

System Management Services (SMS) 1.2 Reference Manual

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Maintenance Commands

Maintenance Commands Intro(1M)

NAME | Intro – SMS administration

DESCRIPTION This section describes the commands executed in the system management

software environment.

LIST OF COMMANDS

addboard(1M) Assign, connect, and configure a board to a

domain

addtag(1M) Assign a domain name (tag) to a domain

audithotspares(1M) Check the current number of unassigned system

boards in the system

cancelcmdsync(1M) Remove a command synchronization descriptor

from the command synchronization list

console(1M) Access the domain console

dca(1M) Domain configuration agent

deleteboard(1M) Unconfigure, disconnect and unassign a board

from a domain

deletetag(1M) Remove the domain name (tag) associated with

the domain

disablecomponent (1M) Add the specified component to the platform or

domain blacklist

dsmd(1M) Domain status monitoring daemon

dxs(1M) Domain X server

enablecomponent (1M) Remove the specified component from the

platform, domain or ASR blacklist

esmd(1M) Environmental status monitoring daemon

flashupdate(1M) Update system board FROMs

fomd(1M) Failover management daemon

frad(1M) FRU access daemon

help(1M) Display help information for SMS commands

Intro(1M) Maintenance Commands

hpost(1M) Sun Fire 15K power-on self-test (POST) control

application

hwad(1M) Hardware access daemon

initcmdsync(1M) Create a command synchronization descriptor

that identifies the script to be recovered

kmd(1M) Key management daemon

mand(1M) Management network daemon

mld(1M) Message logging daemon

moveboard(1M) Move a board from one domain to another

osd(1M) OpenBoot PROM server daemon

pcd(1M) Platform configuration database daemon

poweroff(1M) Control power off

poweron(1M) Control power on

rcfgadm(1M) Remote configuration administration

reset(1M) Send reset to all CPU ports of a specified domain

resetsc(1M) Reset the spare system controller (SC)

runcmdsync(1M) Prepare a specified script for recovery after a

failover

savecmdsync(1M) Add a marker that identifies a location in the

script from which processing can be resumed

after a failover

setbus(1M) Perform dynamic bus reconfiguration on active

expanders in a domain

setdatasync(1M) Modify the data propagation list used in data

synchronization

setdate(1M) Set the date and time for the system controller or

a domain

Maintenance Commands Intro(1M)

setdefaults(1M)	Remove all instances of a previously active domain
setfailover(1M)	Modify the state of the system controller (SC) failover mechanism
setkeyswitch(1M)	Change the position of the virtual keyswitch
setobpparams(1M)	Set up OpenBoot PROM variables for a domain
setupplatform(1M)	Set up the available component list for domains
showboards(1M)	Show the assignment information and status of the boards.
showbus(1M)	Display the bus configuration of expanders in active domains
showcmdsync(1M)	Display the current command synchronization list
showcomponent(1M)	Display blacklist status for a component
showdatasync(1M)	Display the status of system controller (SC) data synchronization for failover
showdate(1M)	Display the date and time for the system controller (SC) or a domain
showdevices(1M)	Display system board devices and resource usage information
showenvironment(1M)	Display the environmental data
showfailover(1M)	Manage or display system controller (SC) failover status
showkeyswitch(1M)	Display the position of the virtual keyswitch
showlogs(1M)	Display message log files
showobpparams(1M)	Display OpenBoot PROM bringup parameters for a domain
showplatform(1M)	Display the board available component list and domain state for each of the domains

Intro(1M) Maintenance Commands

showxirstate(1M) Display CPU dump information after sending a

reset pulse to the processors

smsbackup(1M) Back up the SMS environment

smsconfig(1M) System controller (SC) configuration utility for

the Sun Fire 15K system

smsconnectsc(1M) Access a remote SC console

smsrestore(1M) Restore the SMS environment

smsversion(1M) Change the active version of SMS to another

co-resident version of the SMS software

ssd(1M) SMS startup daemon

tmd(1M) Task management daemon

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Maintenance Commands addboard(1M)

NAME

addboard - assign, connect and configure a board to a domain

SYNOPSIS

addboard -d *domain_id* | *domain_tag* [-c *function*] [-r *retry_count*[-t *timeout*]] [-q] [-f] [-y] |-n] *location* [*location*]...

addboard -h

DESCRIPTION

addboard(1M) assigns, connects and configures a *location* to the domain *domain_id|domain_tag*.

The board must be either available or assigned to the domain to which it is being added. The -c option is used to specify the transition of the board from the current configuration state to a new configuration state. Configuration states are: assign, connect, or configure. If the -c option is not specified, the default expected configuration state is configure.

Note - addboard performs tasks synchronously and does not return control to the user until the command is complete. If the board is not powered on or tested and a -c connect | configure option is specified then the command will power on the board and test it.

If only one board is specified and it is in the automatic system recovery (ASR) blacklist file, addboard displays an error message and exits. If more than one board is specified, addboard displays a message that the board is being skipped, then goes on to the next board or after the last board, exits.

OPTIONS

The following options are supported:

-c function

Valid function values are assign, connect, or configure. This option is used to control the configuration state transition. Each successive function builds upon the last. For example, configure first assigns then connects the board before configuring it.

Note - If the addboard command fails, a board does not return to its original state. A dxs or dca error message is logged to the domain. If the error is recoverable you can retry the command. If it is unrecoverable, you will need to reboot the domain in order to use that board.

The possible transition states and their meaning are as follows:

assign:

Assigns the board to the logical domain. This is a board state in which the domain has sole access to the board; however, the board is not active.

addboard(1M) Maintenance Commands

Once assigned, the board can be connected or configured into the domain either by using setkeyswitch on or using the connect or configure options.

connect:

Assigns the board to the logical domain (if it is not already).

Transitions the board into the connected unconfigured state. In this state, the system board is assigned to the logical domain and connected (becomes active). This state allows normal system access to hardware resources on the board, but the hardware resources of the board are not represented by the normal Solaris software data structures and thus are not available for use by the Solaris operating environment. Operations allowed on the board are limited to configuration administration operations. This is an intermediate state and does not have any standalone implementation at this time.

configure:

Assigns the board to the logical domain (if it is not already) .

Transitions the board into the connected | configured state. In this state, the board is not only assigned, active and connected to a domain, but also configured into the Solaris operating environment. The hardware resources on the board can be used by Solaris software.

-d domain_id

ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

-d domain_tag

Name assigned to a domain using addtag(1M).

-f

Forces the specified action to occur. Typically, this is a hardware-dependent override of a safety feature. Forcing a state change operation can allow use of the hardware resources of an occupant that is not in the ok or unknown conditions, at the discretion of any hardware-dependent safety checks.

-h

Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

Maintenance Commands addboard(1M)

-n

Automatically answers "no" to all prompts. Prompts are displayed unless used with $-\mathbf{q}$ option.

-c

Quiet. Suppresses all messages to stdout including prompts.

When used alone -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts, and automatically answers with either 'y' or 'n' based on the option chosen.

-r retry_count -t timeout

These command arguments allow the user to specify retries in case of failures encountered during state transitions. The <code>-r retry_count</code> option indicates the number of times the configuration state change request should be retried by the domain. The <code>-t timeout</code> option specifies the number of seconds that the domain should wait before the next retry is made. This option must be specified with <code>retry_count</code>. The default is zero, meaning the request is retried immediately.

-у

Automatically answers "yes" to all prompts. Prompts are displayed unless used with -q option.

OPERANDS

The following operands are supported:

location

List of board locations separated by a space. Multiple *location* arguments are permitted.

The following *location* forms are accepted:

SB(0...17) IO(0...17)

(continued)

addboard(1M) Maintenance Commands

(Continuation)

Note - Use showboards(1M) to display board type.

EXTENDED DESCRIPTION

Group Privileges Required

If you have platform administrator privileges you can only perform the -c assign option.

If you have domain administrator or configurator privileges you can execute this command, but only on your respective domains. If the board(s) are not already assigned to the domain, the board(s) must be in the available component list of the domain.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Assigning Boards to Domain C

To assign four boards to domain C you must have platform privileges or domain privileges and the boards must be in the domain available component list.

```
sc0:sms-user:> addboard -d C -c assign SB0 IO1 SB1 SB2
SB at SB0 assigned to domain: C
IO at IO1 assigned to domain: C
SB at SB1 assigned to domain: C
SB at SB2 assigned to domain: C
sc0:sms-user:>
```

EXAMPLE 2 Assigning a Blacklisted Board to Domain C

To assign four boards to domain C you must have platform privileges or domain privileges and the boards must be in the domain available component list.

```
sc0:sms-user:> addboard -d C -c assign SB0 IO2 SB1 SB2
SB at SB0 assigned to domain: C
IO at IO2 assigned to domain: C
Warning: IO at IO2 is blacklisted. You will not be able to connect or configure it.
```

Maintenance Commands addboard(1M)

```
SB at SB1 assigned to domain: C SB at SB2 assigned to domain: C sc0:sms-user:>
```

EXAMPLE 3 Connecting Boards to Domain A

This example connects three boards to domain A, setting retries to five and timeout to five seconds. You must have domain privileges for domain A.

```
sc0:sms-user:> addboard -d A -c connect -r 5 -t 5 IO3 IO4 IO5
```

EXAMPLE 4 Connecting Boards Containing an ASR Blacklisted Board to Domain C

You must have domain privileges for domain C. Blacklisted boards are skipped.

```
sc0:sms-user:> addboard -d C -c connect SB0
SB at SB0 is blacklisted. Exiting.
sc0:sms-user:>
```

EXAMPLE 5 Configuring Boards to Domain A

You must have domain privileges for domain A.

```
sc0:sms-user:> addboard -d A -c configure IO3 IO4 IO5
```

EXAMPLE 6 Configuring Boards Containing an ASR Blacklisted Board to Domain A

You must have domain privileges for domain A. Blacklisted boards are skipped.

```
sc0:sms-user:> addboard -d A -c configure IO7 IO8 IO9 Skipping IO at IO8. It is blacklisted.
```

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 No Acknowledge
- 2 Not supported

addboard(1M) Maintenance Commands

3	Operation not supported
4	Invalid privileges
5	Busy
6	System busy
7	Data error
8	Library error
9	No Library
10	Insufficient condition
11	Invalid
12	Error
13	APID doesn't exist
14	Invalid attribute
30	Invalid board ID type
31	Invalid permissions
32	Assigned to another domain
33	Unable to get permissions
34	Unable to get domain board info
35	Unable to get active board list
36	Unable to get assigned board list
37	Get blacklist failed
38	Solaris not running
56	DR command syntax error
68	DR operation failed

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

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Maintenance Commands addboard(1M)

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/asr/blacklist

List of components excluded by esmd.

Note - This file is created and used internally and should *not* be edited manually. To remove a component from the ASR blacklist file, use enablecomponent(1M).

SEE ALSO

addtag(1M), enablecomponent(1M), esmd(1M), showcomponent(1M)

addtag(1M) Maintenance Commands

NAME SYNOPSIS addtag - assign a domain name (tag) to a domain

addtag -d domain_id | domain_tag [-q] [-y |-n] new_tag

addtag -h

DESCRIPTION

addtag(1M) adds the specified domain tag name (new_tag) to a domain (domain_id | domain_tag). Only one name tag can be assigned to a domain, and it must be unique across all domains. addtag can also be used to change the domain_tag.

OPTIONS

-d domain_id ID of a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

Description for a description of invalid domain names.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is

ignored.

-n Automatically answers "no" to all prompts. Prompts are

displayed unless used with the -q option.

-q Quiet. Suppresses all messages to stdout including

prompts.

When used alone, -q defaults to the -n option for all

prompts.

When used with either the -y or the -n option, -q

suppresses all user prompts and automatically answers with

either 'y' or 'n' based on the option chosen.

-y Automatically answers "yes" to all prompts. Prompts are

displayed unless used with the -q option.

OPERANDS

The following operands are supported:

new_tag New tag name assigned to a domain. See

Extended Description for a description of invalid

domain names.

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Maintenance Commands addtag(1M)

EXTENDED DESCRIPTION

Domain Name (Tag) Restrictions

The following restrictions are required on a domain name tag:

- No single character names
- All domain name tags must be unique across all domains within a single chassis.
- Tags must adhere to the same restrictions as defined for Solaris software nodenames. Currently, the size restriction is set to 2 to 64 characters.

Group Privileges Required

You must have platform administrator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Assigning the Tag eng2 to Domain A With Prompts

sc0:sms-user:>addtag -d A eng2

If a tag for this domain exists you will be prompted.

EXAMPLE 2 Assigning the Tag "eng2" to Domain A Using the -y Option sc0:sms-user:> addtag -d A -y eng2

Prompts are displayed and automatically answered 'yes.' This forces the domain tag to be set even if a tag already exists for this domain.

addtag(1M) Maintenance Commands

EXAMPLE 3 Assigning the Tag eng2 to Domain A Using the -n Option

sc0:sms-user:> addtag -d A -n eng2

Prompts are displayed and automatically answered 'no.' This sets the tag for this domain unless it has already been done.

EXAMPLE 4 Assigning the Tag eng2 to Domain A Using the -qy Options

sc0:sms-user:> addtag -d A -qy eng2

You are not prompted.

EXAMPLE 5 Assigning the Tag eng2 to Domain A Using the -qn Options

sc0:sms-user:> addtag -d A -qn eng2

The example assigns the tag eng2 to Domain A only if it has not already been set. You are not prompted.

EXAMPLE 6 Assigning the Tag eng2 to Domain A Using the -qOption

sc0:sms-user:> addtag -d A -q eng2

The example assigns the tag eng2 to Domain A if it is not already set. If it is set, the command will not change it. You are not prompted.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

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Maintenance Commands addtag(1M)

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

deletetag(1M)

cmdsync(1M) Maintenance Commands

NAME

initcmdsync, cmdsync, cancelcmdsync, savecmdsync – command synchronization commands

SYNOPSIS

cancelcmdsync cmdsync_descriptor

initcmdsync script_name [parameters]

savecmdsync -M identifier cmdsync_descriptor

[cancel | init | save]cmdsync -h

DESCRIPTION

The command synchronization commands work together to control the recovery of user-defined scripts interrupted by a system controller (SC) failover. Insert the following commands in user-defined scripts to enable command synchronization:

initcmdsync creates a command synchronization descriptor that identifies the script to be recovered.

This descriptor is placed on a command synchronization list that identifies the scripts and commands to be restarted on the new main SC after a failover.

- savecmdsync adds a marker that identifies a location in the script from which processing can be resumed after a failover.
- cancelcmdsync removes a command synchronization descriptor from the command synchronization list. This ensures that the script is run only once and not after subsequent failovers.

Be sure that all exit paths of a script have a cancelcmdsync sequence to remove the descriptor from the command synchronization list. If you do not remove the descriptor and a failover occurs, the script will be rerun on the new main SC.

Note - Both an initemdsync and a cancelemdsync sequence must be contained within a script to enable command synchronization. The use of the saveemdsync command is optional and is used only to mark specific points in a script from which processing can be resumed. If specific restart points are not needed, consider using runcmdsync(1M) instead.

OPTIONS

The following options are supported:

cmdsync_descriptor Specifies the command synchronization

descriptor that identifies the user-defined script. This descriptor is the standard output value returned by the initcmdsync command.

-h Help. Displays usage descriptions.

Maintenance Commands cmdsync(1M)

Note - Use alone. Any option specified in addition to -h is ignored.

-M *identifier* Marks a location in the script from which the

script can be resumed after a failover. The identifier must be a positive integer.

parameters Specifies the options or parameters associated

with the user-defined script. These parameters are stored on the spare SC and are used to restart

the specified script after a failover.

script_name Identifies the name of the user-defined script to

be synchronized.

EXTENDED DESCRIPTION

The command synchronization commands are inserted at certain logical points within a user-defined script.

For instance, a Korn shell script might be structured as follows:

```
# MAIN CODE STARTS HERE
# Be sure to use a cleanup procedure to handle any interrupts.
# Use the cancelcmdsync to remove the script from the command
# synchronization list. Otherwise, the command will get restarted
# on the new main SC.
clean_up () {
     cancelcmdsync $desc
     exit
}
# Declare the clean_up function to capture system signals
# and cleanup.
trap "clean_up" INT HUP TERM QUIT PWR URG
goto_label=1
# Process the arguments, capturing the -M marker point if provided
for arg in $*; do
   case $arg in
        -M )
   goto_label=$arg;;
   esac
done
# Place this script and all its parameters in the command synchronization
# list, which indicates the commands to be restarted after an SC failover.
# NOTE: The script must be executable by the user defined in fomd.cf
```

cmdsync(1M) Maintenance Commands

```
# and reside in the same directory on both the main and the spare SC.
# If the command is not part of the defined PATH for the user, the
# absolute filename must be passed with the initcmdsync command.
\verb"initcmdsync" \textit{script\_name parameters}
# The marker point is stored in the goto_label variable.
\ensuremath{\mathtt{\#}} Keep executing this script until all cases have been processed or an
# error is detected.
while (( $goto_label != 0 )); do
     # Each case should represent a synchronization point in the script.
     case $goto_label in
          # Step 1: Do something
          1 )
               do_something
               # Execute the savecmdsync command with the script's
               # descriptor and a unique marker to save the position.
               # If a failover occurs here, the commands
               # represented in the next goto_label (2) will be
               # resumed.
               savecmdsync -M $(( $goto_label + 1 )) $desc
               goto_label=$(( $goto_label + 1 ))
               ;;
          # Step 2: Do more things
          2 )
               do_more_things
               savecmdsync -M $(( $goto_label + 1 )) $desc
               goto_label=$(( $goto_label + 1 ))
          # Step 3: Finish the last step and set the goto_label to 0
          # so that the script ends.
          3 )
               finish_last_step
               goto_label=0
```

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Maintenance Commands cmdsync(1M)

esac
done

END OF MAIN CODE

Remember to execute cancelcmdsync to remove the script from the
command synchronization list. Otherwise, the command will be restarted
after the failover.
#
cancelcmdsync \$desc

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXIT STATUS

The following exit values are returned:

Successful completion.

>0 An error occurred.

Note - The standard output for initemdsync contains the command synchronization descriptor. Also, when failover is disabled (after a failover or in a single SC environment), scripts that contain synchronization commands generate error messages to the platform log file and return nonzero exit codes. These messages can be ignored.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Architecture	All
Availability	SUNWSMSop
Stability	Evolving
MT-Level	Safe

SEE ALSO

runcmdsync(1M), showcmdsync(1M)

NOTES

An example of a user-defined script (with synchronization commands) is provided in the /opt/SUNWSMS/examples/cmdsync directory.

Maintenance Commands console(1M)

NAME

console - access the domain console

SYNOPSIS

console -d *domain_id* | *domain_tag* [[-f]|[-1]|[-g]|[-r]] [-e *escapeChar*]

console -h

DESCRIPTION

console(1M) creates a remote connection to the domain's virtual console driver, making the window in which the command is executed a "console window" for the specified domain (domain_id or domain_tag). Many console commands can be attached simultaneously to a domain, but only one console has write permissions; all others have read-only permissions. Write permissions are in either "locked" or "unlocked" mode.

If console is invoked without any options it comes up in exclusive "locked write" mode (option -f). An exclusive session forcibly detaches all other sessions from the domain virtual console.

Locked write mode is more secure. It can only be taken away if another console is opened using console -f or ~* is entered from another running console window. In both cases, the new console session is an exclusive session.

Unlocked write permission is not as secure. It can be taken away if another console command is started using console -g, console -l or console -f, or if ~@, ~& or ~* is entered from another console window.

console can utilize either IOSRAM or the network path for domain console communication. You can manually toggle the communication path by using the ~= (tilde-equal sign) command. Doing so is useful if the network becomes inoperable, in which case the console sessions appears to be hung.

Tilde commands are described in EXTENDED DESCRIPTION.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

Set default escape character. Changes the escape character to −e escapeChar

be 'escapeCharacter'. The default is ~ (tilde).

Valid escape characters are:

#@^&?*=.|

See the note on rlogin in the Usage section below.

-fForce option (the default). Opens a domain console window

with "locked write" permission, terminates all other open

Maintenance Commands console(1M)

sessions, and prevents new ones from being opened. This constitutes an exclusive session. Use it only when you need exclusive use of the console (e.g. for private debugging).

Note - To restore multiple-session mode, either release the lock (\sim) or terminate the console session (\sim) .

Grab option. Opens a console window with "unlocked write" permission. If another session has "unlocked write" permission, that session becomes read-only. If another session has "locked" permission, this request is denied and the console window opens in read-only mode instead.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

Lock option. Opens a console window with "locked write" permission. If another session has "unlocked write" permission, that session becomes read-only. If another session has "locked" permission, the request is denied and the console window opens in read-only mode instead.

-r Opens a console window in read-only mode.

EXTENDED DESCRIPTION

Usage

In a Domain Console Window, a tilde (~) that appears as the first character of a line is interpreted as an escape signal that directs console to perform some special action, as follows:

- ~? Status message
- ~. Disconnect console session
- ~# Break to OpenBoot PROM or kadb
- ~@ Acquire Unlocked Write permission; see -g
- ~^ Release write permission
- ~= Toggle the communication path between the network and IOSRAM interfaces. You can use ~= only in Private mode (see ~*).

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■ ~& Acquire Locked Write permission; see -1. You may issue this signal during a read-only or Unlocked Write session.

■ ~* Acquire Locked Write permission, terminate all other open sessions, and prevent new sessions from being opened; see -f. To restore multiple-session mode, either release the lock or terminate this session.

Note - rlogin also processes tilde-escape sequences whenever a tilde is seen at the beginning of a new line. If you need to send tilde sequence at the beginning of a line and you are using rlogin, use two tildes (the first escapes the second for rlogin). Alternatively, do not enter a tilde at the beginning of a line when running inside of rlogin.

If you use a kill -9 command to terminate a console session, the window or terminal in which the console command was executed goes into raw mode, and appears hung. To escape this condition, type j , then stty sane, then j .

Group Privileges Required

You must have domain administrator privileges on the domain specified. Users with only platform group privileges are not allowed access to a domain console.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Opening a Console Window in Locked Mode in Domain a

sc0:sms-user:> console -d a -1

Note - In the domain console window, vi(1) runs properly and the escape sequences (tilde commands) work as intended only if the environment variable TERM has the same setting as that of the console window.

For example:

sc0:sms-user:> setenv TERM xterm

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

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ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

 $\texttt{addtag(1M)}, \ \texttt{dxs(1M)}, \ \texttt{kill(1)}, \ \texttt{rlogin(1)}, \ \texttt{set(1)}, \ \texttt{stty(1)}, \ \texttt{vi(1)}, \\ \texttt{xterm(1M)}$

dca(1M) Maintenance Commands

NAME

dca - domain configuration agent

SYNOPSIS

dca -d domain_id | domain_tag [-H hostname]

dca -h

DESCRIPTION

dca(1M) provides a communication mechanism between the dca on the system controller and the domain configuration server (dcs) on the specified domain. The dca provides communication services for remote dynamic reconfiguration commands.

This agent is automatically started by $\mathtt{ssd}(1M)$, do *not* start it manually from the command line.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions for the specified *hostname*.

Note - Use alone. Any option specified in addition to -h is ignored.

-н hostname

The Solaris software hostname of the domain associated with the dca.

FILES

The following files are used by this command:

/var/opt/SUNWSMS/doors/<domain_id>/dca

/var/opt/SUNWSMS/pipes/<domain_id>/scdr0

/var/opt/SUNWSMS/pipes/<domain_id>/scdr1

/var/opt/SUNWSMS/pipes/<domain_id>/scdr2

/var/opt/SUNWSMS/pipes/<domain_id>/scdr3

/var/opt/SUNWSMS/pipes/<domain_id>/scdr4

/var/opt/SUNWSMS/pipes/<domain_id>/scdr5

/var/opt/SUNWSMS/pipes/<domain_id>/scdr6

/var/opt/SUNWSMS/pipes/<domain_id>/scdr7

/var/opt/SUNWSMS/pipes/<domain_id>/scdr8

/var/opt/SUNWSMS/pipes/<domain_id>/scdr9

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Maintenance Commands dca(1M)

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

 $\verb"addboard"(1M)", \verb"deleteboard"(1M)", \verb"moveboard"(1M)", \verb"rcfgadm"(1M)"$

deleteboard(1M) Maintenance Commands

NAME

deleteboard – unconfigure, disconnect and unassign a system board from a domain

SYNOPSIS

deleteboard [$\neg c$ function] [$\neg r$ retry_count [$\neg t$ timeout]] [$\neg q$] [$\neg f$] [$\neg y$ | $\neg n$] location [location]...

DESCRIPTION

deleteboard(1M) removes a *location* from the domain it is currently assigned to and possibly active in. The board at that *location* must be in either the assigned or connected | configured states. The -c option is used to specify the transition of the board from the current configuration state to the new configuration state.

Configuration states are: unconfigure, disconnect, or unassign. If the -c option is not specified, the default expected configuration state is unassign.

A domain administrator can unconfigure and disconnect a board but is not allowed to unassign a board from a domain unless the board is in the domain available component list. See setupplatform(1M). This means the deleteboard *location* field must appear in the domain available component list list.

OPTIONS

−c function

Valid function values are unconfigure, disconnect, or unassign. The -c option is used to control the configuration state transition. Each successive function builds upon the last. For example, unassign first unconfigures then disconnects the board before unassigning it.

Note - If the deleteboard command fails, a board does not return to its original state. A dxs or dca error message is logged to the domain. If the error is recoverable you can retry the command. If it is unrecoverable, you will need to reboot the domain in order to use that board.

The possible transition states and their meaning are as follows:

unconfigure:

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Unconfigures the board from the Solaris operating environment running on the domain. Solaris software stops using any of the hardware resources on the board.

Transitions the board into the connected | unconfigured state. In this state the system board is assigned to the logical domain and connected (becomes active). This state allows normal system access to hardware

Maintenance Commands deleteboard(1M)

resources on the board but the hardware resources of the board are not represented by the normal Solaris software data structures and thus are not available to the Solaris operating environment. Operations allowed on the board are limited to configuration administration operations.

disconnect:

Unconfigures the board from the Solaris operating environment running on the domain. See unconfigure above.

Transitions the board into the disconnected unconfigured state. Removes the board from the physical domain. An UNCLAIM request is sent by the domain to the SC during this step. In this state the system board is assigned to the logical domain and disconnected. This is an intermediate state and does not have any standalone implementation at this time.

unassign:

Unconfigures the board from the Solaris operating environment running on the domain. See unconfigure above.

Disconnects the board. See disconnect above.

Moves the board out of the logical domain by changing its state to available.

-f

Forces the specified action to occur. Typically, this is a hardware-dependent override of a safety feature. Forcing a state change operation can allow use of the hardware resources of an occupant that is not in the ok or unknown conditions, at the discretion of any hardware-dependent safety checks.

-h

Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-n

Automatically answers "no" to all prompts. Prompts are displayed unless used with $\neg q$ option.

-q

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Quiet. Suppresses all messages to stdout including prompts.

When used alone -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts, and automatically answers with either 'y' or 'n' based on the option chosen.

-r retry_count -t timeout

These command arguments allow the user to specify retries in case of failures encountered during state transitions. The -r retry_count option indicates the number of times the configuration state change request should be retried by the domain. The -t timeout option specifies the number of seconds that the domain should wait before the next retry is made. This option must be specified with retry_count. The default is zero, meaning the request is retried immediately.

-у

Automatically answers "yes" to all prompts. Prompts are displayed unless used with $-\mathtt{q}$ option.

OPERANDS

The following operands are supported:

location List of board locations separated by a space.

Multiple location arguments are permitted.

The following *location* forms are accepted:

SB(0...17) IO(0...17)

Note - Use showboards(1M) to display board type.

EXTENDED DESCRIPTION

Group Privileges Required

Users with platform administrator privileges can only perform the -c unassign option if the board(s) are in the assigned state. (that is, not active in a running domain.)

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Maintenance Commands deleteboard(1M)

Users with domain administrator or configurator privileges can execute this command but only on their respective domains. To unassign a board, the board must be in the domain available component list.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Unassigning a Board from a Domain

To unassign four boards from their domain, the user must have platform administrator privileges or domain administrator/configurator privileges and the boards must be in the domain available component list.

All boards are in the assigned state in the example domain.

sc0:sms-user:> deleteboard -c unassign SB0 IO1 SB1 SB2

EXAMPLE 2 Unconfiguring a Board from a Domain

To unconfigure three boards from their domain, setting retries to five and timeout to three seconds.

sc0:sms-user:> deleteboard -r5 -t3 IO3 IO4 IO5

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 No Acknowledge
- 2 Not supported
- 3 Operation not supported
- 4 Invalid privileges
- 5 Busy
- 6 System busy
- 7 Data error

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8	Library error
9	No Library
10	Insufficient condition
11	Invalid
12	Error
13	APID doesn't exist
14	Invalid attribute
30	Invalid board ID type
31	Invalid permissions
32	Assigned to another domain
33	Unable to get permissions
34	Unable to get domain board info
35	Unable to get active board list
36	Unable to get assigned board list
37	Get blacklist failed
38	Solaris not running
56	DR command syntax error
68	DR operation failed

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addboard(1M), moveboard(1M)

Maintenance Commands deletetag(1M)

NAME	deletetag - remove the domain tag name associated with the domain	
SYNOPSIS	deletetag $-d$ <i>domain_id</i> <i>domain_tag</i> [$-q$] [$-y$ $-n$]	
	deletetag –h	
DESCRIPTION	deletetag(1M)	removes the domain tag associated with the domain.
OPTIONS		
	-d <i>domain_id</i>	ID of a domain. Valid <i>domain_ids</i> are 'A''R' and are case insensitive.
	-d domain_tag	Name assigned to a domain using addtag(1M).
	-h	Help. Displays usage descriptions.
		Note - Use alone. Any option specified in addition to -h is ignored.
	-n	Automatically answers "no" to all prompts. Prompts are displayed unless used with the $-\mathbf{q}$ option.
	-d	Quiet. Suppresses all messages to stdout including prompts.
		When used alone, $-q$ defaults to the $-n$ option for all prompts.
		When used with either the $-y$ or the $-n$ option, $-q$ suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.
	-у	Automatically answers "yes" to all prompts. Prompts are displayed unless used with the $-\mathtt{q}$ option.
EXTENDED DESCRIPTION		
Group Privileges Required	You must have platform administrator privileges to run this command. Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.	

deletetag(1M) Maintenance Commands

EXAMPLES

EXAMPLE 1 Deleting Tag "eng2" From the Domain to Which it was Assigned

sc0:sms-user:> deletetag -d eng2 -qy

You will not be prompted.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

If the <code>domain_id</code> does not have a tag, no error is returned.

deletetag(1M) is treated as successful.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M)

NAME

SYNOPSIS

disable component - add the specified component to the specified blacklist file

disablecomponent [-d domain_id | domain_tag] [-i "reason"] location[location]...

disablecomponent -h

DESCRIPTION

disablecomponent (1M) adds a component to the domain or platform blacklist, making it ineligible for booting.

The *blacklist* is an internal file that lists components POST cannot use at boot time. POST reads the blacklist file(s) before preparing the system for booting, and passes along to OpenBoot PROM a list of only those components that have been successfully tested; those on the blacklist are excluded. SMS supports three blacklists, one for domain boards and one for platform boards; and the internal automatic system recovery (ASR) blacklist.

disablecomponent used without any option edits the platform blacklist file.

disablecomponent *cannot* be used on the ASR blacklist file; only esmd(1M) can write to the ASR blacklist file.

For more information on the use and editing of platform and domain blacklists refer to Chapter 7 in the System Management Services (SMS) 1.2 Administrator Guide.

OPTIONS

-d domain_id

ID for a domain. Valid *domain_ids* are 'A'...'R' and are case insensitive. Specifies the component to add to the domain blacklist.

-d domain_tag

Name assigned to a domain using addtag(1M). Specifies the component to add to the domain blacklist.

-h

Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

−i "reason"

Short, descriptive explanation for adding a component to the domain blacklist. Must be enclosed in either single or double quotation marks, or be a single word.

OPERANDS

The following operands are supported:

location

List of component locations, separated by forward slashes and comprised of:

board_loc/proc/bank/logical_bank

board_loc/proc/bank/all_dimms_on_that_bank

board_loc/proc/bank/all_banks_on_that_proc

board_loc/proc/bank/all_banks_on_that_board

board_loc/proc

board_loc/procs

board_loc/cassette

board_loc/bus

Multiple *location* arguments are permitted separated by a space.

The *location* forms are optional and are used to specify particular components on boards in specific locations.

For example, the *location* SB5/P0/B1/L1 indicates Logical Bank 1 of Bank 1 on Processor 0 at SB5. The SB0/PP1 *location* indicates Processor Pair 1 at SB0. The CS0/ABUS1 *location* indicates address bus 1 at CS0.

The following board_loc forms are accepted:

SB(0...17) IO(0...17) CS(0 | 1) EX(0...17)

pairs.

Processor locations indicate single processors or processor

There are four possible processors on a CPU/Memory board. Processor pairs on that board are: procs 0 and 1, and procs 2 and 3.

The MaxCPU has two processors,: procs 0 and 1, and only one proc pair (PP0). Using PP1 for this board will cause disablecomponent to exit and display an error message.

The following *proc* forms are accepted:

P(0...3)
PP(0|1)

The following bank forms are accepted:

B(0|1)

The following logical_bank forms are accepted:

L(0|1)

The following all_dimms_on_that_bank forms are accepted:

D

The following all_banks_on_that_proc forms are accepted:

B

The following all_banks_on_that_board forms are accepted:

В

The hsPCI assemblies contain hot-swappable cassettes. The following *hsPCI* forms are accepted:

C(3 | 5)V(0 | 1)

There are three bus locations: address, data and response. The following *bus* forms are accepted:

ABUS | DBUS | RBUS (0 | 1)

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, domain administrator, domain configurator privileges to run this command. If you have platform privileges you may run this command for the platform components only. If you have domain privileges you may only run this command on the domain for which you have privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

 $\mbox{\bf EXAMPLE 1} \quad \mbox{Add CSB 0}$ and Processor 2 on System Board 1 to the Domain A Blacklist

sc0:sms-user:> disablecomponent -dA CSO SB1/P2

EXAMPLE 2 Add the Logical Bank 0 of Bank 0 on Processor 0 on System Board 0 to the Domain A Blacklist

sc0:sms-user:> disablecomponent -dA SB0/P0/B0/L0

 ${\tt EXAMPLE\,3}~~{\rm Add~All~DIMMs}$ on Bank 0 of Processor 1 on System Board 3 to the Domain A Blacklist

sc0:sms-user:> disablecomponent -dA SB3/P1/B0/D

EXAMPLE 4 Add All Banks on Processor 0 on System Board 1 to the Domain B Blacklist

sc0:sms-user:> disablecomponent -dB SB1/P0/B

EXAMPLE 5 Add All Banks on System Board 0 to the Domain D Blacklist

sc0:sms-user:> disablecomponent -dD SB0/B

EXAMPLE 6 Add Processor Pair 1 on System Board 3 to the Platform Blacklist sc0:sms-user:> disablecomponent SB3/PP1

EXAMPLE 7 Add the hsPCI Cassette in the 5V slot 0 of IO Board 6 to the Domain A Blacklist

sc0:sms-user:> disablecomponent -dA IO6/C5V0

EXAMPLE 8 Add the Data Bus CS0 on EX9 to the Domain A Blacklist

sc0:sms-user:> disablecomponent -dA EX9/DBUS0

EXAMPLE 9 Add CSB 0 and Processor 2 on System Board 1 to the Domain A Blacklist Because It Is Scheduled To Be Upgraded

sc0:sms-user:> disablecomponent -dA -i upgrade CS0 SB1/P2

 ${\tt EXAMPLE~10}~$ Add Processor Pair 1 on System Board 3 to the Platform Blacklist Because It Needs Service

sc0:sms-user:> disablecomponent -i "Because it needs service" SB3/PP1

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/platform/blacklist

List of platform components excluded.

/etc/opt/SUNWSMS/config/domain_id/blacklist

List of domain components to be excluded.

SEE ALSO

addboard(1M), enablecomponent(1M), esmd(1M), showcomponent(1M)

Maintenance Commands dsmd(1M)

NAME

dsmd - domain status monitoring daemon

SYNOPSIS

dsmd

DESCRIPTION

 ${\tt dsmd}(1M)$ monitors domain status and operating system (OS) heartbeat for up to 18 domains.

dsmd automatically recovers the domain and handles domain-related hardware errors. In the event of a domain hang, dsmd will reset(1M) the domain, collect CPU registers and hardware configuration dumps, and save them to two files.

All domain state changes are monitored and logged in domain-specific log files if the message level is INFO; otherwise there is no log for a state change.

This daemon is started automatically by the ssd(1M) daemon. Do *not* start it manually from the command line.

EXTENDED DESCRIPTION

dsmd logs the following events and attempts to recover from them:

- Domain boot failure
- Error Reset
- Solaris OS hang
- Domain panic
- Domain reset/reboot
- DStop
- Boot/panic/error_reset_sync timeout

dsmd clients include:

- dxs(1M) domain X server daemon
- efe Sun Management Center daemon
- osd(1M) OpenBoot PROM daemon
- pcd(1M) platform configuration database daemon
- esmd(1M) environment status monitoring daemon

dsmd is a client of:

- lacktriangledown hwad(1M) hardware access daemon
- lacktriangledown setkeyswitch(1M) virtual keyswitch control command

For more information see the System Management Services (SMS) 1.2 Administrator Guide.

dsmd(1M) Maintenance Commands

FILES

The following files are supported:

/etc/opt/SUNWSMS/startup/ssd_start

Default startup file for ssd

/var/opt/SUNWSMS/adm/domain_id/

Stores message files and hpost dump files

/var/opt/SUNWSMS/SMS/adm/domain_id/post/

Stores the dstop and hardware configuration dump files

/export/home/sms-user/xir_dump/

Stores xir dump files for all domains

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

 ${\tt dxs}(1M), \; {\tt esmd}(1M), \; {\tt hwad}(1M), \; {\tt osd}(1M), \; {\tt pcd}(1M), \; {\tt reset}(1M), \; {\tt setkeyswitch}(1M), \; {\tt ssd}(1M)$

Maintenance Commands dxs(1M)

NAME

dxs - domain X server

SYNOPSIS

dxs [-S] -d domain_id | domain_tag

DESCRIPTION

dxs(1M) provides software support for a domain. This support includes virtual console functionality, dynamic reconfiguration mailbox support, and PCI mailbox support. The mailbox support handles domain driver requests and events. The virtual console functionality allows one or more users running the console program to access the domain's virtual console.

When the domain is up and running Solaris software, dxs acts as a relay between the domain's console driver (cvcd) and the running console windows. When the domain is not running Solaris software, dxs acts as a relay between OpenBoot PROM and the running console windows.

A domain X server is automatically started for each active domain by the ssd(1M) daemon. Do *not* start it manually from the command line. dxs for the domain is terminated when the domain is shutdown.

OPTIONS

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-S Disable console output logging. By default, logging is

enabled and written to the /var/opt/SUNWSMS/adm/

domain_id/console file.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), console(1M), ssd(1M)

NAME

enablecomponent – remove the specified component from the specified blacklist

SYNOPSIS

enablecomponent [-a | -d domain_tag | domain_id | location [location]...

enablecomponent -h

DESCRIPTION

enablecomponent (1M) removes a component from the platform, domain or ASR blacklist, making it eligible for booting.

The *blacklist* is an internal file that lists components POST cannot use at boot time. POST reads the blacklist file(s) before preparing the system for booting, and passes along to OpenBoot PROM a list of only those components that have been successfully tested; those on the blacklist are excluded. SMS supports three blacklists, one for domain boards and one for platform boards; and the internal ASR blacklist.

The ASR *blacklist* is an internal file created by esmd when it powers off components due to environmental conditions. The ASR blacklist is also used by the power libraries and SMS commands to prevent turning on a bad component.

enablecomponent used without any option will edit the platform blacklist.

Use ${\tt showcomponent}(1M)$ to display whether a particular component is currently blacklisted.

For more information on the use and editing of platform and domain blacklists refer to Chapter 7 in the System Management Services (SMS) 1.2 Administrator Guide

OPTIONS

Specifies the component to remove from the ASR blacklist.

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and case

insensitive. Specifies the component to remove from the

domain blacklist.

-d domain_tag Name assigned to a domain using addtag(1M). Specifies the

component to remove from the domain blacklist.

OPERANDS

The following operands are supported:

location

List of component locations, separated by forward slashes and comprised of:

board_loc/proc/bank/logical_bank

board_loc/proc/bank/all_dimms_on_that_bank

board_loc/proc/bank/all_banks_on_that_proc

board_loc/proc/bank/all_banks_on_that_board

board_loc/proc

board_loc/procs

board_loc/cassette

board_loc/bus

Multiple *location* arguments are permitted separated by a space.

The *location* forms are optional and are used to specify particular components on boards in specific locations.

For example, the *location* SB5/P0/B1/L1 indicates Logical Bank 1 of Processor 0 at SB5. The SB0/PP1 *location* indicates Processor Pair 1 at SB0. The CS0/ABUS1 *location* indicates address bus 1 at CS0.

The following board_loc forms are accepted:

SB(0...17) IO(0...17) CS(0 | 1) EX(0...17)

Processor locations indicate single processors or processor pairs.

There are four possible processors on a CPU/Memory board. Processor pairs on that board are: procs 0 and 1, and procs 2 and 3.

The MaxCPU has two processors,: procs 0 and 1, and only one proc pair (PP0). Using PP1 for this board will cause disablecomponent to exit and display an error message.

The following *proc* forms are accepted:

P(0...3)
PP(0|1)

The following bank forms are accepted:

B(0|1)

The following logical_bank forms are accepted:

L(0|1)

The following all_dimms_on_that_bank forms are accepted:

D

The following all_banks_on_that_proc forms are accepted:

B

The following all_banks_on_that_board forms are accepted:

В

The hsPCI assemblies contain hot-swappable cassettes.

The following hsPCI forms are accepted:

C(3 | 5)V(0 | 1)

There are three bus locations: address, data and response.

The following bus forms are accepted:

ABUS | DBUS | RBUS (0 | 1)

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, domain administrator, domain configurator privileges to run this command. If you have platform privileges you may run this command for the platform components only. If you have domain privileges you may only run this command on the domain for which you have privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Remove CSB0 from the ASR Blacklist

sc0:sms-user:> enablecomponent -a CS0

EXAMPLE 2 Remove the Logical Bank 0 of Bank 0 on Processor 0 on System Board 0 from the Domain A Blacklist

sc0:sms-user:> enablecomponent -dA SB0/P0/B0/L0

 ${\tt EXAMPLE\,3}$ Remove All DIMMs on Bank 0 of Processor 1 on System Board 3 from the Domain A Blacklist

sc0:sms-user:> enablecomponent -dA SB3/P1/B0/D

EXAMPLE 4 Remove All Banks on Processor 0 on System Board 1 from the Domain B Blacklist

sc0:sms-user:> enablecomponent -dB SB1/P0/B

EXAMPLE 5 Remove All Banks on System Board 0 from the Domain D Blacklist sc0:sms-user:> enablecomponent -dD SB0/B

EXAMPLE 6 Remove Processor Pair 0 on I/O Board 7 from the Platform Blacklist sc0:sms-user:> enablecomponent IO7/PP0

 $\hbox{\bf EXAMPLE 7} \quad \hbox{\bf Remove Processor 1 on System Board 3 from the Domain A Blacklist}$

sc0:sms-user:> enablecomponent -dA SB3/P1

 $\mbox{\tt EXAMPLE 8}\quad \mbox{Remove the hsPCI Cassette in the 3V slot 0 of IO Board 6 from the Domain A Blacklist$

sc0:sms-user:> enablecomponent -dA IO6/C3V0

EXAMPLE 9 Remove the Address Bus CS0 on EX7 from the Domain A Blacklist

sc0:sms-user:> enablecomponent -dA EX7/ABUS0

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/asr/blacklist

List of components excluded by esmd.

Note - This file is created and used internally and should *not* be edited manually.

/etc/opt/SUNWSMS/config/platform/blacklist

List of platform components excluded.

/etc/opt/SUNWSMS/config/domain_id/blacklist

List of domain components excluded.

SEE ALSO

 $\label{eq:decomponent} \mbox{addboard}(1M), \ \mbox{disablecomponent}(1M), \ \mbox{esmd}(1M), \\ \mbox{showcomponent}(1M)$

esmd(1M) Maintenance Commands

NAME

esmd - environmental status monitoring daemon

SYNOPSIS

esmd

DESCRIPTION

esmd(1M) monitors system cabinet environmental conditions, for example, voltage, temperature, fan tray, and power supply. esmd logs abnormal conditions and takes action, if necessary, to protect the hardware.

This daemon is started automatically by the ssd(1M) daemon. Do *not* start it manually from the command line.

EXTENDED DESCRIPTION

esmd monitors the following boards for out-of-range conditions:

- CPU board
- MaxCPU board
- HPCI board
- Expander board
- Centerplane support board
- SC control board
- SC I/O
- Fan control board
- Power supplies (bulk)

esmd recognizes the following events and alerts the appropriate clients/daemons:

- Component insertion Notices component presence from one polling cycle to the next. esmd only sends notification if that client (hwad(1M), pcd(1M), dsmd(1M) and so on) has requested it for that particular component type.
- Component removal Notices component absence from one polling cycle to the next. esmd only sends notification if that client (hwad, pcd, dsmd and so on) has requested it for that particular component type.
- PCI card insertion Notices whenever a PCI card has been inserted into a PCI board.
- PCI card removal Notices whenever a PCI card has been removed from a PCI board.
- Board power off Notices whenever a board is powered off or when board power, previously on, is off.

Maintenance Commands esmd(1M)

■ Board power on — Notices when a board is powered on or when board power, previously off, is on.

- Board temperature change Notices when temperature sensors on a board register a two degree difference or when a temperature crosses a temperature threshold.
- Board voltage change Notices if a voltage sensor value has changed so that it is close to being out-of-range and again if the new value is out of range. In this case, esmd will remove the board from the domain and power it off.
- Board current change Notices whenever any of the monitored board current values change.
- CSB state change Notices when any of the monitored CSB board properties change.
- EXB state change Notices when any of the monitored EXB board properties change.
- CPU state change Notices when any of the monitored CPU board properties change.
- Bulk power state change Notices when any of the bulk power supply properties change.
- Fan tray state change Notices when any of the monitored fan tray properties change.
- PCI card state change Notices when any of the monitored PCI card properties change.

esmd clients include:

- hwad hardware access daemon
- pcd platform configuration database daemon
- dsmd domain status monitoring daemon

For more information see the System Management Services (SMS) 1.2 Administrator Guide.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

FILES

The following files are supported:

esmd(1M) Maintenance Commands

/var/opt/SUNWSMS/adm/platform/messa**Stores** message files

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

dsmd(1M), hwad(1M), pcd(1M), ssd(1M)

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Maintenance Commands flashupdate(1M)

NAME

flashupdate - update the Flash PROMs located on the CPU boards, MaxCPU boards and system controllers (SC)

SYNOPSIS

flashupdate $[-d domain_id \mid domain_tag] - f path <math>[-q] [-y \mid -n]$

flashupdate [-f path] [-y | -n] location [location...]

flashupdate -h

DESCRIPTION

flashupdate(1M) updates the Flash PROM in the system controller (SC), and the Flash PROMs in a domain's CPU and MaxCPU boards, given the board location.

In order to update the Flash PROMs in the system controller, log in to the SC you wish to update and specify the Flash PROM to be updated. Each Flash PROM has a specific image file associated with it. Once you have finished updating the SC Flash PROMs you must shutdown and reset the SC. See example 7 below. You do not need to reset the SC after updating CPU Flash PROMs.

To update the CPU FPROMs, SMS must be running and the specified board must be powered on. This is not required to update the SC FPROMs. If any of the domain's CPU or MaxCPU boards have the virtual keyswitch setting in the secure position, the Flash PROM(s) will not be updated.

flashupdate displays both the current Flash PROM and the flash image file information prior to any updates.

OPTIONS

-d domain id ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

Name assigned to a domain using addtag(1M). -d domain_tag

-f path Name of the flash image file.

> The path argument specifies the name of the image file used to update the Flash PROM given in the location argument.

-h Help. Displays usage descriptions.

> **Note -** Use alone. Any option specified in addition to -h is ignored.

-n Automatically answers "no" to all prompts. Prompts are

displayed unless used with the -q option.

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Quiet. Suppresses all messages to stdout including prompts.

When used alone, -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.

Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.

OPERANDS

The following operands are supported:

location Flash PROM location.

The Flash PROM location consists of the board_loc/ FlashPROM_id separated by a forward slash.

The FlashPROM_id is specified only when you want to update a particular Flash PROM (FP0 or FP1) on a CPU board and the system controller(SC).

For example, the location, SB4/FP0, indicates the Flash PROM 0 on the CPU board in slot 4.

The following *board_loc* forms are accepted:

SB(0...17) IO(0...17) SC(0-1)

The following FlashPROM_id forms are accepted:

FP(0 | 1)

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator or domain administrator privileges to run this command. If you have platform administrator privileges, all boards

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can be updated. For domain administrators, only boards that are active in the administrator's domain or available to the administrator's domain can be updated.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Updating Flash PROM 0 in the System Controller 0

You must reset the SC after running this command.

sc0:sms-user:> flashupdate -f /opt/SUNWSMS/firmware/SCOBPimg.di SCO/FPO

EXAMPLE 2 Updating Flash PROM 1 in the System Controller 0

You must reset the SC after running this command.

sc0:sms-user:> flashupdate -f /opt/SUNWSMS/firmware/SSCPOST.di SC0/FP1

EXAMPLE 3 Updating Flash PROM 0 in the System Controller 1

You must reset the SC after running this command.

sc1:sms-user:> flashupdate -f /opt/SUNWSMS/firmware/SCOBPimg.di SC1/FP0

EXAMPLE 4 Updating Flash PROM 0 in the slot0 Board

SMS must be running and the SB0/FP0 board must be powered on.

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sc0:sms-user:> flashupdate -f /opt/SUNWSMS/hostobjs/sgcpu.flash SB0/FP0

EXAMPLE 5 Updating Both Flash PROMs on CPU Board 17

SMS must be running and the SB17 board must be powered on.

sc0:sms-user:> flashupdate -f /opt/SUNWSMS/hostobjs/sgcpu.flash SB17

EXAMPLE 6 Updating Flash PROMs in Domain A

SMS must be running and the CPU boards in domain A must be powered on.

sc0:sms-user:> flashupdate -d A -f /opt/SUNWSMS/hostobjs/sgcpu.flash

EXAMPLE 7 Resetting the SC After Updating the SC PROMs.

Switch to superuser and shutdown the SC.

```
sc0:sms-user:> su -
sc0:# shutdown -y -g0 -i0
...[system messages]
```

In order for the new firmware to be enabled on your SC you must now perform a reset of the SC. Type:

ok reset-all

If this does not reset the SC then you must perform a hard reset. Physically locate your System Controller within your Sun Fire 15K cabinet and depress the Abort and then Reset buttons on the SC board.

Once the SC has been reset you should see OpenBoot PROM messages indicating that the new version of the firmware is loading.

After the system successfully returns to the ok prompt, verify that the flashupdate worked, type:

(continued)

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Maintenance Commands flashupdate(1M)

(Continuation)

ok show-dropins

Dropins for Flash device: /pci@1f,0/pci@1,1/ebus@1/flashprom@10,400000

Note the version number of the Dropins (1.2)

You can then boot your new installation of the Solaris software.

ok boot new disk

Login in as a platform administator and type:

sc1:sms-user:> flashupdate -f /opt/SUNWSMS/firmware/SCOBPimg.di SCO/FPO

Size: 144, Check Sum: 51278

Date Flashed: 11/13/01 Date Created: 11/13/01

Do you wish to update the SC User FPROM (yes/no)? n sc1:sms-user:>

 $Compare\ version\ numbers.\ If\ they\ are\ the\ same,\ {\tt flashupdate}\ was\ successful.$

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

flashupdate(1M) Maintenance Commands

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following files are used by this command:

 $\verb|/opt/SUNWSMS/firmware/SCOBPimg.di| Used to update the Flash|$

PROM 0 on the SC.

/opt/SUNWSMS/firmware/SSCPOST.di Used to update the Flash

PROM 1 on the SC.

 $\verb|/opt/SUNWSMS/hostobjs/sgcpu.flash| \quad Used \ to \ update \ the \ Flash|$

PROMs on the CPU and

MaxCPU boards.

SEE ALSO

setkeyswitch(1M)

Maintenance Commands fomd(1M)

NAME

fomd - failover management daemon

SYNOPSIS

fomd

DESCRIPTION

fomd(1M) is the core of the system controller (SC) failover mechanism. The fomd daemon detects faults on the local and remote SCs and takes the appropriate action (directing a failover/takeover).

The fond daemon ensures that the necessary synchronization data between the two SCs is current. fond runs on both the master and the standby SCs.

This daemon is automatically started by $\verb|ssd(1M)|$. Do not start it manually from the command line.

FILES

The following configuration file is required:

/etc/opt/SUNWSMS/config/fomd.cf

Failover daemon configuration

Note - This is an internal SMS system file and should not be modified except by authorized Sun Microsystems personnel.

EXIT STATUS

The following exit values are returned:

Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

setfailover(1M), showfailover(1M)

frad(1M) Maintenance Commands

NAME

frad - FRU access daemon

SYNOPSIS

frad

DESCRIPTION

frad(1M) runs on the system controller (SC) and provides the exclusive mechanism by which SMS processes, including daemons, access any FRU SEEPROM within a given Sun Fire 15K system. frad also provides the platform-dependent interface to the Sun Fire 15K SEEPROMs required by the FRU ID software tools.

This daemon is started automatically by the ${\tt ssd}(1M)$ daemon. Do *not* start it manually from the command line.

EXIT STATUS

The following exit values are returned:

Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

ssd(1M)

Maintenance Commands help(1M)

NAME

help - display help information for SMS commands

SYNOPSIS

help [command_name]

help -h

DESCRIPTION

If no argument is included, help(1M) displays a list of valid SMS commands along with their correct syntax. Otherwise, the *command_name* operand displays that command's man page.

OPTIONS

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-v Verbose. Displays all available command information.

OPERANDS

The following operands are supported: command_name Specific command for which help displays the man page.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, domain configurator or superuser privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Using Help

Displays all commands.

help(1M) Maintenance Commands

EXAMPLE 2 Using Help for a Command

Displays man(1M) page.

```
Maintenance Commands addtag(1M)

NAME
    addtag - assign a domain name (tag) to a domain

SYNOPSIS
addtag -d domain_id|domain_tag -anew_tag [-q ] [-y | -n]
.....
```

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

man(1M)

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Maintenance Commands hpost(1M)

NAME

hpost – Sun Fire 15K power-on self-test (POST) control application

SYNOPSIS

hpost

DESCRIPTION

hpost(1M) is responsible for probing, testing, and configuring the hardware of a Sun Fire 15K domain, preparing it for use by the OpenBoot PROM and the Solaris operating environment. Alternate modes prepare a single board for attach to a running domain using dynamic reconfiguration (DR), create hardware state dump files on the system controller (SC), clear certain non fatal hardware error states, and perform related Sun Fire 15K hardware operations.

Note - This application is intended to be run only by other SMS applications or daemons. Invoking it directly from the command line can cause failures of running domains, and is *not* a supported mode of use.

hpost's clients include:

- \blacksquare dsmd(1M)
- \blacksquare dxs(1M)
- setkeyswitch(1M)

hpost is a client of:

- hwad(1M)
- pcd(1M)

hpost requires and uses flash PROM images and downloadable local POST executables delivered in the SUNWSMSlp package.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSpo

SEE ALSO

dsmd(1m), hwad(1m), pcd(1m), setkeyswitch(1m), dxs(1m)

hwad(1M) Maintenance Commands

NAME

hwad - hardware access daemon

SYNOPSIS

hwad

DESCRIPTION

hwad(1M) provides the exclusive mechanism by which SMS processes, including daemons, access, control, monitor, and configure the hardware.

hwad runs in either main or spare mode and asks the failover daemon (fomd(1M)) for the role the system controller (SC) should play when it comes up.

At start up, hwad opens all the drivers (sbbc, echip, gchip, and console bus) and uses the ioctl calls to interface with them. It reads the contents of device presence register to identify the boards present in the system and makes them accessible to the clients.

IOSRAM and Mbox interfaces are also provided by hwad. This helps communication between the SC and the domain. For dynamic reconfiguration (DR), hwad directs communication to the new IOSRAM (tunnel switch). For darb interrupts, hwad notifies the dsmd(1M) if there is a dstop or rstop. It also notifies related SMS daemon(s) depending on the type of Mbox interrupt that occurs.

hwad detects and recovers console bus and jtag errors.

This daemon is started automatically by the ssd(1M) daemon. Do *not* start it manually from the command line.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

dsmd(1M), ssd(1M)

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Maintenance Commands cmdsync(1M)

NAME

initemdsync, emdsync, cancelemdsync, saveemdsync – command synchronization commands

SYNOPSIS

cancelcmdsync cmdsync_descriptor

initcmdsync script_name [parameters]

savecmdsync –M identifier cmdsync_descriptor

[cancel | init | save|cmdsync -h

DESCRIPTION

The command synchronization commands work together to control the recovery of user-defined scripts interrupted by a system controller (SC) failover. Insert the following commands in user-defined scripts to enable command synchronization:

• initemdsync creates a command synchronization descriptor that identifies the script to be recovered.

This descriptor is placed on a command synchronization list that identifies the scripts and commands to be restarted on the new main SC after a failover.

- savecmdsync adds a marker that identifies a location in the script from which processing can be resumed after a failover.
- cancelcmdsync removes a command synchronization descriptor from the command synchronization list. This ensures that the script is run only once and not after subsequent failovers.

Be sure that all exit paths of a script have a cancelcmdsync sequence to remove the descriptor from the command synchronization list. If you do not remove the descriptor and a failover occurs, the script will be rerun on the new main SC.

Note - Both an initemdsync and a cancelemdsync sequence must be contained within a script to enable command synchronization. The use of the saveemdsync command is optional and is used only to mark specific points in a script from which processing can be resumed. If specific restart points are not needed, consider using runcmdsync(1M) instead.

OPTIONS

The following options are supported:

cmdsync_descriptor Specifies the command synchronization

descriptor that identifies the user-defined script. This descriptor is the standard output value returned by the initcmdsync command.

-h Help. Displays usage descriptions.

cmdsync(1M) Maintenance Commands

Note - Use alone. Any option specified in addition to -h is ignored.

-M *identifier* Marks a location in the script from which the

script can be resumed after a failover. The identifier must be a positive integer.

parameters Specifies the options or parameters associated

with the user-defined script. These parameters are stored on the spare SC and are used to restart

the specified script after a failover.

script_name Identifies the name of the user-defined script to

be synchronized.

EXTENDED DESCRIPTION

The command synchronization commands are inserted at certain logical points within a user-defined script.

For instance, a Korn shell script might be structured as follows:

```
# MAIN CODE STARTS HERE
# Be sure to use a cleanup procedure to handle any interrupts.
\ensuremath{\mathtt{\#}} 
 Use the cancelcmdsync to remove the script from the command
# synchronization list. Otherwise, the command will get restarted
# on the new main SC.
clean_up () {
     cancelcmdsync $desc
     exit
# Declare the clean_up function to capture system signals
# and cleanup.
trap "clean_up" INT HUP TERM QUIT PWR URG
goto_label=1
# Process the arguments, capturing the -M marker point if provided
for arg in $*; do
    case $arg in
        -M )
    goto_label=$arg;;
    esac
done
# Place this script and all its parameters in the command synchronization
# list, which indicates the commands to be restarted after an SC failover.
# NOTE: The script must be executable by the user defined in fomd.cf
```

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```
# and reside in the same directory on both the main and the spare SC.
# If the command is not part of the defined PATH for the user, the
# absolute filename must be passed with the initcmdsync command.
\verb"initcmdsync" \textit{script\_name parameters}
# The marker point is stored in the goto_label variable.
# Keep executing this script until all cases have been processed or an
# error is detected.
while (( $goto_label != 0 )); do
     # Each case should represent a synchronization point in the script.
     case $goto_label in
          # Step 1: Do something
          1)
               do_something
               # Execute the savecmdsync command with the script's
               # descriptor and a unique marker to save the position.
               # If a failover occurs here, the commands
               # represented in the next goto_label (2) will be
               # resumed.
               savecmdsync -M $(( $goto_label + 1 )) $desc
               goto_label=$(( $goto_label + 1 ))
               ;;
          # Step 2: Do more things
          2 )
               do_more_things
               savecmdsync -M $(( $goto_label + 1 )) $desc
               goto_label=$(( $goto_label + 1 ))
          # Step 3: Finish the last step and set the goto_label to 0
          # so that the script ends.
          3 )
               finish_last_step
               goto_label=0
```

cmdsync(1M) Maintenance Commands

esac
done

END OF MAIN CODE

Remember to execute cancelcmdsync to remove the script from the

command synchronization list. Otherwise, the command will be restarted

after the failover.

cancelcmdsync \$desc

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

Note - The standard output for initemdsync contains the command synchronization descriptor. Also, when failover is disabled (after a failover or in a single SC environment), scripts that contain synchronization commands generate error messages to the platform log file and return nonzero exit codes. These messages can be ignored.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Architecture	All
Availability	SUNWSMSop
Stability	Evolving
MT-Level	Safe

SEE ALSO

runcmdsync(1M), showcmdsync(1M)

NOTES

An example of a user-defined script (with synchronization commands) is provided in the /opt/SUNWSMS/examples/cmdsync directory.

Maintenance Commands kmd(1M)

NAME

kmd - SMS key management daemon

SYNOPSIS

kmd

DESCRIPTION

kmd(1M) manages the IPSec security associations (SAs) needed to secure the communication between the system controller (SC) and servers running on a domain. kmd manages per-socket policies for connections initiated by clients on the SC to servers on a domain. kmd manages shared policies for connections initiated by clients on the domain to servers on the SC.

The current default configuration includes authentication policies for the dca(1M) and dxs(1M) clients on the SC which connect to the dcs(1M) and cvcd(1M) servers on a domain.

This daemon is started automatically by the ssd(1M) daemon. Do *not* start it manually from the command line.

OPTIONS

EXTENDED DESCRIPTION

kmd must be run as a root process to be permitted to use the pf_k interface to IPSec.

EXIT STATUS

The following exit values are returned:

O Successful Completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSr, SUNWSMSop

FILES

The following file is used to configure kmd:

/etc/opt/SUNWSMS/config/kmd_policy.cf

kmd(1M) Maintenance Commands

kmd_policy.cf configures the shared and per-socket policies managed by kmd.

Changes to the policies are made by editing the kmd_policy.cf file on the SC. Corresponding changes must be made on the affected domain(s).

The format of kmd_policy.cf is a table of eight fields separated by the pipe '|' character. The fields are identified below.

dir | d_port | protocol | sa_type | auth_alg | encr_alg | domain | login

The fields are defined as:

dir—Direction to connect from. Values: sctodom, domtosc

d_port— Destination port

protocol— Protocol for the socket. Values: tcp, udp

sa_type— Security association type. Values: ah, esp

auth_alg— Authentication algorithm. Values: none, md5, sha1

encr_alg— Encryption algorithm. Values: none, des, 3des

domain— Domain ID. Values: integers 0 - 17, space A space for the domain ID defines a policy which applies to all domains. A policy for a specific domain overrides a policy which applied to all domains.

login— Login name. Values: Any valid login name. The default policies in the kmd_policy.cf file are shown below.

```
sctodom | 665 | tcp | ah | md5 | none | | sms-dca | sctodom | 442 | tcp | ah | md5 | none | | sms-dxs |
```

The configuration of policies on a domain is the standard IPSec configuration file (/etc/inet/ipsecconf.init).

The default policies are shown below.

```
{ dport sun-dr } permit { auth_alg md5 }
{ sport sun-dr } apply {auth_alg md5 sa unique }
{ dport cvc_hostd } permit { auth_alg md5 }
{ sport cvc_hostd } apply {auth_alg md5 sa unique }
```

Maintenance Commands kmd(1M)

mand(1M) Maintenance Commands

NAME

mand - management network daemon

SYNOPSIS

mand

DESCRIPTION

mand(1M) supports the management network (MAN) drivers and the failover management daemon (fomd(1M)) by providing the required network configuration. This configuration information includes host names, IP addresses, and netmasks. mand is also responsible for initializing and updating these respective fields in the platform configuration database (pcd(1M)) daemon as well as the MAN driver on the system controller (SC).

mand is an SMS daemon running on both the main and spare SCs. Its role is set up by fomd.

This daemon is started automatically by the ssd(1M) daemon. Do *not* start it manually from the command line.

EXTENDED DESCRIPTION

SC-to-Domain and Domain-to-SC Internal Network (I1) data includes:

- Network mask
- SC host name
- SC IP address
- Domain[A-R] host name
- Domain[A-R] IP address

SC-to-SC Internal Network (I2) data includes:

- Network mask
- SC 0 host name
- SC 0 IP address
- SC 1 host name
- SC 1 IP address

SC External Community (C) data includes:

- Community Failover IP address
- Community physical interface name

EXIT STATUS

The following exit values are returned:

- Successful completion.
- >0 An error occurred.

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Maintenance Commands mand(1M)

SIGNALS

SIGHUP Rereads the MAN.cf file and reconfigures the

external community as well as the network fields

in the pcd.

FILES The following configuration file is required:

/etc/opt/SUNWSMS/config/MAN.cf This file includes the

domain-to-SC, SC-to-domain and the SC-to-SC management network data as well as the community data for external

access to the SC.

Do not manually modify the

MAN.cf file.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

fomd(1M), pcd(1M), smsconfig(1M), ssd(1M)

mld(1M) Maintenance Commands

NAME

mld - message logging daemon

SYNOPSIS

mld [-f config_file] [-t]

DESCRIPTION

mld(1M) provides logging services to all SMS daemons and processes. mld is the first SMS daemon started by ssd(1M) in order to capture the output of all other SMS daemons and processes during their startup phases.

■ Platform log messages are stored in:

/var/opt/SUNWSMS/adm/platform/messages

in the following format::

time host program [pid]:[msg_id hrtime_t level file_line] message

file line is optional and only appears in verbose mode.

For example:

Aug 26 09:16:10 2000 sun15 mld[904]:[209 2345678901 INFO MLDLOGGER.cc 141] Platform messages file created.

■ Domain log messages are stored in:

/var/opt/SUNWSMS/adm/domain_id/messages

in the same format as platform messages with additional *domain_id* | *domain_tag* information following the pid:

time host program [pid]domain_id|domain_tag:[msg_id hrtime_t level file_line] message

For example:

```
Aug 26 09:18:55 2000 sun15 mld[904]-B (eng2):
[314 2345678902 ERR LogManager.cc 424]
message queue limit exceeded, messages will be dropped.
```

■ Domain syslog messages are stored in:

/var/opt/SUNWSMS/adm/domain_id/syslog

in the same format in which they are received.

OPTIONS

-f config_file Provides an absolute path to an alternative remote-message-reception configuration file.

-t Disables remote message reception (for example; domain syslog messages).

EXIT STATUS

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The following exit values are returned:

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O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command:

/var/opt/SUNWSMS/adm/.logger

Message logging daemon configuration file.

This file supports three configuration directives:

FILE — Specifies where to output messages. The default is msgdaemon and should *not* be changed.

LEVEL — Specifies the minimum level necessary for mld to log a message. The supported levels are: debug, info, notice, warning, err, crit, alert, and emerg. The default is notice.

MODE — Specifies the verbosity of the messages. Two modes are available: verbose and terse. The default is verbose.

Note - All directive arguments are case insensitive.

SEE ALSO

ssd(1M)

moveboard(1M) Maintenance Commands

NAME

moveboard - move a board from one domain to another

SYNOPSIS

moveboard -d *domain_id* | *domain_tag* [-c *function*] [-r *retry_count* [-t *timeout*]] [-q] [-f] [-y] -n] *location*

moveboard -h

DESCRIPTION

moveboard(1M) first attempts to unconfigure, disconnect, and unassign *location* from the domain it is currently assigned to and possibly active in, then proceeds to assign, connect, and configure *location* to the domain *domain_id|domain_taq*.

The <code>-c</code> function command option is used to specify the transition of the board from the current configuration state to a new configuration state. Configuration states are: <code>assign</code>, <code>connect</code>, or <code>configure</code>. If the <code>-c</code> option is not specified, the default expected configuration state is <code>configure</code>.

Note - moveboard performs tasks synchronously and does not return control to the user until the command is complete. If the board is not powered on or tested and a -c connect | configure option is specified, then the command will power on the board and test it.

If the specified board is in the automatic system recovery (ASR) blacklist file, moveboard displays an error message when assigning a board and continues. When using the connect or configure functions, moveboard displays an error message and exits.

OPTIONS

−c function

Maintenance Commands moveboard(1M)

Valid function values are assign, connect, and configure. This value is used to control the configuration state transition.

Note - If the moveboard command fails, a board does not return to its original state. A dxs or dca error message is logged to the domain. If the error is recoverable you can retry the command. If it is unrecoverable, you will need to reboot the domain in order to use that board.

The possible transition states and their meaning are as follows:

■ assign:

Unconfigures the board from the Solaris operating environment running on the domain. Solaris software stops using any of the hardware resources on the board. (See deleteboard -c unconfigure).

Disconnects the board. Transitions the board into the disconnected unconfigured state. (see deleteboard -c disconnect).

Unassigns the board from the current domain. (See deleteboard -c unassign).

Moves the board out of the logical domain by changing its state to available.

Assigns the board to the new logical domain. This is a board state in which the domain has sole access to the board; however, the board is not active. Once assigned, the board can be connected or configured into the domain either by using setkeyswitch on or using the connect or configure options.

connect:

Unconfigures the board from the Solaris operating environment running on the domain. Solaris software stops using any of the hardware resources on the board. (See deleteboard -c unconfigure).

Disconnects the board. Transitions the board into the disconnected unconfigured state. (See deleteboard -c disconnect).

Unassigns the board from the current domain. (see deleteboard -c unassign).

Moves the board out of the logical domain by changing its state to available. Assigns the board to the new logical domain. (See assign above; see also addboard(1M) -c assign).

Transitions the board into the connected | unconfigured state. In this state, the board is assigned to the logical domain and connected

moveboard(1M) Maintenance Commands

(active). This state allows the normal system access to hardware resources on the board. The hardware resources of the board are not represented by the normal Solaris software data structures, however, and cannot be used by the Solaris operating environment. Allowed operations on the board are limited to configuration administration operations. (See also addboard -c connect). This is an intermediate state and does not have any standalone implementation at this time.

configure:

Unconfigures the board from the Solaris operating environment running on the domain. Solaris software stops using any of the hardware resources on the board. (See deleteboard -c unconfigure).

Disconnects the board. Transitions the board into the disconnected unconfigured state. (See deleteboard -c disconnect).

Unassigns the board from the current domain. (See deleteboard -c unassign).

Moves the board out of the logical domain by changing its state to available. Assigns the board to the new logical domain. (See assign above; see also addboard -c assign).

Transitions the board into the connected unconfigured state. In this state, the board is assigned to the logical domain and connected (active). This state allows the normal system access to hardware resources on the board. The hardware resources of the board are not represented by the normal Solaris software data structures, however, and cannot be used by the Solaris operating environment. Allowed operations on the board are limited to configuration administration operations. (See connect above; see also addboard —c connect).

Transitions the board into the connected | configured state. In this state, the board is not only assigned and connected to a domain, but also configured into the Solaris operating environment. The hardware resources on the board can be used by Solaris software. (See also addboard -c configure).

-d domain_id

ID for a domain. Valid *domain_ids* are 'A'...'R' and are case insensitive. This is the domain to which the board is being moved.

-d domain_tag

Maintenance Commands moveboard(1M)

Name assigned to a domain using addtag(1M). This is the domain to which the board is being moved.

-f

Forces the specified action to occur. Typically, this is a hardware-dependent override of a safety feature. Forcing a state change operation can allow use of the hardware resources of an occupant that is not in the ok or unknown conditions, at the discretion of any hardware-dependent safety checks.

-h

Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-n

Automatically answers "no" to all prompts. Prompts are displayed unless used with the -q option.

-q

Quiet. Suppresses all messages to stdout including prompts.

When used alone -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.

-r retry_count -t timeout

These command arguments allow the user to specify retries in case of failures encountered during state transitions. The -r retry_count option indicates the number of times the configuration state change request should be retried by the domain. The -t timeout option specifies the number of seconds that the domain should wait before the next retry is made. This option must be specified with retry_count. The default is zero, meaning the request is retried immediately.

-у

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Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.

OPERANDS

The following operands are supported:

location Board location separated by a space. Multiple

location arguments are not permitted.

The following *location* forms are accepted:

SB(0...17) IO(0...17)

Note - Use showboards(1M) to display board type.

EXTENDED DESCRIPTION

Group Privileges Required

Users with platform administrator privileges can perform the -c assign option if the board is in the assigned state (not active in a running domain) of the domain from which the board is being removed.

Users with domain administrator or configurator privileges can execute this command, but only on their respective domains. You must belong to both domain groups affected and the board must be in the available component list of both domains.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

For all examples, if the board is currently active in another domain, you must have domain administrator privileges for that domain. In addition, you must have platform administrator privileges or the board must be in the domain available component list in order for it to be unassigned from its current domain.

You must have platform privileges or the board must be in the domain's available component list for you to assign the system board to a new domain. In addition, the user must have domain privileges in the new domain in order to connect or configure the board into the domain.

Maintenance Commands moveboard(1M)

EXAMPLE 1 Assigning a CPU Board at SB4 to Domain A

```
{\tt sc0:} {\tt SMS-USET:} > {\tt moveboard} -d \ {\tt A} -c \ {\tt assign} \ {\tt SB4} SB at SB4 assigned to domain: A
```

EXAMPLE 2 Assigning a Blacklisted CPU Board at SB4 to Domain A

```
sc0:sms-user:> moveboard -d A -c assign SB4
SB at SB4 assigned to domain: A
Warning: CPU at SB4 is blacklisted. You will not be able to connect or configure it.
sc0:sms-user:>
```

EXAMPLE 3 Configuring an IO Board into Domain A

Note: the default function is to configure.

```
sc0:sms-user:> moveboard -d A IO2
IO2 unassigned from domain: B
IO2 assigned to domain: A
assign IO2
assign IO2 done
poweron IO2
poweron IO2 done
test IO2
test IO2 done
connect IO2
connect IO2 done
configure IO2
configure IO2 done
notify online /devices/pci@5d,700000
notify online /devices/pci@5d,600000
notify online /devices/pci@5c,700000
notify online /devices/pci@5c,600000
notify add capacity IO2 done
```

EXAMPLE 4 Connecting an IO Board at IO17 to Domain R

```
sc0:sms-user:> moveboard -d R -c connect IO17
```

EXAMPLE 5 Connecting a Blacklisted Board to Domain C

You must have platform privileges or the board must be in the domain available component list.

```
sc0:Sms-user:> moveboard -d C -c connect SB0
SB at SB0 is blacklisted. Exiting.
```

moveboard(1M) Maintenance Commands

sc0:sms-user:>

EXIT STATUS

The following exit values are returned:

0 Successful completion.

1 No Acknowledge

2 Not supported

3 Operation not supported

4 Invalid privileges

5 Busy

6 System busy

7 Data error

8 Library error

9 No Library

10 Insufficient condition

11 Invalid

12 Error

13 APID doesn't exist

14 Invalid attribute

30 Invalid board ID type

31 Invalid permissions

32 Assigned to another domain

Unable to get permissions

34 Unable to get domain board info

Unable to get active board list

36 Unable to get assigned board list

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37	Get blacklist failed
38	Solaris not running
56	DR command syntax error
68	DR operation failed

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/asr/blacklist

List of components excluded by esmd.

Note - This file is created and used internally and should *not* be edited manually. To remove a component from the ASR blacklist file, use enablecomponent(1M).

SEE ALSO

$$\label{eq:decomponent} \begin{split} &\text{addtag(1M), addboard(1M), deleteboard(1M), enablecomponent(1M),} \\ &\text{esmd(1M), showcomponent(1M)} \end{split}$$

osd(1M) Maintenance Commands

NAME

osd - OpenBoot PROM server daemon

SYNOPSIS

osd

DESCRIPTION

osd(1M) provides software support for OpenBoot PROM. It provides an SMS event-based interface to setkeyswitch(1M) for laying out IDPROM, NVRAM and REBOOTARGS information prior to domain bring up.

osd also receives mailbox commands from OpenBoot PROM. These mailbox commands are acted upon and a result is returned to OpenBoot PROM. Commands include get-time-of-day, set-time-of-day, get-idprom, get-nvram-data, set-nvram-data, get-reboot-args, set-reboot-args, and do-tunnel-switch. There is one instance of osd on the system controller (SC) shared between all domains.

This daemon is automatically started by $\verb|ssd(1M)|$. Do not start it manually from the command line.

EXTENDED DESCRIPTION

Group Privileges Required osd is run as the sms-osd user.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

setkeyswitch(1M)

Maintenance Commands pcd(1M)

NAME

pcd - platform configuration database daemon

SYNOPSIS

pcd

DESCRIPTION

pcd(1M) provides and manages controlled access to platform, domain and system board configuration data. It is an SMS daemon running on the system controller (SC) and a key component of SMS configuration. All system management applications access the database information through the pcd daemon.

In addition to managing platform configuration data, the pcd notifies registered system management applications when pertinent database changes have occurred. These notifications are registered as events and transparent to the user.

This daemon is started automatically by the ssd(1M) daemon. Do *not* start it manually from the command line.

EXTENDED DESCRIPTION

Platform data includes:

Platform type
Platform name,
Rack ID
Cacheable Memory Address Slice Map
System clock frequency
System clock type
SC IP address
SC0 to SC1 IP address
SC1 to SC0 IP address
SC to SC IP netmask

Domain data includes:

Domain ID/Tag OS version (not used) OS type (not used) Available component list Assigned board list Active board list Golden IOSRAM I/O board Virtual keyswitch setting Active Ethernet I/O board Domain creation time Domain dump state Domain bring up priority IP host address Host name Host netmask Host broadcast address

pcd(1M) Maintenance Commands

System board data includes:

Expander Position
Slot position
Board type
Board state
Domain assignment of the board
Available component list state
Board test status
Board test level
Memory cleared state

SIGNALS

SIGHUP

Rereads the database files and recaches information.

FILES

Note - Never modify these files by hand.

The following files are supported:

/var/opt/SUNWSMS/.pcd/platform_info

Contains platform database information

/var/opt/SUNWSMS/.pcd/domain_info

Contains domain database information

/var/opt/SUNWSMS/.pcd/sysboard_info

Contains system board database information

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

ssd(1M)

Maintenance Commands poweroff(1M)

NAME

poweroff - control power off

SYNOPSIS

poweroff [-q] [-y |-n] [location]

poweroff [-h]

DESCRIPTION

poweroff(1M) powers off the specified dual 48V power supply, fan tray, or board. If no arguments are specified and you have platform administrator privileges, the entire system, with the exception of the bulk power supplies, the fan trays, and the spare system controller (SC), powers off. If there are active domains utilizing the component that is going to be powered off, a listing of those domains and a "Are you sure?" prompt will be given by default.

If you do not have platform administrator privileges, the [*location*] command operand *must* be specified and the board must be assigned to a domain for which you have domain administrator or configurator privileges.

Note - This command has no effect on the position of the virtual keyswitch.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

Automatically answers "no" to all prompts. Prompts are displayed unless used with the -q option.

-q Quiet. Suppresses all messages to stdout including prompts.

When used alone, -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts, and automatically answers with either 'y' or 'n' based on the option chosen.

Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.

OPERANDS

The following operands are supported:

poweroff(1M) Maintenance Commands

location Component location separated by a space. Multiple location

forms are *not* permitted.

The following *location* forms are accepted:

SB(0...17) IO(0...17) CS(0 | 1) FT(0...7) PS(0...5)

EX(0...17) SC(0|1) [only the spare SC can be powered off.]

EXTENDED DESCRIPTION

Group Privileges Required

You must have either platform administrator or domain administrator/configurator privileges to run this command.

If you have domain privileges, you must also specify the [location] operand and the [location] must be a domain configuration unit (DCU) that is assigned to a domain for which you have domain privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Powering Off a CPU Board at Expander Position 0

In this example, poweroff forces the board off by suppressing any stdout messages and answering 'yes' to all prompts.

```
sc0:sms-user:> poweroff -qy SB0
```

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

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Maintenance Commands poweroff(1M)

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

poweron(1M)

poweron(1M) Maintenance Commands

NAME

poweron – control power up

SYNOPSIS

poweron [-q] [-y|-n] [location]

poweron -h

DESCRIPTION

power on (1M) powers on the specified dual 48V power supply, fan tray, or board. If no arguments are specified and you have platform administrator privileges, the entire system is powered on (provided that no additional 48V power supply modules need to be powered on to support the new power requirements).

If you do not have platform administrator privileges, the *location* command operand *must* be specified and the board must be assigned to a domain for which you have domain administrator or configurator privileges. If sufficient power and cooling is not available for the requested board, the poweron operation will fail. A minimum of five 48V power supply modules (4 KW modules) are required to power a fully configured system. Thus, with N+1 redundancy, six power supply modules are used. If powering on a component requires another component to be powered on, such as a board requiring a 48V power supply module, the poweron request will fail.

If a specified component is in the automatic system recovery (ASR) blacklist file, an error message is displayed. If you have platform administrator privileges you will be prompted to continue. If not, poweron exits.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

- Automatically answers "no" to all prompts. Prompts are displayed unless used with the −q option.
- Quiet. Suppresses all messages to stdout including prompts.

When used alone, -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts, and automatically answers with either 'y' or 'n' based on the option chosen.

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Maintenance Commands poweron(1M)

Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.

OPERANDS

The following operands are supported:

location Component location separated by a space. Multiple location

forms are not permitted.

The following *location* forms are accepted:

SB(0...17) IO(0...17) CS(0 | 1) FT(0...7) PS(0...5) EX(0...17)

EXTENDED DESCRIPTION

Group Privileges Required

You must have either platform administrator or domain administrator/configurator privileges to run this command.

If you have domain privileges, you must also specify the *location* operand and the *location* must be a domain configuration unit (DCU) that is assigned to a domain for which you have domain privileges.

You must have platform administrator privileges in order to power on a board listed in the ASR blacklist file.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Powering On the Dual 48V Power Supply

The power supply is located on the front side in the 0 bank position.

sc0:sms-user:> poweron PS0

EXAMPLE 2 Powering On a CPU in the ASR Blacklist File

You must have platform administrator privileges. Otherwise, poweron exits with an error.

poweron(1M) Maintenance Commands

sc0:sms-user:> poweron SB0
Component SB0 is in the ASR blacklist.
Are you sure you want to continue the power ON (yes/no)? Y

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/asr/blacklist

List of components excluded by esmd.

Note - This file is created and used internally and should not be edited manually.

SEE ALSO

 ${\tt esmd}(1M), \ {\tt poweroff}(1M)$

Maintenance Commands rcfgadm(1M)

NAME

SYNOPSIS

rcfgadm - remote configuration administration

rcfgadm -d *domain_id* | *domain_tag* [-f] [-y|-n] [-v] [-o *hardware_options*] -c *function* [-r *retry_count*[-T *timeout*]] *ap_id...*

rcfgadm -d *domain_id* | *domain_tag* [-f] [-y|-n] [-v] [-o *hardware_options*] -x *hardware_function ap_id...*

rcfgadm -d domain_id | domain_tag [-v] [-a] [-s listing_options] [-o hardware_options] [-1 [ap_id| ap_type]...]

rcfgadm -d domain_id | domain_tag [-v] [-o hardware_options] -t ap_id...

DESCRIPTION

rcfgadm(1M) provides remote configuration administration operations on dynamically reconfigurable hardware resources. The rcfgadm command allows configuration administration operations on the specified domain from the system controller. These operations include displaying status, (-1), initiating testing, (-t), invoking configuration state changes, (-c), invoking hardware specific functions, (-x), and obtaining configuration administration help messages (-h).

rcfgadm performs configuration administration at attachment points, which are places where system software supports dynamic reconfiguration of hardware resources during continued operation of Solaris software.

Configuration administration makes a distinction between hardware resources that are physically present in the machine and hardware resources that are configured and visible to the Solaris environment. The nature of configuration administration functions are hardware-specific and are performed by calling hardware-specific libraries.

Configuration administration operates on an attachment point. Hardware resources located at attachment points can or cannot be physically replaceable during system operation, but are dynamically reconfigurable by way of the configuration administration interfaces.

An attachment point defines two unique elements, which are distinct from the hardware resources that exist beyond the attachment point. The two elements of an attachment point are a receptacle and an occupant. Physical insertion or removal of hardware resources occurs at an attachment point and results in a receptacle gaining or losing an occupant. Configuration administration supports the physical insertion and removal operations, as well as other configuration administration functions at an attachment point.

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Attachment points have associated state and condition information. The configuration administration interfaces provide control for transitioning attachment point states. A receptacle can exist in one of three states: empty, disconnected, or connected, while an occupant can exist in one of two states: configured or unconfigured.

A receptacle can provide the empty state, which is the normal state of a receptacle when the attachment point has no occupants. A receptacle can also provide the disconnected state if it has the capability of isolating its occupants from normal system access. Typically this state is used for various hardware specific testing prior to bringing the occupant's resources into full use by the system, or as a step in preparing an occupant for physical removal or reconfiguration. A receptacle in the disconnected state isolates its occupant from the system as much as its hardware allows, but can provide access for testing and setup. A receptacle must provide the connected state, which allows normal access to hardware resources contained on any occupants. The connected state is the normal state of a receptacle that contains an occupant and that is not currently undergoing configuration administration operations.

The hardware resources contained on an occupant in the unconfigured state are not represented by normal Solaris software data structures and are thus not available for use by the Solaris operating environment. Operations allowed on an unconfigured occupant are limited to configuration administration operations. The hardware resources of an occupant in the configured state are represented by normal Solaris software data structures and thus some or all of those hardware resources can be in use by the Solaris operating environment. All occupants provide both the configured and unconfigured states.

An attachment point can be in one of five conditions: unknown, ok, failing, failed, or unusable. An attachment point can enter the system in any condition, depending upon results of power-on tests and non volatile record keeping.

An attachment point with an occupant in the configured state is in one of four conditions: unknown, ok, failing, failed. If the condition is not failing or failed, an attachment point can change to failing during the course of operation if a hardware-dependent recoverable error threshold is exceeded. If the condition is not failed, an attachment point can change to failed during operation as a result of an unrecoverable error.

An attachment point with an occupant in the unconfigured state can be in any of the defined conditions. The condition of an attachment point with an unconfigured occupant can decay from ok to unknown after a system-dependent time threshold. Initiating a test function changes the attachment point condition to ok, failing, or failed, depending on the outcome of the test. An attachment point that does not provide a test function

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can leave the attachment point in the unknown condition. If a test is interrupted, the attachment point condition can be set to the previous condition, unknown, or failed. An attachment point in the unknown, ok, failing, or failed conditions can be retested.

An attachment point can exist in the unusable condition for a variety of reasons, such as inadequate power or cooling for the receptacle, an occupant that is unidentifiable, unsupported, incorrectly configured, and so on. An attachment point in the unusable condition can never be used by the system. It typically remains in this condition until the physical cause is remedied.

An attachment point also maintains busy information that indicates when a state change is in progress or the condition is being re-evaluated.

Attachment points are referred to using hardware-specific identifiers (ap_ids) that are related to the type and location of the attachment points in the system device hierarchy. An ap_id cannot be ambiguous; it must identify a single attachment point. Two types of ap_id specifications are supported: physical and logical. A physical ap_id contains a fully specified path name, while a logical ap_id contains a shorthand notation that identifies an attachment point in a more user-friendly way.

For example, an attachment point representing system board 6 would have a physical *ap_id* of /devices/pseudo/dr@0:SB6 while the logical *ap_id* is SB6.

Attachment points can also be created dynamically. A dynamic attachment point is named relative to a base attachment point which is present in the system. ap_ids for dynamic attachment points consist of a base component followed by two colons (::) and a dynamic component. The base component is the base attachment point ap_id . The dynamic component is hardware-specific and generated by the corresponding hardware-specific library.

For example, consider a base attachment point, which represents a system board, with the physical ap_id /devices/pseudo/dr@0:SB16 and logical ap_id SB16. A cpu attached to this system board could be represented by a dynamic attachment point with logical ap_id SB16::cpu2 where SB16 is the base component and cpu2 is the hardware-specific dynamic component. Similarly the physical ap_id for this dynamic attachment point would be:

/devices/pseudo/dr@0:SB16::cpu2.

An *ap_type* is a partial form of a logical *ap_id* that can be ambiguous and not specify a particular attachment point. An *ap_type* is a substring of the portion of the logical *ap_id*, up to but not including, the colon (:) separator. For example, an *ap_type* of pci would show all attachment points whose logical *ap_ids* begin with pci.

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The use of *ap_types* is discouraged. The new select suboption to the -s option provides a more general and flexible mechanism for selecting attachment points. See OPTIONS.

rcfgadm interacts primarily with hardware-dependent functions contained in hardware-specific libraries and, thus, its behavior is hardware-dependent.

For each configuration administration operation, a service interruption can be required. If the requested operation requires a noticeable service interruption to interactive users, confirmation is requested before the operation is started. A prompt is output on the standard error output for confirmation on the standard input. Confirmation can be overridden using the -y or -n options to always answer yes or no, respectively. Hardware-specific options, such as *test level*, are supplied as suboptions using the -o option.

Operations that change the state of the system configuration are audited by the system log daemon syslogd(1M).

The arguments for this command conform to the getopt(3C) and getsubopt(3C) syntax conventions.

Refer to the Sun Fire 15K Dynamic Reconfiguration User Guide for more information.

OPTIONS

The following options are supported:

-a

Specifies that the -1 option must also list dynamic attachment points.

−c function

Performs the state change function on the attachment point specified by ap_id .

Specify function as disconnect, connect, configure, or unconfigure. These functions cause state transitions at the attachment point by calling hardware-specific library routines.

Note - If the rcfgadm command fails, a board does not return to its original state. A dxs or dca error message is logged to the domain. If the error is recoverable you can retry the command. If it is unrecoverable, you will need to reboot the domain in order to use that board.

The possible transition states and their meaning are as follows:

disconnect

Change the receptacle state to disconnected.

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If the occupant state is configured, the disconnect function first attempts to unconfigure the occupant. The disconnect function powers the board off by default. The board is ready to be removed from the slot at that point. The —o nopoweroff option specifies skipping the power off step, leaving the board powered on. The board is left assigned to the domain by default. The —o unassign option instructs the domain to give up the ownership of the board once the board is disconnected. Once the board has been unassigned, it may no longer be accessible to cfgadm since another domain might have assigned the board to itself.

connect

Performs hardware-specific operations to put the receptacle in the connected state, which allows an occupant to operate normally through the receptacle.

■ configure

Performs hardware-specific operations that allow an occupant's hardware resources to be usable by Solaris software. Occupants that are configured are part of the system configuration and are available for manipulation by Solaris software device manipulation maintenance commands (for example, psradm(1M), mount(1M), ifconfig(1M)).

■ unconfigure

Performs hardware-specific operations that logically remove an occupant's hardware resources from the system. The occupant must currently be configured and its hardware resources must not be in use by the Solaris operating environment.

State transition functions can fail due to the condition of the attachment point or other hardware-dependent considerations. All state change functions in the direction of adding resources (connect and configure) are passed on to the hardware-specific library when the attachment point is in the ok or unknown condition. All other conditions require the use of the force (-f) option to allow these functions to be passed on to the hardware-specific library. Attachment point condition does not prevent a hardware-specific library being called, for the removal (disconnect and unconfigure) of hardware resources from the system. Hardware-specific libraries can reject state change functions if the attachment point is in the unknown condition.

The condition of an attachment point is not necessarily changed by the state change functions; however, errors during state change operations can change the attachment point condition. An attempt to override a condition and force a state change that would otherwise fail can be made by

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specifying the force option (-f). Hardware-specific safety and integrity checks can prevent the force option from having any effect.

-d domain_id

ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

-d domain_tag

Name assigned to a domain using addtag(1M).

-f

Forces the specified action to occur. Typically, this is a hardware-dependent override of a safety feature. Forcing a state change operation can allow use of the hardware resources of an occupant that is not in the ok or unknown conditions, at the discretion of any hardware-dependent safety checks.

-h [ap_id|ap_type]

Prints out the help message text. If *ap_id* or *ap_type* is specified, the help routine of the hardware-specific library for the attachment point indicated by the argument is called.

-1 [ap_id|ap_type]

Lists the state and condition of attachment points specified. Attachment points can be filtered by using the -s option and select suboption. Invoking refgadm without one of the action options is equivalent to -1 without an argument. The format of the list display is controlled by the -v and -s options. When the -a option is specified, attachment points are dynamically expanded.

■ -o parsable

Return the information as a set of "name=value" pairs separated by the space character. All strings will be enclosed within double quotes. Any double quote and "\" characters in a string will be escaped with a "\". The parsable option is intended to be used in conjunction with the -s option of cfgadm.

-n

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Automatically answers "no" to all prompts.

*−*o *hardware_options*

Supplies hardware-specific options to the main command option.

The following are valid hardware_options:

■ parsable

Applies only when the -1 option is used. The parsable suboption specifies info is returned as a set of "name=value" pairs.

■ unassign

Applies only when the -c disconnect option is used. The unassign suboption specifies the domain is to give up ownership of the board.

■ nopoweroff

Applies only when the -c disconnect option is used. The nopoweroff suboption specifies the board is not to be powered off after it is disconnected.

-r retry_count

Specifies the number of times the dynamic reconfiguration (DR) request is retried on the domain. The default is zero.

−s listing_options

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Supplies listing options to the list (-1) command. *listing_options* conforms to the getsubopt(3C) syntax convention. The suboptions are used to specify the attachment point selection criteria (select=select_string), the type of matching desired (match=match_type), order of listing (sort=field_spec), the data that is displayed (cols=field_spec and cols2=field_spec), the column delimiter (delim=string) and whether to suppress column headings (noheadings).

When the select suboption is specified, only attachment points which match the specified criteria are listed. The select suboption has the following syntax:

```
rcfgadm -s select=attr1(value1):attr2(value2)...
```

where an attr is one of *ap_id*, *class* or *type*. *ap_id* refers to the logical *ap_id* field, *class* refers to attachment point class and *type* refers to the type field. *value1*, *value2*, and so on, are the corresponding values to be matched. The type of match can be specified by the match suboption as follows:

```
rcfqadm -s match=match_type, select=attr1(value1)...
```

where *match_type* can be either exact or partial. The default value is exact.

Suboptions can contain special characters which can be interpreted in ways other than part of rcfgadm suboptions. For example, a command may contain parentheses which are acceptable for suboptions but are interpreted as special characters when entered on the command line. Arguments to the select suboption can be quoted to protect them from the UNIX C shell interpretation.

A field_spec is one or more data-fields concatenated using a colon (:), as in data-field:data-field:data-field. A data-field is one of ap_id, physid, r_state, o_state, condition, type, busy, status_time, status_time_p and info. The ap_id field output is the logical name for the attachment point, while the physid field contains the physical name. The r_state field can be empty, disconnected, or connected. The o_state field can be configured or unconfigured. The busy field can be either y if the attachment point is busy, or n if it is not. The type and info fields are hardware-specific. The status_time_p field is a parsable version of the status_time field. If an attachment point has an associated class, the class field lists the class name.

The order of the fields in *field_spec* is significant. For the sort suboption, the first field given is the primary sort key. For the cols and cols2 suboptions, the fields are printed in the order requested. The order of sorting on a data-field can be reversed by placing a minus (-) before the data-field name within the *field_spec* for the sort suboption. The default value for sort is *ap_id*. The default values for cols and cols2 depend on whether the -v

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option is given: Without it, cols is

ap_id:r_state:o_state:condition and cols2 is not set; with -v, cols is ap_id:r_state:o_state:condition:info and cols2 is status_time:type:busy:physid. The default value for delim is a single space. The value of delim can be a string of arbitrary length. The delimiter cannot include a comma (,) character;; see getsubopt(3C). These listing options can be used to create parsable output. See NOTES.

−T timeout

Specifies the time interval, in seconds, between retries. This option must be specified with the -r *retry_count* option. The default value is zero, meaning the DR request is retried immediately.

-t

Performs a test of one or more attachment points. The test function is used to re-evaluate the condition of the attachment point.

The results of the test are used to update the condition of the specified occupant to either ok if no faults are found, failing if recoverable faults are found, or failed if any unrecoverable faults are found.

If a test is interrupted, the attachment point condition can be restored to its previous value, set to unknown if no errors were found, set to failing if only recoverable errors were found or set to failed if any unrecoverable errors were found. The attachment point should only be set to ok upon normal completion of testing with no errors.

-v

Executes in verbose mode. For the -c, -t, and -x options, outputs a message giving the results of each attempted operation. Outputs detailed help information for the -h option. Outputs verbose information for each attachment point for the -1 option.

-x hardware_function

Performs hardware-specific functions.

The following are valid hardware_function:

■ assign ap_id

Assign a board to a domain.

■ unassign *ap_id*

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Unassign a board to a domain.

■ poweron ap_id

Power on a board.

■ poweroff ap_id

Power off a board..

List hardware-specific private functions using rcfgadm —h ap_id. —y

Automatically answers "yes" to all prompts. Prompts are displayed.

OPERANDS

The following operands are supported: ap_id

Attachment points are referred to using hardware-specific identifiers (ap_ids) that are related to the type and location of the attachment points in the system device hierarchy. An ap_id cannot be ambiguous; it must identify a single attachment point. Two types of ap_id specifications are supported: physical and logical. A physical ap_id contains a fully specified path name, while a logical ap_id contains a shorthand notation that identifies an attachment point in a more user-friendly way.

EXAMPLE 1 Physical ap_ids

```
/devices/pseudo/dr@0:IO4
/devices/pseudo/dr@0:IO6
/devices/pseudo/dr@0:IO14
/devices/pseudo/dr@0:SB4
/devices/pseudo/dr@0:SB6
```

EXAMPLE 2 Logical ap_ids

```
IO6
IO14
SB4
SB6
```

IO4

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```
ap_type
```

An ap_type is a partial form of a logical ap_id that can be ambiguous and not specify a particular attachment point. An ap_type is a substring of the portion of the logical ap_id up to, but not including, the colon (:) separator. For example, an ap_type of pci would show all attachment points whose logical ap_id s begin with pci.

```
EXAMPLE 3 ap_types
```

Static ap_types

HPCI CPU MCPU pci-pci/hp

Dynamic ap_types

cpu mem

EXTENDED DESCRIPTION

Group Privileges Required

The privileges required to use this command depend on the desired operation. rcfgadm can assign or unassign boards which are not connected to a domain. To assign or unassign a board, you must have either platform administrator privileges or domain administrator/configurator privileges and the board must be in the domain's available component list. For more information, see setupplatform(1M) and showplatform(1M).

The assign and unassign operations are private hardware-specific operations. Assign a board using rcfgadm -x assign ap_id . Unassign a board using rcfgadm -x unassign ap_id . The ap_id s for assign and unassign must be logical ap_id s specifying a board such as: SB0 or IO2.

Domain administrator or domain configurator privileges are required for test, state change, or hardware-specific operations.

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You must have domain administrator or configurator privileges on the domain specified. Otherwise, you must have platform administrator privileges.

No privileges are required for listing operations.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 4 Listing Attachment Points in the Device Tree for Domain A

The following example lists all attachment points except dynamic attachment points.

scu:SI	scu:sms-user:> reigadm -d a				
Ap_Id	Type	Receptacle connected	Occupant	Condition	
IO4	PCI		configured	ok	
IO6 IO14	MCPU PCI	disconnected connected	unconfigured configured	unknown ok	
SB4	CPU	disconnected	unconfigured	unknown	
SB6	CPU	connected	configured	ok	
SB16	CPU	connected	configured	ok	

EXAMPLE 5 Listing All Configurable Hardware Information for Domain A

The following example lists all current configurable hardware information, including those represented by dynamic attachment points:

sc0:sms-user:>	rcfgadm -d a	a -al		
Ap_Id	Type	Receptacle	Occupant	Condition
IO4	PCI	connected	configured	ok
I04::pci0	io	connected	configured	ok
IO4::pcil	io	connected	configured	ok
I04::pci2	io	connected	configured	ok
IO4::pci3	io	connected	configured	ok
I06	MCPU	disconnected	unconfigured	unknown
IO14	PCI	connected	configured	ok
I014::pci0	io	connected	configured	ok
I014::pci1	io	connected	configured	ok
I014::pci2	io	connected	configured	ok
I014::pci3	io	connected	configured	ok
SB4	CPU	disconnected	unconfigured	unknown
SB6	CPU	connected	configured	ok
SB6::cpu0	cpu	connected	configured	ok
SB6::cpu1	cpu	connected	configured	ok
SB6::cpu2	cpu c	connected con	nfigured ok	
SB6::cpu3	cpu	connected	configured	ok
SB6::memory	memory	connected	configured	ok
SB16	CPU	connected	configured	ok
SB16::cpu0	cpu	connected	configured	ok
SB16::cpul	cpu	connected	configured	ok
SB16::cpu2	cpu	connected	configured	ok

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SB16::cpu3	cpu	connected	configured	ok
SB16::memory	memory	connected	configured	ok

EXAMPLE 6 Selective Listing Based on Attachment Point Attributes for Domain A

The following example lists all attachment points at *location* SB6, and *type* cpu. The argument to the -s option is quoted to protect it from the shell.

Ap_Id Type Receptacle Occupant Condition SB6::cpu0 cpu connected configured ok SB6::cpu1 cpu connected configured ok SB6::cpu2 cpu connected configured ok SB6::cpu3 cpu connected configured ok	sc0:sms-user:>	rcfgadm -d	a -s match=	partial,select	="type(cpu)"	-la SB6
SB6::cpu3 cpu connected configured ok	SB6::cpu0 SB6::cpu1 SB6::cpu2	cpu cpu	connected connected connected	configured configured configured	ok ok ok	
	SB6::cpu3	cpu	connected	configured	ok	

The following example lists current configurable hardware information in verbose mode:

```
sc0:sms-user:> rcfgadm -d a -v -l SB16

Ap_Id Receptacle Occupant Condition Information
SB16 connected configured ok powered-on, assigned

When Type Busy Phys_Id
Mar 6 13:30 CPU n /devices/pseudo/dr@0:SB16
```

EXAMPLE 8 Force Option on Domain A

The following example configures an occupant in the failing state to the system using the force option:

```
sc0:sms-user:> rcfgadm -d a -f -c configure SB6
```

EXAMPLE 9 Unconfiguring an Occupant From the System on Domain A

The following example unconfigures an occupant from the system:

```
sc0:sms-user:> rcfgadm -d a -c unconfigure IO14
```

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EXAMPLE 10 Configuring an Occupant at an Attachment Point

The following example configures an occupant:

```
sc0:sms-user:> rcfgadm -d a -c configure SB6
```

ENVIRONMENT VARIABLES

See environ(5) for descriptions of the following environment variables that affect the execution of command_name: LC_TIME,LC-MESSAGES,TZ.

LC_MESSAGES Determines how rcfgadm displays column

headings and error messages. Listing output data is not affected by the setting of this variable.

LC_TIME Determines how rcfgadm displays

human-readable status changed time (status_time).

TZ Specifies the time zone used when converting the

status changed time. This applies to both the human-readable (*status_time*) and parsable

(status_time_p) formats.

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 No Acknowledge
- 2 Not supported
- 3 Operation not supported
- 4 Invalid privileges
- 5 Busy
- 6 System busy
- 7 Data error
- 8 Library error
- 9 No Library

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10	Insufficient condition
11	Invalid
12	Error
13	APID doesn't exist
14	Invalid attribute
30	Invalid board ID type
31	Invalid permissions
32	Assigned to another domain
33	Unable to get permissions
34	Unable to get domain board info
35	Unable to get active board list
36	Unable to get assigned board list
37	Get blacklist failed
38	Solaris not running
56	DR command syntax error
68	DR operation failed

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

 $\label{eq:local_state} \verb"addtag"(1M), cfgadm_sbd(1M), setupplatform(1M), showplatform(1M)$

DIAGNOSTICS

Diagnostic messages appear on the standard error output. Other than options and usage errors, the following are diagnostic messages produced by this utility:

rcfgadm: Configuration administration not supported on ap_id

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```
rcfgadm: No library found for ap_id
rcfgadm: ap_id is ambiguous
rcfgadm: Operation: Insufficient privileges
rcfgadm: Attachment point is busy, try again
rcfgadm: No attachment points with specified attributes found
rcfgadm: System is busy, try again
rcfgadm: Operation: Operation requires a service interruption
rcfgadm: Operation: Data error: error_text
rcfgadm: Operation: Hardware specific failure: error_text
rcfgadm: Attachment point not found
rcfgadm: Configuration operation succeeded
rcfgadm: Configuration operation cancelled
rcfgadm: Configuration operation invalid
rcfgadm: Configuration operation not supported
rcfgadm: Library error
rcfgadm: Insufficient condition
rcfgadm: SCDR/DCA door failure
rcfgadm: DCA/DCS communication error
rcfgadm: DCA internal failure
rcfgadm: PCD event failure
rcfgadm: Callback function failure
rcfgadm: SCDR library internal error
rcfgadm: Board is already assigned to another domain
rcfgadm: Unable to get active or assigned domain info
rcfgadm: Unable to get privileges
rcfgadm: DRCMD library invalid parameter
See config_admin(3CFGADM) for additional details regarding error
messages.
```

Maintenance Commands reset(1M)

NAME	reset – send reset to all CPU ports of a specified domain		
SYNOPSIS	reset [-d domain_id domain_tag] [-d domain_id domain_tag] [-q] [-y -n] [-x]		
	reset –h		
DESCRIPTION	reset(1M) allows you to reset one or more domains in one of two ways: reset the hardware to a clean state or send an externally initiated reset (XIR) signal. The default is to reset the hardware to a clean state. You will receive an error if the virtual keyswitch is in the secure position. An optional confirmation prompt is given by default. Refer to Chapter 6 in the System Management Services (SMS) 1.2 Administrator Guide for more information.		
OPTIONS	-d domain_id ID for a domain. Valid domain_ids are 'A''R' and are case insensitive.		
	-d domain_tag	Name assigned to a domain using addtag(1M).	
	-h	Help. Displays usage descriptions.	
		Note - Use alone. Any option specified in addition to -h is ignored.	
	-n	Automatically answers "no" to all prompts. Prompts are displayed unless used with the $-\mathtt{q}$ option.	
	-d	Quiet. Suppresses all messages to stdout including prompts.	
		When used alone, $-q$ defaults to the $-n$ option for all prompts.	
		When used with either the $-y$ or the $-n$ option, $-q$ suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.	
	-x	Send an XIR signal to the processors in the specified domain.	
	-у	Automatically answers "yes" to all prompts. Prompts are displayed unless used with the $-\mathtt{q}$ option.	

EXTENDED DESCRIPTION

reset(1M) Maintenance Commands

Group Privileges Required

You must have domain administrator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Reset Domain C

EXAMPLES

EXAMPLE 2 XIR Reset of Domain C

sc0:sms-user:> reset -d C -x
Do you want to send XIR to domain C? [y|n]:
XIR to processor SB3/P0 initiated
XIR to processor SB3/P1 initiated
XIR to processor SB3/P2 initiated
XIR to processor SB3/P3 initiated
XIR to processor SB3/P3 initiated
XIR initiated to all processors for domain: C

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M)

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Maintenance Commands resetsc(1M)

NAME

resetsc – reset the *other* system controller (SC)

SYNOPSIS

resetsc [-q][-y|-n]

resetsc -h

DESCRIPTION

resetsc(1M) resets the *other* SC. This might typically be done after failover. This command runs either from the main SC and resets the spare or from the spare and resets the main. An SC cannot reset itself. If the SC chosen is not powered on, resetsc prompts the user to power it on. If the chosen SC does not power on, resetsc exits with an error.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-n Automatically answers "no" to all prompts. Prompts are displayed unless used with the -q option.

-q Quiet. Suppresses all messages to stdout including prompts.

When used alone, -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.

Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

resetsc(1M) Maintenance Commands

EXAMPLES

EXAMPLE 1 Resetting the Other SC Using Prompts

sc0:sms-user:> resetsc

"About to reset other SC. Are you sure you want to continue? (y or [n])"

EXAMPLE 2 Resetting the Other SC When the Other SC Is Powered Off

sc0:sms-user:> resetsc

"The other SC is not powered on. Do you want to try to power it on? (y or [n])"

EXAMPLE 3 Resetting the Other SC Answering Yes to All Prompts

sc0:sms-user:> resetsc -y

"About to reset other SC. Are you sure you want to continue? [y]"

EXAMPLE 4 Resetting the Other SC Suppressing All Prompts

sc0:sms-user:> resetsc -q

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 The user has invalid permission.
- 2 Memory allocation failed.
- 3 Cannot determine other SC's presence.
- 4 Other SC is not present.
- 5 Cannot determine power state of other SC..
- 6 Unable to power on other SC.

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Maintenance Commands resetsc(1M)

- 7 Unable to reset other SC.
- 8 Flag registration failed.
- 9 Invalid command line argument.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

runcmdsync(1M) Maintenance Commands

NAME

runcmdsync - prepare a specified script for recovery after a failover

SYNOPSIS

runcmdsync script_name [parameters]

runcmdsync -h

DESCRIPTION

The runcmdsync(1M) command prepares the specified script for automatic synchronization (recovery) after a failover. runcmdsync creates a command synchronization descriptor that identifies the script to be recovered. This descriptor is added to the command synchronization list that determines the scripts to be restarted after a failover. The runcmdsync command also removes this descriptor from the command synchronization list when the script terminates.

To specify restart points in a script, see ${\tt initcmdsync}(1M)$ and the family of synchronization commands.

OPTIONS

The following options are supported:

–h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

script_name

Identifies the script to be prepared for command synchronization.

parameters

Specifies the options or parameters associated with the specified script. These parameters are stored on the spare system controller (SC) and are used to restart the specified command or script after an automatic failover.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

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Maintenance Commands runcmdsync(1M)

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Architecture	All
Availability	SUNWSMSop
Stability	Evolving
MT-Level	Safe

SEE ALSO

 $\texttt{cancelcmdsync}(1M),\, \texttt{initcmdsync}(1M),\,\, \texttt{savecmdsync}(1M),\,\, \texttt{and}\,\,\, \texttt{showcmdsync}(1M\,)$

cmdsync(1M) Maintenance Commands

NAME

 $init cmd sync,\ cmd sync,\ cancel cmd sync,\ save cmd sync -\ command \ synchronization\ commands$

SYNOPSIS

cancelcmdsync cmdsync_descriptor

initcmdsync script_name [parameters]

savecmdsync -M identifier cmdsync_descriptor

[cancel | init | save|cmdsync -h

DESCRIPTION

The command synchronization commands work together to control the recovery of user-defined scripts interrupted by a system controller (SC) failover. Insert the following commands in user-defined scripts to enable command synchronization:

initcmdsync creates a command synchronization descriptor that identifies the script to be recovered.

This descriptor is placed on a command synchronization list that identifies the scripts and commands to be restarted on the new main SC after a failover.

- savecmdsync adds a marker that identifies a location in the script from which processing can be resumed after a failover.
- cancelcmdsync removes a command synchronization descriptor from the command synchronization list. This ensures that the script is run only once and not after subsequent failovers.

Be sure that all exit paths of a script have a cancelcmdsync sequence to remove the descriptor from the command synchronization list. If you do not remove the descriptor and a failover occurs, the script will be rerun on the new main SC.

Note - Both an initemdsyne and a cancelemdsyne sequence must be contained within a script to enable command synchronization. The use of the saveemdsyne command is optional and is used only to mark specific points in a script from which processing can be resumed. If specific restart points are not needed, consider using runemdsyne(1M) instead.

OPTIONS

The following options are supported:

cmdsync_descriptor Specifies the command synchronization

descriptor that identifies the user-defined script. This descriptor is the standard output value returned by the initemdsync command.

-h Help. Displays usage descriptions.

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Maintenance Commands cmdsync(1M)

Note - Use alone. Any option specified in addition to -h is ignored.

-M *identifier* Marks a location in the script from which the

script can be resumed after a failover. The identifier must be a positive integer.

parameters Specifies the options or parameters associated

with the user-defined script. These parameters are stored on the spare SC and are used to restart

the specified script after a failover.

script_name Identifies the name of the user-defined script to

be synchronized.

EXTENDED DESCRIPTION

The command synchronization commands are inserted at certain logical points within a user-defined script.

For instance, a Korn shell script might be structured as follows:

```
# MAIN CODE STARTS HERE
# Be sure to use a cleanup procedure to handle any interrupts.
# Use the cancelcmdsync to remove the script from the command
# synchronization list. Otherwise, the command will get restarted
# on the new main SC.
clean_up () {
     cancelcmdsync $desc
     exit
}
# Declare the clean_up function to capture system signals
# and cleanup.
trap "clean_up" INT HUP TERM QUIT PWR URG
goto_label=1
# Process the arguments, capturing the -M marker point if provided
for arg in $*; do
   case $arg in
        -M )
   goto_label=$arg;;
   esac
done
# Place this script and all its parameters in the command synchronization
# list, which indicates the commands to be restarted after an SC failover.
# NOTE: The script must be executable by the user defined in fomd.cf
```

cmdsync(1M) Maintenance Commands

```
# and reside in the same directory on both the main and the spare SC.
# If the command is not part of the defined PATH for the user, the
# absolute filename must be passed with the initcmdsync command.
\verb"initcmdsync" \textit{script\_name parameters}
# The marker point is stored in the goto_label variable.
\mbox{\#} Keep executing this script until all cases have been processed or an
# error is detected.
while (( $goto_label != 0 )); do
     # Each case should represent a synchronization point in the script.
     case $goto_label in
          # Step 1: Do something
          1 )
               do_something
               # Execute the savecmdsync command with the script's
               # descriptor and a unique marker to save the position.
               # If a failover occurs here, the commands
               # represented in the next goto_label (2) will be
               # resumed.
               savecmdsync -M $(( $goto_label + 1 )) $desc
               goto_label=$(( $goto_label + 1 ))
               ;;
          # Step 2: Do more things
          2 )
               do_more_things
               savecmdsync -M $(( $goto_label + 1 )) $desc
               goto_label=$(( $goto_label + 1 ))
          # Step 3: Finish the last step and set the goto_label to 0
          # so that the script ends.
          3 )
               finish_last_step
               goto_label=0
```

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esac
done

END OF MAIN CODE

Remember to execute cancelcmdsync to remove the script from the
command synchronization list. Otherwise, the command will be restarted
after the failover.
#
cancelcmdsync \$desc

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

Note - The standard output for initemdsync contains the command synchronization descriptor. Also, when failover is disabled (after a failover or in a single SC environment), scripts that contain synchronization commands generate error messages to the platform log file and return nonzero exit codes. These messages can be ignored.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Architecture	All
Availability	SUNWSMSop
Stability	Evolving
MT-Level	Safe

SEE ALSO

runcmdsync(1M), showcmdsync(1M)

NOTES

An example of a user-defined script (with synchronization commands) is provided in the /opt/SUNWSMS/examples/cmdsync directory.

setbus(1M) Maintenance Commands

NAME

SYNOPSIS

setbus - perform dynamic bus reconfiguration on active expanders in a domain

setbus [-q] [-y |-n] -c CS0 | CS1 | CS0,CS1 [-b buses] [location...]

setbus -h

DESCRIPTION

setbus(1M) dynamically reconfigures bus traffic on active expanders in a domain to use either one centerplane support board (CSB) or both. Using both CSBs is considered normal mode. Using one CSB is considered degraded mode.

This feature can allow you to swap out a CSB without having to power off the system.

OPTIONS

Note - The -y and -n are optional arguments to the setbus(1M) command. If one of these optional arguments is not provided, setbus prompts the user with a confirmation message.

If changing the configuration on the chosen expander will require changing the configuration on additional expanders, setbus displays the following message:

The expander board in position *location* communicates with expanders not already listed, and will be added to the list of boards to reconfigure.

−b buses	Specifies which <i>buses</i> to configure. There are three <i>buses</i> to configure. Valid <i>buses</i> are:
	a — Configures the address bus
	d — Configures the data bus
	${\tt r}$ — Configures the response bus
	The default is to configure all three buses.
-с CS0 CS1 CS0,CS1	Specifies which CSB(s) to use.
	CSO— Configures the hardware to use CSO (degraded mode)
	CS1— Configures the hardware to use CS1 (degraded mode)
	CSO,CS1— Configures the hardware to use both CSBs (normal mode)

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Maintenance Commands setbus(1M)

-h	Help. Displays usage descriptions.
	Note - Use alone. Any option specified in addition to -h is ignored.
-n	Automatically answers "no" to all prompts. Prompts are displayed unless used with the -q option.
-d	Quiet. Suppresses all messages to stdout including prompts.
	When used alone, $-q$ defaults to the $-n$ option for all prompts.
	When used with either the -y or the -n option, -q suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.
-у	Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.
The following operands are	e supported:
location	Specifies which expander slots to configure. The default is to configure all. Multiple <i>location</i> s are separated by spaces.
	Valid locations are:
	EX0-EX17
You must have platform accommunicating expanders	dministrator privileges to reconfigure any set of (SOCX) in the system.
	configurators can reconfigure only the SOCX in which they have privileges.

OPERANDS

EXTENDED DESCRIPTION

Group Privileges Required setbus(1M) Maintenance Commands

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Set All Buses on All Active Domains to Use CS0

sc0:sms-user:> setbus -c CS0

EXAMPLE 2 Set All Buses on All Active Domains to Use Both CSBs

sc0:sms-user:> setbus -c CS0,CS1

EXAMPLE 3 Set Address Bus on All Active Domains to Use CS0

sc0:sms-user:> setbus -c CS0 -b a

EXAMPLE 4 Set Address and Data Buses on Active EX1 to Use CS1

sc0:sms-user:> setbus -c CS1 -b ad EX1

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

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Maintenance Commands setbus(1M)

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

showbus(1M)

setdatasync(1M) Maintenance Commands

NAME

setdatasync - modify the data propagation list used in data synchronization

SYNOPSIS

setdatasync [-i interval] schedule filename

setdatasync cancel filename

setdatasync push filename

setdatasync backup

setdatasync -h

DESCRIPTION

setdatasync enables you to specify a user-created file to be added to or removed from the data propagation list. This list identifies the files to be copied from the main to the spare system controller (SC) as part of data synchronization for automatic failover. The specified user file and the directory in which it resides must have read and write permissions for the user on both SCs.

Note - Data synchronization uses the available disk space under the <code>/var/opt/SUNWSMS</code> directory to copy files from the main SC to the spare. If you have files to be copied that are larger than the <code>/var/opt/SUNWSMS</code> directory, those files cannot be propagated. For example, if the data synchronization backup file (<code>ds_backup.cpio</code>) gets larger than the available space in <code>/var/opt/SUNWSMS</code>, you must reduce the size of this backup file before data propagation can occur. The size of the <code>sms_backup.cpio</code> file gives you an indication of the size of the data synchronization backup file. To create more disk space you can remove the following files:

- /var/opt/SUNWSMS/adm/platform/messages.X
- /var/opt/SUNWSMS/adm/domain_id/messages.X
- /var/opt/SUNWSMS/adm/domain_id/post/files

where x is the archive number of the file. Because these files are propagated from the new main SC to the spare after a failover, remove these files on both the main and spare SC.

The data synchronization process checks the user-created files on the main SC for any changes. If the user-created files on the main SC have changed since the last propagation, they are repropagated to the spare SC. By default, the data synchronization process checks a specified file every 60 minutes; however, you can use setdatasync to indicate how often a user file is to be checked for modifications.

Maintenance Commands setdatasync(1M)

Note - After a file is propagated from the main SC to the spare, the file is repropagated to the spare only when the file on the main SC is updated. If you remove a propagated file from the spare SC, that file will not be automatically repropagated until the corresponding file on the main SC has been changed.

You can also use setdatasync to do the following:

- Propagate a specified file to the spare SC without adding the file to the data propagation list.
- Resynchronize the SC configuration files on the main and spare SCs.

OPTIONS

The following options are supported:

backup	Backs up the main SC using smsbackup(1M),
	moves the backup data from the main to the
	spare SC, and restores the backup data on the
	spare SC. For more information, see

smsbackup(1M).

cancel filename Removes (cancels) the specified file from the data

propagation list, which means the specified file will no longer be propagated to the spare SC. This option does not actually remove the specified file from the spare SC. The file name must contain the absolute path and cannot be a

symbolic link to another file.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in

 $addition\ to\ -\!h\ is\ ignored.$

−i *interval* Indicates how often the specified file is to be

checked for modifications. The default interval is 60 minutes. The interval can range from 1 to 1440

minutes (24 hours).

push filename Propagates (pushes) the specified file to the spare

SC without adding it to the data propagation list. The file name must contain the absolute path and

cannot be a symbolic link to another file.

schedule filename Adds the specified file to the data propagation

list. The file name must contain the absolute path

setdatasync(1M) Maintenance Commands

and cannot be a symbolic link to another file. During data synchronization, the file is propagated to the same absolute path on the spare SC.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Propagate a User File From Main to Spare Every 30 Minutes

The path to the user-specified file must be an absolute path and cannot contain a symbolic link.

sc0:sms-user:> setdatasync -i 30 schedule /path/filename

EXAMPLE 2 Remove File Name From Data Propagation List

The path to the user-specified file must be an absolute path and cannot contain a symbolic link.

sc0:sms-user:> setdatasync cancel /path/filename

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Architecture	All
Availability	SUNWSMSop
Stability	Evolving
MT-Level	Safe

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SEE ALSO | showdatasync(1M), smsbackup(1M)

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setdate(1M) Maintenance Commands

NAME

setdate - set the date and time for the system controller (SC) or a domain

SYNOPSIS

setdate [-d domain_id | domain_tag] [-u] [-q] [mmdd]HHMM | mmddHHMM[cc]yy[.SS]

setdate -h

DESCRIPTION

setdate(1M) allows the SC platform administrator to set the SC or optionally a domain date and time values. Allows domain administrators to set the date and time values for their domains. After setting the date and time, setdate(1M) displays the current date and time.

OPTIONS

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

Sets the domain's time of day (TOD) when the domain keyswitch is in the OFF or STANDBY position. This option is not the primary use of setdate. Normally, setdate is used without this option to set the SC TOD.

-d domain_tag Name assigned to a domain using addtag(1M).

Sets the domain's time of day (TOD) when the domain's keyswitch is in the OFF or STANDBY position. This option is not the primary use of setdate. Normally, setdate is used without this option to set the SC TOD.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

- Does not display current date and time after setting the new
- -u Interprets and displays the time using Greenwich Mean Time (GMT). The default is the local time zone.

OPERANDS

The following operands are supported:

[mmdd]HHMM[.SS] Date and time format. mm is the month (1–12), dd

is the day of the month (1–31), HH is the hour (0–23), MM is the minute (0–59), and SS is the

second (0-59).

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Maintenance Commands setdate(1M)

mmddHHMM[cc]yy[.SS]

Date and time format. mm is the month (1–12), dd is the day of the month (1–31), HH is the hour (0–23), MM is the minute (0–59), cc is century minus one, and yy is the two digit year, sc is the second (0–59).

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform or domain administrator privileges to run this command. If you have domin administrator privileges you may only run this command for your domain.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Setting the Local Date in Pacific Standard Time

sc0:sms-user:> setdate 020210302000.00 System Controller: Wed Feb 2 10:30:00 PST 2000

EXAMPLE 2 Setting the Date Using GMT

sc0:sms-user:> setdate -u 020218302000.00 System Controller: Wed Feb 2 18:30:00 GMT 2000

EXAMPLE 3 Setting the Local Time in Pacific Standard Time for Domain A

sc0:sms-user:> setdate -d a 020210302000.00 Domain a: Wed Feb 2 10:30:00 PST 2000

EXAMPLE 4 Setting the Date for Domain A Using GMT

sc0:sms-user:> setdate -d a -u 020218302000.00 Domain a: Wed Feb 2 18:30:00 GMT 2000

setdate(1M) Maintenance Commands

EXIT STATUS

The following exit values are returned:

Successful completion.

>0

An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), setkeyswitch(1M), showdate(1M)

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Maintenance Commands setdefaults(1M)

NAME

setdefaults - remove all instances of a previously active domain

SYNOPSIS

setdefaults -d domain_id | domain_tag [-p] [-y]

setdefaults -h

DESCRIPTION

setdefaults(1M) removes all SMS instances of a previously active domain. A domain instance includes all pcd entries except network information; all message, console, and syslog log files; and, optionally, all NVRAM and boot parameters. pcd entries and NVRAM and boot parameters are returned to system default settings. IDPROM data is not affected.

Only one domain can be done at a time. The domain cannot be active and the virtual keyswitch must be set to off, otherwise, setdefaults exits with an error.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-n Automatically answers "no" to all prompts.

Preserve NVRAM and boot parameter data. By default, you

are asked whether to remove the NVRAM and boot

parameter data or not. If the -p option is used, you are not

prompted and the data is preserved.

-y Automatically answers "yes" to all prompts.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator or domain administrator privileges for the specified domain to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

setdefaults(1M) Maintenance Commands

EXAMPLES

sc0:sms-user:> setdefaults -d a
Are you sure you want to remove domain info? y
Do you want to remove NVRAM and boot parameter data? y

EXAMPLE 2 Setting Defaults on Domain A Without Prompts, Saving NVRAM and Boot Parameter Data

sc0:sms-user:> setdefaults -d a -p -y

EXAMPLE 3 Setting Defaults on Domain A Without Prompts and Without Saving NVRAM and Boot Parameter Data

sc0:sms-user:> setdefaults -d a -y

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 An invalid domain was specified.
- 2 An invalid option was entered.
- No domain, or more than one domain, was specified.
- 4 The user has invalid permission.
- 5 The keyswitch is in an invalid position.
- 6 The domain is currently active.
- 7 An error occurred talking to the pcd.

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Maintenance Commands setdefaults(1M)

8	An error occurred talking to the $\mbox{mld}.$
9	An error occurred talking to the osd.
10	An internal error occurred.
11	The user cancelled the operation.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following files are affected by this command:

/var/opt/SUNWSMS/.pcd/domain_info

Domain pcd information file.

/var/opt/SUNWSMS/.pcd/sysboard_info

Platform pcd information file.

/var/opt/SUNWSMS/adm/domain_id/console

Domain console log file. Up to ten messages files are stored on the system at any one time; console.0 through console.9.

/var/opt/SUNWSMS/adm/domain_id/messages

Domain log file. Up to ten messages files are stored on the system at any one time; message. 0 through message. 9.

/var/opt/SUNWSMS/adm/domain_id/syslog

Domain syslog file. Up to ten messages files are stored on the system at any one time; syslog.0 through syslog.9.

/var/opt/SUNWSMS/data/domain_id/bootparamdata

Domain boot parameter information file.

/var/opt/SUNWSMS/data/domain_id/nvramdata

setdefaults(1M) Maintenance Commands

Domain nvram information file.

SEE ALSO

$$\label{eq:decomposition} \begin{split} & \text{addtag}(1M), \ \text{mld}(1M), \ \text{osd}(1M), \ \text{pcd}(1M), \ \text{setobpparams}(1M) \\ & \text{showobpparams}(1M) \end{split}$$

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Maintenance Commands setfailover(1M)

NAME

setfailover - modify the state of the system controller (SC) failover mechanism

SYNOPSIS

setfailover on | off | force

setfailover -h

DESCRIPTION

setfailover(1M) provides the ability to modify the state of failover for the SC failover mechanisms.

OPTIONS

The following options are supported:

force Forces a failover to the spare SC. The spare SC must be

available.

–h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is

ignored.

off Disables the failover mechanism. This will prevent a failover

until the mechanism is re-enabled.

on Enables failover for systems that previously had failover

disabled due to a failover or an operator request. on instructs the command to attempt to re-enable failover only. If failover cannot be re-enabled, subsequent use of the showfailover command indicates the current failure that

prevented the enable.

EXTENDED DESCRIPTION

Group Privileges Required You must have platform administrator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

These commands produce no output when successful. An error message appears if the action could not be performed.

EXAMPLE 1 Turn Failover On

sc0:sms-user:> setfailover on

setfailover(1M) Maintenance Commands

EXAMPLE 2 Turn Failover Off

#sc0:sms-user:> setfailover off

EXAMPLE 3 Force a Failover

sc0:sms-user:> setfailover force

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

showfailover(1M)

Maintenance Commands setkeyswitch(1M)

NAME

setkeyswitch - change the position of the virtual keyswitch

SYNOPSIS

setkeyswitch -d domain_id | domain_tag [-q] [-y|-n]
[on|standby|off|diag|secure]

DESCRIPTION

setkeyswitch(1M) changes the position of the virtual keyswitch to the specified value. setkeyswitch is responsible for powering on or powering down boards and bringing up a domain. See the OPERANDS section for more information.

If the domain specified contains a board in the automatic system recovery (ASR) blacklist file, an error message is displayed and setkeyswitch continues.

The state of each virtual keyswitch is maintained between power cycles of the system controller (SC) or physical power cycling of the power supplies by the pcd(1M). Use showkeyswitch to display the current position of a virtual keyswitch.

OPTIONS

Note - The -y and -n are optional arguments to the <code>setkeyswitch(1M)</code> command. If one of these optional arguments is not provided, <code>setkeyswitch</code> prompts the user for confirmation when changing from the on, diag, or <code>secure</code> position to the off or <code>standby</code> position.

-d domain_id	ID for a domain. Valid <i>domain_ids</i> are 'A''R' and are case insensitive.	
-d domain_tag	Name assigned to a domain using addtag(1M).	
-h	Help. Displays usage descriptions.	
	Note - Use alone. Any option specified in addition to -h is ignored.	
-n	Automatically answers "no" to all prompts. Prompts are displayed unless used with the $-\mathbf{q}$ option.	
-d	Quiet. Suppresses all messages to stdout including prompts.	

setkeyswitch(1M) Maintenance Commands

When used alone, -q defaults to the -n option for all prompts.

When used with either the -y or the -n option, -q suppresses all user prompts and automatically answers with either 'y' or 'n' based on the option chosen.

Automatically answers "yes" to all prompts. Prompts are displayed unless used with the -q option.

OPERANDS

The following operands are supported:

on From the off or standby position, on powers on all boards assigned to the domain (if not

already powered on). Then the domain is brought

up.

From the diag position, on is nothing more than a position change, but upon the next reboot of the domain, post is not invoked with verbosity and the diag level is set to its default value.

From the secure position, on restores write permission to the domain.

standby

From the off position, standby powers on all boards assigned to the domain (if not already

powered on).

From the on, diag, or secure position, standby optionally causes a confirmation prompt and the domain is gracefully shut down.

The boards remain fully powered.

off From the on, diag, or secure position, off

optionally causes a confirmation prompt and all

boards are put into low-power mode.

From the standby position, off puts all boards

into low-power mode.

diag From the off or standby position, diag powers

on all boards assigned to the domain (if not already powered on). Then the domain is brought up just as in the on position, except that post is

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Maintenance Commands setkeyswitch(1M)

invoked with the verbosity and diag levels set to at least their defaults.

From the on position, diag results in nothing more than a position change, but upon the next reboot of the domain, post is invoked with the verbosity and diag levels set to at least their defaults.

From the secure position, diag restores write permission to the domain and upon the next reboot, post is invoked with the verbosity and diag levels set to at least their defaults.

secure

From the off or standby position, secure powers on all boards assigned to the domain (if not already powered on). Then the domain is brought up just as in the on position, except that the secure position removes write permission to the domain, for example, flashupdates, and resets will not work.

From the on position, secure removes write permission to the domain (as described above).

From the diag position, secure removes write permission to the domain (as described above) and on the next reboot of the domain, post is invoked with the verbosity and diag levels set to at least their defaults.

EXTENDED DESCRIPTION

Group Privileges Required

You must have domain administrator privileges for the specified domain to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Set Keyswitch on Domain A On

sc0:sms-user:> setkeyswitch -d A on

setkeyswitch(1M) Maintenance Commands

 $\mbox{\bf EXAMPLE 2}\quad \mbox{Using Keyswitch on a Domain Containing a Board in the ASR Blacklist File}$

sc0:sms-user:>setkeyswitch -d A on
SB0 is in the ASR Blacklist.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/asr/blacklist

List of components excluded by esmd.

Note - This file is created and used internally and should not be edited manually.

SEE ALSO

 $\verb|addtag|(1M), \verb|esmd|(1M), \verb|flashupdate|(1M), \verb|pcd|(1M), \verb|reset|(1M), \verb|showkeyswitch|(1M)|$

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Last modified 01 October 2001

Maintenance Commands setobpparams(1M)

NAME

setobpparams - set up OpenBoot PROM variables for a domain

SYNOPSIS

setobpparams –d domain_id | domain_tag param=value...

setobpparams -h

DESCRIPTION

setobpparams(1M) allows a domain administrator to set the virtual NVRAM and REBOOT variables passed to OpenBoot PROM by setkeyswitch(1M). The -d option with $domain_id$ or a $domain_tag$ is required. You must reboot the domain in order for any changes to take effect.

This command is intended for error recovery and not routine system administration. For more information refer to Chapter 4 in the System Management Services (SMS) 1.2 Administrator Guide.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and

are case insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in

addition to -h is ignored.

OPERANDS

The following operands are supported:

param=value NVRAM and REBOOT variable values for OpenBoot PROM.

Valid variables are:

diag-switch?
auto-boot?
fcode-debug?
use-nvramrc?
security-mode

Valid variable values for all but security mode are:

true false

Valid variable values for security mode are:

none command full where:

setobpparams(1M) Maintenance Commands

Note - It is important to remember your security password and to set the security password before setting the security mode. If you forget this password, you cannot use your system; you must call your vendor's customer support service to make your system bootable again. For more information on security-mode and other OpenBoot PROM variables, see the *OpenBoot 4.x Command Reference Manual*.

Note - Most shells require using single quotes around the variable values to prevent the '?' from being treated as a special character. See the examples below.

EXTENDED DESCRIPTION

Group Privileges Required

Domain administrator or configurator privileges for the specified domain are required.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Setting OpenBoot PROM Variable diag-switch On for Domain A

sc0:sms-user:> setobpparams -d a 'diag-switch?=true'

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sc0:sms-user:> setobpparams -d a 'security-mode=full'

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), setkeyswitch(1M), showobpparams(1M)

setupplatform(1M) Maintenance Commands

NAME

setupplatform - set up the available component list for domains

SYNOPSIS

setupplatform [-d domain_id | domain_tag [-a | -r | location [location]...]

setupplatform [-d domain_id | domain_tag location [location]...]

setupplatform [-d domain_id | domain_tag -]

setupplatform -h

DESCRIPTION

setupplatform(1M) sets up the available component list for domains. If a <code>domain_id|domain_tag</code> is specified, a list of boards must be specified. An empty board list can be specified as '—'. In the case where no <code>domain_id|domain_tag</code> is specified, current values are displayed in the "[]" at the command prompt. If no value is specified for a parameter, it will retain its current value.

OPTIONS

Add the slot(s) to the available component list for the

domain..

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-r Remove the slots from the available component list for the

domain.

Clears the entire available component list.

OPERANDS

The following operands are supported:

location Board location separated by a space.

The following *location* forms are accepted:

SB(0...17) IO(0...17)

(continued)

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(Continuation)

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

Use ${\tt showplatform}(1M)$ to display the available component list once you have run ${\tt setupplatform}.$

EXAMPLE 1 Set Up Available Component List for All Domains

```
sc0:sms-user:> setupplatform
Available component list for domain domainA [SB3 SB2 SB1 IO5 IO4 IO3]? -r SB1
Are you sure[no]: (yes/no)? y
Available for domain DomainB [SB6 SB4 SB1 IO3 IO2 ]? -
Are you sure[no]: (yes/no)? y
Available for domain C [SB7 SB5 IO8 IO7]? -a SB17 SB16
Available for domain D [SB9 SB8 SB4 SB2 IO6 IO5 IO1]?
Available for domain E [SB0 IO0]?
Available for domain F []?
Available for domain G []?
Available for domain H []?
Available for domain I []?
Available for domain J []?
Available for domain K []?
Available for domain L []?
Available for domain M []?
Available for domain N []?
Available for domain O []?
Available for domain P []?
Available for domain Q []?
Available for domain R []?
sc0:sms-user:> showplatform -p available
Available for domain DomainA:
        SB3 SB2
        IO5 IO4 IO3
Available for domain DomainB:
        None
```

```
Available for domain DomainC:
       SB17 SB16 SB7 SB5
        IO8 IO7
Available for domain D:
        SB9 SB8 SB4 SB2
        I06 I05 I01
Available for domain E:
        SB0
        IO0
Available for domain DomainF:
        None
        None
Available for domain DomainG:
        None
        None
Available for domain DomainH:
        None
        None
Available for domain I:
        None
        None
Available for domain J:
        None
        None
Available for domain DomainK:
       None
        None
Available for domain L:
        None
        None
Available for domain M:
        None
Available for domain N:
        None
        None
Available for domain O:
        None
        None
Available for domain P:
        None
        None
```

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```
Available for domain Q:
    None
    None

Available for domain R:
    None
    None
```

EXAMPLE 2 Set Up Available Component List for Domain engB to Boards at SB0, IO1, and IO2

```
sc0:sms-user:> setupplatform -d engB SB0 IO1 IO2
```

EXAMPLE 3 Clear All Boards in engB Available Component List

```
%sc0:sms-user:> setupplatform -d engB -
```

EXAMPLE 4 Add Boards at SB0 and IO2 to engB Available Component List

```
sc0:sms-user:> setupplatform -d engB -a SB0 IO2
```

EXAMPLE 5 Remove Boards at SB3 and IO3 From engB Available Component List

```
sc0:sms-user:> setupplatform -d engB -r SB3 IO3
```

EXIT STATUS

The following exit values are returned:

Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO | addtag(1M), showplatform(1M)

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Maintenance Commands showboards(1M)

NAME

showboards - show the assignment information and status of the boards

SYNOPSIS

showboards [-d domain_id | domain_tag] [-v]

showboards [-h]

DESCRIPTION

showboards(1M) displays board assignments. If domain_id | domain_tag is specified, this command displays which boards are assigned or available to the given domain. If the -v option is used, showboards displays all components, including domain configuration units (DCUs) such as cpus, dpus, iobds, csbs and exbs, as well as the system controller (SC) are not DCUs.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-v Verbose. Displays all components including DCUs.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service privileges or domain administrator, or domain configurator privileges for the specified domain to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

Platform administrator privileges:

- If no options are specified, showboards displays all components including those DCUs that are assigned or available.
- If domain_id | domain_tag is specified, showboards displays information on DCUs that are assigned and available to that domain. DCUs assigned to other domains are not displayed.

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■ If the -v option is provided, showboards displays information on all assigned or available DCUs. In addition, showboards displays information on all other components.

■ If domain_id | domain_tag and the —a option are specified, showboards displays information on DCUs that are assigned or available to that domain. In addition, showboards displays information on all other components. DCUs assigned to other domains are not displayed.

Domain administrator/configurator privileges:

- If no options are specified, showboards displays all boards for all domains for which you have privileges, including those DCUs that are assigned or available.
- If domain_id | domain_tag is specified, showboards displays information on DCUs that are assigned or available to that domain. DCUs assigned to other domains are not displayed. Available DCUs are those boards which are in the domain's available component list See setupplatform(1M) and showplatform(1M). You must have domain administrator or configurator privileges for the specified domain.
- The –v option is not available to this user.

States in the Pwr Field

The Pwr field contains one of three measurements:

On = Full voltage detected.

Off = No voltage detected

Min = Some voltage detected.

Unk = Unknown. Unable to determine board power state.

— = The slot is empty so power state is not applicable.

Min does not imply that the board may be used at this point only that some power was detected on the board. It should not be used until it has been powered on. Conversely, it should not be removed from the system before being powered off.

The Board Status field contains one of four values:

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Active = The board is assigned to a domain and has passed POST.

Assigned = The board is assigned to a domain.

Available = The board is available to be assigned to a domain.

= Domain assignment or activity is not applicable for this

board.

The Test Status field contains one of six values:

Passed. = The board passed POST.

Degraded = The board is in a degraded mode.

Failed = The board failed POST. iPOST = The board is in POST.

Unknown = The board has not been tested.

— = The test status for this board is unavailable.

The Domain field contains one of four values:

domain_id = ID for a domain.

 $domain_tag \quad = Name \ assigned \ to \ a \ domain \ using \ \texttt{addtag}(1M).$

Isolated = The board is not assigned to any domain.

= Domain assignment is not applicable for this board.

EXAMPLES

EXAMPLE 1 Showboards for Platform Administrators

sc0:sms-user:> showboards

Location	Pwr	Type of Board	Board Status	Test Status	Domain
SB0	On	CPU	Active	Passed	domainC
SB1	On	CPU	Active	Passed	A
SB2	On	CPU	Active	Passed	A
SB3	On	CPU	Active	Passed	engB
SB4	On	CPU	Active	Passed	engB
SB5	On	CPU	Active	Passed	engB
SB6	-	Empty Slot	Available	_	Isolated
SB7	On	CPU	Active	Passed	domainC
SB8	Off	CPU	Available	Unknown	Isolated
SB9	On	CPU	Active	Passed	dmnJ
SB10	Off	CPU	Available	Unknown	Isolated
SB11	Off	CPU	Available	Unknown	Isolated
SB12	-	Empty Slot	Available	_	Isolated
SB13	-	Empty Slot	Available	_	Isolated
SB14	Off	CPU	Assigned	Failed	domainC

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SB15	On	CPU	Active	Passed	P
SB16	On	CPU	Active	Passed	Q
SB17	_	Empty Slot	Assigned	-	dmnR
IOO	_	Empty Slot	Available	-	Isolated
IO1	On	HPCI	Active	Passed	A
IO2	On	HPCI	Active	Passed	engB
IO3	On	HPCI	Active	Passed	domainC
IO4	On	HPCI	Available	Degraded	domainC
IO5	Off	HPCI	Available	Unknown	Isolated
106	-	Empty Slot	Available	-	Isolated
IO7	On	HPCI	Active	Passed	dmnJ
IO8	On	WPCI	Active	Passed	Q
IO9	On	HPCI	Active	Passed	dmnJ
IO10	Off	HPCI	Assigned	Unknown	engB
IO11	Off	HPCI	Assigned	Failed	engB
IO12	-	Empty Slot	Available	-	Isolated
IO13	-	Empty Slot	Available	-	Isolated
IO14	Off	HPCI	Available	Unknown	Isolated
IO15	On	HPCI	Active	Passed	P
I016	On	HPCI	Active	Passed	Q
IO17	-	Empty Slot	Assigned	-	dmnR

EXAMPLE 2 Showboards for Platform Administrators for Domain B

The following example illustrates showboards output if you have platform administrator privileges and specify a domain. The output does not include boards which are assigned to other domains.

sc0:sms-user:> showboards -d b

Location	Pwr	Type of Board	Board Status	Test Status	Domain
SB3	On	CPU	Active	Passed	engB
SB4	On	CPU	Active	Passed	engB
SB5	On	CPU	Active	Passed	engB
SB6	-	Empty Slot	Available	-	Isolated
SB8	Off	CPU	Available	Unknown	Isolated
SB10	Off	CPU	Available	Unknown	Isolated
SB11	Off	CPU	Available	Unknown	Isolated
SB12	-	Empty Slot	Available	_	Isolated
SB13	-	Empty Slot	Available	_	Isolated
IOO	-	Empty Slot	Available	_	Isolated
IO2	On	HPCI	Active	Passed	engB
IO5	Off	HPCI	Available	Unknown	Isolated
106	-	Empty Slot	Available	_	Isolated
IO10	Off	HPCI	Assigned	Unknown	engB
IO11	Off	HPCI	Assigned	Failed	engB
IO12	_	Empty Slot	Available	-	Isolated
IO13	_	Empty Slot	Available	-	Isolated
IO14	Off	HPCI	Available	Unknown	Isolated

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 $\textbf{EXAMPLE 3} \quad \textbf{Showboards for Platform Administrators Using the} \; \neg v \; \textbf{Option}$

The following example illustrates showboards output if you have platform administrator privileges and use the -v option. The command shows all components.

sc0:sms-user:> showboards -v

SC0 SC1 PS0	on				
SC1		SC	Slave	<u>-</u>	
	On	SC	Master	_	_
	On	PS	_	_	_
PS1	On	PS	_	_	_
PS2	On	PS	_	_	_
PS3	_	Empty Slot	_	_	_
PS4	Off	PS	_	_	_
PS5	On	PS	_	_	_
FT0	On	FT	_	_	_
FT1	On	FT	_	_	_
FT2	On	FT	_	_	_
FT3	On	FT	_	_	_
FT4	On	FT	_	_	_
FT5	_	Empty Slot	_	_	_
FT6	Off	FT	_	_	_
FT7	On	FT	_	_	_
CS0	On	CSB	_	_	_
CS1	On	CSB	_	_	_
EX0	On	EXB	_	_	_
EX1	On	EXB	_	_	_
EX2	On	EXB	_	_	_
EX3	On	EXB	_	_	_
EX4	On	EXB	_	_	_
EX5	On	EXB	_	_	_
EX6	_	Empty Slot	_	_	_
EX7	On	EXB	_	_	_
EX8	On	EXB	_	_	_
EX9	On	EXB	_	_	_
EX10	On	EXB	_	_	_
EX11	On	EXB	_	_	_
EX12	-	Empty Slot	_	_	_
EX13	_	Empty Slot	_	_	_
EX14	Off	EXB	_	_	_
EX15	On	EXB	_	_	_
EX16	On	EXB	_	_	_
EX17	On	EXB	_	_	_
IO1/C3V0	On	C3V	_	_	A
IO1/C5V0	On	C5V	_	_	A
IO1/C3V1	On	C3V		_	A
IO1/C5V1	On	C5V	_	_	A
IO2/C3V1	On	C3V	_	_	
IO2/C5V0	On	C5V	_	-	engB engB
IO2/C3V1	On	C3V	_	_	
IO2/C3V1 IO2/C5V1	On On		_	_	engB engB
IO3/C3V1	On	C5V C3V	_	_	engB domainC
TO3/C2/0	On	C5V	_	-	domainC
IO3/C5V0					

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IO3/C5V1	-	Empty Slot	-	-	domainC
IO4/C3V0	On	C3V	_	-	domainC
IO4/C5V0	On	C5V	-	-	domainC
IO4/C3V1	On	C3V	-	-	domainC
IO4/C5V1	On	C5V	-	-	domainC
IO5/C3V0	On	C3V	_	-	Isolated
IO5/C5V0	On	C5V	_	_	Isolated
IO5/C3V1	On	C3V	_	-	Isolated
IO5/C5V1	On	C5V	_	-	Isolated
IO7/C3V0	On	C3V	_	_	dmnJ
IO7/C5V0	On	C5V	_	-	dmnJ
IO7/C3V1	On	C3V	_	_	dmnJ
IO7/C5V1	On	C5V	_	_	dmnJ
IO8/C3V0	On	C3V	_	_	A
IO8/C5V0	On	C5V	_	_	A
IO8/C3V1	On	C3V	_	_	A
IO8/C5V1	On	C5V	_	_	A
IO9/C3V0	On	C3V	_	_	dmnJ
IO9/C5V0	On	C5V	_	_	dmnJ
IO9/C3V1	On	C3V	_	_	dmnJ
IO9/C5V1	On	C5V	_	_	dmnJ
IO10/C3V0	On	C3V	_	_	engB
IO10/C5V0	On	C5V	_	_	engB
IO10/C3V1	On	C3V	_	_	engB
IO10/C5V1	On	C5V	_	_	engB
IO11/C3V1	On	C3V	_	_	engB
IO11/C5V0	On	C5V	_	_	engB
IO11/C3V1	On	C3V	_	_	engB
IO11/C5V1	On	C5V	_	_	engB
IO11/C3V1	On	C3V		_	Isolated
IO14/C5V0	On	C5V	_	_	Isolated
IO14/C3V1	On	C3V	_	_	Isolated
IO14/C5V1	On	C5V	_	_	Isolated
IO14/C3V1	On	C3V	_	_	P
IO15/C5V0	On	C5V	_	_	P
IO15/C3V1	On	C3V	_	_	P
IO15/C5V1	On	C5V	_	_	P
			_	_	
IO16/C3V0	On On	C3V C5V	_	-	Q
IO16/C5V0	On	C3V	_	-	Q
IO16/C3V1			_	-	Q
IO16/C5V1	On On	C5V	-	Doggod	Q domainC
SB0		CPU	Active	Passed	
SB1	On	CPU	Active	Passed	A
SB2	On O	CPU	Active	Passed	Α
SB3	On	CPU	Active	Passed	engB
SB4	On	CPU	Active	Passed	engB
SB5	On	CPU	Active	Passed	engB
SB6	_	Empty Slot	Available	_	Isolated
SB7	On	CPU	Active	Passed	domainC
SB8	Off	CPU	Available	Unknown	Isolated
SB9	On	CPU	Active	Passed	dmnJ
SB10	Off	CPU	Available	Unknown	Isolated
SB11	Off	CPU	Available	Unknown	Isolated
SB12	-	Empty Slot	Available	-	Isolated
SB13	-	Empty Slot	Available	-	Isolated
SB14	Off	CPU	Assigned	Failed	domainC
SB15	On	CPU	Active	Passed	P

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SB16	On	CPU	Active	Passed	Q
SB17	-	Empty Slot	Assigned	-	dmnR
IO0	-	Empty Slot	Available	-	Isolated
IO1	On	HPCI	Active	Passed	A
IO2	On	HPCI	Active	Passed	engB
IO3	On	HPCI	Active	Passed	domainC
IO4	On	HPCI	Available	Degraded	domainC
IO5	Off	HPCI	Available	Unknown	Isolated
106	-	Empty Slot	Available	-	Isolated
107	On	HPCI	Active	Passed	dmnJ
IO8	Off	HPCI	Assigned	Unknown	A
IO9	On	HPCI	Assigned	iPOST	dmnJ
IO10	Off	HPCI	Assigned	Unknown	engB
IO11	Off	HPCI	Assigned	Failed	engB
IO12	-	Empty Slot	Available	_	Isolated
IO13	_	Empty Slot	Available	-	Isolated
IO14	Off	HPCI	Available	Unknown	Isolated
IO15	On	HPCI	Active	Passed	P
1016	On	HPCI	Active	Passed	Q
IO17	-	Empty Slot	Assigned	-	dmnR

 $\mbox{\bf EXAMPLE 4} \quad \mbox{Showboards for Domain Administrators With Privileges on Domains B, J, and R}$

The following example illustrates showboards output if you have domain privileges for domains B, J, and R. showboards displays information for those boards which are assigned or available to domains B, J, and R. Boards which are assigned to other domains or do not appear in the available component list for domains B, J, or R are not displayed.

sc0:sms-user:>	showboards
----------------	------------

Location	Pwr	Type of Board	Board Status	Test Status	Domain
SB3	On	CPU	Active	Passed	engB
SB4	On	CPU	Active	Passed	engB
SB5	On	CPU	Active	Passed	engB
SB6	-	Empty Slot	Available	-	Isolated
SB8	Off	CPU	Available	Unknown	Isolated
SB9	On	CPU	Active	Passed	dmnJ
SB10	Off	CPU	Available	Unknown	Isolated
SB11	Off	CPU	Available	Unknown	Isolated
SB12	-	Empty Slot	Available	-	Isolated
SB13	-	Empty Slot	Available	-	Isolated
SB17	-	Empty Slot	Assigned	-	dmnR
IO0	-	Empty Slot	Available	-	Isolated
IO2	On	HPCI	Active	Passed	engB
IO5	Off	HPCI	Available	Unknown	Isolated
106	-	Empty Slot	Available	-	Isolated
I07	On	HPCI	Active	Passed	dmnJ
IO9	On	HPCI	Assigned	iPOST	dmnJ
IO10	Off	HPCI	Assigned	Unknown	engB
IO11	Off	HPCI	Assigned	Failed	engB
IO17	_	Empty Slot	Assigned	-	dmnR
			-		

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EXAMPLE 5 Showboards for Domain Administrators for Domain B

In the following example, showboards displays output if you have domain privileges on domains B, J and R. The command shows board information for those DCUs which are assigned or available to the specified domain. DCUs which are assigned to other domains or do not appear in the specified domain's available component list are not displayed.

sc0:sms-user:> showboards -d b

Location	Pwr	Type of Board	Board Status	Test Status	Domain
SB3	On	CPU	Active	Passed	engB
SB4	On	CPU	Active	Passed	engB
SB5	On	CPU	Active	Passed	engB
SB6	-	Empty Slot	Available	_	Isolated
SB8	Off	CPU	Available	Unknown	Isolated
SB10	Off	CPU	Available	Unknown	Isolated
SB11	Off	CPU	Available	Unknown	Isolated
SB12	-	Empty Slot	Available	_	Isolated
SB13	-	Empty Slot	Available	_	Isolated
IO0	-	Empty Slot	Available	_	Isolated
IO2	On	HPCI	Active	Passed	engB
IO5	Off	HPCI	Available	Unknown	Isolated
106	-	Empty Slot	Available	_	Isolated
IO10	Off	HPCI	Assigned	Unknown	engB
IO11	Off	HPCI	Assigned	Failed	engB

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 An invalid domain was specified.
- 2 An invalid command-line option was specified.
- 3 An incorrect number of domains was specified.
- 4 The user does not have valid privileges.
- 5 An internal error occurred.
- 6 An error occurred getting board information.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

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SEE ALSO $\verb"addtag"(1M)", \verb"setupplatform"(1M)", \verb"showplatform"(1M)"$ showbus(1M) Maintenance Commands

NAME

showbus - display the bus configuration of expanders in active domains

SYNOPSIS

showbus [-v]

showbus -h

DESCRIPTION

showbus(1M) displays the bus configuration of expanders in active domains. This information defaults to displaying configuration by slot order EX0-EX17.

OPTIONS

–h Help. Displays usage descriptions.

 $\mbox{\bf Note}$ - Use alone. Any option specified in addition to -h is ignored.

−v

Verbose. Displays all available command information. In addition to expander configuration, the domain, domain keyswitch position, and slot 0 and slot 1 board assignments are displayed.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, operator or service privileges to display all set of communicating expanders (SOCX) in the system.

Domain administrators or configurators can display only the SOCX assigned to the domain(s) in which they have privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Showbus Display for All Domains

This display is the default for platform administrators. A domain administrator/configurator must have privileges on all domains in order to obtain this display. Otherwise only those domains for which the user has privileges are displayed.

sc0:sms-user:> showbus

Location Data Address Res	sponse SOCX
	0 0x0001 CONF UNCONF

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EX3	UNCONF	UNCONF	UNCONF	UNCONF
EX4	CS0,CS1	CS0,CS1	CS0,CS1	0x14010
EX5	UNCONF	UNCONF	UNCONF	UNCONF
EX6	UNCONF	UNCONF	UNCONF	UNCONF
EX7	UNCONF	UNCONF	UNCONF	UNCONF
EX8	UNCONF	UNCONF	UNCONF	UNCONF
EX9	UNCONF	UNCONF	UNCONF	UNCONF
EX10	UNCONF	UNCONF	UNCONF	UNCONF
EX11	UNCONF	UNCONF	UNCONF	UNCONF
EX12	UNCONF	UNCONF	UNCONF	UNCONF
EX13	UNCONF	UNCONF	UNCONF	UNCONF
EX14	CS0,CS1	CS0,CS1	CS0,CS1	0x14010
EX15	UNCONF	UNCONF	UNCONF	UNCONF
EX16	CS0,CS1	CS0,CS1	CS0,CS1	0x14010
EX17	UNCONF	UNCONF	UNCONF	UNCONF

EXAMPLE 2 Display Showbus Information for All Domains Using -v

```
sc0:sms-user:> showbus -v
SOCX: 0x14010
-----
  Data: CS0,CS1
  Address: CS0,CS1
 Response: CS0,CS1
Domain: A keyswitch: ON
Location: EX4 SB4: active IO4 : active
 Location: EX14 IO14: active Location: EX16 IO16: active
SOCX: 0x00001
  Data: CS0
  Address: CS1
  Response: CS0
Domain: B keyswitch: ON
 Location: EX0 SB0: active IOO: active
UNCONFIGURED
Domain: A keyswitch: ON
 Location: EX6 SB6: unknown
```

EXIT STATUS

The following exit values are returned:

O Successful completion.

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>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

setbus(1M)

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Maintenance Commands showcmdsync(1M)

NAME

showcmdsync - display the current command synchronization list

SYNOPSIS

showcmdsync [-v]

showcmdsync -h

DESCRIPTION

showcmdsync displays the command synchronization list to be used by the spare system controller (SC) to determine which commands or scripts need to be restarted after an SC failover.

The command synchronization list is displayed in the format Descriptor,

Identifier, Cmd where:

Descriptor Specifies the command synchronization

descriptor that represents a particular script.

Identifier Identifies a marker point in the script from which

the script can be resumed on the new main SC after an automatic failover occurs. The identifier -1 indicates that the script does not have any

marker points.

Cmd Indicates the name of the script to be restarted.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-v Verbose. Displays all available command information.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Example Command Synchronization List

showcmdsync(1M) Maintenance Commands

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

$$\label{eq:cancelcmdsync} \begin{split} &\text{cancelcmdsync}(1M), \text{ initcmdsync}(1M), \text{ runcmdsync}(1M), \\ &\text{savecmdsync}(1M \;) \end{split}$$

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Last modified 01 October 2001

NAME

showcomponent - display the blacklist status for a component

SYNOPSIS

showcomponent [-a | -d domain_tag | domain_id | [-v] [location...]

showcomponent -h

DESCRIPTION

showcomponent (1M) displays whether the specified component is listed in the platform, domain, or ASR blacklist file.

If neither the —a nor the —doption is specified, showcomponent displays the platform blacklist. If no *location* is specified, showcomponent displays all components in the specified blacklist.

The *blacklist* is an internal file that lists components POST cannot use at boot time. POST reads the blacklist file(s) before preparing the system for booting, and passes along to OpenBoot PROM a list of only those components that have been successfully tested; those on the blacklist are excluded.

SMS supports three blacklists, one for domain boards and one for platform boards; and the internal automatic system recovery (ASR) blacklist.

For more information on the use and editing of platform and domain blacklists refer to Chapter 7 in the System Management Services (SMS) 1.2 Administrator Guide.

OPTIONS

-a Specifies the ASR blacklist.

-d *domain_id* ID for a domain. Valid *domain_id*s are 'A'...'R' and are case insensitive. This option specifies the domain blacklist.

-d *domain_tag* Name assigned to a domain using addtag(1M). This option specifies the domain blacklist.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-v Verbose. Displays all available command information.

OPERANDS

The following operands are supported:

location

List of component locations, separated by forward slashes and comprised of:

board_loc/proc/bank/logical_bank

board_loc/proc/bank/all_dimms_on_that_bank

board_loc/proc/bank/all_banks_on_that_proc

board_loc/proc/bank/all_banks_on_that_board

board_loc/proc

board_loc/procs

board_loc/cassette

board_loc/bus

Multiple *location* arguments are permitted separated by a space.

The *location* forms are optional and are used to specify particular components on boards in specific locations.

For example, the *location* SB5/P0/B1/L1 indicates Logical Bank 1 of Bank 1 on Processor 0 at SB5. The SB0/PP1 *location* indicates Processor Pair 1 at SB0. The CS0/ABUS1 *location* indicates address bus 1 at CS0.

The following board_loc forms are accepted:

SB(0...17) IO(0...17) CS(0 | 1)

EX(0...17)

Processor locations indicate single processors or processor pairs.

There are four possible processors on a CPU/Memory board. Processor pairs on that board are: procs 0 and 1, and procs 2 and 3.

The MaxCPU has two processors,: procs 0 and 1, and only one proc pair (PP0). Using PP1 for this board will cause disablecomponent to exit and display an error message.

The following *proc* forms are accepted:

P(0...3) $PP(0\,|\,1)$ The following bank forms are accepted: $B(0\,|\,1)$ The following logical_bank forms are accepted: $L(0\,|\,1)$

The following all_dimms_on_that_bank forms are accepted:

D

The following all_banks_on_that_proc forms are accepted:

В

The following all_banks_on_that_board forms are accepted:

В

The hsPCI assemblies contain hot-swappable cassettes.

The following *hsPCI* forms are accepted:

C(3 | 5)V(0 | 1)

There are three bus locations: address, data and response.

The following bus forms are accepted:

ABUS | DBUS | RBUS (0 | 1)

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command. If you have domain privileges you may only run this command on the domain for which you have privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Display Whether SB0 is ASR Blacklisted

sc0:sms-user:> showcomponent -a SB0 Component SB0 is disabled: #High Voltage

EXAMPLE 2 Display Whether 4 Boards/Components in Domain B Are Blacklisted

sc0:sms-user:> showcomponent -dB IO4/PP0 SB5 IO6/C5V0 EX7/ABUS0 Component IO4/PP0 is disabled: #High temp Component SB5 is disabled: <no reason given> Component IO6/C5V0 is NOT disabled.
Component EX7/ABUS0 is NOT disabled.

EXAMPLE 3 Display Whether the Logical Bank on IO7 in Domain B Is Blacklisted

sc0:sms-user:> showcomponent -dB IO7/P0/B1/L0 Component IO7/P0/B1/L0 is disabled: <no reason given>

EXAMPLE 4 Display All Platform Blacklisted Components

sc0:sms-user:> showcomponent Component SB0 is disabled: #High temp

Component SB3 is disabled:

Component IO2 is disabled. <no reason given>

EXAMPLE 5 Display All DomainB Blacklisted Components

sc0:sms-user:> showcomponent -dB Component IO4/PP0 is disabled: #High temp Component SB5 is disabled: <no reason given>

EXAMPLE 6 Display All ASR Blacklisted Components

sc0:sms-user:> showcomponent -a Component SB0 is disabled: #High temp

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command.

/etc/opt/SUNWSMS/config/asr/blacklist

showcomponent(1M) Maintenance Commands

List of components excluded by esmd.

Note - This file is created and used internally and should not be edited manually.

/etc/opt/SUNWSMS/config/platform/blacklist

List of platform components excluded.

/etc/opt/SUNWSMS/config/domain_id/blacklist

List of domain components excluded.

SEE ALSO

enablecomponent(1M), disablecomponent(1M), esmd(1M)

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Maintenance Commands showdatasync(1M)

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showdatasync – display the status of system controller (SC) data synchronization for failover

SYNOPSIS

showdatasync [-1 | -Q] [-V]

showdatasync [-h]

DESCRIPTION

showdatasync provides the current status of files propagated (copied) from the main SC to its spare. Data propagation synchronizes data on the spare SC with data on the main SC, so that the spare SC is current with the main SC if an SC failover occurs.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

 Lists the files in the current data propagation list. See the EXTENDED DESCRIPTION section for details on the information displayed.

−Q Lists the files queued for propagation. Each file name includes the absolute path to the file.

-v Verbose. Displays all available command information.

EXTENDED DESCRIPTION

This section describes the information displayed by the showdatasync command.

If you do not specify an option with the showdatasync command, the following information is displayed:

File Propagation Status:
Active File:
Queued files:

where

File Propagation Status

Displays the current status of data synchronization:

 Active indicates the data synchronization process is enabled and functioning normally. showdatasync(1M) Maintenance Commands

 Disabled indicates the data synchronization process has been disabled because SC failover was disabled.

■ Failed indicates the data synchronization process cannot currently propagate files to the spare SC even though an SC failure was detected.

Active File Displays either the absolute path of

the file currently being propagated or a - (dash) indicating that the link is

idle.

Queued files Specifies the number of files to be

propagated but not yet processed.

If you specify the -1 option with the showdatasync command, each entry in the data propagation list is displayed in the format *Time Propagated, Interval, File,* where:

Time Propagated Indicates the last time that the file was

propagated from the main SC to the spare.

Interval Specifies the interval, in minutes, between checks

for file modification. The default interval is 60

minutes.

File Provides the absolute path and name of the

propagated file.

Group Privileges Required

You must have platform administrator, platform operator, platform service, domain administrator, or domain configurator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Data Synchronization Status

EXAMPLE 2 Data Synchronization List

sc0:sms-user:> showdatasync -1

TIME PROPAGATED INTERVAL FILE Mar 23 16:00:00 60 /tmp/t1

EXAMPLE 3 Data Synchronization Queue

sc0:sms-user:> showdatasync -Q
FILE
/tmp/t1

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

setdatasync(1M)

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showdate(1M) Maintenance Commands

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showdate – display the date and time for the system controller (SC) or a domain

SYNOPSIS

showdate [-d domain_id | domain_tag] [-u] [-v]

showdate -h

DESCRIPTION

showdate (1M) displays the SC's current date and time. Optionally, showdate displays domain time of day.

OPTIONS

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

^{-u} Interprets and displays the time using Greenwich Mean Time

(GMT). The default is the local time zone.

^{-v} Verbose. Displays all available command information.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator, platform service privileges to display the date on the SC. You must have domain administrator or domain configurator privileges for the specified domain to display the domain date.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Showing the Current Local Date in Pacific Standard Time

sc0:sms-user:> showdate

System Controller: Wed Feb 2 15:23:21 PST 2000

Maintenance Commands showdate(1M)

EXAMPLE 2 Showing the Current Date Using GMT

sc0:sms-user:> showdate -u

System Controller: Wed Feb 2 23:23:21 GMT 2000

EXAMPLE 3 Showing the Current Local Date on Domain A in Pacific Standard Time

sc0:sms-user:> showdate -d a

Domain a: Wed Feb 2 15:33:20 PST 2000

EXAMPLE 4 Showing the Current Date on Domain A Using GMT

sc0:sms-user:> showdate -d a -u Domain a: Wed Feb 2 23:33:20 GMT 2000

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), setdate(1M)

showdevices(1M) Maintenance Commands

NAME

SYNOPSIS

showdevices - display system board devices and resource usage information

showdevices [-v] [-p bydevice | byboard | query | force] *location* [*location*...]

showdevices [-v] [-p bydevice | byboard | query | force] -d domain_id | domain_tag

showdevices -h

DESCRIPTION

showdevices(1M) displays the configured physical devices on system boards and the resources made available by these devices. Usage information is provided by applications and subsystems that are actively managing system resources. Display the predicted impact of a system board DR operation by performing an offline query of managed resources. Unmanaged devices are not displayed by default, you must use the -v option.

showdevices gathers device information from one or more Sun Fire 15K domains. The command uses the dca(1M) as a proxy to gather the information from the domains.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive. Displays device and resource information for all

configured boards in the domain.

-d domain_tag Name assigned to a domain using addtag(1M). Displays

device and resource information for all configured boards in

the domain.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

−p Displays specific reports.

Valid arguments for -p are:

bydevice — List output is grouped by device type (cpu,

memory, io). This is the default.

byboard — List output is grouped by system board. Default output is in tabular format grouped by device type (CPU,

memory, IO).

query —Query predicted result of removing a system board.

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Maintenance Commands showdevices(1M)

force — Forced offline query. Resource consumers are requested to apply force semantics in predicting whether they are able to relinquish usage of the system resources.

(see cfgadm(1M)).

^{-v} Displays all I/O devices. Includes both managed and

unmanaged I/O devices. Managed devices export actively managed resources. Unmanaged devices are physically configured but do not export actively managed resources. No

usage information is available for unmanaged devices.

OPERANDS

The following operands are supported:

location List of board locations separated by a space.

Multiple location arguments are permitted.

The following *location* forms are accepted:

SB(0...17) IO(0...17)

EXTENDED DESCRIPTION

The showdevice fields are:

domainTag or identifierboardBoard identifier

CPU:

id Processor id

state Processor state

speed CPU frequency in MHz

ecache CPU ecache size in MB

Memory:

board memBoard memory size in MB

showdevices(1M) Maintenance Commands

perm mem Amount of non-relocatable memory on board in

MB

base addressBase physical address of memory on board

domain mem System memory size in MB

board Board identifier

If a memory drain is in progress, the following is available:

target board Target board identifier

deleted Amount of memory already deleted in MB

remaining Amount of memory remaining to be deleted in

MB

I/O Devices:

device I/O device instance name
resource Managed resource name

usage Description of resource usage instance

query Result of offline query of resources

Group Privileges Required

You must have domain administrator/configurator privileges on all boards specified to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Showdevices for System Board IO1

	sc0:sms-user:> showdevices IO1 IO Devices								
domain	location	device	resource	usage					
A	IO1	sd3	/dev/dsk/c0t3d0s0	mounted filesystem "/"					
A	IO1	sd3	/dev/dsk/c0t3s0s1	dump device (swap)					
A	IO1	sd3	/dev/dsk/c0t3s0s1	swap area					
A	IO1	sd3	/dev/dsk/c0t3d0s3	mounted filesystem "/var"					
A	IO1	sd3	/var/run	mounted filesystem "/var/run"					

Maintenance Commands showdevices(1M)

EXAMPLE 2 Showdevices for Domain A

```
sc0:sms-user:> showdevices -v -d A
CPU
domain
        location id
                                speed ecache usage
                       state
        C1
                 40
                      online
                                400
                                      4
                      online
Α
        C1
                 41
                                400
                                      4
Α
        C1
                 42
                       online
                                400
                                      4
        C1
                 43
                      online
                                400
                                      4
Α
        C2
                 55
                      online
                                400
                                      4
Α
Α
        C2
                 56
                       online
                                400
                                      4
        C2
                 57
                       online
                                400
                                      4
Α
        C2
                 58
                                400
                                      4
Α
                       online
Memory
drain in progress:
                 board
                        perm
                                base
                                          domain target deleted remaining
domain
       location mem MB
                        mem MB address
                                          mem MB board mem MB
                                                                 mem MB
        C1
                 2048
                         723
                                0x600000
                                          4096 C2
                                                       250
                                                                 1500
Α
Α
        C2
                 2048
                         0
                                0x200000
                                           4096
IO Devices
domain location device resource
                                             usage
        IO1
               sd0
        IO1
                 sd1
Α
        IO1
Α
                 sd2
        IO1
                sd3
                        /dev/dsk/c0t3d0s0
                                             mounted filesystem "/"
Α
                        /dev/dsk/c0t3s0s1
                                             dump device (swap)
Α
        IO1
                 sd3
Α
        IO1
                 sd3
                         /dev/dsk/c0t3s0s1
                                             swap area
                                             mounted filesystem "/var"
        IO1
                sd3
                        /dev/dsk/c0t3d0s3
Α
                 sd3
                                             mounted filesystem "/var/run"
        IO1
                         /var/run
Α
Α
        IO1
                 sd4
        I01
                 sd5
Α
        IO1
                 sd6
```

EXAMPLE 3 Display Offline Query Result for System Board IO1

```
sc0:sms-user:> showdevices -p query IO1
Location IO1 - Domain A
IO Devices
device resource
                                    query usage/reason
        /dev/dsk/c0t3d0s0
                                    fail mounted filesystem "/"
sd3
      /dev/dsk/c0t3s0s1
    ,uev/usk/c0t3s0s1
/dev/dsk/c0t3s0s1
/dev/dsk/c0t3d0s3
/var/run
sd3
                                   fail dump device (swap)
                                   fail swap area
fail mounted filesystem "/var"
sd3
sd3
        /var/run
                                            mounted filesystem "/var/run"
```

showdevices(1M) Maintenance Commands

The query field shows the predicted result of removing the resource. The failure of the mounted filesystem /var to offline prevents the query from reaching the layered mount point /var/run.

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 An invalid domain was specified.
- 2 A command line error such as an invalid option was

detected.

- 3 More than one domain was specified.
- 4 An error occurred communicating with pcd.
- 5 An error occurred communicating with a domain.
- 6 An error occurred handling device information.
- 7 An internal error such as failed memory allocation. occurred

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), dca(1M), pcd(1M)

NAME

showenvironment - display the environmental data

SYNOPSIS

showenvironment [-d domain_id | domain_tag ...] [-p temps | volts | currents | fans | powers | faults...] [-v]

showenvironment -h

DESCRIPTION

showenvironment(1M) displays the environmental data (temperatures, voltages, and so on). If a domain <code>domain_id|domain_tag</code> is specified, environmental data relating to the domain will be displayed providing that the user has domain privileges for that domain. If a domain is not specified, all domain data permissible to the user will be displayed.

Note - Only domain configuration units (DCUs) (for example, CPU, I/O) belong to a domain. Displaying environmental data relating to such things as fan trays, bulk power, or other boards (exb, csb) requires platform privileges. You can also specify individual reports for temperatures, voltages, currents, bulk power status, faults and fan tray status with the -p option. If the -p option is not present, all reports are shown.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

-d domain_tag Domain name assigned to the domain using addtag (1M).

Display specific reports. Multiple report arguments are separated by commas.

Valid arguments for −p are:

temps — List output is grouped by temperature.

volts — List output is grouped by voltage.

currents — List output is grouped by current

fans — List output is grouped by fans.

powers — List output is grouped by bulk power supplies.

showenvironment(1M) Maintenance Commands

faults — List output is of all component readings not within the optimum thresholds.

Note - The faults argument may not be used in conjunction with any other report argument.

-v

Verbose. Displays all available command information.

EXTENDED DESCRIPTION

States in the Display Fields

The Unit field contains one of three measurements:

C = Celsius

V = Volts

A = Ampere

The Status field can contain one of 16 states.

Temperature Readings:

OVERLIMIT = Overlimit

HIGH_CRIT = High critical

HIGH_WARN = High warning

LOW_CRIT = Low critical

LOW_WARN = Low warning

OK = Optimum

INVALID = Reading failure

Voltage Readings:

HIGH_MAX = High maximum
LOW_MIN = Low minimum
OK = Acceptable
INVALID = Reading failure

Current Readings:

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OK = Both companion component readings are

within 10% of each other.

BAD = Both companion component readings are

not within 10% of each other.

INVALID = Reading failure

Miscellaneous:

ON = Power on
OFF = Power off

PRESENCE = A HotPlug card is present in slot 1

FAIL = Failure state

HIGH = Set to high speed

NORMAL = Set to normal speed

INVALID = Reading failure

AGE = Age of the reading

UNKNOWN = Unknown power/board type

Group Privileges Required

Only domain information for which you have domain administrator or configurator privileges for will be displayed. Otherwise, you must have platform administrator, operator or service privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Example showenvironment Display for All Domains

sc0:sms-user:>	showenvironment

LOCATION	DEVICE	SENSOR	VALUE	UNIT	AGE	STATUS
SC at SCO	max1617	RIO Temp	31.00	C	23.4 sec	OK
SC at SCO	max1617	PCIB Temp	26.00	C	23.4 sec	OK
SC at SCO	pcf8591	PS0 Temp	40.03	C	23.4 sec	OK
SC at SCO	pcf8591	PS1 Temp	31.97	C	23.4 sec	OK
SC at SCO	sbbc	SBBC Temp	40.50	C	23.4 sec	OK
SC at SCO	cbh	CBH Temp	45.16	C	23.4 sec	OK
SCPER at SCPER0	max1617	AMB 0 Temp	22.00	C	24.1 sec	OK
SCPER at SCPER0	max1617	AMB 1 Temp	22.00	C	24.1 sec	OK
SCPER at SCPER0	max1617	AMB 2 Temp	22.00	C	24.1 sec	OK
SC at SCO	pcf8591	1.5 VDC	1.46	V	24.7 sec	OK
SC at SCO	pcf8591	3.3 VDC	3.26	V	24.7 sec	OK
SC at SCO	pcf8591	3.3 VDC HK	3.28	V	24.7 sec	OK
SC at SCO	pcf8591	5.0 VDC	5.01	V	24.7 sec	OK

SC at SCO	pcf8591	+12.0 VDC	11.95	V	24.7	sec	OK
SC at SCO	pcf8591	-12.0 VDC	-12.01	V	24.7	sec	OK
SC at SCO	pcf8591	1.5 CVT0 VDC	1.59	V	24.7	sec	OK
SC at SC0	pcf8591	1.5 CVT1 VDC	1.60	V	24.7	sec	OK
SCPER at SCPER0	pcf8591	3.3 VDC HK	3.26	V	25.0	sec	OK
SCPER at SCPER0	pcf8591	5.0 VDC	5.04	V	25.0	sec	OK
SCPER at SCPER0	pcf8591	+12.0 VDC	12.55	V	25.0	sec	OK
SC at SC1	max1617	RIO Temp	36.00	C	21.8	sec	OK
SC at SC1	max1617	PCSB Temp	28.00	C	21.8	sec	OK
SC at SC1	pcf8591	PS0 Temp	33.58	C	21.8	sec	OK
SC at SC1	pcf8591	PS1 Temp	31.97	C	21.8	sec	OK
SC at SC1	sbbc	SBBC Temp	41.83	C	21.8	sec	OK
SC at SC1	cbh	CBH Temp	46.50	C	21.8	sec	OK
SC at SC1	pcf8591	1.5 VDC	1.48	V	57.8	sec	OK
SC at SC1	pcf8591	3.3 VDC	3.28	V	57.8	sec	OK
SC at SC1	pcf8591	3.3 VDC HK	3.26	V	57.8	sec	OK
SC at SC1	pcf8591	5.0 VDC	5.01	V	57.8	sec	OK
SC at SC1	pcf8591	+12.0 VDC	11.88	V	57.8	sec	OK
SC at SC1	pcf8591	-12.0 VDC	-11.82	V	57.8	sec	OK
SC at SC1	pcf8591	1.5 CVT0 VDC	1.72	V	57.8	sec	BAD
SC at SC1	pcf8591	1.5 CVT1 VDC	1.53	V	57.8	sec	BAD
SC at SC1	pcf8591	3.3 V_PS0	7.76	A	57.8	sec	BAD
SC at SC1	pcf8591	3.3 V_PS1	6.59	A	57.8	sec	BAD
SC at SC1	pcf8591	5.0 V_PS0	5.12	A	57.8	sec	BAD
SC at SC1	pcf8591	5.0 V_PS1	3.90	A	57.8	sec	BAD
CSB at CS0	max1617	AMB Top Temp	23.00	C C	21.4	sec	OK OK
CSB at CSO	max1617 sbbc	AMB Bot Temp	20.00	C	21.4	sec	OK
CSB at CS0 CSB at CS0	pcf8591	SBBC Temp	31.83	V	57.5	sec	OK
CSB at CS0	pcf8591	1.5 VDC 3.3 VDC	1.51 3.28	V	57.5	sec	OK
CSB at CS0	pcf8591	2.5 VDC	2.52	V	57.5	sec sec	OK
CSB at CS0	pcf8591	3.3 VDC HK	3.26	V	57.5	sec	OK
CSB at CS1	max1617	AMB Top Temp	25.00	C	21.0	sec	OK
CSB at CS1	max1617	AMB Bot Temp	23.00	C	21.0	sec	OK
CSB at CS1	sbbc	SBBC Temp	33.83	C	21.0	sec	OK
CSB at CS1	pcf8591	1.5 VDC	1.50	V	57.3	sec	OK
CSB at CS1	pcf8591	3.3 VDC	3.28	V	57.3	sec	OK
CSB at CS1	pcf8591	2.5 VDC	2.50	V	57.3	sec	OK
CSB at CS1	pcf8591	3.3 VDC HK	3.26	V	57.3	sec	OK
CP at CP0	dmx0	DMX0 Temp	19.62	C	21.7	sec	OK
CP at CP0	dmx1	DMX1 Temp	20.54	C	21.7	sec	OK
CP at CP0	dmx3	DMX3 Temp	16.44	C	21.7	sec	OK
CP at CP0	dmx5	DMX5 Temp	22.39	C	21.7	sec	OK
CP at CP0	amx0	AMX0 Temp	25.22	C	21.7	sec	OK
CP at CP0	amx1	AMX1 Temp	27.14	C	21.7	sec	OK
CP at CP0	rmx	RMX Temp	20.54	С	21.7	sec	OK
CP at CP0	darb	DARB Temp	25.70	C	21.7	sec	OK
CP at CP1	dmx0	DMX0 Temp	17.41	C	21.3	sec	OK
CP at CP1	dmx1	DMX1 Temp	33.03	С	21.3	sec	OK
CP at CP1	dmx3	DMX3 Temp	25.10	C	21.3	sec	OK
CP at CP1	dmx5	DMX5 Temp	18.74	С	21.3	sec	OK
CP at CP1	amx0	AMX0 Temp	25.98	C	21.3	sec	OK
CP at CP1	amx1	AMX1 Temp	18.71	C	21.3	sec	OK
CP at CP1	rmx	RMX Temp	21.00	C	21.3	sec	OK
CP at CP1	darb	DARB Temp	31.18	C	21.3	sec	OK
EXB at EX2	max1617	AMB Top Temp	26.00	C	59.3	sec	OK
EXB at EX2	max1617	AMB Bot Temp	25.00	C	59.3	sec	OK

EXB at EX2	sbbc	SBBC Temp	33.83	С	59.3	sec	OK
EXB at EX2	axq	AXQ Temp	23.75	C	59.3	sec	OK
EXB at EX2	sdim	SDIM Temp	20.46	C	59.3	sec	OK
EXB at EX2	sdise	SDISE Temp	21.85	C	59.3	sec	OK
EXB at EX2	sdisc	SDISC Temp	26.04	C	59.3	sec	OK
EXB at EX2	pcf8591	1.5 VDC	1.51	V	56.6	sec	OK
EXB at EX2	pcf8591	3.3 VDC	3.26	V	56.6	sec	OK
EXB at EX2	pcf8591	2.5 VDC	2.47	V	56.6	sec	OK
EXB at EX2	pcf8591	3.3 VDC HK	3.24	V	56.6	sec	OK
CPU at SB2	max1617	PROC 0 Temp	42.00	С	9.6	sec	OK
CPU at SB2	max1617	PROC 1 Temp	0.00	C	9.6	sec	OK
CPU at SB2	max1617	PROC 2 Temp	0.00	С	9.6	sec	OK
CPU at SB2	max1617	PROC 3 Temp	0.00	С	9.6	sec	OK
CPU at SB2	sdc	SDC Temp	57.83	C	9.6	sec	OK
CPU at SB2	ar	AR Temp	49.16	C	9.6	sec	OK
CPU at SB2	dx0	DX0 Temp	50.49	C	9.6	sec	OK
CPU at SB2	dx1	DX1 Temp	48.49	C	9.6	sec	OK
CPU at SB2	dx2	DX2 Temp	46.50	C	9.6	sec	OK
CPU at SB2	dx3	DX3 Temp	43.83	C	9.6	sec	OK
CPU at SB2	sbbc 0	SBBC 0 Temp	45.16	C	9.6	sec	OK
CPU at SB2	sbbc 1	SBBC 1 Temp	47.16	С	9.6	sec	OK
CPU at SB2	pcf8591	1.5 VDC	1.51	V	57.2	sec	OK
CPU at SB2	pcf8591	3.3 VDC	3.33	V	57.2	sec	OK
CPU at SB2	pcf8591	Core 0 Volt	1.73	V	57.2	sec	OK
CPU at SB2	pcf8591	Core 1 Volt	1.14	V	57.2	sec	HIGH_MAX
CPU at SB2	pcf8591	Core 2 Volt	1.12	V	57.2	sec	HIGH_MAX
CPU at SB2	pcf8591	Core 3 Volt	1.13	V	57.2	sec	LOW_MIN
HPCI at IO1	pcf8591	PS0 Temp	48.10	C	48.7	sec	OK
HPCI at IO1	pcf8591	PS1 Temp	31.97	Ċ	48.7	sec	OK
HPCI at IO1	sdc	SDC0 Temp	67.82	Ċ	48.7	sec	OK
HPCI at IO1	ar	AR0 Temp	61.82	Ċ	48.7	sec	OK
HPCI at IO1	dx0	DX0 Temp	57.16	C	48.7	sec	OK
HPCI at IO1	dx1	DX1 Temp	47.83	Ċ	48.7	sec	OK
HPCI at IO1	sbbc	SBBC Temp	37.16	C	48.7	sec	OK
HPCI at IO1	max1617a	IOA 0 Temp	52.00	C	48.7	sec	OK
HPCI at IO1	max1617a	IOA 1 Temp	43.00	Ċ	48.7	sec	OK
HPCI at IO1	pcf8591	1.5 VDC	1.52	V	23.3	sec	OK
HPCI at IO1	pcf8591	3.3 VDC	3.28	V	23.3	sec	OK
HPCI at IO1	pcf8591	5.0 VDC	5.01	V	23.3	sec	OK
HPCI at IO1	pcf8591	+12.0 VDC	12.03	V	23.3	sec	OK
HPCI at IO1	pcf8591	-12.0 VDC	-12.01	V	23.3	sec	OK
HPCI at IO1	pcf8591	3.3 VDC HK	3.28	V	23.3	sec	OK
HPCI at IO1	pcf8591	1.5 CVT0 VDC	1.88	V	23.3	sec	OK
HPCI at IO1	pcf8591	1.5 CVT1 VDC	1.74	V	23.3	sec	OK
HPCI at IO1	pcf8591	3.3 V_PS0	10.25	A	23.3	sec	OK
HPCI at IO1	pcf8591	3.3 V_PS1	10.40	A	23.3	sec	OK
HPCI at IO1	pcf8591	5.0 V_PS0	4.02	A	23.3	sec	OK
HPCI at IO1	pcf8591	5.0 V_PS1	4.15	А	23.3	sec	OK
	•						
WPCI at IO8	max1617a	IOA0 Temp	46.00	С	39.9 sed	OK	
WPCI at IO8	dx0	DX0 Temp	61.16	C	39.9 sed		
WPCI at IO8	dx1	DX1 Temp	56.49	C	39.9 sed		
WPCI at IO8	sdc	SDC Temp	67.16	C	39.9 sed		
WPCI at IO8	sbbc	SBBC Temp	41.16	C	39.9 sed		
WPCI at IO8	ar	AR Temp	65.82	C	39.9 sed		
WPCI at IO8	wci	WCI0 Temp	9.65	C	39.9 sed		
WPCI at IO8	wci	WCI1 Temp	7.71	C	39.9 sed		
		-					

WPCI at IO8	pcf8591	+12 VDC	11.95	V	26.2 sec	OK	
WPCI at IO8	pcf8591	-12 VDC	-12.01	V	26.2 sec	OK	
WPCI at IO8	pcf8591	3.3 HK	3.26	V	26.2 sec	OK	
WPCI at IO8	pcf8591	3.3 VDC	3.28	V	26.2 sec	OK	
	-	1.5 VDC		V		OK	
WPCI at IO8	pcf8591		1.48	•	26.2 sec		
WPCI at IO8	pcf8591	2.5 VDC	2.49	V	26.2 sec	OK	
WPCI at IO8	pcf8591	5.0 VDC	5.04	V	26.2 sec	OK	
Schizo0.0	max1617a	Schizo 0 Slot 0	N/A	N/A	N/A		PRESENCE
Schizo0.1	max1617a	Schizo O Slot 1		N/A	N/A		PRESENCE
EXB at EX4	max1617	AMB Top Temp	28.00	C	28.8	sec	OK
EXB at EX4	max1617	AMB Bot Temp	25.00	C	28.8	sec	OK
EXB at EX4	sbbc	SBBC Temp	37.16	C	28.8	sec	OK
EXB at EX4	axq	AXQ Temp	27.16	C	28.8	sec	OK
EXB at EX4	sdim	SDIM Temp	21.37	C	28.8	sec	OK
EXB at EX4	sdise	SDISE Temp	19.54	C	28.8	sec	OK
		-					
EXB at EX4	sdisc	SDISC Temp	27.08	C	28.8	sec	OK
EXB at EX4	pcf8591	1.5 VDC	1.51	V	56.0	sec	OK
EXB at EX4	pcf8591	3.3 VDC	3.26	V	56.0	sec	OK
EXB at EX4	pcf8591	2.5 VDC	2.47	V	56.0	sec	OK
EXB at EX4	pcf8591	3.3 VDC HK	3.28	V	56.0	sec	OK
CPU at SB4	max1617	PROC 0 Temp	0.00	C	9.5	sec	OK
		<u>-</u>		C			
CPU at SB4	max1617	PROC 1 Temp	0.00		9.5	sec	OK
CPU at SB4	max1617	PROC 2 Temp	0.00	C	9.5	sec	OK
CPU at SB4	max1617	PROC 3 Temp	0.00	C	9.5	sec	OK
CPU at SB4	sdc	SDC Temp	56.49	C	9.5	sec	OK
CPU at SB4	ar	AR Temp	49.16	C	9.5	sec	OK
CPU at SB4	dx0	DX0 Temp	51.83	C	9.5	sec	OK
CPU at SB4	dx1	DX1 Temp	51.83	C	9.5	sec	OK
CPU at SB4	dx2	DX2 Temp	48.49	C	9.5	sec	OK
CPU at SB4	dx3	_	43.83	C	9.5		OK
		DX3 Temp				sec	
CPU at SB4	sbbc 0	SBBC 0 Temp	45.16	C	9.5	sec	OK
CPU at SB4	sbbc 1	SBBC 1 Temp	44.50	C	9.5	sec	OK
CPU at SB4	pcf8591	1.5 VDC	1.52	V	56.6	sec	OK
CPU at SB4	pcf8591	3.3 VDC	3.26	V	56.6	sec	OK
CPU at SB4	pcf8591	Core 0 Volt	-1.00	V	56.6	sec	HIGH_MAX
CPU at SB4	pcf8591	Core 1 Volt	1.12	V	56.6	sec	HIGH_MAX
CPU at SB4	pcf8591	Core 2 Volt	1.70	V	56.6	sec	OK
	-						
CPU at SB4	pcf8591	Core 3 Volt	1.13	V	56.6	sec	HIGH_MAX
Schizo0.1	max1617a	Schizo O Slot 1		N/A	N/A		PRESENCE
Schizo1.0	max1617a	Schizo 1 Slot 0	N/A	N/A	N/A		PRESENCE
EXB at EX1							UNKNOWN
SB1							UNKNOWN
103							UNKNOWN
EXB at EX6	max1617	AMB Top Temp	28.00	C	54.7	sec	OK
EXB at EX6			28.00	C	54.7		OK
	max1617	AMB Bot Temp				sec	
EXB at EX6	sbbc	SBBC Temp	35.16	C	54.7	sec	OK
EXB at EX6	axq	AXQ Temp	22.36	C	54.7	sec	OK
EXB at EX6	sdim	SDIM Temp	17.23	C	54.7	sec	OK
EXB at EX6	sdise	SDISE Temp	28.03	C	54.7	sec	OK
EXB at EX6	sdisc	SDISC Temp	-1.00	C	N/A		INVALID
EXB at EX6	pcf8591	1.5 VDC	1.50	V	55.4	sec	OK
EXB at EX6	pcf8591	3.3 VDC	3.26	V	55.4	sec	OK
	-			V			OK
EXB at EX6	pcf8591	2.5 VDC	2.47		55.4	sec	
EXB at EX6	pcf8591	3.3 VDC HK	3.28	V	55.4	sec	OK
CPU at SB6	max1617	PROC 0 Temp	43.00	C	5.1	sec	OK
CPU at SB6	max1617	PROC 1 Temp	0.00	C	5.1	sec	OK
CPU at SB6	max1617	PROC 2 Temp	0.00	C	5.1	sec	OK

CPU at SB6	max1617	PROC	3 Tem	2	0.00	C		5.1	sec	OK
CPU at SB6	sdc		Temp	•	62.49			5.1	sec	OK
CPU at SB6	ar	AR T						5.1	sec	OK
CPU at SB6	dx0	DX0	_		55.16 57.16	Ċ		5.1		
CPU at SB6	dx1	DX1			55 16	C C C C		5.1	sec	OK
CPU at SB6	40	DVO	Tome		55.10	d		5.1		
	dx2	DYZ	Temp		55.63	C			sec	OK
CPU at SB6	ax3	DX3	Temp		53.83	C		5.1		
CPU at SB6	sbbc 0	SBBC	0 Tem	O	51.83	C		5.1	sec	
CPU at SB6	SDDC 1	SBBC	I Tem	O	49.16	C		5.1	sec	
CPU at SB6	dx3 sbbc 0 sbbc 1 pcf8591 pcf8591 pcf8591	1.5	VDC		1.51	V		56.0		
CPU at SB6	pcf8591	3.3	VDC		3.30	V		56.0	sec	OK
CPU at SB6	pcf8591	Core	0 Vol	t	1.72	V		56.0	sec	OK
CPU at SB6	pcf8591 pcf8591 pcf8591 pcf8591	Core	1 Vol	t	1.72 1.13 1.14	V		56.0	sec	HIGH_MAX
CPU at SB6	pcf8591	Core	2 Vol	t	1.14	V		56.0	sec	HIGH_MAX
CPU at SB6	pcf8591	Core	3 Vol	t	1.13			56.0	sec	LOW_MIN
Schizo1.1	max1617a	Schiz	o 1 Sl	ot 1	N/A	N/A		N/A		PRESENCE
EXB at EX12	max1617	AMR	Top Ter	מווי	24.00	N/A C C		27.1	sec	
EXB at EX12	max1617 max1617 sbbc	ΔMR	Bot Ter	ຫກ	24 00	C		27.1		
EXB at EX12	abba	CDDC	DOC ICI	пÞ	25.00	d		27.1		OK
	SUUC	3000	Temp		27.10	d				
EXB at EX12	axy	AAQ	Temb		27.01	C C C		27.1		OK
EXB at EX12	sdim	SDIM	Temp E Temp		24.62	C		27.1		
EXB at EX12	sdise	SDIS	E Temp		24.59	('		27.1		OK
EXB at EX12	sdisc		C Temp		27.48 1.51	C		27.1		
EXB at EX12	pcf8591 pcf8591	1.5	VDC		1.51	V		55.3	sec	OK
EXB at EX12	pcf8591	3.3	VDC		3.28	V		55.3	sec	OK
EXB at EX12	pcf8591	2.5	VDC		2.47	V		55.3	sec	OK
EXB at EX12	pcf8591 pcf8591	3.3	VDC HK		3.26	V		55.3	sec	OK
FANTRAY POWI										
FTO ON	HIGH	OK		OK			OK			
FT1 ON	HIGH	OK	OK	OK	OK	OK	OK	OK		
FT2 ON	HIGH	OK	OK	OK	OK	OK	OK	OK		
FT3 ON	HIGH	OK OK	OK	OK	OK OK	OK	OK	OK		
FT4 ON	HIGH	OK	OK	OK	OK	OK	OK	OK		
FT6 ON	HIGH	OK	OK	OK	OK	OK	OK	OK		
FT7 ON	HIGH	OK	OK	OK	OK	OK	OK	OK		
POWER UNIT	AC0	AC1	DC0		DC1	FAN0	FAI	N1		
PSO FAIL	FAIL	FAIL	ON		ON	OK	OK			
PS1 FAIL	OK	OK	ON		ON	OK	OK			
PS2 OK	OK	OK	ON		ON	OK	OK			
PS4 OK	OK	OK	ON		ON	OK	OK			
PS5 OK	OK	OK	ON		ON	OK	OK			
POWER	VALUE	UNIT	STAT	JS						
PS0										
Current0	0.39	A	N/A							
	0.39	A	N/A							
Currentl	0.39	V	N/A							
Current1 48VDC		•	/							
48VDC										
48VDC PS1		Δ	NI / Z							
48VDC PS1 Current0	8.36	A A	N/A							
48VDC PS1		A A V	N/A N/A N/A							

PS2			
Current0	8.36	A	N/A
Current1	6.77	A	N/A
48VDC	48.80	V	N/A
PS4			
Current0	7.57	A	N/A
Current1	7.17	A	N/A
48VDC	50.00	V	N/A
PS5			
Current0	6.77	A	N/A
Current1	7.17	A	N/A
48VDC	49.40	V	N/A

#

EXAMPLE 2 Reporting Temperature on Domain A

This example assumes that domain a contains MCPUs at IO6 and IO2.

sc0:sms-user:> showenvironment -p temps -d a

LOCATION	DEVICE	SENSOR	VALUE	UNIT	AGE		STATUS
MCPU at IO6	max1617	PROC 1 Temp	35.00	C	8.0	sec	OK
MCPU at IO2	dx0	DX0 Temp	36.50	 C	8.0	sec	OK
• • •			• • •				• • •

EXIT STATUS

The following exit values are returned:

- Successful completion.
- 1 An invalid domain used.
- 2 An invalid command line option used.
- 3 Invalid permission.
- 4 An internal error occurred.

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO addtag(1M)

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showfailover(1M) Maintenance Commands

NAME

showfailover - manage or display system controller (SC) failover status

SYNOPSIS

showfailover [-r] [-v]

showfailover [-h]

DESCRIPTION

showfailover(1M) provides the ability to monitor the state of the SC failover mechanism. This command displays the current status of the failover mechanisms. If you do not specify a -r option, then the following information is displayed:

SC Failover: <state>

The failover mechanisms can be in one of three states: ACTIVE, DISABLED, and FAILED. See the EXTENDED DESCRIPTION below.

OPTIONS

The following options are supported:

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

Displays the SC's role as either MAIN, SPARE or UNKNOWN.

-v Verbose. Displays all available command information.

EXTENDED DESCRIPTION

The failover mechanism states are described as follows:

ACTIVE Identifies the failover mechanism as being

enabled and functioning normally.

DISABLED Identifies that the failover mechanism has been

disabled due to the occurrence of a failover or an operator request (for example, setfailover

off).

Maintenance Commands showfailover(1M)

FAILED

Identifies that the failover mechanism has detected a failure that prevents a failover from being possible.

In addition, showfailover displays the state of each of the network interface links monitored by the failover processes. The display format is:

network i/f device name: [GOOD|FAILED]

A failure string is returned describing the failure condition. Each failure string has a code associated with it. The following codes and associated failure strings are defined:

String	Explanation
None	No Failure.
M-SC/S-SC EXT NET	The main and spare SC's external network interfaces have failed.
S-SC CONSOLE BUS	A fault has been detected on the spare SC's console bus path.
S-SC LOC CLK	The spare SC's local clock has failed.
S-SC CLK NOT PHASE LOCKED	The spare SC's clock is not phase locked with the main SC.
S-SC DISK FULL	The spare SC's system is full.
S-SC IS DOWN	The spare SC is down and unresponsive.
S-SC MEM EXHAUSTED	The spare SC's memory/ swap space has been exhausted.
S-SC SMS DAEMON	At least one SMS daemon could not be started/restarted on the spare SC.
No CSBS Powered on	At least one CSB must be powered on.

showfailover(1M) Maintenance Commands

Group Privileges Required

You must have platform administrator, platform operator, or platform service privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Failover Status Shows Everything is OK

sc0:sms-user:> showfailover
SC Failover: ACTIVE

hme0: GOOD hme1: GOOD hme2: GOOD

EXAMPLE 2 The Spare SC System is Full

sc0:sms-user:> showfailover

SC Failover: FAILED S-SC DISK FULL hme0: GOOD hme1: GOOD hme2: GOOD

EXAMPLE 3 Displays the SC Role

sc0:sms-user:> showfailover -r
SC: SPARE

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

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Maintenance Commands showfailover(1M)

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

setfailover(1M)

showkeyswitch(1M) Maintenance Commands

NAME

showkeyswitch - display the position of the virtual keyswitch

SYNOPSIS

showkeyswitch –d domain_id | domain_tag [-v]

showkeyswitch -h

DESCRIPTION

showkeyswitch(1M) displays the position of the virtual keyswitch of the specified domain. The state of each virtual keyswitch is maintained between power cycles of the system controller (SC) or physical power cycling of the power supplies by the pcd(1M).

OPTIONS

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

–h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

-v Verbose. Displays all available command information.

EXTENDED DESCRIPTION

Group Privileges Required

You must have platform administrator, platform operator or platform service privileges, or domain administrators or configurators privileges for the specified domain to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Keyswitch Status for Domain A

sc0:sms-user:> ${\tt showkeyswitch}$ -d A Virtual keyswitch position: ON

EXIT STATUS

The following exit values are returned:

O Successful completion.

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>0 An error occurred.

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), setkeyswitch(1M), pcd(1M)

showlogs(1M) Maintenance Commands

NAME

showlogs - display message log files

SYNOPSIS

showlogs [-F] [-f filename] [-d domain_id|domain_tag] [-p m|c|s] [-v]

showlogs -h

DESCRIPTION

showlogs(1M) displays platform or domain log files. The default is the platform message log. You must have platform group privileges to run the default, otherwise you will receive an error message. Depending on your privileges, you can display the message logs, console logs, or syslog for the platform or a specified domain.

OPTIONS

Outputs only lines which have been appended to the log file since the showlogs command was executed. Similar to the 'tail-f' command.
Output will continue until interrupted by Control

-C.

-d domain_id | domain_tag Outputs the message log file for the specified

domain instead of the platform log. You must have domain privileges to use this option.

-f filename Places the output of the showlogs command

into a specified file.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in

addition to -h is ignored.

 $-p \mathbf{m} | \mathbf{c} | \mathbf{s}$ Specifies display of either the platform (m)essage log or domain (c)onsole log or domain (s)yslog.

m — Displaying the platform message log requires platform group privileges. This is the showlogs default.

 ${\tt c}$ — Displaying the domain console log requires the $-{\tt d}$ option and domain privileges for that domain.

s — Displaying the domain syslog requires domain privileges for that domain. Syslogs forwarded to the system controller (SC) from

Maintenance Commands showlogs(1M)

non-domain systems are stored in /var/opt/ SUNWSMS/adm/anonymous.

-v

Verbose. Displays all available command information.

EXTENDED DESCRIPTION

Group Privileges Required

If you have platform administrator, operator, or service privileges, you can display the platform messages log file.

If you have domain administrator/configurator privileges, you can display only those log files for domains for which you have privileges.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Output Platform Message Log to Standard Out

sc0:sms-user:> showlogs

Aug 24 14:30:53 2000 xc8-sc0 hwad[104609]: [0 5751139758216 ERR SCCSR.cc 1347] g etCrt - Client: 104621.14 has locked - 167 Aug 24 14:30:53 2000 xc8-sc0 hwad[104609]: [0 5751170721148 ERR SCCSR.cc 1362] g etCrt - Client: 104621.14 about to unlock - 167.....

EXAMPLE 2 Output Domain A Message Log to Standard Out

sc0:sms-user:> showlogs -d A

Aug 15 14:28:05 2000 xc8-sc0 dsmd[106850]-A(): [0 8500962546702 INFO Observers.cc 125] DOMAIN_UP A event has been sent to SYMON, rc=0. Aug 15 14:28:05 2000 xc8-sc0 dsmd[106850]-A(): [0 8500963756755 INFO DomainMon.cc 183] Start monitoring domain A every 5 second....

showlogs(1M) Maintenance Commands

EXAMPLE 3 Output Newly Appended Lines to Domain A Message Log to Standard Out

```
sc0:sms-user:> showlogs -d A -F
```

Aug 25 14:28:05 2000 xc8-sc0 dsmd[106850]-A(): [0 8500960648900 INFO Observers.c c 193] DOMAIN_UP A event has been sent to DXS, rc = 0.....

EXAMPLE 4 Output Domain A Console Log to Standard Out

```
sc0:sms-user:> showlogs -d A -p c
```

- ** Domain Server Shutting Down disconnecting
- ** Domain Server Shutting Down disconnecting

Sun Fire 15K system, using IOSRAM based Console OpenBoot 4.0, 2048 MB memory installed, Serial #10000000. Ethernet address 8:0:20:b8:2d:b1, Host ID: 80a3e446.

EXAMPLE 5 Output Domain sms2 Syslog to Standard Out

```
sc0:sms-user:> showlogs -d sms2 -p s
```

- Sep 7 13:51:49 sms2 agent[6629]: [ID 240586 daemon.alert] syslog
- Sep 07 13:51:49 agent {received software termination signal} Sep 7 13:51:49 sms2 agent[6629]: [ID 985882 daemon.alert] syslog
- Sep 07 13:51:49 agent *** terminating execution ***
 Sep 7 13:51:50 sms2 platform[22481]: [ID 345917 daemon.alert] syslog
- Sep 07 13:51:50 platform *** terminating execution **
 Sep 7 14:49:07 sms2 platform[4309]: [ID 745356 daemon.alert] syslog
- Sep 07 14:49:07 platform general parsing error Sep 7 14:49:07 sms2 platform[4309]: [ID 334248 daemon.alert] syslog
- Sep 07 14:49:07 platform file://localhost/scmonitor-d.x;flags=ro
- Sep 7 14:49:07 sms2 platform[4309]: [ID 449452 daemon.alert] syslog Sep 07 14:49:07 platform couldn't load file

EXIT STATUS

The following exit values are returned:

O Successful completion.

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>0 An error occurred.

FILES The following files are used:

/var/opt/SUNWSMS/adm/platform/messa**Ptatform message file..**

/var/opt/SUNWSMS/adm/domain_id/messagebomain message file..

 $/ \verb|var/opt/SUNWSMS/adm|/ \textit{domain_id}/ \verb|consol| \textbf{Domain console file}...$

/var/opt/SUNWSMS/adm/domain_id/syslogDomain syslog file..

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

tail(1)

showobpparams(1M) Maintenance Commands

NAME

showobpparams - display OpenBoot PROM bring up parameters for a domain

SYNOPSIS

showobpparams -d domain_id | domain_tag [-v]

showobpparams -h

DESCRIPTION

showobpparams(1M) allows a domain administrator to display the virtual NVRAM and REBOOT parameters passed to OpenBoot PROM by setkeyswitch(1M). The -d option with $domain_id$ or $domain_tag$ is required.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

 $\mbox{\bf Note}$ - Use alone. Any option specified in addition to -h is ignored.

^{-v} Verbose. Displays all available command information.

EXTENDED DESCRIPTION

Group Privileges Required

You must have domain administrator or domain configurator privileges for the specified domain to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Displaying OpenBoot PROM Parameters for Domain A

sc0:sms-user:> showobpparams -d a auto-boot?=false diag-switch?=true fcode-debug?=false use-nvramrc?=false security-mode=none

EXIT STATUS | The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), setkeyswitch(1M), setobpparams(1M)

showplatform(1M) Maintenance Commands

NAME

showplatform – display the board available component list and domain state for each of the domains

SYNOPSIS

showplatform [-d domain_id | domain_tag] [-p domains | available | ethernet] [-v]

showplatform -h

DESCRIPTION

Show the available component list, domain state and Ethernet address for domains. If a <code>domain_id|domain_tag</code> is specified, only the information for that domain is displayed. If no domain and <code>-p</code> are specified, the available component list, domain states and ethernet addresses for all domains for which you have privileges are displayed.

OPTIONS

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case insensitive.

-d domain_tag Domain name assigned to a domain using addtag(1M).

-h Help. Displays usage descriptions.

 $\mbox{\bf Note}$ - Use alone. Any option specified in addition to -h is ignored.

^{-p} Display specific reports.

Valid arguments for −p are:

domains — List output is grouped by domain state.

available — List output is grouped by domain available component list.

 $\mbox{\bf ethernet} - \mbox{List output is grouped by domain Ethernet} \\ \mbox{addresses}.$

-v Verbose. Displays all available command information.

EXTENDED DESCRIPTION

The domain status is one of the following:

- Unknown The domain state could not be determined or for Ethernet addresses, it indicates the domain idprom image file does not exist. You need to contact your Sun service representative.
- Powered Off The domain is powered off.

- Keyswitch Standby The keyswitch for the domain is in STANDBY position.
- Running Domain POST The domain power-on self-test is running.
- Loading OBP The OpenBoot PROM for the domain is being loaded.
- Booting OBP The OpenBoot PROM for the domain is booting.
- Running OBP The OpenBoot PROM for the domain is running.
- In OBP Callback The domain has been halted and has returned to the OpenBoot PROM.
- Loading Solaris The OpenBoot PROM is loading the Solaris software.
- Booting Solaris The domain is booting the Solaris software.
- Domain Exited OBP The domain OpenBoot PROM exited.
- OBP Failed The domain OpenBoot PROM failed.
- OBP in sync Callback to OS The OpenBoot PROM is in sync callback to the Solaris software.
- Exited OBP The OpenBoot PROM has exited.
- In OBP Error Reset The domain is in OpenBoot PROM due to an error reset condition.
- Solaris Halted, in OBP Solaris software is halted and the domain is in OpenBoot PROM.
- OBP Debugging The OpenBoot PROM is being used as a debugger.
- Environmental Domain Halt The domain was shut down due to an environmental emergency.
- Booting Solaris Failed OpenBoot PROM running, boot attempt failed.
- Loading Solaris Failed— OpenBoot PROM running, loading attempt failed...
- Running Solaris Solaris software is running on the domain.
- Solaris Quiesce In-progress A Solaris software quiesce is in progress.
- Solaris Quiesced Solaris software has quiesced.
- Solaris Resume In-progress A Solaris software resume is in progress.
- Solaris Panic Solaris software has panicked, panic flow has started.
- Solaris Panic Debug Solaris software panicked, and is entering debugger mode

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- Solaris Panic Continue Exited debugger mode and continuing panic flow.
- Solaris Panic Dump Panic dump has started.
- Solaris Halt Solaris software is halted.
- Solaris Panic Exit Solaris software exited as a result of a panic.
- Environmental Emergency An environmental emergency has been detected.
- Debugging Solaris Debugging Solaris software; this is not a hung condition.
- Solaris Exited Solaris software has exited.
- In Recovery The domain is in the midst of an automatic system recovery.

Group Privileges Required

If you have platform administrator, operator, or service privileges, showplatform displays available component list and board state information on all domains. Otherwise, only information for domains, for which you have domain administrator or configurator privileges, is displayed.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Show the Available Component List and Domain State Information for All Domains

An UNKNOWN state for an ethernet address as shown in the following example indicates a missing idprom image file for the domain. Contact your Sun service representative.

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Available for domain E:

No System boards

No IO boards

Available for domain domainF:
 No System boards
 No IO boards

Available for domain dmnG:
 No System boards
 No IO boards

Available for domain H:
 No System boards
 No IO boards

Available for domain I:

No System boards
No IO boards

Available for domain dmnJ:
 No System boards
 No IO boards

Available for domain K:
 No System boards
 No IO boards

Available for domain L:
 No System boards
 No IO boards

Available for domain M:
 No System boards
 No IO boards

Available for domain N:
 No System boards
 No IO boards

Available for domain O:
 No System boards
 No IO boards

Available for domain P:
No System boards
No IO boards

Available for domain Q:
 No System boards
 No IO boards

Available for domain dmnR:
 No System boards
 No IO boards

Domain Configurations:

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=======================================			
DomainID	Domain Tag	Solaris Nodename	Domain Status
A	newA	-	Powered Off
В	engB	sun15-b	Keyswitch Standby
C	domainC	sun15-c	Running OBP
D	_	sun15-d	Running Solaris
E	eng1	sun15-e	Running Solaris
F	domainF	sun15-f	Running Solaris
G	dmnG	sun15-g	Running Solaris
H	_	sun15-g	Solaris Quiesced
I	_	-	Powered Off
J	dmnJ	-	Powered Off
K	_	sun15-k	Booting Solaris
L	_	-	Powered Off
M	_	-	Powered Off
N	_	sun15-n	Keyswitch Standby
0	_	_	Powered Off
P	_	sun15-p	Running Solaris
Q	_	sun15-q	Running Solaris
R	dnmR	sun15-r	Running Solaris

Domain Ethernet Addresses:

Domain ID	Domain Tag	Ethernet Address
A	newA	8:0:20:b8:79:e4
В	engB	8:0:20:b4:30:8c
C	domainC	8:0:20:b7:30:b0
D	-	8:0:20:b8:2d:b0
E	eng1	8:0:20:f1:b7:0
F	domainF	8:0:20:be:f8:a4
G	dmnG	8:0:20:b8:29:c8
H	_	8:0:20:f3:5f:14
I	_	8:0:20:be:f5:d0
J	dmnJ	UNKNOWN
K	_	8:0:20:f1:ae:88
L	_	8:0:20:b7:5d:30
M	_	8:0:20:f1:b8:8
N	_	8:0:20:f3:5f:74
0	_	8:0:20:f1:b8:8
P	_	8:0:20:b8:58:64
Q	_	8:0:20:f1:b7:ec
R	dmnR	8:0:20:f1:b7:10

EXAMPLE 2 Show Available Component List and Domain State for Domain engB

```
sc0:sms-user:> showplatform -d engB
```

Domain Configurations:

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Maintenance Commands showplatform(1M)

EXAMPLE 3 Showplatform for Domain Administrators

The following example shows domain available component list and state information for all domains for which you have domain administrator or configurator privileges, in this case, domains engB, C, E and dmnJ.

```
sc0:sms-user:> showplatform
Available Component List for Domains:
______
Available for domain engB:
           SB1 SB2 SB3 SB4 SB5 SB6
            IO1 IO2 IO3 IO4 IO5 IO6 IO7
Available for domain C:
            SB1 SB2 SB3 SB4 SB5 SB6
            IO1 IO2 IO3 IO4 IO5 IO6 IO7
Available for domain E:
            SB1 SB2 SB3 SB4 SB5 SB6
            IO1 IO2 IO3 IO4 IO5 IO6 IO7
Domain Configurations:
-----
DomainID Domain Tag Solaris Nodename Domain Status
       engB sun15-b Keyswitch Standby
domainC sun15-c Running OBP
eng1 sun15-e Running Solaris
С
Domain Ethernet Addresses:

        Domain ID
        Domain Tag
        Ethernet Address

        B
        engB
        8:0:20:b4:30:8c

        C
        domainC
        8:0:20:b7:30:b0

        E
        eng1
        8:0:20:f1:b7:0
```

EXAMPLE 4 Show Available Component List for Domain engB

```
sc0:sms-user:> showplatform -d engB -p available

Available Component List for Domains:
```

showplatform(1M) Maintenance Commands

Available for domain engB:

SB4 SB5 SB6

IO4 IO5

EXAMPLE 5 Show Domain Status for Domain engB

sc0:sms-user:> showplatform -d engB -p domains

Domain Configurations:

DomainID Domain Tag Solaris Nodename Domain Status

engB sun15-b Keyswitch Standby

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- 1 An invalid domain was specified.
- 2 An invalid command-line option was specified.
- 3 An incorrect number of domains was specified.
- 4 The user does not have valid privileges.
- 5 An error occurred communicating with the platform

configuration daemon (pcd(1M)).

6 An error occurred communicating with the hardware access

daemon (hwad(1M)).

7 An error occurred communicating with the task management

daemon (tmd(1M)).

8 An internal error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

addtag(1M), hwad(1M), pcd(1M), setupplatform(1M), tmd(1M)

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Maintenance Commands showxirstate(1M)

NAME

showxirstate – display CPU dump information after sending a reset pulse to the processors

SYNOPSIS

showxirstate -d domain_id | domain_tag | -f filename [-v]

showxirstate [-h]

DESCRIPTION

showxirstate(1M) displays CPU dump information after sending a reset pulse to the processors. This save state dump can be used to analyze the cause of abnormal domain behavior. showxirstate creates a list of all active processors in that domain and retrieves the save state information for each processor.

If $domain_id \mid domain_tag$ or filename is not specified, showxirstate returns an error.

OPTIONS

The following options are supported:

-d domain_id ID for a domain. Valid domain_ids are 'A'...'R' and are case

insensitive.

-d domain_tag Name assigned to a domain using addtag(1M).

−f *filename* Name of the file containing a previously generated

xir_dump. You must provide the absolute path to the file.
The default is /var/opt/SUNWSMS/adm/domain_id/dump

and cannot be changed.

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is

ignored.

^{-v} Verbose. Displays all available command information.

EXTENDED DESCRIPTION

Group Privileges Required

You must have domain administrator privileges on the specified domain to run this command. No special privileges are required to read the xir_dump files.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

showxirstate(1M) Maintenance Commands

EXAMPLES

EXAMPLE 1 Displaying Dump Information for Domain A With 1 CPU

```
sc0:sms-user:> showxirstate -dA
Location: SB4/P0
XIR Magic XIR Version 00415645 Buglevel 00000000
XIR Save Total Size 0x58495253 bytes
     : 00000000.00000000
ver
tba
     : 00000000.00000000
     : 0x0
pil
     : 00000000.00000000
afsr
     : 00000000.00000000 afar
                          : 00000000.00000000
pcontext: 00000000.00000000 scontext: 00000000.00000000
dcu : 00000000.00000000
     : 00000000.00000000
     : 00000000 00000000
pcr
     : 00000000.00000000
softint : 0x0000
pa_watch: 00000000.00000000
va_watch: 00000000.00000000
instbp : 00000000.00000000
tick: 00000000.00000000 tick_cmpr: 00000000.00000000
stick: 00000000.00000000 stick_cmpr: 00000000.00000000
tl: 0
tt
    tstate
              tpc
                             tnpc
    0x000000000
              00000000.00000000
                            00000000.00000000
0x00
0x00 0x000000000
              00000000.00000000
                            00000000.00000000
0x00
    0 \times 00000000000
              00000000.00000000
                            00000000.00000000
0x00
    0x000000000
              00000000.00000000
                            00000000.00000000
    0x00
Globals:
                                           MMU
R Normal
               Alternate
                             Interrupt
1 00000000.00000000 00000000.00000000
                             00000000.00000000
                                           00000000.00000000
4 00000000.00000000
               00000000.00000000
                             0000000.0000000 0000000.0000000
5 00000000.00000000
               00000000.00000000
                             00000000.00000000 00000000.00000000
wstate: 0x00
cansave: 0 cleanwin: 0
canrestore: 0 otherwin: 0
Register Windows:
Window 0
R Locals
               Ins
0 0000000.0000000 0000000.0000000
1 00000000.00000000 00000000.00000000
```

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Maintenance Commands showxirstate(1M)

```
2 00000000.00000000
                     00000000.00000000
3 00000000.00000000
                     00000000.00000000
4 00000000.00000000
                     00000000.00000000
5 00000000.00000000
                     00000000.00000000
6 00000000.00000000
                     00000000.00000000
7 00000000.00000000
                     00000000.00000000
Window 1
R Locals
0 00000000.00000000
                     00000000.00000000
1 00000000.00000000
                     00000000.00000000
2 00000000.00000000
                     00000000.00000000
3 00000000.00000000
                     00000000.00000000
4 00000000.00000000
                     00000000.00000000
5 00000000.00000000
                     00000000.00000000
6 00000000.00000000
                     00000000.00000000
7 00000000.00000000
                     00000000.00000000
Window 2
R Locals
0 00000000.00000000
                     00000000.00000000
1 00000000.00000000
                     00000000.00000000
2 00000000.00000000
                     00000000.00000000
3 00000000.00000000
                     00000000.00000000
4 00000000.00000000
                     0000000.00000000
5 00000000.00000000
                     00000000.00000000
6 00000000.00000000
                     00000000.00000000
7 00000000.00000000
                     00000000.00000000
Window 3
R Locals
0 00000000.00000000
                     00000000.00000000
1 00000000.00000000
                     00000000.00000000
2 00000000.00000000
                     00000000.00000000
3 00000000.00000000
                     00000000.00000000
4 00000000.00000000
                     00000000.00000000
5 00000000.00000000
                     00000000.00000000
6 00000000.00000000
                     00000000.00000000
7 00000000.00000000
                     00000000.00000000
Window 4
R Locals
0 00000000.00000000
                     00000000.00000000
1 00000000.00000000
                     00000000.00000000
2 00000000.00000000
                     00000000.00000000
3 00000000.00000000
                     00000000.00000000
4 00000000.00000000
                     00000000.00000000
5 00000000.00000000
                     00000000.00000000
6 00000000.00000000
                     00000000.00000000
7 00000000.00000000
                     00000000.00000000
Window 5
R Locals
0 00000000.00000000
                     00000000.00000000
1 00000000.00000000
                     00000000.00000000
2 00000000.00000000
                     00000000.00000000
3 00000000.00000000
                     00000000.00000000
4 00000000.00000000
                     00000000.00000000
                     00000000.00000000
5 00000000.00000000
6 00000000.00000000
                     00000000.00000000
7 00000000.00000000
                     00000000.00000000
Window 6
```

showxirstate(1M) Maintenance Commands

Ins

R Locals

```
0 00000000.00000000
                  00000000.00000000
1 00000000.00000000
                  00000000.00000000
2 00000000.00000000
                  00000000.00000000
                  00000000.00000000
3 00000000.00000000
4 00000000.00000000
                  00000000.00000000
                  00000000.00000000
5 00000000.00000000
6 00000000.00000000
                  00000000.00000000
7 00000000.00000000
                  00000000.00000000
Window 7
R Locals
0 0000000.0000000 0000000.0000000
1 00000000.00000000 00000000.00000000
2 00000000.00000000
                  00000000.00000000
3 00000000.00000000 00000000.00000000
4 00000000.00000000
                  00000000.00000000
5 00000000.00000000
                  00000000.00000000
6 00000000.00000000
                  00000000.00000000
7 00000000.00000000
                  00000000.00000000
nest_save_ptr: 00000000
XIR Nest Version 00000000 Buglevel 00000000
XIR Nest nest_count 0 save_block 88
tick: 00000000.00000000
stick: 00000000.00000000
tl: 73
tt
     tstate
                                   tnpc
                 tpc
0x000000000
                 00000000.00000000
                                  00000000.00000000
0x00 0x000000000 0000000.00000000
                                  00000000 00000000
0x00 0x000000000 00000000.00000000
                                  00000000.00000000
```

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

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ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

reset(1M)

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Maintenance Commands smsbackup(1M)

NAME

smsbackup - back up the SMS environment

SYNOPSIS

smsbackup directory_name

smsbackup -h

DESCRIPTION

smsbackup(1M) creates a cpio(1) archive of files that maintain the operational environment of SMS. In order to create a complete and accurate backup, turn off SMS before running smsbackup. For information on manually starting and stopping SMS refer to the System Management Services (SMS) 1.2 Installation Guide and Release Notes.

Whenever changes are made to the SMS environment, for example by shutting down a domain, you must run smsbackup again in order to maintain a current backup file for the system controller.

The name of the backup file is sms_backup. X.X.cpio - where X.X represents the active version from which the backup was taken.

Restore SMS backup files using the smsrestore(1M) command.

If any errors occur, smsbackup writes error messages to /var/sadm/ system/logs/smsbackup if /var/sadm/system/logs exists and /var/ tmp if it does not.

OPTIONS

-h

Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

OPERANDS

The following operands are supported:

directory_name

Name of the directory in which the backup file is created. This file can reside in any directory on the system, connected network or tape device to which you have read/write privileges. If no directory_name is specified, a backup file is created in /var/tmp. The directory_name does not require the absolute path name for the file.

The *directory_name* specified must be mounted on as a UFS filesystem. Specifying a TMPFS file system, such as /tmp, will cause smsbackup to fail.. If you are not certain that your directory_name is mounted as a UFS filesystem, type:

smsbackup(1M) Maintenance Commands

/usr/bin/df -F ufs directory_name

A UFS file system will return directory information. Any other type of file system will return a warning.

EXTENDED DESCRIPTION

Group Privileges Required

You must have superuser privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Backing Up SMS to /var/opt/SUNWSMS/bkup

sc0:sms-user:> smsbackup /var/opt/SUNWSMS/bkup

EXAMPLE 2 Backing Up SMS to a Tape Device 0

sc0:sms-user:> smsbackup /dev/rmt/0

EXAMPLE 3 Backing Up SMS to a TMPFS System

sc0:sms-user:> smsbackup /tmp
ERROR: smsbackup fails to backup to /tmp, a TMPFS
file system. Please specify a directory that is
mounted on a UFS filesystem.
ABORT:

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

Maintenance Commands smsbackup(1M)

FILES The following file is used by this command:

/var/sadm/system/logs/smsbackup smsbackup log file

SEE ALSO

 ${\tt smsrestore}(1M)$

NAME

smsconfig - configures the SMS environment

SYNOPSIS

```
smsconfig -m I1 [ domain_id| sc]
smsconfig -m I2 [sc0|sc1]
```

smsconfig -m L [sc]

smsconfig -g

smsconfig -m

smsconfig –a –u *username* –G admn|oper|svc platform

smsconfig -r -u username -G admn | rcfg domain_id

smsconfig -1 domain_id| platform

smsconfig -h

DESCRIPTION

smsconfig(1M) configures and modifies the host name and IP address settings used by the MAN daemon, mand(1M). For each network, smsconfig can singularly set one or more *interface* designations within that network. By default, smsconfig steps through the configuration of all three internal enterprise networks.

Note - Once you have configured or changed the configuration of the the MAN network you *must* reboot the SC in order for the changes to take effect.

To configure an individual network, append the <code>net_id</code> to the command line. Management network <code>net_id</code>s are designated <code>I1</code>, <code>I2</code>, and <code>L</code>. Configure a single <code>interface</code> within an enterprise network by specifying both the desired <code>interface</code> and its <code>net_id</code>. Any changes made to the network configuration on one SC using <code>smsconfig</code> <code>-m</code> must be run on the other SC. Network configurations files are not automatically propagated.

For security purposes, SMS disables forwarding, broadcast and multicast by setting the appropriate ndd variables upon startup.

smsconfig configures the UNIX groups used by SMS to describe user privileges. SMS uses a default set of UNIX groups installed locally on each SC. smsconfig allows you to customize those groups using the -g option. For more information refer to the System Management Services (SMS) 1.1 Installation Guide and Release Notes.

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 ${\tt smsconfig}$ also adds users to SMS groups and configures domain and platform administrative privileges. ${\tt smsconfig}$ sets access control list (ACL) attributes on SMS directories.

Note - Do *not* manually edit the /etc/group SMS file entries to add or remove users. User access will be compromised.

OPTIONS

-a	Adds a user to an SMS group and provides read, write and execute access for a domain or the platform directories. You must specify a valid username, SMS group and if applicable, a domain_id
−G admn rcfg	Indicates an SMS domain administrator or reconfigurator. All groups are case insensitive.
−G admn oper svc	Indicates an SMS platform administrator, operator or service personnel. All groups are case insensitive.
- g	Configures the UNIX groups used by SMS to describe user privileges.
-h	Help. Displays usage descriptions.
	Note - Use alone. Any option specified in addition to –h is ignored.
-1	Lists all users with access to the specified SMS domain or platform.
-m	Configures all interfaces for all enterprise networks and the external community.
−m I1	Configures all interfaces for enterprise network I1. Network designation is case insensitive. A domain can be excluded from the I1 network configuration by using the word NONE as the net_id. This applies to the I1 network only.
-m I2	Configures all interfaces for enterprise network 12. Network designation is case insensitive.

−m **L** Configures all interfaces for the external

community network. Network designation is case

insensitive.

Removes a user from an SMS group and denies

read, write and execute access for a domain or the platform directories. You must specify a valid

username, SMS group and if applicable, a

domain_id.

-u *username* Indicates user login name.

OPERANDS

The following operands are supported:

domain_id ID for a domain. Valid domain_ids are 'A'...'R' and

are case insensitive.

platform Specifies the Sun Fire 15K platform and platform

specific directories.

SC, SC0, SC1 Interface designation for the Sun Fire 15K SC.

Interface designations are case insensitive.

EXTENDED DESCRIPTION

Group Privileges Required You must have superuser privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2

Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Initial Setup

You must configure all interfaces in the MAN network. This example steps through all the prompts needed to completely set up all three enterprise networks using IPv4. An IPv6 network example differs slightly. There will be no prompts for netmasks and /etc/ipnodes will be modified in addition to /etc/hosts.

IP addresses on the external network for failover, hme0 and eri1 on each SC must be unique. The floating IP address is the same on both SCs.

By default, the I1 network settings are derived from the base network address entered for that network. A domain can be excluded from the I1 network configuration by using the word NONE as the *net_id*. For more information refer to the *System Management Services* (SMS) 1.1 Installation Guide and Release Notes.

```
Once you have configured the MAN network, you must reboot the SC.
 sc0: # smsconfig -m
 The platform name identifies the entire host machine to the SMS
 software. The platform name occupies a different name space than
 domain names (hostnames of bootable systems).
 What is the name of the platform this SMS will service? sun15
 Configuring the External Network for Community C1
 Do you want to define this Community? [y,n] y
 Enter NICs associated with community C1 [hme0 eril]: [Return]
 Enter Logical/Floating IP hostname for community C1 [sun15-sc-C1]:[Return]
 Enter IPMP IP address for sun15-sc-C1: 10.1.1.50
 Enter Netmask for community C1: 255.255.255.0
 Enter IPMP hostname for community C1 failover address [sun15-sc0-C1-failover]:[Return]
 Enter IPMP IP address for sun15-sc0-C1-failover: 10.1.1.51
 Enter IPMP hostname for hme0 [sun15-sc0-hme0]:[Return]
 Enter IPMP IP address for sun15-sc0-hme0: 10.1.1.52
 Enter IPMP hostname for eri1 [sun15-sc0-eri1]:[Return]
 Enter IPMP IP address for sun15-sc0-eril: 10.1.1.53
 Hostname
                         IP Address (platform=sun15)
                        10.1.1.50
 sun15-sc-C1
 sun15-sc0-C1-failover 10.1.1.51
 sun15-sc0-hme0
                         10.1.1.52
 sun15-sc0-eri1
                         10.1.1.53
 Do you want to:
      1) Accept these network settings.
      2) Edit these network settings.
      3) Delete these network settings and go onto the next
         community.s? [y,n] y
 Configuring the External Network for Community C2
 Do you want to define this Community? [y,n] n
 Configuring I1 Management Network - 'I1' is the Domain to SC MAN.
 MAN I1 Network Identification
 Enter the IP network number (base address) for the Il network: 10.2.1.0
 Enter the netmask for the I1 MAN network [ 255.255.255.224 ]: [Return]
                IP Address (platform=sun15)
 Hostname
                -----
                255.255.255.224
 netmask-i1
 sun15-sc-i1 10.2.1.1
 sun15-a
               10.2.1.2
                10.2.1.3
 sun15-b
 sun15-c
                10.2.1.4
            10.2.1.5
 sun15-d
```

```
sun15-e
                    10.2.1.6
                   10.2.1.7
sun15-f
                  10.2.1.8
sun15-g
                  10.2.1.9
10.2.1.10
sun15-h
sun15-i
sun15-j
                  10.2.1.11
                   10.2.1.12
sun15-k
sun15-l
                    10.2.1.13
sun15-m
                   10.2.1.14
                   10.2.1.15
sun15-n
                    10.2.1.16
sun15-o
sun15-p
                   10.2.1.17
sun15-q
                   10.2.1.18
sun15-r
                    10.2.1.19
Do you want to accept these network settings? [y,n] y
Configuring I2 Management Network - 'I2' is for SC to SC MAN.
MAN I2 Network Identification
Enter the IP network number (base address) for the I2 network: 10.3.1.0
Enter the netmask for the I2 MAN network [ 255.255.255.252 ]:[Return]
                       IP Address (platform=sun15)
netmask-i2
                      255.255.255.252
sun15-sc0-i2
                      10.3.1.1
sun15-sc1-i2
                       10.3.1.2
Do you want to accept these settings? [y,n] y
Creating /.rhosts to facillitate file propagation ... done.
MAN Network configuration modified!
Changes will take effect on next reboot.
The following changes are about to be applied to the "/etc/hosts" hosts file.
 -----
ADD: 10.2.1.2 sun15-a #smsconfig-entry#
ADD: 10.2.1.3 sun15-b #smsconfig-entry#
ADD: 10.2.1.4 sun15-c #smsconfig-entry#
ADD: 10.2.1.5 sun15-d #smsconfig-entry#
ADD: 10.2.1.6 sun15-e #smsconfig-entry#
ADD: 10.2.1.7 sun15-f #smsconfig-entry#
ADD: 10.2.1.8 sun15-g #smsconfig-entry#
ADD: 10.2.1.9 sun15-h #smsconfig-entry#
ADD: 10.2.1.10 sun15-i #smsconfig-entry#
ADD: 10.2.1.11 sun15-j #smsconfig-entry#
ADD: 10.2.1.12 sun15-k #smsconfig-entry#
ADD: 10.2.1.13 sun15-l #smsconfig-entry#
ADD: 10.2.1.14 sun15-m #smsconfig-entry#
ADD: 10.2.1.15 sun15-n #smsconfig-entry#
ADD: 10.2.1.16 sun15-o #smsconfig-entry#
ADD: 10.2.1.17 sun15-p #smsconfig-entry#
ADD: 10.2.1.18 sun15-q #smsconfig-entry#
ADD: 10.2.1.19 sun15-r #smsconfig-entry#
ADD: 10.2.1.1 sun15-sc-i1 #smsconfig-entry#
ADD: 10.1.1.50 sun15-sc-C1 #smsconfig-entry#
ADD: 10.1.1.51 sun15-sc0-C1-failover #smsconfig-entry#
```

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```
ADD: 10.1.1.52 sun15-sc0-hme0 #smsconfig-entry# ADD: 10.1.1.53 sun15-sc0-eri1 #smsconfig-entry#
 ADD: 10.3.1.1 sun15-sc0-i2 #smsconfig-entry#
 ADD: 10.3.1.2 sun15-sc1-i2 #smsconfig-entry#
 Update the hosts file, "/etc/hosts", with these changes? [y,n] y
 Hosts file "/etc/hosts" has been updated.
 The following information is about to be applied to the "/etc/netmasks" file.
 ADD network: 10.1.1.50, mask: 255.255.255.0
 ADD network: 10.2.1.0, mask: 255.255.255.224
 ADD network: 10.3.1.0, mask: 255.255.255.252
 Update the netmasks file, "/etc/netmasks", with these changes? [y,n] y
 Netmasks file "/etc/netmasks" has been updated.
EXAMPLE 2 Configuring the I2 Network
 sc0: # smsconfig -m I2
 Configuring I2 Management Network - 'I2' is for SC to SC MAN
 Which System Controller are you configuring [choose 0 or 1]: 0.
 Hostname
                  IP Address (platform=sun15)
                   255.255.255.252
 netmask-i2
 sun15-sc0-i2
                    10.3.1.1
 sun15-sc1-i2
                  10.3.1.2
 Do you want to accept these network settings? [y,n] n
 MAN I2 Network Identification
 Enter the IP network number (base address) for the I2 network: 172.16.0.0
 Enter the netmask for the I2 MAN network [ 255.255.255.252 ]: [Return]
                  IP Address (platform=sun15)
 Hostname
                   255.255.255.252
 netmask-i2
 sun15-sc0-i2
                  172.16.0.1
 sun15-sc1-i2
                  172.16.0.2
 Do you want to accept these network settings? [y,n] y
 Creating /.rhosts to facillitate file propagation ... done.
 MAN Network configuration modified!
 Changes will take effect on the next reboot.
```

The following changes are about to be applied to the "/etc/hosts" hosts file.

EXAMPLE 3 Configuring Internal Host Name and IP Address, SC to Domain B on the I1 Network

```
sc0: # smsconfig -m I1 B
Enter the MAN hostname for DB-I1 [ sun15-b ]: domainB-i1
I could not automatically determine the IP address of domainB-i1.
Please enter the IP address of domainB-il: 10.2.1.20
You should make sure that this host/IP address is set up properly in
the /etc/inet/hosts file or in your local name service system.
Network: I1 (DB-I1) Hostname: domainB-i1 IP Address: 10.2.1.20
Do you want to accept these settings? [y,n] y
Creating /.rhosts to facillitate file propagation ... done.
MAN Network configuration modified!
Changes will take effect on the next reboot.
The following changes are about to be applied to the "/etc/hosts" hosts file.
ADD: 10.2.1.20 domainB-i1 #smsconfig-entry#
Update the hosts file, "/etc/hosts", with these changes? [y,n] y
Hosts file "/etc/hosts" has been updated.
sc#
```

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EXAMPLE 4 Excluding Domain D from the I1 Network

```
sc0: # smsconfig -m I1 D
Enter the MAN hostname for DB-I1 [ sun15-b ]: domainB-i1
I could not automatically determine the IP address of domainB-i1.
Please enter the IP address of domainB-i1: NONE
You should make sure that this host/IP address is set up properly in
the /etc/inet/hosts file or in your local name service system.
Network: I1 (DB-I1) Hostname: domainB-i1 IP Address: NONE
Do you want to accept these settings? [y,n] y
Creating /.rhosts to facillitate file propagation ... done.
MAN Network configuration modified!
Changes will take effect on the next reboot.
The following changes are about to be applied to the "/etc/hosts" hosts file.
ADD: NONE domainB-il #smsconfig-entry#
Update the hosts file, "/etc/hosts", with these changes? [y,n] y
Hosts file "/etc/hosts" has been updated.
sc#
```

EXAMPLE 5 Configuring Non Default Groups

In this example, all domain administrator and domain reconfiguration groups are left as the default groups.

```
sc0: # smsconfig -g
1) Edit current configuration
2) Restore default groups
3) Quit
Select one of the above options: 1

NOTE: In order to configure a new group the group must already exist.

The Platform Administrator group has configuration control, a means to get environmental status, the ability to assign boards to domains, power control and other generic service processor functions.

Enter the name of the Platform Administrator group [platadmn]? zeus
The Platform Operator group has a subset of the platform privileges, limited generally to platform power control and platform status
```

Enter the name of the Platform Operator group [platoper]? poseidon

The Platform Service group posses platform service command privileges in addition to limited platform control and platform configuration status privileges

Enter the name of the Platform Service group [platsvc]? kronos

The Domain Administrator group posses domain control and status, and console access privileges (for the respective domain), but does not posses platform wide control or platform resource allocation privileges.

```
Enter the name of the Domain A Administrator group [dmnaadmn]? [Return]
Enter the name of the Domain B Administrator group [dmnbadmn]? [Return]
Enter the name of the Domain C Administrator group [dmncadmn]? [Return]
Enter the name of the Domain D Administrator group [dmndadmn]? [Return]
Enter the name of the Domain E Administrator group [dmneadmn]? [Return]
Enter the name of the Domain F Administrator group [dmnfadmn]? [Return]
Enter the name of the Domain G Administrator group [dmngadmn]? [Return]
Enter the name of the Domain H Administrator group [dmnhadmn]? [Return]
Enter the name of the Domain I Administrator group [dmniadmn]? [Return]
Enter the name of the Domain J Administrator group [dmnjadmn]? [Return]
Enter the name of the Domain K Administrator group [dmnkadmn]? [Return]
Enter the name of the Domain L Administrator group [dmnladmn]? [Return]
Enter the name of the Domain M Administrator group [dmnmadmn]? [Return]
Enter the name of the Domain N Administrator group
                                                   [dmnnadmn]? [Return]
Enter the name of the Domain O Administrator group [dmnoadmn]? [Return]
Enter the name of the Domain P Administrator group [dmnpadmn]? [Return]
Enter the name of the Domain Q Administrator group [dmnqadmn]? [Return]
Enter the name of the Domain R Administrator group [dmnradmn]? [Return]
```

The Domain Reconfiguration group posses a subset of the Domain Administration group privileges. This group has no domain control other than board power and reconfiguration (for the respective domain).

```
Enter the name of the Domain A Reconfiguration group [dmnarcfg]? [Return]
Enter the name of the Domain B Reconfiguration group [dmnbrcfq]? [Return]
Enter the name of the Domain C Reconfiguration group [dmncrcfg]? [Return]
Enter the name of the Domain D Reconfiguration group [dmndrcfg]? [Return]
Enter the name of the Domain E Reconfiguration group [dmnercfg]? [Return]
Enter the name of the Domain F Reconfiguration group [dmnfrcfg]? [Return]
Enter the name of the Domain G Reconfiguration group [dmngrcfg]? [Return]
Enter the name of the Domain H Reconfiguration group [dmnhrcfg]? [Return]
Enter the name of the Domain I Reconfiguration group [dmnircfg]? [Return]
Enter the name of the Domain J Reconfiguration group [dmnjrcfg]? [Return]
Enter the name of the Domain K Reconfiguration group [dmnkrcfg]? [Return]
Enter the name of the Domain L Reconfiguration group [dmnlrcfg]? [Return]
Enter the name of the Domain M Reconfiguration group [dmnmrcfg]? [Return]
Enter the name of the Domain N Reconfiguration group [dmnnrcfg]? [Return]
Enter the name of the Domain O Reconfiguration group [dmnorcfq]? [Return]
Enter the name of the Domain P Reconfiguration group [dmnprcfg]? [Return]
Enter the name of the Domain Q Reconfiguration group [dmnqrcfg]? [Return]
Enter the name of the Domain R Reconfiguration group [dmnrrcfg]? [Return]
Configuration complete.
```

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```
Select one of the above options:

1) Edit current configuration

2) Restore default groups

3) Quit

Select one of the above options: 3 sc#
```

EXAMPLE 6 Adding a User to the Domain Administrator Group and Configuring Access to the Domain B Directories

You must specify a valid username and valid SMS group and domain.

```
sc0: \# smsconfig -a -u fdjones -G admn B fdjones has been added to the dmnBadmn group. All privileges to domain B have been applied.
```

EXAMPLE 7 Adding a User to the Domain Configurator Group and Configuring Access to the Domain C Directories

You must specify a valid username and valid SMS group and domain.

```
sc0: # smsconfig -a -u fdjones -G rcfg C
fdjones has been added to the dmnCrcfg group.
All privileges to domain C have been applied.
```

EXAMPLE 8 Configuring Access to the Platform Directories

You must specify a valid username and valid SMS group and the platform.

```
sc0: # smsconfig -a -u jtd -G svc platform
jtd has been added to the platsvc group.
All privileges to the platform have been applied.
```

EXAMPLE 9 Displaying Users with Access to the Domain C Directories

```
sc0: # smsconfig -l C
fdjones
shea
```

EXAMPLE 10 Displaying Users with Access to the Platform Directories

```
sc0: # smsconfig -l platform
fdjones
jtd
```

EXAMPLE 11 Removing User Access to the Domain C Directories

You must specify a valid username and valid SMS group. If a user belongs to more than one group with access to a domain, they must be removed from all groups before directory access is denied.

```
sc0: # smsconfig -r -u fdjones -G rcfg C
fdjones has been removed from the dmnCrcfg group.
fdjones belongs to the dmnCadmn group
Access to domain C remains unchanged.

sc0: # smsconfig -r -u fdjones -G admn C
fdjones has been removed from the dmnCadmn group.
```

EXAMPLE 12 Configuring Using an Invalid Groupname

You must specify a valid SMS group.

All access to domain C is now denied.

```
\mbox{sc0: \# smsconfig -a -u fdjones -G staff D} ERROR: group staff does not exist ABORTING.
```

EXAMPLE 13 Mixing Groups and Designations.

You must specify groupnames with the correct area designations. The admn group works with either designation.

```
sc0: \# smsconfig -a -u fdjones -G rcfg platform ERROR: group rcfg cannot access the platform
```

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ABORTING.

sc0: # smsconfig -a -u fdjones -G oper D
ERROR: group oper cannot access a domain
ABORTING.

EXIT STATUS

The following exit values are returned:

- O Successful completion.
- >0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSr

FILES

The following configuration files are required:

/etc/hostname.scman0 MAN Ethernet interface file

/etc/hostname.scman1 MAN Ethernet interface file

 $\verb|/etc/opt/SUNWSMS/config/MAN.cf| & MAN \ daemon \ configuration \ file$

Note - MAN.cf is an internal SMS system file and should *not* be modified except by authorized Sun Microsystems personnel.

SEE ALSO

mand(1M)

NOTES

The user is required to enter several items of key network information. To facilitate the gathering of this information beforehand, refer to the *Sun Fire 15K System Site Planning Guide* for setup worksheets.

smsconnectsc(1M) User Commands

NAME

smsconnectsc - accesses a remote SC console

SYNOPSIS

 $\textbf{smsconnectsc} \, \left[-y \, \middle| \, n \right]$

smsconnectsc -h

DESCRIPTION

smsconnectsc creates a remote tip console session from a local SC in order to reach a hung remote SC console.

smsconnectsc enables the bit that connects the local SC's port B to the remote SC's RS-232 port A when you are logged in to the local SC. The remote SC is the SC which is hanging. Once the tty connection is enabled, smsconnectsc invokes a tip console session to the remote SC. Using the tip console session, you can do whatever needs to be done to the remote SC.

smsconnectsc works in the absence of an external connection to the remote SC. If the remote SC has an active external connection to port A then smsconnectsc will fail and the session will most likely hang. To exit, type: ~.

When you finish, there are several ways to end the session depending on whether you logged into the local SC using telnet or rlogin. See the EXTENDED DESCRIPTION section below.

OPTIONS

–h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

- ⁻ⁿ Automatically answers "no" to all prompts.
- ^{-y} Automatically answers "yes" to all prompts.

EXTENDED DESCRIPTION

Usage

In the tip console window established by smsconnectsc, a tilde (~) that appears as the first character of a line is interpreted as an escape signal that directs the tip console to perform the following action:

■ ~. Disconnect the tip session.

If you are telnetted in to the local SC this will disconnect the tip session and you will remain logged in to the local SC.

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User Commands smsconnectsc(1M)

If you rlogged in to the local SC, this will disconnect the tip session and also disconnect your rlogin session.

Note - The tilde will not echo to the screen until after the period is pressed.

■ ~~. Disconnect tip session.

~~. only works with with rlogin. If you are telnetted in to the local SC you will recieve the error message: ~.: Command not found

If you are rlogged in to the local SC this will disconnect the tip session and you will remain logged in to the local SC.

Note - The first tilde will not echo to the screen. The second will not echo until after the period is pressed.

rlogin also processes tilde-escape sequences whenever a tilde is seen at the beginning of a new line. If you need to send tilde sequence at the beginning of a line and you are using rlogin, use two tildes (the first escapes the second for rlogin). Alternatively, do not enter a tilde at the beginning of a line when running inside of rlogin. If you use a kill -9 command to terminate a console session, the window or terminal in which the smsconnectsc command was executed goes into raw mode, and appears hung. To escape this condition, type ^j, then stty sane, then ^j.

Group Privileges Required

You must have platform administrator privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Creating a Remote Connection From the Local SC to the Hung Remote SC

In the following example, the local SC is shown as sc1 and the remote SC is shown as sc0. Log in to the local SC as a platform administrator.

sc1:sms-user:> smsconnectsc
TTY connection is OFF.
About to connect to other SC. Do you want to continue (yes/no)? y connected
sc0:sms-user:>

EXIT STATUS

The following exit values are returned:

smsconnectsc(1M) User Commands

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

rlogin(1M), rlogin(1M), tip(1M)

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Maintenance Commands smsrestore(1M)

NAME

smsrestore - restore the SMS environment

SYNOPSIS

smsrestore filename

smsrestore -h

DESCRIPTION

smsrestore(1M) restores the operational environment of the SMS from a backup file created by smsbackup(1M). Use smsrestore to restore the SMS environment after the SMS software has been installed on a new disk.

Turn off failover and stop SMS before running smsrestore, start SMS and turn on failover, if you wish, afterwards. For information on manually starting and stopping SMS refer to the System Management Services (SMS) 1.2 Installation Guide and Release Notes.

If any errors occur, smsrestore writes error messages to /var/sadm/system/logs/smsrestore.

Note - If the main SMS environment has changed since the backup file was created, for example by shutting down a domain, you must run smsbackup(1M) again in order to maintain a current backup file for the system controller.

OPTIONS

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

OPERANDS

The following operands are supported:

filename

Name of the backup file that was created by smsbackup(1M). If the specified file is not in the current directory, the *filename* must contain the full path name for the file. This file can reside anywhere on the system, connected network or tape device. If no *filename* is specified, you will receive an error.

EXTENDED DESCRIPTION

Group Privileges Required You must have superuser privileges to run this command.

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smsrestore(1M) Maintenance Commands

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 Restoring SMS

sc# smsrestore sms_backup.1.0.cpio

EXAMPLE 2 Restoring SMS from Tape Device 0

sc# smsrestore /dev/rmt/0/sms_backup.1.0.cpio

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See ${\tt attributes}(5)$ for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command:

/var/sadm/system/logs/smsrestore smsrestore log file

SEE ALSO

smsbackup(1M)

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Maintenance Commands smsversion(1M)

NAME

smsversion – change the active version of SMS to another co-resident version of the SMS software

SYNOPSIS

smsversion new_version

smsversion -t

smsversion -h

DESCRIPTION

 ${\tt smsversion}(1M)$ can be used to switch between two co-installed (and consecutively released) versions of SMS.

smsversion, when invoked with no command-line argument, displays the list of all properly installed versions of SMS on the current system controller. You can pick from that list and smsversion stores a copy of the current configuration environment and then switches all necessary software links needed to activate the new version of the software. smsversion can run with an optional command-line argument specifying the target version for switching.

Once smsversion completes the switch, the target version becomes the active version. To restore the configuration automatically saved by smsversion you must use smsrestore(1M). Your previous configuration is not automatically restored as part of the version switch.

To restore your previous configuration:

- Turn off failover and stop SMS before running smsrestore.
- Run smsrestore.

Note - If you changed your network configuration using smsconfig -m after you created the backup you just restored, you must run smsconfig -m and reboot now.

■ Otherwise, you can start SMS and turn on failover. For information on manually starting and stopping SMS refer to the *System Management Services (SMS) 1.2 Installation Guide and Release Notes.*

If any errors occur, smsversion writes error messages to /var/sadm/system/logs/smsversion.

OPTIONS

-h Help. Displays usage descriptions.

Note - Use alone. Any option specified in addition to -h is ignored.

smsversion(1M) Maintenance Commands

-t Displays the current active version of sms and exits..

OPERANDS

The following operands are supported:

version_number Release number of the target SMS version.

EXTENDED DESCRIPTION

Group Privileges Required

You must have superuser privileges to run this command.

Refer to Chapter 2 in the System Management Services (SMS) 1.2 Administrator Guide for more information.

EXAMPLES

EXAMPLE 1 One Version of SMS Installed

Displays the active version and exits when only one version of SMS is installed.

```
sc# smsversion -t
1.1
```

EXAMPLE 2 Changing the Active Version of SMS

Displays versions of SMS installed on this system controller. Choose the inactive version and perform a version switch.

SMS must be stopped prior to switching versions.

```
sc# smsversion
smsversion: Active SMS version < 1.1 >
smsversion: SMS version 1.1 installed
smsversion: SMS version 1.2 installed
Please select from one of the following installed SMS versions.
1) 1.1
2) 1.2
3) Exit
Select version: 2
You have selected SMS Version 1.2
Is this correct? [y,n] y
smsversion: Upgrading SMS from <1.1> to <1.2>.
To move to a different version of SMS an archive of
critical files will be created. What is the name of
the directory or tape device where the archive will be
stored? [/var/tmp][return]
smsversion: Backup configuration file created: /var/tmp/sms_backup.1.1.cpio
smsversion: Switching to target version <1.2>.
```

Maintenance Commands smsversion(1M)

```
smsversion: New Version <1.2> Active smsversion: Active SMS version < 1.2 > To use the previous SMS configuration settings type: smsrestore /var/tmp/sms_backup.1.1.cpio

NOTE: When switching to another SMS version, the user must choose (via use of smsrestore) to restore the configuration settings from the previously active version.
```

EXAMPLE 3 Downgrading SMS Versions

Use of the command-line argument to downgrade SMS versions.

```
sc# smsversion 1.1
smsversion: Active SMS version < 1.2 >
You have requested SMS Version 1.1
Is this correct? [y,n] y
smsversion: Downgrading SMS from <1.2> to <1.1>.
smsversion: SMS version 1.1 installed
To move to a different version of SMS an archive of
critical files will be created. What is the name of
the directory or tape device where the archive will be
stored? [/var/tmp][return]
smsversion: Backup configuration file created: /var/tmp/sms_backup.1.2.cpio
smsversion: Switching to target version <1.1>.
smsversion: New Version <1.1> Active
smsversion: Active SMS version < 1.1 >
To restore previous the SMS configuration setting type:
smsrestore /var/tmp/sms_backup.1.2.cpio
```

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

FILES

The following file is used by this command:

/var/sadm/system/logs/smsversion smsversion log file

SEE ALSO | smsbackup(1M), smsrestore(1M)

Last modified 15 October 2001

Maintenance Commands ssd(1M)

NAME

ssd - SMS startup daemon

SYNOPSIS

ssd [-f startup_file]

ssd [-i message]

DESCRIPTION

ssd(1M) starts, stops, and monitors all the key daemons and servers of SMS. When executed with no options ssd reads from the ssd_start file which lists the daemons and servers that ssd starts and monitors.

Do *not* execute this program manually. ssd(1M) is automatically invoked by a Solaris software run control script and is periodically monitored for restart.

OPTIONS

-f startup_file Uses this file instead of the default ssd_start file

–i message Places a notice message in the platform log file. Specified

and used exclusively by the sms startup script.

FILES

The following files are supported:

/etc/opt/SUNWSMS/startup/ssd_start

Default startup file for ssd

/etc/opt/SUNWSMS/startup/sms

Default startup file for SMS

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

tmd(1M) Maintenance Commands

NAME

tmd - task management daemon

SYNOPSIS

tmd [-t number]

DESCRIPTION

tmd(1M) provides task management services such as scheduling for SMS. The purpose of this service is reduce the number of conflicts that can arise during concurrent invocations of the hardware tests and configuration software.

This daemon is started automatically by $\verb|ssd(1M)|$. Do not start it manually from the command line.

OPTIONS

-t *number* This option allows the number of concurrent invocations to

be throttled. The value must be a positive number, greater

than or equal to one.

CAUTION: Changing the default value can adversely affect system functionality. Do *not* adjust this parameter unless instructed by a Sun service representative to do so.

EXIT STATUS

The following exit values are returned:

O Successful completion.

>0 An error occurred.

ATTRIBUTES

See attributes(5) for descriptions of the following attributes:

ATTRIBUTE TYPE	ATTRIBUTE VALUE
Availability	SUNWSMSop

SEE ALSO

ssd(1M)