

hp StorageWorks

SAN Product Support Tables for the SAN Design Reference Guide

This document contains seven updated tables from the HP *Heterogeneous Open SAN Design Reference Guide*. Refer to: <http://www.compaq.com/products/storageworks/san/documentation.html>

for the latest version of the guide, and information about SAN Fabric configuration rules using the switches listed below.

The tables in this document list storage system support for the Enterprise Virtual Array using VCS 2.001, EMA/ESA12000, EMA16000, MA/RA8000, and MA6000 products using ACS 8.7 or 8.6, the MSA1000 using FW 1.16, and the RA4100/4000 products using FW 2.60. Refer to the appropriate tables for support information specific to each storage system type.

- Table 1 and Table 2 list the supported switch models and versions for each SAN fabric type.
- Table 3 (VCS/ACS) and Table 4 (MSA/RA4100/4000) replicate Table 4-1 and Table 4-10 from the *Heterogeneous Open SAN Design Reference Guide* respectively, with the addition of the required HBA driver and firmware revisions, and when applicable, multi-path driver revisions.
- Table 5 provides a list of the HP SAN supported platforms and operating systems for each storage system type.
- Table 6 and Table 7 list legacy support for configurations that use ACS 8.6 only.
- ACS 8.7, ACS 8.6, and VCS 2.001 are supported with all applicable patches.
- Support is provided for SAN Fabrics consisting exclusively of the Fibre Channel switches listed in Table 1, 'Infrastructure Product Line, Supported Core and SAN Switches', or exclusively of the switches listed in Table 2, 'High Availability Fabric Product Line, Supported Director and Edge Switches'. Intermixing of the switches in Table 1 and Table 2 in the same SAN or in the same Fabric is not supported at this time.
- For information about support for SAN fabrics using both HP branded and Compaq branded storage products, refer to the *Heterogeneous Open SAN Design Reference Guide*.

Table 1: Infrastructure Product Line, Supported Core and SAN Switches

| Switch Model | Switch FW |
|---|-----------|
| FC-AL Switch Note: Supported for RA4000/RA4100 Storage Only | G12 |
| SAN Switch 8 SAN Switch 8-EL SAN Switch 16 SAN Switch 16-EL SAN Switch Integrated/32 SAN Switch Integrated/64 | v2.6.0c |
| SAN Switch 2/8-EL SAN Switch 2/16-EL SAN Switch 2/16 | v3.0.2f |
| hp StorageWorks core switch 2/64 | V4.0.0c |

Table 2: High Availability Fabric Product Line, Supported Director and Edge Switches

| Switch Model | Switch FW | Management Software |
|--|-----------|---|
| McDATA ED-5000 | 04.00.00 | StorageWorks ha-fabric manager (hafm) 06.00.02 |
| SAN Director 64 hp StorageWorks edge switch 2/16 hp StorageWorks edge switch 2/32 hp StorageWorks director 2/64 | 02.00.02 | |

IMPORTANT: Refer to Table 1 and Table 2 for the list of supported switch models and versions.

Table 3: SAN Support Updates to the *Heterogeneous Open SAN Design Reference Guide*, Table 4-1 Platform/Storage System SAN Attachment Summary – with HBA Drivers and Firmware Revisions for VCS 2.001, ACS 8.7, and ACS 8.6

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | Enterprise Virtual Array (VCS 2.001) SAN Attachment | EMA/ESA12000, EMA16000, MA/RA8000, MA6000 (ACS 8.7, 8.6) SAN Attachment |
|--|---|---|---------------------|--|---|
| HP-UX 11.0 MC/ServiceGuard Version A.11.13 or later (ACS only) | A6684A HSC NOTE: Table 1 switches only | Native 11.00.10 or later PHKL_23939 or later | Not Supported | Not Supported | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN Enabled or Disabled SCSI-3 Mode Command Console LUN Disabled Connection name O/S parameter: HP_VSA (Multiple-Bus, SCSI-3) HP (Transparent, SCSI-2 or SCSI-3) |
| | A6685A HSC | Native 11.00.10 or later PHKL_23939 or later | Secure Path 3.0a | F-Port Operating System Parameter: HP-UX NOTE: MC/ ServiceGuard not supported at this time | |
| | A6795A PCI | Native 11.00.10 or later PHKL_23939 or later | | | |
| | A5158A PCI | Native 11.00.10 or later PHKL_23939 or later | | | |
| HP-UX 11i (1.0) MC/ServiceGuard Version A.11.13 or later (ACS only) | A6684A HSC NOTE: Table 1 switches only | Native 11.11.09 or later PHKL_23626 or later | Not Supported | Not Supported | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN Enabled or Disabled SCSI-3 Mode Command Console LUN Disabled Connection name O/S parameter: HP_VSA (Multiple-Bus, SCSI-3) HP (Transparent, SCSI-2 or SCSI-3) |
| | A6685A HSC | Native 11.11.09 or later PHKL_23626 or later | Secure Path 3.0a | F-Port Operating System Parameter: HP-UX NOTE: MC/ ServiceGuard not supported at this time | |
| | A6795A PCI | Native 11.11.09 or later PHKL_23626 or later | | | |
| | A5158A PCI | Native 11.11.09 or later PHKL_23626 or later | | | |

Table 3: SAN Support Updates to the *Heterogeneous Open SAN Design Reference Guide*, Table 4-1 Platform/Storage System SAN Attachment Summary – with HBA Drivers and Firmware Revisions for VCS 2.001, ACS 8.7, and ACS 8.6 (Continued)

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | Enterprise Virtual Array (VCS 2.001) SAN Attachment | EMA/ESA12000, EMA16000, MA/RA8000, MA6000 (ACS 8.7, 8.6) SAN Attachment |
|--|---|--|--------------------|---|---|
| HP-UX 11i, 11.0 MC/ServiceGuard Version A.11.13 or later (ACS only) | L-Port (QuickLoop) NOTE: Table 1 switches only A6684A A6685A A6795A A5158A | See above as listed per HBA number for each O/S version | Not Supported | Not Supported | L-Port (Quickloop) using LOOP_HARD topology Note: Table 1 Switches Only Transparent Failover Only SCSI-2 Mode Command Console LUN Enabled or Disabled Connection name O/S parameter: HP |
| OpenVMS Clusters 7.2-2 Fibre_SCSI-V0200 7.3 Fibre_SCSI-V0300 7.3-1 Note: Table 1 switches only | KGPSA-CA 168794-B21 KGPSA-DA 261329-B21 | Native FW: 3.82a1 Native FW: 3.82a1 | Native | F-Port Operating System Parameter: VMS Unit Identifier Required | F-Port using FABRIC topology Multiple-Bus Failover SCSI-3 Mode Connection name O/S parameter: VMS Unit Identifier required |
| Tru64 UNIX 4.0F Patch Kit 7, 4.0G TruCluster Software Products Version 1.6 (ACS only) | KGPSA-CA 168794-B21 | Native v2.02 FW: 3.82a1 | N/A | Not Supported | F-Port using FABRIC topology Transparent Failover SCSI-2 Mode Command Console LUN Enabled or Disabled Connection name O/S parameter: TRU64_UNIX |
| Tru64 UNIX 5.1 Patch Kit 5 + ERP* (Early Release Patch) 5.1A Patch Kit 3 + ERP* TruCluster Server Version 5.1 TruCluster Server Version 5.1A | KGPSA-CA 168794-B21 KGPSA-DA 261329-B21 FCA2354 | Native v2.02 FW: 3.82a1 v2.02 FW: 3.82a1 | Native | F-Port Operating System Parameter: Tru64 UNIX | F-Port using FABRIC topology Transparent or Multiple-Bus Failover Mode SCSI-2 Mode Command Console LUN Enabled or Disabled or SCSI-3 Mode Connection name O/S parameter type: TRU64_UNIX |

* The ERP is required in configurations where Enterprise Virtual Arrays attach to the Tru64 UNIX host.

Table 3: SAN Support Updates to the *Heterogeneous Open SAN Design Reference Guide*, Table 4-1 Platform/Storage System SAN Attachment Summary – with HBA Drivers and Firmware Revisions for VCS 2.001, ACS 8.7, and ACS 8.6 (Continued)

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | Enterprise Virtual Array (VCS 2.001) SAN Attachment | EMA/ESA12000, EMA16000, MA/RA8000, MA6000 (ACS 8.7, 8.6) SAN Attachment |
|---|-----------------------------|---|--|---|--|
| IBM AIX 4.3.3, 5.1 HACMP 4.4.1 ES | 197819-B21 SWIA1-PD | 1.5.19.0 | Not Supported | Not Supported | F-Port using FABRIC topology Transparent Failover or Multiple-Bus Failover |
| | 197819-B21 | 1.5.19.1 | Secure Path 2.0b | F-Port Operating System Parameter: IBM AIX | SCSI-2 Mode Command Console LUN Enabled or Disabled or SCSI-3 Mode Connection name O/S parameter: AIX_Cambex |
| Caldera Linux 3.1 (ProLiant x86) | 167433-B21 | 6.0.1c Firmware loaded from driver | Not Supported | Not Supported | F-Port using FABRIC topology Transparent Failover SCSI-3 Mode Connection name O/S parameter: SUN |
| Red Hat Linux 7.1, 7.2 (ProLiant x86) | | | | | |
| Red Hat Linux 7.1 (Alpha) | | | | | |
| SuSE Linux 7.2 (ProLiant x86) | | | | | |
| SuSE Linux 7.1 (Alpha) | | | | | |
| SuSE SLES 7 (ProLiant x86) | | | | | |
| Microsoft Windows 2000 SP2, SP3 Windows NT 4.0 SP6a MSCS | KGPSA-CB 176479-B21 | W2K: 5-4.81a9 NT: 4-4.81a9 FW: 3.82a1 | Secure Path 3.1a SPI (ACS only) 4.0 (VCS & ACS) | F-Port Operating System Parameter: Microsoft Windows | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN Disabled SCSI-3 Mode (recommended) Connection name O/S parameter: WINNT |
| | FCA2101 245299-B21 | Boot Bios: 1.60a5 | | | |

Table 3: SAN Support Updates to the *Heterogeneous Open SAN Design Reference Guide*, Table 4-1 Platform/Storage System SAN Attachment Summary – with HBA Drivers and Firmware Revisions for VCS 2.001, ACS 8.7, and ACS 8.6 (Continued)

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | Enterprise Virtual Array (VCS 2.001) SAN Attachment | EMA/ESA12000, EMA16000, MA/RA8000, MA6000 (ACS 8.7, 8.6) SAN Attachment |
|--|--|--|---|---|---|
| Novell NetWare NOTE: Table 1 switch models only (not supported in Director and Edge Switch Fabrics at this time) 4.2, 5.1, 6.0 (ACS) 5.1 with Clusters 1.01 (ACS) 6.0 with Clusters 1.06 (ACS) | FL-Port 120186-B21 (64-bit) | CPQFC.HAM v2.5.2 | Secure Path 3.0b (5.1, 6.0) (ACS) | Not Supported | F-Port using FABRIC topology Transparent (4.2, 5.1, 6.0) or Multiple-Bus Failover (5.1, 6.0) SCSI-2 Mode Command Console LUN Enabled or Disabled or SCSI-3 Mode Connection name O/S parameter: NETWARE |
| | FL-Port 223180-B21 (32-bit) | CPQFC.HAM v2.5.2 | | | |
| Sun Solaris 2.6 (32-bit) Sun Solaris 7, 8 (32/64-bit) Sun Solaris 8 (64-bit cPCI) Sun Clusters v2.2 w/ 2.6, 7, 8 Veritas Clusters 1.3 | 380575-001 (32-bit Sbus) (ACS only) | 2.5.9.03 FW: 13.3.7 | Secure Path 2.1d (ACS only) Secure Path 3.0a (ACS and VCS) | F-Port Operating System Parameter: Sun Solaris | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN Enabled or Disabled or SCSI-3 Mode Connection name O/S parameter: SUN |
| | 123503-001 (64-bit Sbus) | 2.5.9.03 FW: 13.3.7 | | | |
| | 80576-001 (32-bit PCI) | 2.5.9.03 FW: 3.0.3 | | | |
| | 254457-B21 (64-bit cPCI) FC2257C NOTE: Solaris 8 only | 3.26 FW: 1.18.5 | | | |
| | 254456-B21 (PCI) FCA2257P | 3.26 FW: 1.18.5 | | | |
| | 254458-B21 (Sbus) FCA2257S | 3.26 FCODE: 1.18.3 | | | |

IMPORTANT: Refer to Table 1 for the list of supported switch models and versions.

Table 4: SAN Support Updates to the *Heterogeneous Open SAN Design Reference Guide*, Table 4-10 Platform/Storage System SAN Attachment Summary – with HBA Drivers and Firmware Revisions for MSA1000 and RA4100/4000

| Platform or Operating System Storage System in () | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | MSA1000 (FW: 1.16) SAN Attachment | RA4100, RA4000 (FW: 2.60) SAN Attachment |
|--|---|--|--|-----------------------------------|--|
| Red Hat Linux 7.0, 7.1 SuSE Linux 7.1 | RA4100/4000: FL-Port 120186-B21 223180-B21 | v1.3.6 | N/A | N/A | FL-Port to SAN Switch |
| Microsoft Windows 2000 SP2 (MSA) Microsoft Windows NT 4.0 SP6a (MSA) Microsoft Windows 2000 SP1 (RA) Microsoft Windows NT 4.0 SP6a (RA) MSCS | MSA1000: F-Port FCA-2101 RA4100/4000: FL-Port 120186-B21 223180-B21 | MSA1000: W2K: v5-4.82a5 NT: v4-4.82a5 FW: 3.82a1 BIOS: 1.60a5 RA4100/4000: W2K: v5.12.16.69 NT: v4.28.16.69 | MSA1000: Secure Path 3.1b RA4100/4000: Compaq Redundancy Manager v1.30a Secure Path 3.1a | F-Port to SAN Switch | FL-Port to SAN Switch or to an FC-AL Switch cascaded to a SAN Switch |
| Novell Netware 5.1 Clusters 1.01 | FL-Port 120186-B21 223180-B21 | | Secure Path v3.0b | N/A | FL-Port to SAN Switch or to an FC-AL Switch cascaded to a SAN Switch |

IMPORTANT: Refer to Table 2 and Table 3 for specific O/S and Cluster support levels for each storage product, including supported O/S versions and required patch levels and service packs.

Table 5: SAN Storage System Supported Hardware Platforms and Operating System

| Operating System and Hardware Platforms | Enterprise Virtual Array VCS 2.001 | MA6000, RA/MA8000, ESA/EMA12000, EMA16000 ACS 8.7F, L, S | MSA1000 FW: 1.16 | RA4100 RA4000 FW: 2.60 |
|---|---|---|-------------------------|-------------------------------|
| HP-UX Multi-Path MC/ServiceGuard Clusters (ACS only) | A-Class rp2300, rp24xx B-Class B2000, B3000 C-Class C3000, C3650, C3700 J-Class J5600, J6000, J6700 K-Class 2xx, 3xx, 4xx, 5xx L-Class rp5430, rp5450, rp5470 N-Class rp7400, rp7410 HP 9000 rp2300, rp24xx, rp54xx, rp74xx, rp8400 SuperDome | A-Class rp2300, rp24xx B-Class B2000, B3000 C-Class C3000, C3650, C3700 J-Class J5600, J6000, J6700 K-Class 2xx, 3xx, 4xx, 5xx L-Class rp5430, rp5450, rp5470 N-Class rp7400, rp7410 HP 9000 rp2300, rp24xx, rp54xx, rp74xx, rp8400 SuperDome | Not Supported | Not Supported |
| OpenVMS Multi-Path Clusters | DS10, DS10L, DS20E, ES40, GS80, GS160, GS320 | Alpha Servers 800, 1000A, 1200, 4000, 4100, 8200, 8400, DS10, DS10L, DS20, DS20E, ES40, ES45 and GS Series | Not Supported | Not Supported |
| Tru64 Unix TruClusters | DS10, DS10L, DS20E, ES40, GS80, GS160, GS320 | Alpha Servers 800, 1000A, 1200, 4000, 4100, 8200, 8400, DS10, DS10L, DS20, DS20E, ES40, ES45 and GS Series | Not Supported | Not Supported |
| IBM AIX Multi-Path | P270, P610, P620, P640, P660, P680, P690, F50, F80, H70, H80, M80, S70, S7A, S80 NOTE: P690 is supported without hot swap or EEH functionality | P270, P610, P620, P640, P660, P680, P690, F50, F80, H70, H80, M80, S70, S7A, S80 NOTE: P690 is supported without hot swap or EEH functionality | Not Supported | Not Supported |
| Caldera Linux | Not Supported | ProLiant x86 Servers | Not Supported | Not Supported |
| Red Hat Linux | Not Supported | ProLiant x86 Servers, Alpha Server DS10, DS10L, DS20, DS20E, ES40 | Not Supported | Supported |
| SuSE Linux | Not Supported | ProLiant x86 Servers, Alpha Server DS10, DS10L, DS20, DS20E, ES40 | Not Supported | Supported |
| SuSE SLES | Not Supported | ProLiant x86 Servers | Not Supported | Not Supported |
| Microsoft Windows 2000, Windows NT Multi-Path, MSCS | ProLiant x86 Servers | Intel and ProLiant x86 Servers | Supported | Supported |
| Novell Netware Multi-Path, Clusters | Not Supported | Intel and ProLiant x86 Servers | Not Supported | Supported |
| Sun Solaris Multi-Path Sun Clusters Veritas Clusters | 4u Architecture 220, 420, 450, 3000, 3500, 4500, 4800, 4810, 6800, R10K, All SunFire models | 4u architecture - Sunfire 3800, 4800, 4810, 6800 | Not Supported | Not Supported |

Table 6: SAN Support – Switch Firmware Versions for ACS 8.6 Only

| StorageWorks Switch Model | Switch FW Version |
|--|-------------------|
| SAN Switch 8 SAN Switch 8-EL SAN Switch 16 SAN Switch 16-EL SAN Switch Integrated/32 SAN Switch Integrated/64 | v2.6.0c |
| SAN Switch 2/8-EL SAN Switch 2/16-EL SAN Switch 2/16 | v3.0.2f |
| Core Switch 2/64 | v4.0.0c |

**Table 7: SAN Support Platform/Storage System SAN Attachment Summary for ACS 8.6 Only
(Use with Table 6 Switches and Switch Firmware) (Sheet 1 of 3)**

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | MA6000, MA8000, RA8000, EMA12000, EMA16000, ESA12000 SAN Attachment |
|--|-----------------------------------|--|--------------------|---|
| Compaq OpenVMS 7.2-1H1 w/ TIMA 7.2-2 TIMA DEC-AXPVMS- VMS722_FIBRE_SCSI-V0100-4 7.3 TIMA DEC-AXPVMS- VMS73_FIBRE_SCSI-V0200-4 Clusters | F-Port KGPSA-BC 380574- 001 | Native FW: v3.20x7 | Native | F-Port using FABRIC topology Multiple-Bus Failover SCSI-3 Mode Connection name O/S parameter: VMS Unit Identifier required |
| | F-Port KGPSA-CA 168794-B21 | Native FW: v3.81a4 | | |
| | F-Port KGPSA-DA 261329-B21 | | | |
| Tru64 UNIX 4.0F Patch Kit 7 TruCluster Software Products Version 1.6 | F-Port KGPSA-BC 380574-001 | v2.01 FW: v3.20x7 | N/A | F-Port using FABRIC topology Transparent Failover Only SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 Mode Connection name O/S parameter: TRU64_UNIX |
| | F-Port KGPSA-CA 168794- B21 | v2.01 FW: v3.81a4 | | |
| Tru64 UNIX 5.1 5.1 Patch Kit 4, 5.1A Patch Kit 1 TruCluster Server Version 5.1, 5.1A | F-Port KGPSA-BC 380574-001 | v2.01 FW: v3.20x7 | Native | F-Port using FABRIC topology Transparent or Multiple-Bus Failover Mode SCSI-2 Mode Command Console LUN Enabled or Disabled or SCSI-3 Mode Connection name OS parameter: TRU64_UNIX |
| | F-Port KGPSA-CA 168794-B21 | v2.01 FW: v3.81a4 | | |
| | F-Port KGPSA-DA 261329-B21 | v2.02 FW: v3.81a4 | | |

**Table 7: SAN Support Platform/Storage System SAN Attachment Summary for ACS 8.6 Only
(Use with Table 6 Switches and Switch Firmware) (Sheet 2 of 3)**

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | MA6000, MA8000, RA8000, EMA12000, EMA16000, ESA12000 SAN Attachment |
|---|--|--|---------------------|---|
| HP-UX 11.0 MC/ServiceGuard Version A.11.13 Clusters | F-Port HPA5158A | B.11.00.06 PHKL_21834 | Secure Path v3.0 | F-Port using FABRIC topology Multiple-Bus Failover SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 Mode Connection name O/S parameter: HP |
| | F-Port HP A6685A | B.11.00.08 PHKL_21834 | | |
| HP-UX 11.0 MC/ServiceGuard Version A.11.13 Clusters | L-Port (QuickLoop) HPA3404A A3591A A3636A A3740A A5158A A6685A | A5158A B.11.00.08 PHKL_21834 | N/A | L-Port (QuickLoop) using LOOP_HARD topology Transparent Failover Only SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 Mode Connection name O/S parameter: HP |
| HP-UX 11i MC/ServiceGuard Version A.11.13 Clusters | L-Port (QuickLoop) HPA3404A A3591A A3636A A3740A A5158A A6685A | FibreChan-00 B.11.11.09 PHKL_23626 | N/A | L-Port (QuickLoop) using LOOP_HARD topology Transparent Failover Only SCSI-2 Mode Command Console LUN enabled/disabled Connection name O/S parameter: HP |
| HP-UX 10.20 MC/ServiceGuard Version A.11.13 Clusters | L-Port: (QuickLoop) HPA3404A A3591A A3636A A3740A A5158A | J3630BA B.10.20.00 PHKL_17590 PHKL_16751 PHSS_2358 | HP PV Links | L-Port (QuickLoop) using LOOP_HARD topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 Mode Connection name O/S parameter: HP |
| | L-Port: (QuickLoop) HP A6685A | PHSS_23581 | | |
| IBM AIX 4.3.3, 5.1 HACMP/ES Clusters 4.4.1 ES (5.1) | F-Port: 197819-B21 SWIA1-PD | v1.5.14.14 | N/A | F-Port using FABRIC topology Transparent Failover or Multiple-Bus Failover SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 Mode Connection name O/S parameter: WINNT |
| | | v1.5.15.1 | Secure Path v2.0a | |
| Caldera Linux 2.3.1 Intel | F-Port 167433-B21 | v4.28c.3b | N/A | F-Port using FABRIC topology Transparent Failover Only SCSI-3 Mode Connection name O/S parameter: SUN |
| Red Hat Linux 7.0, 7.1 Alpha/Intel | | FW: v2.01.27 (Firmware loaded from driver) | | |
| SuSE Linux 6.3, 7.0 Alpha/Intel | | | | |

**Table 7: SAN Support Platform/Storage System SAN Attachment Summary for ACS 8.6 Only
(Use with Table 6 Switches and Switch Firmware) (Sheet 3 of 3)**

| Platform or Operating System | Platform HBA SAN Attachment | HBA Driver & Firmware Revision (Minimum) | Multi-Path Support | MA6000, MA8000, RA8000, EMA12000, EMA16000, ESA12000 SAN Attachment |
|--|---|---|---|--|
| Microsoft Windows 2000 SP2 Windows NT 4.0 SP6a MSCS | F-Port KGPSA-BC 380574-001 | W2K: v5-4.53a7 NT: v4-4.53a7 FW: v3.20x7 | v3.1a SP1 v3.1a | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN disabled or SCSI-3 Mode Connection name O/S parameter: WINNT |
| | F-Port KGPSA-CB | W2K: v5-4.53a7 NT: v4-4.53a7 FW: v3.82a1 Boot Bios: 1.60a4 | | |
| Microsoft Windows 2000 Datacenter 1.1a MSCS | F-Port KGPSA-BC 380574-001 | W2K: v5-4.52a9 FW: v3.20x7 | Secure Path v3.1a or v3.1a SR1 or v3.1a SP1 | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN disabled or SCSI-3 Mode Connection name O/S parameter: WINNT |
| | F-Port KGPSA-CB | W2K: v5-4.52a9 FW: v3.81a1 Boot Bios: 1.60a4 | | |
| Novell NetWare 4.2, 5.1, 6.0 5.1 with Clusters 1.01 6.0 with Clusters 1.06 | FL-Port 120186-B21 (64-bit) | CFQFC.HAM v2.5.2 | Secure Path v3.0b (5.1, 6.0) | F-Port using FABRIC topology Transparent (4.2, 5.1, 6.0) or Multiple-Bus Failover (5.1, 6.0) SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 Mode Connection name O/S parameter: NETWARE |
| | FL-Port 223180-B21 (32-bit) | | | |
| SGI IRIX 6.5.11, 6.5.12 | F-Port SGI PCI-FC-1POPT SGI XT-FC-1POPT | Native – Based on the O/S revision | N/A | F-Port using FABRIC topology Transparent Failover SCSI-2 Mode Command Console LUN disabled or SCSI-3 Mode Connection name O/S parameter: SGI |
| Sun Solaris 2.6 (32-bit) Sun Solaris 7, 8 (32/64-bit) SUN Clusters v2.2 w/ 2.6, 7, 8 Veritas Clusters 1.2.1 | F-Port 380575-001 (32-bit Sbus) | v2.5.9.03 FW: v13.3.7 | Secure Path v3.0 | F-Port using FABRIC topology Transparent or Multiple-Bus Failover SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 |
| | F-Port 123503-001 (64-bit Sbus) | v2.5.9.03 FW: v13.3.7 | | |
| | F-Port 380576-001 (32-bit PCI) | v2.5.9.03 FW: v3.03 | | |
| Sun Solaris 8 (64-bit cPCI) | F-Port 254457-B21 (64-bit cPCI) | v3.18 FCODE: v1.18.5 FW: 2.1.38 | N/A | F-Port using FABRIC topology Transparent Failover SCSI-2 Mode Command Console LUN enabled/disabled or SCSI-3 |