



## NonDisruptive Migration Storage Support Matrix

### VSP G1500,F1500, G1000, Gxx0, Fxx0, VSP, HUS-VM , USP-V

**Note:** Configurations added since the last matrix will be shown in red text.

#### Introduction

Use this

interoperability matrix to check whether a proposed customer configuration is supported. Each tab contains a set of components that together comprise an HDS-supported solution.

Please refer to other additional support matrix for details on version support for e.g: Symantec for DMP and VCS, HDLM, UVM for supported external storage, storage interoperability for supported switch and HBA, If a combination does not appear on the OS support matrix, the customer's Hitachi Data Systems Sales Engineer (SE) or other HDS field service employee must submit an Interoperability Support Request in order to gain support for the new configuration.

Note that in some cases a component (HBA, driver, switch, switch firmware version) may no longer be supported (end of service life, EOSL) in which case, the customer should choose components that are already supported from the matrix. Click on a tab to view associated components.

**Gxx0 refers to : G900,G800,G700, G600, G400,G370,G350 and G200**

**Fxx0 refers to : F900,F800, F700,F600, F400,F370,F350**

**G1x00 refers to : G1500 and G1000**

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## RAID (VSP G1x00, F1500, VSP, Gxx0, Fxx0, HUS VM & USP-V) support for NonDisruptive Migration

NonDisruptive Migration support Matrix					
OS Version	Target	Source	Multi-path	Cluster	Notes
Windows 2012 R2, 2012	VSP G1x00, F1500	VSP	MPIO VxVM-DMP HDLM	MSFC VCS	HDLM Note: SCSI2 RSV and PGR are not supported
		HUS VM	MPIO VxVM-DMP HDLM	MSFC VCS	
		USP-V	MPIO VxVM-DMP HDLM	MSFC VCS	
		USP	MPIO HDLM	MSFC	
	VSP Gxx0, Fxx0	VSP	MPIO VxVM-DMP HDLM	MSFC VCS	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	MPIO VxVM-DMP HDLM	MSFC VCS	
USP-V		MPIO VxVM-DMP HDLM	MSFC VCS		
Windows 2016	VSP G1x00, F1500	VSP	MPIO VxVM-DMP HDLM	MSFC	HDLM Note: SCSI2 RSV and PGR are not supported NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	MPIO VxVM-DMP HDLM	MSFC	
		USP-V	MPIO VxVM-DMP HDLM	MSFC	
	VSP Gxx0, Fxx0	VSP	MPIO VxVM-DMP HDLM	MSFC	
		HUS VM	MPIO VxVM-DMP HDLM	MSFC	
		USP-V	MPIO VxVM-DMP HDLM	MSFC	
Windows 2016	VSP G1x00, F1500	VSP	MPIO HDLM	MSFC	HDLM Note: SCSI2 RSV and PGR are not supported NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	MPIO HDLM	MSFC	
		USP-V	MPIO HDLM	MSFC	
	VSP Gxx0, Fxx0	VSP	MPIO HDLM	MSFC	
		HUS VM	MPIO HDLM	MSFC	
		USP-V	MPIO HDLM	MSFC	
VSP G1x00, F1500	VSP	MPIO VxVM-DMP HDLM	MSFC	HDLM Note: SCSI2 RSV and PGR are not supported	
	HUS VM	MPIO VxVM-DMP HDLM	MSFC VCS		
	USP-V	MPIO VxVM-DMP HDLM	MSFC VCS		
	USP	MPIO HDLM	MSFC VCS		

Windows 2008,  
2008 R2, 2008 R2 SP1

VSP Gxx0, Fxx0	VSP	MPIO VxVM-DMP HDLM	MSFC VCS	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
	HUS VM	MPIO VxVM-DMP HDLM	MSFC VCS	
	USP-V	MPIO VxVM-DMP HDLM	MSFC VCS	

	VSP	USP-V	MPIO HDLM	MSFC VCS	
		USP	MPIO HDLM	-	
	HUS-VM	USP-V	MPIO HDLM	MSFC VCS	
		USP	MPIO HDLM	-	
<b>Red Hat 5.x, 6.x</b>	VSP G1x00, F1500	VSP	DM-MP VxVM-DMP HDLM	Red Hat Cluster	Refer to HDLM FRS for detailed support OS information. SCSI2 RSV and PGR are not supported
		HUS VM	DM-MP VxVM-DMP HDLM	Red Hat Cluster VCS	
		USP-V	DM-MP VxVM-DMP HDLM	Red Hat Cluster VCS	Refer to HDLM FRS for detailed support OS information.
		USP	DM-MP VxVM-DMP HDLM	-	Refer to HDLM FRS for detailed support OS information. Submit ISR for Red Hat 6 support
	VSP Gxx0, Fxx0	VSP	DM-MP VxVM-DMP HDLM	Red Hat Cluster	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	DM-MP VxVM-DMP HDLM	Red Hat Cluster VCS	
		USP-V	DM-MP VxVM-DMP HDLM	Red Hat Cluster VCS	
	VSP	USP-V	DM-MP HDLM	-	Refer to HDLM FRS for detailed support OS information.
		USP	DM-MP HDLM	-	
	HUS-VM	USP-V	DM-MP HDLM	-	Refer to HDLM FRS for detailed support OS information.
		USP	DM-MP HDLM	-	Refer to HDLM FRS for detailed support OS information.

<b>Red Hat 7.1-7.4</b>	VSP G1x00, F1500	VSP	DM-MP VxVM-DMP		
		HUS VM	DM-MP VxVM-DMP	Pacemaker VCS	
		USP-V	DM-MP VxVM-DMP	VCS	
	VSP Gxx0, Fxx0	VSP	VxVM-DMP DM-MP	VCS	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	DM-MP VxVM-DMP	Pacemaker VCS	
<b>AIX 7.2, 7.1, 6.1, VIOS</b>	VSP G1x00, F1500	VSP	MPIO HDLM	HACMP/PowerHA	
		HUS VM	MPIO HDLM	HACMP/PowerHA	
		USP-V	MPIO VxVM-DMP HDLM	HACMP/PowerHA	
		USP	MPIO VxVM-DMP HDLM	-	Submit ISR for AIX 7.1 support
	VSP Gxx0, Fxx0	VSP	MPIO HDLM	HACMP/PowerHA	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	MPIO HDLM	HACMP/PowerHA	
		USP-V	MPIO VxVM-DMP HDLM	HACMP/PowerHA	
	VSP	USP-V	MPIO HDLM	-	
		USP	MPIO HDLM	-	
	HUS-VM	USP-V	MPIO HDLM	-	
		USP	MPIO HDLM	-	

Vmware 5.5, 5.1	VSP G1x00, F1500	VSP	Native MP HDLM	VMware HA Vmotion	SCSI2 RSV and PGR are not supported
		HUS VM	Native MP HDLM	VMware HA Vmotion	
		USP-V	Native MP HDLM	VMware HA Vmotion	
	VSP Gxx0, Fxx0	VSP	Native MP HDLM	VMware HA Vmotion	SCSI2 RSV and PGR are not supported NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	Native MP HDLM	VMware HA Vmotion	SCSI2 RSV and PGR are not supported
		USP-V	Native MP VxVM-DMP HDLM	VMware HA Vmotion	
Vmware 6.0, 6.5, 6.7	VSP G1x00, F1500	VSP	Native MP <b>HDLM</b>	VMware HA Vmotion	
		HUS VM	Native MP <b>HDLM</b>	VMware HA Vmotion	
	VSP Gxx0, Fxx0	VSP	Native MP <b>HDLM</b>	VMware HA Vmotion	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	Native MP <b>HDLM</b>	VMware HA Vmotion	
Solaris 11.1 - 11.3	VSP G1x00, F1500	VSP	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	
		HUS VM	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	SCSI2 RSV and PGR are not supported
		USP-V	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	
	VSP Gxx0, Fxx0	VSP	MPXO VxVM-DMP HDLM	Sun Cluster VCS	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel."
		HUS VM	MPXO VxVM-DMP HDLM	Sun Cluster VCS	SCSI2 RSV and PGR are not supported
		USP-V	MPIO VxVM-DMP HDLM	Sun Cluster VCS	SCSI2 RSV and PGR are not supported

Solaris 10	VSP G1x00, F1500	VSP	MPxIO VxVM-DMP HDLM	Sun Cluster VCS		
		HUS VM	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	SCSI2 RSV and PGR are not supported	
		USP-V	MPxIO VxVM-DMP HDLM	Sun Cluster VCS		
		USP	MPxIO VxVM-DMP HDLM	Sun Cluster VCS		
	VSP Gxx0, Fxx0	VSP	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.	
		HUS VM	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	SCSI2 RSV and PGR are not supported	
		USP-V	MPxIO VxVM-DMP HDLM	Sun Cluster VCS	SCSI2 RSV and PGR are not supported	
	VSP	USP-V	MPxIO HDLM	-		
		USP	MPxIO HDLM	-	Dynamic path deletion is provided from HDLM 8.0 or later.	
	HUS-VM	USP-V	MPxIO HDLM	-		
		USP	MPxIO HDLM	-	Dynamic path deletion is provided from HDLM 8.0 or later.	
	HP-UX 11iv2	VSP G1x00, F1500	USP-V	PvLink	MC/SG	
			HUS VM	PvLink	MC/SG	Cluster failover and failback is required in order to perform migration
			USP	PvLink	-	
VSP			PvLink	MC/SG		
VSP Gxx0, Fxx0		VSP	PvLink	MC/SG	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.	
		HUS VM	PvLink	MC/SG		
		USP-V	PvLink	MC/SG		
VSP		USP-V	PvLink	-		
		USP	PvLink	-		
HUS-VM		USP-V	PvLink	-		
		USP	PvLink	-		

HP-UX 11iv3	VSP G1x00, F1500	USP-V	Native MP PvLink	MC/SG	
		HUS VM	Native MP PvLink	MC/SG	Cluster failover and failback is required in order to perform migration
		VSP	Native MP PvLink	MC/SG	
	VSP Gxx0, Fxx0	VSP	Native MP PvLink	MC/SG	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	Native MP PvLink	MC/SG	
		USP-V	Native MP PvLink	MC/SG	
	VSP	USP-V	Native MP PvLink	-	
		USP	Native MP PvLink	-	
	HUS-VM	USP-V	Native MP PvLink	-	
		USP	Native MP PvLink	-	
OpenVMS 8.3-1H1, 8.4	VSP	USP-V	OS standard (Bundled)	-	Direct connection between the server and source/target DKC is NOT supported. Refer to additional notes below.
		USP	OS standard (Bundled)	-	
SUSE 11 SP1 - SP4	VSP G1x00, F1500	VSP	DM-MP VxVM-DMP HDLM	VCS	
		USP-V	DM-MP VxVM-DMP HDLM	-	SCSI2 RSV and PGR are not supported
	VSP Gxx0, Fxx0	VSP	DM-MP HDLM	-	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel."
		HUS VM	DM-MP HDLM	-	SCSI2 RSV and PGR are not supported
		USP-V	DM-MP VxVM-DMP HDLM	-	SCSI2 RSV and PGR are not supported
SUSE 12 SP1 - SP3	VSP G1x00, F1500	VSP	DM-MP VxVM-DMP	-	
Oracle RAC supported OS	VSP G1x00, F1500	VSP	HDLM	Oracle RAC	
	VSP Gxx0, Fxx0	HUS VM	HDLM	Oracle RAC	
HNAS 4040,4060, 4080,4100, 3080, 3090	VSP G1x00, F1500	VSP	Bundled	Cluster/Stretched Cluster	
		HUS VM	Bundled	Cluster/Stretched Cluster	
		USP-V	Bundled	Cluster/Stretched Cluster	
	VSP Gxx0, Fxx0	VSP	Bundled	Cluster/Stretched Cluster	NDM migration from VSP is only supported via CLI (CCI) and must be performed by an HDS service personnel.
		HUS VM	Bundled	Cluster/Stretched Cluster	
		USP-V	Bundled	Cluster/Stretched Cluster	



Minimum Storage Microcode versions:	
VSP G1000	80-04-0x or later
VSP G1500	80-05-01-00/00 or later
VSP Gxx0/Fxx0	83-03-0x or later
VSP Gxx0/Fxx0	88-01-01 or later
VSP	70-06-33 or later
HUS VM	73-03-44 or later
USP-V	60-08-47 or later
USP	50-01-01 or later
HNAS	12.5.x or later

Minimum NASOS versions:	
12.5.4038.09	or later
12.7.4221.03	or later

**Note: VxVM-DMP and VCS require v6.1 or later**

Additional Notes:

**OpenVMS 8.3-1H1 & 8.4 :**

Direct connection between the server and source/target DKC is NOT supported.  
Host Mode Option 33 must be OFF on both source and target DKC during migration.  
And the following SCSI command must NOT be used during migration:

- (1) Set identification information
- (2) Report identification information

**HDLM:**

In environments which are not using the VIOS NPIV (N-Port ID Virtualization) functionality, use of HDLM in a client partition is not supported. In this case, use HDLM only in a server partition.

**HNAS:**

HNAS does not support NDM migration of VSP or older models to GAD volumes.