

Introduction

This document provides a reference of Lenovo Storage S2200 and Lenovo Storage S3200 qualification of HBA and server operating system configurations tested and validated by Lenovo engineering. This document provides compatibility supporting ThinkServer, System x, and Flex systems.

ThinkServer and Lenovo Storage NAS

(See server compatibility information for server OS and adapter support)

			Windows Server		RHEL		SLES	Vmware ESX		
Storage Controller	Vendor	HBA	2008 R2 SP2	2012 R2	6.7	7.1	10 SP4	5.1	5.5U3	6.0
S3200	Emulex	ThinkServer LPe12002 PCIe 8Gb 2 Port FC HBA by Emulex	X	X	X	X	X	X	X	X
		ThinkServer LPe16000B Single Port 16GB Fibre Channel HBA by Emulex	X	X	X	X	X	X	X	X
		ThinkServer LPe16002B Dual Port 16GB Fibre Channel HBA by Emulex	X	X	X	X	X	X	X	X
		LPe16002B-M6-L 16Gb 2p FC	X	X	X	X	X	X	X	X
		ThinkServer LPe16004B-M6-L PCIe 16Gb 4 port FC HBA by Emulex	X	X	X	X	X	X	X	X
		LPm16002-M6-L 16Gb 2p FC	X	X	X	X	X	X	X	X
		LPm15004-M8-L 8Gb 4p FC	X	X	X	X	X	X	X	X
		OCe14102-U iSCSI	X	X	X	X	X	X	X	X
		OCm14102-UX-L iSCSI	X	X	X	X	X	X	X	X
	VFA III iSCSI	X	X	X	X	X	X	X	X	
	QLogic	ThinkServer QLE1250 PCIe 8Gb Single Port FC Adapter by Qlogic	X	X	X	X	X	X	X	X
		QLE2560 8Gb 1p FC	X	X	X	X	X	X	X	X
		ThinkServer QLE2562 Dual Port 8GB Fibre Channel HBA by Qlogic	X	X	X	X	X	X	X	X
		ThinkServer QLE2672 PCIe 16Gb 2 Port FC Adapter by Qlogic	X	X	X	X	X	X	X	X
		QLE8242-CU iSCSI	X	X	X	X	X	X	X	X
	Avago	ThinkServer 9300-8e PCIe 12Gb SAS Adapter by LSI	X	X	X	X	X	X	X	X
S2200	Emulex	ThinkServer LPe12002 PCIe 8Gb 2 Port FC HBA by Emulex	X	X	X	X	X	X	X	X
		ThinkServer LPe16000B Single Port 16GB Fibre Channel HBA by Emulex	X	X	X	X	X	X	X	X
		ThinkServer LPe16002B Dual Port 16GB Fibre Channel HBA by Emulex	X	X	X	X	X	X	X	X
		LPe16002B-M6-L 16Gb 2p FC	X	X	X	X	X	X	X	X
		ThinkServer LPe16004B-M6-L PCIe 16Gb 4 port FC HBA by Emulex	X	X	X	X	X	X	X	X
		LPm16002-M6-L 16Gb 2p FC	X	X	X	X	X	X	X	X
		LPm15004-M8-L 8Gb 4p FC	X	X	X	X	X	X	X	X
		OCe14102-U iSCSI	X	X	X	X	X	X	X	X
		OCm14102-UX-L iSCSI	X	X	X	X	X	X	X	X
	VFA III iSCSI	X	X	X	X	X	X	X	X	
	QLogic	ThinkServer QLE1250 PCIe 8Gb Single Port FC Adapter by Qlogic	X	X	X	X	X	X	X	X
		QLE2560 8Gb 1p FC	X	X	X	X	X	X	X	X
		ThinkServer QLE2562 Dual Port 8GB Fibre Channel HBA by Qlogic	X	X	X	X	X	X	X	X
		ThinkServer QLE2672 PCIe 16Gb 2 Port FC Adapter by Qlogic	X	X	X	X	X	X	X	X
		QLE8242-CU iSCSI	X	X	X	X	X	X	X	X
	Avago	ThinkServer 9300-8e PCIe 12Gb SAS Adapter by LSI	X	X	X	X	X	X	X	X
Notes:			Options compatibility matrix https://support.lenovo.com/us/en/documents/um006391 Windows HCL for S2200 and S3200 S2200: http://windowsservercatalog.com/item.aspx?itemId=0d883d2d-3b67-3a5a-5467-2bd51d179509&bCatID=1338 S3200: http://windowsservercatalog.com/item.aspx?itemId=237dae19-2715-206f-95cc-e918bfe83147&bCatID=1282 VMware HCL for S2200 and S3200 http://www.vmware.com/resources/compatibility/search.php?deviceCategory=san							

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System X

(See server compatibility information for server OS and adapter support)

Storage Controller	Vendor	HBA	Windows Server			RHEL			SLES		Vmware ESX		
			2008 R2 SP2	2012	2012 R2	5.10	6.7	7.1	11 SP4	12	5.1	5.5U3	6.0
S3200	Emulex	Emulex 8Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 16Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 10GbE Virtual Fabric Adapter III for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 10GbE Virtual Fabric Adapter 5+ for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 10GbE Virtual Fabric Adapter 6+ for System X	X	X	X	X	X	X	X	X	X	X	X
	QLogic	QLogic 8Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		QLogic 16Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		QLogic 8200 Dual Port 10GbE SFP+ VFA for System X	X	X	X	X	X	X	X	X	X	X	X
	Brocade	Brocade 16Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
	IBM	IBM 6Gb SAS HBA Controller (x3630M4)	X	X	X	X	X	X	X	X	X	X	X
		N2125 SAS/SATA HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		N2225 SAS/SATA HBA for Lenovo System X	X	X	X	X	X	X	X	X	X	X	X
		N2226 SAS/SATA HBA for System X	X	X	X	X	X	X	X	X	X	X	X
S2200	Emulex	Emulex 8Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 16Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 10GbE Virtual Fabric Adapter III for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 10GbE Virtual Fabric Adapter 5+ for System X	X	X	X	X	X	X	X	X	X	X	X
		Emulex 10GbE Virtual Fabric Adapter 6+ for System X	X	X	X	X	X	X	X	X	X	X	X
	QLogic	QLogic 8Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		QLogic 16Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		QLogic 8200 Dual Port 10GbE SFP+ VFA for System X	X	X	X	X	X	X	X	X	X	X	X
	Brocade	Brocade 16Gb FC Dual/Single Port HBA for System X	X	X	X	X	X	X	X	X	X	X	X
	IBM	IBM 6Gb SAS HBA Controller (x3630M4)	X	X	X	X	X	X	X	X	X	X	X
		N2125 SAS/SATA HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		N2225 SAS/SATA HBA for System X	X	X	X	X	X	X	X	X	X	X	X
		N2226 SAS/SATA HBA for System X	X	X	X	X	X	X	X	X	X	X	X

Notes:	Options compatibility Matrix https://support.lenovo.com/us/en/documents/um006391
	Windows HCL for S2200 and S3200 S2200: http://windowsservercatalog.com/item.aspx?itemId=0d883d2d-3b67-3a5a-5467-2bd51d179509&bCatID=1338 S3200: http://windowsservercatalog.com/item.aspx?itemId=237dae19-2715-206f-95cc-e918bfe83147&bCatID=1282
	VMware HCL for S2200 and S3200 http://www.vmware.com/resources/compatibility/search.php?deviceCategory=san

Flex

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(See server compatibility information for server OS and adapter support)

			Windows Server		RHEL		SLES		VMware ESX			
Storage Controller	Vendor	HBA	2008 R2	2012 R2	6.7	7.1	11 SP4	12	5.0 U1	5.1	5.5 U3	6.0
S3200	Emulex	Flex System FC3052 2-port 8GB FC Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System FC5052 2-port 16GB FC Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4054R 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4052 2-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4052R 2-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4054S 4-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4058S 8-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
	QLogic	Flex System FC3172 2-port 8GB FC Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System FC5172 2-port 16GB FC Adapter	X	X	X	X	X	X	X	X	X	X
	Broadcom	Flex System CN4022 2-port 10GB Converged Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System EN2024 4-port 1GB Ethernet Adapter	X	X	X	X	X	X	X	X	X	X
S2200	Emulex	Flex System FC3052 2-port 8GB FC Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System FC5052 2-port 16GB FC Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4054R 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4052 2-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4052R 2-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4054S 4-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System CN4058S 8-port 10GB Virtual Fabric Adapter	X	X	X	X	X	X	X	X	X	X
	QLogic	Flex System FC3172 2-port 8GB FC Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System FC5172 2-port 16GB FC Adapter	X	X	X	X	X	X	X	X	X	X
	Broadcom	Flex System CN4022 2-port 10GB Converged Adapter	X	X	X	X	X	X	X	X	X	X
		Flex System EN2024 4-port 1GB Ethernet Adapter	X	X	X	X	X	X	X	X	X	X
Notes: Options compatibility matrix https://support.lenovo.com/us/en/documents/um006391 Windows HCL for S2200 and S3200 S2200: http://windowsservercatalog.com/item.aspx?itemId=0d883d2d-3b67-3a5a-5467-2bd51d179509&bCatID=1338 S3200: http://windowsservercatalog.com/item.aspx?itemId=237dae19-2715-206f-95cc-e918bfe83147&bCatID=1282 VMware HCL for S2200 and S3200 http://www.vmware.com/resources/compatibility/search.php?deviceCategory=san												

Switching

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Storage Controller	Vendor	Switch	Part Number
S3200	Brocade	8 Gb Fibre Channel Brocade 300 FC SAN Switch	3873AR1
		16 Gb Fibre Channel Brocade 6505 FC SAN Switch	3873AR2
		16 Gb Fibre Channel Brocade 6510 FC SAN Switch	3873BR1
	Lenovo	1 Gb Ethernet Lenovo RackSwitch G7028 (Rear to Front)	7159BAX
		1 Gb Ethernet Lenovo RackSwitch G7052 (Rear to Front)	7159CAX
		1 Gb Ethernet Lenovo RackSwitch G8052 (Rear to Front)	7159G52
		10Gb Ethernet RackSwitch G8124E	7159BR6
		10Gb Ethernet RackSwitch G8264	7159GC64
		10Gb Ethernet RackSwitch G8727	7159CRW
		10Gb Ethernet RackSwitch G8296	7159GR6
		Converged 10 GbE and 8 Gb FC Lenovo RackSwitch G8264CS	7159DRX
	Lenovo Flex	Lenovo Flex System Fabric EN4093R 10Gb Scalable Switch	00FM514
		Cisco Nexus B22 Fabric Extender for Flex System*	94Y5350
		Cisco Nexus B22 Fabric Extender with FET bundle for Flex System*	94Y5355
		Flex System EN4023 10Gb Scalable Switch	94Y5212
		Lenovo Flex System Fabric CN4093 10Gb Converged Scalable Switch	00FM510
		Flex System FC5022 16 Gb SAN Scalable Switch	88Y6374
		Flex System FC5022 24-port 16 Gb SAN Scalable Switch (includes two 16 Gb SFPs)	00Y3324
		Flex System FC5022 24-port 16 Gb ESB SAN Scalable Switch	90Y9356
S3200	Brocade	8 Gb Fibre Channel Brocade 300 FC SAN Switch	3873AR1
		16 Gb Fibre Channel Brocade 6505 FC SAN Switch	3873AR2
		16 Gb Fibre Channel Brocade 6510 FC SAN Switch	3873BR1
	Lenovo	1 Gb Ethernet Lenovo RackSwitch G7028 (Rear to Front)	7159BAX
		1 Gb Ethernet Lenovo RackSwitch G7052 (Rear to Front)	7159CAX
		1 Gb Ethernet Lenovo RackSwitch G8052 (Rear to Front)	7159G52
		10Gb Ethernet RackSwitch G8124E	7159BR6
		10Gb Ethernet RackSwitch G8264	7159GC64
		10Gb Ethernet RackSwitch G8727	7159CRW
		10Gb Ethernet RackSwitch G8296	7159GR6
		Converged 10 GbE and 8 Gb FC Lenovo RackSwitch G8264CS	7159DRX
	Lenovo Flex	Lenovo Flex System Fabric EN4093R 10Gb Scalable Switch	00FM514
		Cisco Nexus B22 Fabric Extender for Flex System*	94Y5350
		Cisco Nexus B22 Fabric Extender with FET bundle for Flex System*	94Y5355
		Flex System EN4023 10Gb Scalable Switch	94Y5212
		Lenovo Flex System Fabric CN4093 10Gb Converged Scalable Switch	00FM510
		Flex System FC5022 16 Gb SAN Scalable Switch	88Y6374
		Flex System FC5022 24-port 16 Gb SAN Scalable Switch (includes two 16 Gb SFPs)	00Y3324
		Flex System FC5022 24-port 16 Gb ESB SAN Scalable Switch	90Y9356

Notes:

Options compatibility matrix

<https://support.lenovo.com/us/en/documents/um006391>

Windows HCL for S2200 and S3200

S2200: <http://windowsservercatalog.com/item.aspx?idItem=0d883d2d-3b67-3a5a-5467-2bd51d179509&bCatID=1338>

S3200: <http://windowsservercatalog.com/item.aspx?idItem=237dae19-2715-206f-95cc-e918bfe83147&bCatID=1282>

VMware HCL for S2200 and S3200

<http://www.vmware.com/resources/compatibility/search.php?deviceCategory=san>

These switches have been tested with the S3200/S2200. Other switches may be compatible.

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Licenses

Storage Controller	License	Part Number	Feature Code	Max Qty Per Enclosure
S3200	Lenovo Storage S2200/S3200 512 Snapshot Upgrade	00WE761	AT2E	1
	Lenovo Storage S3200 1024 Snapshot Upgrade	00WE787	AT2F	1
	Lenovo Storage SSD Data Tiering Upgrade	00WE764	AT2J	1
	Lenovo Storage S2200/S3200 Asynchronous Replication Upgrade	00YG676	ATRJ	1*
	Lenovo Storage 512 Snapshot Upgrade Maintenance 1 yr	00WF825	ATT4	1
	Lenovo Storage 512 Snapshot Upgrade Maintenance 2 yr	00WF829	ATT5	1
	Lenovo Storage 1024 Snapshot Upgrade Maintenance 1 yr	00WF833	ATT6	1
	Lenovo Storage 1024 Snapshot Upgrade Maintenance 2 yr	00WF837	ATT7	1
	Lenovo Storage SSD Data Tiering Maintenance 1 yr	00WF841	ATT8	1
	Lenovo Storage SSD Data Tiering Maintenance 2 yr	00WF845	ATT9	1
	Lenovo Storage Asynchronous Replication Maintenance 1yr	00YG680	ATTA	1
	Lenovo Storage Asynchronous Replication Maintenance 2yr	00YG684	ATTB	1
S2200	Lenovo Storage S2200/S3200 512 Snapshot Upgrade	00WE761	AT2E	1
	Lenovo Storage SSD Data Tiering Upgrade	00WE764	AT2J	1
	Lenovo Storage S2200/S3200 Asynchronous Replication Upgrade	00YG676	ATRJ	1*
	Lenovo Storage 512 Snapshot Upgrade Maintenance 1 yr	00WF825	ATT4	1
	Lenovo Storage 512 Snapshot Upgrade Maintenance 2 yr	00WF829	ATT5	1
	Lenovo Storage SSD Data Tiering Maintenance 1 yr	00WF841	ATT8	1
	Lenovo Storage SSD Data Tiering Maintenance 2 yr	00WF845	ATT9	1
	Lenovo Storage Asynchronous Replication Maintenance 1yr	00YG680	ATTA	1
	Lenovo Storage Asynchronous Replication Maintenance 2yr	00YG684	ATTB	1

* Asynchronous Replication requires two licenses, one for the primary and one for the target

Note: The SSD Data Tiering Upgrade option, part number 00WE764, is required to deploy solid-state drives as read and write data storage even if SSD tiering will not be used.

Software maintenance for standard software features is included in the S3200 base warranty.

Optional warranty extensions available to provide 3-year software support with the option to extend it up to 5 years in 1-year or 2-year increments

The S3200 must have active warranty coverage for the duration of an intended software maintenance extension period.

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HDD and SSD

Storage Controller	Description	Part Number	Feature Code	Max qty per one S3200\S2200 or Expansion
S2200 and S3200	3.5-inch SAS hot-swap HDDs			
	Lenovo Storage 3.5" 600GB 10K SAS HDD (2.5" in 3.5")	00WC040	AT21	12
	Lenovo Storage 3.5" 900GB 10K SAS HDD (2.5" in 3.5")	00WC035	AT1Z	12
	3.5-inch NL SAS hot-swap HDDs			
	Lenovo Storage 3.5" 2TB 7.2k NL-SAS HDD	00MM735	AT1V	12
	Lenovo Storage 3.5" 4TB 7.2k NL-SAS HDD	00MM730	AT1W	12
	Lenovo Storage 3.5" 6TB 7.2k NL-SAS HDD	00MM725	AT1Y	12
	Lenovo Storage 3.5" 8TB 7.2k NL-SAS HDD	00WE790	AT47	12
	3.5-inch NL SAS hot-swap SEDs			
	Lenovo Storage 3.5" 4TB 7.2k NL-SAS HDD (SED)	00WC025	AT1X	12
	3.5-inch SAS hot-swap SSDs			
	Lenovo Storage 3.5" 400GB SSD SAS (2.5" in 3.5")	00WC030	AT20	12
	2.5-inch SAS hot-swap HDDs			
	Lenovo Storage 2.5" 300GB 15k SAS HDD	00MM685	AT1H	24
	Lenovo Storage 2.5" 600GB 10k SAS HDD	00MM700	AT1K	24
	Lenovo Storage 2.5" 600GB 15k SAS HDD	00MM680	AT1J	24
	Lenovo Storage 2.5" 900GB 10k SAS HDD	00MM695	AT1M	24
	Lenovo Storage 2.5" 1.2TB 10k SAS HDD	00MM690	AT1P	24
	2.5-inch SAS hot-swap SEDs			
	Lenovo Storage 2.5" 600GB 10k SAS HDD (SED)	00WC020	AT1L	24
	Lenovo Storage 2.5" 900GB 10k SAS HDD (SED)	00MM745	AT1N	24
	Lenovo Storage 2.5" 1.2TB 10k SAS HDD (SED)	00MM740	AT1Q	24
	2.5-inch NL SAS hot-swap HDDs			
	Lenovo Storage 2.5" 1TB 7.2k NL- SAS HDD	00MM705	AT1R	24
	2.5-inch SAS hot-swap SSDs			
	Lenovo Storage 2.5" 400GB SSD (SAS)	00MM720	AT1S	24
	Lenovo Storage 2.5" 800GB SSD (SAS)	00MM715	AT1T	24
	Lenovo Storage 2.5" 1.6TB SSD (SAS)	00MM710	AT1U	24

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