an ETERNUS Disk storage system.

Use of this software with backup software and writer software supporting VSS delivers online backup using the one point copy (snapshot) capability of Advanced Copy function available with ETERNUS Disk storage systems.

Operating System Versions

The following tables show the version of Windows Servers supported by VSSHP.

Operating System	VSSHP Version Level
Microsoft® Windows Server® 2008 Standard Microsoft® Windows Server® 2008 Enterprise Microsoft® Windows Server® 2008 Datacenter (Server Core is not supported.)	1.1.0 or later
Microsoft® Windows Server® 2008 R2 Standard Microsoft® Windows Server® 2008 R2 Enterprise Microsoft® Windows Server® 2008 R2 Datacenter (Server Core is supported.)	1.4.0 or later (The support of Server Core is since 1.5.0.)
Microsoft® Windows Server® 2012 Standard Microsoft® Windows Server® 2012 Datacenter (Server Core is supported.)	2.1.0 or later
Microsoft® Windows Server® 2012 R2 Standard Microsoft® Windows Server® 2012 R2 Datacenter (Server Core is supported.)	2.1.0 or later

For Windows Server 2008

The architecture types of x86 (32-bit), x64 are supported.

The software levels of SP1 (no SP applied) and SP2 are supported.

For Windows Server 2008 R2

The architecture types of x64 is supported.

The software levels of SP0 (no SP applied) and SP1 are supported.

For Windows Server 2012

The architecture types of x64 is supported.

For Windows Server 2012 R2

The architecture types of x64 is supported.

【Caution】

- The environment where BitLocker drive coding function was installed in does not support it.
- The registry in conjunction with the partition is left and may accumulate, when I delete the copying of GPT (GUID Partition Table). As a result of having continued use without deleting the registry, the phenomenon that backup is terminated abnormally by having exceeded an upper limit level of the registry is confirmed.
[prevention]
DevCon.exe which Microsoft provides delete the unnecessary registry.
There is no modified information of the OS at present.

Disk Storage Systems

VSSHP supports the following disk storage systems.

ETERNUS DX60
 ETERNUS DX80
 ETERNUS DX90
 ETERNUS DX60 S2
 ETERNUS DX80 S2
 ETERNUS DX90 S2
 ETERNUS DX60 S3
 ETERNUS DX100 S3
 ETERNUS DX200 S3
 ETERNUS DX200F
 ETERNUS DX400 series
 ETERNUS DX400 S2 series
 ETERNUS DX500 S3
 ETERNUS DX600 S3
 ETERNUS DX8000 series
 ETERNUS DX8000 S2 series
 ETERNUS2000 (model 100 or higher)
 ETERNUS4000 (model 300 or higher)
 ETERNUS8000

【Caution】

The registration of the Advanced Copy license is required for some models. Please refer to the manual for details of the setting of the ETERNUS disk storage system for the Advanced Copy function use for the registration of the license and the setting of the size of the copy table, etc.

ETERNUS DX60, ETERNUS DX80, ETERNUS DX90

Disk Storage System	VSSHP Version Level
ETERNUS DX60 ETERNUS DX80	1.3.0 or later
ETERNUS DX90	1.4.0 or later

ETERNUS DX60 S2, ETERNUS DX80 S2, ETERNUS DX90 S2

Disk Storage System	VSSHP Version Level
ETERNUS DX60 S2 ETERNUS DX80 S2 ETERNUS DX90 S2	2.0.1 or later

ETERNUS DX60 S3, ETERNUS DX100 S3, ETERNUS DX200 S3, ETERNUS DX200F

Disk Storage System	VSSHP Version Level
ETERNUS DX60 S3	2.1.1 or later
ETERNUS DX100 S3 ETERNUS DX200 S3 ETERNUS DX200F	2.1.0 or later

ETERNUS DX400 series

Disk Storage System	VSSHP Version Level
ETERNUS DX400 series	1.4.0 or later

ETERNUS DX400 S2 series

Disk Storage System	VSSHP Version Level
ETERNUS DX400 S2 series	2.0.1 or later

ETERNUS DX500 S3, ETERNUS DX600 S3

Disk Storage System	VSSHP Version Level
ETERNUS DX500 S3 ETERNUS DX600 S3	2.1.0 or later

ETERNUS DX8000 series

Disk Storage System	VSSHP Version Level
ETERNUS DX8000 series	1.4.0 or later

ETERNUS DX8000 S2 series

Disk Storage System	VSSHP Version Level
ETERNUS DX8000 S2 series	2.0.1 or later

ETERNUS2000

Disk Storage System	VSSHP Version Level
ETERNUS2000 model 50	Not supported
ETERNUS2000 model 100 ETERNUS2000 model 200	1.1.0 or later

ETERNUS4000

Disk Storage System	VSSHP Version Level
ETERNUS4000 model 80 ETERNUS4000 model 100	Not supported
ETERNUS4000 model 300 ETERNUS4000 model 400 ETERNUS4000 model 500 ETERNUS4000 model 600	1.1.0 or later

ETERNUS8000

Disk Storage System	VSSHP Version Level
ETERNUS8000 model 700 ETERNUS8000 model 800 ETERNUS8000 model 900 ETERNUS8000 model 1100 ETERNUS8000 model 1200 ETERNUS8000 model 1300	1.1.0 or later

About the support of Storage Cluster function

In following the ETERNUS disk storage system, Storage Cluster function is available.

Disk Storage System	Firmware Version Level
ETERNUS DX200 S3 ETERNUS DX200F ETERNUS DX500 S3 ETERNUS DX600 S3	V10L30 or later

The following tables show the combination of the source copy volume, the destination copy volume and advanced copy function supported by VSSHP.

Volume		Advanced Copy			
source	destination	OPC	QuickOPC	SnapOPC	SnapOPC+
TFOV	TFOV	Yes	Yes	No	No
TFOV	Open/SDV	No	No	No	No
Open	TFOV	No	No	No	No

TFOV : Transparent Failover Volume

Open : Standard Volume

SDV : Snap Data Volume

【Caution】

- In VSSHP, Storage Cluster must be configured only the same models of the ETERNUS disk storage system.
- In VSSHP, to operate Open/SDV and TFOV together in a host cannot be supported.

Host interface

The following tables show Host interfaces supported by VSSHP.

Host interface	VSSHP Version Level
FC	1.1.0 or later
iSCSI	1.1.0 or later
SAS	1.1.0 or later
FCoE	Not supported

Backup software (Requester) and Server application (Writer)

The following tables show the Backup software (requester) and the Server application (writer) supported by the VSSHP.

Backup software

Backup software	VSSHP Version level
ETERNUS SF AdvancedCopy Manager 13.4.1 or later (*1)	1.2.0 or later
CA ARCserve Backup r12.5 / r15 / r16 / r16.5	1.2.0 or later
Microsoft System Center Data Protection Manager 2010 / 2012	1.5.0 or later
NetWorker 7.5 / 7.6	1.5.0 or later
Quest NetVault Backup 8.2 / 8.5.X / 8.6	1.2.0 or later
Symantec Backup Exec 12.5 for Windows Servers	1.2.0 or later
Symantec Backup Exec 2010 R2	1.5.0 or later
Symantec NetBackup 7	1.5.0 or later
SEP Sesam 4.2	2.1.0 or later

*1: ETERNUS SF AdvancedCopy Manager comes with a VSSHP package. Please use this package, or use the latest package get from our download page.

Reference : Windows Server Backup of Windows Server 2008 (version after that) cannot be used because it does not operate in the hardware provider that the vender offers.

Server application

Server application	Remarks
Hyper-V VSS Writer (*1)(* 2)	
Microsoft Exchange Server 2007 / 2010 / 2013	
Microsoft SQL Server 2005 / 2008	
Oracle Database 11g Release 2	
System Writer (NTFS File system: Windows Server 2008 / 2008 R2 / 2012 / 2012 R2)	

*1 : Hyper-V since Windows Server 2008 R2

*2: The disk where guest OS is stored can be backed up from host OS. The following guests OS can back up.

- Microsoft® Windows Server® 2003 R2, Standard Edition Service Pack 2
- Microsoft® Windows Server® 2003 R2, Enterprise Edition Service Pack 2
- Microsoft® Windows Server® 2008 Standard Service Pack 2
- Microsoft® Windows Server® 2008 Enterprise Service Pack 2
- Microsoft® Windows Server® 2008 R2 Standard
- Microsoft® Windows Server® 2008 R2 Enterprise
- Microsoft® Windows Server® 2008 R2 Datacenter
- Microsoft® Windows Server® 2012 Standard
- Microsoft® Windows Server® 2012 Datacenter
- Microsoft® Windows Server® 2012 R2 Standard
- Microsoft® Windows Server® 2012 R2 Datacenter

Virtualization environment

Virtualization environment	Operation on host OS	Operation on guest OS
Windows Server 2008 Hyper-V	Not Supported	Not Supported
Windows Server 2008 R2 Hyper-V	Supported	Not Supported (*2)
Windows Server 2012 Hyper-V	Supported	Not Supported (*2)
Windows Server 2012 R2 Hyper-V	Supported	Not Supported (*2)
VMware vSphere 4.1	N/A	Supported (*1)
VMware vSphere 5	N/A	Supported (*1)

***1 : Notes**

It is necessary to meet the following requirements.

- The source disk must be the type of Physical RDM (A physical disk and Raw Device Mapping are specified.) defined with VMware vSphere.
- When servers are constructed Transportable Copy Configuration and the backup server is made a Virtualization server, the destination disk must be the type of Physical RDM.
- When servers are constructed Transportable Copy Configuration and you copy the disk where guest OS was installed, the backup server must be a physical server, the production server recognizes the target disk.
(The environmental setting equal with the case to back up Hyper-V virtual machine with Transportable Copy Configuration is necessary.)

***2 : Notes**

VSSHP supports only when use it with ETERNUS SF AdvancedCopy Manager.

VMware vSphere environment

The combination of the backup software and the server application supported by VSSHP in VMware vSphere Environment is as follows.

Backup software	Server application	OS	Server Configuration		Operation types	
			Local Copy Configuration	Transportable Copy Configuration	Copy set operation	Target disk pool operation
ETERNUS SF AdvancedCopy Manager 15.0 or later (*1)	Microsoft Exchange Server 2007 / 2010 / 2013	Windows Server 2008 R2	-	Yes	Yes	No

*1 : In the combination ETERNUS SF AdvancedCopy Manager 15.0 (or later) + VSSHP2.0.1(or later), the Exchange data base can be backed up by using "Microsoft Exchange Server" as a server application.

About This Installation Information

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