



# Brocade Fabric Operating System Firmware Release Notes

---

5.1.0a Firmware

Sun Microsystems, Inc.  
[www.sun.com](http://www.sun.com)

Part No. 819-6548-10  
July 2006, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, AnswerBook2, docs.sun.com, Sun StorEdge, Sun StorageTek, Java, Sun Fire, Sun Blade, SunSolve, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

Mozilla is a trademark or registered trademark of Netscape Communications Corporation in the United States and other countries.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

---

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, Californie 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. a les droits de propriété intellectuels relatants à la technologie qui est décrit dans ce document. En particulier, et sans la limitation, ces droits de propriété intellectuels peuvent inclure un ou plus des brevets américains énumérés à <http://www.sun.com/patents> et un ou les brevets plus supplémentaires ou les applications de brevet en attente dans les Etats-Unis et dans les autres pays.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, AnswerBook2, docs.sun.com, Sun StorEdge, Sun StorageTek, Java, Sun Fire, Sun Blade, SunSolve, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

Mozilla est une marque de Netscape Communications Corporation aux Etats-Unis et à d'autres pays.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



# Contents

---

Features in This Release	2
Supported Software, and Hardware	2
Supported Host Software	2
Basic Operating System Requirements	2
Brocade Management Software Requirements	3
Supported Hardware	3
Supported Storage Platforms	3
Supported Host Bus Adapters	4
Supported Server Platforms	4
Fabric OS (Switch Firmware) Requirements	6
Downloading and Installing Patches	6
▼ To Download and Install the Patches	7
Known Issues and Bugs	7
Resolved Issues and Bugs	8
Related Documentation	8
Service Contact Information	9



# Brocade Fabric Operating System Firmware Release Notes, 5.1.0a Firmware

---

This document contains important information about the Brocade Fabric Operating Systems (Fabric OS) firmware for installation in Sun storage area networks (SANs). This Brocade Fabric OS firmware can be used with the Brocade SilkWorm 3250, 3850, 3900, 4100, 4900, and 200E switches, and with the 24000 and 48000 directors. Read this document so that you are aware of issues or requirements that can affect the installation and operation of this product.

---

**Note** – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused by or in connection with the use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

---

This document contains the following sections:

- [“Features in This Release” on page 2](#)
- [“Supported Software, and Hardware” on page 2](#)
- [“Downloading and Installing Patches” on page 6](#)
- [“Known Issues and Bugs” on page 7](#)
- [“Resolved Issues and Bugs” on page 8](#)
- [“Related Documentation” on page 8](#)
- [“Service Contact Information” on page 9](#)

---

## Features in This Release

For a list of the new features introduced in this release, refer to the Brocade document *Fabric OS v5.1.0a Release Notes v1.0*, available with the Brocade Fabric Operating System 5.1.0a patch 122185-01. For more information see, [“To Download and Install the Patches” on page 7](#).

---

**Note** – The *Brocade Fabric OS v5.1.0a Release Notes* are also available from Brocade online at <http://www.brocadeconnect.com/index.jsp>.

A login is required, but registration is free with a valid Brocade switch World Wide Name (WWN).

---

---

## Supported Software, and Hardware

This section contains the following topics:

- [“Supported Host Software” on page 2](#)
- [“Supported Hardware” on page 3](#)
- [“Fabric OS \(Switch Firmware\) Requirements” on page 6](#)

## Supported Host Software

This section lists the latest supported host software.

### Basic Operating System Requirements

Solaris

- Minimum: Solaris™ 8 Operating System (OS) 04/01 with the latest security patches
- Solaris 9 OS
- Solaris 10 for SPARC
- Solaris 10 for x64/x86

#### Linux

- Red Hat Enterprise Linux 3.0 OS (IA32, AMD64)
- Red Hat Enterprise Linux 4.0 OS (IA32, AMD64)
- SuSE Linux Enterprise Server 8 OS (IA32, AMD64)
- SuSE Linux Enterprise Server 9 OS (IA32, AMD64)

#### Microsoft Windows

- Windows Server 2000 (IA32)
- Windows Server 2003 (IA32, AMD64)

#### SAN Foundation

- Sun StorEdge™ SAN Foundation software, minimum 4.4.6 release

## Brocade Management Software Requirements

Several options are available for managing the SilkWorm directors. The following is a list of the available options and any operating requirements:

- Advanced WebTool v.5.0.1 - requires Mozilla™ 1.6
- Java™ Plug-in 1.4.2 (minimum version)
- Fabric Manager v.5.0
- Application programming interface (API)
- Telnet and Simple Network Management Protocol (SNMP) management access

## Supported Hardware

The following is a list of the storage devices, host bus adapters (HBAs), and servers supported by the SilkWorm switches and directors.

---

**Note** – If the device you want to connect is not listed in the following section, check the Release Notes for your HBA or storage device, or contact your Sun account representative to see if support for your device has been added.

---

## Supported Storage Platforms

- Sun StorEdge™ 3510 and 3511 FC arrays
- Sun StorEdge 6120 and 6130 arrays
- Sun StorEdge T3 array with full fabric

- Sun StorEdge 6320 system
- Sun StorEdge 6920 system
- Sun StorEdge 39X0 switchless systems
- Sun StorEdge Fibre Channel 9840B, 9840C, 9940B, SDLT 600, LTO-2 and LTO-3 FC tape drives
- Sun StorEdge FC420 FC-SCSI Bridge for L25 and L100 tape libraries with the SG-XFCCARD2-C LVD SCSI to Fibre Channel Card or the SG-XFC420CARD-MOD Fibre Channel / LVD Internal Bridge
- C4 tape library with the SG-XFCCARD2-C LVD SCSI to Fibre Channel Card
- FC Robots: L180/L700 1G (FL mode), L180, L700 2G (Full Fabric), L500 2G (Full Fabric), L8500 2G (Full Fabric)

## Supported Host Bus Adapters

- SG-XPCI2FC-QF2
- SG-XPCI1FC-QF2
- X6757A
- SG-XPCI1FC-QL2
- SG-XPCI1FC-QLC
- SG-XPCI1FC-EM2
- SG-XPCI2FC-EM2
- SG-XPCI1FC-QF4
- SG-XPCI2FC-QF4
- SG-XPCIE1FC-QF4
- SG-XPCIE2FC-QF4
- SG-XPCIE1FC-EM4
- SG-XPCIE2FC-EM4

## Supported Server Platforms

### x64/x86 Systems

- Sun Fire V20z/V40z
- Sun Fire V60x/V65x
- Sun Fire X2100 and X4100/4200



#### Work Group Servers

- Sun Enterprise 10000
- Sun Enterprise E220R
- Sun Enterprise E250
- Sun Enterprise E3x00/4x00/5x000/6x00
- Sun Enterprise E420R
- Sun Enterprise E450
- Sun Fire 12k/15k/E20k/E25k
- Sun Fire 280R
- Sun Fire X2100/X4100/X4200 servers
- Sun Fire 2900/4900/6900
- Sun Fire 3800/4800/4810/6800
- Sun Fire T1000/T2000
- Sun Fire V1280/Netra 1280
- Sun Fire V210 and V240
- Sun Fire V250
- Sun Fire V440
- Sun Fire V480
- Sun Fire V490
- Sun Fire V880
- Sun Fire V890

## Fabric OS (Switch Firmware) Requirements

[TABLE 1](#) summarizes the versions of the Brocade Fabric OS that are supported in conjunction with this release. Use the current software release versions to optimize the benefits of a SAN.

**TABLE 1** Minimum Brocade Fabric OS Requirements

Description	SilkWorm 2000 Series	SilkWorm 3200 and 3800	SilkWorm 3250, 3850, 3900 and 24000	SilkWorm 4100	SilkWorm 200E, 4900 and 48000	SilkWorm 12000	Brocade Fabric Manager
General compatibility	2.6.1	3.1.0	4.1.0	4.4.0b	5.0.1a	4.1.0	5.0
With secure fabric enabled	2.6.1	3.1.2	4.1.0	4.4.0b	5.0.1a	4.1.0	5.0
Recommended software versions	2.6.2	3.2.0	5.1.0a	5.1.0a	5.1.0a	5.0.4a	5.0

**Note** – SilkWorm 3250, 3850, and 24000 are supported by Fabric OS v4.2.0 or later.  
SilkWorm 3250, 3850, and 24000 are supported by Fabric Manager 4.1.1 or later.  
SilkWorm 3900 is supported by Fabric OS v4.1.0 or later.  
SilkWorm 4100 is supported by Fabric Manager 4.4.0 or later.  
SilkWorm 4900 is supported by Fabric OS v5.1.0a or later.  
SilkWorm 200E and 48000 are supported by Fabric Manager 5.0 or later.

## Downloading and Installing Patches

This section provides instructions for downloading and installing patches for the SilkWorm directors. When downloading the Brocade Fabric OS firmware, used with the Brocade SilkWorm 3250, 3850, 3900, 4100, 4900, and 200E switches, and with the 24000 and 48000 directors, use patch 122185-01.

## ▼ To Download and Install the Patches

Use the following procedure to retrieve the patches for your OS and the patch for the 5.1.0a firmware.

**1. Access the SunSolve web site at:**

<http://sunsolve.sun.com>

**2. Accept the terms and conditions of the License Agreement.**

**3. Click Patches and Updates under the Support category.**

**4. For each patch that you want to download, following these steps:**

**a. Under PatchFinder, type the patch ID and click Find Patch.**

Do not type the -xx revision number. PatchFinder automatically finds the latest patch.

**b. Verify that you have retrieved the correct patch.**

**c. Print the page by doing one of the following:**

- Print the page as it is displayed.
- Click Printer Friendly Page, and then print the page.

---

**Note** – Printing this page also prints the patch README file, which contains the installation instructions, special instructions, special guidelines, and notes.

---

**d. Download the patch by clicking on either HTTP or FTP in the following line:**

Download Patch (*nn,nnn,nnn* bytes) HTTP FTP

**e. When you have finished downloading all the patches, install the patches by following the instructions in each patch README file.**

---

## Known Issues and Bugs

- **Bug 6411928:** Brocade switch ports must be disabled and enabled before using port 2 or port 4 on Sun StorEdge 6130 and Sun StorEdge 6140 as I/O port.

**Workaround:** None at this time.

- **Bug 6329784:** If you add and remove initiators from zones in the fabric, they are not dynamically detected.

**Workaround:** None at this time.

- **Bug 6395973:** Brocade switch: subnet mask is not saved in the configuration file.  
**Workaround:** None at this time.
- **Bug 6334459:** The following port login errors appear in the system log when you establish a session with a target (3500 JBOD).  

```
PLOGI to 104b6 failed state=Packet Transport error.
```

If the target is connected to a Brocade SilkWorm 4100 switch, the PLOGI errors are logged each time you reboot the OS.

**Workaround:** None at this time.

---

## Resolved Issues and Bugs

The following bugs have been resolved since the last firmware release.

- **Bug 6354962:** Fabric/Host ports from the 6140 array fails to login to the switch as CSM2 type.
- **Bug 6303089:** Brocade FOS 4.4.0b, 4.4.0e, and 5.0.1 fails to forward a port login (PLOGI) application client container (ACC) to the host.
- **Bug 6238769:** Brocade switches (FabOS 4.x) can be crashed/rebooted with break sequence on console port.

---

## Related Documentation

The *Brocade Fabric OS v5.1.0a Release Notes* are available with the Brocade Fabric Operating System 5.1.0a patch, 122185-01. For more information see, [“To Download and Install the Patches” on page 7](#).

---

**Note** – The *Brocade Fabric OS v5.1.0a Release Notes* are also available from Brocade online at: <http://www.brocadeconnect.com/index.jsp>.

A login is required, but registration is free with a valid Brocade switch WWN.

---

---

## Service Contact Information

If you need help installing or using this product in the United States, call 1-800-USA-4SUN, or go to:

<http://www.sun.com/service/contacting/index.html>

