



## Mainframe Storage Support Matrix

### VSP G1x00, F1500, VSP, 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 Hitachi Vantara-supported solution.

Please refer to other additional support matrix for details on version support for : e.g: TrueCopy for Mainframe , UVM for supported external storage, or other Mainframe user manuals or release notes.  
If a combination does not appear on the OS support matrix, the customer's Hitachi Data Systems Sales Engineer (SE) or other Hitachi Vantara 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.

G1x00 refers to : G1500 and G1000

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## RAID (VSP G1x00, F1500, VSP, USP-V) O/S support for Mainframe Systems

	Ficon	O/S Version	F1500,G1x00	VSP	USP-V	notes
CPU	z196 (zBX), z114, z10,z9, z-990, z-900, z-890, z-800, G5/G6, zEC12 (zBX), zBC12,		V01	V03+1	V04	
	z13, z13s		V01+1	V02+1	V04*	USP-V does not support Ficon EX16s on Z13
	z14, z14 Model ZR1		SVOS 7.2	V06	V08	
OS	z/OS	V1.1 - V2.2	V01	V03+1	V06	refer to note *4, *5
		V2.3	SVOS 7.2	V06	V08	
	z/VM	V5.4 - V6.4	V01	V02+1	V04	
	z/VSE	V4.1 - V5.1	V01	V02+1	V04+1	
	z/Linux SuSE	ES9.0 - ES11.0 SP3	V01	V02+1(*1)	V04	
		ES11.0 SP4 - ES12.0 SP1	V03	V06	-	
	z/Linux Redhat	EL4.0 - EL5.9	V01	V02+1(*1)	V04	
		EL6.0 - EL6.5	V01	V02+1(*1)	V04	
		EL7.0	V01+1	V02+1(*1)	V04	
		EL7.2	V03	V06	-	
	OS/390	V2.6 - V2.10	-	-	V01	
	VM/ESA	V2.3.0 - V2.4.0	-	-	V01	
	VSE/ESA	V2.3 - V2.7	-	-	V01	
Linux SuSE for S/390	ES8.0	-	-	V01		

BCM	Version	z/OS Version	F1500,G1x00	VSP	USP-V	notes
	8.0	V1.10 - V2.1	✓	✓	✓	
	8.1	V1.10 - V2.1	✓	✓	✓	
	8.2	V1.10 - V2.2	✓	✓	✓	
	8.4	V1.10 - V2.2	✓	✓	✓	
	8.5	V1.10 - V2.2	✓	✓	✓	
	8.5.1	V1.10 - V2.2	✓	✓	✓	
	8.5.2	V1.10 - V2.2	✓	✓	✓	New options were added to the YKMAKE and YKRESYNC commands.
	8.5.4	V1.10 - V2.3	✓	✓	✓	64 JNLGs per EXCTG FAST for the copy pace of ShadowImage
	8.6.0	V1.11 - V2.3	✓		✓	Multiple subchannel sets function
	8.6.2	V1.11 - V2.3	✓			Added new options to YKMAKE command, YKRESYNC command, YKDELETE command and YKEWAIT command.
	7.6 /A	V1.10 - V2.1	-	✓	✓	
	7.5	V1.10 - V1.13	-	✓	✓	
	7.4	V1.10 - V1.13	-	✓	✓	
	7.3	V1.1 - V1.13	-	✓	✓	✓
CSM	6.1	V2.1 to V2.2	✓	-	-	

**Notes:**

- \*1: Not supported with microcode V04. Use a microcode version earlier or later than V04
- \*2: zHPF environment support for USP-V requires microcode version V04a or later
- \*3: Direct connect is supported
- \*4: To use the Erase-On-Scratch function, use Raid-Microcode V02+1(80-02-46-00/00)/V03(80-03-02-00/00) or later, or apply APAR OA48276/PTF UA80991
- \*5: z/OS V2.2, Hyperpav alias volume is not recognized with Vary Device Online. To use Hyperpav, apply APAR OA49635/PTF UA80991.

### RAID (VSP G1x00, F1500, VSP, USP-V) Switch support for Mainframe Systems

Brocade								
CHL Type	Driver	Model	Firmware Version	F1500, G1x00	VSP	USP-V	notes	
FICON/FICON EX/FICON EX2	67/76/79	DCX DCX-4S 5100	V6.4.0a, V6.4.0c, V6.4.2a	-	✓	✓	USP-V: switches must use 4Gbps SFP only	
FICON EX4	67/76/79/86		V7.0.0c, V7.0.0d	-	✓	✓		
FICON EX8	76/79/86/93		V7.1.0c, V7.2.0b, V7.2.0d, V7.2.1d	✓	✓	✓		
FICON EX8S	93/12/15		V7.3.0b, V7.3.1b, V7.3.1c, V7.4.0a	✓	✓	✓		
FICON EX8S	22		V7.3.1b, v7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1	✓	✓	✓		Submit ISR for VSP ficon EX8s driver 22 support
FICON EX16S	22/27	V7.2.1d, V7.3.0b, V7.3.1b, v7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1	✓	✓	✓			
FICON EX16S+	32	DCX-4S	V7.4.2a1	✓	✓	✓		
FICON EX4	67/76/79/86	5300 7800	V6.4.0a, V6.4.0c, V6.4.2a	-	✓	✓	USP-V: switches must use 4Gbps SFP only	
FICON EX8	76/79/86/93		V7.1.0c, V7.2.0b, V7.2.0d, V7.2.1d	✓	✓	✓		
FICON EX8S	93/12/15		V7.3.0b, V7.3.1b, V7.3.1c, V7.4.0a	✓	✓	✓		
FICON EX8S	22		V7.3.1b, V7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1	✓	-	✓		Submit ISR for VSP ficon EX8s driver 22 support
FICON EX16S	22/27		V7.2.1d, V7.3.0b, V7.3.1b, v7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1	✓	✓	✓		
FICON/FICON EX/FICON EX2	67/76/79	5000 7500 48000	V6.4.0a, V6.4.0c	-	✓	✓		
FICON EX4	67/76/79/86		✓	✓	✓			
FICON EX8	76/79/86/93		V6.4.2a	✓	✓	✓		
FICON EX8S	93/12/15		✓	✓	✓			
FICON EX8S	22		✓	-	✓	Submit ISR for VSP ficon EX8s driver 22 support		
FICON EX8S	93/12/15	6510 7840 DCX8510	V7.0.0c, V7.0.0d	-	✓	✓	16Gb SFP: Use 80-04-01-00/00 or later when link speed 4gb is Fixed	
FICON EX8S	22		V7.1.0c, V7.2.0b, V7.2.0d, V7.2.1d, V7.3.0b, V7.3.1b, V7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1, V8.0.1b, V8.1.0c	✓	✓	✓	16M16 PCB: Use 80-04-01-00/00 or later when link speed 8 or 16gb is Fixed USP-V: switches must use 8Gbps SFP only Submit ISR for VSP ficon EX8s driver 22 support	
FICON EX8S	22		V7.3.1b, V7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1, V8.0.1b, V8.0.2b, V8.0.2b2, V8.1.0c, V8.1.2a, V8.2.0a	✓	✓	✓		
FICON EX16S	22/27	V7.2.1d, V7.3.0b, V7.3.1b, V7.3.1c, V7.4.0a, V7.4.1b, V7.4.1d, V7.4.2a, V7.4.2a1, V8.0.1b, V8.0.2b, V8.0.2b2, V8.1.0c, V8.1.2a, V8.2.0a	✓	✓	✓			
FICON EX16S+	32			✓	✓	-		
FICON EX8S	22	G620 X6-8	V8.10c, V8.1.2a, V8.2.0a	✓	✓	-		
FICON EX16S	22/27	X6-4		✓	✓	-		
FICON EX16S+	32			✓	✓	-		
FICON EX16S FEC (Forward Error Correction)	22/27	6510 7840 DCX8510	V7.4.0a, V7.4.1b, V7.4.1d, V8.0.1b, V8.0.2b2, V8.1.0c, V8.1.2a	✓	-	-	SVOS 7 required Port mode FEC/TTS disable	
FICON EX16S+ FEC (Forward Error Correction)	32	G620 X6 X4	V8.1.0c, V8.1.2a	✓	-	-	SVOS 7.2 required Port mode FEC/TTS disable	

Cisco							
FICON/FICON EX/FICON EX2	67/76/79	MDS9216 MDS9216i	V4.2(1b), V4.2(7b), V5.2(2)	-	-	✓	
FICON EX4	67/76/79/86	MDS9506 MDS9509		-	-	✓	
FICON/FICON EX/FICON EX2	67/76/79	MDS9513	V4.2(1b), V4.2(7b)	-	✓	✓	
FICON EX4	67/76/79/86	MDS9134	V5.2(2), V5.2(2s)	✓	✓	✓	
FICON EX8	76/79/86/93	MDS9216i(4G) MDS9222i(4G)	V6.2(5a), V6.2(5b) V6.2(11c)	✓	✓	✓	
FICON EX8S	93/12/15 22	MDS9509(4G) MDS9506(4G)		✓	✓	✓	Submit ISR for VSP ficon EX8s driver 22 support
FICON EX4	67/76/79/86		V4.2(1b), V4.2(7b)	-	✓	✓	
FICON EX8	76/79/86/93		V5.2(2), V5.2(2s)	✓	✓	✓	
FICON EX8S	93/12/15 22	MDS9513(8G) MDS9222i(8G) MDS9506(8G) MDS9509(8G)	V6.2(5a), V6.2(5b), V6.2(11c), V6.2(11e)	✓	✓	✓	Submit ISR for VSP ficon EX8s driver 22 support
FICON EX16S	22/27		V6.2(5a), V6.2(5b), V6.2(11c), V6.2(11e)	✓	-	-	
FICON EX16S+	32		V6.2(5a), V6.2(5b), V6.2(11c), V6.2(11e)	✓	-	-	
FICON EX8S	22		V6.2(11c)	-	-	✓	16M16 PCB: Use SVOS 6.4 or later when link speed 4gb is Fixed
FICON EX16S	22/27	MDS9706 MDS9710	V6.2(5a), V6.2(5b)	✓	-	-	
FICON EX16S+	32	MDS9250i	V6.2(11c), V6.2(11e), V8.1(1a)	✓	✓	✓	
FICON EX16S FEC (Forward Error Correction)	22/27	MDS9706 MDS9710	V8.1(1a)	✓	-	-	SVOS 8.3 required Port mode FEC/TTS disable
FICON EX16S+ FEC (Forward Error Correction)	32	MDS9718 MDS9250i	V8.1(1a)	✓	-	-	SVOS 8.3 required Port mode FEC/TTS disable
Direct Connect							
CHL Type	Driver	Connection	F1500, G1x00	VSP	USP-V	notes	
FICON/FICON EX/FICON EX2	67	Direct Connect	✓	✓	✓		
FICON EX4	67/76/79/86	Direct Connect	✓	✓	✓		
FICON EX8	76/79/86/93	Direct Connect	✓	✓	✓		
FICON EX8S	93/12/15/22	Direct Connect	✓	✓	✓	USP-V: Link speed is 4Gbps after auto-negotiation VSP: Link speed is 8Gbps after auto-negotiation USP-V: Link speed is 4Gbps after auto-negotiation	
FICON EX16S	22/27	Direct Connect	✓	✓	✓	G1x00/F1500: SVOS 7.2 or later required VSP: V06 level or later	
FICON EX16S+	32	Direct Connect	✓	✓	✓		