



## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Modified Date: Fri, 02 May 2014 00:00:00 GMT

PDF Generated Date: Wed, 07 May 2014 07:04:12 GMT

### Overview

This document contains information regarding compatibility and interoperability for a "configuration set" of Storage Area Network (SAN) components. A configuration set is a collection of components that are compatible in a particular context. For example, configuration sets of type "array-os" contain components that are compatible from an array-os perspective. An example of an array-os config set is the "EVA4400 Microsoft Windows Server 2008 IA64" config set. It describes the components that are currently supported for the EVA4400 array in a Windows 2008 IA64 environment.

It is very important that you note the details of the components listed in these tables, as they describe the specific attributes of supported component versions. It is also very important to examine the notes in each section, because they may further limit or clarify supported configurations.

The contents of this document were generated from the SPOCK website, located at: <http://spock.corp.hp.com> (HP Employees) or <http://www.hp.com/storage/spock> (HP Customers and Partners) .

### Legal Notice

1. The information contained herein is subject to change without notice.
2. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

### General notes about this configuration set

For specific configuration guidelines and coexistence information, refer to the SAN Design Reference Guide at <http://h18000.www1.hp.com/products/storage/san/documentation.html>.

### Links

[Solution Software: Application Notes](http://h20272.www2.hp.com/utility/document.aspx?docurl=Shared%20Documents/Solution_Software/All/SolSW_Application_Notes.pdf) -([http://h20272.www2.hp.com/utility/document.aspx?docurl=Shared%20Documents/Solution\\_Software/All/SolSW\\_Application\\_Notes.pdf](http://h20272.www2.hp.com/utility/document.aspx?docurl=Shared%20Documents/Solution_Software/All/SolSW_Application_Notes.pdf))

**HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)**

General notes about this configuration set-----	2
Disk Array (12)-----	4
Operating System (9)-----	4
Cluster Management-High Availability (19)-----	5
Server (6)-----	6
Host Bus Adapter (HBA) (55)-----	7
Converged Network Adapter (CNA) (4)-----	9
Fibre Channel Switch (41)-----	10
Fibre Channel over Ethernet (FCoE) Switch (7)-----	13
Router (5)-----	14
Path Management (13)-----	15

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Disk Array (12)				
Name	Vendor	Family	Firmware	Host Mode
HP 3PAR F200 Storage System	HP	3PAR	3PAR OS 3.1.1	1 (Generic)
HP 3PAR F200 Storage System	HP	3PAR	3PAR OS 3.1.2	1 (Generic)
HP 3PAR F200 Storage System	HP	3PAR	3PAR OS 3.1.3	1 (Generic)
HP 3PAR F400 Storage System	HP	3PAR	3PAR OS 3.1.3	1 (Generic)
HP 3PAR F400 Storage System	HP	3PAR	3PAR OS 3.1.2	1 (Generic)
HP 3PAR F400 Storage System	HP	3PAR	3PAR OS 3.1.1	1 (Generic)
HP 3PAR T400 Storage System	HP	3PAR	3PAR OS 3.1.1	1 (Generic)
HP 3PAR T400 Storage System	HP	3PAR	3PAR OS 3.1.2	1 (Generic)
HP 3PAR T400 Storage System	HP	3PAR	3PAR OS 3.1.3	1 (Generic)
HP 3PAR T800 Storage System	HP	3PAR	3PAR OS 3.1.3	1 (Generic)
HP 3PAR T800 Storage System	HP	3PAR	3PAR OS 3.1.2	1 (Generic)
HP 3PAR T800 Storage System	HP	3PAR	3PAR OS 3.1.1	1 (Generic)

Operating System (9)					
Name	OS Family	OS Version	Service Pack	Vendor	Architecture
Solaris 10 SPARC	Solaris	10	U3	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U4	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U5	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U6	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U7	Oracle	SPARC

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	OS Family	OS Version	Service Pack	Vendor	Architecture
Solaris 10 SPARC	Solaris	10	U8	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U9	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U10	Oracle	SPARC
Solaris 10 SPARC	Solaris	10	U11	Oracle	SPARC

### Notes:

#### General Operating System (9) Notes:

1) BFS (Boot from SAN) is supported only with embedded drivers (emlxs and qlc) at Solaris 10 MU6, MU7, MU8, MU9, MU10, MU11.

Cluster Management-High Availability (19)			
Name	Vendor	Software Version	Package
Solaris Cluster	Oracle	3.1 u4	
Solaris Cluster	Oracle	3.2 GA	
Solaris Cluster	Oracle	3.2 u1	
Solaris Cluster	Oracle	3.2 u2	
Solaris Cluster	Oracle	3.2 u3	
Solaris Cluster	Oracle	3.3 GA	
Solaris Cluster	Oracle	3.3 u1	
Solaris Cluster	Oracle	3.3 u2	
Veritas Cluster Server	Symantec	6.0.1	
Veritas Cluster Server	Symantec	6.0.3	
Veritas Cluster Server	Symantec	6.1	
Veritas Cluster Server	Symantec	4.0	

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Vendor	Software Version	Package
Veritas Cluster Server	Symantec	5.0	
Veritas Cluster Server	Symantec	4.1	
Veritas Cluster Server	Symantec	5.0 MP1	
Veritas Cluster Server	Symantec	5.0 MP3	
Veritas Cluster Server	Symantec	5.1	
Veritas Cluster Server	Symantec	5.1 SP1	
Veritas Cluster Server	Symantec	6.0	

### Notes:

#### General Cluster Management-High Availability (19) Notes:

- 1) Sun Cluster support starting with Solaris 10 5/08 (MU5).
- 2) There are restrictions for support of online 3PAR OS upgrades for Sun/Solaris Cluster configurations that use SCSI-3 reservations. Some version to version online 3PAR OS upgrades are not supported for Sun/Solaris Clusters that use SCSI-3 reservations. This affects all supported versions of Sun/Solaris Cluster. Refer to the 3PAR OS Upgrade Pre-Planning Guide for specific restrictions regarding online 3PAR OS upgrades with Sun/Solaris Cluster.
- 3) Symantec/Veritas Storage Foundation (VxDMP/VCS) is only supported in a FC-Fabric attach (FC-switched) configuration.
- 4) BFS (Boot from SAN) is not supported with Symantec/Veritas Storage Foundation (VxDMP/VCS) 6.1

Server (6)		
Name	Vendor	Architecture
Fujitsu SPARC M-Series Servers	Fujitsu	SPARC
Oracle Sun Netra CP-Series SPARC Servers	Oracle	SPARC
Oracle Sun Netra T-Series Servers	Oracle	SPARC
Oracle Sun SPARC M-Series Servers	Oracle	SPARC
Oracle Sun SPARC T-Series Servers	Oracle	SPARC
PRIMEPOWER Servers	Fujitsu	Enterprise

**Notes:****General Server (6) Notes:**

1) Fujitsu Servers not supported with Sun Branded HBAs.

Host Bus Adapter (HBA) (55)						
Name	Vendor	Bus	Speed	Driver Version	Boot Support	Direct Connect Support
All versions of Host Bus Adapter (HBA)/Oracle/PCle/8Gb/SG-XPCIE1FC-Q F8-Z component	Oracle	PCle	8Gb	Use native qlc driver	Y	Y
All versions of Host Bus Adapter (HBA)/Oracle/PCle/8Gb/SG-XPCIE2FC-Q F8-Z component	Oracle	PCle	8Gb	Use native qlc driver	Y	Y
7101684	Oracle	PCle	16Gb			
7101684	Oracle	PCle	16Gb		Y	N
825	Brocade	PCle	8Gb	BFA 3.2.1.0	N	N
825	Brocade	PCle	8Gb	BFA 3.2.3.0	N	N
LP10000	Emulex	PCI-X	2Gb	Use native emlxs driver	Y	Y
LP10000DC	Emulex	PCI-X	2Gb	Use native emlxs driver	Y	Y
LP10000ExDC	Emulex	PCle	2Gb	Use native emlxs driver	Y	Y
LP11000	Emulex	PCI-X 2.0	4Gb	Use native emlxs driver	Y	Y
LP11002	Emulex	PCI-X 2.0	4Gb	Use native emlxs driver	Y	Y
LP9002	Emulex	PCI	2Gb	Use native emlxs driver	Y	Y
LP9002DC	Emulex	PCI	2Gb	Use native emlxs driver	Y	Y
LP9002L	Emulex	PCI	2Gb	Use native emlxs driver	Y	Y
LP9002S	Emulex	PCI	2Gb	Use native emlxs driver	Y	Y

# HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Vendor	Bus	Speed	Driver Version	Boot Support	Direct Connect Support
LP9802	Emulex	PCI-X	2Gb	Use native emlxs driver	Y	Y
LP9802DC	Emulex	PCI-X	2Gb	Use native emlxs driver	Y	Y
LPe11000	Emulex	PCle	4Gb	Use native emlxs driver	Y	Y
LPe11002	Emulex	PCle	4Gb	Use native emlxs driver	Y	Y
LPe11002	Emulex	PCle	4Gb	Use native emlxs driver	Y	Y
LPe11002	Emulex	PCle	4Gb	Use native emlxs driver	Y	Y
LPe12000	Emulex	PCle	8Gb	Use native emlxs driver	Y	Y
LPe12000	Emulex	PCle	8Gb	Use native emlxs driver	Y	Y
LPe12002	Emulex	PCle	8Gb	Use native emlxs driver	Y	Y
LPe12002	Emulex	PCle	8Gb	Use native emlxs driver	Y	Y
LPe16000	Emulex	PCle	16Gb		Y	N
LPe16000	Emulex	PCle	16Gb		Y	N
LPe16002	Emulex	PCle	16Gb		Y	N
LPe16002	Emulex	PCle	16Gb		Y	N
LPe16002	Emulex	PCle	16Gb	Use native emlxs driver	Y	N
LPe16002	Emulex	PCle	16Gb	Use native emlxs driver	Y	Y
QLA2440	QLogic	PCI-X 2.0	4Gb	Use native qlc driver	Y	Y
QLA2460	QLogic	PCI-X 2.0	4Gb	Use native qlc driver	Y	Y
QLA2462	QLogic	PCI-X 2.0	4Gb	Use native qlc driver	Y	Y
QLE2460	QLogic	PCle	4Gb	Use native qlc driver	Y	Y
QLE2462	QLogic	PCle	4Gb	Use native qlc driver	Y	Y
QLE2462	QLogic	PCle	4Gb	Use native qlc drive	Y	Y
QLE2464	QLogic	PCle	4Gb	Use native qlc driver	Y	Y



## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Vendor	Bus	Speed	Driver Version	Boot Support	Direct Connect Support
QLE2560	QLogic	PCle	8Gb	Use native qlc driver	Y	Y
QLE2560	QLogic	PCle	8Gb		Y	Y
QLE2560	QLogic	PCle	8Gb		Y	Y
QLE2562	QLogic	PCle	8Gb		Y	Y
QLE2562	QLogic	PCle	8Gb		Y	Y
QLE2562	QLogic	PCle	8Gb	Use native qlc driver	Y	Y
QLE2562	QLogic	PCle	8Gb	Use native qlc driver	Y	Y
QLE2562	QLogic	PCle	8Gb	Use native qlc drive	Y	Y
SG-XPCIE1FC-EM4	Sun	PCle	4Gb	Use native emlxs driver	Y	Y
SG-XPCIE1FC-EM8-Z	Oracle	PCle	8Gb	Use native emlxs driver	Y	Y
SG-XPCIE1FC-QF8-N	Oracle	PCle	8Gb		Y	Y
SG-XPCIE2FC-EM4	Sun	PCle	4Gb	Use native emlxs driver	Y	Y
SG-XPCIE2FC-EM8-Z	Oracle	PCle	8Gb	Use native emlxs driver	Y	Y
SG-XPCIE2FC-QF8-N	Oracle	PCle	8Gb	Use native qlc driver	Y	Y
SG-XPCIE2FC-QF8-N	Oracle	PCle	8Gb		Y	Y
SG-XPCIE2FC-QF8-N	Oracle	PCle	8Gb		Y	Y
SG-XPCIEFCGBE-Q8-N	Oracle	PCle	8Gb	Use native qlc driver	Y	Y

### Notes:

#### General Host Bus Adapter (HBA) (55) Notes:

All 2Gb HBA's are supported with 3PAR OS 3.1.1 only.

### Converged Network Adapter (CNA) (4)

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Driver Type	Driver Version	Boot Support	FC Driver Type	FC Driver Version	NIC Driver Type	NIC Driver Version	One Command	Bus	Ethernet Speed	Vendor	FC Speed	HP Part Number	3PO Part Number	Vendor Part Number	CEE Firmware	FC Firmware	BIOS	EFI	Boot Image	Firmware
OCe10102-FM	Native Driver		Y						PCIe	10 GbE	Emulex										2.103.397.3455
OCe10102-FM									PCIe	10 GbE	Emulex										4.0.360.3
OCe11102-FM	Native Driver		Y						PCIe	10 GbE	Emulex										4.0.360.3
QLE8142-SR-CK	Native Driver		Y						PCIe	10 GbE	QLogic			A765749	QLE8142-SR-CK	1.01.54 (Minimum)					05.06.04

### Notes:

#### General Converged Network Adapter (CNA) (4) Notes:

1) OCe10102, OCe11102 and QLE8142 cards are supported on Oracle servers only.

Fibre Channel Switch (41)				
Name	Class	Vendor	Bandwidth	Port Count
Cisco MDS 9124 Fabric Switch	Edge	Cisco	4Gb/s	24
Cisco MDS 9134 Fabric Switch	Edge	Cisco	4Gb/s	32
Cisco MDS 9222i Multiservice Fabric Switch	Edge	Cisco	4Gb/s	66
HP SN3000B 16Gb 24/12 Fibre Channel Switch	Edge	Brocade	16Gb/s	24
HP SN3000B 16Gb 24/24 Fibre Channel Switch	Edge	Brocade	16Gb/s	24

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Class	Vendor	Bandwidth	Port Count
HP SN6000B 16Gb 48-port/24-port Active Fibre Channel Switch	Edge	Brocade	16Gb/s	48
HP SN6000B 16Gb 48-port/24-port Active Power Pack+ Fibre Channel Switch	Edge	Brocade	16Gb/s	48
HP SN6000B 16Gb 48-port/48-port Active Fibre Channel Switch	Edge	Brocade	16Gbs	48
HP SN6000B 16Gb 48-port/48-port Active Power Pack+ Fibre Channel Switch	Edge	Brocade	16Gb/s	48
HP SN6000C Fibre Channel Switch (Cisco MDS 9148 Fabric Switch)	Edge	Cisco	8Gb/s	48
HP SN8000B 16Gb 32-port Fibre Channel Blade	Module	Brocade	16Gb/s	32
HP SN8000B 16Gb 48-port Fibre Channel Blade	Module	Brocade	16Gb/s	48
HP SN8000B 4-Slot Power Pack+ SAN Director Switch	Director	Brocade	16Gb/s	32 to 256
HP SN8000B 4-Slot SAN Director Switch	Director	Brocade	16Gb/s	32 to 256
HP SN8000B 8Gb 48-port Enhanced Fibre Channel Blade	Module	Brocade	8Gb/s	48
HP SN8000B 8-Slot Power Pack+ SAN Backbone Director Switch	Director	Brocade	16Gb/s	32 to 512
HP SN8000C 13-Slot Director Switch (Cisco MDS 9513 Multilayer Director Switch)	Director	Cisco	4Gb/s	528
HP SN8000C 6-Slot Director Switch (Cisco MDS 9506 Multilayer Director Switch)	Director	Cisco	4Gb/s	192
HP SN8000C 9-Slot Director Switch (Cisco MDS 9509 Multilayer Director Switch)	Director	Cisco	4Gb/s	336

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Class	Vendor	Bandwidth	Port Count
HP StorageWorks 4/16 SAN Switch	Edge	Brocade	4Gb/s	16
HP StorageWorks 4/256 SAN Director	Director	Brocade	4Gb/s	16 to 384
HP StorageWorks 4/8 SAN Switch	Edge	Brocade	4Gb/s	8
HP StorageWorks 8/20q Fibre Channel Switch	Edge	QLogic	8Gb/s	20
HP StorageWorks 8/24 SAN Switch	Edge	Brocade	8Gb/s	24
HP StorageWorks 8/40 SAN Switch	Edge	Brocade	8Gb/s	40
HP StorageWorks 8/8 SAN Switch	Edge	Brocade	8Gb/s	8
HP StorageWorks 8/80 SAN Switch	Edge	Brocade	8Gb/s	80
HP StorageWorks DC SAN Backbone Director Switch	Director	Brocade	8Gb/s	16 to 384
HP StorageWorks DC Switch Encryption FC Blade	Module	Brocade	8Gb/s	16
HP StorageWorks DC04 Power Pack+ SAN Director Switch	Director	Brocade	8Gb/s	16 to 192
HP StorageWorks DC04 SAN Director Switch	Director	Brocade	8Gb/s	16 to 192
HP StorageWorks Encryption SAN Switch	Edge	Brocade	8Gb/s	32
HP StorageWorks SAN Switch 4/32B Base	Edge	Brocade	4Gb/s	32
HP StorageWorks SAN Switch 4/32B Base Full	Edge	Brocade	4Gb/s	32
HP StorageWorks SAN Switch 4/32B Power Pack	Edge	Brocade	4Gb/s	32
HP StorageWorks SAN Switch 4/64 Base	Edge	Brocade	4Gb/s	64

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Class	Vendor	Bandwidth	Port Count
HP StorageWorks SAN Switch 4/64 Base Power Pack	Edge	Brocade	4Gb/s	32/48/64
HP StorageWorks SAN Switch 4/64 Power Pack	Edge	Brocade	4Gb/s	64
HP StorageWorks SN6000 Fibre Channel Switch	Edge	QLogic	8Gb/s	24
HP StoreFabric SN8500C 48-port 16Gb FC Module	Module	Cisco	16 Gbs	48
HP StoreFabric SN8500C 8-slot 16Gb FC Director	Director	Cisco	16 Gbs	384

Fibre Channel over Ethernet (FCoE) Switch (7)							
Name	Vendor	Vendor Part Number	Ethernet Port Speed	Ethernet Port Count	Class	FC Port Speed	FC Port Count
Cisco Nexus 5010 Converged Network Switch	Cisco		10Gb/s	26	Edge	4Gb/s	8
Cisco Nexus 5020 Converged Network Switch	Cisco		10Gb/s	52	Edge	4Gb/s	16
Cisco Nexus 5548UP Converged Network Switch	Cisco	N5K-C5548UP-OSM	10Gb/s	48	Edge	8Gb/s	48
Cisco Nexus 5596UP Converged Network Switch	Cisco	N5K-C5596UP-OSM	10Gb/s	96	Edge	8Gb/s	96
HP FlexFabric 5900CP	HP	JG838A	10GbE / 40GbE	48 / 4	Edge	8Gb/s	48

## HP 3PAR F200/F400 T400/T800 FC Solaris 10 (SPARC)

Name	Vendor	Vendor Part Number	Ethernet Port Speed	Ethernet Port Count	Class	FC Port Speed	FC Port Count
HP StorageWorks 2408 FCoE Converged Network Switch	Brocade	8000	10Gb/s	24	Edge	8Gb/s	8
HP StorageWorks 2408 FCoE Power Pack+ Converged Network Switch	Brocade	8000	10Gb/s	24	Edge	8Gb/s	8

Router (5)							
Name	Vendor	Class	Port Speed	Port Count	Port Type	Ethernet Port Speed	Ethernet Port Count
HP StorageWorks 1606 Full Extension SAN Switch	Brocade	Router-Gateway	8Gb/s (FC/FCR)	16 (FC/FCR)	FC/FCR/FCIP	1Gb/s	6
HP StorageWorks 1606 Power Pack+ Extension SAN Switch	Brocade	Router-Gateway	8Gb/s (FC/FCR)	16 (FC/FCR)	FC/FCR/FCIP	1Gb/s	6
HP StorageWorks 400 Multi-protocol Router 7500	HP	Router-Gateway	4Gbit	16	FC/FCR/FCIP	1Gbit	2
HP StorageWorks DC SAN Director Switch Multiprotocol Extension Blade	Brocade	Router-Gateway	8Gb/s (FC/FCR)	12 (FC/FCR)	FC/FCR/FCIP	1Gb/s and 10Gb/s	ten 1Gb/s and two 10Gb/s
HP StorageWorks Multi-protocol RouterBlade FR4-18i	HP	Router-Gateway	4Gbit	16	FC/FCR/FCIP	1Gbit	2

Path Management (13)			
Name	Vendor	Category	Software Version
Sun StorEdge Traffic Manager Software ( STMS/MPxIO )	Sun Microsystems	Multipath	
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	4.1
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	5.0
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	5.0 MP1
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	5.0 MP3
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	5.1
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	5.1 SP1
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	4.0
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	3.5
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	6.0
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	6.0.1
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	6.0.3
Veritas DMP (Dynamic Multipathing)	Symantec	Multipath	6.1

**Notes:****General Path Management (13) Notes:**

- 1) VxDMP 5.0MP3RP1HF3: dmp\_fast\_recovery turned off. However, 5.0MP3RP2HF1 does not require this tunable turned off.
- 2) VxDMP 5.0MP3RP1HF3 is the minimum version of VxDMP required for Symantec Storage Foundation space reclaim feature to work with 3PAR Thinly Provisioned Virtual Volumes.
- 3) SPARC Solaris 10 (MU7) is not supported on an emlxs + VxDMP configuration.
- 4) VxDMP 5.1SP1RP1P1 is the minimum version of VxDMP 5.1 required for thin provisioned LUN sizes greater than 2TB for an EFI disk. Previous versions of VxDMP 5.1 do not support thin provisioned LUN sizes greater than 2TB for an EFI disk.
- 5) Symantec/Veritas Storage Foundation (VxDMP/VCS) is only supported in a FC-Fabric attach (FC-switched) configuration.
- 6) BFS (Boot from SAN) is not supported with Symantec/Veritas Storage Foundation (VxDMP/VCS) 6.1