

### **Solaris 7 5/99**

Includes Additional Release Notes and End-of-Support Statements for Solaris 7 5/99 Running on Sun Hardware Products

Sun Microsystems, Inc. 901 San Antonio Road Palo Alto, , CA 94303-4900 U.S.A

> Part No: 806-0278-11 May 1999, Revision A

Copyright Copyright 1999 Sun Microsystems, Inc. 901 San Antonio Road, Palo Alto, California 94303-4900 U.S.A. All rights reserved.

This product or document is protected by copyright and distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this product or 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 other countries, exclusively licensed through X/Open Company, Ltd.

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

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.

RESTRICTED RIGHTS: Use, duplication, or disclosure by the U.S. Government is subject to restrictions of FAR 52.227-14(g)(2)(6/87) and FAR 52.227-19(6/87), or DFAR 252.227-7015(b)(6/95) and DFAR 227.7202-3(a).

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 1999 Sun Microsystems, Inc., 901 San Antonio Road, Palo Alto, Californie 94303 Etats-Unis. Tous droits réservés.

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, SunSoft, SunDocs, SunExpress, et Solaris sont des marques de fabrique ou des marques déposées, ou 

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.

CETTE PUBLICATION EST FOURNIE "EN L'ETAT" ET AUCUNE GARANTIE, EXPRESSE OU IMPLICITE, N'EST ACCORDEE, Y COMPRIS DES GARANTIES CONCERNANT LA VALEUR MARCHANDE, L'APTITUDE DE LA PUBLICATION A REPONDRE A UNE UTILISATION PARTICULIERE, OU LE FAIT QU'ELLE NE SOIT PAS CONTREFAISANTE DE PRODUIT DE TIERS. CE DENI DE GARANTIE NE S'APPLIQUERAIT PAS, DANS LA MESURE OU IL SERAIT TENU JURIDIQUEMENT NUL ET NON AVENU.





### **Contents**

1.

### Late Breaking News 1 New Information in These Release Notes 1 Service Contract Upgrades to the Solaris 7 5/99 Operating Environment 2 Unbundled Product Support 2 Documents on the Software Supplement for the Solaris 7 5/99 Operating Environment for Sun Computer Systems CD 3 Product Name and Title Changes 4 Sun Microsystems Name Changes 4 Solaris Name Change 4 Solaris Server Intranet Extension Name Change 4 Flash PROM Update for 64-bit Operations 5 Flash PROM Update Multimedia AnswerBook CD 5 Sun Enterprise SyMON Software Available 6 Sun StorEdge A5000 6 Localized Packages on the Software Supplement for the Solaris 7 5/99 Operating Environment for Sun Computer Systems CD 6 Japanese Localized Packages 6 German Localized Packages 8 Italian Localized Packages 9 French Localized Packages 9

Contents iii

Spanish Localized Packages 10

Swedish Localized Packages 10

Traditional Chinese Localized Packages 11

Simplified Chinese Localized Packages 11

Korean Localized Packages 12

#### 2. End-of-Support Products 15

**End-of-Support Products** 15

Network Devices — BEC Device and be Driver 15

Graphics Devices—Discontinued Frame Buffers 15

PEX Graphics Library 16

Future End-of-Support Products 16

Sun4c-based Systems 16

SPARCstation Voyager 16

SPARC Xterminal 1 16

#### 3. Open Issues 17

Prestoserve 2.4.2 — Patch Required 17

Booting From Partitions Greater Than 2-Gbytes (1234177) 18

SunFDDI Adapters Cannot Boot Sun4d Diskless Clients (4144414) 19

Quad Ethernet Controller—Dynamic Reconfiguration Not Supported 19

Serial Parallel Controller Driver 19

Serial Parallel Controller Driver Does Not Support Dynamic Reconfiguration (4177805) 19

ISDN — Power Management Not Supported 19

/usr/ucblib/sparcv9 is Not Available (4114650) 20

SunScreen SKIP 1.1.1 Not Supported in Solaris 7 5/99 Operating Environment 20

Solstice SyMON Not Supported in Solaris 7 5/99 Operating Environment 20

SunVTS 3.2 Issues 21

New Features in This Release 21

iv

SunVTS OPEN LOOK User Interface Support 21

Running SunVTS Online Diagnostics through Sun Enterprise SyMON 22

Disk Test (disktest) Mounting Issues 22

The SunVTS User Interface Disappears (4122829) 22

Some Devices Not Displayed Under Physical Mapping (4228489) 22

ShowMe TV Known Problems 23

PCMCIA Issues 23

If the PC ATA, pcata, module is modunloaded the system will appear to hang (4096137) 23

The PCMCIA, pcic nexus, driver, does not support 3.3Volts PC Card (4098998) 23

The PC ATA, pcata, disk driver crashes and hangs the system and causes a memory leaks (4106401) 24

When booting Solaris 7 5/99 operating environment initially with 64-bit kernel the device /dev/term/pc0, PC card serial driver, may not get created (4162969) 24

The PC ATA, pcata, driver panics the 64-bit kernel (4174177) 24

PC File Viewer Issues 25

Install in the /opt Directory 25

Known Bugs 25

Sun Remote System Control (RSC) Release Notes 25

What's New in This Version 25

Hardware and Software Configurations Supported for RSC 26

Testing RSC Paging 28

Known Issues 29

SunVTS Test for PGX32 Available 30

Copyright Notices 30

SunForum 2.0 Notices: 30

ShowMe TV Notices: 30

Netscape Communicator Notices: 32

Sun Enterprise 10000 SSP 105684-04, 106281-01, and 106282-01

Notices: 32

Documentation Errata 32

PC launcher Manpage 33

Platform Notes: The hme SunFastEthernet Device Driver Guide 33

Sun Enterprise 10000 Dynamic Reconfiguration User's Guide

Documenation Errata 33

Alternate Pathing Documenation Errata 34

Locale-Specific Bugs 34

SunForum BugID 4234195 34

ShowMe TV BugID 4234201 34

PC launcher Installation and Configuration 34

Audience 34

What is PC launcher? 35

PC launcher Installation Requirements 35

System Requirements 35

PC launcher Installation 35

Configuring PC launcher 38

- **▼** Configuring for PCi 38
- **▼** Configuring for the Software Environment 39
- ▼ Configuring for a Deskside PC 39

Using PC launcher 40

Working With Files 40

Other Features 41

Getting Help for PC launcher 42

#### 4. Sun Enterprise 10000 Server Open Issues 43

Sun Enterprise 10000 Server 43

General Issues 43

The Solaris 7 Operating Environment and Boot-Disk Partition Sizes	43
Operating Mode 44	
Solaris 7 and the SSP 44	
Documentation Errata 45	
Known Bugs 47	
Fixed Bugs 47	
Sun Enterprise 6x00, 5x00, 4x00, and 3x00 Systems Open Issues 49	

#### **5**.

AP on Sun Enterprise Servers 49 Installation Issues 49

General Issues 51

Fixed Bugs 52

## Late Breaking News

This manual provides the following information:

- Late breaking news
- End-of-support statements
- Open Issues
- Sun Enterprise 10000 Server Open Issues
- Sun Enterprise 6x00, 5x00, 4x00, and 3x00 Systems Open Issues

This manual supplements the Solaris 7 5/99 Sun Hardware Platform Guide and the Solaris 7 5/99 Release Notes.

### New Information in These Release Notes

Some new information that was not included in the printed release notes has been added to the *Solaris 7/599 Release Notes Supplement for Sun Hardware* (this document). The new information can be found at:

- "Sun Enterprise 10000 Dynamic Reconfiguration User's Guide Documenation Errata" on page 33
- "Alternate Pathing Documenation Errata" on page 34
- "PC launcher Installation and Configuration" on page 34

# Service Contract Upgrades to the Solaris 7 5/99 Operating Environment

You may have received a Solaris Server Media Kit to upgrade systems to the Solaris 7 5/99 operating environment. Please note that your service contract entitles you to use only those products that apply to your original Solaris operating environment license. The following products, which may be in the media kit you received, are licensed solely to customers with the Solaris Easy Access Server 2.0 product or the Solaris Server Intranet Extension product, which was included as part of Sun Microsystems Computer Corporation"s Solaris 2.6, Solaris 2.6 Hardware: 3/98, or Solaris 2.6 Hardware: 5/98 SPARC Server Media Kits:

- Solstice AdminSuite AdminSuite
- Solstice AutoClient<sup>™</sup>
- Solstice DiskSuite<sup>™</sup>
- Solstice Data Backup Utility
- Solstice PPP
- TotalNET Advanced Server TM
- Java<sup>™</sup> IDL
- Solaris Management Console TM
- Sun<sup>™</sup> WebServer
- Solstice Internet Mail Server
- Sun Directory Services
- Solstice NFS Client<sup>™</sup>

## **Unbundled Product Support**

If you are upgrading from an existing version of the Solaris operating environment and have installed unbundled products, either from Sun or from a different company, you must ensure that all those products are supported on the Solaris 7 5/99 operating environment prior to upgrading. Depending on the status of each unbundled product, you have three options for each unbundled product:

- Verify that the existing version of the unbundled product is supported on the Solaris 7 5/99 operating environment.
- Acquire and install a new version of the unbundled product which is supported on the Solaris 7 5/99 operating environment. Note that in this case you may need

to remove the previous version of the unbundled product prior to upgrading to the Solaris 7 5/99 operating environment. See the unbundled product documentation for more details.

Remove the unbundled product prior to upgrading to the Solaris 7 5/99 operating environment.

For additional information contact the supplier of the unbundled product or your service provider or go to:

http://sunsolve.sun.com/sunsolve/pubpatches/patches.html

## **Documents on the Software Supplement** for the Solaris 7 5/99 Operating **Environment for Sun Computer Systems**

Table 1-1 lists the documents available on the Supplement CD:

TABLE 1-1 Documents on the Supplement CD

Path	Comment
Docs/HWPG/EOS.html	List of future end-of-support peripheral products
Docs/HWPG/Hardware.ps	Supported hardware matrices
Docs/HWPG/HWPG_en.ps	Solaris 7 5/99 Sun Hardware Platform Guide
Docs/ODBC/ README.ODBC_en.html	Readme file for ODBC
Docs/ShowMeTV1.2.1/ UG_en.ps	ShowMe TV 1.2.1 User's Guide
Docs/README_en.html/	Readme file for Solaris 7 5/99 Sun Computer Systems Supplement CD

**Note -** The \_en indicates an English language document. Other languages may be indicated, depending on locale.

The Supplement CD also contains other documentation in AnswerBook  $^{\text{TM}}$  packages and in man page packages. The documentation in AnswerBook packages can only be read through the AnswerBook2  $^{\text{TM}}$  server software provided on the Solaris Documentation CD. Documents in the man page packages can only be read through the man command. Refer to the *Solaris 7 5/99 Sun Hardware Platform Guide* for details on installing these packages from the Supplement CD.

## **Product Name and Title Changes**

#### Sun Microsystems Name Changes

Earlier publications, documents, and software have included the names  $SunSoft^{TM}$  and Sun Microsystems Computer Company or SMCC. Due to a Sun Microsystems reorganization, those names are no longer applicable.

For example, in some documents you may find references to a manual that was called *SMCC Hardware Platform Guide*. In this release, that document is now called *Solaris 7 5/99 Sun Hardware Platform Guide*. Another example is the supplement CD, which used to be called the SMCC Supplement CD, is now called the Solaris 7 5/99 Sun Computer Systems Supplement CD.

#### Solaris Name Change

This release of Solaris is called Solaris 7 instead of Solaris 2.7. As the Solaris product line continues to grow, this name change will make it easier for you to determine which products in the Solaris line you might want to use.

In Solaris 7, the transition to the new name change is in process. That means that you will still see references to Solaris 2.7, and even to Solaris 2.x.

The name of the core operating system has not changed. In this release, it is  $SunOS^{TM}$  5.7.

## Solaris Server Intranet Extension Name Change

The new version of the Solaris Server Intranet Extension 1.0 product is named the Solaris Easy Access Server 2.0 product.

## Flash PROM Update for 64-bit **Operations**

Some sun4u systems need to be updated to a higher level of OpenBoot mrware in the flash PROM before they can run the 64-bit mode of the Solaris 7 5/99 operating environment. Systems that can only run the 32-bit mode (such as those in the sun4c, sun4d, and sun4m platform groups) do not require updated firmware to run Solaris 7 5/99 software.

The only systems that may require this flash PROM update are the following:

- Ultra<sup>™</sup> 1
- Ultra 2
- Ultra 450 and Sun<sup>™</sup> Enterprise <sup>™</sup> 450
- Sun Enterprise 3000, 4000, 5000, and 6000 systems

See the Solaris 7 5/99 Sun Hardware Platform Guide for instructions for determining whether your system needs a flash PROM update and for instructions on performing that update.

For the Ultra and Ultra 2 systems, an antistatic wrist strap may be required for the update. If you need a wriststrap, send e-mail to strap@eng.sun.com

#### Flash PROM Update Multimedia AnswerBook CD

This CD provides video clips that illustrate how to perform steps involving hardware that are part of the procedures for updating the Flash PROM on some sun4u systems.

The video clips on this CD can be accessed several ways. Some software products are present on this CD to facilitate viewing of the videos directly from the CD. Do not use the AnswerBook2 server software or the ShowMe TV software on this CD to install these products permanently on a system. Instead, use the Solaris 7 5/99 Documentation CD to install AnswerBook2 server software and use the Supplement CD to install ShowMe TV software.

Note - The video clips on the Flash PROM Update Multimedia AnswerBook CD have English language audio tracks. The volume level for the audio tracks is set to minimum. If you want to hear the English language audio track, you must adjust the audio level.

# Sun Enterprise SyMON Software Available

Sun Enterprise SyMON  $^{\text{TM}}$  software is an open, extensible system monitoring and management solution that uses Java  $^{\text{TM}}$  software protocol and Simple Network Management Protocol (SNMP) to provide an integrated and comprehensive enterprise-wide management of Sun products and their subsystems, components, and peripheral devices. Sun Enterprise SyMON technology provides a solution to extend and enhance the management capability of Sun's hardware and software solutions.

You can download Sun Enterprise SyMON software from:

http://www.sun.com/symon

## Sun StorEdge A5000

For the latest firmware and patch information for the Sun StorEdge  $^{^{TM}}$  A5000, go to:

http://sunsolvel.Sun.COM

Click on SSA/A5000 Matrix under Free Services: Public Information.

## Localized Packages on the Software Supplement for the Solaris 7 5/99 Operating Environment for Sun Computer Systems CD

Japanese Localized Packages

TABLE 1-2 Japanese Localized Packages

Software Product	Package Name	Description
SunForum	SUNWjadat	Japanese (ja-EUC) SunForum
	SUNWjpdat	Japanese (ja-PCK) SunForum
Alternate Pathing	SUNWjaap	Japanese localization for Alternate Pathing
Remote System Control	SUNWjarsc	Japanese (EUC) Remote System Control
	SUNWjrscj	Japanese (EUC) Remote System Control GUI
ShowMe TV	SUNWjasmt	ShowMe TV Japanese (ja-EUC) Localization Files
	SUNWjpsmt	ShowMe TV Japanese (ja-PCK) Localization Files
	SUNWjusmt	ShowMe TV Japanese (ja-UTF8) Localization Files
PC launcher	SUNWjdpcv	Japanese (Common) PC launcher help
	SUNWjepcp	Japanese (EUC) PC launcher message
	SUNWjppcp	Japanese (PCK) PC launcher message
	SUNWjupcp	Japanese (UTF-8) PC launcher message
Sun Gigagit Ethernet Adapter Driver	SUNWjegem	Japanese (EUC) Sun Gigabit Ethernet Adapter Driver Man Pages
	SUNWjpgem	Japanese (PCK) Sun Gigabit Ethernet Adapter Driver Man Pages
	SUNWjugem	Japanese (UTF-8) Sun Gigabit Ethernet Adapter Driver Man Pages
SunFDDI	SUNWjenfm	Japanese (EUC) SunFDDI SBus Man Pages
	SUNWjepfm	Japanese (EUC) SunFDDI PCI Man Pages

 TABLE 1-2
 Japanese Localized Packages (continued)

Software Product	Package Name	Description
	SUNWjpnfm	Japanese (PCK) SunFDDI SBus Man Pages
	SUNWjppfm	Japanese (PCK) SunFDDI PCI Man Pages
	SUNWjunfm	Japanese (UTF-8) SunFDDI SBus Man Pages
	SUNWjupfm	Japanese (UTF-8) SunFDDI PCI Man Pages
PC file viewer	SUNWjepcv	Japanese (EUC) PC File Format Viewer
	SUNWjepcz	Japanese (EUC) PC File Formats support in CDE
	SUNWjppcv	Japanese (PCK) PC File Format Viewer
	SUNWjppcz	Japanese (PCK) PC File Formats support in CDE
	SUNWjupcv	Japanese (UTF-8) PC File Format Viewer
	SUNWjupcz	Japanese (UTF-8) PC File Formats support in CDE
SunVTS	SUNWjpvtm	Japanese (PCK) SunVTS Man Pages
	SUNWjuvtm	Japanese (UTF-8) SunVTS Man Pages
	SUNWjvtsm	Japanese (EUC) SunVTS Man Pages
AnswerBook	SUNWahwja	Solaris 7 5/99 on Sun Hardware Collection - Japanese

## German Localized Packages

TABLE 1-3 German Localized Packages

Software Product	Package Name	Description
SunForum	SUNWdedat	German SunForum
PC launcher	SUNWdepcp	PC launcher German messages
PC file viewer	SUNWdepcv	PC File Viewer German messages
	SUNWdepcz	PC File Viewer German help and icons
ShowMe TV	SUNWdesmt	ShowMe TV German Localization Files

## Italian Localized Packages

TABLE 1-4 Italian Localized Packages

Software Product	Package Name	Description
SunForum	SUNWitdat	Italian SunForum
PC launcher	SUNWitpcp	PC launcher Italian messages
PC file viewer	SUNWitpcv	PC File Viewer Italian messages
	SUNWitpcz	PC File Viewer Italain help and icons
ShowMe TV	SUNWitsmt	ShowMe TV Italian Localization Files

## French Localized Packages

TABLE 1-5 French Localized Packages

Software Product	Package Name	Description
SunForum	SUNWfrdat	French SunForum
PC launcher	SUNWfrpcp	PC launcher French messages
PC file viewer	SUNWfrpcv	PC File Viewer French messages

TABLE 1-5 French Localized Packages (continued)

Software		
Product	Package Name	Description
	SUNWfrpcz	PC File Viewer French help and icons
ShowMe TV	SUNWfrsmt	ShowMe TV French Localization Files

## Spanish Localized Packages

TABLE 1-6 Spanish Localized Packages

Software Product	Package Name	Description
SunForum	SUNWesdat	Spanish SunForum
PC launcher	SUNWespcp	PC launcher Spanish messages
PC file viewer	SUNWespcv	PC File Viewer Spanish messages
	SUNWespcz	PC File Viewer Spanish help and icons
ShowMe TV	SUNWessmt	ShowMe TV Spanish Localization Files

## **Swedish Localized Packages**

TABLE 1-7 Swedish Localized Packages

Software	D. I. M	D
Product	Package Name	Description
SunForum	SUNWsvdat	Swedish SunForum
PC launcher	SUNWsvpcp	PC launcher Swedish messages
PC file viewer	SUNWsvpcv	PC File Viewer Swedish messages
	SUNWsvpcz	PC File Viewer Swedish help and icons
ShowMe TV	SUNWsvsmt	ShowMe TV Swedish Localization Files

## Traditional Chinese Localized Packages

TABLE 1-8 Traditional Chinese Localized Packages

Software		
Product	Package Name	Description
SunForum	SUNW5dat	Traditional Chinese (zh_TW-BIG5) SunForum
	SUNWhdat	Traditional Chinese (zh_TW-EUC) SunForum
PC launcher	SUNW5pcp	PC launcher Traditional Chinese (zh_TW-BIG5) messages
	SUNWhcpcp	PC launcher Traditional Chinese (common) messages
	SUNWhdpcp	PC launcher Traditional Chinese (zh_TW-EUC) messages
PC file viewer	SUNW5pcv	PC File Viewer Traditional Chinese (zh_TW-BIG5) messages
	SUNWhcpcv	PC File Viewer Traditional Chinese (common) messages
	SUNWhdpcv	PC File Viewer Traditional Chinese (zh_TW-EUC) messages
	SUNW5pcz	PC File Viewer Traditional Chinese (zh_TW-BIG5) help andicons
	SUNWhdpcz	PC File Viewer Traditional Chinese (zh_TW-EUC) help andicons
Remote System Control	SUNWhrsc	Traditional Chinese (EUC) Remote System Control
	SUNWhrscj	Traditional Chinese (EUC) Remote System Control GUI
ShowMe TV	SUNW5smt	ShowMe TV Traditional Chinese (zh_TW-Big5) Localization Files

## Simplified Chinese Localized Packages

TABLE 1-9 Simplified Chinese Localized Packages

Software		
Products	Packaage Name	Description
SunForum	SUNWcdat	Simplified Chinese (zh-EUC) SunForum
PC launcher	SUNWccpcp	PC launcher SimplifiedChinese (common) messages
	SUNWcdpcp	PC launcher SimplifiedChinese (zh-EUC) messages
	SUNWgpcp	PC launcher SimplifiedChinese (zh-GBK) messages
PC file viewer	SUNWccpcv	PC file viewer Simplified Chinese (common) messages
	SUNWcdpcv	PC file viewer Simplified Chinese (zh-EUC) messages
	SUNWgpcv	PC file viewer Simplified Chinese (zh-GBK) messages
	SUNWcdpcz	PC file viewer Simplified Chinese (zh-EUC) help and icons
	SUNWgpcz	PC file viewer Simplified Chinese (zh-GBK) help and icons
Remote System Control	SUNWcrsc	Simplified Chinese (EUC) Remote System Control
	SUNWcrscj	Simplified Chinese (EUC) Remote System Control GUI
ShowMe TV	SUNWcsmt	ShowMe TV Simplified Chinese (zh-EUC) Localization Files
	SUNWgsmt	ShowMe TV Simplified Chinese (zh-GBK) Localization Files

## Korean Localized Packages

TABLE 1-10 Korean Localized Packages

Software Product	Package Name	Description
- Troudet	1 ackage Ivaille	Description
SunForum	SUNWkodat	Korean SunForum
PC launcher	SUNWkcpcp	PC launcher Korean (common) messages
	SUNWkdpcp	PC launcher Korean (ko) messages
	SUNWkupcp	PC launcher Korean (ko.UTF-8) messages
PC file viewer	SUNWkcpcv	PC file viewer Korean (common) messages

TABLE 1-10 Korean Localized Packages (continued)

Software		
Product	Package Name	Description
	SUNWkdpcv	PC file viewer Korean (ko) messages
	SUNWkupcv	PC file viewer Korean (ko.UTF-8) messages
	SUNWkdpcz	PC file viewer Korean (ko) help and icons
	SUNWkupcz	PC file viewer Korean (ko.UTF-8) help and icons
Remote System Control	SUNWkrsc	Korean (EUC) Remote System Control
	SUNWkrscj	Korean (EUC) Remote System Control GUI
ShowMe TV	SUNWkosmt	ShowMe TV Korean (ko-EUC) localization files
	SUNWkusmt	ShowMe TV Korean (ko-UTF-8) localization files

## **End-of-Support Products**

This chapter contains a list of the end-of-support products for the Solaris 7 release, including the Solaris  $7 \, 5/99$  release.

## **End-of-Support Products**

The following hardware and software products are no longer supported in this Solaris 7 5/99 release. For more information, contact your authorized Sun support provider.

#### Network Devices — BEC Device and be Driver

The BEC device and be driver are not supported in the Solaris 7 5/99 release.

### Graphics Devices—Discontinued Frame Buffers

The following frame buffers are not supported in the Solaris 7 5/99 release.

- MG1 (bwtwo)
- MG2 (bwtwo)
- CG2 (cgtwo)
- CG4 (cgfour)
- TC (cgeight)
- **ZX** (leo)
- TZX (leo)

#### **PEX Graphics Library**

The Solaris  $^{\text{TM}}$  PEX  $^{\text{TM}}$  graphics library and server extension are no longer supported in this Solaris 7 5/99 release.

## **Future End-of-Support Products**

Support for the following products may be discontinued in future releases. For more information, contact your support provider.

#### Sun4c-based Systems

The following sun4c architecture systems and servers based on these systems may no longer be supported in future releases:

SPARCstation  $^{\text{TM}}$  SLC, SPARCstation ELC, SPARCstation IPC, SPARCstation IPX, SPARCstation 1, SPARCstation 1+, and SPARCstation 2

**Note** - All hardware options (such as SCSI devices) and supported configurations that are dependent upon the sun4c architecture may no longer be supported in future releases. A list of these options is included in the Supplement CD /docs directory in the file named EOS.html.

#### **SPARCstation Voyager**

SPARCstation Voyager systems may no longer be supported in future releases.

#### SPARC Xterminal 1

SPARC X terminal  $^{^{TM}}$  1 systems may no longer be supported in future releases.

## **Open Issues**

## Prestoserve 2.4.2 — Patch Required

The Prestoserve  $^{\text{TM}}$  2.4.2 release will not function properly with the Solaris 7 5/99 software environment if the workaround below is not implemented. Below is a partial list of some of the platforms and hardware options that may be affected:

- Ultra 1 Creator Model 170E
- Ultra 1 Creator3D Model 170E
- Sun<sup>TM</sup> Enterprise<sup>TM</sup> 1 Model 170E
- SunSwift SBus Adapter Card

If you installed Prestoserve 2.4.2 and are using a platform or hardware option listed above, you must do the following steps to provide compatibility:

1. Edit the /etc/system file and add the following information:

```
set fas:fas_enable_sbus64 = 0
```

2. Reboot your system.



**Caution -** Failure to reboot your system can corrupt data.

A Prestoserve patch (#103043-08) that automatically adds the above information to the /etc/system file is available. If you prefer to make this change using the Prestoserve patch, contact your authorized Sun support provider. If you edit the /etc/system file as described above, you do not need the Prestoserve patch.

If you installed Prestoserve 2.4.2 and are using an Ultra 2 platform (200MHz or 300MHz), you must do the following steps to provide compatibility:

1. Edit the /etc/system file and add the following information:

set fas:fas\_enable\_sbus64 = 0

- 2. Reboot your system.
- 3. Use pkgadd to add the SUNWprsto package.
- 4. Add the Prestoserve patch (103043-08).

Note - If the above steps are not followed, your Ultra 2 system may panic.

# Booting From Partitions Greater Than 2-Gbytes (1234177)

Due to PROM limitations, all sun4c, sun4d, and sun4m architectures will not boot from partitions greater than 2-Gbytes. These systems will fail with the following message:

bootblk: can"t find the boot program

**Note -** All sun4u architectures support booting from larger partitions.

One related bug (4023466) reports a problem with re-preinstall where the boot image for large disks creates root partitions greater than 2-Gbytes. System Administrators are cautioned not to use re-preinstall on sun4c, sun4d, and sun4m systems with large root disks (4-Gbytes and greater).

# SunFDDI Adapters Cannot Boot Sun4d Diskless Clients (4144414)

Sun4d diskless clients cannot be booted using SunFDDI $^{\text{TM}}$  adapters (FDDI/S 6.0 or FDDI/P 2.0) installed in servers running the Solaris 7 5/99 operating evironment. If you intend using a Sun4d as a diskless client, deploy it in an ethernet section of your network.

# Quad Ethernet Controller—Dynamic Reconfiguration Not Supported

The Quad Ethernet (QE) and Quad Ethernet Controller (QEC) must be configured with other non-Dynamic Reconfiguration (DR) boards. DR does not support QE and QEC on Sun Enterprise X000 platforms running the Solaris 7.5/99 operating environment or compatible versions.

#### Serial Parallel Controller Driver

### Serial Parallel Controller Driver Does Not Support Dynamic Reconfiguration (4177805)

Contact your service provider for availability of patch 106827-01. The patch is not available at the time of this release.

# ISDN — Power Management Not Supported

ISDN does not support the Power Management <sup>™</sup> suspend and resume features.

## /usr/ucblib/sparcv9 **is Not Available (4114650)**

Any application requiring ucblib will not link or run with the 64-bit Solaris operating environment.

Workaround: No workaround is available at this time. Contact your authorized Sun support provider for more information.

# SunScreen SKIP 1.1.1 Not Supported in Solaris 7 5/99 Operating Environment

If you have SunScreen SKIP 1.1.1 currently installed on your system, you should remove the SKIP packages before installing or upgrading to the Solaris 7 operating environment. The packages you should remove are:

- SICGbdcdr
- SICGc3des
- SICGcdes
- SICGcrc2
- SICGcrc4
- SICGcsafe
- SICGes
- SICGkdsup
- SICGkeymg
- SICGkisup

# Solstice SyMON Not Supported in Solaris 7 5/99 Operating Environment

If you have Solstice SyMON currently installed on your system, you should remove the SyMON packages before installing or upgrading to the Solaris 7 5/99 operating environment. The packages you should remove are:

- SUNWsyc
- SUNWsye
- SUNWsym
- SUNWsyrt
- SUNWsys
- SUNWsyu
- SUNWsyua
- SUNWsyub
- SUNWsyuc
- SUNWsyud
- SUNWsyue
- SUNWsyuf

For information on the availability of Sun Enterprise SyMON 2.0, go to:

http://www.sun.com/servers/symon.html

### SunVTS 3.2 Issues

The following issues apply to the SunVTS<sup>TM</sup> 3.2 product.

#### New Features in This Release

A new test called sunpoitest was added to support testing of the SunPCi plug-in PCI card.

### SunVTS OPEN LOOK User Interface Support

The SunVTS OPEN LOOK user interface may not support the latest SunVTS features. For full feature support, use the SunVTS CDE or TTY interface. The SunVTS OPEN LOOK user interface will be sustained, but not enhanced, as long as OPEN LOOK is supported in the Solaris environment.

# Running SunVTS Online Diagnostics through Sun Enterprise SyMON

The SunVTS 3.2 online diagnostics feature (SUNWodu) is not accessible through the SyMON interface.

Instead, you can start SunVTS so it will run safely in an online environment by using the vtsui.online command.

#### Example:

# /opt/SUNWvts/bin/vtsui.online -h hostname

For more information about running SunVTS in an online or offline environment, refer to the SunVTS 3.2 User's Guide.

#### Disk Test (disktest) Mounting Issues

As of SunVTS 3.0, SunVTS disktest by default does not mount any mountable partitions. To have SunVTS mount all partitions which contain a file system, set the environment variable BYPASS\_FS\_PROBE to 0 (zero), then start SunVTS. For more details, refer to the disktest chapter in the SunVTS 3.2 Test Reference Manual.

#### The SunVTS User Interface Disappears (4122829)

In some cases, the SunVTS user interface disappears during a SunVTS test session. The SunVTS kernel is still active and the test session may continue to run.

Workaround: Restart the SunVTS user interface.

Example (starting the SunVTS *CDE* user interface):

# /opt/SUNWvts/bin/vysui

# Some Devices Not Displayed Under Physical Mapping (4228489)

In some cases, some devices that are displayed under logical mapping are not displayed under physical mapping.

Workaround: Choose logical mapping in the SunVTS main window to select devices that do not come up under physical mapping.

#### ShowMe TV Known Problems

- ShowMe TV does not recover gracefully from viewing MPEG1 movies which are corrupted. Switching back and forth between two MPEG1 movies when one is corrupted can cause ShowMe TV to fail.
- You can not switch between CIF and QCIF H.261 streams (i.e. regular resolution, or 352x288 size frames, and low resolution, or 176x244 size frames) on non\_Ultra systems.
- Sending mail (to the broadcaster or to showmetv-comment@Sun.COM) from within ShowMe TV does not work in Asian languages. You can use the Solaris mail functions instead.
- Mixing Asian and ASCII characters in one line of text can confuse the input/ output functions in ShowMe TV. In particular, if a user sets up a transmission in which the transmission name and/or the hostname contain Asian characters, then saving/recovering these parameters to/from the .showmetv-programs-<hostname> configuration file might not work correctly.

#### **PCMCIA** Issues

The following bugs have been filed against PCMCIA:

# If the PC ATA, pcata, module is modunloaded the system will appear to hang (4096137)

Description: If there is a PCMCIA I/O card in a slot that has been accessed and the card driver is unloaded (as occurs during modunload -i 0 at the end of multi-user boot) the system will appear to hang. Sometimes removing the card will bring the system back.

Workaround: none

# The PCMCIA, pcic nexus, driver, does not support 3.3Volts PC Card (4098998)

Description: The PCMCIA, pcic nexus, driver does not support 3.3V on devices. Cards that are 3.3V and 3.3V/5V will not work properly (seems to hang the system).

### The PC ATA, pcata, disk driver crashes and hangs the system and causes a memory leaks (4106401)

Description: Most attempts to insert/remove and use PCMCIA cards will crash or hang the machine. If it does not crash the machine it can cause memory leaks or create situations where other modules will not load.

Workaround: none

### When booting Solaris 7 5/99 operating environment initially with 64-bit kernel the device /dev/term/pc0, PC card serial driver, may not get created (4162969)

Description: When booting Solaris 7 5/99 operating environment initially with 64-bit kernel, /dev/term/pc0 hardware device node for PC card serial device may not be created.

Workaround: Boot the system up with 32-bit kernel first, then reboot with 64-bit kernel.

### The PC ATA, pcata, driver panics the 64-bit kernel (4174177)

Description: Inserting the PC card after system init panics the 64-bit Solaris. Booting the 32-bit Solaris and accessing the card will not panic the system. The PC ATA driver is not a 64-bit driver.

Workaround: none

#### PC File Viewer Issues

### Install in the /opt Directory

The *Solaris 7 5/99 Sun Hardware Platform Guide* provides installation instructions that may indicate that PC file viewer can be installed in a directory other than the default directory. PC file viewer *must* be installed in the default (/opt) directory.

#### **Known Bugs**

- Backdrop image is not displayed in PowerPoint97 document (4159447)
- Cannot display non-standard fonts in PowerPoint97 (4159448)
- Excel graph/table in PowerPoint97 document is not displayed (4159449)
- Can not display scaled font, colored text, italic-underlined text in PowerPoint97 (4159450, 4159451, 4159452)
- Copy and Paste of certain files into a text editor results in \* (asterisks) instead of actual text (4165089)
- Searching does not work for multi-byte (tch, ko) in PC file viewer (4151774)
- Wrong string is reversed in PC file viewer search on Japanese locales (4171815)
- Cannot display TCH Word95 saved in Word97 or PowerPoint97 formats in zh.TW.BIG5 locale (4150413)

### Sun Remote System Control (RSC) Release Notes

#### What's New in This Version

This version of Sun Remote System Control (RSC) includes bug fixes and a new environment variable, tpe\_link\_test. In addition, the RSC device Internet address has been added to email and pager alert messages.

If you have already installed a previous version of Remote System Control, back up your RSC configuration before installing this version, following the directions in Chapter 2 of the RSC User's Guide, and then restore them after installation when you run the RSC configuration script.

The tpe\_link\_test variable enables 10BASE-T Ethernet link integrity tests when set to true, the default. If you are using RSC in a hub that does not support Ethernet link integrity tests or that has them disabled, set this variable to false. Changes to this variable take effect after the next RSC reset. The tpe\_link\_test variable behaves similarly to the OBP environment variable named "tpe-link-test?", which is available on some SPARC platforms.

RSC and the local hub should have Ethernet link integrity tests enabled or disabled consistently. If this setting is not consistent, communication may not be possible.

The following bugs have been fixed since the November 16, 1998 release:

- 4172574: The CLI reported a DC Power Failure when the host was powered off.
- 4152840: RSC shell commands did not query for confirmation before resetting the host system.
- 4170986: The GUI "Set Date/Time" dialog box displayed 0:00:00 when time changed to noon and midnight. This is an invalid time format.
- 4173022: The escape sequence for exiting from the RSC console did not work if the escape\_char variable was set to "^?".
- 4175561: When connected to the server's console through RSC, a paste operation of over 336 characters into the window connected to RSC could hang the console connection. A reset of RSC was required to recover.

## Hardware and Software Configurations Supported for RSC

#### Supported Server:

Sun Enterprise(tm) 250 server only, running the Solaris <sup>TM</sup> 7 or Solaris 2.6 5/98 operating environment.

The Sun Enterprise 250 flash PROM must be updated to version 3.7.7 or later before installing the RSC software. Failing to do so may cause server and RSC malfunctions. For update instructions and a downloadable image, see the Sun Enterprise 250 Supplement Web page at http://sunsolve2.Sun.COM/sunsolve/E250/flash.html. If you install RSC from the Sun Enterprise 250 Supplement CD, you can update the flash PROM as part of the installation process.

#### Supported GUI Clients:

- Sun systems running the Solaris 7 operating environment
- Sun systems running the Solaris 2.6 5/98 operating environment

- Systems running the Microsoft Windows 95 operating environment
- Systems running the Microsoft Windows 98 operating environment
- Systems running the Windows NT Workstation operating environment

Sun JDK version 1.1.6 or a subsequent compatible version is required for GUI support on systems running the Solaris operating environment, and is included in the base Solaris 7 operating environment and the Sun Enterprise 250 Supplement CD. The required version for the Solaris 2.6 operating environment is available at http://www.sun.com/solaris/java. Sun JDK is included in the install package for Windows clients.

#### **Supported CLI Clients:**

- ASCII character terminals
- Systems running ASCII terminal emulation software
- Systems with telnet client software

#### **Ethernet Support:**

RSC is designed to function in a 10BASE-T network, and the RSC Ethernet port should be connected to a hub operating at 10-Mbps. If RSC does not respond to an Ethernet request, the first thing to check is that connection is to a 10BASE-T hub.

#### Uninterruptible Power Supply (UPS):

An American Power Conversion SmartUPS 1000 with PowerChute plus 4.2.2 software was used for testing.

#### SunVTS:

To run the SunVTS test for RSC on systems running the Solaris 2.6 5/98 operating environment, you must install the unbundled rsctest package. This package is available for download from the RSC Web page at http://sunsolve2.sun.com/sunsolve/E250\_RSC/, and is also provided on the Sun Enterprise 250 Supplement CD. The rsctest package is already included in SunVTS version 3.0 and later.

#### **Paging Support:**

RSC paging requires that the customer's paging service adhere to the TAP protocol. Paging services in the Americas and Europe generally are TAP-compliant, but this is not necessarily so in other locales.

#### **Testing RSC Paging**

Due to the many variables associated with paging, Sun strongly recommends that you test the RSC paging mechanism to insure that your configuration options are set correctly.

The easiest way to test that all the components associated with RSC paging are functioning properly is to use the "rscadm send\_event -c" command. This command can be invoked from a UNIX shell and will initiate an RSC alert. If the RSC page\_enabled flag is set to true, this alert will send a page to the recipients specified by the page\_info1 and page\_info2 environment variables.

If RSC fails to send a page, a message similar to the following will be added to the event log:

THU AUG 27 22:31:09 1998 sst4828: 00060006: "Failed to send page alert for recent ever

If RSC successfully transmits a page, no error message is added to theevent log.

RSC can fail to send a page notification for the following reasons:

- 1. It failed to communicate with the modem.
- 2. It failed to contact the paging service specified by the page\_info1 or page\_info2 variable.
- 3. A failure occurred while RSC was communicating with the paging service TAP server.

When a page fails, check the following:

- 1. That your modem dip switch and software configuration variables are set correctly.
- 2. That all the RSC page\_variables (page\_info1 and 2, page\_init1 and 2, and page\_baud1 and 2) are set correctly and match the settings for your paging service.
- 3. Insure that your paging service supports the TAP protocol. Check with the paging service to insure that you have the proper phone number and modem configuration parameters.
- 4. Attempt to connect with the paging service manually. Refer to the "Troubleshooting Modem Problems" section in Appendix B of the RSC User's Guide for instructions on manually connecting to a TAP paging service.

#### **Troubleshooting**

In some cases, it might be desirable to extend the pause period to allow themodem to recognize the dial tone of the phone line. This can be accomplished nmost modems by increasing the value in the S8 register. See documentation that came with your modem for more details.

#### **Known Issues**

- 1. 4151918: The RSC subtests do not provide adequate failure information.
- 2. 4171924: The RSC GUI occasionally reports invalid exceptions when you Logout or Exit.
- 3. 4168266: Heavy use of UNIX tcsh shell commands in an RSC console session may stop RSC from responding to requests. Killing the tcsh shell restores RSC to normal behavior.
- 4. 4167862: A loghistory error is reported when the "index -n" value you specify is greater than the number of lines in the buffer
- 5. 4171929: RSC sometimes reports a fan failure erroneously after a thermal shutdown.
- 6. 4145761: An RSC reset is required for changes to the serial hw handshake variable (or "Enable Hardware Handshaking" setting in the GUI) to take effect, but should not be required.
- 7. 4167651: RSC default configuration settings for pagers do not match modem configuration settings suggested in documentation.
- 8. 4171431: The GUI event log output differs from the CLI loghistory output.
- 9. 4170988: The RSC GUI Back button for the first instance of Help does not return you to the previous view.
- 10. 4172337: The error message displayed for an attempted third telnet or fifth user session needs improvement.
- 11. 4162419: In the Windows operating environment, the RSC GUI goes to the background when you cancel an operation after an error message.
- 12. 4158400: The message "[Loaded DTD html32 in 142ms]" appears when the RSC Help file is displayed.
- 13. 4151674: Clicking on "Set RSC Date and Time" sometimes displays a duplicate image of the "Set RSC Date and Time" option just above the option list, and below the "RSC for <hostname>" title.
- 14. 4159618: A GUI reset request and the resulting reset event are recorded in the incorrect order in the RSC event log.
- 15. 4159562: The telnet connection resets intermittently when you try to connect to the RSC console from the GUI.
- 16. 4159564: The Java Runtime Environment (JRE) may crash in the Windows 95 operating environment when you modify an RSC user account.
- 17. 4172331: In the RSC GUI Serial Port settings, there is a typo in the error message for Invalid IP Address.
- 18. 4159135: The RSC GUI has no option which shows the information returned by the CLI shownetwork command.

- 19. 4157854: Sometimes when a thermistor displays a warning in the Environmental Status window and you refresh the screen, the warning is mistakenly displayed for a different thermistor. Another refresh corrects this problem.
- 20. 4216814: Pressing Return in the GUI login screen fails to advance input focus to the next entry field.

## SunVTS Test for PGX32 Available

The PGX32 VTS package is currently not bundled with SUNWvts. For version 3.2 refer to Patch #107732. This patch has been incorporated in the S7 5/99 Supplemental CD in the Patch directory.

## **Copyright Notices**

The following copyright information was not included in the Software Supplement for the Solaris 7 5/99 Operating Environment for Sun Computer Systems CD.

#### SunForum 2.0 Notices:

- 1. Copyright Data Connection Limited 1999. Data Connection® is a registered trademark of Data Connection Limited in the US and other countries
- 2. Copyright Teles Ag 1999

#### ShowMe TV Notices:

## Copyright<sup>®</sup> 1993-1994 The Regents of the University of California. All rights reserved. Tous droits re'serve's.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- 3. All advertising materials mentioning features or use of this software must display the following acknowledgement: This product includes software developed by the University of California, Berkeley and the Network Research Group at Lawrence Berkeley Laboratory.
- 4. Neither the name of the University nor of the Laboratory may be used to endorse or promote products derived from this software without specific prior written permission.

#### Copyright 1990-1993 GROUPE BULL

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of GROUPE BULL not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. GROUPE BULL makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

GROUPE BULL disclaims all warranties with regard to this software, including all implied warranties of merchantability and fitness, in no event shall GROUPE BULL be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action, arising out of or in connection with the use or performance of this software.

## Copyright 1992 by Stichting Mathematisch Centrum, Amsterdam, The Netherlands.

All Rights Reserved. Tous droits re'serve's.

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the names of Stichting Mathematisch Centrum or CWI not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

STICHTING MATHEMATISCH CENTRUM DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL STICHTING MATHEMATISCH CENTRUM BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF IR IN CONNECTION WITH THE USE OF PERFORMANCE OF THIS SOFTWARE.

OpenGL is a trademark of Silicon Graphics

### **Netscape Communicator Notices:**

Copyright 1999, Netscape Communications Corporation. All Rights Reserved. Tous droits re'serve's.

## Sun Enterprise 10000 SSP 105684-04, 106281-01, and 106282-01 Notices:

This software is copyrighted by the Regents of the University of California, Sun Microsystems, Inc., and other parties. The following terms apply to all files associated with the software unless explicitly disclaimed in individual files.

The authors hereby grant permission to use, copy, modify, distribute, and license this software and its documentation for any purpose, provided that existing copyright notices are retained in all copies and that this notice is included verbatim in any distributions. No written agreement, license, or royalty fee is required for any of the authorized uses.

Modifications to this software may be copyrighted by their authors and need not follow the licensing terms described here, provided that the new terms are clearly indicated on the first page of each file where they apply.

IN NO EVENT SHALL THE AUTHORS OR DISTRIBUTORS BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS SOFTWARE, ITS DOCUMENTATION, OR ANY DERIVATIVES THEREOF, EVEN IF THE AUTHORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

THE AUTHORS AND DISTRIBUTORS SPECIFICALLY DISCLAIM ANY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. THIS SOFTWARE IS PROVIDED ON AN "AS IS" BASIS, AND THE AUTHORS AND DISTRIBUTORS HAVE NO OBLIGATION TO PROVIDE MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.

RESTRICTED RIGHTS: Use, duplication or disclosure by the government is subject to the restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software Clause as DFARS252.227-7013 and FAR 52.227-19.

## **Documentation Errata**

The following errors in various documents have been reported.

## PC launcher Manpage

The sdtpcaction.conf manpage was left out of the manpage packages. Here is the content of the manpage (bug ID 4230365):

NAME

```
sdtpcaction.conf - sdtpcaction configuration file

FILE FORMAT
The format of this file is as follows.
VERSION : 1.0
SOLARIS_HOST : Host name of Solaris
DEFAULT : default PC_TYPE
PC_HOST : Host name for PC
PC_TYPE : SunPC | SoftWindows | RemotePC
Optional:
PC_HOME : Directory shared by PC and Solaris. Can be used if for security reason the user does not want to map unix home directory to PC.

INITIALIZATION_COMMAND : command to initialize PC emulator
CLIENT_NAME : ICCCM client name of PC emulator window These records are stored for each Solaris hostname.

FILES
$HOME/.dt/.sdtpcaction.conf PC Proxy configuration file
```

## Platform Notes: The hme SunFastEthernet Device Driver Guide

The *Platform Notes: The hme SunFastEthernet Device Driver Guide* lists the wrong default value for the adv\_10fdx\_cap parameter. The correct default value for this parameter is 1 for 10Mbit/sec full-duplex capable. See bug Id 4217150 for more information.

## Sun Enterprise 10000 Dynamic Reconfiguration User's Guide Documenation Errata

The Sun Enterprise 10000 Dynamic Reconfiguration User's Guide that was released on the Sun Hardware Supplements CD-ROM contains improperly exported illustrations. Please use the corrected version on docs.sun.com.

### **Alternate Pathing Documenation Errata**

The Sun Enterprise Server Alternate Pathing User's Guide that was released on the Sun Hardware Supplements CD-ROM contains improperly exported illustrations. Please use the corrected version on docs.sun.com.

## Locale-Specific Bugs

## SunForum BugID 4234195

In Helpful Information for WebStart installation, a link to the SunForum html file is broken. This problem can be seen in German, French, Italian, Spanish, and Swedish languages for the Desktop Configuration.If it's linked correctly, the following information is displayed:SunForum 2.0:SunForum is a suite of collaborative tools based on the International Telecommunications Union (ITU) T.120 standards. SunForum consists of a Share Application program, a Shared Whiteboard application, File Transfer utility and a Chat Utility.Requirements for SunForum 2.0:You need to allocate about 11 MB of disk space to this product.

## ShowMe TV BugID 4234201

In "Co-Packaged Software Topics: Contents" for WebStart installation lists wrong version for ShowMe TV. ShowMe TV 1.2.1 is included in this release, not ShowMe TV 1.3. This problem can be seen in German, French, Italian, Spanish, and Swedish languages for the Desktop Configuration.

# PC launcher Installation and Configuration

#### **Audience**

PC launcher is designed for Solaris users who have access to Windows '95 or '98 based PC environments

#### What is PC launcher?

PC launcher provides you with the capability to view and edit PC files and attachments by launching the associated Windows applications and files in the PC environment. PC launcher enables you to launch attachments and files created in the Windows environment.

## PC launcher Installation Requirements

You must have the Software Supplement for the Solaris 7 8/99 Operating Environment for Sun Computer Systems CD. If you don't have the Supplement CD, contact your Sun service representative.

### **System Requirements**

#### Sun Workstation

- the Solaris 7 operating environment
- CDE 1.3
- 32 MB RAM

#### Network PC Environment with one of the following:

- SunPCi<sup>™</sup> card
- Software Environment
- PC Hardware with Win 9x (PC -NFS<sup>TM</sup>/Solstice Network Client)

#### PC launcher Installation

#### SunPCi Requirements

In order for PC launcher to work, SunPCi and its host workstation must be able to ping each other by 'name'. To do this, you must have:

- 1. IP connectivity between the two.
- 2. Name services (whatever you happen to be using) set up on each so that you can look up the other's name and get its IP address.

Because of the network architecture of SunPCi and the way it shares Ethernet access with its host, they cannot see each other on the network.

To work around this, you need to use an IP routing system (a "real" router, another Sun system, an NT system, etc.) on the same subnet to act as a proxy router.

**Note -** You must have account access to the IP router you have selected, since you must add two routes to it.

For example, based on following setup:

SunPCi IP = 10.0.0.1 Host workstation IP = 10.0.0.2 Router IP = 10.0.0.3

you need to do the following:

#### 1. On SunPCi:

route add 10.0.0.2 10.0.0.3

**Note -** You can create a Windows BAT file with this in it and put it in your StartUp folder so that it gets run at every login.

#### 2. On the host workstation:

route add 10.0.0.1 10.0.0.3 1

**Note** - You can add an /etc/rc script to make this happen at every reboot.

#### 3. On the routing proxy:

route add 10.0.0.2 10.0.0.3 0 route add 10.0.0.1 10.0.0.3 0 (or the equivalent)



**Caution -** You must add routes to all three systems in this fashion in order for this to work. Do NOT assume that "standard network default routers" or anything else will provide similar functionality; they will not.

After doing this, verify that the SunPCi can ping its host by IP, and vice versa. Once that works, make sure that they can ping each other by name; add entries to the appropriate naming services if they cannot. On UNIX, examples of naming services are DNS or /etc/hosts. Windows can use DNS or the hosts file as well. Consult your System Administrator to add these entries, based on your setup. Once the systems can ping each other by name, PC launcher will install.

For further assistance with installation of SunPCi, refer to the following publications:

- SunPCi Installation Guide
- SunPCi Release Notes
- SunPCi 1.1 Windows NT Installation Guide

## ▼ Installing PC launcher Packages Using Sun WebStart

- 1. Insert the Software Supplement for the Solaris 7 8/99 Operating Environment for Sun Computer Systems CD (assuming the CDROM is automatically mounted by the vold daemon).
- 2. In a shell, change directories to /cdrom/cdrom0, become root, and
   at the prompt, type:
- # installer
- 3. Once Installer is Up and Running, click "Next".
- 4. Select "Custom Install" then click "Next".
- 5. Deselect any other products that you do not want to install at this time by clicking "No Install".
- 6. Ensure that PC FileViewer/PC launcher is selected for "Default Install" then click "Next".
- 7. Click "Install Now".
- 8. Log out of the system (this completes the installation).
- 9. Log back into the system (this initializes the new functionality).

#### Installing PC launcher Using pkgadd

- 1. Insert the Software Supplement for the Solaris 7 8/99 Operating Environment for Sun Computer Systems CD (assuming the CDROM is automatically mounted by the vold daemon).
- 2. In a shell, change directories to /cdrom/cdrom0/Product, become root, and at the prompt, type:

- 3. Log out of the system (this completes the installation).
- 4. Log back into the system (this initializes the new functionality).

## Configuring PC launcher

You configure PC launcher by specifying your setup in the three steps on the PC launcher Configuration window.

Before configuring, you must have the following:

- A network host name and network connectivity between your Solaris and Windows environment.
- Your unix home directory mapped in your Windows environment.

## **▼** Configuring for PCi

- 1. From the CDE Toolbar, start the Application Manager.
- 2. Click "Configure PC launcher" under the Desktop controls. The PC launcher Configuration window is displayed. Answer the questions in the following 3 steps.
  - a. On-Board PC Emulator and SunPCI (default)
  - b. Enter your Sun PCi's hostname (default)
  - c. Let PC Emulator handle the file
- 3. Click "OK".

**Note -** PC documents are opened for viewing and editing through the Sun PCi card whenever you double-click a document. If you want to do "quick" viewing, select "Let Solaris handle the file" and PC file viewer is invoked. For editing, use the right-mouse button and select "Open In Emulator".

4. From SunPCi run h: \.dt\bin\win9x\intel\sdtpcactiond.exe (assuming H: is mapped to your unix home directory).

## ▼ Configuring for the Software Environment

- 1. From the CDE Toolbar, start the Application Manager.
- 2. Click "Configure PC launcher" under the Desktop controls.
  - a. On-Board PC Emulator and SoftWindows.
  - b. < Hostname>
  - c. Let Solaris handle the file

**Note -** PC type documents can be opened for viewing and editing with a right-mouse double-click. If you selected "Let Solaris handle the file" when you configured PC launcher, then double-clicking on a file will launch PC file viewer.

- 3. Click "OK".
- 4. From Software Environment run:
- h: \.dt\bin\win9x\intel\sdtpcactiond.exe

(assuming H: is mapped to your unix home directory).

## ▼ Configuring for a Deskside PC

- 1. From the CDE Toolbar, start the Application Manager.
- 2. Click "Configure PC launcher" under the Desktop Applications.
  - a. Standalone PC
  - b. < Hostname>
  - c. Let the Standalone PC handle the file

**Note -** PC type documents can be opened for viewing and editing with a right-mouse double-click. If you selected "Let Solaris handle the file" when you configured PC launcher, then double-clicking on a file will launch PC file viewer.

- 3. Click "OK".
- 4. From Deskside PC run:

h: \.dt\bin\win9x\intel\sdtpcactiond.exe

(assuming H: is mapped to your unix home directory).

## Using PC launcher

The CDE front panel and CDE workspace can be populated with an icon representing the PC environment, such as SunPCi. To do this, drag and drop OpenInSunPCi from the Desktop Applications in Application Manager, onto the Front Panel.

If you did not configure PC launcher, then the first time you open PC launcher, the PC launcher Configuration window will display. This is where you will configure PC launcher. You only need to configure PC launcher once.

## Working With Files

#### Windows Files

Identification of many popular PC file formats in CDE allows you to select and launch them in your preferred PC environment, such as SunPCI. A right mouse click on these files gives you the three following choices in the menu:

- Open the double click action.
- OpenInEmulator launches the file in your preferred hardware, such as SunPCi (or any software emulator).
- OpenInRemotePC launches the file in a standalone networked PC.

Windows shortcuts can be dragged and dropped onto the Front Panel. They can also be put on the CDE workspace. To do this, create a windows short cut in your unix home directory and use dtfile to drag and drop. Please refer to Windows help to create short cut, and CDE help to get more information on drag and drop.

To open applications or datafiles, double-click on the shortcut from the Solaris desktop. This does require that you have the associated applications available to you. This makes the Solaris desktop act like a Windows desktop. You can keep all your relevant applications inside the Solaris CDE front panel and CDE workspace and run them by double-clicking on them.

#### Windows Binary Files

These files (exe) can be double-clicked and run inside the PC environment (for example, SunPCi).

#### Copy and Paste Text

Highlight the text you want to copy and select copy from your Edit menu.

Then click the place you want to paste the text, and select paste from your edit menu.

#### View and Search

View — click on the file and select View.

Search — under the Edit menu, select Find/Change; enter the name of the file into the Find field and click Find.

#### **Print Files**

Select 'Print' from your File menu and your file will print out on the PC printer.

#### Other Features

#### Bring Windows Start Menu to CDE

Using manual steps, you can get to all of the Windows Start Menu choices in the CDE Application Manager. To achieve this:

- 1. Start Windows explorer.
- 2. Copy C: \Window\StartMenu\ to H: \.dt\appmanager.

- 3. Start Application Manager.
- 4. Go to the Desktop controls.
- 5. Click "Reload Application".

#### Login On a Different Machine

Reconfigure PC launcher on the Configuration window.

#### Reconfigure PC launcher

Remove the PC's hostname in Step 2 on the PC launcher Configuration window.

#### **Switch Between Targets**

Change your selection in Step 1 on the PC launcher Configuration window.

## Getting Help for PC launcher

Help for PC launcher is available through the Help menu at the bottom of the PC launcher Configuration window.

## Sun Enterprise 10000 Server Open Issues

## Sun Enterprise 10000 Server

This chapter contains general issues, known bugs, patches, and notes about the Solaris 7 5/99 release on the Sun™ Enterprise™ 10000 server.

#### General Issues

Alternate Pathing (AP) 2.2 and Dynamic Reconfiguration (DR) are supported in the Solaris 7 release. Inter-Domain Networks (IDNs) are not supported. Upgrades from the Solaris 2.3 or Solaris 2.4 operating environments to the Solaris 7 operating environment are not supported.

**Note -** Before beginning the fresh install or upgrade procedures, you must install the SSP patches described in "Solaris 7 and the SSP" on page 40.

## The Solaris 7 Operating Environment and Boot-Disk Partition Sizes

If you are upgrading the operating environment from the Solaris 2.6 operating environment to the Solaris 7 operating environment and you used the partition layout suggested in the *SMCC Hardware Platform Guide Solaris 2.6*, the partitions may not be large enough for the upgrade to succeed. For instance, the /usr partition must be at least 653 megabytes. If /usr is smaller than the size needed to perform

the upgrade, suninstall uses the Dynamic Space Reallocation (DSR) mode to reallocate the space of the disk partitions.

DSR may calculate a partition layout which is not acceptable for some systems. For instance, DSR may select partitions that appear to DSR as being unused (non-UFS partitions which may contain raw data or other types of file systems). If DSR selects a used partition, data loss may occur. Therefore, you must know the current status of the partitions DSR wants to use before you allow DSR to continue with the reallocation of the disk partitions.

After DSR presents an acceptable layout and you choose to proceed with the reallocation, DSR will adjust the affected file systems, and the upgrade will continue. However, if you cannot constrain the layout so that it is acceptable for your needs, then you may need to manually repartition the boot device, or you may have to perform a fresh install.

## **Operating Mode**

On the Sun Enterprise 10000, you can check whether a domain is running in 32-bit or in 64-bit mode by using the following command:

domain\_name# isainfo -k
sparcv9

The returned value, sparcv9, indicates that the domain is running the 64-bit operating mode; otherwise, the domain is running in 32-bit mode.

You can also use another command, isalist, to check the operating mode; however, the return value, sparcv9+vis, differs from the return value of the isainfo—k command. The values are synonymous. They both indicate that the domain is running in 64-bit mode.

#### Solaris 7 and the SSP

SSP 3.1 is the first SSP release to support Solaris 7. If you are installing Solaris 7 on a domain or upgrading a domain's current Solaris operating environment, you must have SSP 3.1 installed on the SSP. SSP 3.0 does not support Solaris 7 on a domain. In addition, before you perform the fresh install or upgrade of the Solaris 7 software on an Sun Enterprise 10000 domain, the SSP must have Patch-ID 105684-04. This patch is on your Sun Computer Systems Supplements CD.

**Note -** If the CD contains the latest version the patch, indicated by a higher-numbered suffix, use that patch instead of the patch number indicated in this section.

#### Patch-ID 105684-04

Description: OBP/download\_helper needs to support 2.7

BugIDs fixed with this patch: 4078459 4083870 4084325 4097230 4102171 4118746 4137422 4146592

#### Patch-ID 106281-01

#### Description:

SSP 3.1 sys\_id -m doesn't work in year 2000 or after (Y2K bug)

BugIDs fixed with this patch: 4105569

#### Patch-ID 106282-01

Description: SSP 3.1 Hostview suppresses trap messages after 1999

BugIDs fixed with this patch: 4108443

#### **Documentation Errata**

This section contains errors in the documentation that pertains to the Solaris operating environment on the Sun Enterprise 10000 server.

#### Fresh Install Procedure

In the "Solaris 7 5/99 on the Sun Enterprise 10000 Server" chapter of the Sun Hardware Platform Guide Solaris 7 5/99, the Fresh Install procedure points the reader to the "Setting up the SSP as a Boot Server" section if the domain in question already exists. The procedure should, however, point the reader to the "Updating the OpenBoot PROM" section.

The Fresh Install procedure is not intended to be used for installations in which the domain already has an eeprom.image file associated with it on the SSP. Note that if you have removed the domain by using the domain\_remove(1M) command, you will need to perform all of the procedures in the Fresh Install section to recreate the eeprom.image. If the eeprom.image already exists, refer to the "Performing an Upgrade" section.

#### **OBP Variables**

Before you perform the boot net command from the OBP prompt (ok), you must verify that the local-mac-address? variable is set to *false*, which is the factory default. If it is set to *true*, you must ensure that this value is an appropriate local configuration.



**Caution -** If local-mac-address? is set to true, it may prevent the domain from successfully booting over the network.

In a netcon(1M) window, you can use the following command at the OBP prompt to display the values of the OBP variables:

ok printenv

#### ▼ To Set the local-mac-address? Variable

1. If the variable is set to true, use the seteny command to set it to false.

ok setenv local-mac-address? false

#### Solaris Version Names

The version name for the Solaris operating environment changed in Sun publications with the release of Solaris 7 5/99; however, the version name in the code did not change. Thus, you should use 2.7 wherever the procedures call out for the version number of the operating system. For instance, in the "Creating a New Domain" procedure in the Fresh Install section, you should use 2.7 for the version name, as in the following example:

ssp# domain\_create -d domain\_name -b board\_numbers -o 2.7 -p platform\_name

## **Known Bugs**

There are no Sun Enterprise 10000-specific bugs known to exist in the Solaris  $7\,5/99$ release.

## Fixed Bugs

This section lists important bugs that have been fixed. Minor bugs are not included. Each entry includes a 7-digit BugID assigned by Sun to aid in bug-tracking and a one-line description of the bug.

4110199 - /etc/init.d/cvc Implementation, Packaging Inconsistent

# Sun Enterprise 6x00, 5x00, 4x00, and 3x00 Systems Open Issues

## AP on Sun Enterprise Servers

This section contains the release notes for Alternate Pathing (AP) 2.2 on all Sun Enterprise servers, except the Sun Enterprise 10000. See "AP on the Sun Enterprise 10000" for information about the Enterprise 10000 server.

**Note -** AP 2.2 is the first release of AP that supports Solaris 7 5/99.

AP enables you to define and control alternate physical paths to peripheral devices, adding increased availability and a level of fault recovery to your server. If a physical path to a device becomes unavailable, an alternate path can be used. For more information, see the *Sun Enterprise Server AP User's Guide* in the Solaris 7 5/99 on Sun Hardware Collection AnswerBook2.

**Note -** At the time of this printing, AP 2.2 is not compatible with any version of Sun Enterprise Volume Manager (SEVM).

#### **Installation Issues**

If you are upgrading from the Solaris 2.6 operating environment to the Solaris 7 5/99 operating environment and have AP 2.1 and Solstice DiskSuite 4.0 or 4.1 (SDS) on your system, you must upgrade to AP 2.2 and SDS 4.2. This section contains an overview of the entire process, which requires you to use several sections from

different publications. You should ensure that you have the following publications before you start the upgrade:

- Solaris 7 5/99 Release Notes Supplement for Sun Hardware (available in printed form in your Solaris 7 5/99 Media Kit)
- Solaris 7 5/99 Sun Hardware Platform Guide, (available in printed form in your Solaris 7 5/99 Media Kit or in AnswerBook2 format on the Sun Hardware Supplements CD)
- Sun Enterprise Server Alternate Pathing User's Guide (available in AnswerBook2 format on the Sun Hardware Supplements CD in your Solaris 7 5/99 Media Kit)
- Solstice DiskSuite 4.2 User's Guide (available in AnswerBook2 format from http://docs.sun.com or from your SDS Media Kit)
- Solstice DiskSuite 4.2 Installation and Product Notes (available in AnswerBook2 format from http://docs.sun.com or from your SDS Media Kit)



**Caution -** You must follow the sequence given here to successfully complete the upgrade.

In general, you will perform the following tasks:

- Unconfigure SDS 4.0 or 4.1.
- Remove AP 2.1.
- Upgrade to the Solaris 7 5/99 operating environment.
- Install AP 2.2.
- Install and reconfigure SDS 4.2.

Specifically, you must perform the following tasks:

- 1. Read "Performing an Upgrade of AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*.
- 2. Commit any uncommitted AP metadevices (see Step 1 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).
- 3. Deconfigure SDS (see steps 1 through 8 in "How to Convert to DiskSuite 4.2 on SPARC Systems Running DiskSuite 4.0 or 4.1" in the *Solstice DiskSuite 4.2 Installation and Product Notes*).



**Caution -** Do not install Solaris 7 5/99 at this time.

- 4. Remove the current AP configuration (see Step 3 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).
- 5. Upgrade to Solaris 7 5/99 (see Step 4 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).
- 6. Upgrade to AP 2.2 (see Step 5 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).

7. Install SDS 4.2, then restore it (see Step 6 in "To Upgrade AP" in the Solaris  $7 \ 5/$ 99 Sun Hardware Platform Guide and steps 10 through 16 in "How to Convert to DiskSuite 4.2 on SPARC Systems Running DiskSuite 4.0 or 4.1" in Chapter 1 of the Solstice DiskSuite 4.2 Installation and Product Notes).

#### General Issues

This section contains general issues that involve AP on Sun Enterprise servers. Read this section before you attempt to install or configure AP.

#### **Supported Devices**

The following devices are supported by the AP software on Sun Enterprise servers:

- SPARCstorage <sup>™</sup> Arrays recognized by AP using the pln,soc, and ssd ports
- Sun StorEdge A5000 recognized by AP using sf, socal, and ssd ports
- SunFastEthernet 2.0 (hme)
- SunFDDI<sup>™</sup> 5.0 (nf) SAS (Single-Attach Station) and DAS (Dual-Attach Station)
- SCSI-2/Buffered Ethernet FSBE/S and DSBE/S (1e)
- Quad Ethernet (qe)
- $Sun^{TM}$  Quad FastEthernet (qfe)
- Sun GigabitEthernet 2.0 (ge)

The following table lists which devices are supported in which releases:

TABLE 5-1 Supported Network Devices

	AP 2.0	AP 2.1	AP 2.2
Solaris 2.5.1	hme, le, nf, bf, hi, qe, qfe	N/A	N/A
Solaris 2.6 (5/98)	N/A	ge, hme, le, nf, qe, qfe, vge	N/A
Solaris 7 5/99	N/A	N/A	ge,hme, le, nf, qe, qfe

#### SunFDDI and GigabitEthernet Devices

AP 2.2 validation tests were performed on SunFDDI (revision 6.0) and GigabitEthernet (revision 2.0). If you install either of these devices, you must use the revision level that was tested, unless a higher revision level exists. In addition, you must install all of the available patches for these devices. Refer to http://www.sunsolve.sun.com for more information about the patches.

#### Sun StorEdge A3000

The Sun StorEdge A3000 supports failover capabilities that are similar to those provided by AP. Because of this, AP does not support the Sun StorEdge A3000. See that product's documentation for more information about its failover support.

#### Sun StorEdge A5000

AP supports the Sun StorEdge A5000 for this release.

#### Sun StorEdge A7000

AP 2.2 does not support the Sun StorEdge A7000 for this release.

#### Software Compatibility

The following lists includes the possible combinations of AP and Solaris software you can install on a Sun Enterprise server.

- Solaris 2.6 5/98 with AP 2.1 and DR
- Solaris 7 with AP 2.2 and DR
- Solaris 7 5/99 with AP 2.2 and DR

### Fixed Bugs

This section contains the synopses and Sun BugID number of the more important bugs that have been fixed since the AP 2.1 release (Solaris  $2.6\,5/98$ ). This list does not include all of the fixed bugs.

4126743 – AP disk autofailover hangs on simultaneous multi-pathgroup failures (this bug was fixed by BugID 4136249).

4126897 – Domain panics when there are no AP database and metadevice entry in /etc/vfstab.

4136249 - I/O's to SEVM RAID volumes hang after AP autofailover.

- 4141438 mhme interface hangs under heavy use of network.
- 4143514 FDDI with AP hangs with heavy use of network.
- 4147674 AP causes if config to hang on a mutex.
- 4153152 apconfig works as an ordinary user.
- 4161396 AP 2.x needs capability to work with GEM.
- 4163270 netstat of network ap network meta interface shows no tallies.
- 4166620 snoop of AP meta network interface stops snooping after switch.
- 4170818 If you run the \$<callouts nadb macro, or fm2's "callout ts" command, you see thousands of qenable timeouts in the timeshare callout table.
- 4180055 Accessing an AP'd metadisk with a failed active alternate panics.
- 4180702 Messages from swap.c are not internationalized.
- 4183581 apboot disk causes coredump when disk is the same as the current boot
- 4185154 AP GigabitEthernet stress test hands.
- 4188418 It is possible for a hard disk error to go undetected by Veritas [SEVM].
- 4195441 AP2.0 ap\_daemon doesn't communicate with AP2.2.
- 4228731 Non-existent network interfaces not marked as detached after reboot.