

FUJITSU Storage ETERNUS AF series, ETERNUS DX S5/S4/S3 series, ETERNUS DX200F Server Support Matrix

Legend	Supported : This connection is supported.
	Planned 1: Support is scheduled by the indicated date. If the date is month, support is scheduled for the beginning of the month. If the date is nQ, support is scheduled during that quarter.
	Planned 2: Support is planned. Availability varies depending on the business requirements. Please contact the Storage System Division.
	N.A.: Not Applicable.

Note : Please use the latest Firmware of ETERNUS AF series, ETERNUS DX S5/S4/S3 series and DX200F.

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Solaris (FC connection) Edition 170: 2022/1/14	VM (FC connection) Edition 183: 2023/12/22
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Solaris (SAS connection) Edition 169: 2021/11/26	VM (SAS connection) Edition 183: 2023/12/22
Solaris (FCoE connection) Edition 131: 2019/3/28	VMware VVOL Edition 183: 2023/12/22
HP-UX (FC connection) Edition 146: 2019/11/5	SVC Edition 151: 2019/12/24
HP-UX (iSCSI connection) Edition 146: 2019/11/5	UCS Edition 60: 2016/4/21
AIX (FC connection) Edition 173: 2022/7/19	StorNext Edition 176: 2022/10/14
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RHEL (FC connection) Edition 183: 2023/12/22	NAS Backup Edition 147: 2019/11/12
RHEL (iSCSI connection) Edition 183: 2023/12/22	Key management server linkage Edition 161:2020/12/4
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Oracle Linux (FC connection) Edition 183: 2023/12/22	FAQ Edition 87: 2017/6/12
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Linux (FCoE connection) Edition 155: 2020/4/9	

Solaris (FC connection) Edition 170: 2022/1/14

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Functions supported by clusterware depends on each clusterware supplier. Please contact the clusterware supplier for the extended support functions such as geo cluster..
 - UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), OSC (Oracle Solaris Cluster), PCL (PRIMECLUSTER), VCS (Veritas Cluster Server)
 - Storage Cluster function is not supported on DX60 S5/S4/S3.
 - FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		OSC *15 4.1 to 4.4	PCL 4.3/4.5/4.6 *10	Oracle RAC /SEHA	VCS (including Oracle RAC) *16 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1 *14	
SPARC Solaris 11 (including OVM *4)	SP1X7FAC2F *8 (7115462/7115460)	EMPD3.1.0 or later	via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Supported (11.3)	Supported (11.3)	Supported (11.3)	Supported (11.3)	*7	-	Supported	-	-	
		MPxIO *11	Direct/via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	Supported	Supported	Supported (12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP0X7FAA4F *18	EMPD3.1.0 or later	Direct/via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
		MPxIO *11	Direct/via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	Supported	Supported	Supported (12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FAA2F/SP1X5FAA2F	EMPD3.1.0 or later	Direct/via switch	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	Supported	-	-	
	SP1X7FAA2F/SP1X5FAA2F 7101673/7101674, 7101681/7101682 (+ 7101675/7101676)	MPxIO *11	Direct/via switch	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	Supported	Supported (11gR2/12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	Supported	Supported	Supported (11gR2)	-	
		VxVM DMP	Direct/via switch	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	-	-	Supported 6.1.1 only	
	SP1X7FAB2F	EMPD3.1.0 or later	via switch	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	Supported	-	-	
	SP1X7FAB2F 7101673/7101674 (+ 7101679/7101680)	MPxIO *11	via switch	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	Supported	Supported (11gR2/12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	Supported	Supported	Supported (11gR2)	-	
		VxVM DMP	via switch	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	-	-	Supported 6.1.1 only	

- *1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
- *4 When configuring Storage Cluster, OVM is not supported.
- *7 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
- *8 When using SP1X7FAC2F, please apply SRU17081 or later.
- *10 PCL's I/O Fencing function is used for cluster configuration among guest domains.
- *11 When using MPxIO, please apply SRU15021 or later.
- *13 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *14 Veritas InfoScale Availability 7.1 or later is supported on Other Company's server only.
- *15 Oracle Solaris Cluster Geotraphic Edition is not supported.
- *16 Replication using Storage's remote copy function is not supported.
- *18 When using HBA SP0X7FAA4F, please apply SRU18021 or later.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		OSC *15 4.1 to 4.4	PCL 4.3/4.5 /4.6 *10	Oracle RAC /SEHA	VCS (including Oracle RAC) *16 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1 *14	
SPARC Solaris 11 (including OVM *4)	SP1X7FBC2F *17 (7115461/7115459)	EMPD3.1.0 or later	via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Supported (11.3)	Supported (11.3)	Supported (11.3)	Supported (11.3)	*7	-	Supported	-	-	
		MPxIO *11	Direct/via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	Supported	Supported	Supported (12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FBA2F/SP1X5FBA2F	EMPD3.1.0 or later	via switch	Supported (11.1 to 11.4)	Supported (11.3/11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	Supported	-	-	
	SP1X7FBA2F/SP1X5FBA2F 7101683/7101684, 7101689/7101690 (+ 7101685/7101686)	MPxIO *11	via switch	Supported (11.1 to 11.4)	Supported (11.3/11.4)	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	Supported	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	Supported	Supported	Supported (11gR2)	-	
		VxVM DMP	via switch	Supported (11.1 to 11.3)	Supported (11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	-	-	Supported 6.1.1 only	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F	EMPD3.1.0 or later	FCoE switch *13	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F 7101673/7101674, 7101681/7101682 (+ 7101677/7101678 or Copper)	MPxIO *11		Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	Supported	Supported (12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	Planned 2	-	
		VxVM DMP		Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	-	-	Planned 2	
	SP1X7FBR2F/SP1X7FBS2F SP1X5FBR2F/SP1X5FBS2F	EMPD3.1.0 or later	FCoE switch *13	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FBR2F/SP1X7FBS2F SP1X5FBR2F/SP1X5FBS2F 7101683/7101684, 7101689/7101690 (+ 7101687/7101688 or Copper)	MPxIO *11		Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	Supported	Supported (12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *3 *11		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	Planned 2	-	
		VxVM DMP		Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	-	-	Planned 2	
	SE0X7F21F/SE0X7F22F/ SE5X7F22G*2	EMPD3.1.0 or later	Direct/via switch	Supported (11.1 to 11.4)	Planned 2	Supported (11.1 to 11.4)	Planned 2	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	-	Supported	-	-	
	SE0X7F21F/SE0X7F22F/ SE5X7F22G*2 SG-XPCIE1FC-QF8 SG-XPCIE2FC-QF8 SG-XPCIEFCGBE-Q8	MPxIO *11	Direct/via switch	Supported (11.1 to 11.4)	Planned 2	Supported (11.1 to 11.4)	Planned 2	Yes *1	Supported	Supported	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	Supported	Supported	Supported (11gR2)	-	
		VxVM DMP	Direct/via switch	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	-	-	-	Supported 6.1.1 only	

- *1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
- *2 HBA SE5X7F22G and SE5X7F32G do not support EMPD 3.1.1.
- *3 When configuring Storage Cluster, Brocade 6505/6510/6520/DCX8510-4/DCX8510-8 switches cannot be used as a FC switch.
- *4 When configuring Storage Cluster, OVM is not supported.
- *7 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
- *10 PCL's I/O Fencing function is used for cluster configuration among guest domains.
- *11 When using MPxIO, please apply SRU15021 or later.
- *13 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *14 Veritas InfoScale Availability 7.1 or later is supported on Other Company's server only.
- *15 Oracle Solaris Cluster Geotraphic Edition is not supported.
- *16 Replication using Storage's remote copy function is not supported.
- *17 When using SP1X7FBC2F, please apply SRU17081 or later.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		OSC *15 4.1 to 4.4	PCL 4.3/4.5 /4.6 *10	Oracle RAC /SEHA	VCS (including Oracle RAC) *16 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1 *14	
SPARC Solaris 11 (including OVM *4)	SE0X7F31F/SE0X7F32F/ SE5X7F32G*2	EMPD3.1.0 or later	Direct/via switch	Supported (11.1 to 11.4)	Planned 2	Supported (11.1 to 11.4)	Planned 2	Yes *1	-	Supported	Supported 18c/19c	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	-	Supported	-	-	
	SE0X7F31F/SE0X7F32F/ SE5X7F32G*2 SG-XPCIE1FC-EM8 SG-XPCIE2FC-EM8 7105393/SG-XPCIEFCGBE-E8	MPxIO *11	Direct/via switch	Supported (11.1 to 11.4)	Planned 2	Supported (11.1 to 11.4)	Planned 2	Yes *1	Supported	Supported	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	Supported	Supported	Supported (11gR2)	-	
		VxVM DMP	Direct/via switch	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	SE0X7EC12F/SE0X7EF12F SG-XPCIEFCOE2-Q-SR, QLE8140/QLE8142 SG-XPCIEFCOE2-Q-TA QLE8150/QLE8152	MPxIO *11	FCoE switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	Yes *1	-	Supported	Supported (12cR1/12cR2/18c/19c)	-	
		MPxIO + Storage Cluster *11		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	Planned 2	-	
		VxVM DMP		Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	-	-	Planned 2	
	LPe32000 / LPe32002	MPxIO *11	Direct/via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	Supported		Supported (12cR1/12cR2/18c/19c)		
	QLe2740/QLe2742/QLe2764	MPxIO *11	Direct/via switch	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Supported (11.3/11.4)	Yes *1	Supported		Supported (12cR1/12cR2/18c/19c)		
	LPe16000 / LPe16002	MPxIO *11	via switch	Supported (11.1 to 11.4)	Planned 2	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	-	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	Supported	-	Supported (11gR2)	-	
		VxVM DMP	via switch	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Supported (11.1 to 11.3)	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	Supported (11.1/11.2)	*7	-	-	-	Supported 6.1.1 only	
	LPe12000/LPe12002/LPe1250	MPxIO *11	Direct/via switch	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	Supported	-	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	Supported	-	Supported (11gR2)	-	
		VxVM DMP	Direct/via switch	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	QLE2560/QLE2562	MPxIO *11	Direct/via switch	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	Supported	-	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		MPxIO + Storage Cluster *11	via switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	Supported	-	Supported (11gR2)	-	
		VxVM DMP	Direct/via switch	Supported (11.1 to 11.3)	Planned 2	Supported (11.1 to 11.3)	Planned 2	Yes *1	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	LP11000/LP11002/LP1150 LPe11000/LPe11002 LPe1150	MPxIO *11	Direct/ via switch	Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	Yes *1	Supported	-	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		VxVM DMP		Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	Yes *1	-	-	-	Supported	
	QLA2460/QLA2462/ QLE2460/QLE2462/QLE2464	MPxIO *11	Direct/ via switch	Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	Yes *1	Supported	-	Supported (11gR2/12cR1/12cR2/ 18c/19c)	-	
		VxVM DMP		Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	Yes *1	-	-	-	Supported	

- *1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
- *3 When configuring Storage Cluster, Brocade 6505/6510/6520/DCX8510-4/DCX8510-8 switches cannot be used as a FC switch.
- *4 When configuring Storage Cluster, OVM is not supported.
- *7 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
- *10 PCL's I/O Fencing function is used for cluster configuration among guest domains.
- *11 When using MPxIO, please apply SRU15021 or later.
- *13 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *14 Veritas InfoScale Availability 7.1 or later is supported on Other Company's server only.
- *15 Oracle Solaris Cluster Geotraphic Edition is not supported.
- *16 Replication using Storage's remote copy function is not supported.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		OSC *15 3.2/3.3	PCL 4.2/4.3/4.5 /4.6 *10	Oracle RAC 11gR2	VCS (including Oracle RAC) *16 5.1/6.0/6.1/6.2 *9 Veritas InfoScale Availability 7.0/7.1 *14	
SPARC Solaris10 (including OVM *4)	SP1X7FAA2F/SP1X5FAA2F	EMPD3.1.0 or later	Direct/via switch	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FAA2F/SP1X5FAA2F 7101673/7101674, 7101681/7101682 (+ 7101675/7101676)	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	Supported	Supported	Supported	-	
		MPxIO + Storage Cluster *12	via switch *13	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	*7	Supported	Supported	Supported	-	
		VxVM DMP	Direct/via switch	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	*7	-	-	-	Supported 6.1.1 only	
	SP1X7FAB2F	EMPD3.1.0 or later	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FAB2F 7101673/7101674 (+ 7101679/7101680)	MPxIO *12	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	Supported	Supported	Supported	-	
		MPxIO + Storage Cluster *12	via switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	*7	Supported	Supported	Supported	-	
		VxVM DMP	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	SP1X7FBA2F/SP1X5FBA2F	EMPD3.1.0 or later	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FBA2F/SP1X5FBA2F 7101683/7101684, 7101689/7101690 (+ 7101685/7101686)	MPxIO *12	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	Supported	Supported	Supported	-	
		MPxIO + Storage Cluster *12	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	*7	Supported	Supported	Supported	-	
		VxVM DMP	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1 *6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F	EMPD3.1.0 or later	FCoE switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F 7101673/7101674, 7101681/7101682 (+ 7101677/7101678 or Copper)	MPxIO *12		Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	Planned 2	-	
		MPxIO + Storage Cluster *12		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	Planned 2	-	
		VxVM DMP		Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	-	-	Planned 2	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*3 When configuring Storage Cluster, Brocade 6505/6510/6520/DCX8510-4/DCX8510-8 switches cannot be used as a FC switch.

*4 When configuring Storage Cluster, OVM is not supported.

*6 SAN boot on VxVM5.1 is not supported.

*7 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*9 Veritas Storage Foundation(VSF) 6.1/6.2 do not support Solaris 10 10/09(u8) and former, VSF 6.0 does not support Solaris 10 5/09(u7) and former. Thin provisioning function of ETERNUS is not supported on VSF 5.1.

*10 PCL's I/O Fencing function is used for cluster configuration among guest domains.

*12 When using MPxIO, please apply 151615-01 or later.

*13 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*14 Veritas InfoScale Availability 7.1 or later is supported on Other Company's server only.

*15 Oracle Solaris Cluster Geotraphic Edition is not supported.

*16 Replication using Storage's remote copy function is not supported.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		OSC *15 3.2/3.3	PCL 4.2/4.3/4.5 /4.6 *10	Oracle RAC 11gR2	VCS (including Oracle RAC) *16 5.1/6.0/6.1/6.2 *9 Veritas InfoScale Availability 7.0/7.1 *14	
SPARC Solaris10 (including OVM *4)	SP1X7FBR2F/SP1X7FBS2F SP1X5FBR2F/SP1X5FBS2F	EMPD3.1.0 or later	FCoE switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SP1X7FBR2F/SP1X7FBS2F SP1X5FBR2F/SP1X5FBS2F 7101683/7101684, 7101689/7101690 (+ 7101687/7101688 or Copper)	MPxIO *12		Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	Supported	Supported	Supported	-	
		MPxIO + Storage Cluster *3 *12		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	Planned 2	-	
		VxVM DMP		Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	-	-	Planned 2	
	SE0X7F21F/SE0X7F22F/ SE5X7F22G *2	EMPD3.1.0 or later	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *13	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SE0X7F21F/SE0X7F22F/ SE5X7F22G *2 SG-XPCIE1FC-QF8 SG-XPCIE2FC-QF8 SG-XPCIEFCGBE-Q8	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Planned 2	Yes *1	Supported	Supported	Supported	-	
		MPxIO + Storage Cluster *12	via switch *13	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Planned 2	*7	Supported	Supported	Supported	-	
		VxVM DMP	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	SE0X7F31F/SE0X7F32F/ SE5X7F32G *2	EMPD3.1.0 or later	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	-	-	
		EMPD3.1.1 or later + Storage Cluster	via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	-	-	
	SE0X7F31F/SE0X7F32F/ SE5X7F32G *2 SG-XPCIE1FC-EM8 SG-XPCIE2FC-EM8 7105393/SG-XPCIEFCGBE-E8	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	Supported	Supported	Supported	-	
		MPxIO + Storage Cluster *12	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	Supported	Supported	Supported	-	
		VxVM DMP	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	SE0X7EC12F/SE0X7EF12F SG-XPCIEFCOE2-Q-SR, QLE8140/QLE8142 SG-XPCIEFCOE2-Q-TA QLE8150/QLE8152	MPxIO *12	FCoE switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	Planned 2	-	
		MPxIO + Storage Cluster *12		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	Planned 2	Planned 2	-	
		VxVM DMP		Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	*7	-	-	-	Planned 2	
	SE0X7F11F/SE0X7F12F	EMPD3.1.0 or later	Direct/ via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	Supported	-	-	
		VxVM DMP		Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
	SG-XPCIE1FC-QF4/ SG-XPCIE2FC-QF4	MPxIO *12	Direct	Supported (5/09 or later)	N.A.	Supported (10/08 or later)	N.A.	No	-	-	-	-	
			via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	Yes *1	-	-	-	-	

- *1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
- *2 HBA SE5X7F22G and SE5X7F32G do not support EMPD 3.1.1.
- *3 When configuring Storage Cluster, Brocade 6505/6510/6520/DCX8510-4/DCX8510-8 switches cannot be used as a FC switch.
- *4 When configuring Storage Cluster, OVM is not supported.
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- *9 Veritas Storage Foundation(VSF) 6.1/6.2 do not support Solaris 10 10/09(u8) and former, VSF 6.0 does not support Solaris 10 5/09(u7) and former. Thin provisioning function of ETERNUS is not supported on VSF 5.1.
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- *15 Oracle Solaris Cluster Geotraphic Edition is not supported.
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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		OSC *15 3.2/3.3	PCL 4.2/4.3/4.5/4.6	Oracle RAC 11gR2	VCS (including Oracle RAC) *16 5.1/6.0/6.1/6.2 *9 Veritas InfoScale Availability 7.0/7.1 *14	
SPARC Solaris10 (including OVM *4)	Brocade 815/825	MPxIO *12	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	-	-	Supported	-	
	Brocade 415/425	MPxIO *12	via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	Yes *1	-	-	Supported	-	
	LPe16000 / LPe16002	MPxIO *12	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	Supported	-	Supported	-	
		MPxIO + Storage Cluster *12	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Supported (10/08 or later)	*7	Supported	-	Supported	-	
		VxVM DMP	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1 *6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	LPe12000/LPe12002/LPe1250	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1	Supported	-	Supported	-	
		MPxIO + Storage Cluster *12	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	Supported	-	Supported	-	
		VxVM DMP	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	QLE2560/QLE2562	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Planned 2	Yes *1	Supported	-	Supported	-	
		MPxIO + Storage Cluster *12	via switch *13	Supported (10/08 or later)	Supported (10/08 or later)	Supported (10/08 or later)	Planned 2	*7	Supported	-	Supported	-	
		VxVM DMP	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	Yes *1*6	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	*7	-	-	-	Supported 6.1.1 only	
	LP11000/LP11002/LP1150 LPe11000/LPe11002 LPe1150	MPxIO *12	Direct/ via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	Yes *1	Supported	-	Supported	-	
		VxVM DMP		Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	Yes *1*6	-	-	-	Supported	
	QLA2460/QLA2462/ QLE2460/QLE2462/QLE2464	MPxIO *12	Direct/ via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	Yes *1	Supported	-	Supported	-	
		VxVM DMP		Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	Yes *1*6	-	-	-	Supported	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*3 When configuring Storage Cluster, Brocade 6505/6510/6520/DCX8510-4/DCX8510-8 switches cannot be used as a FC switch.

*4 When configuring Storage Cluster, OVM is not supported.

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*7 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

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*12 When using MPxIO, please apply 151615-01 or later.

*13 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*14 Veritas InfoScale Availability 7.1 or later is supported on Other Company's server only.

*15 Oracle Solaris Cluster Geotraphic Edition is not supported.

*16 Replication using Storage's remote copy function is not supported.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Instruction for use
				DX S5/S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		
x86 Solaris11 *5	QLE2740/QLE2742 *19	MPxIO *11	via switch	Supported (11.3)	Supported (11.3)	Supported (11.3)	Planned 2	Yes *1	
	QLE2670/QLE2672	MPxIO *11	via switch	Supported (11.3)	Supported (11.3)	Supported (11.3)	Planned 2	Yes *1	
	Brocade 815/825	MPxIO *11	via switch	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
	Brocade 415/425	MPxIO *11	via switch	Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	No	
	LPe16000 / LPe16002	MPxIO *11	via switch	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
		MPxIO + Storage Cluster *11	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
	LPe12000/LPe12002/LPe1250	MPxIO *11	Direct/via switch	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
		MPxIO + Storage Cluster *11	via switch *3	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
	QLE2560/QLE2562	MPxIO *11	Direct/via switch	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
		MPxIO + Storage Cluster *11	via switch *13	Supported (11.1/11.2)	Planned 2	Supported (11.1/11.2)	Planned 2	No	
	LP11000/LP11002/LP1150 LPe11000/LPe11002 LPe1150	MPxIO *11	Direct/ via switch	Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	No	
	QLA2460/QLA2462/ QLE2460/QLE2462/QLE2464	MPxIO *11	Direct/ via switch	Supported (11.1/11.2)	N.A.	Supported (11.1/11.2)	N.A.	No	
x86 Solaris10 *5	Brocade 815/825	MPxIO *12	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
	Brocade 415/425	MPxIO *12	via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	No	
	LPe16000 / LPe16002	MPxIO *12	via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
		MPxIO *12	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
	LPe12000/LPe12002/LPe1250	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
		MPxIO + Storage Cluster *12	via switch *3	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
	QLE2560/QLE2562	MPxIO *12	Direct/via switch	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
		MPxIO + Storage Cluster *12	via switch *13	Supported (10/08 or later)	Planned 2	Supported (10/08 or later)	Planned 2	No	
	LP11000/LP11002/LP1150 LPe11000/LPe11002 LPe1150	MPxIO *12	Direct/ via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	No	
	QLA2460/QLA2462/ QLE2460/QLE2462/QLE2464	MPxIO *12	Direct/ via switch	Supported (10/08 or later)	N.A.	Supported (10/08 or later)	N.A.	No	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*3 When configuring Storage Cluster, Brocade 6505/6510/6520/DCX8510-4/DCX8510-8 switches cannot be used as a FC switch.

*5 Only HBAs sold by Oracle and HBAs mounted on each supported vendor server are supported.

*11 When using MPxIO, please apply SRU15021 or later.

*12 When using MPxIO, please apply 151615-01 or later.

*13 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*19 When using QLE2740/QLE2742, please apply SRU11.3.23.5.0 or later.

- Notes
- Please contact the server supplier for the server support status of OS and multipath software listed here.

- Please contact the product supplier for the operating condition of multipath software and adapter listed here.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Please use the latest version of adapter firmware and driver unless note is stated.

- Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- UNMAP function is not supported on Deduplication/Compression volume.

- In this document, the following abbreviations are used;

PCL (PRIMECLUSTER)

- Trademark symbols have been omitted from this document.

OS	Adapter	Path Failover	Connected type	Storage	iSCSI boot	Cluster		Instruction for use
				DX S5/S4/S3 series AF series/DX200F		PCL 4.2/4.3/4.5/4.6 *2	Oracle RAC /SEHA	
SPARC Solaris 11 (including OVM)	Each network interface card (NIC) and CNA *1 (using software initiator)	MPxIO *5	Direct/ via switch *4	Supported (11.1 to 11.4)	Yes *7 *9	Supported	Supported (11gR2, 12cR1/12cR2)	
		MPxIO + Storage Cluster *5 (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported (11.1/11.2)	No	Supported	Planned 2	*10
		MPxIO + Storage Cluster *5 (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	
SPARC Solaris 10 (including OVM)	Each network interface card (NIC) and CNA *1 (using software initiator)	MPxIO *6	Direct/ via switch *4	Supported (10/09 or later)	Yes *8 *9	-	-	
		MPxIO + Storage Cluster *6 (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported (10/09 or later)	No	Supported	Planned 2	*10 Path policy does not change after Storage Cluster FailOver.
		MPxIO + Storage Cluster *6 (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	

- *1 : Please ask server vendor about usable NIC and CNA part numbers
- *2 PCL's I/O Fencing function is used for cluster configuration among guest domains.
- *4 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, please use Catalyst firmware 12.2(54)SG1.
- *5 For either condition below, degradation due to one path failure may not trigger path failover.
 - Solaris 11.1 SRU14061 to SRU14071
 - Solaris 11.2 GA or laterHow to avoid : Set "conn-login-max" parameter value to "120". Example : # /usr/sbin/iscsiadm modify initiator-node -T conn-login-max=120
- *6 For the condition below, degradation due to one path failure may not trigger path failover.
 - Kernel patch 150400-14 or later is applied to Solaris 10.How to avoid : Set "conn-login-max" parameter value to "120". Example : # /usr/sbin/iscsiadm modify initiator-node -T conn-login-max=120
- *7 iSCSI Boot is supported on Fujitsu M10, Solaris 11.2 or later. Please refer to the server's latest product note for Boot instruction.
- *8 iSCSI Boot is supported on Fujitsu M10, Solaris 10 1/13 or later. Please refer to the server's latest product note for Boot instruction.
- *9 When ETERNUS iSCSI port used for iSCSI boot is shared among multiple servers, please share with Solaris OS servers only.
- *10 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

OS	Adapter	Path Failover	Connected type	Storage	iSCSI boot	Cluster		Instruction for use
				DX S4/S3 series AF series/DX200F (except AF S3 series)		PCL 4.3	Oracle RAC 11gR2	
x86 Solaris 11	Each network interface card (NIC) and CNA *1 (using software initiator)	MPxIO	Direct/ via switch *4	Supported (11.1/11.2)	No	N.A.	N.A.	
		MPxIO + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported (11.1/11.2)	No	N.A.	N.A.	
		MPxIO + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	
x86 Solaris 10	Each network interface card (NIC) and CNA *1 (using software initiator)	MPxIO	Direct/ via switch *4	Supported (10/08 or later)	No	N.A.	N.A.	
		MPxIO + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported (10/08 or later)	No	N.A.	N.A.	*10
		MPxIO + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	

*1 : Please ask server vendor about usable NIC and CNA part numbers

*4 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, please use Catalyst firmware 12.2(54)SG1.

*10 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

Solaris (SAS connection) Edition 169: 2021/11/26

- Notes**
- Please contact the server supplier for the server support status of OS and multipath software listed here.
 - Please contact the product supplier for the operating condition of multipath software and adapter listed here.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Please use the latest version of adapter firmware and driver unless note is stated.
 - In this document, the following abbreviations are used;
PCL (PRIMECLUSTER)
 - UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.2/4.3/4.5 /4.6 *3	
SPARC Solaris 11 (including OVM)	SP1X7SA3F/L/W	MPxIO	Direct/ via switch *2	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	For Solaris 11.4, please apply SRU19021 or later.
	SE0X7SA2F/ SG-SAS6-EXT-Z/ 7105387	MPxIO	Direct/ via switch *2	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	For Solaris 11.4, please apply SRU19021 or later.
	SE5X7SA1G	MPxIO	Direct/ via switch *2	Supported (11.1 to 11.4)	Supported (11.1 to 11.4)	Yes *1	Supported	For Solaris 11.4, please apply SRU19021 or later.
	SG-XPCIE8SAS-E-Z SG-XPCI8SAS-E-Z	MPxIO	Direct/ via switch *2	Supported (11.1/11.2/11.3)	-	Yes *1	-	
SPARC Solaris 10 (including OVM)	SE0X7SA2F/ SG-SAS6-EXT-Z/ 7105387	MPxIO	Direct/ via switch *2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	Supported	
	SE5X7SA1G	MPxIO	Direct/ via switch *2	Supported (10/08 or later)	Supported (10/08 or later)	Yes *1	Supported	
	SG-XPCIE8SAS-E-Z SG-XPCI8SAS-E-Z	MPxIO	Direct/ via switch *2	Supported (10/08 or later)	-	Yes *1	-	
x86 Solaris 11	SG-XPCIE8SAS-E-Z SG-XPCI8SAS-E-Z	MPxIO	Direct/ via switch *2	Supported (11.1/11.2)	-	Yes *1	-	
x86 Solaris 10	SG-XPCIE8SAS-E-Z SG-XPCI8SAS-E-Z	MPxIO	Direct/ via switch *2	Supported (10/08 or later)	-	Yes *1	-	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 Only direct connection is supported on DX100 S4 and DX200 S4.

*3 PCL's I/O Fencing function is used for cluster configuration among guest domains.

Solaris (FCoE connection) Edition 131: 2019/3/28

Notes

- Please contact the server supplier for the server support status of OS and multipath software listed here.
- Please contact the product suppliers for the operating condition of multipath software and CNA listed here.
- Please use the latest version of CNA firmware and driver unless note is stated.
- Please contact the server supplier for connection availability of CNA and FCoE switch.
- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
- ETERNUS DX60 S3 is not applicable since FCoE interface is not supported.
- UNMAP function is not supported on Deduplication/Compression volume.
- Trademark symbols have been omitted from this document.
- In this document, the following abbreviations are used;
PCL (PRIMECLUSTER)

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Cluster	Instruction for use
				DX S3 series		PCL 4.3/4.5 *5	
SPARC Solaris 11 (including OVM)	SE0X7EC12F/SE0X7EF12F SG-XPCIEFCOE2-Q-SR, QLE8140/QLE8142 SG-XPCIEFCOE2-Q-TA QLE8150/QLE8152	MPxIO *3	FCoE switch	Supported (11.1/11.2)	Yes *1	Supported	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F	EMPD3.1.0 or later	FCoE switch	Supported (11.1 to 11.3)	Yes *1	Supported	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F 7101673/7101674, 7101681/7101682 (+ 7101677/7101678 or Copper)	MPxIO *3	FCoE switch	Supported (11.1 to 11.3)	Yes *1	Supported	
	SP1X7FBR2F/SP1X7FBS2F SP1X5FBR2F/SP1X5FBS2F 7101683/7101684, 7101689/7101690 (+ 7101687/7101688 or Copper)	MPxIO *3	FCoE switch	Supported (11.1 to 11.3)	Yes *1	Supported	
	OcE10102	MPxIO *3	FCoE switch	Supported (11.1 to 11.3)	Yes *1	-	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

*3 When using MPxIO, please apply SRU15021 or later.

*5 PCL's I/O Fencing function is used for cluster configuration among guest domains.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Cluster	Instruction for use
				DX S3 series		PCL 4.2/4.3/4.5 *5	
SPARC Solaris 10 (including OVM)	SE0X7EC12F/SE0X7EF12F SG-XPCIEFCOE2-Q-SR, QLE8140/QLE8142 SG-XPCIEFCOE2-Q-TA QLE8150/QLE8152	MPxIO *4	FCoE switch	Supported (10/08 or later)	Yes *1	Supported	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F	EMPD3.1.0 or later	FCoE switch	Supported (10/08 or later)	Yes *1	Supported	
	SP1X7FAR2F/SP1X7FAS2F SP1X5FAR2F/SP1X5FAS2F 7101673/7101674, 7101681/7101682 (+ 7101677/7101678 or Copper)	MPxIO *4	FCoE switch	Supported (10/08 or later)	Yes *1	Supported	
	SP1X7FBR2F/SP1X7FBS2F SP1X5FBR2F/SP1X5FBS2F 7101683/7101684, 7101689/7101690 (+ 7101687/7101688 or Copper)	MPxIO *4	FCoE switch	Supported (10/08 or later)	Yes *1	Supported	
	OcE10102	MPxIO *4	FCoE switch	Supported (10/08 or later)	Yes *1	-	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

*4 When using MPxIO, please apply 151615-01 or later.

*5 PCL's I/O Fencing function is used for cluster configuration among guest domains.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
x86 Solaris 11 *2	OCe10102	MPxIO *3	FCoE switch	Supported (11.1/11.2)	Yes *1	
x86 Solaris 10 *2	OCe10102	MPxIO *4	FCoE switch	Supported (10/08 or later)	Yes *1	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

*2 Only CNAs sold by Oracle and HBAs mounted on each supported vendor server are supported.

*3 When using MPxIO, please apply SRU15021 or later.

*4 When using MPxIO, please apply 151615-01 or later.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - DX8900 S4, AF S3 series are not supported.
 - Storage Cluster function is not supported on DX60 S4/S3.
 - In this document, the following abbreviations are used;
NMP (Native Multipathing), VCS (Veritas Cluster Server)

OS	HBA	Path Failover	Connected type	Storage		SAN boot	Cluster			Instruction for use
				DX S4/S3 series AF series DX200F (FC 8/16 Gbps port)	DX S4 series AF series (FC 32Gbps port)		ServiceGuard A.11.18 to A.11.20	Oracle RAC	VCS *3 5.0/5.1/6.0	
HP-UX 11iv3 (IPF/PA-RISC)	AH402A/AH403A 456972-B21(LPe1205) AT094A	NMP	Direct/via switch	Supported	Planned 2	Yes *1	Supported	Planned 2	-	
		NMP + Storage Cluster	via switch *4	Supported	Planned 2	*2	Supported	Planned 2	-	
		PV-Links	Direct/via switch	Supported	Planned 2	Yes *1	Supported	Planned 2	-	
		VxVM	Direct/via switch	Supported	Planned 2	No	-	-	Supported	
		VxVM + Storage Cluster	via switch *4	Supported	Planned 2	No	-	-	Supported 6.0.5	
	AH400A/AH401A 451871-B21(QMH2562)	NMP	Direct/via switch	Supported	Planned 2	Yes *1	Supported	Planned 2	-	
		NMP + Storage Cluster	via switch *4	Supported	Planned 2	*2	Supported	Planned 2	-	
		PV-Links	Direct/via switch	Supported	Planned 2	Yes *1	Supported	Planned 2	-	
		VxVM	Direct/via switch	Supported	Planned 2	No	-	-	Supported	
		VxVM + Storage Cluster	via switch *4	Supported	Planned 2	No	-	-	Supported 6.0.5	
	AD299A/AD355A AD221A/AD222A AD393A 403621-B21(LPe1105)	NMP	Direct/via switch	Supported	N.A.	Yes *1	Supported	Planned 2	-	
		NMP + Storage Cluster	via switch *4	Supported	N.A.	*2	Supported	Planned 2	-	
		PV-Links	Direct/via switch	Supported	N.A.	Yes *1	Supported	Planned 2	-	
		VxVM	Direct/via switch	Supported	N.A.	No	-	-	Supported	
		VxVM + Storage Cluster	via switch *4	Supported	N.A.	No	-	-	Supported 6.0.5	

- *1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
- *2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
- *3 Thin provisioning function of ETERNUS is not supported on Veritas Storage Foundation 5.0/5.1.
- *4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage		SAN boot	Cluster			Instruction for use
				DX S4/S3 series AF series DX200F (FC 8/16 Gbps port)	DX S4 series AF series (FC 32Gbps port)		ServiceGuard A.11.18/A11.19	Oracle RAC	VCS *3 5.0/5.1/6.0	
HP-UX 11iv3 (IPF/PA-RISC)	AB378A/AB378B AB379A/AB379B AD193A/AD194A AD300A 403619-B21(QMH2462)	NMP	Direct/via switch	Supported	N.A.	Yes *1	Supported	Planned 2	-	
		NMP + Storage Cluster	via switch *4	Supported	N.A.	*2	Supported	Planned 2	-	
		PV-Links	Direct/via switch	Supported	N.A.	Yes *1	Supported	Planned 2	-	
		VxVM	Direct/via switch	Supported	N.A.	No	-	-	Supported	
		VxVM + Storage Cluster	via switch *4	Supported	N.A.	No	-	-	Supported 6.0.5	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*3 Thin provisioning function of ETERNUS is not supported on Veritas Storage Foundation 5.0/5.1.

*4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage		SAN boot	Instruction for use
				DX S4/S3 series AF series DX200F (FC 8/16 Gbps port)	DX S4 series AF series (FC 32Gbps port)		
HP-UX 11iV3(IPF) + Integrity VM4.1/5.x	AH402A/AH403A 456972-B21(LPe1205) AT094A	NMP	Direct/via switch	Supported	Planned 2	Yes *1	
		PV-Links	Direct/via switch	Supported	Planned 2	Yes *1	
	AH400A/AH401A 451871-B21(QMH2562)	NMP	Direct/via switch	Supported	Planned 2	Yes *1	
		PV-Links	Direct/via switch	Supported	Planned 2	Yes *1	
	AD299A/AD355A AD221A/AD222A AD393A 403621-B21(LPe1105)	NMP	Direct/via switch	Supported	N.A.	Yes *1	
		PV-Links	Direct/via switch	Supported	N.A.	Yes *1	
	AB378A/AB378B AB379A/AB379B AD193A/AD194A AD300A 403619-B21(QMH2462)	NMP	Direct/via switch	Supported	N.A.	Yes *1	
		PV-Links	Direct/via switch	Supported	N.A.	Yes *1	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

HP-UX (iSCSI connection) Edition 146: 2019/11/5

- Notes**
- Please contact the server supplier for the server support status of OS and multipath software listed here.
 - Please contact the product supplier for operating condition of multipath software and adapter listed here.
 - Please use the latest version of adapter firmware and driver unless note is stated.
 - Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.
 - DX8900 S4, AF S3 series are not supported.
 - Storage Cluster function is not supported on DX60 S4/S3.
 - UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - In this document, the following abbreviations are used;
NMP (Native Multipathing)

OS	Adapter	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
				DX S4/S3 series AF series DX200F		
HP-UX 11iv3(IPF/PA-RISC)	NIC (using software initiator)	NMP	Direct / via switch *1	Supported	No	At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.
		NMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	
		NMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	
		PV-Links	Direct / via switch	Planned 2	No	

*1 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, please use Catalyst firmware 12.2(54)SG1.

AIX (FC connection) Edition 173: 2022/7/19

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - Storage Cluster function is not supported on DX60 S5/S4/S3.
 - In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), VCS (Veritas Cluster Server)
 - FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster			Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PowerHA 7.2	Oracle RAC	VCS 6.0/6.1/6.2 Veritas InfoScale Availability 7.0	
AIX7.2	FC:EN1A/EL5U /EN1B/EL5V CCIN:578F	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Planned 2	-	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Planned 2	-	
	FC: EL5B/EN0A/EN0B CCIN: 577F FC; EN2A/EN2B CCIN: 579D	EMPD	Direct/via switch	N.A.	N.A.	N.A.	N.A.	-	-	-	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Supported	Supported	-	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
		VxVM + Storage Cluster	via switch *4	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
	FC: 5735/5729 CCIN: 577D/5729	EMPD	Direct/via switch	N.A.	N.A.	N.A.	N.A.	-	-	-	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Supported	Supported	-	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
		VxVM + Storage Cluster	via switch *4	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
	FC: 5773/5774/5758/5759 1905/1910 CCIN: 5773/5774/5759 1910/280D/280E	EMPD	Direct/via switch	N.A.	N.A.	N.A.	N.A.	-	-	-	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	Supported	Supported	Planned 2	Yes *1 *6	Supported	Supported	-	
		MPIO + *5 Storage Cluster	via switch *4	Planned 2	N.A.	Planned 2	N.A.	No	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	N.A.	Planned 2	N.A.	No	-	-	Planned 2	
		VxVM + Storage Cluster	via switch *4	Planned 2	N.A.	Planned 2	N.A.	No	-	-	Planned 2	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*5 Plug-in for MPIO is required. Please download from Fujitsu Storage web.

<http://www.fujitsu.com/global/support/products/computing/storage/download/odm-aixmpio.html>

*6 FJSVmpio can not be uninstalled nor updated on SAN boot condition.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster			Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PowerHA 7.1	Oracle RAC	VCS 6.0/6.1/6.2 Veritas InfoScale Availability 7.0	
AIX7.1	FC:EN1A/EL5U /EN1B/EL5V CCIN:578F	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Planned 2	-	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Planned 2	-	
	FC: EL5B/EN0A/EN0B CCIN: 577F FC; EN2A/EN2B CCIN: 579D	EMPD	Direct/via switch	N.A.	N.A.	N.A.	N.A.	-	-	-	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Supported	Planned 2	-	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
		VxVM + Storage Cluster	via switch *4	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
	FC: EN0Y/EN12 CCIN: EN0Y	EMPD	Direct/via switch	N.A.	N.A.	N.A.	N.A.	-	-	-	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	Supported	Supported	Planned 2	No	Supported	Planned 2	-	
		MPIO + *5 Storage Cluster	via switch *4	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
		VxVM + Storage Cluster	via switch *4	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	Planned 2	
	FC: 5735/5729 CCIN: 577D/5729	EMPD	Direct/via switch	Supported	N.A.	Supported	N.A.	Yes *1	-	Planned 2	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		EMPD + Storage Cluster	via switch *4	Supported	N.A.	Supported	N.A.	*2	-	Planned 2	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	Planned 2	Supported	Planned 2	No	Supported	Planned 2	-	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Planned 2	Supported	Planned 2	No	Supported	Planned 2	-	
		VxVM	Direct/via switch	Supported	Planned 2	Supported	Planned 2	No	-	-	Supported	
		VxVM + Storage Cluster	via switch *4	Supported	Planned 2	Supported	Planned 2	No	-	-	Supported 6.1.1	
	FC: 5773/5774/5758/5759 1905/1910 CCIN: 5773/5774/5759 1910/280D/280E	EMPD	Direct/via switch	Supported	N.A.	Supported	N.A.	Yes *1	-	Planned 2	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		EMPD + Storage Cluster	via switch *4	Supported	N.A.	Supported	N.A.	*2	-	Planned 2	-	The sale of ETERNUS Multipath Driver AIX version was terminated.
		MPIO *5	Direct/via switch	Supported	N.A.	Supported	N.A.	No	Supported	Planned 2	-	
		MPIO + *5 Storage Cluster	via switch *4	Planned 2	N.A.	Planned 2	N.A.	No	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Supported	N.A.	Supported	N.A.	No	-	-	Supported	
		VxVM + Storage Cluster	via switch *4	Supported	N.A.	Planned 2	N.A.	No	-	-	Supported 6.1.1	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
*4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*5 Plug-in for MPIO is required. Please download from Fujitsu Storage web. <http://www.fujitsu.com/global/support/products/computing/storage/download/odm-aixmpio.html>
*6 FJSVmpio can not be uninstalled nor updated on SAN boot condition.

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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PowerHA	Oracle RAC	
AIX6.1	FC:EN1A/EL5U /EN1B/EL5V CCIN:578F	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
	FC: EL5B/EN0A/EN0B CCIN: 577F FC; EN2A/EN2B CCIN: 579D	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
	FC: EN0Y/EN12 CCIN: EN0Y	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
	FC: 5735/5729 CCIN: 577D/5729	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
	FC: 5773/5774/5758/5759 1905/1910 CCIN: 5773/5774/5759 1910/280D/280E	MPIO *5	Direct/via switch	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	
		MPIO + *5 Storage Cluster	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *6	Planned 2	Supported	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*5 Plug-in for MPIO is required. Please download from Fujitsu Storage web. <http://www.fujitsu.com/global/support/products/computing/storage/download/odm-aixmpio.html>

*6 FJSVmpio can not be uninstalled nor updated on SAN boot condition.

OS	HBA	Storage Cluster	Connected type	Storage				SAN boot	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		
VIOS 3.1	FC:EN1A/EL5U /EN1B/EL5V CCIN:578F	No	via switch	Supported	Supported	Supported	Supported	Yes *1 *9	There is no restriction for VIOS from ETERNUS point of view. Please consult IBM for VIOC usage condition, Redundancy of paths is managed by VIOS. Please check supported OS information of VIOC for Path Failover of VIOC.
		Yes	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *9	
	FC: EL5B/EN0A/EN0B CCIN: 577F FC; EN2A/EN2B CCIN: 579D	No	via switch	Supported	Supported	Supported	Supported	Yes *1 *9	
		Yes	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *9	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 To define ETERNUS LUN to VIOS, configure multipath configuration by using FJSVmpio. FJSVmpio can not be uninstalled nor updated on SAN boot condition.

OS	HBA	Storage Cluster	Connected type	Storage				SAN boot	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		
VIOS 2.2	FC: EL5B/EN0A/EN0B CCIN: 577F FC; EN2A/EN2B CCIN: 579D	No	via switch	Supported	Supported	Supported	Supported	Yes *1 *9	There is no restriction for VIOS from ETERNUS point of view. Please consult IBM for VIOC usage condition, Redundancy of paths is managed by VIOS. Please check supported OS information of VIOC for Path Failover of VIOC.
		Yes	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *9	
	FC: EN0Y/EN12 CCIN: EN0Y	No	via switch	Supported	Supported	Supported	Supported	Yes *1 *9	
		Yes	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *9	
	FC: 5735/5729 CCIN: 577D/5729	No	via switch	Supported	Supported	Supported	Supported	Yes *1 *9	
		Yes	via switch *4	Supported	Supported	Supported	Supported	Yes *1 *9	
	FC: 5773/5774/5758/5759 1905/1910 CCIN: 5773/5774/5759 1910/280D/280E	No	via switch	Supported	-	Supported	-	Yes *1 *9	
		Yes	via switch *4	Supported	-	Supported	-	Yes *1 *9	

*1 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 To define ETERNUS LUN to VIOS, configure multipath configuration by using FJSVmpio. FJSVmpio can not be uninstalled nor updated on SAN boot condition.

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- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the server supplier for connection availability of HBA and FC switch.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JFCn*, the character "*" can be any character applicable. Ex) MC-0JFC3* means MC-0JFC31 and MC-0JFC3L are applicable.

- When using Windows's vFC function, FC switch supporting NPIV is required. Only Windows OSs are supported as guest OSs.

- On VxVM configuration, UNMAP function is not supported on Deduplication/Compression volume.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- "Storage Space Direct function" using ETERNUS LUN is not supported.

- In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), WSFC (Windows Server Failover Clustering)

- FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2022 (including Hyper-V)	MC-0JFCR* MC-0JFCS* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCV* MC-0JFCW*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2022 (including Hyper-V)	MC-0JFCF* MC-0JFCG* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCK* MC-0JFCL*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCM* MC-0JFCN* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2022 (including Hyper-V)</div> <div>Windows Server IoT 2022 for Storage Standard</div>	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2022 (including Hyper-V)</div> <div>Windows Server IoT 2022 for Storage Standard</div>	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	VCS 6.1	
<div>Windows Server 2022 (including Hyper-V)</div> <div>Windows Server IoT 2022 for Storage Standard</div>	LPe36000 / LPe36002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	LPe35000 / LPe35002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	LPe32000 / LPe32002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	LPe31000 / LPe31002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	VCS 6.1	
Windows Server 2022 (including Hyper-V) Windows Server IoT 2022 for Storage Standard	QLE2870/QLE2872/ QLE2874 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	QLE2770/QLE2772/ QLE2774 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	QLE2740/QLE2742/ QLE2764 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	QLE2690/QLE2692/ QLE2694 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2019 (including Hyper-V)	MC-0JFCF* MC-0JFCG* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCK* MC-0JFCL*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCM* MC-0JFCN* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2019 (including Hyper-V)	MC-0JFC3* MC-0JFC9*	EMPD	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2019 (including Hyper-V)	MC-0JFC4* MC-0JFCA*	EMPD	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC5* MC-0JFJ6*	EMPD	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC7* MC-0JFC8*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 18c/19c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2019 (including Hyper-V)</div> <div>Windows Server IoT 2019 for Storage Standard</div>	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	HBA's driver version "14.0.326.17" or later is supported.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 18c/19c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2019 (including Hyper-V)</div> <div>Windows Server IoT 2019 for Storage Standard</div>	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402 MC-FC162E	EMPD	Switch blade	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*4 SAN boot is supported on 16Gbps Link Speed only.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c	CLUSTER Pro X	LifeKeeper v8 or later	VCS 6.1	
Windows Server 2019 (including Hyper-V) Windows Server IoT 2019 for Storage Standard	LPe36000 / LPe36002 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	HBA's driver version "14.0.326.17" or later is supported.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	LPe35000 / LPe35002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	LPe32000 / LPe32002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	HBA's driver version "11.2.1135.0" or later is supported.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	LPe31000 / LPe31002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *4 SAN boot is supported on 16Gbps Link Speed only.
 *7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c	CLUSTER Pro X	LifeKeeper v8 or later	VCS 6.1	
Windows Server 2019 (including Hyper-V) Windows Server IoT 2019 for Storage Standard	QLE2870/QLE2872/ QLE2874 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	QLE2770/QLE2772/ QLE2774 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	QLE2740/QLE2742/ QLE2764 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	HBA's driver version "STOR Miniport 9.2.3.20" or later is supported.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 19c	CLUSTER Pro X	LifeKeeper v8 or later	VCS 6.1	
<div>Windows Server 2019 (including Hyper-V)</div> <div>Windows Server IoT 2019 for Storage Standard</div>	QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2016 (including Hyper-V) *5	MC-0JFCF* MC-0JFCG* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFC* MC-0JFCL*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported HBA driver version is "STOR Miniport 9.2.3.20" or later.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCM* MC-0JFCN* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported HBA driver version is "STOR Miniport 9.2.3.20" or later.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCP* MC-0JFCQ* *5	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
	MC-0JFC5* MC-0JFJ6*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	

- *3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
- *4 SAN boot is supported on 16Gbps Link Speed only.
- *5 Thin Provisioning function will be supported on DX8900 S4.
- *7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
- *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
- *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2016 (including Hyper-V) *5	MC-0JFC7* MC-0JFC8*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*4 SAN boot is supported on 16Gbps Link Speed only.
*5 Thin Provisioning function will be supported on DX8900 S4.
*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 12c R2/18c/19c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016 *5	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *7	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	HBA's driver version "14.0.326.17" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *7	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	HBA's driver version "14.0.326.17" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	HBA's driver version "STOR Miniport 9.4.3.21" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	HBA's driver version "11.2.1135.0" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	HBA's driver version "STOR Miniport 9.2.3.20" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	

*1 EMPD does not support Windows Storage Server 2016

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*5 Thin Provisioning function will be supported on DX8900 S4.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 12c R2/18c/19c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016 *5	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Planned 2	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Planned 2	Planned 2	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402 MC-FC162E	EMPD *1	Switch blade	Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Planned 2	Planned 2	

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*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*5 Thin Provisioning function will be supported on DX8900 S4.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 12c R2/18c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016 *5	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD *1	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FCD02 PG-FCD202 S26361-F3874-L1 MC-FC82E	EMPD *1	Switch blade/ Pass-through blade	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster *8		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD *1	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Planned 2	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Planned 2	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	

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*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 12c R2/18c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	VCS 6.1	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016 *5	LPe36000 / LPe36002 or OEM products *7	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	HBA's driver version "14.0.326.17" or later is supported.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	LPe35000 / LPe35002 or OEM products *7	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	HBA's driver version "14.0.326.17" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLE2870/QLE2872/ QLE2874 or OEM products	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	HBA's driver version "STOR Miniport 9.4.3.21" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLE2770/QLE2772/ QLE2774 or OEM products	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	HBA's driver version "STOR Miniport 9.4.3.21" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	

*1 EMPD does not support Windows Storage Server 2016

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*5 Thin Provisioning function will be supported on DX8900 S4.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 12c R2/18c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	VCS 6.1	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016 *5	LPe32000 / LPe32002 or OEM products *7	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	HBA's driver version "11.2.1135.0" or later is supported.
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	LPe31000 / LPe31002 or OEM products *7	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLe2740/QLe2742/ QLe2764 or OEM products	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	HBA's driver version "STOR Miniport 9.2.3.20" or later is supported.
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Planned 2	-	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLE2690/ QLE2692/ QLE2694	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	

*1 EMPD does not support Windows Storage Server 2016

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*5 Thin Provisioning function will be supported on DX8900 S4.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC /SEHA 12c R2/18c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	VCS 6.1	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016 *5	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD *1	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD *1	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	-	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	EMPD *1	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	-	
		EMPD *1 + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	

*1 EMPD does not support Windows Storage Server 2016

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*5 Thin Provisioning function will be supported on DX8900 S4.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2012R2 (including Hyper-V)	MC-0JFCF* MC-0JFCG* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC* MC-0JFCL*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCM* MC-0JFCN* *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Planned 2	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Planned 2	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2012R2 (including Hyper-V)	MC-0JFC5* MC-0JFC6*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
	MC-0JFC7* MC-0JFC8*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	
	MC-0JFC11/MC-0JFC21	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *4 SAN boot is supported on 16Gbps Link Speed only.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
<div>Windows Server 2012R2 (including Hyper-V)</div> <div>Windows Storage Server 2012R2</div>	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster	via switch *10	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Supported	
	PY-FC12/ PYBFC121/PYBFC122 S26361-F4994-E402/ S26361-F4994-L402	EMPD	Switch blade	Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Supported	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
<div>Windows Server 2012R2 (including Hyper-V)</div> <div>Windows Storage Server 2012R2</div>	PY-FCD02 PG-FCD202 S26361-F3874-L1	EMPD	Switch blade/ Pass-through blade	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	

Windows Server 2012R2 (including Hyper-V) Windows Storage Server 2012R2	PY-CN202 PG-292B S26361-F3592-L2	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	VCS 6.1	
<div>Windows Server 2012R2 (including Hyper-V)</div> <div>Windows Storage Server 2012R2</div>	LPe32000 / LPe32002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	LPe31000 / LPe31002 or OEM products *7	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLe2740/QLe2742/ QLe2764 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*7 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	VCS 6.1	
<div>Windows Server 2012R2 (including Hyper-V)</div> <div>Windows Storage Server 2012R2</div>	QLE2690/ QLE2692/ QLE2694	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Brocade Brocade 1860 *6 or OEM products	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Brocade Brocade 815/825 or OEM products	EMPD	via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*6 Direct connection is supported only with 16Gbps CA.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	VCS 6.1	
<div>Windows Server 2012R2 (including Hyper-V)</div> <div>Windows Storage Server 2012R2</div>	Emulex OCe10102 or OEM products	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Brocade Brocade 415/425 or OEM products	EMPD	via switch	Supported	N.A.	Supported	N.A.	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled		Supported	N.A.	Supported	N.A.	Yes *3	Supported	Supported	Supported	Supported	-	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		WSFC	
Windows Server 2012 (including Hyper-V)	MC-0JFC3* MC-0JFC9*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	
		OS bundled	Direct/via switch	Planned 1	Planned 2	Planned 1	Planned 2	Yes	Planned 1	
		OS bundled + Storage Cluster *8	via switch *10	Planned 1	Planned 2	Planned 1	Planned 2	*2	Planned 1	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	
		OS bundled	Direct/via switch	Planned 1	Planned 2	Planned 1	Planned 2	Yes	Planned 1	
		OS bundled + Storage Cluster *8	via switch *10	Planned 1	Planned 2	Planned 1	Planned 2	*2	Planned 1	
	MC-0JFC5* MC-0JFJ6*	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	
		OS bundled	Direct/via switch	Planned 1	Planned 2	Planned 1	Planned 2	Yes	Planned 1	
		OS bundled + Storage Cluster *8	via switch *10	Planned 1	Planned 2	Planned 1	Planned 2	*2	Planned 1	
	MC-0JFC7* MC-0JFC8*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	
		OS bundled	Direct/via switch	Planned 1	Planned 2	Planned 1	Planned 2	Yes	Planned 1	
		OS bundled + Storage Cluster *8	via switch *10	Planned 1	Planned 2	Planned 1	Planned 2	*2	Planned 1	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	
		OS bundled	Direct/via switch	Planned 1	Planned 2	Planned 1	Planned 2	Yes	Planned 1	
		OS bundled + Storage Cluster *8	via switch *10	Planned 1	Planned 2	Planned 1	Planned 2	*2	Planned 1	
	MC-0JFC11/MC-0JFC21	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
Windows Server 2012 (including Hyper-V) Windows Storage Server 2012	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3*4	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	EMPD	via switch blade	Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8		Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	Supported	Supported	Yes *4	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8		Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	EMPD	via switch blade/ Pass-through blade	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8		Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8		Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
 *3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *4 SAN boot is supported on 16Gbps Link Speed only.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster				Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
Windows Server 2012 (including Hyper-V) Windows Storage Server 2012	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Supported	Supported	Supported	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	
	PY-CN202 PG-292B S26361-F3592-L2	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes	Supported	Planned 2	Supported	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	VCS 6.0/6.1	
Windows Server 2012 (including Hyper-V) Windows Storage Server 2012	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3 *4	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLE2690/ QLE2692/ QLE2694	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Supported	Supported	Supported	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Supported	Supported	Supported	*2	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Brocade Brocade 1860 *6 or OEM products	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is supported on 16Gbps Link Speed only.

*6 Direct connection is supported only with 16Gbps CA.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster					Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	VCS 6.0/6.1	
Windows Server 2012 (including Hyper-V) Windows Storage Server 2012	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		EMPD + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	-	
		OS bundled	Direct/via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled + Storage Cluster *8	via switch *10	Supported	Planned 2	Supported	Planned 2	*2	Supported	Supported	Supported	Supported	-	
		VxVM	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Brocade Brocade 815/825 or OEM products	EMPD	via switch	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Supported	Supported	Supported	-	
	Emulex OCe10102 or OEM products	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *10	Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported	Planned 2	Supported	Planned 2	Yes *3	Supported	Planned 2	Supported	Supported	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	*2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	Planned 2	
	Brocade Brocade 415/425 or OEM products	EMPD	via switch	Supported	N.A.	Supported	N.A.	Yes *3	Supported	Supported	Supported	Supported	-	
		OS bundled		Supported	N.A.	Supported	N.A.	Yes *3	Supported	Supported	Supported	Supported	-	

*2 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

Notes

- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JCEn*, the character "*" can be any character applicable. Ex) MC-0JCE6* means MC-0JCE61 and MC-0JCE62 are applicable.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- "Storage Space Direct function" using ETERNUS LUN is not supported.

- In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), WSFC (Windows Server Failover Clustering)

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	
Windows Server 2022 (including Hyper-V) Windows Server IoT 2022 for Storage Standard	Software Initiator	NIC for PRIMEQUEST 3000 NIC for PRIMEQUEST 4000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	
Windows Server 2022 (including Hyper-V) Windows Server IoT 2022 for Storage Standard	Software Initiator	NIC and CNA for PRIMERGY *1	EMPD	Direct / via switch *3	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Supported	Planned 2	Planned 2	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
		NIC / CNA *1	EMPD	Direct / via switch *3	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Supported	Planned 2	Planned 2	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	
Windows Server 2019 (including Hyper-V)	Software Initiator	NIC for PRIMEQUEST 3000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Supported	Planned 2	Planned 2	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		NIC for PRIMEQUEST 2000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Supported	Planned 2	Planned 2	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	
Windows Server 2019 (including Hyper-V) Windows Server IoT 2019 for Storage Standard	Software Initiator	NIC and CNA for PRIMERGY *1	EMPD	Direct / via switch *3	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Supported	Planned 2	Planned 2	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
	Software Initiator	Intel NIC / CNA *1	EMPD	Direct / via switch *3	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Supported	Planned 2	Planned 2	*6, *7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA 19c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2019 (including Hyper-V)</div> <div>Windows Server IoT 2019 for Storage Standard</div>	Hardware Initiator	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch *3	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	switch blade	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe14401B	EMPD	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch *3	Planned 2	Yes *2	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Yes *2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe11102	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*2 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.
*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA	CLUSTER Pro X	LifeKeeper v8 or later	
Windows Server 2016 (including Hyper-V)	Software Initiator	NIC for PRIMEQUEST 3000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		NIC for PRIMEQUEST 2000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*8 EMPD does not support Windows Storage Server 2016

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA 12c R2/18c/19c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	
<div>Windows Server 2016 (including Hyper-V)</div> <div>Windows Storage Server 2016</div>	Software Initiator	NIC and CNA for PRIMERGY *1	EMPD *8	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
	Hardware Initiator	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch *3	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Yes	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	switch blade	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*8 EMPD does not support Windows Storage Server 2016

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC /SEHA 12c R2/18c/19c	CLUSTER Pro X 4.0 or later	LifeKeeper v8 or later	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016	Software Initiator	Intel NIC / CNA *1	EMPD *8	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
	Hardware Initiator	Emulex OCe14401B	EMPD	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch *3	Planned 2	Yes *2	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Yes *2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe11102	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.
 *2 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.
 *3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.
 *8 EMPD does not support Windows Storage Server 2016

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
Windows Server 2012R2 (including Hyper-V) Windows Storage Server 2012R2	Software Initiator	NIC and CNA for PRIMERGY *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
		NIC for PRIMEQUEST 3000 NIC for PRIMEQUEST 2000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch	Supported	No	Supported	Supported	Supported	Supported *5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
		NIC for PRIMEQUEST 1000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	-	-	-	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*5 ETERNUS's 10GBASE-T interface connection is not supported.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2	LifeKeeper v8 or later	
Windows Server 2012R2 (including Hyper-V) Windows Storage Server 2012R2	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
		PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	Direct / via switch *3	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch *3	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch *3	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	switch blade	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		MC-0JCE6*	EMPD	Direct / via switch *3	Supported	Yes	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch	Supported	Yes *2	Supported	Supported	Planned 2	Planned 2	

*2 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S5/S4/S3 series AF series/DX200F		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
<div>Windows Server 2012R2 (including Hyper-V)</div> <div>Windows Storage Server 2012R2</div>	Software Initiator	Intel NIC / CNA *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
		Emulex OCe14401B	EMPD	Direct / via switch *3	Supported	Yes *2	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	Yes *2	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch *3	Supported	Yes *2	Supported	Supported	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
			OS bundled	Direct / via switch *3	Supported	Yes *2	Supported	Supported	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported	No	Supported	Planned 2	Planned 2	Planned 2	*6, *7
		Emulex OCe11102	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.

*2 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*5 ETERNUS's 10GBASE-T interface connection is not supported.

*6 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*7 A Pass-through disk on Hyper-V is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S4/S3 series AF series/DX200F (except AF S3 series)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
Windows Server 2012 (including Hyper-V) Windows Storage Server 2012	Software Initiator	NIC and CNA for PRIMERGY *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		NIC for PRIMEQUEST 2000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	N.A.	N.A.	N.A.	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	N.A.	N.A.	N.A.	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	N.A.	N.A.	N.A.	
		NIC for PRIMEQUEST 1000 *1	EMPD	Direct / via switch *3	Supported	No	Supported	N.A.	N.A.	N.A.	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	N.A.	N.A.	N.A.	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	N.A.	N.A.	N.A.	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	switch blade	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		MC-0JCE6*	EMPD	Direct / via switch *3	Supported	Yes	Supported	-	-	-	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	-	-	-	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	-	-	-	
			OS bundled	Direct / via switch	Planned 1	Yes *2	Planned 1	-	-	-	

*1 Please contact server supplier about available NIC and CNA.
 *2 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.
 *3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.
 *5 ETERNUS's 10GBASE-T interface connection is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster				Instruction for use
					DX S4/S3 series AF series/DX200F (except AF S3 series)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1/3.2 (except DX8900 S4)	LifeKeeper v8 or later (except DX8900 S4)	
<div>Windows Server 2012 (including Hyper-V)</div> <div>Windows Storage Server 2012</div>	Software Initiator	Intel NIC / CNA *1	EMPD	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Supported	No	Supported	Supported	Supported	Supported *5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		Emulex OCe11102	EMPD	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
			OS bundled	Direct / via switch *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*1 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*5 ETERNUS's 10GBASE-T interface connection is not supported.

Windows (SAS connection) Edition 183: 2023/12/22

- Notes**
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please use the latest version of server BIOS unless note is stated.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Trademark symbols have been omitted from this document.
 - "Storage Space Direct function" using ETERNUS LUN is not supported.
 - In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), WSFC (Windows Server Failover Clustering)

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster				Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		WSFC	Oracle RAC /SEHA 19c/21c	CLUSTER Pro X	LifeKeeper v8 or later	
Windows Server 2022 (including Hyper-V) Windows Server IoT 2022 for Storage Standard	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	
	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL S26361-F5793-E251	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	
	PY-SC3FBE/PYBSC3FBE/ PYBSC3FBEL	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	
	PY-SC3FE/PYBSC3FE/ PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	
	LSI SAS9500-16e	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	
	LSI SAS9400-8e	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	
	LSI SAS9300-8e	EMPD	Direct	Planned 2	Supported	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Planned 2	Supported	Planned 2	Planned 2	

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster				Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		WSFC	Oracle RAC /SEHA 18c/19c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2019 (including Hyper-V)</div> <div>Windows Server IoT 2019 for Storage Standard</div>	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC3FBE/PYBSC3FBE/ PYBSC3FBEL	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC3FE/PYBSC3FE/ PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster				Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		WSFC	Oracle RAC /SEHA 18c/19c	CLUSTER Pro X	LifeKeeper v8 or later	
<div>Windows Server 2019 (including Hyper-V)</div> <div>Windows Server IoT 2019 for Storage Standard</div>	LSI SAS9500-16e	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	LSI SAS9400-8e	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	LSI SAS9300-8e	EMPD	Direct	Planned 2	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	LSI SAS9200-8e	EMPD	Direct	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled		Planned 2	Planned 2		Planned 2	Planned 2	Planned 2	Planned 2	

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster				Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		WSFC	Oracle RAC /SEHA 18c/19c	CLUSTER Pro X	LifeKeeper v8 or later	
Windows Server 2016 (including Hyper-V) Windows Storage Server 2016	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	EMPD	Direct	Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	HBA's driver version "2.61.41.00" or later is supported.
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL	EMPD *3	Direct	Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC3FBE/PYBSC3FBE/ PYBSC3FBEL	EMPD *3	Direct	Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC3FE/PYBSC3FE/ PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD *3	Direct	Supported	Supported	No	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Supported	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD *3	Direct	Supported	Supported	No	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Supported	Supported	No	Supported	Supported	Planned 2	Planned 2	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD *3	Switch blade/ Pass-through blade	Supported	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
		OS bundled		Supported	Supported	No	Supported	Planned 2	Planned 2	Planned 2	
	LSI SAS9500-16e	EMPD	Direct	Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	HBA's driver version "2.61.41.00" or later is supported.
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	LSI SAS9400-8e	EMPD *3	Direct	Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Planned 2	Supported	No	Supported	Supported	Planned 2	Planned 2	
	LSI SAS9300-8e	EMPD *3	Direct/ via switch *2	Supported	Supported	Yes *1	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Supported	Supported		Supported	Supported	Planned 2	Planned 2	
	LSI SAS9200-8e	EMPD *3	Direct/ via switch *2	Supported	Supported	Yes *1	Supported	Supported	Planned 2	Planned 2	
		OS bundled		Supported	Supported		Supported	Supported	Planned 2	Planned 2	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 Only direct connection is supported on DX100 S4 and DX200 S4.

*3 EMPD does not support Windows Storage Server 2016

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster				Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1 or later	LifeKeeper v8 or later	
Windows Server 2012R2 (including Hyper-V) Windows Storage Server 2012R2	PY-SC3FE/PYBSC3FE/ PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported	Supported	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	No	Supported	Supported	Supported	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported	Supported	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	No	Supported	Supported	Supported	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Supported	Supported	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	No	Supported	Supported	Supported	Supported	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	EMPD	Direct	Supported	-	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	-	No	Supported	Supported	Supported	Supported	
	LSI SAS9300-8e	EMPD	Direct/ via switch *2	Supported	Supported	Yes *1	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported		Supported	Supported	Supported	Supported	
	LSI SAS9200-8e	EMPD	Direct/ via switch *2	Supported	Supported	Yes *1	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported		Supported	Supported	Supported	Supported	
	LSI SAS3442E-R	EMPD	Direct	Supported	-	Yes *1	Supported	Supported	Supported	Supported	
		OS bundled		Supported	-		Supported	Supported	Supported	Supported	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 Only direct connection is supported on DX100 S4 and DX200 S4.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster				Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S4 DX100 S4 DX200 S4 (SAS 12Gbps port)		WSFC	Oracle RAC 11g R2/12c R1	CLUSTER Pro X 3.1 or later	LifeKeeper v8 or later	
Windows Server 2012 (including Hyper-V) Windows Storage Server 2012	PY-SC3FE/PYBSC3FE/ PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported	Supported	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	No	Supported	Supported	Supported	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported	Supported	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	No	Supported	Supported	Supported	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Supported	Supported	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported	No	Supported	Supported	Supported	Supported	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	EMPD	Direct	Supported	-	No	Supported	Supported	Supported	Supported	
		OS bundled		Supported	-	No	Supported	Supported	Supported	Supported	
	LSI SAS9300-8e	EMPD	Direct/ via switch *2	Supported	Supported	Yes *1	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported		Supported	Supported	Supported	Supported	
	LSI SAS9200-8e	EMPD	Direct/ via switch *2	Supported	Supported	Yes *1	Supported	Supported	Supported	Supported	
		OS bundled		Supported	Supported		Supported	Supported	Supported	Supported	
	LSI SAS3442E-R	EMPD	Direct	Supported	-	Yes *1	Supported	Supported	Supported	Supported	
		OS bundled		Supported	-		Supported	Supported	Supported	Supported	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 Only direct connection is supported on DX100 S4 and DX200 S4.

Notes

- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the server supplier for connection availability of HBA and FC switch.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- On Oracle Linux and SUSE Linux Enterprise Server environment or on VxVM configuration, UNMAP function is not supported on Deduplication/Compression volume.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JFCn*, the character "*" can be any character applicable. Ex) MC-0JFC3* means MC-0JFC31 and MC-0JFC3L are applicable.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- In this document, the following abbreviations are used;

EMPD (ETERNUS Multipath Driver), RHEL (Red Hat Enterprise Linux), PCL (PRIMECLUSTER), VCS (Veritas Cluster Server)

- FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.7 *1	
Red Hat Enterprise Linux (Intel64) 9 & KVM	MC-0JFCR* MC-0JFCS* *7	EMPD	Direct/ via switch	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
	MC-0JFCV* MC-0JFCW* 	EMPD	Direct/ via switch	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.7 *1	
Red Hat Enterprise Linux (Intel64) 9 & KVM	MC-0JFCM* MC-0JFCN* *20	EMPD	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		EMPD + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS標準	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		OS標準 + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
	MC-0JFCF* MC-0JFCG* *20	EMPD	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		EMPD + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS標準	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		OS標準 + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
	MC-0JFCK* MC-0JFCL*	EMPD	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		EMPD + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS標準	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		OS標準 + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
	MC-0JFCP* MC-0JFCQ*	EMPD	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		EMPD + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	
		OS標準	直結/ スイッチ	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported *16	
		OS標準 + Storage Cluster *8	スイッチ *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported *16	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 PCL 4.6 is supported. But, shared disk and GDS resource settings are not supported.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.7 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper V9.4 or later *7	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS	ClusterPerfect	
Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	

Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

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*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*17 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster						Instruction for use	
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.7 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper V9.4 or later *7	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS		ClusterPerfect
Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	Emulex LPe36000 / LPe36002 or OEM products *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	Emulex LPe35000 / LPe35002 or OEM products *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*17 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.7 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper V9.4 or later *7	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS	ClusterPerfect	
Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	QLogic QLE2870/QLE2872/QLE2874 or OEM products	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	QLogic QLE2770/QLE2772/QLE2774 or OEM products	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	QLogic QLE2740/QLE2742/QLE2764 or OEM products	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	QLogic QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Supported 9.0/9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled + Storage Cluster *8	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	Yes	Supported	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.
 *3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *7 LifeKeeper does not support KVM.
 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
 *12 SAN boot is supported on 16Gbps Link Speed only.
 *15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
 *17 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.6 *1	
Red Hat Enterprise Linux (Intel64) 8 & KVM	MC-0JFCR* MC-0JFCS* *7	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
	MC-0JFCV* MC-0JFCW*	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	

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 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
 *11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
 *15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
 *16 PCL 4.6 is supported. But, shared disk and GDS resource settings are not supported.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.6 *1	
Red Hat Enterprise Linux (Intel64) 8 & KVM	MC-0JFCF* MC-0JFCG* *15	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Yes 8.2/8.4/8.6/8.8	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Yes 8.6/8.8	Supported *16	
	MC-0JFCK* MC-0JFCL*	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Yes	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
	MC-0JFCM* MC-0JFCN* *15	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Yes 8.2/8.4/8.6/8.8	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Yes 8.6/8.8	Supported *16	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported *16	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	
		OS bundled	Direct/ via switch	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Yes	Supported *16	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported *16	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 PCL 4.6 is supported. But, shared disk and GDS resource settings are not supported.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper V9.4 or later *7	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS	ClusterPerfect	
Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *15	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Yes 8.2/8.4/8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Yes 8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Yes 8.2/8.4/8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Yes 8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*17 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster						Instruction for use	
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper V9.4 or later *7	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS		ClusterPerfect
Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	Emulex LPe36000 / LPe36002 or OEM products *15	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	Emulex LPe35000 / LPe35002 or OEM products *15	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Yes 8.2/8.4/8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Yes 8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Supported 8.0 to 8.2/8.4/8.6/8.8 *17	Yes 8.2/8.4/8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Supported 8.1/8.6/8.8	Yes 8.6/8.8	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	

Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	QLogic QLE2770/QLE2772/QLE2774 or OEM products	EMPD	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Supported 8.4/8.6/8.8 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	QLogic QLE2740/QLE2742/QLE2764 or OEM products	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
	QLogic QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Supported 8.1 to 8.4/8.6/8.8 *17	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Supported 8.2/8.4/8.6/8.8*17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster *8	via switch *11	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Supported 8.6/8.8	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*17 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper V8.4 or later *7	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS	ClusterPerfect	
Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/ via switch	Supported 8.1 to 8.4/8.6 *17	Supported 8.1 to 8.4/8.6 *17	Supported 8.1 to 8.4/8.6 *17	Supported 8.1 to 8.4/8.6 *17	Yes 8.1 to 8.4	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.0 to 8.2/8.4*17	Supported 8.0 to 8.2/8.4*17	Supported 8.0 to 8.2/8.4*17	Supported 8.0 to 8.2/8.4*17	Yes*3 8.2/8.4	Supported	Supported	Planned 2	Planned 2	Supported	-	Supported	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2		-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2		-	-	-	-	-	Planned 2	-	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/ via switch	Supported 8.1 to 8.4 *17	Supported 8.1 to 8.4 *17	Supported 8.1 to 8.4 *17	Supported 8.1 to 8.4 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 8.2/8.4 *17	Supported 8.2/8.4 *17	Supported 8.2/8.4 *17	Supported 8.2/8.4 *17	Yes	Supported	Supported	Planned 2	Planned 2	Planned 2	-	Supported	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2		-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2		-	-	-	-	-	Planned 2	-	

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*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

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*12 SAN boot is supported on 16Gbps Link Speed only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*17 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.6 *1	
Red Hat Enterprise Linux (Intel64) 7 & KVM	MC-0JFCF* MC-0JFCG* *15	EMPD	Direct/ via switch	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFCK* MC-0JFCL*	EMPD	Direct/ via switch	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFCM* MC-0JFCN* *15	EMPD	Direct/ via switch	Supported 7.3 to 7.7	Supported 7.3 to 7.7	Supported 7.3 to 7.7	Supported 7.3 to 7.7	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.3 to 7.5	Supported 7.3 to 7.5	Supported 7.3 to 7.5	Supported 7.3 to 7.5	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/ via switch	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.3 to 7.5	Supported 7.3 to 7.5	Supported 7.3 to 7.5	Supported 7.3 to 7.5	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Supported 7.2 to 7.7/7.9	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.3 to 7.4	Supported 7.3 to 7.4	Supported 7.3 to 7.4	Supported 7.3 to 7.4	No	Supported	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/ via switch	Supported 7.1 to 7.7	Planned 2	Supported 7.1 to 7.7	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.1 to 7.5	Planned 2	Supported 7.1 to 7.5	Planned 2	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.1 to 7.7	Planned 2	Supported 7.1 to 7.7	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.1 to 7.3	Planned 2	Supported 7.1 to 7.3	Planned 2	No	Supported	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/ via switch	Supported 7.1 to 7.7	Planned 2	Supported 7.1 to 7.7	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.1 to 7.5	Planned 2	Supported 7.1 to 7.5	Planned 2	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.1 to 7.7	Planned 2	Supported 7.1 to 7.7	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.1 to 7.3	Planned 2	Supported 7.1 to 7.3	Planned 2	No	Supported	
	MC-0JFC5* MC-0JFC6*	EMPD	Direct/ via switch	Supported 7.1 to 7.6	Planned 2	Supported 7.1 to 7.6	Planned 2	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.1 to 7.5	Planned 2	Supported 7.1 to 7.5	Planned 2	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.6	Planned 2	Supported 7.2 to 7.6	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.1 to 7.3	Planned 2	Supported 7.1 to 7.3	Planned 2	No	Supported	

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*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.6 *1	
Red Hat Enterprise Linux (Intel64) 7 & KVM	MC-0JFC7* MC-0JFC8*	EMPD	Direct/ via switch	Supported 7.1 to 7.7	Supported 7.1 to 7.7	Supported 7.1 to 7.7	Supported 7.1 to 7.7	Yes *3 *12	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Supported 7.1 to 7.5	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.1 to 7.7	Supported 7.1 to 7.7	Supported 7.1 to 7.7	Supported 7.1 to 7.7	Yes *3 *12	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.1 to 7.4	Supported 7.1 to 7.4	Supported 7.1 to 7.4	Supported 7.1 to 7.4	No	Supported	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/ via switch	Supported 7.1 to 7.6	Supported 7.1 to 7.6	Supported 7.1 to 7.6	Supported 7.1 to 7.6	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Supported 7.1 to 7.5	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.6	Supported 7.2 to 7.6	Supported 7.2 to 7.6	Supported 7.2 to 7.6	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.1 to 7.4	Supported 7.1 to 7.4	Supported 7.1 to 7.4	Supported 7.1 to 7.4	No	Supported	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/ via switch	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Yes	Supported	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.3 to 7.5	Supported 7.3 to 7.5	Supported 7.3 to 7.5	Supported 7.3 to 7.5	No	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Supported 7.3 to 7.6	Yes	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.3 to 7.4	Supported 7.3 to 7.4	Supported 7.3 to 7.4	Supported 7.3 to 7.4	No	Supported	

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*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.6 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later V9.0 or later *7 *19	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS 6.2/ Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15	EMPD	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	EMPD	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	

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*19 Please set the system to cause panic when an error occurs on file system under SAN boot environment. As an example, in case of xfs, please reboot after setting the followings: echo 'fs.xfs.panic_mask=127' > /etc/sysctl.d/01-xfs.conf

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.6 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later V9.0 or later *7 *19	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS 6.2/ Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3*12	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3*12	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes *3*12	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402 MC-FC162E	EMPD	Switch blade	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *12	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8		Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *12	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes *12	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2 PY-FCD02 PG-FCD202 S26361-F3874-L1	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	-	-	-	-	-	Planned 2	-	

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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster						Instruction for use	
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Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported on RHEL 7.2 or later.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	

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Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	Emulex LPe35000 / LPe35002 or OEM products *15	EMPD	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex LPe32000 / LPe32002 or OEM products *15	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex LPe31000 / LPe31002 or OEM products *15	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Qlogic QLE2870/QLE2872/QLE2874 or OEM products	EMPD	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Qlogic QLE2770/QLE2772/QLE2774 or OEM products	EMPD	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Qlogic QLE2740/QLE2742/QLE2764 or OEM products	EMPD	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	Supported 7.2 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Supported 7.2 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	

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Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3 *12	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3 *12	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes *3 *12	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex LPe12000/LPe12002/LPe1250 or OEM products	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
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		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	

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Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	QLogic QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	T10-DIF function is supported, but please ask server supplier if the connected server supports T10-DIF function or not.
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	Supported 7.0 to 7.4	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	No	Planned 2	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 7.0 to 7.9	Planned 2	Supported 7.0 to 7.9	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Δ	Planned 2	Δ	Planned 2	No	-	-	-	-	-	Planned 2	-	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*6 Direct connection is supported only with 16Gbps CA.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*19 Please set the system to cause panic when an error occurs on file system under SAN boot environment. As an example, in case of xfs, please reboot after setting the followings: echo 'fs.xfs.panic_mask=127' > /etc/sysctl.d/01-xfs.conf

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3/4.4 *1	VCS *5 6.0/6.1	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	MC-0JFCF* MC-0JFCG*	EMPD	Direct/ via switch	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Planned 2	Supported 6.4 to 6.10	Planned 2	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Planned 2	Supported 6.4 to 6.10	Planned 2	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	No	Supported	-	
		VxVM	Direct/ via switch	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	Yes	-	Supported	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Planned 2	Supported 6.4 to 6.10	Planned 2	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Planned 2	Supported 6.4 to 6.10	Planned 2	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	No	Supported	-	
		VxVM	Direct/ via switch	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	Yes	-	Supported	
	MC-0JFC5* MC-0JFC6*	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Planned 2	Supported 6.4 to 6.10	Planned 2	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Planned 2	Supported 6.4 to 6.10	Planned 2	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	No	Supported	-	
		VxVM	Direct/ via switch	Supported 6.4 to 6.9	Planned 2	Supported 6.4 to 6.9	Planned 2	Yes	-	Supported	
	MC-0JFC7* MC-0JFC8*	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes *3 *12	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes *3 *12	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Supported	-	
		VxVM	Direct/ via switch	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Yes *3 *12	-	Supported	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Supported	-	
		VxVM	Direct/ via switch	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Yes	-	Supported	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/ via switch	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.7/6.9	Supported 6.7/6.9	Supported 6.7/6.9	Supported 6.7/6.9	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Supported 6.7/6.9/6.10	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.7/6.9	Supported 6.7/6.9	Supported 6.7/6.9	Supported 6.7/6.9	No	Supported	-	
		VxVM	Direct/ via switch	Supported 6.7/6.9	Supported 6.7/6.9	Supported 6.7/6.9	Supported 6.7/6.9	Yes	-	Supported	
	MC-0JFC11/MC-0JFC21	EMPD	Direct/ via switch	Supported 6.3 to 6.6	Planned 2	Supported 6.3 to 6.6	Planned 2	Yes	Supported	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.6	Planned 2	Supported 6.3 to 6.6	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.6	Planned 2	Supported 6.3 to 6.6	Planned 2	Yes	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.6	Planned 2	Supported 6.3 to 6.6	Planned 2	No	Planned 2	-	
		VxVM	Direct/ via switch	Supported 6.5/6.4	Planned 2	Supported 6.5/6.4	Planned 2	Yes	-	Supported	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*5 Veritas Storage Foundation does not support x86 architecture.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.5 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS *5 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect V4.9 *14 (DX8900 S4は除く)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	EMPD	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/ via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3*12	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3*12	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Yes *3*12	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402 MC-FC162E	EMPD	Switch blade	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *12	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled		Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *12	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Supported 6.3 to 6.10	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Yes *12	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	-	-	-	-	-	Supported 6.1.1	-	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.
*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*5 Veritas Storage Foundation does not support x86 architecture.
*7 LifeKeeper does not support KVM.
*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*12 SAN boot is supported on 16Gbps Link Speed only.
*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.5 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS *5 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect V4.9 *14 (DX8900 S4は除く)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	PY-FCD02 PG-FCD202 S26361-F3874-L1 MC-FC82E	EMPD	Switch blade/ Pass-through blade	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled		Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	-	-	-	-	-	Supported 6.1.1	-	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	-	-	-	-	-	Supported 6.1.1	-	
	PY-CN202 PG-292B S26361-F3592-L2	EMPD	FCoE switch *11	Supported 6.3 to 6.7	Planned 2	Supported 6.3 to 6.7	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 6.3 to 6.7	Planned 2	Supported 6.3 to 6.7	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.7	Planned 2	Supported 6.3 to 6.7	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *11	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.
*5 Veritas Storage Foundation does not support x86 architecture.
*7 LifeKeeper does not support KVM.
*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.5 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS *5 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect V4.9 *14 (DX8900 S4は除く)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *11	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex LPe32000 / LPe32002 or OEM products *15	EMPD	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex LPe31000 / LPe31002 or OEM products *15	EMPD	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	QLe2740/QLe2742/QLe2764 or OEM products	EMPD	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Supported 6.7 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	-	-	-	-	Planned 2	-	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/ via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3 *12	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3 *12	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Yes *3 *12	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	Supported 6.3 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	Brocade Brocade 1860 *6 or OEM products	EMPD	Direct/ via switch	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-	Planned 2	
		OS bundled		Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-	Supported	
		VxVM DMP		Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Yes *3	-	-	-	-	-	Supported	-	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.
*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*5 Veritas Storage Foundation does not support x86 architecture.
*6 Direct connection is supported only with 16Gbps CA.
*7 LifeKeeper does not support KVM.
*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*12 SAN boot is supported on 16Gbps Link Speed only.
*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster							Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL 4.3 to 4.5 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS *5 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect V4.9 *14 (DX8900 S4は除く)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	-	-	-	-	-	Supported 6.1.1	-	
	QLogic QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Supported 6.4 to 6.10	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	Supported 6.4 to 6.9	No	-	-	-	-	-	Supported 6.1.1	-	
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Planned 2	Supported	Planned 2	Planned 2	Supported	-	Planned 2	
		OS bundled	Direct/ via switch	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-	Planned 2	
		VxVM DMP	Direct/ via switch	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster	via switch *11	Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	No	-	-	-	-	-	Supported 6.1.1	-	

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 *3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
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				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		PCL	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later 4.0 or later (except DX8900 S4)	VCS *5 6.0/6.1/6.2 Veritas InfoScale Availability 7.0/7.1/7.3.1	ClusterPerfect V4.9 *14 (DX8900 S4は除く)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	Emulex OCe10102 or OEM products	EMPD	FCoE switch *11	Supported 6.3 to 6.7	Planned 2	Supported 6.3 to 6.7	Planned 2	Yes *3	-	Planned 2	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 6.3 to 6.7	Planned 2	Supported 6.3 to 6.7	Planned 2	Yes *3	-	Planned 2	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.7	Planned 2	Supported 6.3 to 6.7	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *11	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	-	Planned 2	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	-	Planned 2	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *11	Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	-	Planned 2	Supported	Planned 2	Supported	-	Planned 2	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		OS bundled		Supported 6.3 to 6.10	Planned 2	Supported 6.3 to 6.10	Planned 2	Yes *3	-	Planned 2	Supported	Planned 2	Supported	-	Supported	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP		Supported 6.3 to 6.9	Planned 2	Supported 6.3 to 6.9	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	-	
	Brocade Brocade 815/825 or OEM products	EMPD	via switch	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-	Planned 2	
		OS bundled		Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-	Supported	
		VxVM DMP		Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Supported 6.3 to 6.7 6.8 or later is planned	Planned 2	Yes *3	-	-	-	-	-	Supported	-	
	Brocade Brocade 415/425 or OEM products	EMPD	via switch	Supported 6.3 to 6.7 6.8 or later is planned	N.A.	Supported 6.3 to 6.7 6.8 or later is planned	N.A.	Yes *3	-	Supported	Supported	Planned 2	Supported	-	Planned 2	
		OS bundled		Supported 6.3 to 6.7 6.8 or later is planned	N.A.	Supported 6.3 to 6.7 6.8 or later is planned	N.A.	Yes *3	-	Supported	Supported	Planned 2	Supported	-	Supported	
		VxVM DMP		Supported 6.3 to 6.7 6.8 or later is planned	N.A.	Supported 6.3 to 6.7 6.8 or later is planned	N.A.	Yes *3	-	-	-	-	-	Supported	-	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *5 Veritas Storage Foundation does not support x86 architecture.
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 *8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
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OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster						Instruction for use	
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		PCL 4.2/4.3 *1	Oracle RAC 11g R2	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later	VCS *5 *10 5.1/6.0/6.1		
Red Hat Enterprise Linux (x86/Intel64) RHEL 5	MC-0JFC11/MC-0JFC21	EMPD	Direct/ via switch	Supported 5.11/5.10/5.9	Planned 2	Supported 5.11/5.10/5.9	Planned 2	Yes	Supported	-	-	-	-	-		
		EMPD + Storage Cluster *8	via switch *11	Supported 5.11/5.10/5.9	Planned 2	Supported 5.11/5.10/5.9	Planned 2	No	Planned 2	-	-	-	-	-		
		OS bundled	Direct/ via switch	Supported 5.11/5.10/5.9	Planned 2	Supported 5.11/5.10/5.9	Planned 2	Yes	Supported	-	-	-	-	-		
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.11/5.10/5.9	Planned 2	Supported 5.11/5.10/5.9	Planned 2	No	Planned 2	-	-	-	-	-		
		VxVM	Direct/ via switch	Supported 5.11/5.10/5.9	Planned 2	Supported 5.11/5.10/5.9	Planned 2	*4	-	-	-	-	-	Supported		
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/ via switch	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Yes *3*12	Supported	Supported	Supported	Planned 2	Planned 2	-		
		EMPD + Storage Cluster *8	via switch *11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-		
		OS bundled	Direct/ via switch	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Yes *3*12	Supported	Supported	Supported	Planned 2	Planned 2	-		
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	No	Supported	Supported	Supported	Planned 2	Planned 2	-		
		VxVM DMP	Direct/ via switch	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Yes *3*4 *12	-	-	-	-	-	Supported		
		VxVM DMP + Storage Cluster	via switch *11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	No	-	-	-	-	-	Supported 6.1.1		
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402 *12	EMPD	Switch blade	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Yes *12	Supported	Supported	Supported	Planned 2	Planned 2	-		
		EMPD + Storage Cluster *8		Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-		
		OS bundled		Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Yes *12	Supported	Supported	Supported	Planned 2	Planned 2	-		
		OS bundled + Storage Cluster *8		Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	No	Supported	Supported	Supported	Planned 2	Planned 2	-		
		VxVM DMP		Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Yes *4 *12	-	-	-	-	-	Supported		
		VxVM DMP + Storage Cluster		Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	Supported 5.10/5.11	No	-	-	-	-	-	Supported 6.1.1		
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-		
		EMPD + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-		
		OS bundled	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-		
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-		
		VxVM DMP	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported		
		VxVM DMP + Storage Cluster	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	-	-	-	-	-	Supported 6.1.1		
	PY-FCD02 PG-FCD202 S26361-F3874-L1	EMPD	Switch blade/ Pass-through blade	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-		
		EMPD + Storage Cluster *8		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-		
		OS bundled		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-		
		OS bundled + Storage Cluster *8		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-		
		VxVM DMP		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported		
		VxVM DMP + Storage Cluster		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	-	-	-	-	-	Supported 6.1.1		

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is "Yes" on Veritas Storage Foundation 6.0 or later, but "No" on 5.1.

*5 Veritas Storage Foundation does not support x86 architecture.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 Thin provisioning function of ETERNUS is not supported on Veritas Storage Foundation 5.1.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster						Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		PCL 4.2/4.3 *1	Oracle RAC 11g R2	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later (except DX8900 S4)	VCS *5*10 5.1/6.0/6.1	
Red Hat Enterprise Linux (x86/Intel64) RHEL5	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Supported	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Supported	Planned 2	Planned 2	-	
		VxVM DMP	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	-	-	-	-	-	Supported 6.1.1	
	PY-CN202 PG-292B S26361-F3592-L2	EMPD	FCoE switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Planned 2	-	
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		OS bundled		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes	Supported	Planned 2	Supported	Planned 2	Planned 2	-	
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	
		VxVM DMP		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/ via switch	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Yes *3 *12	Supported	Supported	Supported	Planned 2	Supported	-	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster *8	via switch *11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.9 to 5.11	Supported 5.10/ 5.11	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Yes *3 *12	Supported	Supported	Supported	Planned 2	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.9 to 5.11	Supported 5.10/ 5.11	No	Supported	Supported	Supported	Planned 2	Supported	-	
		VxVM DMP	Direct/ via switch	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Supported 5.10/ 5.11	Yes *4 *12	-	-	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported 5.10 to 5.11	Supported 5.10 to 5.11	Supported 5.9 to 5.11	Supported 5.10 to 5.11	No	-	-	-	-	-	Supported 6.1.1	
	Brocade Brocade 1860 *6 or OEM products	EMPD	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-	
		OS bundled		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-	
		VxVM DMP		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-	
		OS bundled	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-	
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-	
		VxVM DMP	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	-	-	-	-	-	Supported 6.1.1	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 SAN boot is "Yes" on Veritas Storage Foundation 6.0 or later, but "No" on 5.1.

*5 Veritas Storage Foundation does not support x86 architecture.

*6 Direct connection is supported only with 16Gbps CA.

*7 LifeKeeper does not support KVM.

*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".

*10 Thin provisioning function of ETERNUS is not supported on Veritas Storage Foundation 5.1.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster						Instruction for use	
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		PCL 4.2/4.3 *1	Oracle RAC 11g R2	LifeKeeper V8.4 or later *7 (except DX8900 S4)	RHEL HA	CLUSTER PRO X 3.1 or later (except DX8900 S4)	VCS *5*10 5.1/6.0/6.1		
Red Hat Enterprise Linux (x86/Intel64) RHEL5	QLogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-		
		EMPD + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-		
		OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-		
		OS bundled + Storage Cluster *8	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-		
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	*4	-	-	-	-	-	Planned 2		
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2		
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-		
		EMPD + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Planned 2	Planned 2	Planned 2	-		
		OS bundled	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	Supported	Supported	Supported	Planned 2	Supported	-		
		OS bundled + Storage Cluster *8	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	Supported	Supported	Supported	Planned 2	Supported	-		
		VxVM DMP	Direct/ via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported		
		VxVM DMP + Storage Cluster	via switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	No	-	-	-	-	-	Supported 6.1.1		
	Emulex OCe10102 or OEM products	EMPD	FCoE switch *11	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	Supported	Planned 2	Supported	Planned 2	Supported	-		
		EMPD + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-		
		OS bundled		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	Supported	Planned 2	Supported	Planned 2	Supported	-		
		OS bundled + Storage Cluster *8		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-		
		VxVM DMP		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported		
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	-	-	-	Planned 2		
	Brocade Brocade 815/825 or OEM products	EMPD	via switch	Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-		
		OS bundled		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	Yes *3	-	Supported	Supported	Planned 2	Supported	-		
		VxVM DMP		Supported 5.9 to 5.11	Planned 2	Supported 5.9 to 5.11	Planned 2	*4	-	-	-	-	-	Supported		
	Brocade Brocade 415/425 or OEM products	EMPD	via switch	Supported 5.9 to 5.11	N.A.	Supported 5.9 to 5.11	N.A.	Yes *3	-	Supported	Supported	Planned 2	Supported	-		
		OS bundled		Supported 5.9 to 5.11	N.A.	Supported 5.9 to 5.11	N.A.	Yes *3	-	Supported	Supported	Planned 2	Supported	-		
		VxVM DMP		Supported 5.9 to 5.11	N.A.	Supported 5.9 to 5.11	N.A.	*4	-	-	-	-	-	Supported		

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.
*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*4 SAN boot is "Yes" on Veritas Storage Foundation 6.0 or later, but "No" on 5.1.
*5 Veritas Storage Foundation does not support x86 architecture.
*7 LifeKeeper does not support KVM.
*8 Please set "Split mode" of Storage Cluster to "Read/Write (Default value)".
*10 Thin provisioning function of ETERNUS is not supported on Veritas Storage Foundation 5.1.
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage	SAN boot	Instruction for use
				DX S3 series AF series/DX200F (except AF S3 series)		
Red Hat Enterprise Linux (Linux on Power) RHEL 6	5735/5273	OS bundled	Direct/via switch	Supported 6.5	Yes *3	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please use the latest version of server BIOS unless note is stated.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.
 - On Oracle Linux and SUSE Linux Enterprise Server environment, UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - HBA for PRIMEQUEST is shown as MC-0JCEn*, the character "*" can be any character applicable. Ex) MC-0JCE6* means MC-0JCE61 and MC-0JCE62 are applicable.
 - Storage Cluster function is not supported on DX60 S5/S4/S3.
 - In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), PCL (PRIMECLUSTER)

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	
					DX S5/S4/S3 series AF series/DX200F		PCL 4.6 *1	
Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	Software Initiator	NIC for PRIMEQUEST 4000 *2	EMPD	Direct / via switch *3	Supported 9.2 *11	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 9.2 *11	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 9.2 *11	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
		NIC for PRIMEQUEST 3000 *2	EMPD	Direct / via switch *3	Supported 9.0/9.2 *11	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 9.0/9.2 *11	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 9.2 *11	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*4 LifeKeeper does not support KVM.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*11 When using Red Hat Enterprise Linux 8.4 or later, use the following storage firmware.
DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later
DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper v9.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct / via switch *3	Supported 9.0/9.2 *11	No	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 9.0/9.2 *11	No	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 9.2 *11	No	Planned 2	Planned 2	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	

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DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later

DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper v9.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (Intel64) RHEL9 & KVM	Software Initiator	NIC / CNA *2	EMPD	Direct / via switch *3	Supported 9.0 *11	No	Planned 2	Planned 2	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 9.0/9.2 *11	No	Planned 2	Planned 2	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 9.2 *11	No	Planned 2	Planned 2	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	

*1 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*4 LifeKeeper does not support KVM.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*11 When using Red Hat Enterprise Linux 8.4 or later, use the following storage firmware.
DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later
DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3 to 4.5 *1	
Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	Software Initiator	NIC for PRIMEQUEST 3000 *2	EMPD	Direct / via switch *3	Supported 8.1	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	No	N.A.	
			OS bundled	Direct / via switch *3	Supported 8.0	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	No	N.A.	

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*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper v9.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct / via switch *3	Supported 8.1 to 8.2/8.4/8.6/8.8 *10 *11	No	Supported	Supported	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 8.0 to 8.2/8.4/8.6/8.8 *10 *11	No	Supported	Supported	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 8.6/8.8 *11	No	Supported	Supported	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	

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*4 LifeKeeper does not support KVM.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*10 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

*11 When using Red Hat Enterprise Linux 8.4 or later, use the following storage firmware.

DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later
DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.6 *1	Oracle RAC /SEHA 19c/21c	LifeKeeper v9.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (Intel64) RHEL8 & KVM	Software Initiator	NIC / CNA *2	EMPD	Direct / via switch *3	Supported 8.1 to 8.2/8.4/8.6/8.8 *10 *11	No	Supported	Supported	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	Planned 2	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 8.1 to 8.2/8.4/8.6/8.8 *10 *11	No	Supported	Supported	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 8.6/8.8 *11	No	Supported	Supported	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	

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DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later

DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3/4.4 *1	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	Software Initiator	NIC for PRIMEQUEST 3000 *2	EMPD	Direct / via switch *3	Supported 7.3 to 7.7	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 7.3 to 7.7	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	No	N.A.	
		NIC for PRIMEQUEST 2000 *2	EMPD	Direct / via switch *3	Supported 7.2 to 7.7	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 7.2 to 7.7	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	No	N.A.	
		NIC for PRIMEQUEST 1000 *2	EMPD	Direct / via switch *3	Supported 7.3	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	

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*2 Please contact server supplier about available NIC.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

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OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3 to 4.6 *1	Oracle RAC /SEHA 11g R2/12c R1/12c R2 18c/19c	LifeKeeper v8.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct / via switch *3	Supported 7.0 to 7.8	No	Supported	Supported	Supported *6	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	Planned 2	Supported *5*6	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 7.0 to 7.8	No	Supported	Supported	Supported *6	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	Planned 2	Supported *5*6	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	

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*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*4 LifeKeeper does not support KVM.

*5 Server Cluster may Failover when StorageCluster's Failover/Failback occurs. When Server Cluster does Failover, check Server Cluster status, and make Failback if necessary.

*6 ETERNUS's 10GBASE-T interface is not supported.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3 to 4.6 *1	Oracle RAC /SEHA 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper v8.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	Software Initiator	Intel NIC / CNA *2	EMPD	Direct / via switch *3	Supported 7.0 to 7.8	No	Supported	Supported	Supported *6	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	Planned 2	Supported *5*6	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 7.0 to 7.8	No	Supported	Supported	Supported *6	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.2/7.3	No	Supported 4.4/4.5	Planned 2	Supported *5*6	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		Emulex OCe11102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	

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OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3/4.4 *1	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	Software Initiator	NIC for PRIMEQUEST 2000 *2	EMPD	Direct / via switch *3	Supported 6.6 to 6.10	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 6.7/6.8/6.9	No	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 6.7/6.8/6.9	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 6.7/6.8/6.9	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	No	N.A.	
		NIC for PRIMEQUEST 1000 *2	EMPD	Direct / via switch *3	Supported 6.5/6.4/6.3	No	Supported	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
	Hardware Initiator	MC-0JCE6*	EMPD	Direct / via switch *3	Supported 6.6	No	Supported	
			OS bundled		Planned 1 6.6	No	Planned 1	

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OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3 to 4.5 *1	Oracle RAC 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper v8.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct / via switch *3	Supported 6.3 to 6.10	No	Supported	Supported	Supported *6	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 6.7/6.8/6.9	No	Planned 2	Planned 2	Supported *5*6	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 6.3 to 6.10	No	Supported	Supported	Supported *6	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 6.7/6.8/6.9	No	Planned 2	Planned 2	Supported *5*6	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	

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OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S5/S4/S3 series AF series/DX200F		PCL 4.3 to 4.5 *1	Oracle RAC 11g R2/ 12c R1/12c R2 18c/19c	LifeKeeper v8.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	Software Initiator	Intel NIC / CNA *2	EMPD	Direct / via switch *3	Supported 6.3 to 6.10	No	Supported	Supported	Supported *6	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 6.7/6.8/6.9	No	Planned 2	Planned 2	Supported *5*6	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported 6.3 to 6.10	N.A.	Supported	Supported	Supported *6	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 6.7/6.8/6.9	No	Planned 2	Planned 2	Supported *5*6	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	N.A.	N.A.	
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		Emulex OCe11102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	

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OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster			Instruction for use
					DX S4/S3 series AF series/DX200F (except AF S3 series)		PCL 4.2/4.3 *1	Oracle RAC 11g R2	LifeKeeper v8.4 or later *4 (except DX8900 S4)	
Red Hat Enterprise Linux (x86/Intel64) RHEL5	Software Initiator	NIC for PRIMEQUEST 1000 *2	EMPD	Direct / via switch *3	Supported 5.10/5.9	No	Supported PCL 4.3 only	-	-	
			OS bundled		Supported 5.10/5.9	No	Supported PCL 4.3 only	-	-	
Red Hat Enterprise Linux (x86/Intel64) RHEL5	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct *10/ via switch *3	Supported 5.9 to 5.11	No	Supported	Supported	Supported *6	
			OS bundled		Supported 5.9 to 5.11		Supported	Supported	Supported *6	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
	Software Initiator	Intel NIC / CNA *2	EMPD	Direct / via switch *3	Supported 5.9 to 5.11	No	Supported	Supported	Supported *6	
			OS bundled		Supported 5.9 to 5.11		Supported	Supported	Supported *6	
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		Emulex OCe14102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	
		Emulex OCe11102	EMPD	Direct / via switch	Planned 2	Yes	Planned 2	Planned 2	Planned 2	
			OS bundled		Planned 2		Planned 2	Planned 2	Planned 2	

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*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*4 LifeKeeper does not support KVM.

*6 ETERNUS's 10GBASE-T interface is not supported.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please use the latest version of server BIOS unless note is stated.
 - T10-DIF function is not supported. The ETERNUS volume to be used should be other than T10-DIF volume.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - On Oracle Linux and SUSE Linux Enterprise Server environment, UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), PCL (PRIMECLUSTER)

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.6 *2	
Red Hat Enterprise Linux (Intel64) RHEL9	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	EMPD	Direct	-	Supported 9.2	No	Planned 2	
		OS bundled	Direct	-	Supported 9.0/9.2	No	Planned 2	
	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL S26361-F5793-E251	EMPD	Direct	-	Supported 9.2	No	Planned 2	
		OS bundled	Direct	-	Supported 9.0/9.2	No	Planned 2	
	PY-SC3FBE/ PYBSC3FBE/PYBSC3FBEL	EMPD	Direct	-	Supported 9.2	No	Planned 2	
		OS bundled	Direct	-	Supported 9.0/9.2	No	Planned 2	
	LSI SAS9500-16e	EMPD	Direct	-	Supported 9.2	No	Planned 2	
		OS bundled	Direct	-	Supported 9.0/9.2	No	Planned 2	
	LSI SAS9400-8e	EMPD	Direct	-	Supported 9.2	No	Planned 2	
		OS bundled	Direct	-	Supported 9.0/9.2	No	Planned 2	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.6 *2	
Red Hat Enterprise Linux (Intel64) RHEL8	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	EMPD	Direct	–	Supported 8.6/8.8	No	Supported	
		OS bundled	Direct	–	Supported 8.6/8.8	No	Supported	
	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL S26361-F5793-E251	EMPD	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
		OS bundled	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
	PY-SC3FBE/ PYBSC3FBE/PYBSC3FBEL	EMPD	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
		OS bundled	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
		OS bundled	Direct	–	Supported 8.0 to 8.2/8.4/8.6/8.8 *4	No	Supported	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*4 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.6 *2	
Red Hat Enterprise Linux (Intel64) RHEL8	LSI SAS9500-16e	EMPD	Direct	–	Supported 8.6/8.8	No	Supported	
		OS bundled	Direct	–	Supported 8.6/8.8	No	Supported	
	LSI SAS9400-8e	EMPD	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
		OS bundled	Direct	–	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
	LSI SAS9300-8e	EMPD	Direct	—	Supported 8.3/8.4/8.6/8.8 *4	No	Supported	
		OS bundled	Direct	—	Supported 8.0 to 8.2/8.4/8.6/8.8 *4	No	Supported	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*4 When connecting to Red Hat Enterprise Linux 8.4 for use, apply the advisory number RHBA-2021: 2772.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.3 to 4.6 *2	
Red Hat Enterprise Linux (Intel64) RHEL7	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL S26361-F5793-E251	EMPD	Direct	-	Supported 7.9	No	Supported	
		OS bundled	Direct	-	Supported 7.9	No	Supported	
	PY-SC3FBE/ PYBSC3FBE/PYBSC3FBEL	EMPD	Direct	-	Supported 7.9	No	Supported	
		OS bundled	Direct	-	Supported 7.9	No	Supported	
	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
		OS bundled		Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
		OS bundled		Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Planned 2	Planned 2	No	Planned 2	
		OS bundled		Planned 2	Planned 2	No	Planned 2	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	EMPD	Direct	Supported 7.0/7.1/7.2	-	No	Supported	
		OS bundled		Supported 7.0/7.1/7.2	-	No	Supported	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.3 to 4.6 *2	
Red Hat Enterprise Linux (Intel64) RHEL7	LSI SAS9400-8e	EMPD	Direct	-	Supported 7.9	No	Supported	
		OS bundled	Direct	-	Supported 7.9	No	Supported	
	LSI SAS9300-8e	EMPD	Direct/ via switch *3	Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
		OS bundled		Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
	LSI SAS9200-8e	EMPD	Direct/ via switch *3	Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
		OS bundled		Supported 7.0 to 7.9	Supported 7.0 to 7.9	No	Supported	
	LSI SAS3442E-R	EMPD	Direct	Supported 7.0/7.1/7.2	-	No	Supported	
		OS bundled		Supported 7.0/7.1/7.2	-	No	Supported	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		PCL 4.3 to 4.5 *2	
Red Hat Enterprise Linux (x86/Intel64) RHEL6	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
		OS bundled		Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
		OS bundled		Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
		OS bundled		Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	EMPD	Direct	Supported 6.4 to 6.10	-	No	Supported	
		OS bundled		Supported 6.4 to 6.10	-	No	Supported	
	LSI SAS9300-8e	EMPD	Direct/ via switch *3	Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
		OS bundled		Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
	LSI SAS9200-8e	EMPD	Direct/ via switch *3	Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
		OS bundled		Supported 6.4 to 6.10	Supported 6.4 to 6.10	No	Supported	
	LSI SAS3442E-R	EMPD	Direct	Supported 6.4 to 6.10	-	No	Supported	
		OS bundled		Supported 6.4 to 6.10	-	No	Supported	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S4 DX100 S4 DX200 S4 (SAS 12Gbps port)		PCL 4.2/4.3 *2	
Red Hat Enterprise Linux (x86/Intel64) RHEL5	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
		OS bundled		Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
		OS bundled		Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
		OS bundled		Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	EMPD	Direct	Supported 5.9 to 5/11	-	No	Supported	
		OS bundled		Supported 5.9 to 5/11	-	No	Supported	
	LSI SAS9300-8e	EMPD	Direct/ via switch *3	Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
		OS bundled		Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
	LSI SAS9200-8e	EMPD	Direct/ via switch *3	Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
		OS bundled		Supported 5.9 to 5/11	Supported 5.9 to 5/11	No	Supported	
	LSI SAS3442E-R	EMPD	Direct	Supported 5.9 to 5/11	-	No	Supported	
		OS bundled		Supported 5.9 to 5/11	-	No	Supported	

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

Notes

- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the server supplier for connection availability of HBA and FC switch.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- On Oracle Linux and SUSE Linux Enterprise Server environment or on VxVM configuration, UNMAP function is not supported on Deduplication/Compression volume.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JFCn*, the character "*" can be any character applicable. Ex) MC-0JFC3* means MC-0JFC31 and MC-0JFC3L are applicable.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- In this document, the following abbreviations are used;

EMPD (ETERNUS Multipath Driver), RHEL (Red Hat Enterprise Linux), PCL (PRIMECLUSTER), VCS (Veritas Cluster Server)

- FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster			Instruction for use
				DX S4/S3 series *2 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC /SEHA 19c/21c	LifeKeeper V9.5~ (except DX8900 S4)	ClusterPerfect V4.9R6 (except DX8900 S4)	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux9 *20 (including KVM *21)	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *15 *31	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15 *31	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L *31	OS bundled	Direct/via switch	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15 *28	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202 *28	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15 *28	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202 *31	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	

*2 Except DX8100 S3

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*20 btrfs is not supported on Oracle Linux 7 or later.

*21 Oracle Linux 8 (minimum 8.1) and UEK R 6 (5.4 .17-2011 or later)

*31 Contact PRIMERGY supplier for HBA support for the PRIMERGY to be connected.

*32 Oracle Linux 9.1 supports only the Unbreakable Enterprise Kernel (UEK).

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster			Instruction for use
				DX S4/S3 series *2 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC /SEHA 19c/21c	LifeKeeper V9.5~ (except DX8900 S4)	ClusterPerfect V4.9R6 (except DX8900 S4)	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux9 *20 (including KVM *21)	Emulex LPe36000 / LPe36002 or OEM products *15	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	Emulex LPe35000 / LPe35002 or OEM products *15	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	QLogic QLE2870/QLE2872/QLE2874 or OEM products	OS bundled	Direct/via switch	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	QLogic QLE2770/QLE2772/QLE2774 or OEM products	OS bundled	Direct/via switch	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	Supported 9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	QLogic QLE2740/QLE2742/QLE2764 or OEM products	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	
	QLogic QLE2690/QLE2692/ QLE2694 or OEM Products	OS bundled	Direct/via switch	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	Supported 9.0/9.1/9.2 *32	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 9.2	Supported 9.2	Supported 9.2	Supported 9.2	No	Supported	Planned 2	Planned 2	

*2 Except DX8100 S3

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*20 btrfs is not supported on Oracle Linux 7 or later.

*21 Oracle Linux 8 (minimum 8.1) and UEK R 6 (5.4 .17-2011 or later)

*31 Contact PRIMERGY supplier for HBA support for the PRIMERGY to be connected.

*32 Oracle Linux 9.1 supports only the Unbreakable Enterprise Kernel (UEK).

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster			Instruction for use
				DX S4/S3 series *2 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC /SEHA 19c/21c	LifeKeeper V9.5~ (except DX8900 S4)	ClusterPerfect V4.9R6 (except DX8900 S4)	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux8 *20 (including KVM *21)	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *15 *31	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15 *31	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L *31	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15 *28	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202 *28	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15 *28	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202 *31	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	

*2 Except DX8100 S3
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
*20 btrfs is not supported on Oracle Linux 7 or later.
*21 Oracle Linux 8 (minimum 8.1) and UEK R 6 (5.4 .17-2011 or later)
*27 When connecting to Oracle Linux 8.4, please apply advisory number ELSA-2021:2572.
*28 PRIMERGY is not supported
*29 PRIMERGY does not support Oracle Linux 8.4
*30 PRIMERGY has unofficial support for Oracle Linux 8.4
*31 Contact PRIMERGY supplier for HBA support for the PRIMERGY to be connected.
*33 Oracle Linux 8.7 supports only the Unbreakable Enterprise Kernel (UEK).

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster			Instruction for use
				DX S4/S3 series *2 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC /SEHA 19c/21c	LifeKeeper V9.5~ (except DX8900 S4)	ClusterPerfect V4.9R6 (except DX8900 S4)	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux8 *20 (including KVM *21)	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502 *31	OS bundled	Direct/via switch	Supported 8.2	Supported 8.2	Supported 8.2	Supported 8.2	No	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402 *31	OS bundled	Switch blade	Supported 8.2	Supported 8.2	Supported 8.2	Supported 8.2	No	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202 *31	OS bundled	Direct/via switch	Supported 8.2	Supported 8.2	Supported 8.2	Supported 8.2	No	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	
	Emulex LPe36000 / LPe36002 or OEM products *15	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	Emulex LPe35000 / LPe35002 or OEM products *15	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	QLogic QLE2870/QLE2872/QLE2874 or OEM products	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	QLogic QLE2770/QLE2772/QLE2774 or OEM products	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	QLogic QLE2740/QLE2742/QLE2764 or OEM products	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Supported 8.2	Supported 8.2	Supported 8.2	Supported 8.2	No	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	
	QLogic QLE2690/QLE2692/ QLE2694 or OEM Products	OS bundled	Direct/via switch	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	Supported 8.2/8.4 to 8.9 *27 *33	No	Supported	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	Supported 8.5/8.7/8.8 *33	No	Supported	Planned 2	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/via switch	Supported 8.2	Supported 8.2	Supported 8.2	Supported 8.2	No	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	Planned 2	

*2 Except DX8100 S3

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*20 btrfs is not supported on Oracle Linux 7 or later.

*21 Oracle Linux 8 (minimum 8.1) and UEK R 6 (5.4 .17-2011 or later)

*27 When connecting to Oracle Linux 8.4, please apply advisory number ELSA-2021:2572.

*28 PRIMERGY is not supported

*29 PRIMERGY does not support Oracle Linux 8.4

*30 PRIMERGY has unofficial support for Oracle Linux 8.4

*31 Contact PRIMERGY supplier for HBA support for the PRIMERGY to be connected.

*33 Oracle Linux 8.7 supports only the Unbreakable Enterprise Kernel (UEK).

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC 11g R2/ 12c R1/12c R2	
Oracle Linux 7 (x86-64) *16	MC-0JFCF* MC-0JFCG*	OS bundled	via switch	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFCK* MC-0JFCL*	OS bundled	via switch	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Yes *3 *12	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFCM* MC-0JFCN*	OS bundled	via switch	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Yes *3 *12	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFCP* MC-0JFCQ*	OS bundled	via switch	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Supported 7.4/7.5	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	MC-0JFC3* MC-0JFC9*	OS bundled	via switch	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	
	MC-0JFC4* MC-0JFCA*	OS bundled	via switch	Supported 7.0 to 7.5	Planned 2	Supported 7.0 to 7.5	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	
	MC-0JFC5* MC-0JFC6*	OS bundled	via switch	Supported 7.1 to 7.5	Planned 2	Supported 7.1 to 7.5	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 7.1 to 7.3	Planned 2	Supported 7.1 to 7.3	Planned 2	No	Supported	
	MC-0JFC7* MC-0JFC8*	OS bundled	via switch	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Supported 7.0 to 7.5	Yes *3 *12	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	No	Supported	
	MC-0JFCB* MC-0JFCC*	OS bundled	via switch	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Supported 7.1 to 7.5	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 7.1 to 7.3	Supported 7.1 to 7.3	Supported 7.1 to 7.3	Supported 7.1 to 7.3	No	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*16 When using TPV/FTV on Oracle Linux 7.3 or later or Unbreakable Enterprise Kernel Release 4 on earlier version, then set volume threshold value of TPV/FTV to 1%. Please refer to "ETERNUS Web GUI User's Guide" or "ETERNUS SF - User Guide- Web Console" for setting.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC 11g R2/ 12c R1/12c R2	LifeKeeper V9.1 or later (except DX8900 S4)	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux7 *16 *20 (including KVM *22)	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *15	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	OS bundled	Direct/via switch	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	OS bundled	Direct/via switch	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	OS bundled	Direct/via switch	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Yes *3	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-E501/ S26361-F4994-L502	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Yes *3 *12	Supported	Supported *2	T10-DIF function is supported.
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	No	Supported	Planned 2	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Yes *3 *12	Supported	Supported *2	T10-DIF function is supported.
		OS bundled + Storage Cluster		Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	No	Supported	Planned 2	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Planned 2	Supported 7.0 to 7.8	Planned 2	Yes *3	Supported	Supported *2	T10-DIF function is supported.
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Planned 2	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported 7.0 to 7.8	Planned 2	Supported 7.0 to 7.8	Planned 2	Yes *3	Supported	Supported *2	T10-DIF function is supported.
		OS bundled + Storage Cluster		Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Planned 2	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Planned 2	Supported 7.0 to 7.8	Planned 2	Yes *3	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	OS bundled	Direct/via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3	Supported	Supported *2	T10-DIF function is supported.
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3/7.9	Supported 7.0 to 7.3/7.9	Supported 7.0 to 7.3/7.9	Supported 7.0 to 7.3/7.9	No	Supported	Planned 2	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Yes *3	Supported	Supported *2	T10-DIF function is supported.
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	No	Supported	Planned 2	

*2 Supported on Oracle Linux 7.3 or later

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 When using TPV/FTV on Oracle Linux 7.3 or later or Unbreakable Enterprise Kernel Release 4 on earlier version, then set volume threshold value of TPV/FTV to 1%. Please refer to "ETERNUS Web GUI User's Guide" or "ETERNUS SF - User Guide- Web Console" for setting.

*20 btrfs is not supported on Oracle Linux 7 or later.

*22 Oracle Linux 7 (minimum 7.6) and UEK R 5 Update 2 (4.14 .35-1902 or higher) or Oracle Linux 7 (minimum 7.7) and UEK R 6 (5.4 .17-2011 or later)

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC 11g R2/ 12c R1/12c R2	LifeKeeper V9.1 or later (except DX8900 S4)	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux7 *16 *20	Emulex LPe36000 / LPe36002 or OEM products *15	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	Emulex LPe35000 / LPe35002 or OEM products *15	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	QLogic QLE2770/QLE2772/QLE2774 or OEM products	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	OS bundled	Direct/via switch	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	QLogic QLE2870/QLE2872/QLE2874 or OEM products	OS bundled	Direct/via switch	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	QLe2740/QLe2742/QLe2764 or OEM products	OS bundled	Direct/via switch	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Yes *3 *12	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	OS bundled	Direct/via switch	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Supported 7.4 to 7.9	Yes *3	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.9	Supported 7.9	Supported 7.9	Supported 7.9	No	Supported	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Supported 7.4 to 7.8	Supported 7.4 to 7.8	Supported 7.4 to 7.8	Supported 7.4 to 7.8	Yes *3 *12	Supported	Supported *2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not. When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	No	Supported	Planned 2	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Planned 2	Supported 7.0 to 7.8	Planned 2	Yes *3	Supported	Supported *2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not. When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Planned 2	
	QLogic QLE2690/QLE2692/ QLE2694 or OEM Products	OS bundled	Direct/via switch	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Supported 7.0 to 7.9	Yes *3	Supported	Supported *2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3/7.9	Supported 7.0 to 7.3/7.9	Supported 7.0 to 7.3/7.9	Supported 7.0 to 7.3/7.9	No	Supported	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Supported 7.0 to 7.8	Yes *3	Supported	Supported *2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	Supported 7.0 to 7.3	No	Supported	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	OS bundled	Direct/via switch	Supported 7.0 to 7.8	Planned 2	Supported 7.0 to 7.8	Planned 2	Yes *3	Supported	Supported *2	
		OS bundled + Storage Cluster	via switch *11	Supported 7.0 to 7.3	Planned 2	Supported 7.0 to 7.3	Planned 2	No	Supported	Planned 2	

*2 Supported on Oracle Linux 7.3 or later

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 When using TPV/FTV on Oracle Linux 7.3 or later or Unbreakable Enterprise Kernel Release 4 on earlier version, then set volume threshold value of TPV/FTV to 1%. Please refer to "ETERNUS Web GUI User's Guide" or "ETERNUS SF - User Guide- Web Console" for setting.

*20 btrfs is not supported on Oracle Linux 7 or later.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC (11gR2/12c R1)	
Oracle Linux 6 (x86-64) *17	MC-0JFC3* MC-0JFC9*	OS bundled	via switch	Supported 6.5 to 6.8	Planned 2	Supported 6.5 to 6.8	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 6.5 to 6.8	Planned 2	Supported 6.5 to 6.8	Planned 2	No	Supported	
	MC-0JFC4* MC-0JFCA*	OS bundled	via switch	Supported 6.5 to 6.8	Planned 2	Supported 6.5 to 6.8	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 6.5 to 6.8	Planned 2	Supported 6.5 to 6.8	Planned 2	No	Supported	
	MC-0JFC5* MC-0JFC6*	OS bundled	via switch	Supported 6.5 to 6.8	Planned 2	Supported 6.5 to 6.8	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 6.5 to 6.8	Planned 2	Supported 6.5 to 6.8	Planned 2	No	Supported	
	MC-0JFC7* MC-0JFC8*	OS bundled	via switch	Supported 6.5 to 6.9	Supported 6.5 to 6.9	Supported 6.5 to 6.9	Supported 6.5 to 6.9	Yes *3 *12	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 6.5 to 6.8	Supported 6.5 to 6.8	Supported 6.5 to 6.8	Supported 6.5 to 6.8	No	Supported	
	MC-0JFCB* MC-0JFCC*	OS bundled	via switch	Supported 6.5 to 6.9	Supported 6.5 to 6.9	Supported 6.5 to 6.9	Supported 6.5 to 6.9	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 6.5 to 6.8	Supported 6.5 to 6.8	Supported 6.5 to 6.8	Supported 6.5 to 6.8	No	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*17 When using TPV/FTV on Oracle Linux 6.8 or later or Unbreakable Enterprise Kernel Release 4, then set volume threshold value of TPV/FTV to 1%. Please refer to "ETERNUS Web GUI User's Guide" or "ETERNUS SF - User Guide- Web Console" for setting.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC 11gR2	LifeKeeper V9.1 or later	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux6 *17	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	OS bundled	Direct/via switch	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Yes *3 *9	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	OS bundled	Direct/via switch	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Yes *3	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	OS bundled	Direct/via switch	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Yes *3 *9	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	OS bundled	Direct/via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3 *12	Supported	Planned 2	T10-DIF function is supported on OL6.5.
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	PY-FCD12/ PYBFC121/PYBFC122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3 *12	Supported	Planned 2	T10-DIF function is supported on OL6.5.
		OS bundled + Storage Cluster		Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/via switch	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	T10-DIF function is supported on OL6.5.
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	No	Supported	Planned 2	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	T10-DIF function is supported on OL6.5.
		OS bundled + Storage Cluster		Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	No	Supported	Planned 2	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/via switch	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	No	Supported	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	OS bundled	Direct/via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3	Supported	Planned 2	T10-DIF function is supported on OL6.5.
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	OS bundled	Direct/via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3	Supported	Planned 2	T10-DIF function is supported on OL6.5.
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	PY-CN202 PG-292B S26361-F3592-L2	OS bundled	FCoE switch *11	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*9 SAN boot is not supported on direct connection.
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*12 SAN boot is supported on 16Gbps Link Speed only.
*17 When using TPV/FTV on Oracle Linux 6.8 or later or Unbreakable Enterprise Kernel Release 4, then set volume threshold value of TPV/FTV to 1%. Please refer to "ETERNUS Web GUI User's Guide" or "ETERNUS SF - User Guide- Web Console" for setting.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		Oracle RAC 11gR2	LifeKeeper V9.1 or later	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux6 *17	Emulex LPe32000 / LPe32002 or OEM products *15	OS bundled	Direct/via switch	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Yes *3 *9	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	QLe2740/QLe2742/QLe2764 or OEM products	OS bundled	Direct/via switch	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Yes *3	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	OS bundled	Direct/via switch	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Supported 6.9/6.10	Yes *3 *9	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3 *12	Supported	Planned 2	ETERNUS supports T10-DIF function on OL6.5, but please ask server supplier if the connected server supports T10-DIF function or not. When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable, 2. Upgrade HBA firmware 3. Power off server, 4. Reconnect FC cable 5. Power on server
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	QLogic QLE2690/QLE2692/ QLE2694 or OEM Products	OS bundled	Direct/via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3	Supported	Planned 2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/via switch	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Supported 6.3 to 6.10	Yes *3	Supported	Planned 2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not.
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	Supported 6.3 to 6.8	No	Supported	Planned 2	
	Brocade Brocade 1860 *6 or OEM products	OS bundled	via switch	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	OS bundled	Direct/via switch	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	ETERNUS supports T10-DIF function, but please ask server supplier if the connected server supports T10-DIF function or not. When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	No	Supported	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	OS bundled	Direct/via switch	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	No	Supported	Planned 2	
	Brocade Brocade 815/825 or OEM products	OS bundled	via switch	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Supported	Planned 2	
	Emulex OCe10102 or OEM products	OS bundled	FCoE switch *11	Supported 6.3 to 6.8	Planned 2	Supported 6.3 to 6.8	Planned 2	Yes *3	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex OCe14102 or OEM products	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Brocade Brocade 415/425 or OEM products	OS bundled	via switch	Supported 6.3 to 6.8	N.A.	Supported 6.3 to 6.8	N.A.	Yes *3	Supported	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*6 Direct connection is supported only with 16Gbps CA.

*9 SAN boot is not supported on direct connection.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*17 When using TPV/FTV on Oracle Linux 6.8 or later or Unbreakable Enterprise Kernel Release 4, then set volume threshold value of TPV/FTV to 1%. Please refer to "ETERNUS Web GUI User's Guide" or "ETERNUS SF - User Guide- Web Console" for setting.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)			
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux5	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	OS bundled	Direct/via switch	Supported 5.10	Planned 2	Supported 5.10	Planned 2	Yes *3 *12	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 5.10	Planned 2	Supported 5.10	Planned 2	No	Supported	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported 5.10	Planned 2	Supported 5.10	Planned 2	Yes *3 *12	Supported	
		OS bundled + Storage Cluster		Supported 5.10	Planned 2	Supported 5.10	Planned 2	No	Supported	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/via switch	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	No	Supported	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster		Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	No	Supported	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/via switch	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	No	Supported	
	PY-CN202 PG-292B S26361-F3592-L2	OS bundled	FCoE switch *11	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Supported 5.10	Planned 2	Supported 5.10	Planned 2	Yes *3 *12	Supported	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		OS bundled + Storage Cluster	via switch *11	Supported 5.10	Planned 2	Supported 5.10	Planned 2	No	Supported	
	Brocade Brocade 1860 *6 or OEM products	OS bundled	via switch	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	OS bundled	Direct/via switch	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		OS bundled + Storage Cluster	via switch *11	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	No	Supported	
	QLogic QLE2560/QLE2562 or OEM products	OS bundled	Direct/via switch	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	No	Supported	
	Brocade Brocade 815/825 or OEM products	OS bundled	via switch	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Supported	
	Emulex OCe10102 or OEM products	OS bundled	FCoE switch *11	Supported 5.9/5.10	Planned 2	Supported 5.9/5.10	Planned 2	Yes *3	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	Emulex OCe14102 or OEM products	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	Brocade Brocade 415/425 or OEM products	OS bundled	via switch	Supported 5.9/5.10	N.A.	Supported 5.9/5.10	N.A.	Yes *3	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *6 Direct connection is supported only with 16Gbps CA.
 *11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
 *12 SAN boot is supported on 16Gbps Link Speed only.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.

- On Oracle Linux and SUSE Linux Enterprise Server environment, UNMAP function is not supported on Deduplication/Compression volume.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JCEn*, the character "*" can be any character applicable. Ex) MC-0JCE6* means MC-0JCE61 and MC-0JCE62 are applicable.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- In this document, the following abbreviations are used;

EMPD (ETERNUS Multipath Driver), PCL (PRIMECLUSTER)

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux9 *8 (including KVM)	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *3	Supported 9.0/9.1/9.2 *12 *16	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 9.2 *16	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	
	Software Initiator	NIC / CNA *2	OS bundled	Direct / via switch *3	Supported 9.0/9.1/9.2 *12 *16	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 9.2 *16	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*8 btrfs is not supported on Oracle Linux 7 or later.

*12 Oracle Linux 9.1 supports only the Unbreakable Enterprise Kernel (UEK).

*14 When using Oracle Linux 9 or later, use the following storage firmware.
DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later
DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux8 *8 (including KVM *10)	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *3	Supported 8.2/8.4 to 8.9 *13 *14	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 8.5 to 8.9 *13 *14	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	
	Hardware Initiator	PY-CN202/PY-CN202L/ PYBCN202/PYBCN202L PG-292B/PG-CND201	OS bundled	Direct / via switch	Planned 2	△	
		PY-CN3A1/ PYBCN3A1/PYBCN3A1L	OS bundled	Direct / via switch	Planned 2	△	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U	OS bundled	Direct / via switch	Planned 2	△	
		PY-CND02/ PYBCND021/PYBCND022 BX92xS3 オンボードCNA	OS bundled	Switch blade	Planned 2	△	

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*8 btrfs is not supported on Oracle Linux 7 or later.

*10 Oracle Linux 8 (minimum 8.1) and UEK R 6 (5.4 .17-2011 or later)

*13 Oracle Linux 8.7/8.9 supports only the Unbreakable Enterprise Kernel (UEK).

*14 When using Oracle Linux 8.4 or later, use the following storage firmware.

DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later

DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux8 *8 (including KVM *10)	Software Initiator	NIC / CNA *2	OS bundled	Direct / via switch *3	Supported 8.2/8.4 to 8.9 *13 *14	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 8.5 to 8.9 *13 *14	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	
	Hardware Initiator	Emulex OCe10102	OS bundled	Direct / via switch	Planned 2	△	
		Emulex OCe14401B	OS bundled	Direct / via switch	Planned 2	△	
		Emulex OCe14102	OS bundled	Direct / via switch	Planned 2	△	
		Emulex OCe11102	OS bundled	Direct / via switch	Planned 2	△	

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*8 btrfs is not supported on Oracle Linux 7 or later.

*10 Oracle Linux 8 (minimum 8.1) and UEK R 6 (5.4 .17-2011 or later)

*13 Oracle Linux 8.7/8.9 supports only the Unbreakable Enterprise Kernel (UEK).

*14 When using Oracle Linux 8.4 or later, use the following storage firmware.

DX S5 series / AF S3 series / DX8900 S4: V11L50-1000 or later

DX S4 / S3 series (excluding DX8900 S4) AF series / DX200F (excluding AF S3 series): V10L91-1000 or later

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux7	Software Initiator	NIC for PRIMEQUEST 3000 *2	EMPD	Direct / via switch *3	Supported 7.4 to 7.6/7.8	No	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	
		NIC for PRIMEQUEST 2000 *2	EMPD	Direct / via switch *3	Supported 7.4 to 7.6	No	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux7 *8 (including KVM *11)	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *3	Supported 7.0 to 7.9	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.1/7.2/7.3	No	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	OS bundled	Direct / via switch	Planned 2		
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	Direct / via switch	Planned 2		
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Planned 2		
	Software Initiator	Intel NIC / CNA *2	OS bundled	Direct / via switch *3	Supported 7.0 to 7.9	No	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 7.1/7.2/7.3	No	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	
	Hardware Initiator	Emulex OCe10102	OS bundled	Direct / via switch	Planned 2		
		Emulex OCe14102	OS bundled	Direct / via switch	Planned 2		
		Emulex OCe11102	OS bundled	Direct / via switch	Planned 2		

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*8 btrfs is not supported on Oracle Linux 7 or later.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*11 Oracle Linux 7 (minimum 7.6) and UEK R 5 Update 2 (4.14 .35-1902 or higher) or Oracle Linux 7 (minimum 7.7) and UEK R 6 (5.4 .17-2011 or later)

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux6	Software Initiator	NIC for PRIMEQUEST 2000 *2	OS bundled	Direct / via switch *3	Supported 6.5 to 6.9	No	
	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *3	Supported 6.3 to 6.10	No	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	OS bundled	Direct / via switch	Planned 2		
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	Direct / via switch	Planned 2		
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Planned 2		
	Software Initiator	Intel NIC / CNA	OS bundled	Direct / via switch *3	Supported 6.3 to 6.10	No	
	Hardware Initiator	Emulex OCe10102	OS bundled	Direct / via switch	Planned 2		
		Emulex OCe14102	OS bundled	Direct / via switch	Planned 2		
		Emulex OCe11102	OS bundled	Direct / via switch	Planned 2		

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Instruction for use
					DX S4/S3 series AF series/DX200F (except AF S3 series)		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Kernel Oracle Linux5	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *3	Supported 5.9/5.10	No	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	OS bundled	Direct / via switch	Planned 2		
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	Direct / via switch	Planned 2		
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Planned 2		
	Software Initiator	Intel NIC / CNA	OS bundled	Direct / via switch *3	Supported 5.9/5.10	No	
	Hardware Initiator	Emulex OCe10102	OS bundled	Direct / via switch	Planned 2		
		Emulex OCe14102	OS bundled	Direct / via switch	Planned 2		
		Emulex OCe11102	OS bundled	Direct / via switch	Planned 2		

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

Notes

- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
- Please contact the product supplier for operating condition of multipath software and HBA listed here.
- Please use the latest version of HBA firmware and driver unless note is stated.
- Please use the latest version of server BIOS unless note is stated.
- Please contact the server supplier for connection availability of HBA and FC switch.
- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
- On Oracle Linux and SUSE Linux Enterprise Server environment or on VxVM configuration, UNMAP function is not supported on Deduplication/Compression volume.
- Trademark symbols have been omitted from this document.
- HBA for PRIMEQUEST is shown as MC-0JFCn*, the character "*" can be any character applicable. Ex) MC-0JFC3* means MC-0JFC31 and MC-0JFC3L are applicable.
- Storage Cluster function is not supported on DX60 S5/S4/S3.
- In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), RHEL (Red Hat Enterprise Linux), PCL (PRIMECLUSTER), VCS (Veritas Cluster Server)
- FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		
SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM)	MC-0JFCF* MC-0JFCG* *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	Yes	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCk* MC-0JFCL*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported SP1	Supported SP1	Supported SP1	Supported SP1	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCM* MC-0JFCN* *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	Yes	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported SP1	Supported SP1	Supported SP1	Supported SP1	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA	Planned 2	Supported GA	Planned 2	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA	Planned 2	Supported GA	Planned 2	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC5* MC-0JFC6*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA	Planned 2	Supported GA	Planned 2	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM)	MC-0JFC7* MC-0JFC8*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	Supported GA/SP1	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled	Direct/via switch	Supported SP1	Supported SP1	Supported SP1	Supported SP1	*3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster. QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	Oracle RAC 12.1	
SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM)	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *15	OS bundled *22	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	*27 For SLES15SP4, execute the following. 1) Copy the /usr/lib/udev/rules.d/58- scsi-sg3_symlink.rules file to /etc/udev/rules.d/. 2) Edit the /etc/udev/rules.d/58- scsi-sg3_symlink.rules file and comment out or remove the following two lines. ENV{SCSI_IDENT_SERIAL}=="?", ENV{DEVTYPE}=="disk", SYMLINK+="disk/by-id/scsi- S\$env{SCSI_VENDOR}_\$env{SCSI_MODEL}_\$env{SCSI_IDENT_SERIAL} * ENV{SCSI_IDENT_SERIAL}=="?", ENV{DEVTYPE}=="partition", SYMLINK+="disk/by-id/scsi- S\$env{SCSI_VENDOR}_\$env{SCSI_MODEL}_\$env{SCSI_IDENT_SERIAL} -part%n" 3) Recreate the initrd. # mkinitrd 4) Reboot the OS.
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *15	OS bundled *22	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	OS bundled	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	OS bundled *22	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	OS bundled *22	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Yes	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
*22 Please set no_path_retry value at /etc/multipath.conf to "10". And neither TPV nor FTV can be used as advanced copy target volume.
*23 See "Instruction for use" for SLES15SP4.
*23 If you use SAN Boot and device-mapper multipath with SLES15SP5, set user_friendly_names to no in the/etc/multipath.conf configuration.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	Oracle RAC 12.1	
SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM)	Emulex LPe36000 / LPe36002 or OEM products *15	OS bundled *22	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	*27 For SLES15SP4, execute the following. 1) Copy the /usr/lib/udev/rules.d/58-scsi-sg3_symlink.rules file to /etc/udev/rules.d/. 2) Edit the /etc/udev/rules.d/58-scsi-sg3_symlink.rules file and comment out or remove the following two lines. ENV{SCSI_IDENT_SERIAL}=="?*", ENV{DEVTYPE}=="disk", SYMLINK+="disk/by-id/scsi-S\$env{SCSI_VENDOR}_\$env{SCSI_MODEL}_\$env{SCSI_IDENT_SERIAL} " ENV{SCSI_IDENT_SERIAL}=="?*", ENV{DEVTYPE}=="partition", SYMLINK+="disk/by-id/scsi-S\$env{SCSI_VENDOR}_\$env{SCSI_MODEL}_\$env{SCSI_IDENT_SERIAL} -part%n" 3) Recreate the initrd. # mkinitrd 4) Reboot the OS.
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	Emulex LPe35000 / LPe35002 or OEM products *15	OS bundled *22	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	OS bundled *22	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	OS bundled *22	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	QLogic QLE2870/QLE2872/QLE2874 or OEM products	OS bundled	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	QLogic QLE2770/QLE2772/QLE2774 or OEM products	OS bundled	Direct/ via switch	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Supported SP3/SP4/SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	QLogic QLE2740/QLE2742/QLE2764 or OEM products	OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/ via switch	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Yes	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLogic QLE2690/QLE2692/ QLE2694 or OEM products	OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *23	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	Supported SP4/SP5	No	Planned 2	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/ via switch	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Supported GA/SP1/SP2/SP3	Yes	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	OS bundled	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	OS bundled	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex OCe14401B or OEM products	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex OCe14102 or OEM products	OS bundled	FCoE switch *11	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*22 Please set no_path_retry value at /etc/multipath.conf to "10". And neither TPV nor FTV can be used as advanced copy target volume.

*23 If you use SAN Boot and device-mapper multipath with SLES15SP5, set user_friendly_names to no in the/etc/multipath.conf configuration.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		
SUSE Linux Enterprise Server 12	MC-0JFCF* MC-0JFCG* *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP1 to SP4	Supported SP1 to SP4	Supported SP1 to SP4	Supported SP1 to SP4	Yes	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
	MC-0JFC* MC-0JFCL*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP3	Supported SP3	Supported SP3	Supported SP3	Yes	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
	MC-0JFCM* MC-0JFCN* *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP2 to SP4	Supported SP2 to SP4	Supported SP2 to SP4	Supported SP2 to SP4	Yes	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
	MC-0JFCP* MC-0JFCQ*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP3	Supported SP3	Supported SP3	Supported SP3	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	
		OS bundled	Direct/via switch	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	
		OS bundled	Direct/via switch	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	
	MC-0JFC5* MC-0JFC6*	EMPD	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	
		OS bundled	Direct/via switch	Supported GA to SP3	Planned 2	Supported GA to SP3	Planned 2	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Planned 2	Supported GA/SP1/SP2	Planned 2	No	
	MC-0JFC7* MC-0JFC8*	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	
		OS bundled	Direct/via switch	Supported GA to SP4	Supported GA to SP4	Supported GA to SP4	Supported GA to SP4	Yes *3 *12	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	
		OS bundled	Direct/via switch	Supported GA to SP3	Supported GA to SP3	Supported GA to SP3	Supported GA to SP3	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP3	Supported SP3	Supported SP3	Supported SP3	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	Oracle RAC 12.1 *14	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled *18	Direct/ via switch	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported SP1/SP2/SP3 Planned 2 SP4	Supported SP1/SP2/SP3 Planned 2 SP4	Supported SP1/SP2/SP3 Planned 2 SP4	Supported SP1/SP2/SP3 Planned 2 SP4	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled *18	Direct/ via switch	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *3 *12	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	EMPD	Switch blade	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		EMPD + Storage Cluster		Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		OS bundled		Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *3 *12	Planned 2	Supported	
		OS bundled + Storage Cluster		Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP4 *13	Planned 2	Supported GA to SP4 *13	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Planned 2	Supported GA/SP1/SP2	Planned 2	No	Planned 2	Supported	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	EMPD	Switch blade/ Pass-through blade	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5 *13	Planned 2	Supported GA to SP5 *13	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster		Supported GA/SP1/SP2	Planned 2	Supported GA/SP1/SP2	Planned 2	No	Planned 2	Supported	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Supported GA to SP3 Planned 2 SP4	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*13 When using SLES12 SP3, please use the latest Kernel version or the latest driver version.

*14 Oracle RAC is supported on SUSE Linux Enterprise Server 12 SP2 only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*18 When using SP2 or SP3, please set no_path_retry value at /etc/multipath.conf to "10". And neither TPV nor FTV can be used as advanced copy target volume.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	Oracle RAC 12.1 *14	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP3 Planned 2 SP4	Planned 2	Supported GA to SP3 Planned 2 SP4	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Planned 2	Supported GA/SP1/SP2	Planned 2	No	Planned 2	Supported	
	PY-CN202 PG-292B S26361-F3592-L2	EMPD	FCoE switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled *18	Direct/ via switch	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled *18	Direct/ via switch	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	QLe2740/QLe2742/QLe2764 or OEM products	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Supported SP1 to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *3 *12	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	
	QLogic QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*14 Oracle RAC is supported on SUSE Linux Enterprise Server 12 SP2 only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*18 When using SP2 or SP3, please set no_path_retry value at /etc/multipath.conf to "10". And neither TPV nor FTV can be used as advanced copy target volume.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	Oracle RAC 12.1 *14	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/ via switch	Supported GA	Supported GA	Supported GA	Supported GA	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Supported GA	Planned 2	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Supported GA to SP5	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	Supported GA/SP1/SP2	No	Planned 2	Supported	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster	via switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP5 *13	Planned 2	Supported GA to SP5 *13	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Planned 2	Supported GA/SP1/SP2	Planned 2	No	Planned 2	Supported	
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/ via switch	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *11	Supported GA/SP1/SP2	Planned 2	Supported GA/SP1/SP2	Planned 2	No	Planned 2	Supported	
	Emulex OCe10102 or OEM products	EMPD	FCoE switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes *3	Planned 2	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes	Planned 2	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *11	Supported GA	Planned 2	Supported GA	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported GA to SP5	Planned 2	Supported GA to SP5	Planned 2	Yes	Planned 2	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
 *13 When using SLES12 SP3, please use the latest Kernel version or the latest driver version.
 *14 Oracle RAC is supported on SUSE Linux Enterprise Server 12 SP2 only.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		
SUSE Linux Enterprise Server 11	MC-0JFCF* MC-0JFCG*	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	
	MC-0JFC3* MC-0JFC9*	EMPD	Direct/ via switch	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
	MC-0JFC4* MC-0JFCA*	EMPD	Direct/ via switch	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
	MC-0JFC5* MC-0JFC6*	EMPD	Direct/ via switch	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
		OS bundled	Direct/via switch	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Planned 2	Supported SP3/SP4	Planned 2	No	
	MC-0JFC7* MC-0JFC8*	EMPD	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	
		OS bundled	Direct/via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3 *12	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	
	MC-0JFCB* MC-0JFCC*	EMPD	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	
		OS bundled	Direct/via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	
	MC-0JFCD* MC-0JFCE*	EMPD	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	No	
		EMPD + Storage Cluster	via switch *11	Supported SP4	Supported SP4	Supported SP4	Supported SP4	No	
		OS bundled	Direct/via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	
		OS bundled + Storage Cluster	via switch *11	Supported SP4	Supported SP4	Supported SP4	Supported SP4	No	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	VCS 6.0/6.1 *5	
SUSE Linux Enterprise Server (x86/Intel64) SLES 11	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		OS bundled	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	-	
		OS bundled	Direct/ via switch	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Yes *3 *12	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Yes *3 *12	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	Supported 6.1.1	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	EMPD	Switch blade	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	-	
		EMPD + Storage Cluster		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Yes *3 *12	Supported SP4	-	
		OS bundled + Storage Cluster		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	Supported SP4	-	
		VxVM DMP		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Yes *3 *12	-	Supported	
		VxVM DMP + Storage Cluster		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	Supported 6.1.1	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	Supported 6.1.1	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*5 Veritas Storage Foundation does not support x86 architecture.
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
*12 SAN boot is supported on 16Gbps Link Speed only.
*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	VCS 6.0/6.1 *5	
SUSE Linux Enterprise Server (x86/Intel64) SLES 11	PY-FCD02 PG-FCD202 S26361-F3874-L1	EMPD	Switch blade/ Pass-through blade	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	Supported SP4	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	Supported 6.1.1	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	EMPD	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		OS bundled	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	Supported 6.1.1	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	EMPD	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		OS bundled	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	Supported 6.1.1	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	Supported 6.1.1	
	PY-CN202 PG-292B S26361-F3592-L2	EMPD	FCoE switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
*5 Veritas Storage Foundation does not support x86 architecture.
*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	VCS 6.0/6.1 *5	
SUSE Linux Enterprise Server (x86/Intel64) SLES 11	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	Emulex LPe32000 / LPe32002 or OEM products *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *15	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	-	Planned 2	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	QLe2740/QLe2742/QLe2764 or OEM products	EMPD	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP4	Supported SP4	Supported SP4	Supported SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	Yes *3	-	Planned 2	
		VxVM DMP + Storage Cluster	via switch *11	Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	-	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	-	
		OS bundled	Direct/ via switch	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Yes *3 *12	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Yes *3 *12	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	-	Supported 6.1.1	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*5 Veritas Storage Foundation does not support x86 architecture.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*12 SAN boot is supported on 16Gbps Link Speed only.

*15 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	VCS 6.0/6.1 *5	
SUSE Linux Enterprise Server (x86/Intel64) SLES 11	QLogic QLE2690/ QLE2692/ QLE2694 or OEM products	EMPD	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		OS bundled	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	Supported 6.1.1	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	EMPD	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	-	
		OS bundled	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	Supported SP3/SP4	No	-	Supported 6.1.1	
	Emulex LPe12000/LPe12002/ LPe1250 or OEM products	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	When upgrading HBA firmware, please follow the procedure below. 1. Disconnect FC cable 2. Upgrade HBA firmware 3. Power off server 4. Reconnect FC cable 5. Power on server
		EMPD + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	Supported 6.1.1	
	QLogic QLE2560/QLE2562 or OEM products	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		OS bundled + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	Supported SP4	-	
		VxVM DMP	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster	via switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	Supported 6.1.1	
	Brocade Brocade 1860 *6 or OEM products	EMPD	Direct/ via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP4	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.
 *5 Veritas Storage Foundation does not support x86 architecture.
 *6 Direct connection is supported only with 16Gbps CA.
 *11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster		Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		SLES HA Extension	VCS 6.0/6.1 *5	
SUSE Linux Enterprise Server (x86/Intel64) SLES 11	Brocade Brocade 815/825 or OEM products	EMPD	via switch	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP2/SP3/SP4	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
	Emulex OCe10102 or OEM products	EMPD	FCoE switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	Supported SP2/SP3/SP4	-	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	Emulex OCe14401B or OEM products	EMPD	FCoE switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes	Supported SP2/SP3/SP4	-	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	Emulex OCe14102 or OEM products	EMPD	FCoE switch *11	Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	No	-	-	
		EMPD + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes	Supported SP2/SP3/SP4	-	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	-	
		VxVM DMP		Supported SP2/SP3/SP4	Planned 2	Supported SP2/SP3/SP4	Planned 2	Yes *3	-	Supported	
		VxVM DMP + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	-	Planned 2	
	Brocade Brocade 415/425 or OEM products	EMPD	via switch	Supported SP2/SP3/SP4	N.A.	Supported SP2/SP3/SP4	N.A.	No	-	-	
		OS bundled		Supported SP2/SP3/SP4	N.A.	Supported SP2/SP3/SP4	N.A.	Yes	Supported SP2/SP3/SP4	-	
		VxVM DMP		Supported SP2/SP3/SP4	N.A.	Supported SP2/SP3/SP4	N.A.	Yes *3	-	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*5 Veritas Storage Foundation does not support x86 architecture.

*11 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

OS	HBA	Path Failover	Connected type	Storage	SAN boot	Instruction for use
				DX S3 series AF series/DX200F (except AF S3 series)		
SUSE Linux Enterprise Server (Linux on Power) SLES 11	5735/5273	OS bundled	Direct/via switch	Supported SP3	Yes *3	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.

- On Oracle Linux and SUSE Linux Enterprise Server environment, UNMAP function is not supported on Deduplication/Compression volume.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JCEn*, the character "*" can be any character applicable. Ex) MC-0JCE6* means MC-0JCE61 and MC-0JCE62 are applicable.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), PCL (PRIMECLUSTER)

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		SLES HA Extension	
SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM) *11	Software Initiator	NIC for PRIMEQUEST 3000 *2	OS bundled	Direct / via switch *3	Supported GA	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
		NIC for PRIMEQUEST 2000 *2	OS bundled	Direct / via switch *3	Supported GA	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *3	Supported GA to SP5	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*11 Jumbo Frame is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		SLES HA Extension	
SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM) *11	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	OS bundled	Direct / via switch	Planned 2	Planned 2	Planned 2	
		PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	OS bundled		Planned 2	Planned 2	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	Direct / via switch	Planned 2	Planned 2	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Planned 2	Planned 2	Planned 2	
	Software Initiator	NIC / CNA *2	OS bundled	Direct / via switch *3	Supported GA to SP4	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
	Hardware Initiator	Emulex OCe14401B	OS bundled	Direct / via switch	Planned 2			
		Emulex OCe14102	OS bundled	Direct / via switch	Planned 2			
		Emulex OCe11102	OS bundled	Direct / via switch	Planned 2			

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*11 Jumbo Frame is not supported.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		SLES HA Extension	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	Software Initiator	NIC for PRIMEQUEST 3000 *2	EMPD	Direct / via switch *3	Supported SP2 to SP4	No	N.A.	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	N.A.	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
		NIC for PRIMEQUEST 2000 *2	EMPD	Direct / via switch *3	Supported GA to SP5	No	N.A.	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	N.A.	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, please use Catalyst firmware 12.2(54)SG1.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		SLES HA Extension	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct / via switch *3	Supported GA	No	Planned 2	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	N.A.	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported GA to SP4	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported SP1	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Planned 2			
			OS bundled		Planned 2			

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		SLES HA Extension	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	Software Initiator	Intel NIC / CNA *2	EMPD	Direct / via switch *3	Supported GA	No	-	
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	N.A.	*9
			EMPD + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
			OS bundled	Direct / via switch *3	Supported GA to SP4	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported SP1	No	Planned 2	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	N.A.	N.A.	N.A.	
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		Emulex OCe14102	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		Emulex OCe11102	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*9 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

OS	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series/DX200F		SLES HA Extension	
SUSE Linux Enterprise Server for x86/EM64T/Xen SLES11	Software Initiator	NIC for PRIMEQUEST 2000 *2	EMPD	Direct / via switch *3	Supported SP3/SP4	No	Planned 2	
			OS bundled		Supported SP3/SP4	No	Planned 2	
SUSE Linux Enterprise Server for x86/EM64T/Xen SLES11 *7	Software Initiator	NIC and CNA for PRIMERGY *2	EMPD	Direct / via switch *3	Supported SP2/SP3/SP4	No	-	
			OS bundled		Supported SP2/SP3/SP4		Supported	
	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Planned 2			
			OS bundled		Planned 2			
	Software Initiator	Intel NIC / CNA	EMPD	Direct / via switch *3	Supported SP2/SP3/SP4	No	-	
			OS bundled		Supported SP2/SP3/SP4		Supported	
	Hardware Initiator	Emulex OCe10102	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		Emulex OCe14102	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			
		Emulex OCe11102	EMPD	Direct / via switch	Planned 2			
			OS bundled		Planned 2			

*2 Please contact server supplier about available NIC and CNA.

*3 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 ETERNUS's 10GBASE-T interface connection is not supported on SLES11 SP2..

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please use the latest version of server BIOS unless note is stated.
 - T10-DIF function is not supported. The ETERNUS volume to be used should be other than T10-DIF volume.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - On Oracle Linux and SUSE Linux Enterprise Server environment, UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.
 - In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), PCL (PRIMECLUSTER)

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		
SUSE Linux Enterprise Server 15 for AMD64/Intel 64 (including xen/KVM)	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	OS bundled	Direct	Planned 2	Supported SP4/SP5	No	
	PY-SC3FBE/ PYBSC3FBE/PYBSC3FBEL	OS bundled	Direct	Planned 2	Supported SP3/SP4/SP5	No	
	PY-SC3FBF/PYBSC3FBF/ PYBSC3FBFL S26361-F5793-E251	OS bundled	Direct	Planned 2	Supported SP3/SP4/SP5	No	
	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Planned 2	Supported GA/SP1/SP2	No	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/E1	OS bundled	Direct	Planned 2	Planned 2	No	
	LSI SAS9500-16e	OS bundled	Direct	Planned 2	Supported SP4/SP5	No	
	LSI SAS9400-8e	OS bundled	Direct	Planned 2	Supported SP3/SP4/SP5	No	
	LSI SAS9300-8e	OS bundled	Direct/ via switch *3	Planned 2	Supported GA/SP1/SP2	No	
	LSI SAS9200-8e	OS bundled	Direct/ via switch *3	Planned 2	Planned 2	No	

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported GA	Supported GA	No	
		OS bundled		Supported GA to SP5	Supported GA to SP5	No	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported GA	Supported GA	No	
		OS bundled		Supported GA to SP5	Supported GA to SP5	No	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Supported GA	Supported GA	No	
		OS bundled		Supported GA to SP5	Supported GA to SP5	No	
	LSI SAS9300-8e	EMPD	Direct/ via switch *3	Supported GA	Supported GA	No	
		OS bundled		Supported GA to SP5	Supported GA to SP5	No	
	LSI SAS9200-8e	EMPD	Direct/ via switch *3	Supported GA	Supported GA	No	
		OS bundled		Supported GA to SP5	Supported GA to SP5	No	
	LSI SAS3442E-R	EMPD	Direct	Supported GA	-	No	
		OS bundled		Supported GA to SP5	-	No	

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

OS	HBA	Path Failover	Connected type	Storage		SAS boot	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		
SUSE Linux Enterprise Server (x86/EM64T/Xen) SLES11	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	EMPD	Direct	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	EMPD	Direct	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	EMPD	Switch blade/ Pass-through blade	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	EMPD	Direct	Supported SP2/SP3/SP4	-	No	
		OS bundled		Supported SP2/SP3/SP4	-	No	
	LSI SAS9300-8e	EMPD	Direct/ via switch *3	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
	LSI SAS9200-8e	EMPD	Direct/ via switch *3	Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	Supported SP2/SP3/SP4	No	
	LSI SAS3442E-R	EMPD	Direct	Supported SP2/SP3/SP4	-	No	
		OS bundled		Supported SP2/SP3/SP4	-	No	

*3 Only direct connection is supported on DX100 S4 and DX200 S4.

Notes

- Please contact the server supplier for the server support status of OS, multipath software, CNA and clusterware listed here.
- Please contact the product supplier for operating condition of multipath software and CNA listed here.
- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
- Please use the latest version of CNA firmware and driver unless note is stated.
- Please use the latest version of server BIOS unless note is stated.
- Please contact the server supplier for connection availability of CNA and FCoE switch.
- ETERNUS DX60 S3 is not applicable since FCoE interface is not supported.
- On Oracle Linux and SUSE Linux Enterprise Server environment, UNMAP function is not supported on Deduplication/Compression volume.
- Trademark symbols have been omitted from this document.
- HBA for PRIMEQUEST is shown as MC-0JCEn*, the character "*" can be any character applicable. Ex) MC-0JCE6* means MC-0JCE61 and MC-0JCE62 are applicable.
- In this document, the following abbreviations are used;
EMPD (ETERNUS Multipath Driver), PCL (PRIMECLUSTER)

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Cluster	Instruction for use
				DX S3 series		PCL 4.3 to 4.5	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	MC-0JCEL*	EMPD	FCoE switch	Supported 7.3/7.4	Yes	Planned 2	
		OS bundled		Planned 2		Planned 2	
	MC-0JCE6*	EMPD	FCoE switch	Supported 7.2/7.3/7.4	Yes	Planned 2	
		OS bundled		Planned 2		Planned 2	

Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	PY-CN202 PG-292 S26361-F3592-L2	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2		Planned 2	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2		Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2		Planned 2	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Supported 7.0/7.1/7.2	Yes	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2		Planned 2	

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Cluster	Instruction for use
				DX S3 series		PCL 4.3 to 4.5	
Red Hat Enterprise Linux (Intel64) RHEL7 & KVM	Emulex OCe10102	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes *1	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2	Yes *1	Planned 2	
	Emulex OCe14401B	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes *1	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2	Yes *1	Planned 2	
	Emulex OCe14102	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes *1	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2	Yes *1	Planned 2	
	Emulex OCe11102	EMPD	FCoE switch	Supported 7.0/7.1/7.2	Yes *1	Planned 2	
		OS bundled		Supported 7.0/7.1/7.2	Yes *1	Planned 2	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Cluster	Instruction for use
				DX S3 series		PCL 4.3 to 4.5 *2	
Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	MC-0JCE6*	EMPD	FCoE switch	Supported 6.6 to 6.10	Yes	Supported	
		OS bundled		Supported 6.6 to 6.10	Yes	Supported	
	PY-CN202 S26361-F3592-L2	EMPD	FCoE switch	Supported 6.3 to 6.7	Yes	Supported	
		OS bundled		Supported 6.3 to 6.7		Supported	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch	Supported 6.3 to 6.10	Yes	Supported	
		OS bundled		Supported 6.3 to 6.10		Supported	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch	Supported 6.3 to 6.10	Yes	Supported	
		OS bundled		Supported 6.3 to 6.10		Supported	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Supported 6.3 to 6.10	Yes	Supported	
		OS bundled		Supported 6.3 to 6.10		Supported	

Red Hat Enterprise Linux (x86/Intel64) RHEL6 & KVM	Emulex OCe10102	EMPD	FCoE switch	Supported 6.4 to 6.7	Yes *1	Supported	
		OS bundled		Supported 6.4 to 6.7	Yes *1	Supported	
	Emulex OCe14401B	EMPD	FCoE switch	Supported 6.4 to 6.10	Yes *1	Supported	
		OS bundled		Supported 6.3 to 6.10	Yes *1	Supported	
	Emulex OCe14102	EMPD	FCoE switch	Supported 6.4 to 6.10	Yes *1	Supported	
		OS bundled		Supported 6.3 to 6.10	Yes *1	Supported	
	Emulex OCe11102	EMPD	FCoE switch	Supported 6.4 to 6.10	Yes *1	Supported	
		OS bundled		Supported 6.3 to 6.10	Yes *1	Supported	
		EMPD		Supported 6.4 to 6.10	Yes *1	Supported	
		OS bundled		Supported 6.3 to 6.10	Yes *1	Supported	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Cluster	Instruction for use
				DX S3 series		PCL 4.2/4.3 *2	
Red Hat Enterprise Linux (x86/Intel64) RHEL5	PY-CN202 PG-292 S26361-F3592-L2	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes	Supported	
		OS bundled		Supported 5.9 to 5.11		Supported	
	PG-CND201	EMPD	Switch blade	Supported 5.9 to 5.11	Yes	Supported	
		OS bundled		Supported 5.9 to 5.11		Supported	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes	Supported	
		OS bundled		Supported 5.9 to 5.11		Supported	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes	Supported	
		OS bundled		Supported 5.9 to 5.11		Supported	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Supported 5.9 to 5.11	Yes *1	Supported	
		OS bundled		Supported 5.9 to 5.11	Yes *1	Supported	

Red Hat Enterprise Linux (x86/Intel64) RHEL5	Emulex OCe10102	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes *1	Supported
		OS bundled		Supported 5.9 to 5.11	Yes *1	Supported
	Emulex OCe14401B	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes *1	Supported
		OS bundled		Supported 5.9 to 5.11	Yes *1	Supported
	Emulex OCe14102	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes *1	Supported
		OS bundled		Supported 5.9 to 5.11	Yes *1	Supported
	Emulex OCe11102	EMPD	FCoE switch	Supported 5.9 to 5.11	Yes *1	Supported
		OS bundled		Supported 5.9 to 5.11	Yes *1	Supported

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

*2 PCL's I/O Fencing function is used for cluster configuration among guest OSs on VMware.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
SUSE Linux Enterprise Server 12	MC-0JCEL*	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	MC-0JCE6*	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	PY-CN202 PG-292 S26361-F3592-L2	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	PG-CND201	EMPD	Switch blade	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Supported GA	No	
		OS bundled		Supported GA to SP4	No	

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
SUSE Linux Enterprise Server 12 for AMD64/Intel 64 (including xen/KVM)	Emulex OCe10102	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	Emulex OCe14401B	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	Emulex OCe14102	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
	Emulex OCe11102	EMPD	FCoE switch	Supported GA	No	
		OS bundled		Supported GA to SP4	No	
		EMPD		Supported GA	No	
		OS bundled		Supported GA to SP4	No	

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
SUSE Linux Enterprise Server 11	MC-0JCE6*	EMPD	FCoE switch	Planned 2 SP3/SP4	No	
		OS bundled		Planned 2 SP3	Np	
SUSE Linux Enterprise Server (x86/EM64T/Xen) SLES11	PY-CN202 PG-292 S26361-F3592-L2	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	PG-CND201	EMPD	Switch blade	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	PY-CN3A1/ PYBCN3A1/PYBCN3A1L S26361-F5539-L501 S26361-F5539-E1 S26361-F5539-E201 S26361-F5539-L211 S26361-F5539-E211	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	EMPD	Switch blade	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	

SUSE Linux Enterprise Server (x86/EM64T/Xen) SLES11	Emulex OCe10102	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	Emulex OCe14401B	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	Emulex OCe14102	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	
	Emulex OCe11102	EMPD	FCoE switch	Supported SP2/SP3/SP4	No	
		OS bundled		Supported SP2/SP3/SP4	No	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
Oracle Linux 7 (x86-64)	MC-0JCEL*	OS bundled	FCoE switch	Supported 7.4	Yes *1	
	MC-0JCE6*	OS bundled	FCoE switch	Supported 7.2/7.3/7.4	Yes *1	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Oracle Linux 7	PY-CN202 PG-292 S26361-F3592-L2	OS bundled	FCoE switch	Planned 2	Yes *1	
	PG-CND201	OS bundled	Switch blade	Planned 2	Yes *1	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch	Planned 2	Yes *1	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Planned 2	Yes *1	
	Emulex OCe10102	OS bundled	FCoE switch	Planned 2	Yes *1	
	Emulex OCe14102	OS bundled	FCoE switch	Planned 2	Yes *1	
	Emulex OCe11102	OS bundled	FCoE switch	Planned 2	Yes *1	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
Oracle Linux 6 (x86-64)	MC-0JCE6*	OS bundled	FCoE switch	Supported 6.6/6.7	Yes	
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Oracle Linux 6	PY-CN202 PG-292 S26361-F3592-L2	OS bundled	FCoE switch	Supported 6.4/6.5	Yes *1	
	PG-CND201	OS bundled	Switch blade	Supported 6.4/6.5	Yes *1	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch	Planned 2	Yes *1	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Supported 6.4/6.5	Yes *1	
	Emulex OCe10102	OS bundled	FCoE switch	Supported 6.4/6.5	Yes *1	
	Emulex OCe14102	OS bundled	FCoE switch	Planned 2	Yes *1	
	Emulex OCe11102	OS bundled	FCoE switch	Supported 6.4/6.5	Yes *1	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

OS	CNA	Path Failover	Connected type	Storage	FCoE boot	Instruction for use
				DX S3 series		
Oracle Linux (x86_64) Red Hat Compatible Kernel Unbreakable Enterprise Oracle Linux 5	PY-CN202 PG-292 S26361-F3592-L2	OS bundled	FCoE switch	Supported 5.9/5.10	Yes *1	
	PG-CND201	OS bundled	Switch blade	Supported 5.9/5.10	Yes *1	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch	Planned 2	Yes *1	
	PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade	Supported 5.9/5.10	Yes *1	
	Emulex OCe10102	OS bundled	FCoE switch	Supported 5.9/5.10	Yes *1	
	Emulex OCe14102	OS bundled	FCoE switch	Planned 2	Yes *1	
	Emulex OCe11102	OS bundled	FCoE switch	Supported 5.9/5.10	Yes *1	

*1 ETERNUS supports FCoE boot, but please ask server supplier if the connected server supports FCoE boot.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Functions supported by clusterware depends on each clusterware supplier. Please contact the clusterware supplier for the extended support functions such as geo cluster..

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Please contact the server supplier for connection availability of HBA and FC switch.

- On Oracle VM and Citrix Hypervisor (XenServer) environment, UNMAP function is not supported on Deduplication/Compression volume.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JFCn*, the character "*" can be any character applicable. Ex) MC-0JFC3* means MC-0JFC31 and MC-0JFC3L are applicable.

- VMware's VSAN is not supported.

- VMware Multi-Pathing plug-in for ETERNUS is referred to as "VAMP" in this document.

- Please refer to "VMware VVOL" part for VMware VVOL support status.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- FC 8Gbps (maximum transfer rate) of "DX S5 series" is supported only on DX60 S5.

<https://www.fujitsu.com/global/support/products/computing/storage/download/vmware-mp-plugin.html>

For supported vSphere editions, refer to the operating environment or software documentation on the VAMP public page.

VM	HBA*20	Path Failover*19	Connected type*21	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port) *17	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port) *17	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)*18	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port) *18		HA/FT *1	
VMware ESXi 8.0	MC-0JFCM* MC-0JFCN* *15	VAMP 1.3.0	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		VAMP 1.3.0	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
	MC-0JFCF* MC-0JFCG* *15	VAMP + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
		OS bundled + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
	MC-0JFCK* MC-0JFCL* 	VAMP 1.3.0	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
	MC-0JFCP* MC-0JFCQ* 	VAMP 1.3.0	Direct/ via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7
		OS bundled	via switch	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1	Supported U1	Supported U1	Supported U1	Yes	Supported	*7

- *1 vSphere Metro Storage Cluster (vMSC) is not supported.
- *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
- *8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
- *15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>
- *17 Cluster VMDK is not supported.
- *18 Clustered VMDK is supported on ESXi 7.0U1 or later. When using Clustered VMDK, change the host response setting "Mode Sense command settings" to "Good".
Use the following storage firmware.
DX S5 series/AF S3 series/DX8900 S4: V11L60/L61-3000 or later
- *19 Clustered VMDK in VAMP environment is not supported.
- *20 Please refer to KB for FC connection. <https://kb.vmware.com/s/article/84325>
- *21 Clustered VMDK is supported with switch connection.
- *22 Please refer to KB for FC direct connection on ESXi 8.0GA. <https://kb.vmware.com/s/article/89533>

VM	HBA*20	Path Failover*19	Connected type*21	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port) *17	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port) *17	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)*18	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port) *18		HA/FT *1	
VMware ESXi 8.0	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resiganture of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

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*18 Clustered VMDK is supported on ESXi 7.0U1 or later. When using Clustered VMDK, change the host response setting "Mode Sense command settings" to "Good".
Use the following storage firmware.
DX S5 series/AF S3 series/DX8900 S4: V11L60/L61-3000 or later

*19 Clustered VMDK in VAMP environment is not supported.

*20 Please refer to KB for FC connection. <https://kb.vmware.com/s/article/84325>

*21 Clustered VMDK is supported with switch connection.

*22 Please refer to KB for FC direct connection on ESXi 8.0GA. <https://kb.vmware.com/s/article/89533>

VM	HBA*20	Path Failover*19	Connected type*21	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port) *17	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port) *17	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)*18	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port) *18		HA/FT *1	
VMware ESXi 8.0	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

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Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.

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VM	HBA*20	Path Failover*19	Connected type*21	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port) *17	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port) *17	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)*18	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port) *18		HA/FT *1	
VMware ESXi 8.0	LPe36000 / LPe36002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	LPe35000 / LPe35002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	LPe32000 / LPe32002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	LPe31000 / LPe31002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7

VMware ESXi 8.0	QLE2870/QLE2872/ QLE2874 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1	Supported GA/U1	Yes	Supported	*7
	QLE2770/QLE2772/ QLE2774 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7
	QLE2740/QLE2742/ QLE2764 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7
	QLE2690/QLE2692/ QLE2694 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Supported GA/U1/U2 *22	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1	Supported GA/U1	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7

- *1 vSphere Metro Storage Cluster (VMSC) is not supported.
- *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
- *8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
- *15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>
- *17 Cluster VMDK is not supported.
- *18 When using Clustered VMDK, change the host response setting "Mode Sense command settings" to "Good".
Use the following storage firmware.
DX S5 series/AF S3 series/DX8900 S4: V11L60/L61-3000 or later
- *19 Clustered VMDK in VAMP environment is not supported.
- *20 Please refer to KB for FC connection. <https://kb.vmware.com/s/article/84325>
- *21 Clustered VMDK is supported with switch connection.
- *22 Please refer to KB for FC direct connection on ESXi 8.0GA. <https://kb.vmware.com/s/article/89533>

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 7.0	MC-0JFCF* MC-0JFCG* *14	OS bundled	Direct/ via switch	Planned 2	Planned 2	Supported *16 GA/U1/U2	Planned 2	Yes*17	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFCK* MC-0JFCL*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFCM* MC-0JFCN* *14	OS bundled	Direct/ via switch	Supported U1	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFCP* MC-0JFCQ*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Supported GA/U1	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFC3* MC-0JFC9*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFC4* MC-0JFCA*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFC5* MC-0JFC6*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFC7* MC-0JFC8*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7
	MC-0JFCB* MC-0JFCC*	OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*11 Automatic UNMAP function to Thin Provisioning volume on VMFS Datastore is supported on Deduplication/Compression volume only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

*16 Connection via switch is not supported

*17 ESXi 7.0U2 only "SAN boot" support

VM	HBA*20	Path Failover*19	Connected type*21	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port) *17	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port) *17	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)*18	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port) *18		HA/FT *1	
VMware ESXi 7.0	PY-FC441/PYBFC441/ PYBFC441L PY-FC442/PYBFC442/ PYBFC442L *14	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
	PY-FC421/PYBFC421/ PYBFC421L PY-FC422/PYBFC422/ PYBFC422L *14	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
	PY-FC411/PYBFC411/ PYBFC411L PY-FC412/PYBFC412/ PYBFC412L	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7

VMware ESXi 7.0	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7

- *1 vSphere Metro Storage Cluster (VMSC) is not supported.
- *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
- *8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.
- *15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
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- *17 Cluster VMDK is not supported.
- *18 Clustered VMDK is supported on ESXi 7.0U1 or later. When using Clustered VMDK, change the host response setting "Mode Sense command settings" to "Good".
Use the following storage firmware.
DX S5 series/AF S3 series/DX8900 S4: V11L60/L61-3000 or later
- *19 Clustered VMDK in VAMP environment is not supported.
- *20 Please refer to KB for FC connection. <https://kb.vmware.com/s/article/84325>
- *21 Clustered VMDK is supported with switch connection.

VM	HBA*20	Path Failover*19	Connected type*21	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port) *17	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port) *17	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)*18	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port) *18		HA/FT *1	
VMware ESXi 7.0	LPe36000 / LPe36002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
	LPe35000 / LPe35002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
	LPe32000 / LPe32002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7
	LPe31000 / LPe31002 or OEM products *14	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7

VMware ESXi 7.0	QLE2870/QLE2872/ QLE2874 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
	QLE2770/QLE2772/ QLE2774 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	*7
	QLe2740/QLe2742/ QLe2764 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7
	QLogic QLE2690/QLE2692/ QLE2694 or OEM products	VAMP 1.3.0	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	*7

- *1 vSphere Metro Storage Cluster (VMSC) is not supported.
- *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
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- *15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
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- *19 Clustered VMDK in VAMP environment is not supported.
- *20 Please refer to KB for FC connection. <https://kb.vmware.com/s/article/84325>
- *21 Clustered VMDK is supported with switch connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.7 *11	MC-0JFCF* MC-0JFCG* *14	OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	MC-0JFCK* MC-0JFCL*	OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	MC-0JFCM* MC-0JFCN* *14	OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	MC-0JFCP* MC-0JFCQ*	OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	MC-0JFC3* MC-0JFC9*	OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	MC-0JFC4* MC-0JFCA*	OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	MC-0JFC5* MC-0JFC6*	OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	MC-0JFC7* MC-0JFC8*	OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	MC-0JFCB* MC-0JFCC*	OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

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*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.

Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.

<https://kb.vmware.com/s/article/68135>

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.7 *11	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	VAMP	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	VAMP 1.2.1 or later *16	Direct/ via switch	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Planned 2	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7

*1 vSphere Metro Storage Cluster (VMSC) is not supported.

*7 "Storage Cluster" RDM is supported. However, RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*11 ESXi6.7GA / U1 supports the automatic UNMAP function for VMFS datastore thin provisioned volumes only for deduplication / compression volumes.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.

<https://kb.vmware.com/s/article/68135>

*16 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.7 *11	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	LPe32000 / LPe32002 or OEM products *14	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	LPe31000 / LPe31002 or OEM products *14	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	QLe2740/QLe2742/ QLe2764 or OEM products	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	QLogic QLE2690/QLE2692/ QLE2694 or OEM products	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Supported GA *15/U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Supported GA *15/U1/U2	Yes	Supported	*7
	Emulex LPe16000/LPe16002 or OEM products	VAMP 1.2.1 or later *16	Direct/ via switch	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Planned 2	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U3	Supported U3	Supported U3	Supported U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2 209/280	Planned 2	Planned 2	No	Planned 2	*7

- *1 vSphere Metro Storage Cluster (VMSC) is not supported.
- *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
- *8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *11 ESXi6.7GA / U1 supports the automatic UNMAP function for VMFS datastore thin provisioned volumes only for deduplication / compression volumes.
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				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.7 *11	Emulex LPe12000/LPe12002/LPe1250 or OEM products	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7
	QLogic QLE2560/QLE2562 or OEM products	VAMP 1.2.1 or later *16	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA *15	Supported GA *15	Supported GA *15	Supported GA *15	Yes	Supported	*7

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*15 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
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*16 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

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				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.5 *11	MC-0JFCF* MC-0JFCG* *14	OS bundled	Direct/ via switch	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U1/U2	Supported U1/U2	Yes	Supported	*7
	MC-0JFCK* MC-0JFCL*	OS bundled	Direct/ via switch	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U1/U2 *16	Supported U1/U2 *16	Yes	Supported	*7
	MC-0JFCM* MC-0JFCN* *14	OS bundled	Direct/ via switch	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2 *16	Supported U1/U2 *16	Supported U1/U2 *16	Supported U1/U2 *16	Yes	Supported	*7
	MC-0JFCP* MC-0JFCQ*	OS bundled	Direct/ via switch	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Supported U1 to U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	MC-0JFC3* MC-0JFC9*	OS bundled	Direct/ via switch	Supported GA /U2 *16 Planned 2U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFC4* MC-0JFCA*	OS bundled	Direct/ via switch	Supported GA /U2 *16 Planned 2U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFC5* MC-0JFC6*	OS bundled	Direct/ via switch	Supported GA /U2 *16 Planned 2U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFC7* MC-0JFC8*	OS bundled	Direct/ via switch	Supported GA to U3 *16	Supported GA to U3 *16	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA /U2	Supported GA /U2	Supported GA/U2	Supported GA/U2	Yes	Supported	*7
	MC-0JFCB* MC-0JFCC*	OS bundled	Direct/ via switch	Supported GA/U1/U2 *16	Supported GA/U1/U2 *16	Supported GS/U2	Supported GS/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA /U2	Supported GA /U2	Supported GA/U2	Supported GA/U2	Yes	Supported	*7
	MC-0JFCD* MC-0JFCE*	OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported GA/U2/U3	Supported GA/U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA /U2	Supported GA /U2	Supported GA/U2	Supported GA/U2	Yes	Supported	*7

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*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

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*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.5 *11	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	VAMP 1.2.1 or later *17	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	VAMP 1.2.1 or later *17	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	VAMP 1.2.1 or later *17	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes	Supported	*7
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA /U1/U2 *16	Supported GA /U1/U2 *16	Supported U2	Supported U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *16	Supported GA/U1/U2 *16	Supported U2	Supported U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes	Supported	*7
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA to U3 *16	Supported GA to U3 *16	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Supported GA to U3 *16	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*11 Automatic UNMAP function to Thin Provisioning volume on VMFS Datastore is supported on Deduplication/Compression volume only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

*17 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.5 *11	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported GA/U1	Supported GA/U1	Supported U2	Supported U2	Yes	Supported	
		OS bundled + Storage Cluster		Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes	Supported	*7
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA /U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA/U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported GA Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA /U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA/U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch *8	Supported GA Planned 2 U1	Planned 2	Supported U2	Planned 2	No	Supported	PRIMERGY M4 series is not supported.
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*11 Automatic UNMAP function to Thin Provisioning volume on VMFS Datastore is supported on Deduplication/Compression volume only.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

*17 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VM	HBA *2	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.5 *11	LPe32000 / LPe32002 or OEM products *14	VAMP 1.2.1 or later *17	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	LPe31000 / LPe31002 or OEM products *14	VAMP 1.2.1 or later *17	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	QLe2740/QLe2742/ QLe2764 or OEM products	VAMP 1.2.1 or later *17	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported U1/U2/U3	Supported U1/U2/U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U1/U2	Supported U1/U2	Supported U2	Supported U2	Yes	Supported	*7
	Emulex LPe16000 / LPe16002 or OEM products	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA to U3 *16	Supported GA to U3 *16	Supported U2/U3	Supported U2/U3	Yes *9	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Supported GA to U3 *16	Supported U2/U3	Supported U2/U3	Yes *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes *9	Supported	*7
	QLogic QLE2690/QLE2692/ QLE2694 or OEM products	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported U2/U3	Supported U2/U3	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please ask VMware if the connected HBA is certified by VMware or not.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*11 Automatic UNMAP function to Thin Provisioning volume on VMFS Datastore is supported on Deduplication/Compression volume only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

*17 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VM	HBA *2	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.5 *11	QLogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA /U1/U2 *16	Supported GA /U1/U2 *16	Supported U2	Supported U2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2 *16	Supported GA/U1/U2 *16	Supported U2	Supported U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U2	Supported GA/U2	Supported U2	Supported U2	Yes	Supported	*7
	Emulex LPe12000/LPe12002/LPe1250 or OEM products	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA /U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA/U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	QLogic QLE2560/QLE2562 or OEM products	VAMP 1.2.1 or later *17	Direct/ via switch	Supported GA /U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	*7
		OS bundled	Direct/ via switch	Supported GA/U2 *16 Planned 2 U1	Planned 2	Supported U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	Emulex OCe14401B or OEM products *13	OS bundled	FCoE switch *8	Supported GA Planned 2 U1	Planned 2	Supported U2	Planned 2	No	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	
	Emulex OCe14102 or OEM products *13	OS bundled	FCoE switch *8	Supported GA Planned 2 U1	Planned 2	Supported U2	Planned 2	No	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	No	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please ask VMware if the connected HBA is certified by VMware or not.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*11 Automatic UNMAP function to Thin Provisioning volume on VMFS Datastore is supported on Deduplication/Compression volume only.

*13 Driver should be lpfc driver.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

*17 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.0	MC-0JFC11 MC-0JFC21	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFCF* MC-0JFCG* *14	VAMP	Direct/ via switch	Planned 2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Planned 2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U3	Supported U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U3	Supported U3	Planned 2	Planned 2	Yes	Supported	*7

VMware ESXi 6.0	MC-0JFC3* MC-0JFC9*	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFC4* MC-0JFCA*	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFC5* MC-0JFC6*	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	MC-0JFC7* MC-0JFC8*	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *3*9	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *3*9	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported GA/U1/U2	Supported GA/U1/U2	Yes *3*9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes *3*9	Supported	*7
	MC-0JFCB* MC-0JFCC*	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Supported GA/U1/U2	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is suppoted on 16Gbps Link Speed only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.0	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	VAMP	Direct/ via switch	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	VAMP	Direct/ via switch	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	VAMP	Direct/ via switch	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *3*9	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *3*9	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes *3*9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	Planned 2	Planned 2	Yes *3*9	Supported	*7
	PY-FCD12/ PYBFC121/PYBFC122 S26361-F4994-E402/ S26361-F4994-L402 MC-FC162E	VAMP	Switch blade	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *9	Supported	
		VAMP + Storage Cluster		Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *9	Supported	*7
		OS bundled		Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes *9	Supported	
		OS bundled + Storage Cluster		Supported GA/U1/U2	Supported GA/U1/U2	Planned 2	Planned 2	Yes *9	Supported	*7
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is suppoted on 16Gbps Link Speed only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

VM	HBA *2	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.0	PY-FCD02 PG-FCD202 S26361-F3874-L1	VAMP	Switch blade/ Pass-through blade	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster		Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled		Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes	Supported	*7
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	Planned 2	Planned 2	Yes	Supported	*7
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	VAMP	FCoE switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	N.A.	N.A.	No	Planned 2	
		OS bundled		Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please ask VMware if the connected HBA is certified by VMware or not.

*7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

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*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

VM	HBA *2	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.0	Emulex LPe32000 / LPe32002 or OEM products *14	VAMP	Direct/ via switch	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	*7
	Qlogic QLE2740/QLE2742/QLE2764 or OEM product	VAMP	Direct/ via switch	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	*7
	Emulex LPe31000 / LPe31002 or OEM products *14	VAMP	Direct/ via switch	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2	Supported U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Supported U2/U3	Planned 2	Planned 2	Yes	Supported	*7
	Emulex LPe16000 / LPe16002 or OEM products	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *9	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes *9	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	Planned 2	Planned 2	Yes *9	Supported	*7
	QLogic QLE2690/QLE2692/ QLE2694 or OEM products	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes	Supported	*7
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	VAMP	Direct/ via switch	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Supported GA to U3	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Supported GA/U1/U2	Planned 2	Planned 2	Yes	Supported	*7

*1 vSphere Metro Storage Cluster (vMSC) is not supported.
 *2 Please ask VMware if the connected HBA is certified by VMware or not.
 *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
 *8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
 *14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA *2	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		HA/FT *1	
VMware ESXi 6.0	Emulex LPe12000/LPe12002/LPe1250 or OEM products	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	QLogic QLE2560/QLE2562 or OEM products	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3 *16	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	*7
	Emulex OCe14401B or OEM products	VAMP	FCoE switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	N.A.	N.A.	No	Planned 2	
		OS bundled		Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	
	Emulex OCe14102 or OEM products	VAMP	FCoE switch *8	Supported GA/U1/U2	Planned 2	N.A.	N.A.	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	N.A.	N.A.	No	Planned 2	
		OS bundled		Supported GA/U1/U2	Planned 2	Planned 2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Yes	Planned 2	

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*16 ESXi6.5 U2/ESXi6.0 U3 is supported via FC switch connection only.

VM	HBA	Path Failover	Connected type	Storage		SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)		HA/FT *1	
VMware ESXi 5.5	MC-0JFC3* MC-0JFC9*	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
	MC-0JFC4* MC-0JFCA*	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
	MC-0JFC5* MC-0JFC6*	VAMP	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
	MC-0JFC7* MC-0JFC8*	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes *3*9	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes *3*9	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes *3*9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes *3*9	Supported	*7
	MC-0JFCB* MC-0JFCC*	VAMP	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
	MC-0JFC11/MC-0JFC21	VAMP	Direct/ via switch	Supported GA/U1/U2	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA/U1/U2	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA/U1/U2	Planned 2	Yes	Supported	*7

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VM	HBA	Path Failover	Connected type	Storage		SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)		HA/FT *1	
VMware ESXi 5.5	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes *3*9	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes *3*9	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes *3*9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes *3*9	Supported	*7
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	VAMP	Switch blade	Supported GA to U3	Planned 2	Yes *9	Supported	
		VAMP + Storage Cluster		Supported GA to U3	Planned 2	Yes *9	Supported	*7
		OS bundled		Supported GA to U3	Planned 2	Yes *9	Supported	
		OS bundled + Storage Cluster		Supported GA to U3	Planned 2	Yes *9	Supported	*7
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
	PY-FCD02 PG-FCD202 S26361-F3874-L1	VAMP	Switch blade/ Pass-through blade	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster		Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Supported GA to U3	Planned 2	Yes	Supported	*7
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	VAMP	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7

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VM	HBA *2	Path Failover	Connected type	Storage		SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)		HA/FT *1	
VMware ESXi 5.5	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	VAMP	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
	PY-CN202 PG-292B S26361-F3592-L2	VAMP	FCoE switch *8	Supported GA to U3	Planned 2	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	No	Planned 2	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Yes	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	VAMP	FCoE switch *8	Supported GA to U3	Planned 2	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	No	Planned 2	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Yes	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes *9	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes *9	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes *9	Supported	*7
	QLogic QLE2690/QLE2692/ QLE2694 or OEM products	VAMP	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	VAMP	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported U2/U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported U2/U3	Planned 2	Yes	Supported	*7

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VM	HBA *2	Path Failover	Connected type	Storage		SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)		HA/FT *1	
VMware ESXi 5.5	Brocade Brocade 1860 *6 or OEM products	VAMP	via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
	Emulex LPe12000/LPe12002/LPe1250 or OEM products	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
	QLogic QLE2560/QLE2562 or OEM products	VAMP	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		VAMP + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
		OS bundled	Direct/ via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported GA to U3	Planned 2	Yes	Supported	*7
	Brocade Brocade 815/825 or OEM products	VAMP	via switch	Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
	Emulex OCe14401B or OEM products	VAMP	FCoE switch *8	Supported GA to U3	Planned 2	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	No	Planned 2	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Yes	Planned 2	
	Emulex OCe14102 or OEM products	VAMP	FCoE switch *8	Supported GA to U3	Planned 2	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	No	Planned 2	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Yes	Planned 2	
	Emulex OCe10102 or OEM products	VAMP	FCoE switch *8	Supported GA to U3	Planned 2	No	Supported	
		VAMP + Storage Cluster		Planned 2	Planned 2	No	Planned 2	
		OS bundled		Supported GA to U3	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Yes	Planned 2	
	Brocade Brocade 415/425 or OEM products	VAMP	via switch	Supported GA to U3	N.A.	Yes	Supported	
		OS bundled		Supported GA to U3	N.A.	Yes	Supported	

- *1 vSphere Metro Storage Cluster (vMSC) is not supported.
- *2 Please ask VMware if the connected HBA is certified by VMware or not.
- *6 Direct connection is supported only with 16Gbps CA.
- *7 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.
- *8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.
- *9 SAN boot is supported on 16Gbps Link Speed only.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA 3.2.x/3.3.x/3.4.x	
Oracle VM 3 *5	MC-0JFCF* MC-0JFCG* *14	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCK* MC-0JFCL*	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCM* MC-0JFCN*	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFCP* MC-0JFCQ*	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	MC-0JFC3* MC-0JFC9*	OS bundled	via switch	Supported 3.3.x/3.4.x	Planned 2	Supported 3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.3.x/3.4.x	Planned 2	Supported 3.3.x/3.4.x	Planned 2	*4	Supported	
	MC-0JFC4* MC-0JFCA*	OS bundled	via switch	Supported 3.3.x/3.4.x	Planned 2	Supported 3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.3.x/3.4.x	Planned 2	Supported 3.3.x/3.4.x	Planned 2	*4	Supported	
	MC-0JFC5* MC-0JFC6*	OS bundled	via switch	Supported 3.3.x/3.4.x	Planned 2	Supported 3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.3.x/3.4.x	Planned 2	Supported 3.3.x/3.4.x	Planned 2	*4	Supported	
	MC-0JFC7* MC-0JFC8*	OS bundled	via switch	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Yes *3 *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	*4	Supported	
	MC-0JFCB* MC-0JFCC*	OS bundled	via switch	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Supported 3.3.x/3.4.x	Yes *3 *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*5 When OVM 3.4.6 is used, please use OVM 3.4.6.1

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA 3.2.x/3.3.x/3.4.x	
Oracle VM 3	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	OS bundled	Direct/via switch	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Yes *3 *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	*4	Supported	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Yes *3 *9	Supported	
		OS bundled + Storage Cluster		Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	*4	Supported	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/via switch	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	*4	Supported	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster		Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	*4	Supported	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/via switch	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	*4	Supported	

Oracle VM 3	PY-CN202 PG-292B S26361-F3592-L2	OS bundled	FCoE switch *8	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	FCoE switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA 3.2.x/3.3.x/3.4.x	
Oracle VM 3	Emulex LPe32000 / LPe32002 or OEM products *14	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *14	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Yes *3 *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	Supported 3.2.x/3.3.x/3.4.x	*4	Supported	
	QLe2740/QLe2742/QLe2764 or OEM products	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLogic QLE2690/QLE2692/ QLE2694 or OEM Products	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/ via switch	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Supported 3.4.x	Planned 2	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Brocade Brocade 1860 *6 or OEM products	OS bundled	via switch	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	No	Supported	
	Emulex LPe12000/LPe12002/LPe1250 or OEM products	OS bundled	Direct/via switch	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	*4	Supported	
	QLogic QLE2560/QLE2562 or OEM products	OS bundled	Direct/via switch	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	*4	Supported	
	Brocade Brocade 815/825 or OEM products	OS bundled	via switch	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	No	Supported	
	Emulex OCe14102 or OEM products	OS bundled	FCoE switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex OCe10102 or OEM products	OS bundled	FCoE switch *8	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Supported 3.2.x/3.3.x/3.4.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Brocade Brocade 415/425 or OEM products	OS bundled	via switch	Supported 3.2.x/3.3.x/3.4.x	N.A.	Supported 3.2.x/3.3.x/3.4.x	N.A.	Yes *3	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*4 Please contact Fujitsu about SAN boot on Storage Cluster configuration.

*6 Direct connection is supported only with 16Gbps CA.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX8900 S4 (FC 16Gbps port)	DX8900 S4 (FC 32Gbps port)		everRun MX 6.2	
everRun MX & XenServer 6.0.2	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	OS bundled	Direct/ via switch	Supported 6.0.2	Planned 2	Supported 6.0.2	Planned 2	Yes *3*9	Supported	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported 6.0.2	Planned 2	Supported 6.0.2	Planned 2	Yes *9	Supported	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/ via switch	Supported 6.0.2	Planned 2	Supported 6.0.2	Planned 2	Yes	Supported	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported 6.0.2	Planned 2	Supported 6.0.2	Planned 2	Yes	Supported	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/ via switch	Supported 6.0.2	Planned 2	Supported 6.0.2	Planned 2	Yes	Supported	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*9 SAN boot is supported on 16Gbps Link Speed only.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series *12 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA	
Citrix Hypervisor (XenServer)	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202 *14	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202 *14	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2 233/280	Planned 2	Planned 2	Planned 2	Planned 2	Copyright 2023 FUJITSU LIMITED

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*12 DX8700 S3 is not supported.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series *12 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA	
Citrix Hypervisor (XenServer)	Emulex LPe32000 / LPe32002 or OEM products *14	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *14	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLe2740/QLe2742/QLe2764 or OEM products	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLogic QLE2690/QLE2692/QLE2694 or OEM Products	OS bundled	Direct/via switch	Supported 8.x	Supported 8.x	Supported 8.x	Supported 8.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*12 DX8700 S3 is not supported.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series *12 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA	
Citrix Hypervisor (XenServer)	PY-FC351/PYBFC351/ PYBFC351L PY-FC352/PYBFC352/ PYBFC352L S26361-F4044-L501/E1/E201 S26361-F4044-L502/E2/E202 *14	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC341/PYBFC341/ PYBFC341L PY-FC342/PYBFC342/ PYBFC342L S26361-F4043-L501/E1/E201 S26361-F4043-L502/E2/E202 *14	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC331/PYBFC331/ PYBFC331L PY-FC332/PYBFC332/ PYBFC332L S26361-F5596-L501/E1/E201 S26361-F5596-L502/E2/E202 *14	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC321/PY-FC322/ S26361-F5580-L501 S26361-F5580-E1 S26361-F5580-E201 S26361-F5580-L502 S26361-F5580-E2 S26361-F5580-E202 *14	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC221/PY-FC222/ S26361-F4994-L501/ S26361-F4994-L502	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3*9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3*9	Supported	
	PY-FCD12/ PYBFCD121/PYBFCD122 S26361-F4994-E402/ S26361-F4994-L402	OS bundled	Switch blade	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *9	Supported	
		OS bundled + Storage Cluster		Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *9	Supported	
	PY-FC311/PY-FC312/ S26361-F5313-L501 S26361-F5313-E1 S26361-F5313-E201 S26361-F5313-L502 S26361-F5313-E2 S26361-F5313-E202	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	PY-FC201/PY-FC202 PG-FC203/PG-FC204 S26361-F3961-L1/ S26361-F3961-L2	OS bundled	Direct/via switch	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes	Supported	
	PY-FCD02 PG-FCD202 S26361-F3874-L1	OS bundled	Switch blade/ Pass-through blade	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster		Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes	Supported	
	PY-FC211/PY-FC212 PG-FC205/PG-FC206 S26361-F3631-L1/ S26361-F3631-L2	OS bundled	Direct/via switch	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*12 DX8700 S3 is not supported.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

VM	HBA	Path Failover	Connected type	Storage				SAN boot	Cluster	Instruction for use
				DX S4/S3 series *12 (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16 Gbps port)	DX S4 series (except DX8900 S4) AF series (except AF S3 series) (FC 32Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 32Gbps port)		HA	
Citrix Hypervisor (XenServer)	Emulex LPe32000 / LPe32002 or OEM products *14	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe31000 / LPe31002 or OEM products *14	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLe2740/QLe2742/QLe2764 or OEM products	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLogic QLE2690/QLE2692/QLE2694 or OEM Products	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex LPe16000 / LPe16002 or OEM products	OS bundled	Direct/via switch	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3 *9	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 7.x	Supported 7.x	Supported 7.x	Supported 7.x	Yes *3 *9	Supported	
	Emulex LPe12000/LPe12002/LPe1250 or OEM products	OS bundled	Direct/via switch	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster	via switch *8	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes *3	Supported	
	Qlogic QLE2660/QLE2662 QLE2670/QLE2672 or OEM products	OS bundled	Direct/via switch	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	QLogic QLE2560/QLE2562 or OEM products	OS bundled	Direct/via switch	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes	Supported	
		OS bundled + Storage Cluster	via switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex OCe14102 or OEM products	OS bundled	FCoE switch *8	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	
	Emulex OCe10102 or OEM products	OS bundled	FCoE switch *8	Supported 7.x	Planned 2	Supported 7.x	Planned 2	Yes *3	Supported	
		OS bundled + Storage Cluster		Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*3 ETERNUS supports SAN boot, but please ask server supplier if the connected server supports SAN boot.

*8 When configuring Storage Cluster, QLogic switches and Cisco switches are OK for Storage Cluster even though they cannot be managed by ETERNUS SF StorageCruiser.

*9 SAN boot is supported on 16Gbps Link Speed only.

*12 DX8700 S3 is not supported.

*14 When connecting server and ETERNUS directly with link speed 8Gbps or below, HBA should be set as "Point to Point" connection, ETERNUS should be set as "Fabric" connection.

- Notes
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.

- Please contact the product supplier for operating condition of multipath software and HBA listed here.

- Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.

- Functions supported by clusterware depends on each clusterware supplier. Please contact the clusterware supplier for the extended support functions such as geo cluster..

- Please use the latest version of HBA firmware and driver unless note is stated.

- Please use the latest version of server BIOS unless note is stated.

- Direct connection with NIC/CNA of which speed is 25Gbps or more is not supported.

- VMware's VSAN is not supported.

- VMware VNX is not supported via iSCSI connection.

- On Oracle VM and Citrix Hypervisor (XenServer) environment, UNMAP function is not supported on Deduplication/Compression volume.

- Trademark symbols have been omitted from this document.

- HBA for PRIMEQUEST is shown as MC-0JCEn*, the character "*" can be any character applicable. Ex) MC-0JCE6* means MC-0JCE61 and MC-0JCE62 are applicable.

- Storage Cluster function is not supported on DX60 S5/S4/S3.

- Please refer to "VMware VVOL" part for VMware VVOL support status.

- VMware Multi-Pathing plug-in for ETERNUS is referred to as "VAMP" in this document.

<https://www.fujitsu.com/global/support/products/computing/storage/download/vmware-mp-plug-in.html>

For supported vSphere editions, refer to the operating environment or software documentation on the VAMP public page.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 8.0	Software Initiator	NIC for PRIMEQUEST 3000 *2	VAMP *10	via switch *5	Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		N.A.	N.A.	N.A.	N.A.	
			OS bundled	via switch *5	Supported U1	Supported U1	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported U1	Supported U1	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		N.A.	N.A.	N.A.	N.A.	
		NIC and CNA for PRIMERGY *2	VAMP *10	via switch *5	Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		N.A.	N.A.	N.A.	N.A.	
			OS bundled	via switch *5	Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		N.A.	N.A.	N.A.	N.A.	

*1 vSphere Metro Storage Cluster (VMSC) is not supported.

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*17 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resiganture of datastore may result in error (Invalid datastore format) when mounting VMFS.

Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.

<https://kb.vmware.com/s/article/68135>

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 8.0	Software Initiator	NIC / CNA *3	VAMP *10	via switch *5	Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 Supported only for NICs that are certified by VMware

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

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Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 7.0	Software Initiator	NIC for PRIMEQUEST 3000*2	OS bundled	via switch	Supported U1	Supported U1	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported U1	Supported U1	No	Supported	*7 *9
		NIC and CNA for PRIMERGY *2	VAMP *10	via switch *5	Planned 2	Planned 2	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported U3	Supported U3	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Supported U3	Supported U3	No	Supported	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*17 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 7.0	Software Initiator	NIC / CNA *3	VAMP *10	via switch *5	Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2/U3	Supported GA/U1/U2/U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported U3	Supported U3	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Supported U3	Supported U3	No	Supported	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 Supported only for NICs that are certified by VMware

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*17 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
 Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 6.7 *12	Software Initiator	NIC for PRIMEQUEST 3000 NIC for PRIMEQUEST 2000	OS bundled	via switch	N.A.	N.A.	N.A.	N.A.	
			OS bundled + Storage Cluster		N.A.	N.A.	N.A.	N.A.	
		NIC and CNA for PRIMERGY *2	VAMP *10	via switch *5	Supported GA *10 *17/U1 to U3	Supported GA *10 *17/U1 to U3	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA *10 *17/U1 to U3	Supported GA *10 *17/U1 to U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported GA *10 *17/U2	Supported GA *10 *17/U2	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
	Hardware Initiator	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	via switch *5	Supported GA *10 *17/U1/U3	Supported GA *10 *17/U1/U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*12 ESXi6.7GA / U1 supports the automatic UNMAP function for VMFS datastore thin provisioned volumes only for deduplication / compression volumes.

*17 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resignature of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 6.7 *12	Software Initiator	NIC / CNA *3	VAMP *10	via switch *5	Supported GA *10 *17/U1 to U3	Supported GA *10 *17/U1 to U3	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA *10 *17/U1 to U3	Supported GA *10 *17/U1 to U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Supported GA *10 *17/U2	Supported GA *10 *17/U2	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
	Hardware Initiator	Emulex OCe14102	OS bundled	via switch *5	Supported GA *10 *17/U1/U3	Supported GA *10 *17/U1/U3	Yes	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2		Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 Supported only for NICs that are certified by VMware

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*12 ESXi6.7GA / U1 supports the automatic UNMAP function for VMFS datastore thin provisioned volumes only for deduplication / compression volumes.

*17 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resiganture of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.
<https://kb.vmware.com/s/article/68135>

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 6.5 *12	Software Initiator	NIC and CNA for PRIMERGY *2	VAMP *10	via switch *5	Supported GA to U3	Supported GA to U3	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA to U3	Supported GA to U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical) *6		Supported GA	Supported GA	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
		NIC for PRIMEQUEST 3000 NIC for PRIMEQUEST 2000	OS bundled	via switch	N.A.	N.A.	N.A.	N.A.	
			OS bundled + Storage Cluster		N.A.	N.A.	N.A.	N.A.	
	Hardware Initiator	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	OS bundled	via switch *5	Supported GA/U2 Planned 2 U1	Supported GA/U2 Planned 2 U1	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	OS bundled	Switch blade *5	Supported GA	Supported GA	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 Please make subnets of iSCSI initiator port IP address and iSCSI target port IP address different.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*12 ESXi6.7GA / U1 supports the automatic UNMAP function for VMFS datastore thin provisioned volumes only for deduplication / compression volumes.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage		iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF/ AF S2 series DX200F	DX S5 series AF S3 series		HA/FT *1	
VMware ESXi 6.5 *12	Software Initiator	NIC / CNA *3	VAMP *10	via switch *5	Supported GA to U3	Supported GA to U3	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA to U3	Supported GA to U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical) *6	via switch	Supported GA	Supported GA	No	Supported	*7 *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	Planned 2	No	Planned 2	
	Hardware Initiator	Emulex OCe14401B	OS bundled	via switch *5	Supported GA/U2 Planned 2 U1	Supported GA/U2 Planned 2 U1	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	Planned 2	No	Planned 2	
		Emulex OCe14102	OS bundled	via switch *5	Supported GA/U2 Planned 2 U1	Supported GA/U2 Planned 2 U1	Yes U2 only	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	Planned 2		Planned 2	
		Emulex OCe11102	OS bundled	via switch *5	Supported GA	Supported GA	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	Planned 2	No	Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 Supported only for NICs that are certified by VMware

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*6 Please make subnets of iSCSI initiator port IP address and iSCSI target port IP address different.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

*10 DX8900 S4 is not supported

*12 Automatic UNMAP function to Thin Provisioning volume on VMFS Datastore is supported on Deduplication/Compression volume only.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF series, DX200F (except DX8900 S4, AF S3 series)		HA/FT *1	
VMware ESXi 6.0	Software Initiator	NIC and CNA for PRIMERGY *2	VAMP	via switch *5	Supported GA/U1/U2	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2		Planned 2	
			OS bundled		Supported GA/U1/U2/U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)		Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)		Planned 2		Planned 2	
		NIC for PRIMEQUEST 2000 *2	VAMP	via switch *5	Supported GA/U1/U2	No	Supported	
			VAMP + Storage Cluster		N.A.	N.A.	N.A.	
			OS bundled		Supported GA/U1/U2	No	Supported	
			OS bundled + Storage Cluster		N.A.	N.A.	N.A.	
	Hardware Initiator	PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	VAMP	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported GA/U1/U2	Yes *4	Supported	*7, *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported GA/U1/U2	Yes *4	Supported	*7, *9
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	VAMP	Switch blade *5	Supported GA/U1/U2	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch blade	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch blade	Planned 2		Planned 2	
			OS bundled	Switch blade *5	Supported GA/U1/U2	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch blade	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch blade	Planned 2		Planned 2	

*1 vSphere Metro Storage Cluster (vMSC) is not supported.

*2 Please contact server supplier about available NIC and CNA.

*4 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF series, DX200F (except DX8900 S4, AF S3 series)		HA/FT *1	
VMware ESXi 6.0	Software Initiator	NIC / CNA *3	VAMP	via switch *5	Supported GA/U1/U2	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2/U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
	Hardware Initiator	Emulex OCe14401B	VAMP	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
		Emulex OCe14102	VAMP	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported GA/U1/U2	Yes *4	Supported	*7, *9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Supported GA/U1/U2	Yes *4	Supported	*7, *9
		Emulex OCe11102	VAMP	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	

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*4 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

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VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF series, DX200F (except DX8900 S4, AF S3 series)		HA/FT *1	
VMware ESXi 5.5	Software Initiator	NIC and CNA for PRIMERGY *2	VAMP	via switch *5	Supported GA to U3	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported GA to U3	No	Planned 2	*7, *8, *9
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA to U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
		NIC for PRIMEQUEST 2000 *2	VAMP	via switch *5	Supported GA/U1/U2	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
		NIC for PRIMEQUEST 1000 *2	VAMP	via switch *5	Supported GA/U1/U2	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA/U1/U2	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	

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*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*8 Manually update of ARP information may be necessary when storage Failover/Failback occurs. Please refer to the following KB for detail information.
<https://kb.vmware.com/kb/2097972>

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF series, DX200F (except DX8900 S4, AF S3 series)		HA/FT *1	
VMware ESXi 5.5	Hardware Initiator	MC-0JCE6*	VAMP	via switch *5	Supported U2	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Planned 1 U2	No	Planned 1	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
		PY-CN302/ PYBCN302/PYBCN302L PY-CN302U/PYBCN302U S26361-F5250-L501 S26361-F5250-E1 S26361-F5250-E201 S26361-F5302-L211 S26361-F5302-E211	VAMP	via switch *5	Supported U2/U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported U2/U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	

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*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF series, DX200F (except DX8900 S4, AF S3 series)		HA/FT *1	
VMware ESXi 5.5	Hardware Initiator	PY-CN202 PG-292B PG-CND201 S26361-F3592-L2	VAMP	via switch *5	Supported GA to U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA to U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
		PY-CND02 S26361-F3592-L532 BX92xS3 Onboard CNA	VAMP	Switch blade *5	Supported GA to U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch blade	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch blade	Planned 2		Planned 2	
			OS bundled		Supported GA to U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch blade	Supported GA	Yes *4	Supported	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch blade	Planned 2		Planned 2	
	Software Initiator	NIC / CNA *3	VAMP	via switch *5	Supported GA to U3	No	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported GA to U3	No	Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
			OS bundled	via switch *5	Supported GA to U3	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	

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VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S4/S3 series AF series, DX200F (except DX8900 S4, AF S3 series)		HA/FT *1	
VMware ESXi 5.5	Hardware Initiator	Emulex OCe14401B	VAMP	via switch *5	Supported U2/U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported U2/U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
		Emulex OCe14102	VAMP	via switch *5	Supported U2/U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported U2/U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
		Emulex OCe10102	VAMP	via switch *5	Supported GA to U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA to U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
		Emulex OCe11102	VAMP	via switch *5	Supported GA to U3	Yes *4	Supported	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2		Planned 2	
			VAMP + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	
			OS bundled	via switch *5	Supported GA to U3	Yes *4	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported GA	Yes *4	Supported	*9
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2		Planned 2	

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*4 ETERNUS supports iSCSI boot, but please ask server supplier if the connected server supports iSCSI boot.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*9 "Storage Cluster" RDM is supported.However,RAW access from Guest OS (to issue I/O directly to disk without using file system) is not supported.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series DX200F		HA 3.2.x/3.2.x/3.4.x	
Oracle VM 3	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *5	Supported 3.2.x/3.3.x/3.4.x	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 3.3.4	No	Planned 2	*7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
	Software Initiator	Intel NIC / CNA	OS bundled	Direct / via switch *5	Supported 3.2.x/3.3.x/3.4.x	No	Supported	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Supported 3.3.4	No	Planned 2	*7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series DX200F		HA	
Citrix Hypervisor (XenServer)	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *5	Supported *13 8.x	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
	Software Initiator	Intel NIC / CNA	OS bundled	Direct / via switch *5	Supported *13 8.x	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*13 DX8700S3, DX8900 S3 are not supported.

VM	iSCSI Initiator type	NIC or HBA	Path Failover	Connected type	Storage	iSCSI boot	Cluster	Instruction for use
					DX S5/S4/S3 series AF series DX200F		HA	
Citrix Hypervisor (XenServer)	Software Initiator	NIC and CNA for PRIMERGY *2	OS bundled	Direct / via switch *5	Supported *13 7.x	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	
	Software Initiator	Intel NIC / CNA	OS bundled	Direct / via switch *5	Supported *13 7.x	No	Planned 2	
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are identical)	via switch	Planned 2	No	Planned 2	*7
			OS bundled + Storage Cluster (A pair CA ports' addresses of Cluster ETERNUS are different)	via switch	Planned 2	No	Planned 2	

*2 Please contact server supplier about available NIC and CNA.

*5 When using Catalyst switch connecting with 10GBASE-T interface of DX60 S3, Catalyst firmware 12.2(54)SG1 must be used.

*7 At storage Failover/Failback time, I/O may fail. When I/O failure happens, check multipath status and rerun I/O.

*13 DX8700S3, DX8900 S3 are not supported.

- Notes**
- Please contact the server supplier for the server support status of OS, multipath software, HBA and clusterware listed here.
 - Please contact the product supplier for operating condition of multipath software and HBA listed here.
 - Please contact the clusterware supplier for combination of Server, OS version, multipath software, HBA, and clusterware version.
 - Functions supported by clusterware depends on each clusterware supplier. Please contact the clusterware supplier for the extended support functions such as geo cluster..
 - Please use the latest version of HBA firmware and driver unless note is stated.
 - Please use the latest version of server BIOS unless note is stated.
 - Please contact the server supplier for connection availability of HBA and FC switch.
 - VMware's VSAN is not supported.
 - On Citrix Hypervisor (XenServer) environment, UNMAP function is not supported on Deduplication/Compression volume.
 - Trademark symbols have been omitted from this document.

VM	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		HA/FT *2	
VMware ESXi 8.0	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	OS bundled	Direct	Planned 2	Supported GA/U1/U2	No	Supported	
	PY-SC3FBF/ PYBSC3FBF/PYBSC3FBFL S26361-F5793-E251	OS bundled	Direct	Planned 2	Supported GA/U1/U2	No	Supported	
	PY-SC3FBE/ PYBSC3FBE/PYBSC3FBEL	OS bundled	Direct	Planned 2	Supported GA/U1/U2	No	Supported	
	LSI SAS9500-16e	OS bundled	Direct	Planned 2	Supported GA/U1/U2	Yes *1	Supported	
	LSI SAS9400-8e	OS bundled	Direct	Planned 2	Supported GA/U1/U2	Yes *1	Supported	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 vSphere Metro Storage Cluster (vMSC) is not supported.

VM	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		HA/FT *2	
VMware ESXi 7.0	PY-SC4FAE/ PYBSC4FAE/PYBSC4FAEL	OS bundled	Direct	Planned 2	Supported U3	No	Supported	
	PY-SC3FBF/ PYBSC3FBF/PYBSC3FBFL S26361-F5793-E251	OS bundled	Direct	Planned 2	Supported GA/U1/U2/U3	No	Supported	
	PY-SC3FBE/ PYBSC3FBE/PYBSC3FBEL	OS bundled	Direct	Planned 2	Supported GA/U1/U2/U3	No	Supported	
	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Planned 2	Supported GA/U1/U2/U3	No	Supported	
	LSI SAS9500-16e	OS bundled	Direct	Planned 2	Supported U3	Yes *1	Supported	
	LSI SAS9400-8e	OS bundled	Direct	Planned 2	Supported GA/U1/U2/U3	Yes *1	Supported	
	LSI SAS9300-8e	OS bundled	Direct	Planned 2	Supported GA/U1/U2/U3	Yes *1	Supported	
VMware ESXi 6.7 *3	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Supported GA *5	Supported GA *5/U1 to U3	No	Supported	
	LSI SAS9300-8e	OS bundled	Direct	Supported GA *5	Supported GA *5/U1 to U3	Yes *1	Supported	

VMware ESXi 6.5 *3	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Supported GA/U1	Supported GA/U1 to U3	No	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	OS bundled	Switch blade/ Pass-through blade	Planned 2	Planned 2	No	Planned 2	
	LSI SAS9300-8e	OS bundled	Direct	Supported GA/U1	Supported GA/U1 to U3	Yes *1	Supported	
	LSI SAS9200-8e	OS bundled	Direct	Supported GA Planned 2 U1	Supported GA Planned 2 U1	Yes *1	Supported	
	LSI SAS3442E-R	OS bundled	Direct	Supported GA Planned 2 U1	-	Yes *1	Supported	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 vSphere Metro Storage Cluster (vMSC) is not supported.

*3 ESXi6.7GA / U1, ESXi6.5GA / U1 / U2 supports the automatic UNMAP function for VMFS datastore thin provisioned volumes only for deduplication / compression volumes.

*5 When taking LUN's backup, if physical block size/sector format of copy source and that of copy target are different, then resiganture of datastore may result in error (Invalid datastore format) when mounting VMFS.
Also when a drive failed and a hot spare drive which has different physical block size/sector format of the failed drive becomes a RAID member, the above error may occur. Please refer to the following KB.

<https://kb.vmware.com/s/article/68135>

VM	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S4 DX100 S4 DX200 S4 (SAS 12Gbps port)		HA/FT *2	
VMware ESXi 6.0	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	OS bundled	Direct	Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	OS bundled	Switch blade/ Pass-through blade	Supported GA/U1/U2	Supported GA/U1/U2	No	Supported	
	PY-SC1Y0/PY-SC1Y0L/ PYBSC1Y0/PYBSC1Y0L S26361-F3271-L1/L201/E1/E201	OS bundled	Direct	Supported GA/U1/U2	-	No	Supported	
	LSI SAS9300-8e	OS bundled	Direct	Supported GA/U1/U2	Supported GA/U1/U2	Yes *1	Supported	
	LSI SAS9200-8e	OS bundled	Direct	Supported GA/U1/U2	Supported GA/U1/U2	Yes *1	Supported	
	LSI SAS3442E-R	OS bundled	Direct	Supported GA/U1/U2	-	Yes *1	Supported	
VMware ESXi 5.5	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Supported U2/U3	Supported U2/U3	No	Supported	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	OS bundled	Direct	Supported GA to U3	Supported GA to U3	No	Supported	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	OS bundled	Switch blade/ Pass-through blade	Supported GA to U3	Supported GA to U3	No	Supported	
	PY-SC1Y0 PG-228B S26361-F3271-L1	OS bundled	Direct	Supported GA to U3	-	No	Supported	
	LSI SAS9300-8e	OS bundled	Direct	Supported U2/U3	Supported U2/U3	Yes *1	Supported	
	LSI SAS9200-8e	OS bundled	Direct	Supported GA to U3	Supported GA to U3	Yes *1	Supported	
	LSI SAS3442E-R	OS bundled	Direct	Supported GA to U3	-	Yes *1	Supported	

*1 ETERNUS supports SAS boot, but please ask server supplier if the connected server supports SAS boot.

*2 vSphere Metro Storage Cluster (vMSC) is not supported.

VM	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		HA	
Citrix Hypervisor (XenServer)	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Planned 2	Supported 8.x	No	Planned 2	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	OS bundled	Direct	Planned 2	Planned 2	No	Planned 2	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	OS bundled	Switch blade/ Pass-through blade	Planned 2	Planned 2	No	Planned 2	
	LSI SAS9300-8e	OS bundled	Direct	Planned 2	Supported 8.x	No	Planned 2	
	LSI SAS9200-8e	OS bundled	Direct/ via switch *4	Planned 2	Planned 2	No	Planned 2	

*4 Only direct connection is supported on DX100 S4 and DX200 S4.

VM	HBA	Path Failover	Connected type	Storage		SAS boot	Cluster	Instruction for use
				DX60 S4/S3 DX100 S3 DX200 S3 (SAS 6Gbps port)	DX60 S5/S4 DX100 S5/S4 DX200 S5/S4 (SAS 12Gbps port)		HA	
Citrix Hypervisor (XenServer)	PY-SC3FE/PYBSC3FE/PYBSC3FEL S26361-F3845-L501/ S26361-F3845-E1/ S26361-F3845-E201	OS bundled	Direct	Planned 2	Supported 7.x	No	Planned 2	
	PY-SC2Z0/PYBSC2Z0 S26361-F3628-L501/ S26361-F3628-E1	OS bundled	Direct	Supported 7.x	Supported 7.x	No	Planned 2	
	PY-SCD08/PYBSCD082 S26361-F4480-L1/ S26361-F4480-E1	OS bundled	Switch blade/ Pass-through blade	Supported 7.x	Supported 7.x	No	Planned 2	
	LSI SAS9300-8e	OS bundled	Direct	Planned 2	Supported 7.x	No	Planned 2	
	LSI SAS9200-8e	OS bundled	Direct/ via switch *4	Supported 7.x	Supported 7.x	No	Planned 2	

*4 Only direct connection is supported on DX100 S4 and DX200 S4.

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Notes

- VVOL 2.0 with Oracle RAC is not supported on VMware.
- VMware Multi-Pathing plug-in for ETERNUS is referred to as "VAMP" in this document.
Supported vSphere edition is "Enterprise" and "Enterprise Plus".
- VVOL is not supported on VMware with StorageCluster configuration.
- When configuring VVOL, appropriate ETERNUS SF Storage Cruiser version and ETERNUS VASA Provider are required.
- VVOL information is on the following web
<https://www.fujitsu.com/global/products/computing/storage/disk/eternus-dx/eternusdx-vvol/>

VMware	Update	VVOL	VASA	Path Failover	Interface	Storage		Instruction for use
						DX S4/S3 series AF/AF S2 series	DX S5 series AF S3 series	
ESXi8.0	U2	2.0	3.0.10	VAMP 1.3.0	FC/iSCSI	Planned 2	Planned 2	
				OS bundled		Supported	Supported	
	U1			VAMP 1.3.0		Planned 2	Planned 2	
				OS bundled		Supported	Supported	
	GA			VAMP 1.3.0		Planned 2	Planned 2	
				OS bundled		Supported	Supported	
ESXi7.0	U3	2.0	3.0.9	VAMP 1.3.0	FC/iSCSI	Planned 2	Planned 2	
				OS bundled		Supported	Supported	
	U2			VAMP 1.3.0		Planned 2	Planned 2	
				OS bundled		Supported	Supported	ETERNUS SF 16.9 must be patched.
	U1			VAMP 1.3.0		Planned 2	Planned 2	
				OS bundled		Supported	Supported	
	GA			VAMP 1.3.0		Planned 2	Planned 2	
				OS bundled		Supported	Supported	
ESXi6.7	U3	2.0	3.0.8	VAMP 1.2.1 or later*2	FC/iSCSI	Supported	Supported	
				OS bundled		Supported	Supported	
	U2			VAMP 1.2.1 or later*2		Supported	Supported	
				OS bundled		Supported	Supported	
	U1			VAMP 1.2.1 or later*2		Supported	Supported	
				OS bundled		Supported	Supported	
	GA			VAMP 1.2.1 or later*2		Supported	Supported	

				OS bundled		Supported	Supported	
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*2 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VMware	Update	VVOL	VASA	Path Failover	Interface	Storage		Instruction for use
						DX S4/S3 series AF/AF S2 series	DX S5 series AF S3 series	
ESXi6.5	U3	1.0/2.0	2.1.12/3.0.8	VAMP 1.2.1 or later*2	FC/iSCSI	Supported	Supported	
				OS bundled		Supported	Supported	
	U2			VAMP 1.2.1 or later*2		Supported	Supported	
				OS bundled		Supported	Supported	
	U1			VAMP 1.2.1 or later*2		Supported	—	
				OS bundled		Supported	—	
	GA			VAMP 1.2.1 or later*2		Supported	—	
				OS bundled		Supported	—	

*2 If to VAMP 1.2.1 configuration environment, There is no need to update to VAMP 1.3.0.

VMware	Update	VVOL	VASA	Path Failover	Interface	Storage		Instruction for use
						DX S4/S3 series AF/AF S2 series	DX S5 series AF S3 series	
ESXi6.0	U3	1.0	2.1.12	OS bundled	FC/iSCSI	Supported	—	
	U2			VAMP1.1.3		Supported	—	
				OS bundled		Supported	—	
	U1			VAMP1.1.3		Supported	—	
				OS bundled		Supported	—	
	GA			VAMP1.1.3		Supported	—	
				OS bundled		Supported	—	

Notes

- Please ask IBM SVC product supplier about IBM SVC shipment schedule and necessary patches.
- Please ask IBM SVC product supplier about condition of OS, Cluster software and others which IBM SVC supports.
- Please ask IBM SVC product supplier about any issue with IBM SVC.

Version	DX S4 series (except DX8900 S4) FC port	DX 200 S3/DX100 S3 DX 600 S3/DX500 S3 DX200F FC port	AF250/AF650 FC port	AF250 S2/ AF650 S2 FC port	DX8700 S3 DX8900 S3 FC port	DX8900 S4 FC port	DX S5 series AF S3 series	Instruction for use
IBM SVC	Supported 7.5.0.1 or later	Supported 7.1.0.3 or later	Supported 7.5.0.1 or later	Supported 7.6 or later	Supported 7.5.0.1 or later	Supported 7.8 or later	Supported 8.2 or later	<p>The connection of SVC and DX8700 S3/DX8900 S3 is supported under the condition below. For SVC up to 7.5.0.3; - The number of connected ports of ETERNUS per SVC node is up to 8. - The maximum number of LUNs per ETERNUS port is up to 256.</p> <p>For SVC 7.5.0.4 or later; - The number of connected ports of ETERNUS per SVC node is up to 16. - The maximum number of LUNs per ETERNUS port is up to 4,096.</p> <p>The connection of SVC and DX8900 S4 is supported under the condition below. - The number of connected ports of ETERNUS per SVC node is up to 16. - The maximum number of LUNs per ETERNUS port is up to 4,096.</p> <p>The connection of SVC and ETERNUS models other than mentioned above is supported under the condition below. - The number of connected ports of ETERNUS per SVC node is up to 8 - The maximum number of LUNs per ETERNUS port is up to 256 Please contact Fujitsu for the SVC configuration exceeds above limitations.</p>

Notes

- Please ask Cisco UCS product supplier about Cisco UCS shipment schedule and necessary patches.

- Please ask Cisco UCS product supplier about condition of OS, Cluster software and others which Cisco UCS supports.

- Please ask Cisco UCS product supplier about any issue with Cisco UCS.

	DX S3 series DX 200 S3/DX100 S3 DX200F FC port	SAN boot	Instruction for use
Cisco UCS (UCS Firmware 2.2.1)	Supported	Yes	<div><div>- Please use "End Host" mode for UCS Fabric Interconnect.</div><div>- FC switch with NPIV function is required to connect UCS Fabric Interconnect and storage, and please enable NPIV function.</div><div>- Please refer to Cisco UCS HCL web below for other storage connection condition of Cisco UCS.</div></div> <div>http://www.cisco.com/c/dam/en/us/td/docs/unified_computing/ucs/interoperability/matrix/r_hcl_B_rel2-21.pdf</div>

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- Notes
- Please ask Quantum StorNext product supplier about Quantum StorNext shipment schedule and necessary patches.
 - Please ask Quantum StorNext product supplier about condition of OS, Cluster software and others which Quantum StorNext supports.
 - Please ask Quantum StorNext product supplier about any issue with Quantum StorNext.

	DX S4/S3 series (except DX8900 S4) AF series/DX200F (except AF S3 series) (FC 8/16/32 Gbps port)	DX S5 series AF S3 series DX8900 S4 (FC 8/16/32 Gbps port)	Instruction for use
Quantum StorNext 5	Supported	Planned 2	
Quantum StorNext 6	Supported	Supported	- StorageCluster configuration is supported.
Quantum StorNext 7	Supported	Supported	- StorageCluster configuration is supported.

Notes

- This table shows connectivity between host interface of ETERNUS storage and each switch products.
Please ask server supplier about connectivity between host bus adapter and switch.
- Please use the latest version of switch firmware and driver unless note is stated.
- Please apply the latest switch firmware for all the switches which are used for cascade connection for stable operation and connectivity.
- Trademark symbols have been omitted from this document.

FC switch		DX S5/S4/S3 series AF series/DX200F (FC 8/16 Gbps port)	DX S5/S4 series AF series (FC 32Gbps port)	DX600 S3/DX500 S3 DX200 S3/DX100 S3 FCoE port	DX8700 S3 DX8900 S3 FCoE port	DX60 S4/S3 DX200 S3/DX100 S3 SAS 6Gbit/s port	Instruction for use
Fujitsu SN200 Series Brocade Series	Brocade G730	Supported	Supported	-	-	-	
	Brocade G720/Brocade X7 Directors	Supported	Supported	-	-	-	
	Brocade G630	Supported	Supported	-	-	-	
	Brocade G620 / Brocade X6 Directors	Supported	Supported	-	-	-	
	Brocade G610/Brocade 7810	Supported	Supported	-	-	-	
	Brocade 6505/6510/6520/7840 DCX8510-4 / DCX8510-8	Supported	Supported	-	-	-	
	Brocade 7800/DCX/DCX-4S	Supported	Planned 2	-	-	-	
	Brocade VDX6710/6720/6730/6740/8770	Supported (VDX6730 only)	Planned 2	Supported	Supported	-	
	SN200 Model 140, 600, 630, 660	Supported	Planned 2	-	-	-	
	Brocade 8000 / CEE/FCoE blade (Option of DCX/DCX-4S)	Supported	Planned 2	Supported	Supported	-	
Fujitsu PRIMERGY switch blade CF switch	PY-FCB104/105/106 S26361-K1527-V14/V26/V27	Supported	Supported	-	-	-	
	PY-FCB101/102/103 PG-FCS104 S26361-K1305-V314/V326/V327 PY CB FC Switch 8Gb 18/8 26 (Brocade) PY CB FC SW 8G 18/8 26 Enterpr (Brocade)	Supported	Planned 2	-	-	-	
	PY-CFB101 S26361-K1533-V100/V300 CFX2000 PRIMERGY converged fabric switch blade (10Gbps 18/8+2) PY-CFX20F/PY-CFX20R converged fabric switch[CFX2000F/CFX2000R]	-	-	Planned 1 *3	Planned 1 *3	-	
	PY-CNB101/102 S26361-K1429-V300 VDX2730	Supported	Planned 2	Supported	Supported	-	
	PY-FEB102/PYBFEB1020/PYBFEB1021 S26361-K1440-V310/V110	Supported	Planned 2	Supported	Supported	-	
	PY-FEB101/PYBFEB1010/PYBFEB1011 S26361-K1440-V300/V100	Supported	Planned 2	Supported	Supported	-	
	PG-FCS103	Supported	-	-	-	-	
	PG-FCS102	Supported	-	-	-	-	
	PY-SAB101/S26361-K1391-V300 PG-SAS101	-	-	-	-	Supported	

FC switch		DX S5/S4/S3 series AF series/DX200F (FC 8/16 Gbps port)	DX S5/S4 series AF series (FC 32Gbps port)	DX600 S3/DX500 S3 DX200 S3/DX100 S3 FCoE port	DX8700 S3 DX8900 S3 FCoE port	DX60 S4/S3 DX200 S3/DX100 S3 SAS 6Gbit/s port	Instruction for use
Brocade Switch	Brocade G730	Supported	Supported	-	-	-	
	Brocade G720/Brocade X7 Directors	Supported	Supported	-	-	-	
	Brocade G630	Supported	Supported	-	-	-	
	Brocade G620 / Brocade X6 Directors	Supported	Supported	-	-	-	
	Brocade G610/Brocade 7810	Supported	Supported	-	-	-	
	Brocade 6505/6510/6520/7840 DCX8510-4 / DCX8510-8	Supported	Supported	-	-	-	
	Brocade VDX6710/6720/6730/6740/8770	Supported (VDX6730 only)	Planned 2	Supported	Supported	-	
	Brocade 300/5100/5300/48000/ DCX/DCX-4S	Supported	Planned 2	-	-	-	
	Brocade 7800/ FX8-24(Option of DCX/DCX-4S)	Supported	Planned 2	-	-	-	
	Brocade 8000/ CEE/FCoE blade (Option of DCX/DCX-4S)	Supported	Planned 2	Supported	Supported	-	
Cisco MDS series Nexus series	MDS 9000 Series *5	Supported	Supported	-	-	-	
	Nexus5500 /5600 Nexus5000 series	Supported *4	Planned 2	Supported	Planned 2	-	
QLogic SANBox series	SANBOX 5800 Series	Supported	Planned 2	-	-	-	
	SANBOX 5600 Series	Supported	-	-	-	-	
LSI SAS Switch	LSI SAS6161/6160	-	-	-	-	Supported	

*4: Supported only with QLogic HBA connection.

*5: Connection at 32Gbps speed is not supported.

FC switch available for StorageCluster		Applicable system					
		Solaris	HP-UX	AIX	Windows	Linux family	VM family
Fujitsu SN200 Series Brocade Series	Brocade G730	Supported	Planned 2	Planned 2	Supported	Supported	Supported
	Brocade G720/Brocade X7 Directors	Supported	Planned 2	Planned 2	Supported	Supported	Supported
	Brocade G630	Supported	Planned 2	Supported	Supported	Supported	Supported *6
	Brocade G620 / Brocade X6 Directors	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade G610/Brocade 7810	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade 6505/6510/6520 DCX8510-4 / DCX8510-8	Supported *1	Supported	Supported	Supported	Supported	Supported
	Brocade 7800/7840/FX8-24 (Option of DCX/DCX-4S)	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade VDX6710/6720/6730/6740/8770	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)
	SN200 Model 140, 600, 630, 660	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade 8000 / CEE/FCoE blade (Option of DCX/DCX-4S)	Supported	Supported	Supported	Supported	Supported	Supported
Brocade Switch	Brocade G730	Supported	Planned 2	Planned 2	Supported	Supported	Supported
	Brocade G720/Brocade X7 Directors	Supported	Planned 2	Planned 2	Supported	Supported	Supported
	Brocade G630	Supported	Planned 2	Supported	Supported	Supported	Supported *6
	Brocade G620 / Brocade X6 Directors	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade G610/Brocade 7810	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade 6505/6510/6520/ DCX8510-4/DCX8510-8	Supported *1	Supported	Supported	Supported	Supported	Supported
	Brocade VDX6710/6720/6730/6740/8770	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)	Supported (VDX6730 only)
	Brocade 300/5100/5300/48000/ DCX/DCX-4S	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade 7800/7840/ FX8-24 (Option of DCX/DCX-4S)	Supported	Supported	Supported	Supported	Supported	Supported
	Brocade 8000/ CEE/FCoE blade (Option of DCX/DCX-4S)	Supported	Supported	Supported	Supported	Supported	Supported
Cisco MDS series Nexus series	MDS 9000 Series *5	Supported	Supported	Supported	Supported	Supported	Supported
	Nexus5500 /5600 Nexus5000 series	Supported *2	Supported *2	Supported *2	Supported *2	Supported *2	Supported *2
QLogic SANBox series	SANBOX 5800 Series	Supported	Supported	Supported	Supported	Supported	Supported
	SANBOX 5600 Series	Supported	Supported	Supported	Supported	Supported	Supported

*1: The following HBAs are not supported for StorageCluster.

- SP1X7FBA2F/SP1X5FBA2F, 7101683/7101684, 7101689/7101690 (+ 7101685/7101686)
- SE0X7F31F/SE0X7F32F/SE5X7F32G, SG-XPCIE1FC-EM8, SG-XPCIE2FC-EM8, 7105393/SG-XPCIEFCGBE-E8
- LPe16000 / LPe16002 / LPe12000/LPe12002/LPe1250

*2: DX8700 S3, DX8900 S3 are not supported.

*5: Connection at 32Gbps speed is not supported.
*6 ESXi 6 and Oracle VM 3 are supported. Please contact us for other VMs.

Notes

- Please contact ISV vendor regarding necessary patches by each OS and each ISV.
- Oracle Solaris(TM)Operating System is described as "Solaris OS" here.
- Please refer to the support matrix of tape device as backup destination about operating condition, such as version, configuration, and patch, of products on this chart.
- This chart shows availability of backup of StorageCluster volume to tape device per backup software. StorageCluster Disk -> Tape.
- Please refer to each Backup Software's software guide for consideration of each backup software.
- Trademark symbols have been omitted from this document.

Backup Software	OS	StorageCluster(FC) Disk -> Tape	StorageCluster(iSCSI) Disk -> Tape	Instruction for use
Microsoft System Center Data Protection Manager	Windows Server	Planned 2	Planned 2	
Arcserve Backup	Windows	Supported (r17 or later)	Supported (r17 or later)	
	Other supported OSs	Planned 2	Planned 2	
Veritas NetBackup	Solaris	Supported (7.7.2 or later)	Supported (7.7.2 or later)	
	Red Hat Enterprise Linux	Supported (7.7.2 or later)	Supported (7.7.2 or later)	
	Windows	Supported (7.7.2 or later)	Supported (7.7.2 or later)	
	Other supported OSs	Planned 2	Planned 2	
Veritas Backup Exec	Windows	Supported (15 FP3 or later)	Planned 2	
EMC NetWorker	Solaris	Supported (8.2 or later)	Supported (8.2 or later)	
	Red Hat Enterprise Linux	Supported (8.2 or later)	Supported (8.2 or later)	
	Windows	Supported (8.2 or later)	Supported (8.2 or later)	
	SuSE LINUX Enterprise Linux Server	Supported (8.2 or later)	Supported (8.2 or later)	
IBM Spectrum Protect (Formerly IBM Tivoli Storage Manager IBM Tivoli Storage Manager EE)	Solaris	Supported (7.1.3 or later)	Supported (7.1.3 or later)	
	Red Hat Enterprise Linux	Supported (7.1.3 or later)	Supported (7.1.3 or later)	
	Windows	Supported (7.1.3 or later)	Supported (7.1.3 or later)	
	Other supported OSs	Planned 2	Planned 2	

Quest Software NetVault Backup	Red Hat Enterprise Linux	Supported (11.0 or later)	Supported (11.0 or later)	
	Windows	Supported (11.0 or later)	Supported (11.0 or later)	
	Other supported OSs	Planned 2	Planned 2	
HP DataProtector	Windows	Planned 2	Planned 2	
Seven10 StorfirstAltus	Windows	Planned 2	Planned 2	
CommVault	Supported OSs	Planned 2	Planned 2	

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Notes

- This chart shows the OS and file system protocol support via the ETERNUS Ethernet port.
- Multipath connections between a server's NICs and switches are independent of the multipath connections between an ETERNUS Ethernet ports and switches.
There is no dependency between these multipath connections.
- Please contact the Server supplier for the server support status for the OS listed here.
- Please refer to user manual for the detail functional support status and support condition of CIFS/NFS.
- CIFS/NFS shared volume usage under cluster software is supported on cluster versions that support CIFS/NFS.
- Please contact each product supplier about operating condition, such as version, configuration, and patch.
- Trademark symbols have been omitted from this document.
- ETERNUS DX60 S5/S4/S3, DX8900 S4, DX8000 S3 series, DX200F, AF series are not applicable since NAS function is not supported.

	CIFS (SMB2.0/3.0/ 3.1.1 *1)	NFS	FTP/FXP	VMware (NFS datastore) NFSv3						OVM	Instruction for use
				vSphere8.0	vSphere7.0	vSphere6.7	vSphere6.5	vSphere6.0	vSphere5.5	OVM 3.2/3.3	
DX100 S5 / DX200 S5 DX500 S5 / DX600 S5	Supported	Supported v3/v4 *4 *5	Supported	Supported	Supported	Supported	Supported	N.A.	N.A.	Planned 2	
DX100 S4 / DX200 S4 DX100 S3 / DX200 S3 DX500 S4 / DX600 S4 DX500 S3 / DX600 S3	Supported	Supported v2/v3/v4 *2 *3	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	

*1 For SMB3.0 or later, Hyper-V is not supported.

*2 The supported client as NFS v4 are Solaris 10 1/13(Update 11)/11.2/11.3, RHEL 6.7/6.8/6.9 and RHEL 7.0/7.1/7.2/7.3/7.4.

*3 IPv6 connection from NFS client of Solaris9, 10 is not supported.

The following Windows NFS client connection is not supported;

- Subsystem for UNIX-based Applications(SUA)
- Services for UNIX(SFU)

*4 The supported client as NFS v4 are Solaris 10 5/09, Solaris 112/11.3, RHEL 6.6/6.10, RHEL 7.2/7.3/7.4/7.6.

*5 IPv6 connection from Solaris 10 NFS client is not supported.

The following Windows NFS client connection is not supported.

- Subsystem for UNIX-based Applications(SUA)
- Services for UNIX(SFU)

*6 NFSv4.1 is not supported

Notes

- Please contact ISV vendor regarding necessary patches by each OS and each ISV.
- Please contact ISV vendor whether the ISV supports NAS connection, WORM, encryption function and clustering software.
- Please contact ISV vendor whether the ISV supports OS versions.
- For notes for each backup software, please refer to "FUJITSU Storage ETERNUS DX100 S3/DX200 S3, ETERNUS DX500 S3/DX600 S3 Disk storage system Configuration Guide (NAS)
- Oracle Solaris(TM)Operating System is described as "Solaris OS" here.
- ETERNUS DX60 S5/S4/S3, DX8900 S4, DX8000 S3 series, DX200F, AF series are not applicable since NAS function is not supported.
- Please contact each product supplier about operating condition, such as version, configuration, and patch.
- Meanings of Backup operation are
 - Disk -> DX S5/S4/S3 : Production server's data is backed up by a backup server to DX S5/S4/S3 series NAS volume.
 - NAS -> DX S5/S4/S3 : Data stored in NAS device connected to a production server is backed up by a backup server to DX S5/S4/S3 series NAS volume.
- Currently supported NAS devices to be backed up are ETERNUS DX S5/S4/S3 series only.
- Disk/NAS ->DX S5/S4/S3->Tape : Data is backed up to DX S5/S4/S3 series NAS volume as described above, then is further backed up to a tape connected to the backup server as an external storage.
- Trademark symbols have been omitted from this document.

Backup Software	OS	Backup operation	DX100 S5/S4/S3 DX200 S5/S4/S3 DX500 S5/S4/S3 DX600 S5/S4/S3	Instruction for use
Arcserve Backup http://arcserve.com/	Windows Server	Disk -> DX S5/S4/S3	Supported (r16.5/r17)	
		NAS -> DX S5/S4/S3	Supported (r16.5/r17)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (r16.5/r17)	
Arcserve UDP http://www.arcserve.com/jp/products-solutions/products/unified-data-protection-software.aspx	Windows Server	Disk -> DX S5/S4/S3	Supported (v6)	
Veritas NetBackup https://www.veritas.com/product/backup-and-recovery/nethackun	Solaris	Disk -> DX S5/S4/S3	Supported (7.6/7.7)	
		NAS -> DX S5/S4/S3	Supported (7.6/7.7)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (7.6/7.7)	
	Windows Server	Disk -> DX S5/S4/S3	Supported (7.6/7.7)	
		NAS -> DX S5/S4/S3	Supported *1 *2 (7.6/7.7)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported *1 *2 (7.6/7.7)	
	Red Hat Enterprise Linux	Disk -> DX S5/S4/S3	Supported (7.6/7.7)	
		NAS -> DX S5/S4/S3	Supported (7.6/7.7)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (7.6/7.7)	
Veritas System Recovery https://www.veritas.com/product/backup-and-recovery/system-recovery	Windows Server	Disk -> DX S5/S4/S3	Supported (2013R2)	
Veritas Backup Exec https://www.veritas.com/product/backup-and-recovery/backup-exec	Windows	Disk -> DX S5/S4/S3	Supported (2012/2014/15)	

*1 When there is no access right of "modify" or "display" of Audit information in folder/file property within CIFS shared environment from Windows OS, the audit information of folder/file cannot be backed up or restored. (Backup/restore of folder/file contents is possible.)

*2 By ETERNUS DX series specifications, ETERNUS DX is not displayed on "network" frame which is the left pane of backup frame of NetBackup's "Backup, Archive and Restore", so backup of ETERNUS DX's folder/file for CIFS shared environment can not be performed. Please use manual backup using policy or scheduled backup for those folder/file.

Backup Software	OS	Backup operation	DX100 S5/S4/S3 DX200 S5/S4/S3 DX500 S5/S4/S3 DX600 S5/S4/S3	Instruction for use
EMC NetWorker http://www.emc.com/data-protection/networker.htm	Solaris	Disk -> DX S5/S4/S3	Supported (8.1/8.2)	
		NAS -> DX S5/S4/S3	Supported (8.1/8.2)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (8.1/8.2)	
	Windows Server	Disk -> DX S5/S4/S3	Supported (8.1/8.2)	
		NAS -> DX S5/S4/S3	Supported (8.1/8.2)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (8.1/8.2)	
	Red Hat Enterprise Linux	Disk -> DX S5/S4/S3	Supported (8.1/8.2)	
		NAS -> DX S5/S4/S3	Supported (8.1/8.2)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (8.1/8.2)	
IBM Spectrum Protect (Formerly IBM Tivoli Storage Manager IBM Tivoli Storage Manager EE) http://www-03.ibm.com/software/products/en/spectrum-protect	Solaris	Disk -> DX S5/S4/S3	Supported (7.1)	
		NAS -> DX S5/S4/S3	Supported (7.1)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (7.1)	
	Windows Server	Disk -> DX S5/S4/S3	Supported (7.1)	
		NAS -> DX S5/S4/S3	Supported *1 (7.1)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported *1 (7.1)	
	Red Hat Enterprise Linux	Disk -> DX S5/S4/S3	Supported (7.1)	
		NAS -> DX S5/S4/S3	Supported (7.1)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (7.1)	
Quest Software NetVault Backup https://www.quest.com/products/netvault-backup/	Windows Server	Disk -> DX S5/S4/S3	Supported (11.x/12.x)	
		NAS -> DX S5/S4/S3	Supported (11.x/12.x)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (11.x/12.x)	
	Red Hat Enterprise Linux	Disk -> DX S5/S4/S3	Supported (11.x/12.x)	
		NAS -> DX S5/S4/S3	Supported (11.x/12.x)	
		Disk/NAS -> DX S5/S4/S3 -> Tape	Supported (11.x/12.x)	

*1 When there is no access right of "modify" or "display" of Audit information in folder/file property within CIFS shared environment from Windows OS, the audit information of folder/file can not be backed up/restore. (Backup/restore of folder/file contents is pos:

Notes

- To use the key management server, SED must be installed.

- Please ask the product supplier of each product for the operating requirements (version number, configuration, necessity patchs, etc.) for each product listed in this table.

- Trademark symbols have been omitted from this document.

	Storage									Instruction for use
	DX S5 series (except DX60 S5)	DX60 S5	DX S4 series (except DX60 S4)	DX60S4	DX S3 series (except DX60 S3)	DX60S3	AF series (except AF150S3 ,DX200F)	AF150 S3	DX200F	
ETERNUS SF KM 3.0/4.1	Supported	-	Supported	-	Supported	-	Supported	-	-	
IBM Security Key Lifecycle Manager V3.0	Supported	-	Supported	-	Supported	-	Supported	-	-	

Notes

- Those products are certified by other vendors, and Fujitsu provides support only limited to ETERNUS storage itself.

- Trademark symbols have been omitted from this document.

Product name	ETERNUS DX series												Instruction for use
	DX S5 series	AF S3 series	DX S4 series (except DX8900 S4)	DX8900 S4	DX60 S3	DX100 S3	DX200 S3	DX500 S3	DX600 S3	DX8700 S3 DX8900 S3	AF series (except AF S3 series)	DX200F	
HDS VSP/VSP G1000/HUS VM/USPV https://support.hds.com/en_us/interoperability.html	Supported	Supported	Supported	Supported *1	Planned 2	Supported	Supported	Supported	Supported	Planned 2	Supported	Planned 2	The supported ETERNUS model depends on HDS products, so please refer to the HDS web for supported ETERNUS models.
IBM Storwize V5000/V7000 (V7.1.x) https://www-03.ibm.com/systems/support/storage/ssic/interoperability.wss	Planned 2	Planned 2	Supported	Supported	Planned 2	Supported	Supported	Supported	Supported	Supported	Supported	Supported	
FalconStor NSS/FSS http://falconstor.com/subpage/913/disk-storage-devices	Supported *2	Supported *2	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	
EMC VPLEX https://elabnavigator.emc.com/eln/modernHomeSSM	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Planned 2	
EMC ViPR Controller OpenStack Cinder Support Icehouse / Juno Releases/Kilo/Liberty	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	Supported	Planned 2	Planned 2	Planned 2	Planned 2	Planned 2	

*1: For connection with VSP, VSP's firmware should be updated.

*2: Please refer to other vendor's HCL for supported ETERNUS models.

Q1: Is there any plan to support Non-Stop OS and IBM i(OS/400)?

A1: No, there are no plans to support those OSs.

Q2: Can teaming function (bonding) can be used on iSCSI connection?

A2: When multipath configuration is used on iSCSI connection, please use multipath software. Teaming function of LAN is not supported.

Q3: Please advise us on how to choose multipath software? (Such as the difference between ETERNUS Multipath Driver and OS Native multipath software)

A3: ETERNUS Multipath Driver is an ETERNUS specialized multipath software and can handle path selection and error recovery better than OS Native multipath software. OS Native Multipath software can be used among different vendor storages.

Q4: Is it possible to ask to support connectivity to OS for which the vendor has terminated support? (Ex. Windows 2003, RHEL 4)

A4: It depends on the target OS. Please contact us.

Q5: Is single path connection supported?

A5: When the multipath connection is supported in the matrix then the corresponding single path connection is also supported.

Q6: Is there any selection guide of switch on iSCSI connection? (Ex. SNMP is required, L2 or above is required, below L2 is possible etc.)

A6: There are no restrictions regarding the LAN switch unless otherwise specified.

Q7: If the status is "Supported" on this document, is that combination also supported by ETERNUS SF Software?

A7: No, please refer to ETERNUS SF products support matrix for support of ETERNUS SF software.

Q8 : Is mixture of direct and via switch for FC connection from one server to ETERNUS possible?

A8 : Yes, it is possible. (including each port of multi-port FC card and multiple one-port FC cards cases)

But it is only allowed on the following cases;

- Windows environment + Emulex HBAs or QLogic HBAs
- Linux environment + Qlogic HBAs
- VMware environment + Emulex HBAs or QLogic HBAs