

Sun StorEdge™ Fast Write Cache 2.0 Release Notes



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Sun StorEdge Fast Write Cache 2.0 Release Notes

Introduction

The *Sun StorEdge™ Fast Write Cache 2.0 (Fast Write Cache) Release Notes* is comprised of a product note and open bugs for the Fast Write Cache software. The Fast Write Cache software is an application host-based write accelerator of disk I/O. It improves performance for transaction processing and delivers faster response times to user requests for data by reducing the frequency of disk I/O accesses. Writes are cached in non-volatile memory (NVRAM), then the cached data is destaged to disk. Fast Write Cache is installed on Solaris™ servers and consists of storage cache management software and NVRAM boards used as cache memory.

Fast Write Cache is implemented as a UNIX device driver, using non-volatile memory to cache write requests. As the cache fills, older data is written asynchronously to the real disk. Fast Write Cache works as a layer between other disk drivers and the rest of the UNIX kernel. Stubs replace the original driver's entry points in the device switch tables. Whenever Fast Write Cache performs actual I/O (for example, when its cache must be destaged), it uses the real device driver routines.

Note – Fast Write Cache is implemented using a pair of SBus NVRAM cards installed on your system.

For late-breaking news about this release, go to:

<http://www.sun.com/storage/fwc/>

Sun™ support and service providers, use:
<http://webhome.ebay/networkstorage/products/fwc/>

Related Documentation

TABLE P-1 Related Documentation

Application	Title	Part Number
man pages	fwcadm(1FWC) cache_control cache_config cache_health svadm(1SV)	N / A
User	<i>Sun StorEdge Fast Write Cache 2.0 System Administrator's Guide</i>	806-2064
Configuration	<i>Sun StorEdge Fast Write Cache 2.0 Configuration Guide</i>	806-4383
Installation	<i>Sun StorEdge Fast Write Cache 2.0 Installation Guide</i>	806-4405
Installation	<i>Solaris 2.6 Handbook for SMCC Peripherals</i>	802-7295
Installation	<i>Solaris Handbook for SMCC Peripherals</i>	805-7404
Installation	<i>Solaris 2.x Handbook for SMCC Peripherals</i>	801-5488
Options	<i>OpenBoot 3.x Command Reference Manual</i>	806-1377
Diagnostics (Solaris 2.6)	<i>SunVTS 2.1 User's Guide</i>	802-7299
Diagnostics (Solaris 2.6)	<i>SunVTS 2.1.3 Test Reference Manual</i>	805-4163
Diagnostics (Solaris 2.6)	<i>SunVTS 2.1 Quick Reference</i>	802-7301
Diagnostics (Solaris 7)	<i>SunVTS 3.0 User's Guide</i>	805-4442
Diagnostics (Solaris 7)	<i>SunVTS 3.0 Test Reference Manual</i>	805-4443
Diagnostics (Solaris 7)	<i>SunVTS 3.0 Programmer's Guide</i>	805-7338
Diagnostics (Solaris 7)	<i>SunVTS 3.0 Quick Reference</i>	805-4444
Diagnostics (Solaris 7)	<i>SunVTS 3.1 User's Guide</i>	805-7406
Diagnostics (Solaris 7)	<i>SunVTS 3.1 Test Reference Manual</i>	805-7407
Diagnostics (Solaris 7)	<i>SunVTS 3.1 Quick Reference</i>	805-7408
Diagnostics (Solaris 7)	<i>SunVTS 3.2 User's Guide</i>	806-0423
Diagnostics (Solaris 7)	<i>SunVTS 3.2 Test Reference Manual</i>	806-0424

TABLE P-1 Related Documentation (*Continued*)

Application	Title	Part Number
Diagnostics (Solaris 7)	<i>SunVTS 3.2 Toolkit Test Developer's Guide</i>	806-1321
Diagnostics (Solaris 7)	<i>SunVTS 3.2 Toolkit Release Notes</i>	806-1329
Diagnostics (Solaris 7)	<i>SunVTS 3.3 User's Guide</i>	806-1594
Diagnostics (Solaris 7)	<i>SunVTS 3.3 Test Reference Manual</i>	806-2885
Diagnostics (Solaris 7)	<i>SunVTS 3.4 User's Guide</i>	806-2884
Diagnostics (Solaris 7)	<i>SunVTS 3.4 Test Reference Manual</i>	806-2885
Diagnostics (Solaris 8)	<i>SunVTS 4.0 Quick Reference</i>	806-2059 or 806-1028
Diagnostics (Solaris 8)	<i>SunVTS 4.0 User's Guide</i>	806-2057
Diagnostics (Solaris 8)	<i>SunVTS 4.0 Test Reference Manual</i>	806-2058
User	<i>Dynamic Reconfiguration User's Guide For Sun Enterprise 3x00/4x00/5x00/6x00 Systems</i>	805-3530
User	<i>Sun Enterprise 6x00, 5x00, 4x00, and 3x00 Systems Dynamic Reconfiguration Guide</i>	806-0280
User	<i>Sun Enterprise 10000 Dynamic Reconfiguration User's Guide</i>	805-7985

Product Notes

Command Installation Path

The Fast Write Cache command installation locations are:

`/usr/opt/SUNWesm/sbin`

`/usr/opt/SUNWesm/bin`

Sun Enterprise™ 10000 Board Installation Requirements

If you are installing on a Sun Enterprise 10000, you may have two SBus NVRAM boards per domain, as long as you are not caching shared storage.

scmadm -redevid Function Documented

The redevid function of the scmadm command has been documented in both the scmadm(1m) man page and *Sun StorEdge Fast Write Cache 2.0 System Administrator's Guide*. The redevid function re-identifies a replaced physical disk to the Fast Write Cache. This is only necessary if the replaced physical disk is not part of a volume managed by a volume manager and the cache software detects a World Wide Name mismatch on recovery after an unclean shutdown. In this case the disk will not be available for use until the redevid function has been performed and either a Sync or Purge on the disk has been executed to clear offline status of the device.

Open Bugs

4295909

OS update causes system panic with incorrect SUNWSCM version.

Note – This bug is extremely important if you upgrade from the Solaris 7 system software to the Solaris 7 8/99 or subsequent versions of system software.

An upgrade from the Solaris 7 system software to the Solaris 7 8/99 system software or subsequent versions will cause a Data Service crash when you reboot the system after shutdown.

Workaround:

1. **Uninstall all Data Services software.**
2. **Install the correct version of Data Services.**

4302476

Fast Write Cache 1.0 and 1.1 used with Sybase Adaptive Server Enterprise/11.5.1 to cache data volumes causes stack traces.

Warning



Do not use Fast Write Cache to cache Sybase data volumes until this problem is resolved.

The SQL server generates stack traces with concomitant write errors reported by client applications.

4306093

Sun Enterprise SyMON™ 2.1 fails after Instant Image 2.0 installation.

When you run Sun™ Management Center after installing Sun StorEdge Component Manager, Sun Management Center will fail to run due to JTG version conflicts. The Sun StorEdge Management Console baseline, 1.1.0.5, is based on JTG 1.2.1_04. However, Sun Management Center will only run with JTG 1.2.1_04a.

Workaround: Change the following Sun Management Center files:

```
/opt/SUNWsymon/classes/base/console/bin/es-console.sh
```

```
/opt/SUNWsymon/classes/base/server/bin/es-server.sh
```

This assumes that Sun Management Center is installed under the default directory: /opt/SUNWsymon.

In both of the files, change:

```
OUT='java -version 2>&1 | grep -c "Solaris_JDK_1.2.1_04a"'
```

to:

```
OUT='java -version 2>&1 | grep -c "Solaris_JDK_1.2.1_04"'
```

4310143

fwcadmin cache -s no longer working

Execution of `fwcadmin cache -s` is resulting in a usage error. This is a supported process which checks the NVRAM card status and is documented in the *Sun StorEdge Fast Write Cache 2.0 System Administrator's Guide*.

Workaround: NVRAM status may be checked by either `<sx>cache/health -n` or `nvmadm -v`, but there is no workaround for `fwcadmin nvram -s`.

