

SteelFusion™ Command-Line Interface Reference Manual

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riverbed®

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NetApp Manageability Software Development Kit (NM SDK), including any third-party software available for review with such SDK which can be found at <http://communities.netapp.com/docs/DOC-1152>, and are included in a NOTICES file included within the downloaded files.

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Contents

Preface.....	1
About This Guide	1
Audience	1
Document Conventions.....	2
Product Dependencies and Compatibility.....	2
Hardware and Software Dependencies.....	2
Additional Resources	2
Release Notes	3
Riverbed Documentation and Support Knowledge Base.....	3
Contacting Riverbed.....	3
 Chapter 1 - Using the Command-Line Interface	5
Connecting to the CLI	5
Overview of the CLI	6
Entering Commands	7
Accessing Online Help.....	7
Error Messages	7
Command Negation	8
Running the Configuration Wizard	8
Saving Configuration Changes.....	8
 Chapter 2 - User Mode Commands	9
 Chapter 3 - Enable Mode Commands	39
 Chapter 4 - Configuration Mode Commands	69
System Commands	69
SteelFusion Core Commands.....	204

Displaying Core Information.....298

SteelFusion Edge Commands327

 Hypervisor Commands327

 Displaying Hypervisor Information344

 Storage Commands352

 Displaying Storage Information357

Appendix A - SteelFusion Ports373

Index375

Preface

Welcome to the *SteelFusion Command-Line Interface Reference Manual*. Read this preface for an overview of the information provided in this guide and the documentation conventions used throughout, hardware and software dependencies, additional reading, and contact information. This preface includes the following sections:

- [“About This Guide” on page 1](#)
- [“Product Dependencies and Compatibility” on page 2](#)
- [“Additional Resources” on page 2](#)
- [“Contacting Riverbed” on page 3](#)

About This Guide

The *SteelFusion Command-Line Interface Reference Manual* is a reference manual for the command-line interface.

Riverbed product names have changed. At the time of publication, the user interfaces of the products described in this guide may have not changed, and the original names may be used in the text. For the product naming key, see http://www.riverbed.com/products/#Product_List.

The following products are discussed in this guide:

- Riverbed SteelFusion Core
- Riverbed SteelFusion Edge

This manual provides you with command descriptions, syntax, parameters, usage guidelines, examples, and related topics for each command.

Important: For information on WAN optimization commands, see the *Riverbed Command-Line Interface Reference Manual*.

Audience

This guide is written for storage and network administrators familiar with administering and managing storage arrays, snapshots, backups, VMs, Fibre Channel, and iSCSI.

Document Conventions

This manual uses the following standard set of typographical conventions.

Convention	Meaning
<i>italics</i>	Within text, new terms and emphasized words appear in <i>italic</i> typeface.
boldface	Within text, CLI commands, CLI parameters, and REST API properties appear in bold typeface.
Courier	Code examples appear in Courier font: <pre>amnesiac > enable amnesiac # configure terminal</pre>
< >	Values that you specify appear in angle brackets: interface <ip-address>
[]	Optional keywords or variables appear in brackets: ntp peer <ip-address> [version <number>]
{ }	Elements that are part of a required choice appear in braces: {<interface-name> ascii <string> hex <string>}
	The pipe symbol represents a choice to select one keyword or variable to the left or right of the symbol. The keyword or variable can be either optional or required: { delete <filename> upload <filename>}

Product Dependencies and Compatibility

This section provides information about product dependencies and compatibility. It includes the following information:

- [“Hardware and Software Dependencies” on page 2](#)

Hardware and Software Dependencies

The following table summarizes the hardware and software requirements for the SteelHead.

Riverbed CLI Hardware Requirements	Software/Operating System Requirements
<p>One of the following:</p> <ul style="list-style-type: none"> • An ASCII terminal or emulator that can connect to the serial console (9600 baud, 8 bits, no parity, 1 stop bit, and no flow control). • A computer with a Secure Shell (SSH) client that is connected by an IP network to the appliance primary interface. 	<ul style="list-style-type: none"> • Secure Shell (SSH). Free SSH clients include PuTTY for Windows computers, OpenSSH for many UNIX and UNIX-like operating systems, and Cygwin.

Additional Resources

This section describes resources that supplement the information in this guide. It includes the following information:

- [“Release Notes” on page 3](#)
- [“Riverbed Documentation and Support Knowledge Base” on page 3](#)

Release Notes

The following online file supplements the information in this guide. It is available on the Riverbed Support site at <https://support.riverbed.com>.

Online File	Purpose
<code><product>_<version-number> <build-number>.pdf</code>	Describes the product release and identifies fixed problems, known problems, and workarounds. This file also provides documentation information not covered in the guides or that has been modified since publication.

Examine this file before you begin installation and configuration. It contains important information about this SteelFusion release.

Riverbed Documentation and Support Knowledge Base

For a complete list and the most current version of Riverbed documentation, visit the Riverbed Support Web site located at <https://support.riverbed.com>.

The Riverbed Knowledge Base is a database of known issues, how-to documents, system requirements, and common error messages. You can browse titles or search for keywords and strings.

To access the Riverbed Knowledge Base, log in to the Riverbed Support site located at <https://support.riverbed.com>.

Contacting Riverbed

This section describes how to contact departments within Riverbed.

- **Technical support** - If you have problems installing, using, or replacing Riverbed products, contact Riverbed Support or your channel partner who provides support. To contact Riverbed Support, open a trouble ticket by calling 1-888-RVBD-TAC (1-888-782-3822) in the United States and Canada or +1 415-247-7381 outside the United States. You can also go to <https://support.riverbed.com>.
- **Professional services** - Riverbed has a staff of professionals who can help you with installation, provisioning, network redesign, project management, custom designs, consolidation project design, and custom coded solutions. To contact Riverbed Professional Services, email proserve@riverbed.com or go to <http://www.riverbed.com/services-training/Services-Training.html>.
- **Documentation** - The Riverbed Technical Publications team continually strives to improve the quality and usability of Riverbed documentation. Riverbed appreciates any suggestions you might have about its online documentation or printed materials. Send documentation comments to techpubs@riverbed.com.

CHAPTER 1 Using the Command-Line Interface

This chapter describes how to access and use the CLI. This chapter includes the following sections:

- [“Connecting to the CLI” on page 5](#)
- [“Overview of the CLI” on page 6](#)
- [“Entering Commands” on page 7](#)
- [“Accessing Online Help” on page 7](#)
- [“Error Messages” on page 7](#)
- [“Command Negation” on page 8](#)
- [“Running the Configuration Wizard” on page 8](#)
- [“Saving Configuration Changes” on page 8](#)

Connecting to the CLI

This section assumes you have already performed the initial setup of the appliance using the configuration wizard. For detailed information, see the installation guide for the system.

To connect the CLI

1. You can connect to the CLI using one of the following options:
 - An ASCII terminal or emulator that can connect to the serial console. It must have the following settings: 9600 baud, 8 bits, no parity, 1 stop bit, and no flow control.
 - A computer with an SSH client that is connected to the appliance Primary port (in rare cases, you might connect through the Auxiliary port).
2. At the system prompt enter the following command if the appliance resolves to your local DNS:

```
ssh admin@<host>.<domain>
```

Otherwise, at the system prompt enter the following command:

```
ssh admin@<ip-address>
```
3. When prompted, enter the administrator password. This is the password you set during the initial configuration process. The default password is **password**. For example:

```
login as: admin
Riverbed SteelFusion Core
Last login: Wed Jan 20 13:02:09 2010 from 10.0.1.1
amnesiac >
```

You can also log in as a monitor user (**monitor**). Monitor users cannot make configuration changes to the system. Monitor users can view statistics and system logs.

Overview of the CLI

The CLI has the following modes:

- **User** - When you start a CLI session, you begin in user mode. From user mode you can run common network tests such as ping and view network configuration settings and statistics. You do not enter a command to enter user mode. To exit this mode, enter the **exit** command at the system prompt.
- **Enable** - To access system monitoring commands, you must enter enable mode. From enable mode, you can enter any enable mode command or enter configuration mode. You must be an administrator user to enter enable mode. In enable mode you can perform basic system administration tasks, such as restarting and rebooting the system. To exit this mode, enter the **disable** command at the command line.

You cannot enter enable mode if you are a monitor user.

- **Configuration** - To make changes to the running configuration, you must enter configuration mode. To save configuration changes to memory, you must enter the **write memory** command. To enter configuration mode, you must first be in enable mode. To exit this mode, enter the **exit** command at the system prompt.

The commands available to you depend on which mode you are in. Entering a question mark (?) at the system prompt provides a list of commands for each command mode.

Mode	Access Method	System Prompt	Exit Method	Description
user	Each CLI session begins in user mode.	host >	exit	<ul style="list-style-type: none"> • Perform common network tests, such as ping. • Display system settings and statistics.
enable	Enter the enable command at the system prompt while in user mode.	host #	disable	<ul style="list-style-type: none"> • Perform basic system administration tasks, such as restarting and rebooting the system. • Display system data and statistics. • Perform all user mode commands.
configuration	Enter the configure terminal command at the system prompt while in enable mode.	host (config) #	exit	<ul style="list-style-type: none"> • Configure system parameters. • Perform all user and enable mode commands.

Entering Commands

The CLI accepts abbreviations for commands. The following example is the abbreviation for the **configure terminal** command:

```
amnesiac # config t
```

You can press the tab key to complete a CLI command automatically.

Accessing Online Help

At the system prompt, type the full or partial command string followed by a question mark (?). The CLI displays the command keywords or variables for the command and a short description. You can display help information for each keyword by typing the command, followed by the keyword, followed by a question mark.

To access online help

- At the system prompt enter the following command:

```
amnesiac (config) # show ?
```

- To display help for additional parameters, enter the command and keyword:

```
amnesiac (config) # access ?
enable          Enable secure network access
inbound         Secure access inbound configuration
amnesiac (config) # access inbound ?
rule            Secure access inbound rule configuration
amnesiac (config) # access inbound rule ?
add             Add a secure network access rule
edit            Edit a secure network access rule
move            Move a secure network access rule
```

Error Messages

If at any time the system does not recognize the command or parameter, it displays the following message:

```
amnesiac (config) # logging files enable
% Unrecognized command "enable".
Type "logging files?" for help.
```

If a command is incomplete, the following message is displayed:

```
amnesiac (config) # logging
% Incomplete command.
Type "logging?" for help.
```

Command Negation

You can type **no** before many of the commands to negate the syntax. Depending on the command or the parameters, command negation disables the feature or returns the parameter to the default value.

Running the Configuration Wizard

You can restart the configuration wizard so that you can change your initial configuration parameters.

To restart the configuration wizard

- Enter the following set of commands at the system prompt:

```
enable
configure terminal
configuration jump-start
```

Saving Configuration Changes

The **show configuration running** command displays the current configuration of the system. When you make a configuration change to the system, the change becomes part of the running configuration.

The change does not automatically become part of the configuration file in memory until you write the file to memory. If you do not save your changes to memory, they are lost when the system restarts.

To save all configuration changes to memory, you must enter the **write memory** command while in configuration mode.

CHAPTER 2 User Mode Commands

This chapter is a reference for user mode commands.

User mode commands allow you to enter enable mode, display system data, and perform standard networking tasks. Monitor users can enter user mode commands. All commands available in user mode are also available to administrator users. For detailed information about monitor and administrator users, see the *SteelFusion Core Management Console User's Guide*.

To enter user mode

- Connect to the CLI and enter the following command:

```
login as: admin
Riverbed SteelFusion Core
Last login: Wed Jan 20 13:02:09 2014 from 10.0.1.1
core_01 >
```

enable

Enters enable mode.

Syntax

enable

Parameters

None

Usage

You must enter enable mode before you can perform standard network monitoring tasks.

Example

```
amnesiac > enable
```

exit

Exits the CLI when in user mode; exits configuration mode when in configuration mode.

Syntax

exit

Parameters

None

Example

```
amnesiac > exit
```

ping

Sends ICMP ECHO_REQUEST packets to network hosts using IPv4 addresses for troubleshooting.

Syntax

```
ping [<options>]
```

Parameters

<options> The tcpdump command takes the standard Linux options:

- a - Attempt to convert network and broadcast addresses to names.
- c - Exit after receiving count packets.
- d - Dump the compiled packet-matching code in a human readable form to standard output and stop.
- dd - Dump packet-matching code as a C program fragment.
- ddd - Dump packet-matching code as decimal numbers (preceded with a count).
- e - Print the link-level header on each dump line.
- E - Use secret algorithm for decrypting IPsec ESP packets.
- f - Print foreign internet addresses numerically rather than symbolically.
- F - Use file as input for the filter expression. An additional expression given on the command line is ignored.
- i - Listen on interface. If unspecified, tcpdump searches the system interface list for the lowest numbered, configured up interface.
- n - Do not convert addresses, such as host addresses and port numbers to names.
- N - Do not print domain name qualification of hostnames. For example, if you specify this flag, then tcpdump will print nic instead of nic.ddn.mil.
- m - Load SMI MIB module definitions from file module. This option can be used several times to load several MIB modules into tcpdump.
- q - Quiet output. Print less protocol information so output lines are shorter.
- r - Read packets from created with the -w option.
- S - Print absolute, not relative, TCP sequence numbers.
- v - (Slightly more) verbose output. For example, the time to live, identification, total length and options in an IP packet are printed. Also enables additional packet integrity checks such as verifying the IP and ICMP header checksum.
- w - Write the raw packets to a file rather than parsing and printing them out. They can later be printed with the -r option. Standard output is used if file is -.
- x - Print each packet without its link level header in hexadecimal format. The smaller of the entire packet or bytes will be printed.
- X - When printing hex, print ascii too. Thus if -x is also set, the packet is printed in hex/ascii. This option enables you to analyze new protocols.

For detailed information, search for the Linux man pages online.

Usage

The **ping** command without any options pings from the primary or the auxiliary (aux) interface and not the in-path interfaces.

If the primary and auxiliary interfaces are not on the same network as the in-path interfaces, you will not be able to ping an IP address on the in-path interface network unless you have a gateway between the two networks.

To ping from an in-path interface, use the following syntax:

```
ping -I <in-path-interface-IP-address> <destination-IP-address>
```


Example

```
amnesiac > ping -I 10.1.1.1 10.11.22.15
PING 10.11.22.15 (10.11.22.15) from 10.1.1.1: 56(84) bytes of data.
64 bytes from 10.11.22.15: icmp_seq=0 ttl=64 time=0.044 ms
64 bytes from 10.11.22.15: icmp_seq=1 ttl=64 time=0.038 ms
64 bytes from 10.11.22.15: icmp_seq=2 ttl=64 time=0.040 ms
```

ping6

Sends ICMP6_ECHO_REQUEST packets to a network host or gateway using IPv6 addresses for troubleshooting.

Syntax

ping6 [<options>]

Parameters

<options> The tcpdump command takes the standard Linux options:

- a - Attempt to convert network and broadcast addresses to names.
- c - Exit after receiving count packets.
- d - Dump the compiled packet-matching code in a human readable form to standard output and stop.
- dd - Dump packet-matching code as a C program fragment.
- ddd - Dump packet-matching code as decimal numbers (preceded with a count).
- e - Print the link-level header on each dump line.
- E - Use secret algorithm for decrypting IPsec ESP packets.
- f - Print foreign internet addresses numerically rather than symbolically.
- F - Use file as input for the filter expression. An additional expression given on the command line is ignored.
- i - Listen on interface. If unspecified, tcpdump searches the system interface list for the lowest numbered, configured up interface.
- n - Do not convert addresses, such as host addresses and port numbers to names.
- N - Do not print domain name qualification of hostnames. For example, if you specify this flag, then tcpdump will print nic instead of nic.ddn.mil.
- m - Load SMI MIB module definitions from file module. This option can be used several times to load several MIB modules into tcpdump.
- q - Quiet output. Print less protocol information so output lines are shorter.
- r - Read packets from created with the -w option.
- S - Print absolute, not relative, TCP sequence numbers.
- v - (Slightly more) verbose output. For example, the time to live, identification, total length and options in an IP packet are printed. Also enables additional packet integrity checks such as verifying the IP and ICMP header checksum.
- w - Write the raw packets to a file rather than parsing and printing them out. They can later be printed with the -r option. Standard output is used if file is -.
- x - Print each packet without its link level header in hexadecimal format. The smaller of the entire packet or bytes will be printed.
- X - When printing hex, print ascii too. Thus if -x is also set, the packet is printed in hex/ascii. This option enables you to analyze new protocols.

For detailed information, search for the Linux man pages online.

Usage

The **ping6** command without any options pings from the primary or the auxiliary (aux) interface.

Example

```
amnesiac > ping6 fe80::20e:b6ff:fe04:2788 fe80::20e:b6ff:fe02:b5b0
PING fe80::20e:b6ff:fe04:2788 (fe80::20e:b6ff:fe04:2788) from fe80::20e:b6ff:fe02:b5b0 primary: 56
data bytes
64 bytes from fe80::20e:b6ff:fe04:2788: icmp_seq=0 ttl=64 time=1.14 ms
```

```
64 bytes from fe80::20e:b6ff:fe04:2788: icmp_seq=1 ttl=64 time=0.186 ms
--- fe80::20e:b6ff:fe04:2788 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.186/0.667/1.148/0.481 ms, pipe 2::0101:B3FF:FE1E:8937
2001:38dc:52::e9a4:c5:1001
```

Related Topics

[“ipv6 default-gateway”](#)

show access inbound rules

Displays secure network access inbound configuration.

Syntax

show access inbound rules

Parameters

None

Example

```
amnesiac > show access inbound rules
Secure network access enabled: no
```

Rule	A	Prot	Service/ports	Src network	iface	Description
	A	tcp	7800	0.0.0.0/0		
	A	tcp	7801	0.0.0.0/0		
	A	tcp	7810	0.0.0.0/0		
	A	tcp	7820	0.0.0.0/0		
	A	tcp	7850	0.0.0.0/0		
	A	tcp	ssh	10.0.24.7/32		
1	A	udp	all	0.0.0.0/0		Allow DNS lookups
2	A	udp	53	0.0.0.0/0		DNS Caching

Related Topics

[“access inbound rule add”](#)

show access status

Displays secure network access status.

Syntax

show access status

Parameters

None

Example

```
amnesiac > show access status
Secure network access enabled: no
```

Related Topics

[“access enable”](#)

show alarm

Displays the status of the specified alarm.

Syntax**show alarm <type>****Parameters****<type>** See the [“alarm enable \(Core\)”](#) command for a complete listing and description of alarm types.**Example**

```
(config) # show alarm ha
Alarm Id:          ha
Alarm Description: High Availability
  Enabled:          yes
  Alarm State:       ok
  Error threshold:   1
  Clear threshold:   1
  Rate limit bucket counts: (email) { 5, 20, 50 }
  Rate limit bucket windows: (email) { 3600, 86400, 604800 }
  Rate limit bucket counts: (snmp) { 5, 20, 50 }
  Rate limit bucket windows: (snmp) { 3600, 86400, 604800 }
  Last checked at:    2014/11/21 22:29:02
  Last checked value: 0
  Last error at:      None
  Last clear at:      None
```

Related Topics[“alarm clear,” “alarm enable \(Core\),” “show alarms”](#)**show alarms**

Displays the status of all alarms. For detailed information about alarms, see the *SteelHead Management Console User's Guide*.

Syntax**show alarms [triggered]****Parameters****triggered** Displays status and configuration of triggered alarms.**Example**

```
amnesiac > show alarms
Alarm Id:          admission_conn
Alarm Description: Connection Limit Pressure
Status:            ok
-----
Alarm Id:          admission_control
Alarm Description: Admission Control Pressures
Status:            ok
-----
Alarm Id:          admission_cpu
Alarm Description: CPU Pressure
Status:            ok
-----
Alarm Id:          admission_mapi
Alarm Description: MAPI Pressure
Status:            ok
-----
Alarm Id:          admission_mem
Alarm Description: Memory Pressure
Status:            ok
-----
```

```

Alarm Id:          admission_tcp
Alarm Description: TCP Pressure
Status:            ok
-----
Alarm Id:          arcount
Alarm Description: Asymmetric Routing
Status:            ok
-----
Alarm Id:          block_store
Alarm Description: Blockstore
Status:            ok
-----
.
.
.

```

Related Topics

[“alarm clear,” “alarm enable \(Core\),” “show alarm”](#)

show authentication policy

Displays the status of the authentication policy.

Syntax

show authentication policy

Parameters

None

Example

```

amnesiac > show authentication policy
Authentication policy enabled:          yes
Maximum unsuccessful logins before account lockout:  none
      Wait before account unlock:      300 Seconds
Minimum password length:                6
Minimum upper case characters in password:  1
Minimum lower case characters in password:  1
Minimum numerical characters in password:  1
Minimum special characters in password:    1
Minimum interval for password reuse:      5
Minimum characters diff for password change:  4
Prevent dictionary words in password:     yes
User passwords expire:                  60 days
Warn user of an expiring password:       7 days before
User accounts with expired passwords lock: 305 days

```

Related Topics

[“authentication policy enable”](#)

show bootvar

Displays the software image that is booted upon the next reboot.

Syntax

show bootvar

Parameters

None

Example

```
amnesiac > show bootvar
Installed images:
Partition 1:
rbtsh/linux columbia #1 2004-02-07 19:24:24 root@test:repository
Partition 2:
rbtsh/linux Columbia #2 2004-02-13 17:30:17 root@test:repository
Last boot partition: 1
Next boot partition: 1
```

Related Topics

[“host-label”](#)

show cli

Displays the current CLI settings.

Syntax

show cli

Parameters

None

Example

```
amnesiac > show cli
CLI current session settings
Maximum line size: 8192
Terminal width: 157 columns
Terminal length: 15 rows
Terminal type: xterm
Auto-logout: 30 minutes
Paging: enabled
CLI defaults for future sessions
Auto-logout: 30 minutes
Paging: enabled
```

Related Topics

[“cli default paging enable”](#)

show clock

Displays the current date and time.

Syntax

show clock [all]

Parameters

all	Displays the system time, date, and NTP peers.
------------	--

Example

```
amnesiac > show clock
Time: 15:11:13
Date: 2014/11/06
Zone: America North United_States Pacific
```

show cmc

Displays SteelCentral Controller for SteelHead (SCC) settings.

Syntax

show cmc

Example

```
amnesiac # show cmc
CMC auto-registration enabled:      yes
CMC auto-registration hostname:    riverbedcmc.nbttech.com
Managed by CMC:                   yes
CMC hostname:                      tsfe7 (10.0.2.2)
Auto configuration status:          Inactive
Last message sent to cmc:          Auto-registration
Time that message was sent:        Thu Nov 13 12:02:25 2008
```

Related Topics

[“cmc enable,” “cmc hostname”](#)

show email

Displays the current email settings.

Syntax

show email

Parameters

None

Example

```
amnesiac > show email
Mail hub:          exchange
Mail hub port:    30
Domain:           example.com
Event emails
  Enabled: yes
  Recipients:
    example@riverbed.com
Failure emails
  Enabled: yes
  Recipients:
    example@riverbed.com
Autosupport emails
  Enabled: no
  Recipient:
    autosupport@eng.riverbed.com
Mail hub:
  eng.riverbed.com
```

Related Topics

[“email autosupport enable”](#)

show fips status

Displays (Federal Information Processing Standards) FIPS status information by feature.

Syntax

show fips status

Parameters

None

Example

```
amnesiac > show fips status
CMC Autoregistration: Should not be configured in FIPS mode.
Citrix Basic Encryption: Should not be configured in FIPS mode.
FIPS Mode: Disabled. You must save the configuration and the system to enable FIPS mode.
```

Related Topics

[“fips enable”](#)

show hardware error-log

Displays Intelligent Platform Management Interface (IPMI) System Event Log (SEL) entries and Riverbed hardware licensing information.

Syntax

show hardware error-log {all | new} [licensing info]

Parameters

all	Displays all IPMI SEL entries.
new	Displays IPMI SEL entries since the last show hardware error-log command was issued.
licensing info	Displays current licenses.

Example

```
amnesiac > show hardware error-log all
1 | 11/28/2006 11:55:10 | Event Logging Disabled SEL | Log area reset/cleared |
  Asserted = yes.
2 | 01/04/2007 21:09:07 | Slot/Connector Drive | Fault Status | Asserted = yes.
3 | 01/07/2007 03:24:07 | Slot/Connector Drive | Fault Status | Asserted = yes.
```

Related Topics

[“clear hardware error-log”](#)

show hardware watchdog

Displays hardware watchdog information.

Syntax

show hardware watchdog

Parameters

None

Example

```
amnesiac > show hardware watchdog
Enable: yes
Last Ping: 2006-05-12 14:31:49.412973153 -0700
Saved Ping: 2006-04-21 07:25:51.000000000 -0700
```

Related Topics

[“hardware watchdog enable,”](#) [“hardware watchdog shutdown”](#)

show hosts

Displays system hosts.

Syntax

show hosts

Parameters

None

Example

```
amnesiac > show hosts
Hostname: amnesiac
Name server: 10.0.0.2 (configured)
Domain name: domain.com (configured)
Domain name: domain.com (configured)
IP 107.0.0.1 maps to hostname localhost
```

Related Topics

[“hostname”](#)

show host-label

Displays information about the specified host label.

Syntax

show host-label <name> [detailed]

Parameters

<name>	Name of the host label.
detailed	Displays detailed hostname and subnet status information.

Example

```
amnesiac # show host-label test
10.0.0.0/8, 192.168.0.1/32, 192.168.0.2/32, example.com, riverbed.com
```

```
amnesiac # show host-label test detailed
```

```
Subnets:
10.0.0.0/8, 192.168.0.1/32, 192.168.0.2/32
```

```
Host example.com:
192.0.43.10/32
Resolved: 2013/03/12 18:54:14
```

```
Host riverbed.com:
192.0.43.10/32
Resolved: 2013/03/12 18:54:14
```

```
Next scheduled resolve: 2013/03/13 18:54:09
```

Related Topics

[“host-label”](#)

show images

Displays the available software images and which partition Core boots the next time it restarts.

Syntax

show images [checksum]

Parameters

checksum	Displays the Message-Digest 5 algorithm (MD5) checksum of the system images.
-----------------	--

Example

```
amnesiac > show images
Images available to be installed:
webimage.tbz
rbtsh/linux 4.0 #12 2014-10-13 11:54:52 root@test:CVS_TMS/HEAD
image.img
rbtsh/linux 4.0 #17 2014-10-13 16:39:32 root@test:CVS_TMS/HEAD
Installed images:
Partition 1:
rbtsh/linux 4.0-HEAD-2014-10-13-07:19:19 #0 2007-06-15 07:19:19 root@test:CVS_TMS/HEAD
Partition 2:
rbtsh/linux 4.0 2014-10-13 11:54:52 root@test:CVS_TMS/HEAD
Last boot partition: 2
Next boot partition: 2
```

Related Topics

[“image install”](#)

show info

Displays the system information, including the current state of the system.

Syntax

show info

Parameters

None

Example

```
amnesiac > show info
Status:           Healthy
Config:           working
Appliance Up Time: 15d 1h 14m 4s
Service Up Time:  15d 1h 12m 25s
Serial:           H180000697a
Model:            8800
Revision:         A
Version:          spitfire-1.0
```

Related Topics

[“configuration new”](#)

show logging

Displays logging and logging filter settings.

Syntax**show logging [filter]****Parameters**

filter Displays per-process logging configuration information.

Example

```
amnesiac > show logging filter
Local logging level: info
amnesiac > show logging
Local logging level: info
Default remote logging level: notice
Remote syslog receiver: 10.10.10.2 (logging level: info)
Number of archived log files to keep: 10
Log rotation frequency: daily
```

Related Topics[“logging”](#)**show ntp**

Displays Network Time Protocol (NTP) settings.

Syntax**show ntp [all]****Parameters**

all Displays NTP settings and active peers.

Example

```
amnesiac > show ntp
NTP enabled: yes
No NTP peers configured.
NTP server: 190.6.38.127 (version 4)
NTP server: 46.187.224.4 (version 4)
NTP server: 46.187.233.4 (version 4)
```

```
amnesiac > show ntp all
NTP enabled: yes
```

```
NTP peers:
chief-sh158 (version 4) Enabled: yes Key: 10
```

```
NTP servers:
0.riverbed.pool.ntp.org (version 4)      Enabled: yes
1.riverbed.pool.ntp.org (version 4)      Enabled: yes
2.riverbed.pool.ntp.org (version 4)      Enabled: yes
208.70.196.25 (version 4)               Enabled: yes
3.riverbed.pool.ntp.org (version 4)      Enabled: yes Key: 11
```

remote	refid	st	t	when	poll	reach	delay	offset	jitter
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
-tick.tadatv.com	10.0.22.49	2	u	874	1024	377	5.810	11.252	13.031
*wwwcoltest12.mi	64.236.96.53	2	u	817	1024	377	83.799	1.636	52.182
-thor.netservice	64.113.32.5	2	u	865	1024	377	75.838	-4.941	6.927
+ftp1.riverbed.c	10.16.0.15	3	u	839	1024	377	1.740	2.610	6.121
-4.53.160.75	220.183.68.66	2	u	820	1024	377	48.183	8.513	1.116
+chief-sh158.lab	108.59.14.130	3	u	127	1024	373	1.560	5.737	13.369

```

      remote      conf  auth  key
=====
tick.tadatv.com   yes   ok   12
wwwcoltest12.mi   yes   none none
thor.netservice   yes   none none
ftp1.riverbed.c   yes   none none
4.53.160.75       yes   ok   11
chief-sh158.lab   yes   ok   10

```

Related Topics[“ntp server enable”](#)**show ntp active-peers**

Displays active NTP peers.

Syntax**show ntp active-peers****Parameters**

None

Example

amnesiac > show ntp active-peers

```

remote      refid      st t when poll reach  delay  offset  jitter
=====
-tick.tadatv.com 10.0.22.49      2 u  874 1024 377    5.810   11.252  13.031
*wwwcoltest12.mi 64.236.96.53    2 u  817 1024 377   83.799   1.636  52.182
-thor.netservice 64.113.32.5     2 u  865 1024 377   75.838  -4.941   6.927
+ftp1.riverbed.c 10.16.0.15      3 u  839 1024 377    1.740   2.610   6.121
-4.53.160.75     220.183.68.66  2 u  820 1024 377   48.183   8.513   1.116
+chief-sh158.lab 108.59.14.130   3 u  127 1024 373    1.560   5.737  13.369

```

```

      remote      conf  auth  key
=====
tick.tadatv.com   yes   ok   12
wwwcoltest12.mi   yes   none none
thor.netservice   yes   bad  42
ftp1.riverbed.c   yes   none none
4.53.160.75       yes   ok   11
chief-sh158.lab   yes   ok   10

```

Related Topics[“ntp server enable”](#)**show ntp authentication**

Displays NTP authentication settings.

Syntax**show ntp authentication****Parameters**

None

Example

```

amnesiac > show ntp authentication
Trusted Keys: 5, 10

```

KeyID	KeyType	Encrypted Secret

5	MD5	rP1LTiIVk7QlMyFiLSpAKA==
65534	MD5	2Ovzk2RGghrBJLp6BX+BpSxo1pvz+5CM

Related Topics

[“ntp server enable”](#)

show raid configuration

Displays RAID configuration information.

Syntax

show raid configuration [detail]

Parameters

detail	Displays RAID configuration details.
---------------	--------------------------------------

Example

```
amnesiac > show raid configuration
```

UnitType	Status	Stripe	Size (GB)

RAID-10	ONLINE	064KB	931.52
RAID-1	ONLINE	-	-
DISK 01	ONLINE	-	232.00
DISK 02	ONLINE	-	232.00
RAID-1	ONLINE	-	-
DISK 03	ONLINE	-	232.00
DISK 04	ONLINE	-	232.00

Related Topics

[“raid swraid add-disk”](#)

show raid diagram

Displays the physical layout of the RAID disks and the state of each drive: Online, Offline, Fail, Rebuild, Missing, and Spare.

Syntax

show raid diagram

Parameters

None

Example

```
amnesiac > show raid diagram
```

[0 : online]	[1 : online]	[2 : online]
[3 : online]	[4 : online]	[5 : online]
[6 : online]	[7 : online]	[8 : online]
[9 : online]	[10 : online]	[11 : online]
[12 : online]	[13 : online]	[14 : online]
[15 : online]						

Related Topics

[“raid swraid get-rate”](#)

show raid error-msg

Displays RAID error messages.

Syntax

show raid error-msg

Parameters

None

Example

```
amnesiac > show raid error-msg
Alarm raid_error:  ok
```

Related Topics

[“raid swraid add-disk”](#)

show raid info

Displays RAID information.

Syntax

show raid info [detail]

Parameters

detail	Displays detailed RAID information.
---------------	-------------------------------------

Example

```
amnesiac > show raid info
Firmware      => 713R
Bios          => G121
Memory        => 64MB
Raid type      => Raid 10
Auto rebuild   => Enabled
Raid status    => OK
Stripe size   => 64K
Num of drives  => 4
Disk Vendor    => WDC
Serial Number  => ^B33686018
```

Related Topics

[“raid swraid add-disk”](#)

show raid physical

Displays RAID physical details.

Syntax

show raid physical

Parameters

None

Example

```
amnesiac > show raid physical
Adapter 0, Channel 0, Target ID 0
```

```

-----
Type: DISK                      Vendor      : WDC
Product: WD2500SD-01KCB0       Revision   : 08.0
Synchronous   : No             Wide-32      : No       Wide-16: No
LinkCmdSupport: No             TagQ support: No       RelAddr: No
Removable      : No             SoftReset   : No       AENC      : No

```

Adapter 0, Channel 0, Target ID 1

```

-----
Type: DISK                      Vendor      : WDC
Product: WD2500SD-01KCB0       Revision   : 08.0
Synchronous   : No             Wide-32      : No       Wide-16: No
LinkCmdSupport: No             TagQ support: No       RelAddr: No
Removable      : No             SoftReset   : No       AENC      : No

```

```

.
.
.

```

Related Topics

[“raid swraid add-disk”](#)

show service

Displays whether services are running.

Syntax

show service

Parameters

None

Example

```

amnesiac > show service
Snapshot Service: Running

```

Related Topics

[“service enable,” “service restart”](#)

show snmp

Displays the Simple Network Management Protocol (SNMP) server settings.

Syntax

show snmp

Parameters

None

Example

```

amnesiac > show snmp
SNMP enabled: yes
System location:
System contact:
Read-only community: public
Traps enabled: yes
No trap sinks configured.

```

Related Topics[“snmp-server enable,” “write memory”](#)

show snmp acl-info

Displays SNMP access control list settings.

Syntax

show snmp acl-info

Parameters

None

Example

```

amnesiac > show snmp acl-info
Security Names
-----
Security name                Community string            Source address
-----
There are no configured security names
Groups
-----
Group name                   Security model              Security name
-----
There are no configured groups
Views
-----
There are no configured views
Access control lists
-----
Group name                   Security level Read view
-----

```

Related Topics[“snmp-server enable”](#)

show snmp ifindex

Displays the ifindex values for all interfaces.

Syntax

show snmp ifindex

Parameters

None

Example

```

amnesiac > show snmp ifindex
Interface    Ifindex
-----
    aux      1
    eth0     6
    eth1     7
    eth2     8
    eth3     9
    eth4    10
    eth5    11
    eth6    12
    eth7    13

```

```

    lo      5
primary    2

```

Related Topics

[“snmp-server enable”](#)

show snmp usernames

Displays the SNMP user settings.

Syntax

show snmp usernames

Parameters

None

Example

```
amnesiac > show snmp usernames
```

```

Username                Authentication Protocol  Authentication Key
There are no configured users

```

Related Topics

[“snmp-server enable”](#)

show ssh client

Displays the Secure Shell (SSH) client settings.

Syntax

show ssh client [**private** | **known-hosts**]

Parameters

private	Displays SSH client public and private keys.
known-hosts	Displays the SSH client known hosts.

Example

```

amnesiac > show ssh client
SSH server enabled: yes

```

Related Topics

[“ssh client generate identity user”](#)

show ssh server

Displays the SSH server.

Syntax

show ssh server [**allowed-ciphers** | **allowed-macs** | **publickey**]

Parameters

allowed-ciphers	Displays SSH server allowed ciphers.
allowed-macs	Displays SSH server allowed MACs.
publickey	Displays SSH server-public host key.

Example

```
amnesiac > show ssh server publickey
SSH server public key: ssh-rsa AAAAB3NzaC1yc2EAAAQEAwz7zKAc1NbTKSp40mRg7J
9YV5Ce0GRQoCEPS17ValtEQbepaQygdifueiejht39837482y74982u7ridejbvgiIYZs/E23zmn212kj
dXFda8zJxJm07RIKOxNDEBUbAUUp8h8dkeiejgfoeoriu39438598439gfjeNLfhjWghldzeGYycaAoEA
K21lIgg+Sg0ELGq2cJ8mMzsSsCq5PnOmj63RAMuRgBdrtBdIAd32fy642PQJveqtf17MBN6IwTDECRpex
F3Ku98pRefc2h0u44VZNT9h4tXCe8qHpu05k98oA
```

```
amnesiac > show ssh server allowed-ciphers
SSH server allowed ciphers:
-----
aes128-ctr
aes192-ctr
aes256-ctr
```

```
amnesiac > show ssh server allowed-macs
SSH server allowed MACs:
-----
hmac-sha1
hmac-sha2-256
hmac-sha2-512
```

Related Topics

[“ssh client generate identity user”](#)

show stats cpu

Displays connection pooling statistics.

Syntax

show stats cpu [1min | 5min | hour | day | week | month]

Parameters

1min	Displays statistics for the last minute.
5min	Displays statistics for the last five minutes.
hour	Displays statistics for the last hour.
day	Displays statistics for the last day.
week	Displays statistics for the last week.
month	Displays statistics for the last month.

Example

```
amnesiac > show stats cpu
CPU 1
  Utilization:                3%
  Peak Utilization Last Hour: 10% at 2014/10/17 18:10:03
  Avg. Utilization Last Hour: 4%

CPU 2
  Utilization:                7%
```

```
Peak Utilization Last Hour: 9% at 2014/10/17 17:43:13
Avg. Utilization Last Hour: 4%
```

Related Topics

[“show stats memory”](#)

show stats ecc-ram

Displays the Error Correction Code (ECC) error counts.

Syntax

```
show stats ecc-ram
```

Parameters

None

Example

```
amnesiac > show stats ecc-ram
No ECC memory errors have been detected
```

Related Topics

[“show stats memory”](#)

show stats fan

Displays the fan statistics.

Syntax

```
show stats fan
```

Parameters

None

Example

```
amnesiac > show stats fan
FanId  RPM    Min RPM Status
1      3825    750    ok
2      3750    750    ok
```

Related Topics

[“show hardware error-log”](#)

show stats memory

Displays memory swapping statistics.

Syntax

```
show stats memory [1min | 5min | hour | day | week | month]
```

Parameters

1min	Displays statistics for the last minute.
5min	Displays statistics for the last five minutes.
hour	Displays statistics for the last hour.
day	Displays statistics for the last day.
week	Displays statistics for the last week.
month	Displays statistics for the last month.

Example

```

amnesiac > show stats memory
Total Swapped Over Last Hour:      0 pages
Average Swapped Over Last Hour:    0 pages
Peak Swapped Over Last Hour:       0 pages
Peak Swapped Time:                 2008/10/17 17:37:41

```

Related Topics

[“show stats ecc-ram”](#)

show tcpdump stop-trigger

Displays the configuration settings that trigger the stop of a TCP dump.

Syntax

show tcpdump stop-trigger

Parameters

None

Example

```

amnesiac > show tcpdump stop-trigger
Tcpdump trigger enabled: no
Regex: ntp
Delay: 10
Last triggered on: 2013/01/12 17:33:52
Last triggered by: ntp

```

Related Topics

[“tcpdump stop-trigger enable,” “tcpdump stop-trigger regex,” “tcpdump stop-trigger restart”](#)

show tcpdump-x

Displays the currently running TCP dumps.

Syntax

show tcpdump-x

Parameters

None

Example

```

amnesiac > show tcpdump-x
No running capture

```

Related Topics

[“tcpdump-x all-interfaces,” “tcpdump-x interfaces”](#)

show terminal

Displays the terminal settings.

Syntax

show terminal

Parameters

None

Example

```
amnesiac > show terminal
CLI current session settings
  Terminal width:      80 columns
  Terminal length:    24 rows
  Terminal type:      xterm
```

Related Topics

[“configure terminal”](#)

show uploads

Displays system dump files uploaded to Riverbed Technical Support.

Syntax

show uploads

Parameters

None

Usage

This command shows the system dump files that have been uploaded to Riverbed Technical Support or are in progress. The display shows up to 100 upload statistics, includes whether the upload is completed or in progress, and shows whether or not an error occurred during the upload process. You can clear the upload statistics using the **file upload clear-stats** command.

Example

```
amnesiac > show uploads

Upload 0:
file: /var/opt/tms/tcpdumps/bravo-sh236_aux_new.cap0
url: ftp://ftp.riverbed.com/incoming/case_194170_F82JY00002BE4_bravo-sh236_aux_new.cap0
status: finished
percent complete: 100%
start time: 2013/03/25 12:16:40 -0700
finish time: 2013/03/25 12:16:41 -0700
```

Related Topics

[“file upload clear-stats”](#)

show version

Displays the installed software version, including build number.

Syntax

show version [all | concise | history]

Parameters

all	Displays version information for the current system image, including the product release and the software version.
concise	Displays the installed software version without build information.
history	Displays upgrade version history.

Example

```
amnesiac > show version
Product name:      rbt_dva
Product release:   3.6.0
Build ID:          #73
Build date:        2014-11-03 22:58:05
Build arch:        x86_64
Built by:          root@moscow.nbttech.com
Uptime:            15d 19h 40m 38s
Product model:     Virtual
System memory:     547 MB used / 383 MB free / 930 MB total
Number of CPUs:    4
CPU load averages: 0.02 / 0.03 / 0.00
```

```
amnesiac > show version all
Product release:   1.0.1
Product release:   3.6.0
Build ID:          #73
Build date:        2014-11-03 22:58:05
Build arch:        x86_64
Built by:          root@arch

Uptime:            14h 13m 5s

Product model:     Virtual
System memory:     547 MB used / 383 MB free / 930 MB total
Number of CPUs:    1
CPU load averages: 0.07 / 0.06 / 0.01
```

Related Topics

[“image fetch version,” “image install”](#)

show web

Displays the current Web settings.

Syntax

show web

Parameters

None

Example

```
amnesiac > show web
web-based management console enabled: yes
  HTTP enabled: yes
  HTTP redirect to HTTPS: no
  HTTP port: 80
  HTTPS enabled: yes
```

```

HTTPS port: 443
Web server timeout: 3600
SOAP server enabled: no
SOAP server port: 9001
REST server enabled: yes
Configure Mode TRAP: yes
Inactivity timeout: 1000 minutes
Session timeout: 1000 minutes
Session renewal threshold: 500 minutes
Timeout during report auto-refresh: yes
SSLv3 enabled: no
TLSv1 enabled: yes
TLSv1.1 enabled: yes
TLSv1.2 enabled: yes
Listen enabled: yes
No Listen Interfaces.
Log format: %a %A %h %H %l %m %s %t %u %U \"%{Referer}i\" %b (%D us)
"Server:" line in header: Apache

```

show web prefs

Displays the current Web preferences.

Syntax

show web prefs

Parameters

None

Example

```

amnesiac > show web prefs
Default Login ID:   admin
Log Lines Per Page: 100

```

show web ssl cert

Displays certificate details.

Syntax

show web ssl cert

Parameters

None

Example

```

amnesiac > show web ssl cert
Issued To:
  Common Name:      oak-vva14
  Email:            admin@oak-vva14
  Organization:     Riverbed Technology, Inc.
  Organization Unit:
  Locality:         San Francisco
  State:            California
  Country:          --
Issued By:
  Common Name:      oak-vva14
  Email:            admin@oak-vva14
  Organization:     Riverbed Technology, Inc.
  Organization Unit:
  Locality:         San Francisco

```

```

State:          California
Country:       --
Validity:
  Issued On:    May  4 22:18:55 2014 GMT
  Expires On:   May  3 22:18:55 2016 GMT
Fingerprint:
  SHA1:

```

Related Topics

[“web ssl cert generate”](#)

slogin

Enables log in to another system securely using SSH.

Syntax

slogin [<options>]

Parameters

<options>	Specify slogin options. To view options, enter slogin ? at the system prompt.
------------------------	--

Example

```
amnesiac > slogin -l usertest
```

Related Topics

[“show ssh client,” “show ssh server”](#)

ssh slogin

Enables log in to another system using SSH.

Syntax

ssh slogin <user>@<hostname>.com port <port-number> version {1 | 2}

Parameters

<user@hostname.com>	Name of the user logging in to the other system and the hostname of the other system in the format <i>user@hostname.com</i> .
port -number	Specifies the port number to which the SteelStore should connect to on the other system.
version 1	Specifies SSH protocol version 1.
version 2	Specifies SSH protocol version 2.

Example

```
amnesiac > ssh slogin
```

Related Topics

[“show ssh client,” “show ssh server”](#)

stats export

Enables the export of statistics.

Syntax

stats export <format> <report-name> [filename <filename> | email <email-address>] [after <date> <time>] [before <date> <time>]

Parameters

<format>	File format for export. You can choose csv as a comma-separated format.
<report-name>	Specify one of the following reports: <ul style="list-style-type: none"> • cpu_util - CPU utilization • memory - Memory utilization • paging - Paging I/O
after <date>	Includes statistics collected after a specific date in the format yyyy/mm/dd.
<time>	Time in the format hh:mm:ss.
before <date>	Includes statistics collected before a specific date in the format yyyy/mm/dd.
email <email-address>	Specifies the address where the report is to be emailed.
filename <filename>	Specifies a filename for the new report.

Example

```
amnesiac > stats export csv ssl filename ssltest after 2015/03/01 01:00:00 before 2014/09/01 01:00:00
```

Related Topics

[“show stats cpu”](#)

telnet

Enables login to another system using Telnet.

Syntax

telnet [<telnet-options>]

Parameters

<telnet-options>	Specify Telnet command options: <ul style="list-style-type: none"> • close - Closes the current connection. • logout - Forcibly logs out the remote user and closes the connection. • display - Displays operating parameters. • mode - Enters line or character mode (enter mode ? for more). • open - Connects to a site. • quit - Exits Telnet. • send - Transmits special characters (enter send ? for more). • set - Sets operating parameters (enter set ? for more). • unset - Unsets operating parameters (enter unset ? for more). • status - Prints status information. • toggle - Toggles operating parameters (enter toggle ? for more). • slc - Changes state of special characters (enter slc ? for more). • z - Suspends Telnet. • ! - Invokes a subshell. • environ - Changes environment variables (enter environ ? for more). • ? - Prints help information.
-------------------------------	---

Example

```
amnesiac > telnet
```

Related Topics

[“show terminal”](#)

terminal

Sets terminal settings.

Syntax

```
[no] terminal {length <lines> | type <terminal-type> | width <number-of-characters>}
```

Parameters

length <lines>	Sets the number of lines. The valid range is from 0 to 1024. 0 disables paging.
type <terminal-type>	Sets the terminal type.
width <number-of-characters>	Sets the width number of characters.

Usage

The **no** command option disables terminal settings.

Example

```
amnesiac > terminal width 1024
```

Related Topics

[“show cli,”](#) [“show clock,”](#) [“show terminal”](#)

traceroute

Executes the traceroute utility for IPv4 addresses.

Syntax

traceroute [<options>]

Parameters

- <options>** The tcpdump command takes the standard Linux options:
- a - Attempt to convert network and broadcast addresses to names.
 - c - Exit after receiving count packets.
 - d - Dump the compiled packet-matching code in a human readable form to standard output and stop.
 - dd - Dump packet-matching code as a C program fragment.
 - ddd - Dump packet-matching code as decimal numbers (preceded with a count).
 - e - Print the link-level header on each dump line.
 - E - Use secret algorithm for decrypting IPsec ESP packets.
 - f - Print foreign internet addresses numerically rather than symbolically.
 - F - Use file as input for the filter expression. An additional expression given on the command line is ignored.
 - i - Listen on interface. If unspecified, tcpdump searches the system interface list for the lowest numbered, configured up interface.
 - n - Do not convert addresses, such as host addresses and port numbers to names.
 - N - Do not print domain name qualification of hostnames. For example, if you specify this flag, then tcpdump will print nic instead of nic.ddn.mil.
 - m - Load SMI MIB module definitions from file module. This option can be used several times to load several MIB modules into tcpdump.
 - q - Quiet output. Print less protocol information so output lines are shorter.
 - r - Read packets from created with the -w option.
 - S - Print absolute, not relative, TCP sequence numbers.
 - v - (Slightly more) verbose output. For example, the time to live, identification, total length and options in an IP packet are printed. Also enables additional packet integrity checks such as verifying the IP and ICMP header checksum.
 - w - Write the raw packets to a file rather than parsing and printing them out. They can later be printed with the -r option. Standard output is used if file is -.
 - x - Print each packet without its link level header in hexadecimal format. The smaller of the entire packet or bytes will be printed.
 - X - When printing hex, print ascii too. Thus if -x is also set, the packet is printed in hex/ascii. This option enables you to analyze new protocols.

For detailed information, search for the Linux man pages online.

Example

```
amnesiac > traceroute amnesiac
traceroute to amnesiac.domain.com (10.0.0.3), 30 hops max, 38 byte packets
1 amnesiac (10.0.0.3) 0.035 ms 0.021 ms 0.013 ms
```

traceroute6

Executes the traceroute utility for IPv6 addresses.

Syntax

traceroute6 [<options>]

Parameters

- <options>** The tcpdump command takes the standard Linux options:
- a - Attempt to convert network and broadcast addresses to names.
 - c - Exit after receiving count packets.
 - d - Dump the compiled packet-matching code in a human readable form to standard output and stop.
 - dd - Dump packet-matching code as a C program fragment.
 - ddd - Dump packet-matching code as decimal numbers (preceded with a count).
 - e - Print the link-level header on each dump line.
 - E - Use secret algorithm for decrypting IPsec ESP packets.
 - f - Print foreign internet addresses numerically rather than symbolically.
 - F - Use file as input for the filter expression. An additional expression given on the command line is ignored.
 - i - Listen on interface. If unspecified, tcpdump searches the system interface list for the lowest numbered, configured up interface.
 - n - Do not convert addresses, such as host addresses and port numbers to names.
 - N - Do not print domain name qualification of hostnames. For example, if you specify this flag, then tcpdump will print nic instead of nic.ddn.mil.
 - m - Load SMI MIB module definitions from file module. This option can be used several times to load several MIB modules into tcpdump.
 - q - Quiet output. Print less protocol information so output lines are shorter.
 - r - Read packets from created with the -w option.
 - S - Print absolute, not relative, TCP sequence numbers.
 - v - (Slightly more) verbose output. For example, the time to live, identification, total length and options in an IP packet are printed. Also enables additional packet integrity checks such as verifying the IP and ICMP header checksum.
 - w - Write the raw packets to a file rather than parsing and printing them out. They can later be printed with the -r option. Standard output is used if file is -.
 - x - Print each packet without its link level header in hexadecimal format. The smaller of the entire packet or bytes will be printed.
 - X - When printing hex, print ascii too. Thus if -x is also set, the packet is printed in hex/ascii. This option enables you to analyze new protocols.

For detailed information, search for the Linux man pages online.

Example

```
amnesiac > traceroute6 amnesiac
traceroute6 to amnesiac.domain.com (2001:38dc:52::e9a4:c5:6282/64), 30 hops max, 38 byte packets
1 amnesiac (2001:38dc:52::e9a4:c5:6282/64) 0.035 ms 0.021 ms 0.013 ms
```

Related Topics

[“ipv6 route”](#)

CHAPTER 3 Enable Mode Commands

This chapter is a reference for enable mode commands. You can perform basic system administration tasks in enable mode. Only administrator users can enter enable mode commands. All commands available in user mode are also available in enable mode.

These commands are not available in user mode because the output can include sensitive system administration data such as passwords. This type of data is not available to monitor users; it is only available to administrator users.

To enter enable mode

- Connect to the CLI and enter the **enable** command:

```
login as: admin
SteelFusion Core
Last login: Wed Jan 20 13:02:09 2014 from 10.0.1.1
core_01 > enable
core_01 #
```

To exit enable mode, enter **exit**. For information about the **exit** command, see [“exit” on page 9](#).

clear arp-cache

Clears dynamic entries from the Address Resolution Protocol (ARP) cache. This command does not clear static entries.

Syntax

clear arp-cache

Parameters

None

Example

```
amnesiac # clear arp-cache
```

Related Topics

[“show arp”](#)

clear hardware edac-ue-alarm

Clears the Error Detection and Correction (EDAC) Uncorrectable Errors (UEs) alarm.

Syntax

clear hardware edac-ue-alarm

Parameters

None

Example

```
amnesiac # clear hardware edac-ue-alarm
```

Related Topics

[“clear hardware error-log”](#)

clear hardware error-log

Clears the Intelligent Platform Management Interface (IPMI) System Event Log (SEL).

Syntax

```
clear hardware error-log
```

Parameters

None

Usage

The amber LED light stops blinking on the system.

Example

```
amnesiac (config) # clear hardware error-log
```

Related Topics

[“show hardware error-log”](#)

clock set

Sets the system date and time.

Syntax

```
clock set <date> <time>
```

Parameters

<date>	Date in the format yyyy/mm/dd.
<time>	Time in the format hh:mm:ss.

Example

```
amnesiac # clock set 2014/12/31 23:59:59
```

Related Topics

[“show clock”](#)

configuration bulk export

Exports the specified configuration to a .tgz format file consisting of the SteelFusion self-configuration and encryption key.

Syntax

```
configuration bulk export url <url>
```

Parameters

url <url>	HTTP, FTP, or SCP URL of the configuration file you want to export. For example: scp://username:password@host/path/to/config
------------------	---

Usage

This command is part of a workflow for replacing a Core with another in the event of failure. For more information, see the *SteelFusion Core Installation and Configuration Guide*.

Example

```
amnesiac (config) # configuration bulk export url scp://user:pass@host/path/to/config
```

Related Topics

[“configuration bulk import,” “configuration fetch,” “configuration upload”](#)

configuration bulk import

Imports a previously saved Core configuration.

Syntax

```
configuration bulk import url <url> [all | shared]
```

Parameters

url <url>	HTTP, FTP, or SCP URL of the configuration file you want to import. For example: scp://username:password@server/path/to/config
all	Imports all configurations.
shared	Imports shared configurations.

Usage

This command is part of a workflow for replacing a Core with another in the event of failure. For more information, see the *SteelFusion Core Installation and Configuration Guide*.

Example

```
amnesiac (config) # configuration bulk import url scp://user:pass@host/path/to/config
```

Related Topics

[“configuration bulk export,” “configuration upload,” “configuration fetch”](#)

configure terminal

Enables configuration from the terminal by entering the configuration subsystem. You must execute the [“enable”](#) command first to enter configuration mode.

Syntax

```
[no] configure terminal
```

Parameters

None

Usage

To exit the configuration subsystem, type **exit**.

The **no** command option disables the terminal configuration.

Example

```
amnesiac > enable
amnesiac # configure terminal
```

Related Topics

[“show terminal”](#)

debug generate dump

Generates a report you can use to diagnose misconfiguration in deployments.

Syntax

```
debug generate dump [full | brief | stats | all-logs] [upload [<case-number> | <url>]]
```

Parameters

full	Generates a full system dump.
brief	Generates a brief system dump.
stats	Generates a full system dump including .dat files.
all-logs	Generates a full system dump with .dat files and all logs.
upload <case-number>	Generates a full system dump for the specified case number. The case number is a numeric string.
upload <url>	Generates a full system dump for the specified URL to upload to Riverbed Technical Support.

Usage

Specifying the case number is a convenient and intuitive method to generate and upload a system dump compared to using a URL. Riverbed Technical Support recommends using a case number. You can still specify a full URL in place of a case number. In this case, the report is uploaded to the specified URL instead of the URL constructed from the case number.

If the URL points to a directory on the upload server, you must specify the trailing forward slash (/): for example, ftp://ftp.riverbed.com/incoming/ and not ftp://ftp.riverbed.com/incoming. The filename as it exists on the appliance is renamed to the filename specified in the URL.

After the dump generation, the upload is done in the background so you can exit the command-line interface without interrupting the upload process.

Example

```
amnesiac (config) # debug generate dump brief
amnesiac (config) # debug generate dump upload 194170
amnesiac (config) # debug generate dump upload ftp://ftp.riverbed.com/incoming/
```

Related Topics

[“tcpdump,”](#) [“show uploads”](#)

disable

Exits enable mode.

Syntax

```
disable
```

Parameters

None

Example

```
amnesiac # disable
```

Related Topics

[“exit”](#)

file debug-dump delete

Deletes the specified debug dump file.

Syntax

```
file debug-dump delete <filename>
```

Parameters

<filename>	Name of the debug dump file to delete.
------------	--

Example

```
amnesiac (config) # file debug-dump delete mydumpfile.txt
```

Related Topics

[“file debug-dump email,”](#) [“show files debug-dump”](#)

file debug-dump email

Sends a debug dump file in an email to preconfigured recipients.

Syntax

```
file debug-dump email <filename>
```

Parameters

<filename>	Name of the debug dump file.
------------	------------------------------

Example

```
amnesiac (config) # file debug-dump email mydumpfile.txt
```

Related Topics

[“show files debug-dump”](#)

file debug-dump upload

Uploads the specified debug dump file.

Syntax

```
file debug-dump upload <filename> {<url> | <case-number>}
```

Parameters

<filename>	Name of the debug dump file to upload.
<url>	HTTP, HTTPS, FTP or SCP URL to upload to Riverbed Technical Support. For example: scp://username:password@host/path
<case-number>	Customer case number. The case number is a convenient and intuitive method to upload a debug dump file to Riverbed Technical Support without using a URL. Riverbed Technical Support recommends using a case number. The case number is a numeric string.

Example

```
amnesiac (config) # file debug-dump upload mydebug.txt scp://me:test@example.com/mypath
amnesiac (config) # file debug-dump upload mydebug.txt 194170
```

Related Topics

[“show files debug-dump”](#)

file process-dump delete

Deletes the specified crash dump file.

Syntax

file process-dump delete <filename>

Parameters

<filename>	Name of the crash dump file to delete.
------------	--

Example

```
amnesiac (config) # file process-dump delete mycrash.txt
```

Related Topics

[“show files debug-dump”](#)

file process-dump upload

Uploads the specified crash dump file.

Syntax

file process-dump upload <filename> {<url> | <case-number>}

Parameters

<filename>	Name of the crash dump file to upload.
<url>	HTTP, HTTPS, FTP or SCP URL. For example, scp://username:password@hostname/path/filename.
<case-number>	Specify the customer case number. The case number is a convenient and intuitive method to upload a crash dump file to Riverbed Technical Support without using a URL. Riverbed Technical Support recommends using a case number. The case number is a numeric string.

Example

```
amnesiac (config) # file process-dump upload mycrash.txt scp://mylogin:mypassword@myhostname/path/filename
amnesiac (config) # file process-dump upload mycrash.txt 194170
```

Related Topics[“show files process-dump”](#)**file stats delete**

Deletes the statistics file.

Syntax

file stats delete <filename>

Parameters

<filename>	Name of the statistics file to delete.
------------	--

Example

```
amnesiac # file stats delete throughput
```

Related Topics[“show files stats”](#)**file stats move**

Renames the statistics file.

Syntax

file stats move <source-filename> <destination-filename>

Parameters

<source-filename>	Source file to rename.
-------------------	------------------------

<destination-filename>	New filename.
------------------------	---------------

Example

```
amnesiac # file stats move throughput throughput2
```

Related Topics[“show files stats”](#)**file stats upload**

Uploads the statistics report file to a remote host.

Syntax

file stats upload <filename> {<url> | <case-number>}

Parameters

<filename>	Name of the source file to upload.
------------	------------------------------------

<url>	The upload protocol, location, and authentication credentials for the remote file.
-------	--

<case-number>	Customer case number. This upload method provides a convenient and intuitive way to upload a statistics report file to Riverbed Technical Support without using a URL. The case number is a numeric string.
---------------	---

Example

```
amnesiac # file stats upload throughput http://www.test.com/stats
```

```
amnesiac # file stats upload throughput 194170
```

Related Topics

[“show files stats”](#)

file tcpdump delete

Deletes a TCP dump output file.

Syntax

```
file tcpdump delete <filename>
```

Parameters

<filename>	Name of the TCP dump file to delete.
------------	--------------------------------------

Example

```
amnesiac # file tcpdump delete dumpfile
```

Related Topics

[“debug generate dump,”](#) [“file tcpdump upload”](#)

file tcpdump upload

Uploads a TCP dump output file.

Syntax

```
file tcpdump upload <filename> {<url> | <case-number>}
```

Parameters

<url>	The upload protocol, the location, and authentication credentials for the remote configuration file.
<case-number>	Customer case number. This upload method provides a convenient and intuitive way to upload a TCP dump file to Riverbed Technical Support. Riverbed Technical Support recommends using a case number rather than a URL. The case number is a numeric string.

Example

```
amnesiac # file tcpdump upload dumpfile http://www.test.com/stats
amnesiac # file tcpdump upload dumpfile 194170
```

Related Topics

[“debug generate dump,”](#) [“file tcpdump delete”](#)

file upload clear-stats

Clears the file upload statistics.

Syntax

```
file upload clear-stats
```

Parameters

None

Usage

This command clears the statistics displayed by the **show uploads** command.

Example

```
amnesiac > file upload clear-stats
```

Related Topics

[“show uploads”](#)

image delete

Deletes the specified software image.

Syntax

```
image delete <image-filename>
```

Parameters

<image-filename>	Name of the software image file to delete.
------------------	--

Example

```
amnesiac # image delete snkv1.0
```

Related Topics

[“show images,”](#) [“show bootvar,”](#) [“show info,”](#) [“show version”](#)

image delete-all

Deletes all software image files on the disk.

Syntax

```
image delete-all
```

Parameters

None

Example

```
amnesiac # image delete-all
```

Related Topics

[“show images,”](#) [“show bootvar,”](#) [“show info,”](#) [“show version”](#)

image fetch

Downloads a software image from a remote host.

Syntax

```
image fetch <url> <image-filename>
```

Parameters

<url>	The protocol used (either HTTP, HTTPS, FTP, SCP), location, and authentication credentials to upload the file. For example: scp://username:password@hostname/path/filename. The image will retain the same name it had on the server.
<image-filename>	Local filename for the image.

Example

```
amnesiac # image fetch http://www.domain.com/v.1.0 version1.0
```

Related Topics

[“image fetch version,” “show bootvar,” “show images,” “show info,” “show version”](#)

image install

Installs the software image onto a system partition.

Syntax

image install <image-filename> <partition>

Parameters

<image-filename>	Name of the software image file to install.
<partition>	Partition number: 1 or 2.

Example

```
amnesiac # image install version1.0 2
```

Related Topics

[“show images,” “show bootvar,” “show info,” “show version”](#)

image move

Moves or renames an inactive system image on the hard disk.

Syntax

image move <source-image-name> <new-image-name>

Parameters

<source-image-name>	Name of the software image to move or rename.
<new-image-name>	New name of the software image.

Example

```
amnesiac # image move www.domain.com/v.1.0 version1.0
```

Related Topics

[“show bootvar,” “show images,” “show info,” “show version”](#)

image upgrade

Installs a system image on the backup boot partition.

Syntax

image upgrade <image-name>

Parameters

<image-name>	Software image filename to install.
--------------	-------------------------------------

Usage

This command only installs the image on the backup boot partition.

Example

```
amnesiac # image upgrade image187.img
```

Related Topics

[“show bootvar,” “show images,” “show info,” “show version”](#)

ntpdate

Conducts a one-time synchronization with a specified NTP server.

Syntax

ntpdate <ip-address>

Parameters

<ip-address>	IP address of the NTP server with which to synchronize.
--------------	---

Example

```
amnesiac # ntpdate 10.10.10.1
```

Related Topics

[“show ntp”](#)

reload

Reboots the system.

Syntax

reload [halt | force]

Parameters

halt	Shuts down the system.
force	Forces an immediate reboot of the system even if it is busy.

Example

```
amnesiac # reload
The session will close. It takes about 2-3 minutes to reboot the appliance.
```

Related Topics

[“show configuration running,” “show hardware error-log,” “show info,” “reset factory,” “show log”](#)

reset factory

Resets the Core to the default factory values. All storage configuration files are deleted.

Syntax

reset factory [clear-licenses | keep-mgmt-ip | preserve images] [reload]

Parameters

clear-licenses	Resets system to factory defaults and clears MSPEC licenses.
keep-mgmt-ip	Resets system to factory defaults but keeps existing mgmt IPs.
preserve images	Resets system to factory defaults but keeps existing images.
reload	Resets system to factory defaults and reloads.

Example

```
amnesiac # reset factory
```

Related Topics

[“reload”](#)

service enable

Starts or stops the Core service.

Syntax

[no] service enable

Parameters

None

Usage

The **no service enable** command is not persistent across reboots of appliances even if you save the running configuration using the **write memory** command. The service restarts at the next reboot of the appliance.

The **no** command option temporarily stops or disables the service until a **service enable** or **restart** command is issued or a reboot of the appliance occurs.

Example

```
amnesiac # service enable
```

Related Topics

[“show configuration running”](#)

service restart

Restarts the Core service.

Syntax

service restart

Parameters

None.

Example

```
amnesiac # service restart
```

Related Topics

[“show service”](#)

show aaa

Displays the authentication methods used for log in.

Syntax

show aaa

Parameters

None

Example

```

amnesiac # show aaa
AAA authorization:
  Default User: admin
  Map Order: remote-first
Authentication fallback mode: always fallback
Authentication method(s): for console login
  local
Authentication method(s): for remote login
  local
Per-command authorization method(s):
  local
Per-command accounting method(s):
  local

```

Related Topics

[“aaa authentication console-login default”](#)

show arp

Displays the contents of the ARP cache. The ARP cache includes all statically configured ARP entries, as well as any that the system has acquired dynamically.

Syntax

show arp [static]

Parameters

static	Displays static ARP addresses.
---------------	--------------------------------

Example

```

amnesiac # show arp
ARP cache contents
IP 10.0.0.1 maps to MAC 00:07:E9:70:20:15
IP 10.0.0.2 maps to MAC 00:05:5D:36:CB:29
IP 10.0.100.22 maps to MAC 00:07:E9:55:10:09

```

Related Topics

[“clear arp-cache”](#)

show autolicense status

Displays the status of the autolicense client operation.

Syntax

show autolicense status

Parameters

None

Example

```

amnesiac # show autolicense status
Server:      api.licensing.riverbed.com

```

```
Last attempt: 2011/08/18 09:15:46
Successful:   no
Status:      License server unreachable
```

Related Topics

[“license autolicense enable”](#)

show banner

Displays the banner settings.

Syntax

show banner

Parameters

None

Example

```
amnesiac # show banner
Banners:
  MOTD:
    Issue: Riverbed Interceptor
    Net Issue: Riverbed Interceptor
```

Related Topics

[“banner login,” “banner motd”](#)

show configuration

Displays the current and saved configuration settings that differ from the default settings.

Syntax

show configuration [full]

Parameters

full	Displays all CLI commands and does not exclude commands that set default values.
-------------	--

Example

```
amnesiac # show configuration
##
## Network interface configuration
##
no interface aux dhcp
interface aux duplex "auto"
no interface aux shutdown
interface aux speed "auto"
interface primary ip address 10.0.0.3 /16
##
## Routing configuration
##
ip default-gateway "10.0.0.1"
##
## Other IP configuration
##
hostname "amnesiac"
ip domain-list domain.com
ip domain-list domain.com
ip name-server 10.0.0.2
##
```

```
## Logging configuration
##
logging local "info"
##
## Process Manager configuration
##
pm process mgmtd launch timeout "4000"
pm process sport shutdown order "0"
pm process statsd shutdown order "0"
##
## Network management configuration
##
.
.
.
```

Related Topics

[“configuration copy,” “configuration new,” “configuration write”](#)

show configuration files

Displays the list of active and backup configuration files or the contents of a specified file.

Syntax

show configuration files [<filename>]

Parameters

-
- | | |
|-------------------------|---|
| <filename> | Name of a configuration file. The default filenames are: <ul style="list-style-type: none"> • initial • initial.bak • cold • working (active) • working.bak |
|-------------------------|---|
-

Example

```
amnesiac # show configuration files initial
##
## Network interface configuration
##
no interface aux dhcp
    interface aux duplex "auto"
    interface aux ip address 10.0.62.75 /16
    interface aux mtu "1500"
no interface aux shutdown
    interface aux speed "auto"
    interface aux txqueuelen "100"
no interface primary dhcp

##
## Routing configuration
##
    ip default-gateway "10.0.0.1"

##
## Logging configuration
##
    logging 10.1.10.200
    logging 10.1.10.200 trap "info"
.
```

.

.

Related Topics

[“configuration copy,” “configuration new,” “configuration write”](#)

show configuration running

Displays running configuration settings that differ from the defaults.

Syntax

show configuration running [full]

Parameters

full	Displays all system CLI commands and does not exclude commands that set default values.
-------------	---

Example

```
amnesiac # show configuration running
##
## Network interface configuration
##
no interface aux dhcp
  interface aux duplex "auto"
  interface aux ip address 10.0.62.75 /16
  interface aux mtu "1500"
no interface aux shutdown
  interface aux speed "auto"
  interface aux txqueuelen "100"
no interface inpath0_0 dhcp
  interface inpath0_0 duplex "auto"
  interface inpath0_0 ip address 10.11.62.75 /16
  interface inpath0_0 mtu "1500"
no interface inpath0_0 shutdown
  interface inpath0_0 speed "auto"
  interface inpath0_0 txqueuelen "100"
no interface lan0_0 dhcp
  interface lan0_0 duplex "auto"
  interface lan0_0 mtu "0"
no interface lan0_0 shutdown
  interface lan0_0 speed "auto"
  interface lan0_0 txqueuelen "100"
lines 1-23
```

.

.

.

Related Topics

[“configuration copy,” “configuration new,” “configuration write”](#)

show files debug-dump

Displays a list of debug dump files.

Syntax

show files debug-dump [<filename>]

Parameters

<filename>	Name of a specific file to be displayed.
------------	--

Example

```
amnesiac # show files debug-dump
sysinfo-sysdump-amnesiac-20050725-183016.txt
sysdump-amnesiac-20050606-140826.tgz
```

Related Topics

[“raid alarm silence”](#)

show files process-dump

Displays a list of crash dump files.

Syntax

```
show files process-dump
```

Parameters

None

Example

```
amnesiac # show files process-dump
```

Related Topics

[“file process-dump delete,” “file process-dump upload”](#)

show files stats

Displays performance statistics files.

Syntax

```
show files stats
```

Parameters

None

Example

```
amnesiac # show files stats
```

Related Topics

[“show stats cpu,” “stats export”](#)

show files tcpdump

Displays files saved by the tcpdump utility.

Syntax

```
show files tcpdump
```

Parameters

None

Example

```
amnesiac # show files tcpdump
```

```
unopt.cap  
big-noopt.cap  
big-opt.cap  
big.tgz  
big-opt2.cap
```

Related Topics

[“tcpdump”](#)

show hardware all

Displays hardware information such as the current slot configuration.

Syntax

show hardware all

Parameters

None

Example

```
amnesiac # show hardware all  
Hardware Revision: B  
Mainboard:  Series 3000/5000 motherboard, ..... CMP-00072  
Slot 0:      4 Port Copper GigE Network Bypass Card, ..... CMP-00074  
Slot 1:      (Empty)  
Slot 2:      (Empty)  
Slot 3:      (Empty)  
Slot 4:      6 Port SATA RAID I/O Card, ..... CMP-00014  
Slot 5:      (Empty)
```

Related Topics

[“show hardware error-log”](#)

show hardware licensing info

Displays hardware licensing information.

Syntax

show hardware licensing info

Parameters

None

Example

```
amnesiac # show hardware licensing info  
Hardware Revision: B  
Mainboard:  Series 3000/5000 motherboard, ..... CMP-00072  
Slot 0:      4 Port Copper GigE Network Bypass Card, ..... CMP-00074  
Slot 1:      (Empty)  
Slot 2:      (Empty)  
Slot 3:      (Empty)  
Slot 4:      6 Port SATA RAID I/O Card, ..... CMP-00014  
Slot 5:      (Empty)
```

show interfaces

Displays the running state settings and statistics.

Syntax

show interfaces [<intname>] | [**brief** | **configured**]

Parameters

<interface-name>	Name of a specific interface. For example, aux , lan0_0 , wan0_0 , primary , in-path0_0 , lo .
brief	Displays the running state settings without statistics.
configured	Displays configured settings for the interface.

Usage

The settings and statistics displayed varies when using DHCP.

Example

```
amnesiac # show interfaces configured
Interface aux configuration
  Enabled:          yes
  DHCP:             no
  Speed:            auto
  Duplex:           auto
  IP address:       10.0.190.139
  Netmask:          255.255.0.0
  MTU:              1500

Interface inpath0_0 configuration
  Enabled:          yes
  DHCP:             no
  IP address:       10.11.192.139
  Netmask:          255.255.0.0
  MTU:              1500
  Failure mode:     Bypass <<fail-to-block or fail-to-bypass>>
.
.
.
```

Related Topics

[“interface”](#)

show ip default-gateway

Displays the IP default gateway.

Syntax

show ip default-gateway [**static**]

Parameters

static	Displays the static default gateway.
---------------	--------------------------------------

Example

```
amnesiac # show ip default-gateway static
Configured default gateway: 10.0.0.1
```

Related Topics

[“ip default-gateway”](#)

show ip route

Displays active routes, both dynamic and static.

Syntax**show ip route [static]****Parameters**

static	Displays configured static routes.
---------------	------------------------------------

Example

```
amnesiac # show ip route static
Destination      Mask           Gateway
default          0.0.0.0        10.0.0.4
```

Related Topics[“ip route”](#)**show ipv6 default-gateway**

Displays the IPv6 default gateway.

Syntax**show ipv6 default-gateway [static]****Parameters**

static	Displays the static default gateway.
---------------	--------------------------------------

Example

```
amnesiac # show ipv6 default-gateway static
Configured default gateway: 2001:38dc:52::e9a4:c5:6282/64
```

Related Topics[“ipv6 default-gateway”](#)**show ipv6 route**

Displays active IPv6 routes, both dynamic and static.

Syntax**show ipv6 route [static]****Parameters**

static	Displays the static default gateway.
---------------	--------------------------------------

Example

```
amnesiac # show ipv6 route
Destination Network      Gateway      Interface
::1/128                  ::          lo
2000::/64                ::          primary
2001::20e:b6ff:fe01:58f1/128  ::         lo
2001::/60                 ::         aux
2001::/60                 ::         primary
fe80::200:ff:fe00:0/128    ::         lo
fe80::200:ff:fe00:0/128    ::         lo
.
.
.
```


Related Topics[“ipv6 route”](#)

show job

Displays the status of a scheduled job.

Syntax

show job <job-id>

Parameters

<job-id> Job identification number.

Example

```
amnesiac # show job 10
job {job_id}: 10
Status: pending
Name: myjob
Comment: this is a text
Absolute range:
Commands:
show info.
show connections.
show version.
```

Related Topics[“job command”](#)

show jobs

Displays a list of all jobs.

Syntax

show jobs

Parameters

None

Example

```
amnesiac # show jobs
% No jobs configured.
```

Related Topics[“job command”](#)

show license request token

Displays the license request token.

Syntax

show license request token

Parameters

None

Example

```
amnesiac # show license request token
Token:  VLAB-CEA767ADDD90DBF9E2254597
```

Related Topics

[“license request set-token”](#)

show license-client

Displays details of the licenses retrieved by the appliance.

Syntax

show license-client

Parameters

None

Example

```
amnesiac (config) # show license-client
Serial Number: V78386326145
Status: Licensed
Reason: Appliance received valid license from the Portal.
Last Contact With: cloudportal.riverbed.com
Last Contact At: 04/29/2011 16:00
Renew Interval: 3 minutes
Client ID: 372938742-24397234-24387622def
```

In the above example, Reason: shows the result of the last communication with the Riverbed Cloud Portal.

Related Topics

[“license client fetch,”](#) [“license client init”](#)

show license-servers

Displays the name, port number, and priority of the server that the appliance uses for licensing.

Syntax

show license-servers

Parameters

None

Example

```
amnesiac (config) # show license-servers
Server Name          Port          Priority
-----
aws-cloud-df.riverbed.com  80           5
```

Related Topics

[“license server”](#)

show licenses

Displays installed (active) licenses.

Syntax

show licenses

Parameters

None

Example

```

amnesiac # show licenses
XXX-XXXXXX-XXXX-XXXX-X-XXXX-XXXX-XXXX
Feature:      SH10BASE
Valid:        yes
Active:       yes
Start date:
End date:
XXX-XXXXXX-XXXX-XXXX-X-XXXX-XXXX-XXXX
Feature:      SH10CIFS
Valid:        yes
Active:       yes
Start date:
End date:
XXX-XXXXXX-XXXX-XXXX-X-XXXX-XXXX-XXXX
Feature:      SH10EXCH
Valid:        yes
Active:       yes
Start date:
End date:

```

Related Topics[“license install”](#)**show log**

Displays the system logs.

Syntax**show log** [**continuous** | **files** [<file-number>] | **matching**]**Parameters**

continuous	Displays the log continuously, similar to the Linux tail -f command.
files [<file-number>]	Displays a list of log files or a specific log file.
matching	Displays a list of matching log files.

Example

```

amnesiac # show log
May 22 20:00:00 localhost /usr/sbin/crond[784]: (root) CMD (/usr/sbin/logrotate /etc/
logrotate.conf)
May 22 20:00:00 localhost cli[555]: [cli.INFO]: user admin: CLI got signal 2 (SIGINT)
May 22 20:02:31 localhost cli[555]: [cli.INFO]: user admin: Executing command: show ip route
May 22 20:02:38 localhost cli[555]: [cli.INFO]: user admin: CLI got signal 2 (SIGINT)
Dec 22 20:03:16 localhost cli[555]: [cli.INFO]: user admin: CLI got signal 2 (SIGINT)
May 22 20:04:00 localhost cli[555]: [cli.INFO]: user admin: Executing command: show ip route static
May 22 20:05:02 localhost cli[555]: [cli.INFO]: user admin: Executing command: show licenses
Dec 22 20:05:09 localhost cli[555]: [cli.INFO]: user admin: CLI got signal 2 (SIGINT)
May 22 20:06:44 localhost cli[555]: [cli.INFO]: user admin: Executing command: show limit bandwidth
May 22 20:06:49 localhost cli[555]: [cli.INFO]: user admin: CLI got signal 2 (SIGINT)
May 22 20:07:12 localhost cli[555]: [cli.INFO]: user admin: Executing command: show log
Virtual IP addresses:

```

Related Topics[“logging”](#)

show papi rest access_codes

Displays the Representational State Transfer (REST) API settings.

Syntax

show papi rest access_codes

Parameters

None

Usage

Use this command to display the access code settings used to gain access to REST APIs.

Example

```
amnesiac # show papi rest access_codes
ID: b6c1efd5-a20b-4784-b2f2-44bedc9bc107
  Desc: example
  Creator: admin
  Code: eyJhdWQiOiAiaHR0cHM6Ly9wZXJmNC1zaDQubGFm5idHRlY2guY29tL2FwaS9jb21tb24vMS4wL3Rva2VuIiwgI
mlzcyI6ICJodHRwczovL3BlcmY0LXNoNC5sYWlubmJ0dGVjaC5jb20iLCJhcHJlZjogImFkbWluIiwgImp0aSI6ICJiNmMxZW
ZkNS1hMjBiLTQ3ODQtYjJmMi00NGJlZGM5YmMxMDciLCJiZG9iIjogImFkaWV0IiwgImZjZnM5Nzk4OTIifQ==
```

Related Topics

[“papi rest access_code generate,”](#) [“papi rest access_code import,”](#) [“web rest-server enable”](#)

show radius

Displays RADIUS configuration settings.

Syntax

show radius

Parameters

None

Example

```
amnesiac # show radius
No radius settings
```

Related Topics

[“radius-server host,”](#) [“radius-server key,”](#) [“radius-server retransmit”](#)

show rbm user

Displays the role-based management (RBM) user configuration.

Syntax

show rbm user <username>

Parameters

<username> Name of the user.

Example

```
amnesiac (config) # show rbm user helpdesk
```

Related Topics[“rbm user”](#)

show rbm users

Displays RBM user configuration for all users.

Syntax

show rbm users

Parameters

None

Example

```
amnesiac (config) # show rbm users
```

Related Topics[“rbm user”](#)

show remote ip

Displays the current IP network settings for the remote management port.

Syntax

show remote ip

Parameters

None

Example

```
amnesiac # show remote ip
```

Related Topics[“remote ip address”](#)

show running-config

Displays the running configuration settings that differ from the defaults.

Syntax

show running-config [full]

Parameters

full	Displays all settings, including those set to the default value.
-------------	--

Example

```
amnesiac # show running-config
(displays running configuration)
```

Related Topics[“configuration write”](#)

show tacacs

Displays TACACS+ settings.

Syntax

show tacacs

Parameters

None

Example

```
amnesiac # show tacacs
No tacacs settings
```

Related Topics

[“tacacs-server first_hit,”](#) [“tacacs-server host,”](#) [“tacacs-server key,”](#) [“tacacs-server retransmit”](#)

show telnet-server

Displays Telnet server settings.

Syntax

show telnet-server

Parameters

None

Example

```
amnesiac # show telnet-server
TCP reordering enabled:  no
TCP reordering threshold: 3
```

Related Topics

[“telnet-server enable”](#)

show userlog

Displays the current user log file in a scrollable page.

Syntax

show userlog [continuous | files <file-number>]

Parameters

continuous	Displays new user log messages as they occur.
files <file-number>	Displays archived user log files.

Example

```
amnesiac # show userlog
Oct 17 15:38:54 amnesiac-sh75 cli[26992]: [cli.NOTICE]: user admin: CLI launched
Oct 17 15:39:00 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command:
enable
Oct 17 17:18:03 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command:
show raid diagram
Oct 17 17:18:13 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command:
show version
Oct 17 18:00:00 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command matching: show
```

```

rsp slots
Oct 17 18:00:36 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command matching: show
rsp dataflow RiOS
Oct 17 18:00:46 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command matching: show
rsp dataflow RiOS
Oct 17 18:00:57 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command matching: show
rsp dataflow inpath0_0
Oct 17 18:01:10 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command matching: show
rsp images
Oct 17 18:08:22 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command:
show service
Oct 17 18:11:18 amnesiac-sh75 cli[26992]: [cli.INFO]: user admin: Executing command: show smb
signing delegation domains
.
.
.

```

Related Topics

[“logging”](#)

show web ssl cipher

Description

Displays the current Apache SSL cipher string.

Syntax

```
show web ssl cipher
```

Parameters

None

Example

```

amnesiac (config) # show web ssl cipher
    Apache SSL cipher string:

```

show usernames

Displays a list of user accounts.

Syntax

```
show usernames
```

Parameters

None

Example

```

amnesiac # show usernames
User           Status      Active    Capability
-----
admin@         enabled    y         admin
monitor        enabled    n         monitor
-----
@ = current user

```

Related Topics

[“username password”](#)

stats clear-all

Clears data for all samples, computed history data (CHD) points, and status for all alarms.

Syntax

stats clear-all

Parameters

None

Example

```
amnesiac # stats clear-all
```

Related Topics

[“stats export,” “show stats memory”](#)

tcpdump

Executes the tcpdump utility. You can quickly diagnose problems and take traces for Riverbed Support.

Syntax

tcpdump [<options>] [<filter string>]

Parameters

<options> The tcpdump command takes the standard Linux options:

- a - Attempt to convert network and broadcast addresses to names.
- c - Exit after receiving count packets.
- d - Dump the compiled packet-matching code in a human readable form to standard output and stop.
- dd - Dump packet-matching code as a C program fragment.
- ddd - Dump packet-matching code as decimal numbers (preceded with a count).
- e - Print the link-level header on each dump line.
- E - Use secret algorithm for decrypting IPsec ESP packets.
- f - Print foreign internet addresses numerically rather than symbolically.
- F - Use file as input for the filter expression. An additional expression given on the command line is ignored.
- i - Listen on interface. If unspecified, tcpdump searches the system interface list for the lowest numbered, configured up interface.
- n - Do not convert addresses, such as host addresses and port numbers to names.
- N - Do not print domain name qualification of hostnames. For example, if you specify this flag, then tcpdump will print nic instead of nic.ddn.mil.
- m - Load SMI MIB module definitions from file module. This option can be used several times to load several MIB modules into tcpdump.
- q - Quiet output. Print less protocol information so output lines are shorter.
- r - Read packets from created with the -w option.
- S - Print absolute, not relative, TCP sequence numbers.
- v - (Slightly more) verbose output. For example, the time to live, identification, total length and options in an IP packet are printed. Also enables additional packet integrity checks such as verifying the IP and ICMP header checksum.
- w - Write the raw packets to a file rather than parsing and printing them out. They can later be printed with the -r option. Standard output is used if file is -.
- x - Print each packet without its link level header in hexadecimal format. The smaller of the entire packet or bytes will be printed.
- X - When printing hex, print ascii too. Thus if -x is also set, the packet is printed in hex/ascii. This option enables you to analyze new protocols.

For detailed information, search for the Linux man pages online.

Usage

Make sure you take separate tcpdumps for the LAN and WAN to submit to Riverbed Support. Make sure you take the tcpdump on the in-path interface.

The most common options are:

-n - Do not resolve addresses via DNS.

-i **<interface>** - Capture on **<interface>**.

To take traces on lanX_Y and wanX_Y, not inpathX_Y:

-e - Display Layer-2 headers, MAC addresses, and VLAN tags.

-s **<bytes>** - Capture up to **<bytes>** bytes per packet.

The default is 96 bytes; not enough for deep packet inspection for Riverbed Support, instead use:

-s 0 - Capture full frames.

-w **<file>** - Store the trace in **<file>** (needed when taking traces for offline analysis).

Common Packet Filters

- src host **<ip-address>** - Source IP address is **<ip-address>**.
- dst host **<ip-address>** - Destination IP address is **<ip-address>**.
- host **<ip-address>** - Either source or destination is **<ip-address>**.
- Same for src port, dst port, and port.
- Can connect multiple filters together with logical operators: and, or, and not. Use parentheses to override operator precedence. For example:

```

tcpdump -i lan0_0 not port 22
tcpdump -i lan0_0 host 1.1.1.1 and port 2222
tcpdump -i wan0_0 host 3.3.3.3 and (port 4444 or port 5555)

```

Suppose two SteelHeads are having a problem optimizing a connection:

```

Client IP = 10.10.10.10
Client SH IP = 10.10.10.20
Server IP = 11.11.11.11
Server SH IP = 11.11.11.21

```

Take traces on all LAN/WAN interfaces on both SteelHeads to diagnose:

```

C-SH# tcpdump -n -i lan0 host 10.10.10.10 and host 11.11.11.11
C-SH# tcpdump -n -i wan0_0 (host 10.10.10.10 and host 11.11.11.11) or (host 10.10.10.20 and
host 11.11.11.21)
S-SH# tcpdump -n -i lan0 host 10.10.10.10 and host 11.11.11.11
S-SH# tcpdump -n -i wan0_0 (host 10.10.10.10 and host 11.11.11.11) or (host 10.10.10.20 and
host 11.11.11.21)

```

Keep the tcpdump running and establish a connection.

If the problem is not obvious, use `-w` to capture to files, and examine them in a tool like Wireshark. Sometimes you can capture very large traces of data, and traffic you are interested in is a small subset of the entire trace. To work around this problem, run tcpdump through its own trace to cut down on the number of packets. Use the `-r <file>` option to read from a file instead of capture on an interface:

```

tcpdump -n -r my_trace.cap -w my_filtered_trace.cap host 5.5.5.5 and port 2323

```

The following example shows how to capture both VLAN tagged and untagged traffic on destination port 7850 and ARP packets:

```

tcp -i lan0_0 ((port 7850 or arp) or (vlan and (port 7850 or arp)))

```

Example

```

amnesiac # tcpdump
tcpdump: listening on primary
18:59:13.682568 amnesiac.domain.com.ssh > dhcp-22.domain.com.3277: P 3290808290:3290808342(52) ack
3412262693 win 5840 (DF) [dscp 0x10]
18:59:13.692513 amnesiac.domain.com.ssh > dhcp-22.domain.com.3277: P 0:52(52) ack 1 win 5840 (DF)
[dscp 0x10]
18:59:13.702482 amnesiac.domain.com.ssh > dhcp-22.domain.com.3277: P 0:52(52) ack 1 win 5840 (DF)
[dscp 0x10]

```

Related Topics

[“tcpdump stop-trigger enable,” “show tcpdump stop-trigger”](#)

CHAPTER 4 Configuration Mode Commands

This chapter is a reference for configuration mode commands. It includes the following sections:

- [“System Commands” on page 69](#)
- [“SteelFusion Core Commands” on page 204](#)
- [“SteelFusion Edge Commands” on page 327](#)

You can perform configuration tasks while in configuration mode. Only administrator users can enter configuration mode and enable mode commands. All commands available in user mode and enable mode are also available in configuration mode. Monitor users cannot perform configuration tasks.

To enter configuration mode

- Connect to the CLI and enter the **enable** and **configure terminal** commands:

```
login as: admin
SteelFusion Core
Last login: Wed Jan 20 13:02:09 2014 from 10.0.1.1
core01 > enable
core01 # configure terminal
core01 (config) #
```

You are now in configuration mode.

To exit configuration mode, enter **exit**. For information about the **exit** command, see [“exit” on page 9](#).

For an alphabetical list of commands, see the index at the end of this book.

System Commands

This section describes commands you use to perform system administration tasks.

[aaa accounting per-command default](#)

Configures per-command account settings.

Syntax

[no] **aaa accounting per-command default** <method>

Parameters

<method> Specify the authentication method: **tacacs+** or **local**. Use a space-separated list.

Usage

Core performs accounting based on the order in which you specify the methods.

The **no** command option clears all accounting states and returns the per-command accounting to the local method (local logs).

Example

```
amnesiac (config) # aaa accounting per-command default tacacs+ local
```

Related Topics

[“show aaa,” “show radius,” “show tacacs”](#)

aaa authentication cond-fallback

Configures fallback only if the server is unavailable.

Syntax

[no] aaa authentication cond-fallback

Parameters

None

Usage

If enabled, Core tries the next authentication method only if the servers for the current authentication method are unavailable.

The **no** command option disables fallback mode.

Example

```
amnesiac (config) # aaa authentication cond-fallback
```

Related Topics

[“show aaa,” “show radius,” “show tacacs”](#)

aaa authentication console-login default

Configures local, RADIUS, or TACACS+ console settings for log in.

Syntax

[no] aaa authentication console-login default <method>

Parameters

<method> Specify the authentication method: **radius**, **tacacs+**, or **local**. Use a space-separated list.

Usage

Core performs authentication based on the order in which you specify the methods.

The **no** command option clears all authentication states and returns user authentication to the local username database.

Example

```
amnesiac (config) # aaa authentication console-login default radius tacacs+ local
```

Related Topics

[“show aaa,” “show radius,” “show tacacs”](#)

aaa authentication login default

Configures local, RADIUS, or TACACS+ login settings.

Syntax

[no] aaa authentication login default <method>

Parameters

<method> Specify the authentication method: **radius**, **tacacs+**, or **local**. Use a space-separated list.

Usage

Core performs authentication based on the order in which you specify the methods.

The **no** command option clears all authentication states and returns user authentication to the local username database.

Example

```
amnesiac (config) # aaa authentication login default radius tacacs+
```

Related Topics

[“show aaa,” “show radius,” “show tacacs”](#)

aaa authorization map default-user

Configures what local user the authenticated user will be logged in as when authenticated (through RADIUS or TACACS+), and when there is no local user mapping specified in the remote database.

Syntax

[no] aaa authorization map default-user <user>

Parameters

<user> Username for RADIUS or TACACS+ authentication: **admin** or **monitor**.

Usage

For the local authentication method, this setting is ignored. This mapping depends on the setting of the **aaa authorization map order** command.

The **no** command option disables user default mapping.

Example

```
amnesiac (config) # aaa authorization map default-user admin
```

Related Topics

[“show aaa,” “show tacacs,” “aaa authorization map order”](#)

aaa authorization map order

Sets the order for remote-to-local user mappings for RADIUS or TACACS+ server authentication.

Syntax

[no] aaa authorization map order {remote-only | remote-first | local-only}

Parameters

remote-only	Maps only to a remote authenticated user if the authentication server sends a local-user mapping attribute. If the attribute does not specify a valid local user, no further mapping is attempted.
remote-first	If a local-user mapping attribute is returned and it is a valid local username, maps the authenticated user to the local user specified in the attribute. If the attribute is not present or not valid locally, uses the username specified by the default-user command. (This is the default behavior.)
local-only	All remote users are mapped to the user specified by the aaa authorization map default-user <username> command. Any vendor attributes received by an authentication server are ignored.

Usage

The order determines how the remote user mapping behaves. If the authenticated username is valid locally, the appliance does not perform any mapping. To set TACACS+ authorization levels (**admin** and **read-only**) to allow certain members of a group to log in, add the following attribute to **users** on the TACACS+ server:

```
service = rbt-exec {
    local-user-name = "monitor"
}
```

where you replace **monitor** with **admin** for write access.

To turn off general authentication in the appliance, enter the following command at the system prompt:

```
aaa authorization map order remote-only
```

The **no** command option disables authentication.

Example

```
amnesiac (config) # aaa authorization map order remote-only
```

Related Topics

[“show aaa,” “show radius,” “show tacacs”](#)

aaa authorization per-command default

Configures authorization mapping settings.

Syntax

```
[no] aaa authorization per-command default <method>
```

Parameters

<method>	Specify the authentication method: tacacs+ or local . Use a space-separated list.
-----------------------	---

Usage

The order in which the methods are specified is the order in which the authorization is attempted.

The **no** command option clears all authorization states and returns the user authorization to the local username database.

Example

```
amnesiac (config) # aaa authorization per-command default tacacs+ local
```

Related Topics

[“show aaa,” “show radius,” “show tacacs”](#)

access enable

Enables secure network access to a Core using an internal management access control list (ACL).

Syntax

[no] access enable

Parameters

None.

Usage

Cores are subject to the network policies defined by corporate security policy, particularly in large networks. Using an internal management ACL you can:

- Restrict access to certain interfaces or protocols of a Core.
- Restrict inbound IP access to a Core, protecting it from access by hosts that do not have permission without using a separate device (such as a router or firewall).
- Specify which hosts or groups of hosts can access and manage an appliance by IP address, simplifying the integration of appliances into your network. You can also restrict access to certain interfaces or protocols.

This command provides the following safeguards to prevent accidental disconnection from the Core (or the SCC):

- It detects the IP address you are connecting from and displays a warning if you add a rule that denies connections to that address.
- It always allows the default appliance ports 7800, 7801, 7810, 7820, and 7850.
- It always allows a previously connected SCC to connect and tracks any changes to the IP address of the SCC to prevent disconnection.
- It converts well-known port and protocol combinations such as SSH, Telnet, HTTP, HTTPS, SNMP, and SOAP into their default management service and protects these services from disconnection. For example, if you specify protocol 6 (TCP) and port 22, the management ACL converts this port and protocol combination into SSH and protects it from denial.
- It tracks changes to default service ports and automatically updates any references to changed ports in the access rules.
- You can also change the standard port for HTTPS (443) to match your management standards using the [“web https port”](#) and [“web http port”](#) commands.

Usage Notes

- When you change the default port of services (SSH, HTTP, HTTPS, and so on) on either the client-side or server-side appliance and then create a management ACL rule denying that service, the rule will not work as expected. The appliance on the other end (either server or client) of an in-path deployment does not know that the default service port has changed, and therefore optimizes the packets to that service port. To avoid this problem, add a pass-through rule to the client-side SteelHead for the management interfaces. The pass-through rule prevents the traffic from coming from the local host when optimized.
- A management ACL rule that denies access to port 20 on the server-side SteelHead in an out-of-path deployment prevents data transfer using active FTP. In this deployment, the FTP server and client cannot establish a data connection because the FTP server initiates the SYN packet and the management rule on the server-side SteelHead blocks the SYN packet. To work around this problem, use passive FTP instead. With passive FTP, the FTP client initiates both connections to the server. For details about active and passive FTP, see the Management Console online help or the *SteelFusion Core Management Console User's Guide*.

The **no** command option disables management ACL.

Example

```
amnesiac (config) # access enable
```

Related Topics

[“show access inbound rules,” “show access status”](#)

access inbound rule add

Adds a secure access inbound rule.

Syntax

```
[no] access inbound rule add [allow | deny] {protocol [<protocol number>] [dstport <port>] | service <service>}
[srcaddr <ip-address>] [interface <interface>] [description <description>] [rulenum <rulenum>] [log {on | off}]
[override]
```

Parameters

allow	Allows a matching packet access to the appliance. This is the default action.
deny	Denies access to any matching packets.
protocol <protocol number>	Specifies the protocol name (all , icmp , tcp , udp) or the protocol number (1 , 6 , 17) in the IP packet header. The default setting is all .
dstport <port>	Specifies the destination port of the inbound packet. You can also specify port ranges: for example, 1000-30000.
srcaddr <ip-address>	Specifies the source subnet of the inbound packet: for example, 1.2.3.0/24.
interface <interface>	Specifies an interface name: primary , aux , inpath0_0 .
rulenum <rule-number>	Specifies a rule number from 1 to <i>n</i> , start , or end . The appliances evaluate rules in numerical order starting with rule 1 . If the conditions set in the rule match, then the rule is applied, and the system moves on to the next packet. If the conditions set in the rule do not match, the system consults the next rule. For example, if the conditions of rule 1 do not match, rule 2 is consulted. If rule 2 matches the conditions, it is applied, and no further rules are consulted.
description <description>	Specifies a description to facilitate communication about network administration.
log {on off}	Tracks denied packets in the log. By default, packet logging is enabled.
override	Ignores the warning and forces the rule modification. If you add, delete, edit, or move a rule that could disconnect you from the appliance, a warning message appears. You can specify override to ignore the warning and force the rule modification. Use caution when you override a disconnect warning.

Usage

The management ACL contains rules that define a match condition for an inbound IP packet. You set a rule to allow or deny access to a matching inbound IP packet. When you add a rule on an appliance, the destination specifies the appliance itself, and the source specifies a remote host.

The ACL rules list contains default rules that allow you to use the management ACL with the RiOS features PFS, DNS caching, and RSP. These default rules allow access to certain ports required by these features. The list also includes a default rule that allows access to the SCC. If you delete the default ACL rules for one of these features and need to restore it, try the following commands:

To restore the default rule for PFS

```
access inbound rule add allow protocol tcp dstport 445 description "PFS Support" rulenum 1
access inbound rule add allow protocol tcp dstport 139 description "PFS Support" rulenum 1
access inbound rule add allow protocol udp dstport 137-138 description "PFS Support" rulenum 1
```

To restore the default rule for RSP

```
access inbound rule add allow protocol tcp dstport 8222 description "Allow RSP Console" rulenum 1
access inbound rule add allow protocol tcp dstport 8333 description "Allow RSP Console" rulenum 1
```

To restore the default rule for DNS cache

```
access inbound rule add allow protocol udp dstport 53 description "DNS Caching" rulenum 1
```


If you have a firewall rule set on the server-side appliance that prevents access to the server-side appliance, you might not be able to transfer data using active FTP in out-of-path deployments. To solve this problem, Riverbed recommends you use passive FTP or, if you have permission to change the configuration on the server-side appliance, you can add a rule to allow packets from source port 20. For example:

```
access inbound rule add allow protocol tcp srcport 20
```

To delete a rule, use the syntax:

no access inbound rule <rulenum>

Example

```
amnesiac (config) # access inbound rule add allow protocol tcp
dstport 1234 srcaddr 10.0.0.1/16 interface primary rule-number 2
```

Related Topics

[“show access inbound rules,” “show access status”](#)

access inbound rule edit rulenum

Modifies a secure access inbound rule.

Syntax

```
[no] access inbound rule edit rulenum <rule-number> {protocol <protocol> [dstport <port>] | service <service>}
[srcaddr <ip-address>] [interface <interface>] [description <description>] [log {on | off}] [action {allow | deny}]
```

Parameters

rulenum <rule-number>	Optionally, specify a rule number from 1 to <N>, start , or end . SteelHeads evaluate rules in numerical order starting with rule 1. If the conditions set in the rule match, then the rule is applied, and the system moves on to the next packet. If the conditions set in the rule do not match, the system consults the next rule. For example, if the conditions of rule 1 do not match, rule 2 is consulted. If rule 2 matches the conditions, it is applied, and no further rules are consulted.
action allow	Allows a matching packet access to the SteelHead. This is the default action.
action deny	Denies access to and logs any matching packets.
protocol <protocol>	Specifies the protocol name (all , icmp , tcp , udp), or protocol number (1 , 6 , 17) in the IP packet header. The default setting is all .
service <service>	Specifies the service name: http , https , snmp , ssh , soap , telnet
dstport <port-number>	Specifies the destination port. You can also specify port ranges: 1000-30000
srcaddr <subnet>	Specifies the source subnet. For the subnet address, use the format XXX.XXX.XXX.XXX/XX.
interface <interface>	Specifies the interface: primary , aux , inpath0_0
description <description>	Provides a description to facilitate communication about network administration.
log on	Enables logging for this command.
log off	Disables logging for this command.

Example

```
amnesiac (config) # access inbound rule edit action allow dstport 1234 srcaddr 10.0.0.1/16 service
http interface primary rulenum 2
```

Example

```
amnesiac (config) # access inbound rule edit rulenum action allow dstport 1234 srcaddr 10.0.0.1/16
service http interface primary rulenum 2
```

Related Topics

[“show access inbound rules,” “show access status”](#)

access inbound rule move

Moves a secure access inbound rule.

Syntax

[no] access inbound rule move <rule-number> to <rule-number> [override]

Parameters

<rule-number> to <rule-number>	Specifies a rule number from 1 to <i>n</i> , start , or end . Appliances evaluate rules in numerical order starting with rule 1. If the conditions set in the rule match, then the rule is applied, and the system moves on to the next packet. If the conditions set in the rule do not match, the system consults the next rule. For example, if the conditions of rule 1 do not match, rule 2 is consulted. If rule 2 matches the conditions, it is applied, and no further rules are consulted.
override	Ignores the warning and forces the rule modification. If you add, delete, edit, or move a rule that could disconnect you from the appliance, a warning message appears. You can specify override to ignore the warning and force the rule modification. Use caution when overriding a disconnect warning.

Example

```
amnesiac (config) # access inbound rule move 2 to 4
```

Related Topics

[“show access inbound rules,” “show access status”](#)

alarm clear

Clears the specified alarm type.

Syntax

alarm <type> clear

Parameters

<type>	Type of alarm. See the “alarm enable (Core)” command for a complete listing and description of alarm types.
---------------------	---

Usage

Use this command to clear the status of the specified alarm type. If you clear an alarm and the error condition still exists, the alarm might be triggered again immediately. If you need to clear an alarm permanently, use the **no alarm enable** command.

Example

```
amnesiac (config) # alarm secure_vault_unlocked clear
```

Related Topics

[“alarm enable \(Core\),” “alarm clear-threshold,” “show alarm,” “show alarms”](#)

alarm clear-threshold

Sets the threshold to clear the specified alarm type.

Syntax

[no] alarm <type> clear-threshold <threshold-level>

Parameters

<type>	Type of alarm. See the “ alarm enable (Core) ” command for a complete listing and description of alarm types.
<threshold-level>	Specify the threshold level. The threshold level depends on the alarm type, as do the possible values.

Usage

Use this command to set the threshold at which the alarm is cleared.

Example

```
amnesiac (config) # alarm cpu_util_indiv clear-threshold 70
```

Related Topics

“[alarm enable \(Core\)](#),” “[alarm clear](#),” “[show alarm](#),” “[show alarms](#)”

alarm enable (Core)

Enables the specified alarm.

Syntax

[no] alarm <type> enable

Parameters

<type>	Type of alarm:
	<ul style="list-style-type: none"> • appliance_unlicensed - This alarm triggers if the appliance has no BASE or MSPEC license installed for its currently configured model. This alarm also triggers for hardware earlier than xx60 with no BASE licensing installed. • autolicense_error - This alarm triggers on an appliance when the Riverbed Licensing Portal cannot respond to a license request with valid licenses. • autolicense_info - This alarm triggers if the Riverbed Licensing Portal has information regarding licenses for a Virtual Core. • bkup_int - This alarm triggers if the backup integration module encounters an error. • blkdisk - This alarm triggers and sends an email if the block-disk module encounters an error. By default, this alarm is enabled. This alarm applies only to Core-v implementations. • coredr - This alarm is enabled by default, and triggers if there are any disaster recovery errors or if there is a Degraded state in the disaster recovery configuration. There are several issues that can be reported: <ul style="list-style-type: none"> • Connection to the peer data center is down. • Journal LUN size - triggered when the Journal LUN size is not large enough to allow creation of the required number of replicas. This alarm automatically clears when the new size of the Journal LUN is detected. • WAN RTT (replication performance) - triggered if the ping time between data centers exceeds 100ms. • WAN sync latency (replication performance) - triggered if the backend on the secondary is having issues (slow IOPs or high latency), or if a large number of replicas (more than 10) are created at one time. This alarm also tracks the time it takes to commit writes to the secondary data center. This includes time to transmit the data, time to write the data on the secondary storage array, and time for a response. • Replication state - triggered if one or more replica LUNs are in "Suspended" state on the primary Core and are therefore not being replicated. • Role issue - triggered if any Edge connects to Core and reports a conflicting disaster recovery role. • Failover issue - triggered when a disaster recovery failover has occurred, but not all Edges have failed over to the new primary data center. • Split-brain - triggered when a split-brain state is detected between the replication data centers. A split-brain is that both sites report they are primary and suspended. • cpu_util_indiv - This alarm indicates whether the system has reached the CPU threshold for any of the CPUs in the system. If the system has reached the CPU threshold, check your settings. If your alarm thresholds are correct, reboot the appliance. • critical_temp - This alarm indicates that the CPU temperature has exceeded the critical threshold. The default value for the rising threshold temperature is 80°C; the default reset threshold temperature is 70°C. • edge - This alarm indicates that Core has lost connection with one of its configured Edges. • fan_error - This alarm indicates that the system has detected a fan error. • flash_error - This alarm indicates that the system has detected an error with the flash drive hardware. At times, the USB flash drive that holds the system images might become unresponsive; the appliance continues to function normally. When this error triggers you cannot perform a software upgrade, as the appliance is unable to write a new upgrade image to the flash drive without first power cycling the system. To reboot the appliance, enter the command to automatically power cycle the Core and restore the flash drive to its proper function. • fs_mnt - This alarm indicates that one of the mounted partitions is full or almost full. The alarm is triggered when only 7% of free space is remaining.

- **hardware** - This alarm indicates the overall health of the hardware.
- **high_availability** - This alarm indicates that at least one of the appliances in a high availability pair is actively serving storage data (the active node).
- **ipmi** - This alarm indicates that the system has detected an Intelligent Platform Management (IPMI) event. This alarm is not supported on all appliance models.
- **iscsi** - This alarm indicates that the iSCSI initiator is not accessible.
- **license_expired** - This alarm triggers if any feature has at least one license installed, but all of them are expired.
- **license_expiring** - This alarm triggers if one or more features is going to expire within two weeks.

Note: The license expiring and license expired alarms are triggered per feature. For example, if you install two license keys for a feature, LK1-FOOxxx (expired) and LK1-FOO-yyy (not expired), the alarms do not trigger, because the feature has one valid license.

- **licensing** - This alarm is the parent licensing alarm and triggers if any of the license_expired, license_expiring, or appliance_unlicensed alarms are active.
-
- **link_duplex** - This alarm is triggered when an interface was not configured for half-duplex negotiation but has negotiated half-duplex mode. Half-duplex significantly limits the optimization service results. This alarm is enabled by default.
 - **link_io_errors** - This alarm is triggered when the link error rate exceeds 0.1% while either sending or receiving packets. This threshold is based on the observation that even a small link error rate reduces TCP throughput significantly. A properly configured LAN connection should experience very few errors. The alarm clears when the rate drops below 0.05%. This alarm is enabled by default.
 - **linkstate: <x>** - These alarms indicate that the system has detected a link that is down. The system notifies you through SNMP traps, email, and alarm status. By default, this alarm is not enabled. The **no alarm linkstate enable** command disables the link state alarm.
 - **lun** - This alarm indicates that the LUN is unavailable.
 - **memory_error** - This alarm indicates that the system has detected a memory error.
 - **model_unlicensed** - This alarm indicates that the model license has been removed or is expired.
 - **other_hardware_error** - This alarm indicates that the system has detected a problem with the hardware. The alarm clears when you add the necessary hardware, remove the nonqualified hardware, or resolve other hardware issues. The following issues trigger the hardware error alarm:
 - the Core does not have enough disk, memory, CPU cores, or NIC cards to support the current configuration.
 - the Core is using a dual in-line memory module (DIMM), a hard disk, or a NIC that is not qualified by Riverbed.
 - DIMMs are plugged into the Core but it cannot recognize them because the DIMM modules are in the wrong slot. You must plug DIMM modules into the black slots first and then use the blue slots when all of the black slots are in use.
 - a DIMM module is broken and you must replace it.
 - other hardware issues.
 - **paging** - This alarm indicates whether the system has reached the memory paging threshold. If 100 pages are swapped approximately every two hours the appliance is functioning properly. If thousands of pages are swapped every few minutes, then reboot the system. If rebooting does not solve the problem, contact Riverbed Support.

- **secure_vault** - This alarm indicates a general secure vault error.
- **secure_vault_unlocked** - This alarm indicates whether the secure vault is unlocked. When the vault is unlocked, SSL traffic is not optimized and you cannot encrypt a data store.
- **snapshot** - This alarm indicates that a snapshot has failed to commit to the SAN, or a snapshot has failed to complete.
- **ssl** - This alarm indicates whether the system has detected an SSL error.
- **sticky_staging_dir** - This alarm indicates that the system has detected an error while trying to create a process dump.
- **upgrade** - This alarm indicates the status of an upgrade.

Usage

Enabling alarms is optional.

Critical temperature settings cannot be changed. Warning temperature settings can be changed.

The **no** command option disables all statistical alarms. The **no alarm <type> enable** command disables specific statistical alarms.

Example

```
amnesiac # alarm connection_forwarding enable
```

Related Topics

[“alarm clear,”](#) [“alarm clear-threshold,”](#) [“alarm error-threshold,”](#) [“show alarm,”](#) [“show alarms”](#)

alarm enable (Edge)

Enables the specified alarm.

Syntax

[no] alarm <type> enable

Parameters

<type>	<ul style="list-style-type: none"> • acs - This alarm sends an email notification when an application-consistent snapshot failed to be committed to the Core, or a snapshot failed to complete. Application consistent snapshots are scheduled using the Core snapshot scheduler. A snapshot is application consistent if, in addition to being write-order consistent, it includes data from running applications that complete their operations and flush their buffers to disk. This error triggers when there are problems interacting with servers (ESXi or Windows). Errors can also occur due to misconfigurations on either side, local issues on the servers (high load, timeouts, reboots), networking problems, and so on. This alarm is enabled by default. • admission_conn - This alarm should not be disabled. It indicates that the system connection limit has been reached. Additional connections are passed through unoptimized. The alarm clears when the appliance moves out of this condition. • admission_control - This alarm should not be disabled. It indicates that the system admission control pressure limit has been reached. Additional connections are passed through unoptimized. This alarm clears when the appliance moves out of this condition. • admission_cpu - This alarm should not be disabled. This alarm is triggered by high CPU usage. Additional connections are passed through unoptimized. The alarm clears when the appliance moves out of this condition. • admission_mapi - This alarm should not be disabled. It indicates that the total number of MAPI optimized connections has exceeded the maximum admission control threshold. • admission_mem - This alarm should not be disabled. It indicates that the system connection memory limit has been reached. Additional connections are passed through unoptimized. The alarm clears when the SteelFusion Edge moves out of this condition. • admission_tcp - This alarm should not be disabled. This alarm is triggered by high TCP memory usage. Additional connections are passed through unoptimized. The alarm clears when the SteelFusion Edge moves out of this condition. • appliance_unlicensed - This alarm triggers if the appliance has no BASE or MSPEC license installed for its currently configured model. • arcount - This alarm should not be disabled. It indicates whether the system is experiencing asymmetric traffic. If the system experiences asymmetric traffic, the system detects this condition and reports the failure. The traffic is passed through, and the route appears in the asymmetric routing table. • autolicense_error - This alarm triggers on a Virtual SteelHead appliance when the Riverbed Licensing Portal cannot respond to a license request with valid licenses. • autolicense_info - This alarm triggers if the Riverbed Licensing Portal has information regarding licenses for a Virtual SteelHead appliance. • blockstore - This alarm indicates that issues with the Edge blockstore have occurred. This alarm is enabled by default. • bypass - This alarm should not be disabled. It indicates that the system is in bypass mode. If the SteelHead is in bypass mode, restart the SteelHead service. • certs_expiring - This alarm indicates that the system has expiring SSL certificates. • cf_ack_timeout_aggr - This alarm indicates that the connection has been lost because requests have not been acknowledged by a connection-forwarding neighbor within the set threshold. • cf_conn_failure_aggr - This alarm indicates that the connection cannot be established with a connection-forwarding neighbor. • cf_conn_lost_eos_aggr - This alarm indicates that the connection has been closed by the connection-forwarding neighbor. • cf_conn_lost_err_aggr - This alarm indicates that the connection has been lost with the connection-forwarding neighbor due to an error.
---------------------	---

-
- <type>**
- **cf_heartbeat_timeout_aggr** - This alarm indicates that the connection forwarding neighbor has not sent a keep-alive message within the time-out period to the neighbor SteelHead(s) indicating that the connection has been lost.
 - **cf_latency_exceeded_aggr** - This alarm indicates that the amount of latency between connection-forwarding neighbors has exceeded the specified threshold.
 - **cf_neighbor_incompatible_cluster** - This alarm sends an email notification if a connection-forwarding neighbor is running a RiOS version that is incompatible with IPv6, or if the IP address configuration between neighbors does not match, or if path selection is enabled locally and the neighbor does not have path selection enabled. The SteelHead neighbors pass through IPv6 connections when this alarm triggers.
 - **cf_read_info_timeout_aggr** - This alarm indicates that the SteelHead has timed out while waiting for an initialization message from the connection-forwarding neighbor.
 - **connection_forwarding** - This alarm is the connection forwarding parent alarm.
 - **cpu_util_indiv** - This alarm indicates whether the system has reached the CPU threshold for any of the CPUs in the system. If the system has reached the CPU threshold, check your settings. If your alarm thresholds are correct, reboot the SteelHead
 - **critical_temp** - This alarm indicates that the CPU temperature has exceeded the critical threshold. The default value for the rising threshold temperature is 80° C; the default reset threshold temperature is 70° C.
 - **crl_error: SSL_CAs** - Indicates that an SSL peering certificate has failed to re-enroll automatically within the Simple Certificate Enrollment Protocol (SCEP) polling interval.
 - **crl_error: SSL_Peering_CAs** - Indicates that an SSL peering certificate has failed to reenroll automatically within the Simple Certificate Enrollment Protocol (SCEP) polling interval.
 - **datastore** - This alarm indicates the overall data store health.
 - **datastore clean needed** - This alarm indicates that you need to clear the RiOS data store.
 - **datastore_error** - This alarm indicates that the data store is corrupt or has become incompatible with the current configuration. Clear the data store to clear the alarm. If the alarm was caused by an unintended change to the configuration, you can change the configuration to match the previous RiOS data store settings. Then restart the optimization service without clearing the RiOS data store to reset the alarm. Typical configuration changes that require a restart with a clear RiOS data store are enabling the Extended Peer Table or changing the data store encryption.
 - **datastore_sync_error** - This alarm indicates that the system has detected a problem with the synchronized data.
 - **disconnected_sh_alert** - This alarm indicates that the connection to a SteelHead appliance in a connection forwarding cluster is lost.
 - **disk:<x>:status** - These alarms indicate that the system has detected a problem with the specified disk or a solid-state drive.
 - **domain_join_error** - This alarm indicates that the system has encountered an error when attempting to join a domain.
 - **duplex** - This alarm indicates that the system has encountered a large number of packet errors in your network. Make sure that the speed and duplex settings on your system match the settings on your switch and router. By default, this alarm is enabled.
 - **edge_ha** - This alarm sends an email message if only one of the appliances in a high availability (HA) SteelFusion Edge pair is actively serving storage data (the active peer).
 - **edge_service** - This alarm indicates that the Edge appliance connected to the Core is not servicing the Core. Check that Edge appliance is running.
-

-
- <type>
- **fan_error** - This alarm indicates that the system has detected a fan error.
 - **flash_error** - This alarm indicates that the system has detected an error with the flash drive hardware. At times, the USB flash drive that holds the system images might become unresponsive; the SteelHead continues to function normally. When this error triggers you cannot perform a software upgrade, as the SteelHead is unable to write a new upgrade image to the flash drive without first power cycling the system. To reboot the appliance, enter the **reload** command to automatically power cycle the SteelHead and restore the flash drive to its proper function. On desktop SteelHead appliance x50 and x55 models, you must physically power cycle the appliance (push the power button or pull the power cord).
 - **fs_mnt** - This alarm indicates that one of the mounted partitions is full or almost full. The alarm is triggered when only 7% of free space is remaining.
 - **granite-core** - This alarm indicates that the connection to the Core is lost.
 - **halt_error** - This alarm cannot be disabled. It indicates that the system has detected an unexpected halt to the optimization service.
 - **hardware** - This alarm indicates the overall health of the hardware.
 - **hypervisor_hw_memory_error** - This alarm triggers when memory error system event log entries occur on the hypervisor motherboard controller.
 - **hypervisor_hw_mgmt_connection** - This alarm indicates that RiOS lost IP connectivity or cannot authenticate the connection to the hypervisor motherboard controller.
 - **hypervisor_hw_power_lost** - This alarm triggers when the hypervisor node power is lost.
 - **hypervisor_hw_temperature_error** - This alarm triggers when a hypervisor CPU, board, or platform controller hub (PCH) temperature exceeds the rising threshold. When the CPU, board, or PCH returns to the reset threshold, the critical alarm clears (after polling for 30 seconds). If the appliance has more than one CPU, the alarm displays both CPUs. The default values are maintained by the motherboard.
 - **hypervisor_license_error** - This alarm is triggered if the hypervisor license is missing and the installer has not been run.
 - **hypervisor_operation_error** - This alarm is triggered if there is a hypervisor operation error.
 - **hypervisor_other_hardware_error** - This alarm reports status on unbranded, unknown, or unsupported cards in the system. The alarm message also reports RiOS cards not supported on the hypervisor.
 - **inbound_qos_wan_bw_err** - Enables an alarm and sends an email notification if the inbound QoS WAN bandwidth for one or more of the interfaces is set incorrectly. You must configure the WAN bandwidth to be less than or equal to the interface bandwidth link rate.
 - **ipmi** - This alarm indicates that the system has detected an Intelligent Platform Management (IPMI) event. This alarm is not supported on all appliance models.
 - **iscsi** - This alarm indicates that the iSCSI initiators are not accessible. Review the iSCSI configuration in the Core. The iSCSI initiators might have been removed. This alarm is enabled by default.
 - **licensing** - This alarm is the parent licensing alarm and triggers if any of the license_expired, license_expiring, or appliance_unlicensed alarms are active.
 - **license_expired** - This alarm triggers if any feature has at least one license installed, but all of them are expired.
 - **license_expiring** - This alarm triggers if one or more features is going to expire within two weeks.

Note: The license expiring and license expired alarms are triggered per feature. For example, if you install two license keys for a feature, LK1-FOOxxx (expired) and LK1-FOO-yyy (not expired), the alarms do not trigger, because the feature has one valid license.

- <type>
- **link_duplex** - This alarm is triggered when an interface was not configured for half-duplex negotiation but has negotiated half-duplex mode. Half-duplex significantly limits the optimization service results. This alarm is enabled by default.
 - **link_io_errors** - This alarm is triggered when the link error rate exceeds 0.1% while either sending or receiving packets. This threshold is based on the observation that even a small link error rate reduces TCP throughput significantly. A properly configured LAN connection should experience very few errors. The alarm clears when the rate drops below 0.05%. This alarm is enabled by default.
 - **linkstate: <x>** - These alarms indicate that the system has detected a link that is down. The system notifies you through SNMP traps, email, and alarm status. By default, this alarm is not enabled. The **no alarm linkstate enable** command disables the link state alarm.
 - **lun** - This alarm indicates that the Granite LUN is unavailable. This is a SteelHead EX alarm.
 - **memory_error** - This alarm indicates that the system has detected a memory error.
 - **mismatch_peer_aggr** - This alarm indicates that the appliance has encountered another appliance that is running an incompatible version of system software. Refer to the CLI, Management Console, or the SNMP peer table to determine which appliance is causing the conflict. Connections with that peer will not be optimized, connections with other peers running compatible RiOS versions are unaffected. To resolve the problem, upgrade your system software. No other action is required as the alarm clears automatically.
 - **model_unlicensed** - This alarm indicates that the model license has been removed or is expired.
 - **nfs_v2_v4** - This alarm indicates that the system has triggered a v2 or v4 NFS alarm.
 - **non_443_ssl_servers_detected_on_upgrade** - This alarm indicates that during a RiOS upgrade (for example, from v5.5 to v6.0), the system has detected a pre-existing SSL server certificate configuration on a port other than the default SSL port 443. SSL traffic might not be optimized. To restore SSL optimization, you can either add a peering rule to the server-side SteelHead to intercept the connection and optimize the SSL traffic on the non-default SSL server port or you can add an in-path rule to the client-side SteelHead to intercept the connection and optimize the SSL traffic on the non-default SSL server port. After adding a peering or in-path rule, you must clear this alarm manually by issuing the following CLI command:

```
alarm non_443_ssl_servers_detected_on_upgrade clear
```
 - **optimization_general** - This alarm indicates that the optimization service is not operating normally. The service might not be running, it might be disabled, or it might have stopped optimizing.
 - **optimization_service** - This alarm indicates that the system has encountered an optimization service condition.
-

<type>	<ul style="list-style-type: none"> • other_hardware_error - This alarm indicates that the system has detected a problem with the SteelHead hardware. The alarm clears when you add the necessary hardware, remove the nonqualified hardware, or resolve other hardware issues. The following issues trigger the hardware error alarm: <ul style="list-style-type: none"> – the SteelHead does not have enough disk, memory, CPU cores, or NIC cards to support the current configuration. – the SteelHead is using a dual in-line memory module (DIMM), a hard disk, or a NIC that is not qualified by Riverbed. – DIMMs are plugged into the SteelHead appliance but RiOS cannot recognize them because the DIMM modules are in the wrong slot. You must plug DIMM modules into the black slots first and then use the blue slots when all of the black slots are in use. – a DIMM module is broken and you must replace it. – other hardware issues. • outbound_qos_wan_bw_err - Enables an alarm and sends an email notification if the outbound QoS WAN bandwidth for one or more of the interfaces is set incorrectly. You must configure the WAN bandwidth to be less than or equal to the interface bandwidth link rate. • paging - This alarm indicates whether the system has reached the memory paging threshold. If 100 pages are swapped approximately every two hours the SteelHead is functioning properly. If thousands of pages are swapped every few minutes, then reboot the system. If rebooting does not solve the problem, contact Riverbed Support. • path_selection_path_down - This alarm indicates that one of the predefined uplinks for a connection is unavailable because it has exceeded either the timeout value for uplink latency or the threshold for observed packet loss. • path_selection_path_probe_err - This alarm indicates that a path selection monitoring probe for a predefined uplink has received a probe response from an unexpected relay or interface.. • pfs - This alarm is the parent PFS alarm and triggers if the pfs_config or pfs_operation alarms are active. • pfs_config - This alarm indicates that there has been a PFS or prepopulation operation error. If the system detects an operation error, restart the SteelHead service and PFS. • pfs_operation - This alarm indicates that a synchronization operation has failed. If the system detects an operation failure, attempt the operation again. • power_supply - This alarm indicates that an inserted power supply cord does not have power, as opposed to a power supply slot with no power supply cord inserted. • raid_disk_indiv - This alarm indicates that the system has encountered RAID errors (for example, missing drives, pulled drives, drive failures, and drive rebuilds). For drive rebuilds, if a drive is removed and then reinserted, the alarm continues to be triggered until the rebuild is complete. Rebuilding a disk drive can take 4-6 hours.
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<type>	<ul style="list-style-type: none"> • secure_transport_controller_unreachable - This alarm indicates a network connectivity failure to the Controller for the secure transport feature. Issues that might trigger this alarm are Controller services down because of an upgrade or a network connectivity failure to the Controller. • secure_transport_registration_failed - This alarm indicates that the registration with the Controller for secure transport was unsuccessful. • secure_vault - This alarm indicates a general secure vault error. • secure_vault_rekey_needed - This alarm indicates whether the system has detected that the secure vault needs to be rekeyed. • secure_vault_uninitialized - This alarm indicates that the system has detected that the secure vault is uninitialized. • secure_vault_unlocked - This alarm indicates whether the secure vault is unlocked. When the vault is unlocked, SSL traffic is not optimized and you cannot encrypt a data store. • serial_cascade_misconfig - This alarm indicates that the system has encountered an error in reaching a neighbor appliance configured for connection forwarding. • service_error - This alarm cannot be disabled. It indicates that the system has detected a software error in the SteelHead service. The SteelHead service continues to function, but an error message that you should investigate appears in the logs. • single_cf - This alarm indicates that the connection to a SteelHead connection forwarding neighbor is lost. • smb_alert - This alarm indicates that the system has detected an SMB signing error. • snapshot - This alarm indicates that a snapshot has failed to commit to the SAN, or a snapshot has failed to complete. • ssd_wear - This is the parent alarm for <code>ssd_wear_warning</code>. This alarm triggers if one of the <code>ssd_wear_warning:<x></code> alarms becomes active. • ssd_wear_warning - This alarm indicates that the specified disk is approaching its write cycle limit. (Appears only on SteelHead models 7050L or 7050M.) <p>RiOS tracks the number of writes to each block. To view the overall status, enter the following command:</p> <pre>show alarm ssd_wear</pre> <p>To view the status of an individual alarm, enter the following command:</p> <pre>show alarm ssd_wear:<x></pre> <p>where <x> is the SSD disk port number.</p>
---------------------	--

<type>	<ul style="list-style-type: none"> • ssl - This alarm indicates whether the system has detected an SSL error. • ssl_peer_scep_auto_reenroll - This alarm indicates that the system has detected an SCEP error. The SteelHead uses SCEP to dynamically reenroll a peering certificate to be signed by a certificate authority. The alarm clears automatically when the next automatic reenrollment succeeds. To clear the alarm, execute the protocol ssl peering auto-reenroll last-result clear-alarm command. • sticky_staging_dir - This alarm indicates that the system has detected an error while trying to create a process dump. • store_corruption - This alarm cannot be disabled. It indicates whether the data store is corrupt. To clear the data store of data, restart the SteelHead service and clear the data store on the next restart. • sw_version_aggr - This alarm indicates that there is a software version mismatch between peer appliances. The client-side and server-side SteelHeads are running incompatible versions of software. • system_detail_report - This alarm indicates that a system component has encountered a problem. This alarm is enabled by default. • temperature - This alarm is the parent temperature alarm and triggers if any of the warning_temp or critical_temp alarms are active. • upgrade - This alarm indicates the status of an upgrade. • virtualization_status - This alarm indicates the status of the virtualization process. • vsp - This alarm is the parent VSP alarm; it is triggered if any of the VSP alarms are active. This alarm is enabled by default on the SteelFusion Edge. • vsp_connection_error - This alarm is triggered when any of the services critical for virtualization are not running; for example, VSP is disconnected from the hypervisor, the hypervisor password is invalid, VSP was unable to gather some hardware information, and VSP is disconnected. • vsp_installation_error - This alarm is triggered when VSP is not installed correctly and powered off. Possible issues are a hypervisor upgrade has failed, a configuration push from the hypervisor installer has failed, VSP could not gather enough information to set up an interface, or the hypervisor is not installed. • warning_temp - This alarm indicates whether the CPU temperature has exceeded the warning threshold. The default value for the rising threshold temperature is 80° C; the default reset threshold temperature is 70° C.
---------------------	--

alarm error-threshold

Sets a threshold to trigger an alarm.

Syntax

[no] alarm <type> error-threshold <threshold-level>

Parameters

<type>	Type of alarm. See the “alarm enable (Core)” command for a complete listing and description of alarm types.
<threshold-level>	Threshold level. The threshold level and possible values depend on the alarm type.

Usage

The **no** command resets the threshold to the default level.

Example

```
amnesiac (config) # alarm cpu_util_indiv error-threshold 80
```

Related Topics

[“alarm clear,”](#) [“alarm clear-threshold,”](#) [“alarm enable \(Core\),”](#) [“show alarm,”](#) [“show alarms”](#)

alarm rate-limit

Sets the alarm rate-limit values.

Syntax

alarm <type> rate-limit [email | snmp] term <rate-limit> {count <value> | window <duration-seconds>}

Parameters

<type>	See the “alarm enable (Core)” command for a complete listing and description of alarm types.
email	Sets rules for email.
snmp	Sets rules for SNMP.
term <rate-limit>	Sets the alarm event rate-limit term value. Valid choices are: <ul style="list-style-type: none"> • long • medium • short
count <value>	Sets the count value. The default values are 50 (long), 20 (medium), and 5 (short).
window <duration-seconds>	Sets the duration of time, in seconds, that the window remains open. The default values are 604,800 (long), 86,400 (medium), and 3600 (short).

Usage

There are three term values—long, medium, and short. Each has a window, which is a number of seconds, and a maximum count. If, for any term value, the number of alarm events exceeds the maximum count during the window, the corresponding email and SNMP notifications are not sent.

Example

```
amnesiac (config) # alarm crl_error rate-limit email term short window 30
```

Related Topics

[“alarm clear,”](#) [“alarm clear-threshold,”](#) [“alarm enable \(Core\),”](#) [“alarm error-threshold,”](#) [“show alarm,”](#) [“show alarms”](#)

alarms reset-all

Globally sets all alarms to their default settings.

Syntax

alarms reset-all

Parameters

None

Example

```
amnesiac (config) # alarms reset-all
```

Related Topics

[“alarm clear,”](#) [“alarm clear-threshold,”](#) [“alarm enable \(Core\),”](#) [“show alarm,”](#) [“show alarms”](#)

arp

Creates static ARP entries in the ARP table.

Syntax

[no] arp <ip-address> <mac-address>

Parameters

<ip-address>	IP address of the appliance.
<mac-address>	MAC address.

Usage

The **no** command option disables ARP static entries.

Example

```
amnesiac (config) # arp 10.0.0.1 00:07:E9:55:10:09
```

Related Topics

[“show arp”](#)

authentication policy enable

Enables the authentication policy for account control.

Syntax

[no] authentication policy enable

Parameters

None

Usage

An authentication policy enables you to define a set of policies to enforce user login behavior and password strength. Passwords are mandatory when account control is enabled.

After you enable the authentication policy, the current passwords for all users expire. At the next login, each user is prompted to change their password, placing the new password under the account control authentication policy.

When account control is enabled and an administrator uses the **username password 7** command, the password automatically expires. Because the encrypted password cannot be checked against the configured password policy, the user is prompted to change their password at login.

Example

```
amnesiac (config) # authentication policy enable
```

Related Topics

[“show authentication policy,”](#) [“username password 7”](#)

authentication policy login max-failures

Sets the maximum number of unsuccessful login attempts before temporarily locking the user’s access to Core.

Syntax

authentication policy login max-failures <count> [unlock-time <seconds>]

Parameters

<count>	Maximum number of unsuccessful login attempts before a temporary account lockout.
unlock-time <seconds>	Specifies the number of seconds the system waits before the user can log in again after an account lockout. If this optional parameter is not specified, the unlock time defaults to 300 seconds.

Usage

The **no authentication policy login max-failures** command resets the maximum number of unsuccessful login attempts allowed to the default value, which is zero, indicating that the account lockout is disabled.

Example

```
amnesiac (config) # authentication policy login max-failures 3
amnesiac (config) # no authentication policy login max-failures
```

Related Topics

[“show authentication policy”](#)

authentication policy password

Configures the authentication policy password settings for account control.

Syntax

```
[no] authentication policy password {change-days <days> | dictionary enable | difference <count> | expire <days>
[warn <days>] | length <length> | lock <days> | lower-case <count> | numeric <count> | repeat <count> | reuse-
interval <count> | special <count> | upper-case <count>}
```


Parameters

change-days <days>	Specifies the minimum number of days before which passwords cannot be changed.
dictionary enable	Prevents the use of any word found in the dictionary as a password.
difference <count>	Specifies the minimum number of characters that must change between an old and new password. The default for the strong security template is 4. If the authentication policy password difference <count> value is set to a value greater than zero, a nonadministrator must specify the new and old passwords by entering the username password [old-password] command. Administrators are never required to enter an old password when changing an account password.
expire <days>	Specifies the number of days the current password stays in effect. To set the password expiration to 24 hours, specify 0. To set the password expiration to 48 hours, specify 1. Specify a negative number to turn off password expiration.
warn <days>	Specifies the number of days to warn a user of an expiring password before the password expires. The default for the strong security template is 7.
length <length>	Specifies the minimum password length. The default setting for the strong security template is 14 alphanumeric characters.
lock <days>	Specifies the number of days before an account with an expired password locks.
lower-case <count>	Specifies the minimum number of lowercase letters required in the password. The default for the strong security template is 1.
numeric <count>	Specifies the minimum number of numeric characters required in the password. The default for the strong security template is 1.
repeat <count>	Specifies the maximum number of times a character can occur consecutively.
reuse-interval <count>	Specifies the number of password changes allowed before a password can be reused. The default for the strong security template is 5.
special <count>	Specifies the minimum number of special characters required in the password. The default for the strong security template is 1.
upper-case <count>	Specifies the minimum number of uppercase letters required in the password. The default for the strong security template is 1.

Usage

Passwords are mandatory when account control is enabled. Passwords for all users expire as soon as account control is enabled. This behavior forces the user to create a new password that follows the password characteristics defined in the password policy.

When account control is enabled and an administrator uses the **username password 7** command, the password automatically expires. Because the encrypted password cannot be checked against the configured password policy, the user is prompted to change their password at log in.

Empty passwords are not allowed when account control is enabled.

Example

```
amnesiac (config) # authentication policy password expire 60 warn 3
```

Related Topics

[“authentication policy template,”](#) [“username password,”](#) [“username password 7,”](#) [“show authentication policy”](#)

authentication policy template

Specifies the authentication policy template for password policy configuration.

Syntax

authentication policy template {strong | basic}

Parameters

strong	Specifies the strong security policy template.
basic	Specifies the basic security policy template.

Usage

The **authentication policy template strong** command sets the password policy to more stringent enforcement settings. Selecting this template automatically prepopulates the password policy with stricter settings commonly required by higher security standards, such as for the Department of Defense.

To remove the strong security template and return to the basic password policy, use the **authentication policy template basic** command.

When account control is enabled for the first time, the password policy is set to the basic template.

Example

```
amnesiac (config) # authentication policy template strong
```

```
amnesiac # show authentication policy
Authentication policy enabled:          yes
Maximum unsuccessful logins before account lockout: 3
    Wait before account unlock:        300 Seconds
Minimum password length:                14
Minimum upper case characters in password: 1
Minimum lower case characters in password: 1
Minimum numerical characters in password: 1
Minimum special characters in password: 1
Minimum interval for password reuse:    5
Minimum characters diff for password change: 4
Prevent dictionary words in password:   yes
User passwords expire:                  60 days
Warn user of an expiring password:      7 days before
User accounts with expired passwords lock: 305 days
```

```
amnesiac (config) # authentication policy template basic
```

```
amnesiac # show authentication policy
Authentication policy enabled:          yes
Maximum unsuccessful logins before account lockout: none
    Wait before account unlock:        300 Seconds
Minimum password length:                6
Minimum upper case characters in password: 0
Minimum lower case characters in password: 0
Minimum numerical characters in password: 0
Minimum special characters in password: 0
Minimum interval for password reuse:    0
Minimum characters diff for password change: 0
Prevent dictionary words in password:   yes
User passwords expire:                  never
Warn user of an expiring password:      7 days before
User accounts with expired passwords lock: never
```

Related Topics

[“show authentication policy”](#)

authentication policy user lock never

Configures the user account lock settings for account control management.

Syntax

[no] authentication policy user <username> lock never

Parameters

<username>	User login: admin , monitor , or shark .
------------	---

Usage

This command prevents the user's account from being locked after the password expires. This command is available only when account control is enabled.

The **no** form of this command allows the user account to be locked after the password expires.

Example

```
amnesiac (config) # authentication policy user admin lock never
```

Related Topics

["show authentication policy"](#)

authentication policy user login-failures reset

Resets a user account so the user can log in again.

Syntax

[no] authentication policy user <username> login-failures reset

Parameters

<username>	User login: admin , monitor , or shark .
------------	---

Usage

If a user account is locked because of a failed login count exceeding the configured value, the **authentication policy user login-failures reset** command resets the account so the user can log in again. This command resets the login count to zero, which is the default value.

Example

```
amnesiac (config) # authentication policy user admin login-failures reset
```

Related Topics

["show authentication policy"](#)

banner login

Creates the system log in banner.

Syntax

[no] banner login "<message string>"

Parameters

"<message string>"	Login banner message. Enclose the message in quotation marks.
--------------------	---

Usage

The **no** command option disables the login banner.

Example

```
amnesiac (config) # banner login "reminder: meeting today"
```

Related Topics

["show bootvar"](#)

banner motd

Creates the system Message of the Day banner.

Syntax

```
[no] banner motd <message string>
```

Parameters

<message string>	Specify the login Message of the Day. Enclose the message in quotation marks.
------------------	---

Usage

The **no** command option disables the system Message of the Day banner.

Example

```
amnesiac (config) # banner motd "customer visit today"
```

Related Topics

["show bootvar"](#)

boot bootloader password

Sets the password for the bootloader.

Syntax

```
boot bootloader password {<password> | 0 <password> | 7 <password>}
```

Parameters

<password>	Bootloader password in clear text. The password must be at least 6 characters. This option functions the same as the 0 <password> parameter and is provided for backward compatibility.
0 <password>	Specifies a bootloader password in clear text.
7 <password>	Specifies a bootloader password with an encrypted string. The encrypted string is the hash of the clear text password and is 35 bytes long. The first 3 bytes indicate the hash algorithm and the next 32 bytes are the hash values.

Example

```
amnesiac (config) # boot bootloader password 0 182roy
```

```
amnesiac (config) # boot bootloader password 7 $1$gyP/PKii$2v9FOFcXB5a3emuvLKO3M
```

Related Topics

["show images"](#)

boot system

Boots the specified partition the next time the system is rebooted.

Syntax

```
boot system <partition>
```

Parameters

<partition> Partition to boot: 1 or 2.

Example

```
amnesiac (config) # boot system 1
```

Related Topics

[“show images”](#)

cli clear-history

Clears the command history for the current user.

Syntax

cli clear-history

Parameters

None

Example

```
amnesiac (config) # cli clear-history
```

Related Topics

[“show cli”](#)

cli default auto-logout

Sets the keyboard inactivity time for automatic logout.

Syntax

[no] cli default auto-logout <minutes>

Parameters

<minutes> Number of minutes before logout occurs.

Usage

Suppose you are using Telnet versus SSH to access your appliances and thus have enabled a Telnet server.

To disable timeout

```
cli default auto-logout 0
```

The **no** command option disables the automatic logout feature.

Example

```
amnesiac (config) # cli default auto-logout 25
```

Related Topics

[“show cli”](#)

cli default paging enable

Sets the ability to view text one screen at a time.

Syntax

[no] cli default paging enable

Parameters

None

Usage

The **no** command option disables paging.

Example

```
amnesiac (config) # cli default paging enable
```

Related Topics

[“show cli”](#)

cli session

Sets CLI options for the current session only.

Syntax

```
[no] cli session {auto-logout <minutes> | paging enable | terminal length <lines> | terminal type <terminal-type> | terminal width <number-of-characters>}
```

Parameters

auto-logout <minutes>	Sets the number of minutes before the CLI automatically logs out the user. The default value is 15 minutes. The no command option disables the automatic logout feature.
paging enable	Sets paging. With paging enabled, if there is too much text to fit on the page, the CLI prompts you for the next page of text. The no command option disables paging.
terminal length <lines>	Sets the terminal length. The no command option disables the terminal length.
terminal type <terminal-type>	Sets the terminal type. The no command option disables the terminal type.
terminal width <number-of-characters>	Sets the terminal width. The no command option disables the terminal width.

Usage

The **no** command option disables CLI option settings.

Example

```
amnesiac (config) # cli session auto-logout 20
```

Related Topics

[“show cli”](#)

clock timezone

Sets the current time zone.

Syntax

```
clock timezone <zone>
```

Parameters

<zone>	Time zone name: Africa, America, Antarctica, Arctic, Asia, Atlantic_Ocean, Australia, Europe, GMT-offset, Indian_Ocean, Pacific_Ocean, UTC.
---------------------	--

Usage

The default value is GMT-offset.

Example

```
amnesiac (config) # clock timezone Africa
```

Related Topics

[“show clock”](#)

cmc enable

Enables auto-registration for the SCC.

Syntax

[no] cmc enable

Parameters

None

Usage

The **no** command option disables SCC auto-registration.

Example

```
amnesiac (config) # cmc enable
```

Related Topics

[“show running-config”](#)

cmc hostname

Sets the SCC hostname used for auto-registration.

Syntax

[no] cmc hostname <hostname>

Parameters

<hostname>	Name of the host.
-------------------------	-------------------

Usage

The **no** command option disables SCC auto-registration.

Example

```
amnesiac (config) # cmc hostname test
```

Related Topics

[“show running-config”](#)

configuration copy

Copies a configuration file.

Syntax

configuration copy <source-name> <new-filename>

Parameters

<source-name>	Name of the source file.
<new-filename>	Name of the destination file.

Example

```
amnesiac (config) # configuration copy westcoast eastcoast
```

Related Topics

[“show info”](#)

configuration delete

Deletes a configuration file.

Syntax

configuration delete <filename>

Parameters

<filename>	Name of the configuration file to delete.
------------	---

Example

```
amnesiac (config) # configuration delete westcoast
```

Related Topics

[“show info”](#)

configuration factory

Creates a new configuration file.

Syntax

configuration factory <filename>

Parameters

<filename>	Name of the new configuration file.
------------	-------------------------------------

Example

```
amnesiac (config) # configuration factory eastcoast
```

Related Topics

[“show info”](#)

configuration fetch

Downloads a configuration file over the network.

Syntax

configuration fetch {<url> | <filename>}

Parameters

<url>	Location of the configuration file to download in an http, ftp, or scp URL: for example, ftp://username:password@hostname/path/filename.
<filename>	New name for the configuration file.

Usage

To copy one configuration file to another appliance, run the following set of commands:

```
configuration fetch <url-to-remote-config> <new-config-name>
    ;; this fetches the configuration from the remote
configuration switch-to <new-config-name>
    ;; this activates the newly fetched configuration
```

Example

```
amnesiac (config) # configuration fetch http://domain.com/westcoast newconfig
amnesiac (config) # configuration switch-to newconfig
```

Related Topics

[“show info”](#)

configuration jump-start

Restarts the configuration wizard. The configuration wizard lets you set 20 configuration parameters with a single command. Press **Enter** to accept the value displayed or enter a new value.

Syntax

configuration jump-start

Parameters

None

Example

```
amnesiac (config) # configuration jump-start
```

Riverbed SteelFusion Core configuration wizard.

```
Step 1: Hostname? [example]
Step 2: Use DHCP on primary interface? [no]
Step 3: Primary IP address? [10.11.6.6]
Step 4: Netmask? [255.255.0.0]
Step 5: Default gateway? [10.0.0.1]
Step 6: Primary DNS server? [10.0.0.2]
Step 7: Domain name? [example.com]
Step 8: Admin password?
Step 9: SMTP server? [exchange]
Step 10: Notification email address? [examplem@riverbed.com]
Step 11: Set the primary interface speed? [auto]
Step 12: Set the primary interface duplex? [auto]
Step 13: Would you like to activate the in-path configuration? [yes]
Step 14: In-Path IP address? [10.11.6.6]
Step 15: In-Path Netmask? [255.255.0.0]
Step 16: In-Path Default gateway?
Step 17: Set the in-path:LAN interface speed? [auto]
```

Step 18: Set the in-path:LAN interface duplex? [auto]

Step 19: Set the in-path:WAN interface speed? [auto]

Step 20: Set the in-path:WAN interface duplex? [auto]

You have entered the following information:

1. Hostname: example
2. Use DHCP on primary interface: no
3. Primary IP address: 10.11.0.6
4. Netmask: 255.255.0.0
5. Default gateway: 10.0.0.1
6. Primary DNS server: 10.0.0.2
7. Domain name: example.com
8. Admin password: (unchanged)
9. SMTP server: exchange
10. Notification email address: example@riverbed.com
11. Set the primary interface speed: auto
12. Set the primary interface duplex: auto
13. Would you like to activate the in-path configuration: yes
14. In-Path IP address: 10.11.6.6
15. In-Path Netmask: 255.255.0.0
16. In-Path Default gateway:
17. Set the in-path:LAN interface speed: auto
18. Set the in-path:LAN interface duplex: auto
19. Set the in-path:WAN interface speed: auto
20. Set the in-path:WAN interface duplex: auto

To change an answer, enter the step number to return to.

Otherwise hit <enter> to save changes and exit.

Choice:

amnesiac (config)>

Related Topics

["show info"](#)

configuration merge

Merges common configuration settings from one system to another.

Syntax

configuration merge <filename> <new-config-name>

Parameters

<filename>	Name of file from which to merge settings.
<new-config-name>	New configuration name.

Usage

Use the configuration merge command to deploy a network of appliances. Set up a template for your appliance and merge the template with each appliance in the network.

The following configuration settings are not merged when you run the **configuration merge** command: failover settings, SNMP SysContact and SysLocation, alarm settings, CLI settings, and all network settings (for example, hostname, auxiliary interface, DNS settings, defined hosts, static routing, and in-path routing).

The following configuration settings are merged when you run the **configuration merge** command: in-path, out-of-path, log settings, protocols, statistics, email, NTP and time, Web, and SNMP.

To merge a configuration file, run the following set of commands:

```
configuration write to <new-config-name>
    ;; this saves the current config to the new name and activates
    ;; the new configuration
configuration fetch <url-to-remote-config> <temp-config-name>
    ;; this fetches the configuration from the remote
configuration merge <temp-config-name>
    ;; this merges the fetched config into the active configuration
    ;; which is the newly named/created one in step 1 above
configuration delete <temp-config-name>
    ;; this deletes the fetched configuration as it is no longer
    ;; needed since you merged it into the active configuration
```

Example

```
amnesiac (config) # configuration merge initial working
```

Related Topics

[“show info”](#)

configuration move

Moves and renames a configuration file.

Syntax

```
configuration move <source-name> <dest-name>
```

Parameters

<source-name>	Name of the source configuration file.
<dest-name>	Name of the new configuration file.

Example

```
amnesiac (config) # configuration move westcoast eastcoast
```

Related Topics

[“show info”](#)

configuration new

Creates a new, blank configuration file.

Syntax

```
configuration new <new-filename> [keep licenses]
```

Parameters

<new-filename>	Name of the new configuration file.
keep licenses	Creates a new configuration file with default settings and active licenses.

Usage

Riverbed recommends that you use the **keep licenses** command option. If you do not keep licenses, your new configuration will not have a valid license key.

Example

```
amnesiac (config) # configuration new westcoast keep licenses
```

Related Topics

["show info"](#)

configuration revert keep-local

Reverts to the initial configuration but maintains some appliance-specific settings.

Syntax

```
configuration revert keep-local
```

Parameters

None

Example

```
amnesiac (config) # configuration revert keep-local
```

Related Topics

["show info"](#)

configuration revert saved

Reverts the active configuration to the last saved configuration.

Syntax

```
configuration revert saved
```

Parameters

None

Example

```
amnesiac (config) # configuration revert saved
```

Related Topics

["show info"](#)

configuration switch-to

Loads a new configuration file and makes it the active configuration.

Syntax

```
configuration switch-to <filename>
```

Parameters

<filename>	Name of the file. The default filenames are: <ul style="list-style-type: none">• initial - Specifies the initial configuration.• initial.bak - Specifies the initial backup configuration.• cold - Specifies the configuration file before SDR has occurred.• working - Specifies the current configuration.
-------------------------	---

Example

```
amnesiac (config) # configuration switch-to westcoast
```

Related Topics

["show info"](#)

configuration upload

Uploads the configuration file.

Syntax

```
configuration upload <filename> <url> [active]
```

Parameters

<filename>	Name of the configuration file.
<url>	Location of the configuration file to upload in an HTTP, FTP, or SCP URL: for example, ftp://username:password@hostname/path/filename.
active	Sets the uploaded file to the active configuration file.

Example

```
amnesiac (config) # configuration upload initial scp://test:MyPassword@example/tmp/
```

Related Topics

["show info"](#)

configuration write

Writes the current, active configuration file to memory.

Syntax

```
configuration write [to <filename>]
```

Parameters

to <filename>	Saves the running configuration to a file.
----------------------------	--

Example

```
amnesiac (config) # configuration write
```

Related Topics

["show info"](#)

debug health-report enable

Enables the reporting of product health information.

Syntax

[no] debug health-report enable

Parameters

None

Usage

Riverbed has enhanced its product health reporting. A single encrypted HTTPS connection is now opened from each managed device and periodically delivers anonymized information to secure servers located at `comms.usage.riverbed.com:443`.

This reporting is enabled by default. To disable reporting of product health information, use the **no debug health-report enable** command.

Example

```
amnesiac (config) # debug health-report enable
amnesiac (config) # no debug health-report enable
```

Related Topics

[“debug uptime-report enable,” “show debug health-report”](#)

debug uptime-report enable

Enables the reporting of product usage information.

Syntax

[no] debug uptime-report enable

Parameters

None

Usage

Riverbed has enhanced its product usage reporting by directing a periodic DNS request to a dynamically generated host ending in `updates.riverbed.com`.

This reporting is enabled by default. To disable reporting of product usage information, use the **no debug uptime-report enable** command.

Example

```
amnesiac (config) # debug uptime-report enable
amnesiac (config) # no debug uptime-report enable
```

Related Topics

[“debug health-report enable,” “show debug uptime-report”](#)

email autosupport enable

Enables automatic email notification of significant alarms and events to Riverbed Support.

Syntax

[no] email autosupport enable

Parameters

None

Usage

The **no** command option disables automatic email notification.

Example

```
amnesiac (config) # email autosupport enable
```

Related Topics

[“show email”](#)

email domain

Sets the domain for email notifications.

Syntax

[no] email domain <hostname or IP address>

Parameters

<hostname or IP address>	Specify the domain for email notifications (only if the email address does not contain it).
--------------------------	---

Usage

Use this command only if the email address does not contain the domain.

The **no** command option disables the email domain.

Example

```
amnesiac (config) # email domain example.com
```

Related Topics

[“show email”](#)

email from-address

Sets the address from which email messages appear to come.

Syntax

[no] email from-address <email-address>

Parameters

<email-address>	Specify the full username and domain to appear in the email "From:" address.
-----------------	--

Usage

Use the **email from-address** command to override the default email address used in outgoing email messages, do-not-reply@<hostname>.<domainname>.

The **no** command option disables the email address configured and returns to the default email address.

Example

```
amnesiac (config) # email from-address bean@caffeitaly.com
```

Related Topics

[“show email,”](#) [“show email”](#)

email mailhub

Sets the SMTP server for email notifications.

Syntax

[no] email mailhub <hostname or IP address>

Parameters

<hostname or IP address> Specify the SMTP server for email notifications.

Usage

The **no** command option disables the SMTP server.

Example

```
amnesiac (config) # email mailhub mail-server.example.com
```

Related Topics

[“show email”](#)

email mailhub-port

Sets the email port for email notifications.

Syntax

[no] email mailhub-port <port-number>

Parameters

<port-number> Specify the email port for email notifications.

Usage

The **no** command option disables the email port.

Example

```
amnesiac (config) # email mailhub-port 135
```

Related Topics

[“show email”](#)

email notify events enable

Enables email notification for events.

Syntax

[no] email notify events enable

Parameters

None

Usage

The **no** command option disables email notification.

Example

```
amnesiac (config) # email notify events enable
```

Related Topics

[“show email”](#)

email notify events recipient

Sets the email address for notification of events.

Syntax

[no] email notify events recipient <email-address>

Parameters

<email-address>	Email address of the user to receive notification of events.
-----------------	--

Usage

The **no** command option disables email address for notification.

Example

```
amnesiac (config) # email notify events recipient johndoe@example.com
amnesiac (config) # email notify events recipient janedoe@example.com
```

Related Topics

[“show email”](#)

email notify failures enable

Enables email notification of system failures, such as core dumps.

Syntax

[no] email notify failures enable

Parameters

None

Usage

The **no** command option disables email notification.

Example

```
amnesiac (config) # email notify failures enable
```

Related Topics

[“show email”](#)

email notify failures recipient

Adds a specific recipient for event email notifications of system failures, such as core dumps.

Syntax

[no] email notify failures recipient <email-address>

Parameters

recipient <email-address>	Email address of the user to receive notification of failures.
---------------------------	--

Usage

The **no** command option disables email notification.

You must enter separate commands for each email address. Each command line accepts only one email address.

Example

```
amnesiac (config) # email notify failures recipient johndoe@example.com
```

Related Topics

[“show email”](#)

email send-test

Sends a test email to all configured event and failure recipients.

Syntax

email send-test

Parameters

None

Usage

You can also access this command from enable mode.

Example

```
amnesiac (config) # email send-test
```

Related Topics

[“show email”](#)

fips enable

Enables FIPS mode.

Syntax

[no] fips enable

Parameters

None

Usage

The Federal Information Processing Standard (FIPS) is a publicly announced set of validation standards developed by the United States National Institute of Standards and Technology (NIST) for use by government agencies and by government contractors.

FIPS 140-2 is a technical and worldwide de facto standard for the implementation of cryptographic modules. FIPS validation makes the Riverbed appliance more suitable for use with government agencies that have formal policies requiring use of FIPS 140-2 validated cryptographic software.

To achieve FIPS compliance on a Riverbed appliance, you must run a software version that includes the Riverbed Cryptographic Security Module (RCSM) v1.0, configure the system to run in FIPS operation mode, and adjust the configuration of any features that are not FIPS compliant.

The RCSM is validated to meet FIPS 140-2 Level 1 requirements. Unlike FIPS 140-2 Level 2 validation, which requires physical security mechanisms, Level 1 validates the software only.

For more information on the FIPS implementation, see the *FIPS Administrator's Guide*.

Example

```
amnesiac (config) # fips enable
amnesiac (config) # service restart
```

Related Topics

[“show fips status”](#)

hardware watchdog enable

Enables the hardware watchdog, which monitors the system for hardware errors.

Syntax

hardware watchdog enable

Parameters

None

Example

```
amnesiac (config) # hardware watchdog enable
```

Related Topics

[“show hardware error-log”](#)

hardware watchdog shutdown

Shuts down the hardware watchdog.

Syntax

hardware watchdog shutdown

Parameters

None

Example

```
amnesiac (config) # hardware watchdog shutdown
```

Related Topics

[“show hardware error-log”](#)

host-label

Configures host label settings.

Syntax

```
[no] host-label <name> {hostname {<hostname> | '<hostname>, ...>' } [subnet <X.X.X.X/XX> | 'subnet <X.X.X.X/XX>, ...' ] | subnet {<X.X.X.X/XX> | 'subnet <X.X.X.X/XX>, ...' } [hostname {<hostname> | '<hostname>, ...>' ] }
```

Parameters

<name>	<p>Name of the host label.</p> <ul style="list-style-type: none"> Host labels are case sensitive and can be any string consisting of letters, the underscore (_), or the hyphen (-). There cannot be spaces in host labels. There is no limit on the number of host labels you can configure. To avoid confusion, do not use a number for a host label. Host labels that are used in QoS rules cannot be deleted. Host label changes (that is, adding and removing hostnames inside a label) are applied immediately by the rules that use the host labels that you have modified.
hostname <hostname> '<hostname>,...>'	<p>Specifies a hostname or a comma-separated list of hostnames for this label. You must enclose comma-separated lists in single quotes.</p> <ul style="list-style-type: none"> Hostnames are case insensitive. You can configure a maximum of 100 unique hostnames across all host labels. A maximum of 64 subnets and hostnames per host label is allowed.
subnet <X.X.X.X/XX> 'subnet <X.X.X.X/XX>,...'	<p>Specifies an IPv4 subnet for the specified host label or a comma-separated list of IPv4 subnets. Use the format X.X.X.X/XX. You must enclose comma-separated lists in single quotes.</p>

Usage

Host labels are names given to lists of hosts (IP addresses, IP subnets, and hostnames) that you can specify to match the source and destination network when configuring QoS rules. For example, you can specify host labels to define a set of hosts for which QoS classification and QoS marking rules apply. You can configure a mixture of subnets and hostnames for each label. A maximum of 64 subnets and hostnames per host label is allowed. You can configure a maximum of 100 unique hostnames across all host labels.

Hostnames referenced in a host label are automatically resolved through a DNS. The system resolves them immediately after you add a new host label or after you edit an existing host label. The system also automatically re-resolves hostnames once daily. If you want to resolve a hostname immediately, use the **resolve host-labels** command.

Example

```
amnesiac (config) # host-label test hostname 'riverbed.com,example.com' 'subnet 192.168.0.1/32,
192.168.0.2/32,10.0.0.0/8'

amnesiac (config) # qos basic classification global-app add global-app-name MyGlobalApp class-name
Realtime vlan 1 traffic all srcport 123 srcnet test
```

Product

SCC, SteelHead CX, SteelHead EX

Related Topics

[“resolve host-labels,”](#) [“show host-label”](#)

hostname

Sets the hostname for this system.

Syntax

[no] hostname <hostname>

Parameters

<hostname>	Name of the host. Do not include the domain name.
-------------------------	---

Usage

The **no** command option removes the hostname for this appliance.

Example

```
amnesiac (config) # hostname park
```

Related Topics

[“show hosts”](#)

image boot

Boots the specified system image by default.

Syntax

image boot <partition>

Parameters

<partition>	Partition to boot: 1 or 2.
-------------	----------------------------

Example

```
amnesiac (config) # image boot 1
```

Related Topics

[“show version”](#)

image check upgrades

Checks for available software upgrades for the release running on the Core.

Syntax

image check upgrades [version <version>]

Parameters

version <version>	Specifies the target version that you want to upgrade to. This must be a valid version found on the Riverbed support site.
-------------------	--

Usage

Use this command to display a list of available software upgrades for the release running on the appliance. You can download one of the versions from the output of the command by using the [“image fetch version”](#) command.

The **image check upgrades version** command provides more granularity by displaying the recommended software upgrade path for the release running on the appliance.

Example

```
amnesiac (config) # image check upgrades
Available upgrades:
8.5.3
8.5.3a
8.5.4
8.5.5
9.0.0
amnesiac (config) # image check upgrades version 10.0.0
Upgrade path:
8.5.5 > 9.0.0 > 10.0.0
```

Related Topics

[“image fetch version,”](#) [“show version”](#)

image fetch version

Downloads a version of a software image directly from the Riverbed Support Site.

Syntax

image fetch version <version> [<image-filename>]

Parameters

version <version>	Specifies the version of the image to download from the Riverbed Support Site.
<image-filename>	Local filename for the image.

Usage

Use the [“image check upgrades”](#) command to display a list of software versions (delta images) that are available to the appliance for download. The **image fetch version** command is a configuration mode command. The **image fetch** command is available in enable mode.

You can use the version of the downloaded image in the **image install** and **image upgrade** commands. This delta image includes only the incremental changes. The smaller size means a faster download and less load on the network.

Example

```
amnesiac (config) # image fetch version 8.0.1 image.img
```

Related Topics

[“image check upgrades,”](#) [“image fetch,”](#) [“image install,”](#) [“image upgrade,”](#) [“show images,”](#) [“show bootvar,”](#) [“show info,”](#) [“show version”](#)

interface

Configures system interfaces.

Syntax

[no] interface <interface-name> <options>

Parameters

<interface-name>	Interface name: lo , aux , lan0_0 , wan0_0 , primary , in-path0_0 . The interface name varies according to the Riverbed product you are configuring. For details, see the CLI online help.
<options>	<p>Each interface has the following configuration options:</p> <ul style="list-style-type: none"> • arp - Adds static entries to the ARP cache. • description - Configures the description string of this interface. • dhcp - Enables DHCP on the interface or renews DHCP. Setting DHCP on the auxiliary interface only provides an IP lease, and does not update the gateway, routes, and DNS settings. • duplex <speed> - Specifies the duplex speed: auto, full, half. The default value is auto. • ip <address> <netmask> - Specifies the IPv4 address and netmask for the interface. • ipv6 <address> <prefix length> - Specifies the IPv6 address and prefix length for the interface. Your appliance can have both an IPv4 address and an IPv6 address. You can only configure one IPv6 address per in-path interface. <p>To set an IPv6 address</p> <pre>amnesiac (config) # interface primary ipv6 address 2001:38dc:52::e9a4:c5:6282 64</pre> <ul style="list-style-type: none"> • mtu <speed> - Specifies the MTU. The MTU is set once on the in-path interface; it propagates automatically to the LAN and the WAN. The no command option disables the MTU setting. The default value is 1500. • shutdown - Shuts down the interface. • speed <speed> - Specifies the speed for the interface: auto, 10, 100, 1000. The default value is 100.

Usage

The **no** command option disables the interface settings.

Example

```
amnesiac (config) # interface description
```

Related Topics

[“show interfaces,” “show ipv6 route,” “show ip default-gateway”](#)

ip default-gateway

Sets the default gateway for the appliance.

Syntax

[no] ip default-gateway <ip-address>

Parameters

<ip-address>	IP address of the management interface.
--------------	---

Usage

This command is used to set the default gateway for the entire appliance. It is primarily used for the primary or auxiliary (**aux**) interfaces for management, but can also be used for out-of-path optimization configurations as well as PFS.

The **no** command option disables the default gateway IP address.

Example

```
amnesiac (config) # ip default-gateway 10.0.0.12
```

Related Topics

[“show logging,” “ipv6 default-gateway”](#)

ip domain-list

Adds a domain name to the domain list for resolving hostnames.

Syntax

[no] ip domain list <domain-name>

Parameters

<domain-name>	Name of the domain.
---------------	---------------------

Usage

The **no** command option removes a domain from the domain list.

Example

```
amnesiac (config) # ip domain-list example.com
```

Related Topics

[“show hosts”](#)

ip fqdn override

Sets the fully qualified domain name.

Syntax

[no] ip fqdn override <domain-name>

Parameters

<domain-name>	Fully qualified domain name.
---------------	------------------------------

Usage

For SMB signing, specify the delegation domain in which you want to make the delegate user a trusted member: for example, **SIGNING.TEST**.

Example

```
amnesiac (config) # ip fqdn override SIGNING.TEST
```

Related Topics

[“ip domain-list”](#)

ip host

Adds an entry to the static host table.

Syntax

[no] ip host <hostname> <ip-address>

Parameters

<hostname>	Name of the host.
<ip-address>	IP address.

Usage

The **no** command option removes an entry from the static host table.

Example

```
amnesiac (config) # ip host park 10.10.10.1
```

Related Topics

[“show hosts”](#)

ipv6 default-gateway

Configures a default IPv6 route.

Syntax

[no] ipv6 default-gateway <ipv6-address>

Parameters

<ipv6-address>	IPv6 address.
----------------	---------------

Usage

Support for IPv6 is enabled by default. The **no** command option removes the default gateway for IPv6 routing.

Example

```
amnesiac (config) # ipv6 default-gateway 2001:38dc:52::e9a4:c5:6282
```

Related Topics

[“show email,” “ipv6 route”](#)

ipv6 route

Adds static IPv6 routes in addition to the default gateway, if needed.

Syntax

[no] ipv6 route <ipv6-destination> <prefix-length> <gateway>

Parameters

<ipv6-destination>	IPv6 address.
<prefix-length>	IPv6 prefix length.
<gateway>	IPv6 address of the gateway.

Usage

Support for IPv6 is enabled by default. The **no** command option removes the specified IPv6 route.

Example

```
amnesiac (config) # ipv6 route 2001:38dc:52::e9a4:c5:6282 64 2001:38dc:52::1
```

Related Topics

[“ipv6 default-gateway”](#)

ip name-server

Adds a DNS name server.

Syntax

[no] ip name-server <ip-address>

Parameters

<ip-address>	Name server IP address.
--------------	-------------------------

Usage

The **no** command option removes a DNS name server.

Example

```
amnesiac (config) # ip name-server 10.10.10.1
```

Related Topics

["show hosts"](#)

ip route

Adds a static route.

Syntax

[no] ip route <network-prefix> <netmask> <netmask length> <ip-address>

Parameters

<network-prefix>	Network prefix.
<netmask>	Netmask. For example: 255.255.255.0
<mask length>	Netmask length. For example: /24
<ip-address>	Next hop IP address.

Usage

The **no** command option disables the static route. If the **no ip route** command is run with only a network prefix and mask, it deletes all routes for that prefix.

Example

```
amnesiac (config) # ip route 192 193.166.0/24 10.10.10.1
```

Related Topics

["show logging"](#)

job command

Schedules CLI command execution for a specified time in the future.

Syntax

[no] job <job-id> command <sequence-number> "<command string>"

Parameters

<job-id>	Job identification number.
<sequence-number>	Sequence number for job execution. The sequence number is an integer that controls the order in which a CLI command is executed. CLI commands are executed from the smallest to the largest sequence number.
"<command string>"	CLI command. Enclose the command in quotation marks.

Usage

A job includes a set of CLI commands and a time when the job runs. Jobs are run one time only, but they can be reused. Any number of CLI commands can be specified with a job and are executed in an order specified by sequence numbers. If a CLI command in the sequence fails, no further commands in the job are executed. A job can have an empty set of CLI commands.

The output of all commands executed are viewable after job execution by running the **show job <job-id>** command. The output of each job is only available for the last run; it is rewritten upon each execution.

The job output and any error messages are saved. Jobs can be canceled and rescheduled.

The **no job <job-id> command <sequence #>** command option deletes the CLI command from the job.

The **no job <job-id>** command option removes all statistics associated with the specified job. If the job has not executed, the timer event is canceled. If the job was executed, the results are deleted along with the job statistics.

Example

```
amnesiac (config) # job 10 command 1 "show info"
amnesiac (config) # job 10 command 2 "show connections"
amnesiac (config) # job 10 command 3 "show version"
```

Related Topics

[“show job,” “show jobs”](#)

job comment

Adds a comment to the job for display when **show jobs** is run.

Syntax

```
[no] job <job-id> comment "<description>"
```

Parameters

<job-id>	Job identification number.
comment "<description>"	Provides a comment for the job. Enclose the description in quotation marks.

Usage

The **no** command option deletes the comment.

Example

```
amnesiac (config) # job 10 "comment this is a test"
```

Related Topics

[“show job,” “show jobs”](#)

job date-time

Sets the date and time for the job to execute.

Syntax

```
[no] job <job-id> date-time <time> | [date <date>]
```

Parameters

<job-id>	Job identification number.
<time>	Time for the job to execute in the format hh:mm:ss.
date <date>	Date for the job to execute in the format yyyy/mm/dd.

Usage

If the time specified is in the past, the job does not execute and is in the inactive state.
The **no** command option disables the date and time settings.

Example

```
amnesiac (config) # job 10 date-time 04:30:23
```

Related Topics

[“show job,” “show jobs”](#)

job enable

Enables a CLI command job to execute at the date and time specified in the job.

Syntax

```
[no] job <job-id> enable
```

Parameters

<job-id>	Job identification number.
-----------------------	----------------------------

Usage

The **no** command option disables jobs.

Example

```
amnesiac (config) # job 10 enable
```

Related Topics

[“show job,” “show jobs”](#)

job execute

Forces an immediate execution of a job. The timer (if set) is canceled, and the job is moved to the completed state.

Syntax

```
job <job-id> execute
```

Parameters

<job-id>	Job identification number.
-----------------------	----------------------------

Usage

You can also access this command from enable mode.

Example

```
amnesiac (config) # job 10 execute
```

Related Topics

[“show job,” “show jobs”](#)

job fail-continue

Executes all commands in a job even if a command in the sequence fails.

Syntax

[no] job <job-id> fail-continue

Parameters

<job-id>	Job identification number.
----------	----------------------------

Usage

The **no** command option disables this command.

Example

```
amnesiac (config) # job 10 fail-continue
```

Related Topics

[“show job,” “show jobs”](#)

job name

Sets the name for the job.

Syntax

[no] job <job-id> name <friendly job name>

Parameters

<job-id>	Job identification number.
<job-name>	Name for the job.

Usage

The **no** command option deletes the job name.

Example

```
amnesiac (config) # job 10 name myjob
```

Related Topics

[“show job,” “show jobs”](#)

job recurring

Sets the frequency with which to recurrently execute this job.

Syntax

[no] job <job-id> recurring <seconds>

Parameters

<job-id>	Job identification number.
<seconds>	Frequency, in seconds, the recurring job should execute.

Example

```
amnesiac (config) # job 10 recurring 36000
```

Related Topics

[“show job,” “show jobs”](#)

license autolicense enable

Enables automatic license retrieval.

Syntax

[no] license autolicense enable

Parameters

None

Usage

This command enables the appliance, after it is connected to the network, to contact a server managing appliance licenses and download all applicable license keys automatically. This feature eliminates the need to manually fetch and install the licenses from the license portal.

The autolicense process attempts to retrieve the license keys from the server five times, in 5-minute intervals. If no license is downloaded after the five attempts, the autolicense process tries again once a day.

The **no** command option disables automatic license retrievals.

Example

```
amnesiac (config) # license autolicense enable
```

Related Topics

[“show autolicense status”](#)

license autolicense fetch

Immediately initiates the retrieval of an automatic license.

Syntax

license autolicense fetch

Parameters

None

Usage

This command allows you to perform on-demand license retrieval. This command is useful if you need to immediately force a license retrieval (such as the purchase of a new license) and you do not want to wait until the next automatic license retrieval.

Example

```
amnesiac (config) # license autolicense fetch
```

Related Topics

[“show autolicense status”](#)

license autolicense server

Configures autolicense server settings.

Syntax

license autolicense server {<hostname> | <ip-address>}

Parameters

<hostname>	Hostname of the autolicensing server.
< ip-address>	IP address of the autolicensing server.

Usage

The **license autolicense server** command configures the appliance to contact the specified server for license retrieval requests.

Example

```
amnesiac (config) # license autolicense server licensing.company1.com
```

Related Topics

[“show autolicense status”](#)

license client fetch

Forces the license client to update immediately.

Syntax

license client fetch

Parameters

None

Usage

If there is a change in your account (such as if Riverbed has given you an extra license), and the change will be updated whenever the license client runs next, but you want to force it to run immediately, then you can use the **license client fetch** command.

Example

```
amnesiac # license client fetch
```

Related Topics

[“show license-client”](#)

license client init

Initializes the license client.

Syntax

license client init <license-number>

Parameters

<license-number>	Number of the license.
------------------	------------------------

Usage

The license client communicates with the license server. It has two main functions:

- It periodically contacts the license server and checks out and renews the license or lease.
- It enables you to query available features, licenses, and other metadata such as serial number.

You can configure the license client to communicate with the license server at the company headquarters or the local license server.

The **no** command option deletes the one-time token or license.

Example

```
amnesiac (config) # license client init 4
```

Related Topics

[“show licenses”](#)

license delete

Deletes the specified license key.

Syntax

license delete <license-number>

Parameters

<license-number>	Number of the license.
------------------	------------------------

Example

```
amnesiac (config) # license delete 4
```

Related Topics

[“show licenses”](#)

license install

Installs a new software license key.

Syntax

[no] license install <license-key>

Parameters

<license-key>	License key number.
---------------	---------------------

Usage

The **no** command option disables this command.

Example

```
amnesiac (config) # license install SH10_B-0000-1-7F14-FC1F
```

Related Topics

[“show licenses”](#)

license request gen-key

Displays a new license request string.

Syntax

license request gen-key

Parameters

None

Example

```
amnesiac (config) # license request gen-key
```


Related Topics

[“license request set-token,” “show licenses”](#)

license request set-token

Specifies the Riverbed-generated token for SteelFusion.

Syntax

license request set-token <token>

Parameters

<token>	Specify the token you are registering.
---------	--

Example

```
amnesiac (config) # license request set-token VLAB-XXX123ADDD90DBF9E2254597
```

Related Topics

[“show licenses”](#)

license server

Adds a license server.

Syntax

[no] license server <hostname> [priority <number>] [port <number>]

Parameters

<hostname>	Hostname of the computer that contains the license server.
priority <number>	Specifies the order in which the license server is added. 0 is the highest priority and 9 is the lowest priority. The default priority is 9.
port <number>	Specifies the port number on which the license server is listening. The default is port 80.

Usage

The license server provides licenses to the appliance.

The **no** command option deletes the license server specified.

The default license server is the server hosted at Riverbed headquarters.

The **no license server <hostname> priority** command resets the priority in which the specified license server is added to the default value (9 is the lowest priority).

The **no license server <hostname> port** command resets the license server port to the default port.

Example

```
amnesiac (config) # license server MyLicenseServer
```

```
amnesiac (config) # show license-servers
```

Server Name	Port	Priority
-----	-----	-----
MyLicenseServer	80	0

Related Topics

[“show license-servers”](#)

logging

Adds a remote system log (syslog) server to the system.

Syntax

[no] logging <hostname or ip-address> [trap <log-level>]

Parameters

<hostname or ip-address>	Hostname or IP address for the syslog server.
trap <log-level>	<p>Specifies the trap log level of the syslog server:</p> <ul style="list-style-type: none"> • emerg - Emergency, the system is unusable. • alert - Action must be taken immediately. • critical - Critical conditions. • err - Error conditions. • warning - Warning conditions. • notice - Normal but significant conditions, such as a configuration change. This is the default setting. • info - Informational messages. <p>If you have set different log levels for each remote syslog server, this option changes all remote syslog servers to have a single log level.</p>

Usage

The **no** command option removes a remote **syslog** server from the system.

Example

```
amnesiac (config) # logging 10.0.0.2
```

Related Topics

[“show logging”](#)

logging facility

Configures the syslog facilities for logging messages.

Syntax

[no] logging facility user <local-facility> system <local-facility> perprocess <local-facility>

Parameters

user <local-facility>	Specifies the local facility for tagging user messages: local0 to local7 .
system <local-facility>	Specifies the local facility for tagging system messages: local0 to local7 .
perprocess <local-facility>	Specifies the local facility for tagging per-process priority filtering: local0 to local7 .

Usage

The configured logging facility is appended to the log messages.

The **no** command option stops sending the event logs to the server.

Example

```
amnesiac (config) # logging facility user local7 system local6 perprocess local5
```

Related Topics

[“show logging”](#)

logging files delete oldest

Deletes the oldest log file or a specified number of the oldest log files.

Syntax

logging files delete oldest <number>

Parameters

<number>	Number of old log files to delete. The range is from 1 to 10.
-----------------------	---

Usage

You can also access this command from enable mode.

Example

```
amnesiac (config) # logging files delete oldest 10
```

Related Topics

[“show logging”](#)

logging files rotation criteria frequency

Sets the frequency of log rotation.

Syntax

logging files rotation criteria frequency <rotation-frequency>

Parameters

<rotation-frequency>	Frequency that log rotation occurs: monthly, weekly, daily .
-----------------------------------	---

Usage

The size of the log file is checked every 10 minutes. If there is an unusually large amount of logging activity, it is possible for a log file to grow larger than the set limit in that period of time.

Example

```
amnesiac (config) # logging files rotation criteria frequency weekly
```

Related Topics

[“show logging”](#)

logging files rotation criteria size

Sets the size, in megabytes, of the log file before rotation occurs.

Syntax

logging files rotation criteria size <file-size>

Parameters

<file-size>	Size of the log file to save in megabytes. The default value is 0 (unlimited).
--------------------------	--

Usage

The size of the log file is checked every 10 minutes. If there is an unusually large amount of logging activity, it is possible for a log file to grow larger than the set limit in that period of time.

Example

```
amnesiac (config) # logging files rotation criteria size 100
```

Related Topics

[“show logging”](#)

logging files rotation force

Rotates logs immediately.

Syntax

logging files rotation force

Parameters

None

Usage

The size of the log file is checked every 10 minutes. If there is an unusually large amount of logging activity, it is possible for a log file to grow larger than the set limit in that period of time.

Example

```
amnesiac (config) # logging files rotation force
```

Related Topics

[“show logging”](#)

logging files rotation max-num

Sets the maximum number of log files to keep locally.

Syntax

logging files rotation max-num <number>

Parameters

<number>	Number of log files to keep locally. The range is from 1 to 100. The default value is 10.
-----------------------	---

Usage

The size of the log file is checked every 10 minutes. If there is an unusually large amount of logging activity, it is possible for a log file to grow larger than the set limit in that period of time.

Example

```
amnesiac (config) # logging files rotation max-num 10
```

Related Topics

[“show logging”](#)

logging filter

Sets the minimal level of messages arriving from the specified process to the local subsystem.

Syntax

logging filter <process> <level>

Parameters

<process>	<p>Application process:</p> <ul style="list-style-type: none"> • alrmd - Alarm Manager. • cli - Command-Line Interface. • hald - Hardware Abstraction Daemon. • mgmtd - Device Control and Management. • pm - Process Manager. • rgp - Central Management Client. • rgpd - Central Management Client Daemon. • cmcfc - SCC automatic registration utility. • sched - Process Scheduler. • statsd - Statistics Collector. • wdt - Watchdog Timer. • webasd - Web Application Process.
<level>	<p>Trap log level:</p> <ul style="list-style-type: none"> • emerg - Emergency: the system is unusable. • alert - Action must be taken immediately. • crit - Critical conditions. • err - Error conditions. • warning - Warning conditions. • notice - Normal but significant conditions, such as a configuration change. This is the default setting. • info - Informational messages. <p>If you have set different log levels for each remote syslog server, this option changes all remote syslog servers to have a single log level.</p>

Usage

Use this command to capture data when an appliance is not able to sustain the flow of logging data that is being committed to disk.

This command overrides the **logging local** command. This command creates a global setting that controls all output, including remote hosts.

All CIFS protocol related messages are logged at level **debug**, and the remainder at the level **notice**.

All remote logging hosts (if defined) also log at **logging trap** setting and at the logging filter process.

The **no logging filter all** command deletes all filters.

Example

```
amnesiac (config) # logging filter cli alert
```

Related Topics

[“show logging”](#)

logging local

Sets the minimum severity of log messages saved on the local syslog servers.

Syntax

```
[no] logging local <log-level>
```

Parameters

<log-level> Logging severity level. The follow severity levels are supported:

- **emerg** - Emergency, the system is unusable.
- **alert** - Action must be taken immediately.
- **crit** - Critical conditions.
- **err** - Error conditions.
- **warning** - Warning conditions.
- **notice** - Normal but significant conditions, such as a configuration change. This is the default setting.
- **info** - Informational messages.

The default value is **notice**.

Usage

The **no** command option sets the severity level for logging to none (no logs are sent).

Example

```
amnesiac (config) # logging local notice
```

Related Topics

[“show logging”](#)

logging trap

Sets the minimum severity for messages sent to the remote syslog servers.

Syntax

[no] logging trap <log-level>

Parameters

<log-level> Logging severity level. The follow severity levels are supported:

- **emerg** - Emergency, the system is unusable.
- **alert** - Action must be taken immediately.
- **crit** - Critical conditions.
- **err** - Error conditions.
- **warning** - Warning conditions.
- **notice** - Normal but significant conditions, such as a configuration change. This is the default setting.
- **info** - Informational messages.

The default value is **notice**.

Usage

The **no** command option sets the severity level for logging to none.

Example

```
amnesiac (config) # logging trap notice
```

Related Topics

[“show logging”](#)

no ssh client known-host

Hides the client settings for the specified host.

Syntax

no ssh client known-host <hostname>

Parameters

<hostname>	SSH client whose settings you want to hide.
------------	---

Example

```
amnesiac (config) # no ssh client known-host SAN14
```

Related Topics

[“show ssh client”](#)

ntp authentication

Configures the Network Time Protocol (NTP) authentication settings to authenticate NTP servers and peers.

Syntax

[no] ntp authentication key <key-id> secret {<plaintext> | 0 <plaintext> | 7 <encrypted-string>}

Parameters

key <key-id>	Specifies the key identifier. The key ID values must be from 1 to 65534.
secret {<plaintext> 0 <plaintext> 7 <encrypted-string>}	Specifies the shared secret parameter. Choose one of the following: <ul style="list-style-type: none"> • <plaintext> - Shared secret in plain text. This option is the same as the 0 <plaintext> option and is provided for backward compatibility. • 0 <plaintext> - Specifies a shared secret in plain text. • 7 <encrypted-string> - Specifies a shared secret with an encrypted string.

Usage

The **no** command option removes NTP authentication settings.

NTP authentication involves three steps that you can perform in any order:

- Configure a key ID using the [“ntp authentication”](#) command.
- Add the configured key ID to the trusted keys list using the [“ntp authentication trustedkeys”](#) command.
- Configure the NTP server or peer with the key ID using the [“ntp server key”](#) or [“ntp peer key”](#) command.

Example

```
amnesiac (config) # ntp authentication key 56732 secret zza419
```

Related Topics

[“ntp authentication trustedkeys,”](#) [“ntp peer key,”](#) [“ntp server key,”](#) [“show ntp,”](#) [“show ntp authentication”](#)

ntp authentication trustedkeys

Adds a configured key ID to the trusted keys list.

Syntax

[no] ntp authentication trustedkeys key-id <key-id>

Parameters

<key-id>	Specifies the key identifier. The key ID values must be from 1 to 65534. You can specify multiple key IDs in the same list, separated by commas. When specifying multiple key IDs separated by commas, you must enclose them in quotes.
-----------------------	---

Usage

Use this command to add the configured key ID to the trusted keys list.

The **no** command removes a key from the trusted key list.

NTP authentication involves three steps that you can perform in any order:

- Configure a key ID using the **ntp authentication** command.
- Add the configured key ID to the trusted keys list using the **ntp authentication trustedkeys** command.
- Configure the NTP server or peer with the key ID using the **ntp server key** or **ntp peer key** command.

Example

```
amnesiac (config) # ntp authentication trustedkeys 56732
amnesias (config) # ntp authentication trustedkeys "56732, 67432"
```

Related Topics

[“ntp authentication,” “ntp peer key,” “ntp server key,” “show ntp authentication”](#)

ntp disable

Disables NTP support.

Syntax

[no] ntp disable

Parameters

None

Usage

The **no** command option enables NTP support.

Example

```
amnesiac (config) # ntp disable
```

Related Topics

[“show ntp”](#)

ntp enable

Enables NTP support.

Syntax

[no] ntp enable

Parameters

None

Usage

The **no** command option disables NTP support.

Example

```
amnesiac (config) # ntp enable
```


Related Topics[“show ntp”](#)**ntp peer**

Enables an NTP peer.

Syntax

[no] ntp peer {<hostname> | <ip-address>} [version <number>]

Parameters

<hostname>	NTP peer hostname.
<ip-address>	NTP peer IP address.
version <number>	Specifies the NTP version number.

Usage

The **no** command option disables an NTP peer.

Example

```
amnesiac (config) # ntp peer 10.10.10.1
```

Related Topics[“show ntp,” “show ntp active-peers”](#)**ntp peer key**

Configures an NTP peer with an authentication key ID.

Syntax

[no] ntp peer {<hostname> | <ip-address>} key <key-id>

Parameters

<hostname>	NTP peer hostname.
<ip-address>	NTP peer IP address.
key <key-id> [key id, ...]	Specifies the key identifier. The key ID values must be from 1 to 65534. You can specify multiple key IDs in the same list, separated by commas. When specifying multiple key IDs separated by commas, you must enclose them in quotes.

Usage

The **no** command option removes the authentication key from the NTP peer configuration.

NTP authentication involves three steps that you can perform in any order:

- Configure a key ID using the [“ntp authentication”](#) command.
- Add the configured key ID to the trusted keys list using the [“ntp authentication trustedkeys”](#) command.
- Configure the NTP server or peer with the key ID using the [“ntp server key”](#) or [“ntp peer key”](#) command.

Example

```
amnesiac (config) # ntp peer 10.10.10.1 key 56732
```

Related Topics[“show ntp,” “show ntp active-peers”](#)

ntp server

Configures an NTP server with the default NTP version number or with a specified version number.

Syntax

[no] ntp server {<hostname> | <ip-address>} [version <number>]

Parameters

<hostname>	Hostname of the NTP server to synchronize with.
<ip-address>	IP address of the NTP server to synchronize with.
version <number>	Specify the NTP version number of this server.

Usage

The **no** command option removes an NTP server.

Example

```
amnesiac (config) # ntp server 10.10.10.1
```

Related Topics

[“show ntp,” “show ntp active-peers”](#)

ntp server enable

Enables an NTP server.

Syntax

[no] ntp server {<hostname> | <ip-address>} enable

Parameters

<hostname>	NTP server hostname.
<ip-address>	NTP server IP address.

Usage

The **no** command option removes an NTP server.

Example

```
amnesiac (config) # ntp server companyserver enable
```

Related Topics

[“show ntp”](#)

ntp server key

Configures an NTP server with an authentication key ID.

Syntax

[no] ntp server {<hostname> | <ip address>} key <key-id>

Parameters

<hostname>	Hostname of the NTP peer to authenticate.
<ip-address>	IP address of the NTP peer to authenticate.
key <key-id>	Specifies the key identifier. The key ID values must be from 1 to 65534.

Usage

The **no** command option removes the authentication key from the NTP server.

NTP authentication involves three steps that you can perform in any order:

- Configure a key ID using the “[ntp authentication](#)” command.
- Add the configured key ID to the trusted keys list using the “[ntp authentication trustedkeys](#)” command.
- Configure the NTP server or peer with the key ID using the “[ntp server key](#)” or “[ntp peer key](#)” command.

Example

```
amnesiac (config) # ntp server companyserver key 56732
```

Related Topics

“[ntp authentication](#),” “[ntp authentication trustedkeys](#),” “[ntp peer key](#),” “[show ntp authentication](#)”

papi rest access_code generate

Generates a new Representational State Transfer (REST) API access code for appliance monitoring.

Syntax

```
[no] papi rest access_code generate desc <description>
```

Parameters

desc <description>	Describes how the access code will be used.
---------------------------------	---

Usage

You can invoke the REST API to enable communication from one Riverbed appliance to another through REST API calls, for example:

- A SteelCentral NetProfiler communicating with a SteelCentral NetShark appliance.
- A SteelCentral NetProfiler retrieving a QoS configuration from a SteelHead.

Use the **papi rest access_code generate** command to gain access to the REST APIs by generating access codes.

You must use this access code to authenticate communication between parties and to authorize access to protected resources. See the *SteelHead Management Console User's Guide* for more information about REST API access.

Example

```
amnesiac (config) # papi rest access_code generate desc cascadeflow
```

Related Topics

“[papi rest access_code import](#),” “[show papi rest access_codes](#)”

papi rest access_code import

Imports an existing Representational State Transfer (REST) access code.

Syntax

```
[no] papi rest access_code import desc <description> data <data>
```

Parameters

desc <description>	Describes how the access code will be used.
data <data>	Copies and enters the raw data output generated by the “ papi rest access_code generate ” command on a peer appliance.

Usage

Use this command to import access codes generated by another appliance so that a client can use the same access code to communicate through the REST API to multiple appliances.

Example

```
amnesiac (config) # papi rest access_code import desc cascadeflow data <data>
```

Related Topics

“[papi rest access_code generate](#),” “[show papi rest access_codes](#)”

radius-server host

Adds a RADIUS server to the set of servers used for authentication.

Syntax

```
[no] radius-server host {<hostname> | <ip-address>} [auth-port <port> [auth-type <type>]] [auth-type <type>]
[timeout <seconds>] [retransmit <retries>] {key <string> | 0 <key> | 7 <key>}
```

Parameters

<hostname>	RADIUS server hostname.
<ip-address>	RADIUS server IP address.
auth-port <port-number>	Specifies the authentication port number to use with this RADIUS server. The default value is 1812.
auth-type <type>	Specifies the authentication type to use with this RADIUS server. <ul style="list-style-type: none"> • chap - Specifies the challenge handshake authentication protocol (CHAP), which provides better security than PAP. • pap - Specifies the password authentication protocol (PAP).
timeout <seconds>	Specifies the time-out period to use with this RADIUS server.
retransmit <retries>	Specifies the number of times the client attempts to authenticate with any RADIUS server. The default value is 1. The range is from 0 to 5. To disable retransmissions, set it to 0.
key <string>	Specifies the shared secret text string used to communicate with this TACACS+ server.
0 <key>	Specify a shared secret to use with this RADIUS server.
7 <key>	Specifies a TACACS+ key with an encrypted string.

Usage

RADIUS servers are tried in the order they are configured.

The same IP address can be used in more than one **radius-server host** command if the **auth-port** value is different for each. The **auth-port** value is a UDP port number. The **auth-port** value must be specified immediately after the **host <ip-address>** option (if present).

PAP authentication validates users before allowing them access to the RADIUS server resources. PAP is the most flexible protocol but is less secure than CHAP.

CHAP authentication validates the identity of remote clients by periodically verifying the identity of the client using a three-way handshake. This happens at the time of establishing the initial link and might happen again at any time afterwards. CHAP bases verification on a user password and transmits an MD5 sum of the password from the client to the server.

Some parameters override the RADIUS server global defaults. For details, see the *SteelHead Deployment Guide*.

The **no** command option stops sending RADIUS authentication requests to the host.

If **no radius-server host <ip-address>** is specified, all RADIUS configurations for the host are deleted.

The **no radius-server host <ip-address> auth-port <port-number>** command can be specified to refine which host is deleted, as the previous command deletes all RADIUS servers with the specified IP address.

Example

```
amnesiac (config) # radius-server host 10.0.0.1 timeout 10 key XXXX retransmit 3
```

Related Topics

[“show aaa,” “show radius”](#)

radius-server key

Sets the shared secret text string used to communicate with a RADIUS server.

Syntax

[no] radius-server key <string>

Parameters

<string>	Sets the shared secret text string used to communicate with a RADIUS server.
-----------------------	--

Usage

This command can be overridden using the **radius-server host** command.

The **no** command option resets the key to the default value.

Example

```
amnesiac (config) # radius-server key XYZ
```

Related Topics

[“show aaa,” “show radius”](#)

radius-server retransmit

Specifies the number of times the client attempts to authenticate with a RADIUS server.

Syntax

[no] radius-server retransmit <retries>

Parameters

<retries>	Number of times the client attempts to authenticate with a RADIUS server. The range is from 0 to 5. The default value is 1.
------------------------	---

Usage

This command can be overridden in a **radius-server host** command.

The **no** command option resets the value to the default value.

Example

```
amnesiac (config) # radius-server retransmit 5
```

Related Topics

[“show aaa,” “show radius”](#)

radius-server timeout

Sets the time-out period, in seconds, for retransmitting a request to a RADIUS server.

Syntax

[no] radius-server timeout <seconds>

Parameters

<seconds>	Sets the time-out for retransmitting a request to a RADIUS server. The range is from 1 to 60. The default value is 3.
-----------	---

Usage

This command can be overridden in a **radius-server host** command.

The **no** command option resets the value to the default value.

Example

```
amnesiac (config) # radius-server timeout 30
```

Related Topics

[“show aaa,” “show radius”](#)

raid alarm silence

Silences the RAID alarm.

Syntax

raid alarm silence

Parameters

None

Example

```
amnesiac (config) # raid alarm silence
```

Related Topics

[“show raid info”](#)

raid swraid add-disk

Adds a disk back into the system of RAID arrays.

Syntax

raid swraid add-disk <disk>

Parameters

<disk>	Physical drive number of the drive to be added.
--------	---

Usage

Use the **swraid add-disk** command to add drives back into the system without removing and reinserting the drive physically. The command takes care of readding the partitions on the drive to all the appropriate RAID arrays.

Example

```
amnesiac (config) # raid swraid add-disk 1
```

Related Topics[“show raid info”](#)

raid swraid add-disk-force

Forcibly adds a failed disk back into the system of RAID arrays.

Syntax

raid swraid add-disk-force <disk>

Parameters

<disk> Physical drive number of the drive to be added.

Usage

Use the **raid swraid add-disk-force** command to forcibly add drives back into the system without removing and reinserting the drive physically. The parameter is the physical drive number. The command takes care of readding the partitions on the drive to all the appropriate RAID arrays.

Example

```
amnesiac (config) # raid swraid add-disk-force 1
```

Related Topics[“show raid info”](#)

raid swraid fail-disk

Configures the fail setting on a specified RAID disk.

Syntax

raid swraid fail-disk <disk-number>

Parameters

<disk-number> Physical drive number of the disk.

Usage

This command forcibly fails a physical drive from all the software RAID arrays. Use this command before removing a disk that has not failed from the system, if possible.

Example

```
amnesiac (config) # raid swraid fail-disk 1
```

Related Topics[“show raid info”](#)

raid swraid get-rate

Displays the RAID rebuild rate.

Syntax

raid swraid get-rate

Parameters

None

Example

```
amnesiac (config) # raid swraid get-rate
```

Related Topics

[“show raid info”](#)

raid swraid mdstat

Displays the contents of /proc/mdstat.

Syntax

raid swraid mdstat

Parameters

None

Usage

Use this command to view the kernel RAID status for all active multiple disk devices, as it is stored in the Linux file /proc/mdstat. The **Personalities** field lists the RAID levels currently supported. For more information on the contents of /proc/mdstat, search for standard Linux documentation online.

Example

```
amnesiac (config) # raid swraid mdstat
Personalities : [linear] [raid0] [raid10]
unused devices: <none>
```

Related Topics

[“show raid info”](#)

raid swraid set-rate

Sets the RAID rebuild rate.

Syntax

raid swraid set-rate <rate>

Parameters

<rate> Rebuild rate in megabytes or **fast_rebuild**, **slow_rebuild**, or **normal**.

Example

```
amnesiac (config) # raid swraid set-rate fast_rebuild
```

Related Topics

[“show raid info”](#)

rbm user

Assigns a role (that is, a feature set) to a user. A user can be associated with one or more roles.

Syntax

[no] rbm user <username> role <role> permissions <permissions>

Parameters

<username>	Name of the user.
role <role>	Specify a role-based management type: <ul style="list-style-type: none"> • storage_reports_diag - Assigns a role related to storage-specific graphs and statistics, such as memory logs. You can set permissions to either Deny or Read/Write. This user role will also have Read/Write access to System Diagnostics and Reports to assist you with troubleshooting. • storage_settings - Assigns a role related to Core configuration settings, such as configuring LUNs, Edges, and Failover. • system_reports_diag - Assigns a role related to all non-storage reports such as CPU and memory utilization, system logs, system dumps, or TCP dumps. You can set permissions to either Deny or Read/Write. This user role has restricted configuration capabilities. • system_settings - Assigns a role related to system settings. Any settings not related to configuration.
permissions <permissions>	Creates users, assign passwords to the user, and assign varying configuration roles to the user. A user role determines whether the user has permission to: <ul style="list-style-type: none"> • read-only - With read privileges you can view current configuration settings but you cannot change them. • read-write - With write privileges you can view settings and make configuration changes for a feature. • deny - With deny privileges you cannot view settings or make configuration changes for a feature.

Usage

The **no** command option allows for the deletion of a role. Only users with administrative privileges can execute the **rbm user** command.

Example

```
amnesiac (config) # rbm user helpdesk role storage_reports_diag permissions read-only
amnesiac (config) # no rbm user helpdesk role storage_reports_diag
```

Related Topics

[“show rbm user,” “show rbm users”](#)

remote dhcp

Enables DHCP on the remote management port.

Syntax

[no] remote dhcp

Parameters

None

Usage

The **no** command option disables DHCP on the remote management port.

Example

```
amnesiac (config) # remote dhcp
```

Related Topics

[“show remote ip”](#)

remote ip address

Manually sets the IP address of the remote management port.

Syntax

remote ip address <ip-address>

Parameters

<ip-address>	IP address to assign to the remote management port.
--------------	---

Usage

Access to the Core through the remote port requires the use of the IPMITool utility. You can download a Linux version at <http://sourceforge.net/projects/ipmitool/files/>. You can obtain a Windows version of the IPMI tool on the Document CD that ships with your system or from the Riverbed Support at <https://support.riverbed.com>.

This utility must be run on an administrator's system outside of the Core to access the remote port functions. Check the man page for IPMITool for a full list of capabilities (although not all the commands are supported on RiOS hardware platforms).

To configure the remote management port

- Physically connect the REMOTE port to the network. You cable the remote management port to the Ethernet network in the same manner as the Primary interface. For details, see the *SteelFusion Core Installation and Configuration Guide*.
- Install the IPMITool on the client machine.
- Assuming the IP address is 192.168.100.100, the netmask is 255.255.255.0, and the default gateway is 192.168.100.1, assign an IP address to the remote management port:

```
amnesiac (config) # remote dhcp
- or -
amnesiac (config) # remote ip address 192.168.100.100
amnesiac (config) # remote ip netmask 255.255.255.0
amnesiac (config) # remote ip default-gateway 192.168.100.1
```

- Verify the IP address is set properly.

```
amnesiac (config) # show remote ip
```

Tip: Ping the new management IP address from a remote computer, and verify it replies.

- To secure the remote port, assign a password to the port:

```
amnesiac (config) # remote password <newpassword>
```

- Set the remote port bit-rate to match the current serial port bitrate. Typically, this value is 9.6.

```
amnesiac (config) # remote bitrate 9.6
```

- To activate the serial connection:

```
ipmitool -I lanplus -H 192.168.100.100 -P "<password>" sol activate
```

Press the tilde character (~) to end the serial connection.

Note: While your serial connection is established, the actual serial console is disabled. Ending the remote serial connection cleanly with tilde (~) reenables the real serial port. If you fail to exit cleanly your actual serial port might not reactivate. If your serial port fails to reactivate, reconnect remotely and exit cleanly using tilde (~).

Example

```
amnesiac (config) # remote ip address 192.168.100.100
```

Related Topics

[“show remote ip,”](#) [“remote password”](#)

remote ip default-gateway

Manually sets the default gateway of the remote management port.

Syntax

remote ip default-gateway <ip-address>

Parameters

<ip-address>	IP address of default gateway to assign to remote management port.
---------------------------	--

Example

```
amnesiac (config) # remote ip default-gateway 10.0.0.2
```

Related Topics

["show remote ip"](#)

remote ip netmask

Manually sets the subnet mask of the remote management port.

Syntax

remote ip netmask <netmask>

Parameters

<netmask>	Subnet mask to assign to the remote management port.
------------------------	--

Example

```
amnesiac (config) # remote ip netmask 255.255.255.0
```

Related Topics

["show remote ip"](#)

remote password

Sets the password to remotely connect to the remote management port.

Syntax

[no] remote password <password>

Parameters

<password>	Password to connect to the remote management port.
-------------------------	--

Usage

To set a remote management port password:

- On the Core, assign a password to the remote management port:

```
amnesiac (config) # remote password TestPassword
```
- Using the IPMITool on a remote computer, view the power status of the Core. If you are using the Windows version of IPMITool, replace all references to **ipmitool** with **ipmitool.exe**.

```
ipmitool -H <remote port ip address> -P "testpassword" chassis power status
```

Output should state **Chassis Power is on**.

Note: You can download a Linux version at <http://sourceforge.net/projects/ipmitool/files/>. You can obtain a Windows version of the IPMI tool on the Document CD that ships with your system or from the Riverbed Support at <https://support.riverbed.com>.

Example

```
amnesiac (config) # remote password TestPassword
```

Related Topics

[“show remote ip”](#)

resolve host-labels

Forces the system to resolve host labels immediately.

Syntax

resolve host-labels

Parameters

None

Usage

You can use this command to force a resolve operation instead of waiting for the daily automatic resolve instance. Every time this command is executed, the next automatic resolve instance is reset to occur 24 hours later.

Example

```
amnesiac # resolve host-labels
```

Related Topics

[“host-label,”](#) [“show host-label”](#)

secure-vault

Manages the secure vault password and unlocks the secure vault.

Syntax

secure vault new-password <password> | reset-password <old-password> | unlock <password>

Parameters

new-password <password>	Sets an initial or new password for the secure vault.
reset-password <old-password>	Resets the old secure vault password.
unlock <password>	Unlocks the secure vault with the current password.

Usage

The *secure vault* is an encrypted file system on the appliance where all appliance SSL server settings, other certificates (the CA, peering trusts, and peering certificates) and the peering private key are stored. The secure vault protects your SSL private keys and certificates when the Core is not powered on.

You can set a password for the secure vault. The password is used to unlock the secure vault when the Core is powered on. After rebooting the Core, SSL traffic is not optimized until the secure vault is unlocked with the **unlock <password>** parameter.

Data in the secure vault is always encrypted, whether or not you choose to set a password. The password is used only to unlock the secure vault.

To change the secure vault password

1. Reset the password with the **reset-password <password>** parameter.
2. Specify a new password with the **new-password <password>** parameter.

Example

```
amnesiac (config) # secure-vault unlock mypassword
```

show debug health-report

Displays the health report settings.

Syntax

show debug health-report

Parameters

None

Example

```
amnesiac# show debug health-report
Enable Health Report: yes
```

Product

SteelFusion Core

Related Topics

[“debug health-report enable”](#)

show debug uptime-report

Displays the uptime report settings.

Syntax

show debug uptime-report

Parameters

None

Example

```
amnesiac # show debug uptime-report
Enable Uptime Report: yes
```

Product

SteelFusion Core

Related Topics

[“debug uptime-report enable”](#)

show device-failover (Core)

Displays the failover configuration settings (if any), including failover peer hostname, failover peer port, local state, peer state, self-configuration, peer configuration, and peer interfaces.

Syntax

show device-failover

Parameters

None

Usage

Use this command to display the configuration settings for failover.

Example

```
Core_02 (config) # show device-failover
Device failover settings
    Failover peer hostname : kabar-vva62
    Config(s) being served : Self
    HA state                : Active Self
Heartbeat Connections
    10.12.6.133 -> 10.12.6.141 : Connected
    10.12.5.240 -> 10.12.5.244 : Connected
```

Product

SteelFusion Core

Related Topics

[“device-failover peer set \(Core\),” “device-failover peer clear \(Core\),” “device-failover peer-config activate,” “device-failover peerip”](#)

show edge

Displays detailed information about the Edges connected to the current Core.

Syntax

```
show [failover-peer] edge [preferred-if | id <id> | id <id> [blockstore] | id <id> iscsi initiator-group [name <initiator group>]| id <id> iscsi initiators [name <initiator>] | id <id> iscsi targets [name <target-name>]]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
preferred-if	Displays the preferred interface for Edge connections. Note: This keyword is not available when the failover-peer keyword is included.
id <id>	Specifies the ID of an Edge to limit the output to information about that appliance.
blockstore	Displays the write reserve and encryption type settings of the blockstore. You must use this keyword in conjunction with the id <id> keyword.
iscsi initiator-group	Displays the details of iSCSI initiator groups, including configuration status and the initiators in the group.
name <initiator group>	Specifies the name of an initiator group (igroup) to limit the output to information about that group. You must use this keyword in conjunction with the id <id> keyword.
iscsi initiators	Displays the details of iSCSI initiator credentials.
name <initiator>	Specifies the name of a particular initiator to limit the output to information about that initiator. You must use this keyword in conjunction with the id <id> keyword.
iscsi targets	Displays the details of iSCSI targets, including description, security-only status, header-digest status, data-digest status, initiator groups, initiator credentials, and network portals.
name <target-name>	Specifies the name of a particular initiator to limit the output to information about that target. You must use this keyword in conjunction with the id variable.

Usage

Use this command to display configuration details about Edges connected to the current Core. The following information is displayed:

- ID of the Edge
- Configuration status
- IP address
- Connection duration
- Virtual IP address
- Mapped LUNs
- Prepopulation schedule details

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show edge
SteelFusion Edge Id: amnesia
  Configuration status:    Ready
  Address:                  Unknown
  Connection duration:     0s

Virtual IP addresses:

Mapped LUNs:
  Serial :                  IET:VIRTUAL-DISK:0001:768
```

Prepop schedules:

Product

SteelFusion Core

Related Topics

[“edge add id,” “edge remove id,” “edge modify preferred-if,” “edge remove id,” “edge modify id clear-serial,” “edge modify preferred-if,” “edge id prepop schedule add,” “edge id prepop schedule modify,” “edge id prepop schedule remove,” “storage lun modify map edge-id”](#)

show stats storage dr-bytes-synced

When using replication, this command displays the total number of bytes written to the secondary data center for the specified LUN.

Syntax

show stats [failover-peer] storage dr-bytes-synced {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun {<lun-id > | <all>}}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
all	Returns statistics for all LUNs.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core 01 > show stats storage dr-bytes-synced interval day lun P3KRP502Gu8x
Total Number of bytes written to secondary datacenter: 2.78 GB
```

```
Core 02 > show stats failover-peer storage dr-bytes-synced start-time '2015/01/31 23:59:59' end-
time '2015/02/15 23:59:59' lun all
Total Number of bytes written to secondary datacenter: 2.71 GB
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-latency”](#)

show stats storage dr-disk-journal

When using replication in suspended mode, this command displays the number of blocks recorded in the journal for the specified LUN. When replication is resumed, all of these blocks will be written to the secondary data center so the LUNs are in sync.

Syntax

show stats [failover-peer] storage dr-disk-journal {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance. This command is only available when replication is suspended or replication is being re-synchronized.

Example

```
Core 01 > show stats storage dr-disk-journal interval week lun P3KRP502Gu8x
Number of blocks pending in the Journal on disk: 0
```

```
Core 02 > show stats failover-peer storage dr-disk-journal start-time '2015/01/31 23:59:59' end-
time '2015/02/15 23:59:59' lun all
Number of blocks pending in the Journal on disk: 197.1 kBlocks
```

Product

SteelFusion Core

Related Topics[“show stats storage dr-mem-journal”](#)**show stats storage dr-fsync-bytes**

When using replication, this command displays the bytes remaining to be copied to the secondary data center during the first sync (first sync creates the initial copy of the primary data center LUN in the secondary data center).

Syntax

```
show stats [failover-peer] storage dr-fsync-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core 01 > show stats storage dr-fsync-bytes interval hour lun P3KRP502Gu8x
Current First Sync bytes remaining: 2.1 GB
```

```
Core 02 > show stats failover-peer storage dr-fsync-bytes start-time '2015/01/31 23:59:59' end-time
'2015/02/15 23:59:59' lun all
Current First Sync bytes remaining: 15.9 GB
```

Product

SteelFusion Core

Related Topics[“show stats storage dr-resync-bytes”](#)

show stats storage dr-latency

When using replication, this command displays the average latency (in milliseconds) of write operations to the secondary data center for the specified LUN. This includes the latency of the inter-data center network and the latency of the backend being used on the secondary.

Syntax

```
show stats [failover-peer] storage dr-latency {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_01 > show stats storage dr-latency interval 5min lun P3KRP502Gu8x
Mean Latency of write operations to secondary datacenter in ms: 0.00
```

```
Core 02 > show stats failover-peer storage dr-latency start-time '2015/01/31 23:59:59' end-time
'2015/02/05 23:59:59' lun all
Mean Latency of write operations to secondary datacenter in ms: 579.00
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-bytes-synced”](#)

show stats storage dr-mem-journal

When using replication, this command displays the number of blocks that have been received from the Edge that are in the process of being written to the secondary data center.

Syntax

```
show stats [failover-peer] storage dr-mem-journal {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance. A high value indicates possible issues in the secondary data center write path.

Example

```
Core 01 > show stats storage dr-mem-journal interval 1min lun P3KRP502Gu8x
Number of blocks pending in the Journal in memory: 0
```

```
Core 02 > show stats failover-peer storage dr-mem-journal start-time '2015/01/31 23:59:59' end-time
'2015/02/02 23:59:59' lun all
Number of blocks pending in the Journal in memory: 113880
```

Product

SteelFusion Core

Related Topics

["show stats storage dr-disk-journal"](#)

show stats storage dr-resync-bytes

Displays statistics summarizing the amount of data remaining to be written to the secondary data center to bring it into sync after replication is resumed. These bytes were recorded to the journal LUN while replication was suspended.

Syntax

```
show stats [failover-peer] storage dr-resync-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core 01 > show stats storage dr-resync-bytes interval day lun P3KRP502Gu8x
Current Resync bytes remaining: 0 Bytes
```

```
Core 02 > show stats failover-peer storage dr-resync-bytes start-time '2015/01/31 15:59:59' end-
time '2015/01/31 16:10:00' lun all
Current Resync bytes remaining: 552.2 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-fsync-bytes”](#)

show stats storage edge-bytes

Displays connectivity statistics that summarize the standard I/O data traffic read from and written to the specified Edge for the specified period of time.

Syntax

```
show stats [failover-peer] storage edge-bytes {interval <time-interval> edge <edge-self-identifier> | start-time
<start> end-time <end> edge <edge-self-identifier>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
edge <edge-self-identifier>	Specifies the self-identifier of the desired Edge.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to answer the following questions:

- How many megabytes have been written to and read from the specified Edge for the specified period?
- How many megabytes have been prefetched to the specified Edge for the specified period?

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage edge-bytes interval month edge Edge01
Total Data Read: 0 Bytes
Total Data Prefetched: 0 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

["show stats storage filer-bytes," "show stats storage filer-iops," "show stats storage filer-latency," "show stats storage lun-bytes," "show stats storage edge-stats," "show stats storage lun-iops," "show stats storage lun-latency," "show stats storage network-bytes," "show stats storage network-iops," "show stats storage network-latency"](#)

show stats storage edge-stats

Gives you a high-level performance overview of all configured Edges connected to the current Core.

Syntax

```
show stats [failover-peer] storage edge-stats {commit-delay <edges> | readio-latency <edges> | space-util <edges> | time-to-sync <edges> | uncommitted <edges> | writeio-latency <edges>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
commit-delay <edges>	Displays the current delay to commit the blockstore data on the Edge (in seconds).
readio-latency <edges>	Displays the average read I/O latency across all LUNs for that Edge for the last hour (in milliseconds).
space-util <edges>	Displays the percentage of blockstore currently being used by uncommitted data.
time-to-sync <edges>	Blockstore uncommitted data estimated time to sync to Core (in seconds).
uncommitted <edges>	Displays the amount uncommitted data currently in the blockstore on the Edge (in bytes).
writeio-latency <edges>	Displays the average write I/O latency across all LUNs for that Edge for the last hour (in milliseconds).

Usage

The configured Edges send their statistics every 5 minutes to Core. Core then displays this point-in-time information in the report, giving you a network-wide view of valuable details on how they are performing.

The highest values are displayed on the left and descend to the right, enabling you to easily identify any Edges with performance problems. Each Edge is assigned a color so you can compare statistics between several Edges at a glance.

If you have set up the Core for high-availability, the SteelFusion Edge Stats report will only display Edges that are served by individual Cores. If one Core is down, the report shows Edges served by both Cores, however on separate pages.

Example

```
amnesiac (config) # show stats storage edge-stats uncommitted
```

Product

SteelFusion Core

Related Topics

[“edge id blockstore uncommitted”](#)

show stats storage filer-bytes

Displays the number of bytes written to and read from the specified SAN (storage area network) for the specified period of time.

Syntax

```
show stats [failover-peer] storage filer-bytes [interval <time-interval> filer <hostname> | start-time <start> end-time <end> filer <hostname>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
filer <hostname>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display how many megabytes have been written to and read from the specified SAN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage filer-bytes interval month filer 10.1.x.x
Total Data Read: 512 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage filer-iops

Displays the standard I/O operations per second written to and read from the specified SAN (storage area network) for the specified period of time.

Syntax

```
show stats [failover-peer] storage filer-iops {interval <time-interval> filer <hostname> | start-time <start> end-time <end> filer <hostname>}
```


Parameters

failover-peer	Performs the command on the failover-peer of the appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
filer <hostname>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display how many operations have been written to and read from the specified SAN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage filer-iops interval month filer 10.1.x.x
Total Read IOs: 1
Total Write IOs: 0
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage filer-latency

Displays the average read I/O and write I/O times (in milliseconds) for the specified SAN (storage area network) for the specified period of time.

Syntax

```
show stats [failover-peer] storage filer-latency {interval <time-interval> filer <hostname> | start-time <start> end-time <end> filer <hostname>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
filer <hostname>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average read and write latencies for the specified SAN for the specified period. All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage filer-latency interval month filer 10.1.x.x
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage lun-bytes

Displays the number of bytes written to and read from the specified LUN for the specified period of time.

Syntax

```
show stats [failover-peer] storage lun-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the number of megabytes written to and read from the specified LUN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage lun-bytes interval month lun hqD9Vosusiw
Total Data Prefetched: 0 Bytes
Total Data Read (no-prefetch): 0 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage lun-iops

Displays the standard I/O operations per second written to and read from the specified LUN for the specified period of time.

Syntax

```
show stats [failover-peer] storage lun-iops {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the locally assigned serial number of the LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display how many operations have been written to and read from the specified LUN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage lun-iops interval month lun hqD9Vo/hRSYU
Total Read IOs: 1
Total Write IOs: 0
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage lun-latency

Displays the average read and write latency for the specified LUN for the specified period of time.

Syntax

```
show stats [failover-peer] storage lun-latency {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the locally assigned serial number of the LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average read and write latencies for the specified LUN for the specified period. All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage lun-latency interval month lun hqD9Vo
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage network-bytes

Displays the number of bytes written to and read from the network for the specified period of time.

Syntax

```
show stats storage network-bytes {interval <time-interval> | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the number of bytes written to and read from the network for the specified period. All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage network-bytes interval month
Total Data Read: 3 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage network-iops

Displays the standard I/O operations per second written to and read from the network for the specified period of time.

Syntax

```
show stats storage network-iops {interval <time-interval>] | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average network read and write latencies for the specified period.

Example

```
Core_02 > show stats storage network-iops interval month
Total Read I/Os: 3
Total Write I/Os: 0
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-latency”](#)

show stats storage network-latency

Displays the average network read I/O and write I/O times (in milliseconds) for the specified period of time.

Syntax

```
show stats storage network-latency {interval <time-interval> | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average network read and write latencies for the specified period.

Example

```
Core_02 > show stats storage network-latency interval month
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops”](#)

show storage coredr edge

Displays disaster recovery replication status for all Edges or the specified Edge.

Syntax

show [failover-peer] storage coredr edge {all | id <id>} [detail]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
all	Displays replication status for all Edges.
id <id>	Specifies the hostname of the storage array.
detail	Specifies the snapshot LUN by the LUN serial number.

Usage

Use this command to view each Edge’s replication status and configured replica LUNs.

Example

```
Core 01 > show storage coredr edge id EdgeNYC detail
Edge : EdgeNYC
Replication : enabled
```



```

Connected      : Yes

LUN alias : lun5
  Serial (Site2)      : B9EWn$DzraVc
  Serial (Site1)      : B9EWn$DzraVa
  State               : active
  Sync percentage     : Not applicable
  First-sync Type     : full
  Remaining bytes to sync : 0

LUN alias : lun6
  Serial (Site2)      : B9EWn$DzraVf
  Serial (Site1)      : P3KRP52h0TpK
  State               : active
  Sync percentage     : Not applicable
  First-sync Type     : full
  Remaining bytes to sync : 0

Core 01 > show storage coredr edge id Edge all
Edge : edge1
  Replication      : disabled
  Connected        : Yes

LUN Alias      Serial (site1)  Serial (site2)  State (Sync %)
-----
lun3           P3KRP502GuZw                unmapped

```

Product

SteelFusion Core

Related Topics

[“storage coredr replication resume,”](#) [“storage coredr replication suspend,”](#) [“storage coredr edge”](#)

show storage coredr replica size-leeway

Displays the replica LUN size leeway. The replica LUN size leeway is the allowed size difference (1 GB) between the original LUN on the primary data center and its replica LUN on the secondary site. Note that the replica LUN configured on the secondary site must be of the same size or larger (but within the leeway) than the original LUN on primary site.

Syntax

```
show storage coredr replica size-leeway
```

Parameters

None

Example

```

Core01 > show storage coredr replica size-leeway
Replica size leeway : 100000000 bytes

```

Product

SteelFusion Core

Related Topics

[“show storage coredr sec-site-luns,”](#) [“show storage coredr settings,”](#) [“storage coredr lun replicate-to,”](#) [“storage coredr lun remove-replica”](#)

show storage coredr sec-site-luns

Displays all LUNs available for replication from the secondary data center storage array, as well as their size and whether they are mapped.

Syntax

show storage coredr sec-site-luns

Parameters

None

Usage

This command is only available from the primary Core.

Example

```
Core01 > show storage coredr sec-site-luns
LUNs available on secondary site (site1) for replication:
```

Serial	Mapped	Size (bytes)
P3KRP502GlrZ	no	6.00 GB (6442450944)
P3KRP502Gt52	no	503.00 MB (527433728)
P3KRP502GtWz	no	503.00 MB (527433728)
P3KRP502Gu8x	yes	503.00 MB (527433728)
P3KRP502GuZw	no	503.00 MB (527433728)

Product

SteelFusion Core

Related Topics

[“show storage coredr replica size-leeway,”](#) [“show storage coredr settings,”](#) [“storage coredr lun replicate-to,”](#) [“storage coredr lun remove-replica”](#)

show storage coredr settings

Displays the currently configured settings for replication.

Syntax

show storage coredr settings

Parameters

None

Example

```
Core01 > show storage coredr settings
Site Role      : primary
Journal-LUN    : P3KRP510J2tR (35434506240 Bytes)
Site id        : Site1
Site interfaces : eth0_0
                : eth0_1
Peer site id    : Site2
Peer site ips   : 10.5.147.185
                : 10.5.147.188
Peer connected  : Yes (state: replicating)
Witness Edge    : Edge01NYC
```

Product

SteelFusion Core

Related Topics[“storage coredr clear-params”](#)**show storage iscsi**

Displays the details of the storage iSCSI settings.

Syntax

```
show [failover-peer] storage iscsi {chap [username <name>] | data-digest | disc-luns-all | disc-targets [portal
<hostname>] | header-digest | initiator | lun-alias <lun-alias> | lun-serial <lun-serial> | luns | portals | session
| targets}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
chap	Displays the CHAP users.
username <name>	Specifies a CHAP user by name to view the details of that specific user.
data-digest	Indicates whether the data digest is enabled or not.
disc-luns-all	Displays detailed list of discovered iSCSI LUN.
disc-targets	Displays a detailed list of discovered iSCSI targets..
portal <hostname>	Specifies the hostname of the portal to display the details of that specific target.
header-digest	Indicates whether the header digest is enabled or not.
initiator	Displays the iSCSI initiator settings, including name, mutual CHAP configuration (enabled or not), and mutual CHAP username (if enabled).
lun-alias <lun-alias>	Displays the details of the LUN indicated by the specified alias value, including configuration status, size, type, vendor, serial number, and so on.
lun-serial <lun-serial>	Displays the details of the LUN indicated by the specified serial value, including configuration status, size, type, vendor, serial number, and so on.
luns	Displays the details of all configured LUNs, including configuration status, size, type, vendor, serial number, and so on.
portals	Displays the details of all iSCSI portals, including name, port, and CHAP authentication settings (if applicable).
session	Displays the details of the iSCSI session, such as MPIO support, iSCSI2 and iSCSI3 reservation support, and iSCSI2 reservation fallback.
targets	Displays the details of the configured iSCSI target.

Example

```
Core_02 > show storage iscsi chap username asdf
CHAP user : asdf
  Configuration status:    Ready
  Enabled:                 Yes
  Password:                ****
  In Use                   No
```

```
Core_02 > show storage iscsi lun-alias test
Locally Assigned Serial: hqD9Vo/hRSYU
  Configuration status:    Ready
  Alias:                   test
  LUN size:                 101.975 MB
```

```

LUN type:          iscsi
Origin LUN vendor: NetApp
Origin LUN serial: hqD9Vo/hRSYU
Online:            yes
Pinned:            no
...

```

Product

SteelFusion Core

show storage iscsi disc-portals portal

Displays the interfaces available on the filer for the specified iSCSI portal configuration.

Syntax

show [failover-peer] storage iscsi disc-portals portal <hostname>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal configuration.

Usage

This command is intended to be used for portals discovered for Multi-Path I/O (MPIO) configurations. MPIO enables a single iSCSI portal configuration to connect with the filer on multiple IP addresses.

After portals have been discovered, you can add them to the iSCSI portal configuration using the “[storage iscsi portal host disc-portal add](#)” command.

Example

```
Core_02 > show storage iscsi disc-portals portal 123.45.6.789
```

Product

SteelFusion Core

show storage iscsi mpio interfaces

Displays the interfaces currently configured for MPIO connections.

Syntax

show [failover-peer] storage iscsi mpio interfaces

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```

Core_02 > show storage iscsi mpio interfaces
Interfaces configured for MPIO
    eth0_2
    eth0_3

```

Product

SteelFusion Core

Related Topics[“show storage iscsi mpio-paths”](#)

show storage iscsi mpio-paths

Displays the interfaces currently configured for MPIO paths.

Syntax

show [**failover-peer**] **storage iscsi mpio-paths** {**lun-alias** <alias> | **lun-serial** <serial>}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
lun-alias <alias>	Displays the MPIO details of the LUN indicated by the specified alias value, including path ID, remote IP and port, source IP and port, state, and so on.
lun-serial <serial>	Displays the MPIO details of the LUN indicated by the specified serial value, including path ID, remote IP and port, source IP and port, state, and so on.

Example

```
Core_02 > show storage iscsi mpio-paths lun-alias alias-vmfs_lun1
MPIO paths:
  Path ID       : 10.12.4.XXX:0-10.12.4.XX:3260
  Remote IP     : 10.12.4.39
  Remote Port   : 3260
  Source IP     : 10.12.4.XXX
  Source Port   : 58614
  Excluded      : No
  Preferred     : No
  Connected     : Yes
  state         : Active Optimized
  Filer Preferred: no

  Current MPIO read path ID : 10.12.4.XXX:0-10.12.4.XX:3260
  Current MPIO write path ID: 10.12.4.XXX:0-10.12.4.XX:3260
```

Product

SteelFusion Core

Related Topics[“show storage iscsi mpio interfaces”](#)

show storage lun

Displays the details of the storage LUN settings.

Syntax

show [**failover-peer**] **storage lun** {**alias** <alias> | **serial** <serial>} [**branch-recovery** | **snapshot** {**all** | **id**} | **snapshot-config** | **snapshot-log**]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the alias of the LUN to be displayed.
serial <serial>	Specifies the serial value of the LUN to be displayed.
branch-recovery	Specifies to display branch recovery information.
snapshot all	Displays all snapshots associated with a LUN.
snapshot id	Displays snapshot information associated with a specific ID.
snapshot-config	Specifies to display snapshot configuration details.
snapshot-log	Specifies to display snapshot log information.

Example

```
Core_02 > show storage lun alias yoga_iscsi
Locally Assigned Serial: hoigdoX\xxxx
Configuration status      : Ready
Alias                     : xxxx_iscsi
LUN Size                  : 1.00351 GB
LUN Type                  : iscsi
Online                    : yes
IOPs acceleration        : Disabled
Failover Enabled          : yes
Prefetch                  : Enabled
Edge mapping              : gen1-sh15
Target mapping            : iqn.2003-10.com.xxxxxxxxxx.000
...
```

Product

SteelFusion Core

show storage luns

Displays details about all the LUNs configured for the current appliance, including:

- Configuration status
- LUN size and type
- Prefetch setting
- Mapped edge appliances
- Target and portal mapping
- Session status
- Prepopulation settings, status, progress, and schedules
- Snapshot settings and schedules
- MPIO policy settings

Syntax

```
show [failover-peer] storage luns [block-disk | edge-local | iscsi | discovered {block-disk | iscsi}]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
block-disk	Limits the output to block-disk LUNs.
edge-local	Limits the output to local edge LUNs.
iscsi	Limits the output to iSCSI LUNs.
discovered block-disk	Limits the output to discovered block-disk LUNs.
discovered iscsi	Limits the output to discovered iSCSI LUNs.

Example

```
Core_02 > show storage luns iscsi
Locally Assigned Serial: P3KRP414Q4m6
  Configuration status      : Ready
  Alias                     : snapLun
  LUN Size                  : 101.975 MB
  LUN Type                  : iscsi
  Online                    : yes
  Failover Enabled          : yes
  Prefetch                  : Enabled
...
```

Product

SteelFusion Core

show storage lun-global settings

Displays the settings that are applicable to all LUNs.

Syntax

show [failover-peer] storage lun-global settings

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```
amnesiac > show storage lun-global settings
iSCSI reservations      : Enabled
Minimum local lun size   : 8 MBs
```

Product

SteelFusion Core

show storage snapshot

Displays the snapshot settings for the specified host.

Syntax

show [failover-peer] storage snapshot {br-proxy-host host <hostname> | handoff-host host <hostname> | storage-array host <hostname> | policies}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
br-proxy-host host <hostname>]	Specifies the branch or proxy host hostname for which you want to display snapshot settings.
handoff-host host <hostname>]	Specifies the handoff host hostname for which you want to display snapshot settings.
storage-array host <hostname>]	Specifies the storage array hostname for which you want to display snapshot settings.
policies	Shows snapshot schedule policies.

Usage

Core can interoperate with any iSCSI-compliant storage array, but support for application-consistent snapshots is limited to storage arrays from qualified vendors (Dell EqualLogic, EMC CLARiiON, EMC VNX, or NetApp). The handoff host feature enables you to configure external hosts and scripts to take the snapshots on other, nonqualified storage arrays.

Example

```
Core_01 > show storage snapshot handoff-host
Core_02 > show failover-peer storage snapshot storage-array host chief-cs123.lab.nbttech.com
```

Product

SteelFusion Core

Related Topics

[“storage snapshot br-proxy-host,”](#) [“storage snapshot handoff-host”](#)

show storage snapshot policies

Displays details about all currently configured snapshot schedule policies.

Syntax

show [failover-peer] storage snapshot policies

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```
Core_02 (config) # show storage snapshot policies
Snapshot Schedule Policy : default_policy
  Max Hourly Snaps          : 5
  Max Daily Snaps           : 5
  Max Weekly Snaps          : 5
  Schedule :
    hourly                  : everyday @ everyhour

Snapshot Schedule Policy : default_schedule_policy
  Max Hourly Snaps          : 5
  Max Daily Snaps           : 5
  Max Weekly Snaps          : 5
  Schedule :
```



```
hourly : everyday @ everyhour
```

```
Snapshot Schedule Policy : test_yoga
Max Hourly Snaps          : 5
Max Daily Snaps           : 5
Max Weekly Snaps          : 5
```

Product

SteelFusion Core

show remote configured

Shows the current configuration for the remote management port.

Syntax

```
show remote configured
```

Parameters

None

Example

```
amnesiac (config) # show remote configured
Channel           :: 1
DHCP enabled      :: no
IP                ::
```

snmp-server acl

Configures changes to the View-Based Access Control Model (VACM) ACL configuration.

Syntax

```
[no] snmp-server acl group <name> security-level <level> read-view <name>
```

Parameters

group <name>	Specifies the name of the SNMP server community.
security-level <level>	Specifies the security level for this ACL entry. <ul style="list-style-type: none"> • noauth - Does not authenticate packets and does not use privacy. This is the default setting. • auth - Authenticates packets but does not use privacy. • authpriv - Authenticates packets and uses privacy. <p>Note: This setting determines whether a single atomic message exchange is authenticated.</p> <p>Note: A security level applies to a group, not to an individual user.</p>
read-view <name>	Restricts read requests to this view.

Usage

For details about SNMP traps sent to configured servers, the Management Console online help or the *SteelFusion Core Management Console User's Guide*.

The **no** command option disables an SNMP server community.

Example

```
amnesiac (config) # snmp-server acl group ReadOnly security-level auth read-view ReadOnly
```

Related Topics[“show snmp”](#)

snmp-server community

Sets an SNMP read-only server community.

Syntax

[no] snmp-server community <name>

Parameters

<name>	Name of the SNMP server community. The pound sign(#) and hyphen (-) characters are not allowed at the beginning of the <name> variable. If you use either of these characters at the beginning of the <name> variable, the CLI returns the following error message: % Invalid SNMP community name
---------------------	---

Usage

For details about SNMP traps sent to configured servers, see the Management Console online help or the *SteelFusion Core Management Console User's Guide*.

You can still access the entire MIB tree from any source host using this setting. If you do not want this type of access, you must delete this option and configure the security name for SNMP ACL support. For details, see [“snmp-server group” on page 173](#).

This community string overrides any VACM settings.

The **no** command option disables an SNMP server community.

Example

```
amnesiac (config) # snmp-server community ReadOnly
```

Related Topics[“show snmp”](#)

snmp-server contact

Sets the SNMP server contact.

Syntax

[no] snmp-server contact <name>

Parameters

<name>	Username of the SNMP server community contact.
---------------------	--

Usage

The **no** command option disables the SNMP server contact.

Example

```
amnesiac (config) # snmp-server contact john doe
```

Related Topics[“show snmp”](#)

snmp-server enable

Enables an SNMP server.

Syntax

[no] snmp-server enable [traps]

Parameters

traps	Enables sending of SNMP traps from this system.
-------	---

Usage

The **no** command option disables the SNMP server or traps.

Example

```
amnesiac (config) # snmp-server enable traps
```

Related Topics

[“show snmp”](#)

snmp-server group

Configures the View Access Control Model (VACM) group configuration.

Syntax

[no] snmp-server group <group> security-model <model> security-name <name>

Parameters

group <group>	Specifies a group name.
security-model <model>	Specifies a security model: <ul style="list-style-type: none"> • v1 - Enables SNMPv1 security model. • v2c - Enables SNMPv2c security model. • usm - Enables User-based Security Model (USM).
security-name <name>	Specifies a name to identify a requester (allowed to issue gets and sets) or a recipient (allowed to receive traps) of management data. The security name is also required to make changes to the VACM security name configuration.

Usage

The **no** command option disables the SNMP server group.

Example

```
amnesiac (config) # snmp-server group rvbdgrp security model v1 security-name riverbed
```

Related Topics

[“show snmp”](#)

snmp-server host

Configures hosts to which to send SNMP traps.

Syntax

[no] snmp-server host {<hostname> | <ipv4-address> | <ipv6-address>} traps <community-string>

Parameters

<hostname>	Hostname for the SNMP server.
<ipv4-address>	IPv4 address for the SNMP server.
<ipv6-address>	IPv6 address for the SNMP server.
traps <community-string>	<p>Sends traps to the specified host. Specify the password-like community string to control access. Use a combination of uppercase, lowercase, and numerical characters to reduce the chance of unauthorized access to the appliance. The pound sign (#) and hyphen (-) characters are not allowed at the beginning of the <community-string> argument.</p> <p>Note: If you specify a read-only community string, it takes precedence over this community name and allows users to access the entire MIB tree from any source host. If this is not desired, delete the read-only community string.</p> <p>Note: To create multiple SNMP community strings on an appliance, leave the default public community string and then create a second read-only community string with a different security name. Or, you can delete the default public string and create two new SNMP ACLs with unique names.</p>

Usage

The **no** command option disables the SNMP server host.

Example

```
amnesiac (config) # snmp-server host 10.0.0.1 traps public
```

Related Topics

[“show snmp”](#)

snmp-server host version

Configures the SNMP version of traps to send to the host.

Syntax

```
[no] snmp-server host {<hostname> | <ip-address>} traps version {1 | 2 c | 3 remote-user <name>} password
encrypted <key> auth-protocol {md5 | sha} security-level {noauth | auth | authpriv} plain-text <text> auth-
protocol <md5 | sha> [security-level <noauth | auth | authpriv>] [priv-protocol {aes | des} priv-key {encrypted
<key> | plain-text <text>}] [port <port-number>]
```

Parameters

<hostname>	Hostname for the SNMP server.
<ip-address>	IPv4 address or IPv6 address for the SNMP server.
traps	Sends traps to the specified host.
version <number>	Specifies the SNMP version of traps to send to this host: <ul style="list-style-type: none"> • 1 - Specifies SNMPv1. • 2c - Specifies SNMPv2c. • 3 - Specifies SNMPv3.
remote-user <name>	For SNMPv3, specifies the username.
password encrypted	Enables encrypted password authentication.
password plaintext	Enables plain-text password authentication.
encrypted <key>	For SNMPv3 specify the user password.
auth-protocol	Specify the authorization protocol: <ul style="list-style-type: none"> • MD5 - Enable MD5 security protocol. • SHA - Enable SHA security protocol.
security-level	Specify the security level: <ul style="list-style-type: none"> • noauth - Specify no authorization required. • auth - Specify authorization required. • authpriv - Specify authorization and privacy required.
priv-protocol	Specify the privacy protocol: <ul style="list-style-type: none"> • aes - Specify CFB128-AES-128 as the privacy protocol. • des - Specify CBC-DES as the privacy protocol.
priv-key	Specify the privacy key: <ul style="list-style-type: none"> • encrypted <key> - Specify encrypted privacy key. • plain-text <text> - Specify plain-text privacy key. The plain-text privacy key must be at least 8 characters.
port <port-number>	Specifies the destination port.

Usage

The **no** command option disables the SNMP server host.

Example

```
amnesiac (config) # snmp-server host 10.0.0.1 traps version 1 "public 99162?" port 1234
```

Related Topics

["show snmp," "snmp-server community," "snmp-server security-name"](#)

snmp-server ifindex

Adds a custom index value for an interface.

Syntax

```
snmp-server ifindex <interface> <index>
```

Parameters

<interface>	Interface name: eth0_2, eth0_0, eth0_3, primary, aux, eth0_1
<index>	Index number.

Example

```
amnesiac (config) # snmp-server ifindex aux 1234
```

Related Topics

[“show snmp”](#)

snmp-server ifindex-persist

Enables persistent SNMP interface indexes.

Syntax

[no] snmp-server ifindex-persist

Parameters

None

Usage

The **no** command option disables the SNMP server group.

Example

```
amnesiac (config) # snmp-server ifindex-persist
```

Related Topics

[“show snmp”](#)

snmp-server ifindex-reset

Resets the ifindex values of all interfaces to the factory default value.

Syntax

snmp-server ifindex-reset

Parameters

None

Example

```
amnesiac (config) # snmp-server ifindex-reset
```

Related Topics

[“show snmp”](#)

snmp-server listen enable

Enables SNMP server interface restrictions (that is, it enables access control and blocks requests on all the interfaces).

Syntax

[no] snmp-server listen enable

Parameters

None

Usage

The **no** command option disables SNMP interface restrictions.
SNMP interface restrictions are not available through the Management Console.

Example

```
amnesiac (config) # snmp-server listen enable
```

Related Topics

[“show snmp”](#)

snmp-server listen interface

Adds an interface to the SNMP server access restriction list.

Syntax

[no] snmp-server listen interface <interface>

Parameters

<interface>	Specify the interface: primary, aux, eth0_2, eth0_0, eth0_3, eth0_1.
-------------	---

Usage

If the list of interfaces is empty, none of the interfaces respond to the queries. If the list of interfaces has at least one entry, then the server listens on that subset of interfaces.

To add an interface to the list to listen on

```
snmp-server listen interface primary
```

To remove an interface from the list

```
no snmp-server listen interface <interface>
```

SNMP interface restrictions are not available through the Management Console.

Example

```
amnesiac (config) # snmp-server listen interface aux
```

Related Topics

[“show snmp”](#)

snmp-server location

Sets the value for the system location variable in the MIB.

Syntax

[no] snmp-server location <ip-address>

Parameters

<ip-address>	Specify the IP address of the system.
--------------	---------------------------------------

Usage

The **no** command option disables the SNMP server location.

Example

```
amnesiac (config) # snmp-server location 10.10.10.1
```

Related Topics[“show snmp”](#)**snmp-server security-name**

Configures the SNMP security name.

Syntax

```
[no] snmp-server security-name <name> community <community-string> source <ip-address> <netmask>
```

Parameters

<name>	Security name.
community <community-string>	<p>Specifies the password-like community string to control access. Use a combination of uppercase, lowercase, and numerical characters to reduce the chance of unauthorized access to the appliance.</p> <p>Community strings allow printable 7-bit ASCII characters except for white spaces. Community strings cannot begin with a pound sign (#) or a hyphen (-).</p> <p>If you specify a read-only community string, it takes precedence over this community name and allows users to access the entire MIB tree from any source host. If this is not desired, delete the read-only community string.</p> <p>To create multiple SNMP community strings on an appliance, leave the default public community string and then create a second read-only community string with a different security name. Or, you can delete the default public string and create two new SNMP ACLs with unique names.</p>
source <ip-address> <netmask>	Specifies the source IPv4 or IPv6 address and netmask.

Usage

The **no** command option disables the trap interface.

Example

```
amnesiac (config) # snmp-server security-name riverbed community public source 10.1.2.3/24
```

Related Topics[“show snmp”](#)**snmp-server trap-interface**

Configures the system to use the IP address of the specified interface in the SNMP trap header.

Syntax

```
[no] snmp-server trap-interface <interface>
```

Parameters

<interface>	Interface name.
--------------------------	-----------------

Usage

The trap interface setting sets which interface IP address is used in the agent-address header field of SNMP v1 trap Protocol Data Units (PDUs). It does set the interface for the trap.

Traps are sent out the primary interface. If the primary interface is physically disconnected, no traps are sent. Traps can be sent out the auxiliary interface if the trap receiver is reachable from the auxiliary interface.

The **no** command option disables the trap interface.

Example

```
amnesiac (config) # snmp-server trap-interface aux
```

Related Topics

[“show snmp”](#)

snmp-server trap-test

Generates an SNMP trap test.

Syntax

```
snmp-server trap-test
```

Parameters

None

Usage

Use this command to send a sample trap test to ensure that the SNMP server is monitoring the appliance.

Example

```
amnesiac (config) # snmp-server trap-test
```

Related Topics

[“show snmp”](#)

snmp-server user

Configures changes to the User-Based Security (UBS) model.

Syntax

```
[no] snmp-server user <name> password {encrypted <key> | plain-text <text>} auth-protocol {MD5 | SHA} [priv-protocol {AES | DES} priv-key {encrypted <key> | plain-text <text>}]
```

Parameters

<name>	Name of the user.
password	Specify the password type: <ul style="list-style-type: none"> • encrypted <key> - Enable encrypted password authentication. • plain-text <text> - Enable plain-text password authentication. The plain-text password must be at least 8 characters.
auth-protocol	Specify the authorization protocol: <ul style="list-style-type: none"> • MD5 - Enable MD5 security protocol. • SHA - Enable SHA security protocol.
priv-protocol	Specify the privacy protocol: <ul style="list-style-type: none"> • AES - Specify CFB128-AES-128 as the privacy protocol. • DES - Specify CBC-DES as the privacy protocol.
priv-key	Specify the privacy key: <ul style="list-style-type: none"> • encrypted <key> - Specify encrypted privacy key. • plain-text <text> - Specify plain-text privacy key. The plain-text privacy key must be at least 8 characters.

Usage

The **no** command option disables this command.

Example

```
amnesiac (config) # snmp-server user testuser password plain-text testpass auth-protocol SHA
```

Related Topics

[“show snmp”](#)

snmp-server view

Configures changes to the View-based Access Control Model (VACM) configuration.

Syntax

```
[no] snmp-server view <name> [excluded | included] <oid>
```

Parameters

<name>	Name of the user.
excluded	Excludes an OID subtree from this view.
included	Includes an OID subtree into this view.
<oid>	Object ID. For example: .1.3.6.1.2.1.1 or .iso.org.dod.internet.mgmt.mib-2.system

Usage

The **no** command option disables this option.

Example

```
amnesiac (config) # snmp-server view joedoe included .1.3.6.1.2.1.1
```

Related Topics

[“show snmp”](#)

ssh client generate identity user

Generates SSH client identity keys for the specified user. SSH provides secure log in for Windows and UNIX clients and servers.

Syntax

ssh client generate identity user <user>

Parameters

<user>	Client user login.
---------------------	--------------------

Usage

The **no** command option disables SSH client identity keys for a specified user.

Example

```
amnesiac (config) # ssh client generate identity user test
```

Related Topics

["show ssh client"](#)

ssh client user authorized-key key sshv2

Sets the RSA encryption method by RSA Security and authorized-key for the SSH user.

Syntax

[no] ssh client user <user> authorized-key key sshv2 <public key>

Parameters

<user>	User login. Must be an existing local user.
<public key>	Public key for SSH version 2 for the specified SSH user.

Usage

The **no** command option disables the authorized-key encryption method.

Example

```
amnesiac (config) # ssh client user admin authorized-key key sshv2 MyPublicKey
```

Related Topics

["show ssh client"](#)

ssh server allowed-ciphers

Sets the list of allowed ciphers for the SSH server.

Syntax

[no] ssh server allowed-ciphers <ciphers>

Parameters

<ciphers> Cipher or comma-separated list of ciphers, in quotation marks. Default ciphers configured are aes128-ctr, aes192-ctr, and aes256-ctr.

Supported ciphers are:

- 3des-cbc
 - aes128-cbc
 - aes192-cbc
 - aes256-cbc
 - aes128-ctr
 - aes192-ctr
 - aes256-ctr
 - blowfish-cbc
 - cast128-cbc
 - arcfour
-

Usage

The **no** command option resets the SSH server allowed ciphers.

Example

```
amnesiac (config) # ssh server allowed-ciphers "aes128-cbc,aes192-ctr,aes256-ctr"
```

Related Topics

["show ssh server"](#)

ssh server enable

Enables SSH access to the system.

Syntax

[no] ssh server enable

Parameters

None

Usage

The **no** command option disables SSH access.

Example

```
amnesiac (config) # ssh server enable
```

Related Topics

["show ssh server"](#)

ssh server listen enable

Enables SSH interface restriction access to the system (that is, it enables access control and blocks requests on all the interfaces).

Syntax

[no] ssh server listen enable

Parameters

None

Usage

If the list of interfaces is empty, none of the interfaces respond to the queries.

The **no** command option disables SSH interface restrictions which causes SSH to accept connections from all interfaces. SSH interface restrictions are not available through the Management Console.

Example

```
amnesiac (config) # ssh server listen enable
```

Related Topics

[“show ssh server”](#)

ssh server listen interface

Adds one or more interfaces to the SSH server access restriction list (thus, it unblocks requests on the specified interface).

Syntax

[no] ssh server listen interface <interface>

Parameters

<interface>	Interface name: primary, eth0_2, eth0_0, eth0_3, aux, eth0_1.
-------------	--

Usage

If the list of interfaces is empty, none of the interfaces respond to the queries. If the list of interfaces has at least one entry, then the server listens on that subset of interfaces.

To add an interface to the list

```
ssh server listen interface primary
```

To remove an interface

```
no ssh server listen interface <interface>
```

The **no** command option removes the interface.

SSH interface restrictions are not available through the Management Console

Example

```
amnesiac (config) # ssh server listen interface primary
```

Related Topics

[“show ssh server”](#)

ssh server max-auth-tries

Specifies the maximum number of authentication tries per connection attempt.

Syntax

ssh server max-auth-tries <number>

Parameters

<number>	Maximum number of authentication attempts that the appliance will allow.
-----------------------	--

Usage

This command specifies the number of attempts you can make before the SSH connection is terminated.

Example

```
amnesiac (config) # ssh server max-auth-tries 5
```

Related Topics

[“show ssh server”](#)

ssh server port

Sets a port for SSH access.

Syntax

[no] ssh server port <port-number>

Parameters

<port-number>	Port number for SSH access.
----------------------------	-----------------------------

Usage

The **no** command option resets the SSH port to its default.

Example

```
amnesiac (config) # ssh server port 8080
```

Related Topics

[“show ssh server”](#)

ssh server v2-only enable

Enables the SSH server to accept only v2 connections, which are more secure.

Syntax

[no] ssh server v2-only enable

Parameters

None

Usage

This command restricts the server to accept only v2 protocol connections, which are more secure.

The **no** command option removes the restriction.

Example

```
amnesiac (config) # ssh server v2-only enable
```

Related Topics

[“show ssh server”](#)

tacacs-server first_hit

Enables a first-hit option for TACACS+ servers.

Syntax

[no] tacacs-server first_hit

Usage

TACACS+ servers are tried in the order they are configured. If this option is enabled, only the first server in the list of TACACS+ servers is queried for authentication and authorization purposes.

The **no** command option disables TACACS+ first-hit option.

Example

```
amnesiac (config) # tacacs-server first_hit
```

Related Topics

[“show aaa,” “show tacacs”](#)

tacacs-server host

Adds a TACACS+ server to the set of servers used for authentication.

Syntax

[no] tacacs-server host {<hostname> | <IP address>} | auth-port <port> | auth-type <type> | timeout <seconds> | retransmit <seconds> | {key <string> | 0 <key> | 7 <key>}

Parameters

<hostname>	TACACS+ server hostname.
auth-port <port>	Specifies the authorization port number. The default value is 49.
auth-type <type>	Specifies the authorization type to use with this TACACS+ server: ascii, pap.
timeout <seconds>	Sets the time-out for retransmitting a request to any TACACS+ server. The range is from 1 to 60. The default value is 3.
retransmit <seconds>	Specifies the number of times the client attempts to authenticate with any TACACS+ server. The default value is 1. The range is from 0 to 5. To disable retransmissions set it to 0.
key <string>	Specifies the shared secret text string used to communicate with this TACACS+ server.
0 <key>	Specify a shared secret to use with this RADIUS server.
7 <key>	Specifies a TACACS+ key with an encrypted string.

Usage

TACACS+ servers are tried in the order they are configured.

The same IP address can be used in more than one **tacacs-server host** command if the **auth-port** value is different for each. The **auth-port** value is a UDP port number. The **auth-port** value must be specified immediately after the **hostname** option (if present).

Some of the parameters given can override the configured global defaults for all TACACS+ servers. For details, see the *SteelHead Deployment Guide*.

If **no tacacs-server host <hostname> | <IP address>** is specified, all TACACS+ configurations for this host are deleted. The **no tacacs-server host <hostname> | <IP address> auth-port <port>** command can be specified to refine which host is deleted, as the previous command deletes all TACACS+ servers with the specified IP address.

The **no** command option disables TACACS+ support.

Example

```
amnesiac (config) # tacacs-server host 10.0.0.1
```

Related Topics

[“show aaa,” “show tacacs”](#)

tacacs-server key

Sets the shared secret text string used to communicate with any TACACS+ server.

Syntax

[no] tacacs-server key <string>

Parameters

<string>	Sets the shared secret text string used to communicate with any TACACS+ server.
----------	---

Usage

The **tacacs-server key** command can be overridden using the **tacacs-server host** command. The **no** command option resets the value to the default value.

Example

```
amnesiac (config) # tacacs-server key XYZ
```

Related Topics

["show aaa," "show tacacs"](#)

tacacs-server retransmit

Configures the number of times the client attempts to authenticate with any TACACS+ server.

Syntax

[no] tacacs-server retransmit <retries>

Parameters

<retries>	Specify the number of times the client attempts to authenticate with any TACACS+ server. The range is from 0 to 5. The default value is 1. To disable retransmissions set it to 0.
-----------	--

Usage

The **tacacs-server retransmit** command can be overridden in a **tacacs-server host** command.

The **no** command option resets the value to the default value.

Example

```
amnesiac (config) # tacacs-server retransmit 5
```

Related Topics

["show aaa," "show tacacs"](#)

tacacs-server timeout

Sets the time-out period for retransmitting a request to any TACACS+ server.

Syntax

[no] tacacs-server timeout <seconds>

Parameters

<seconds>	Sets the time-out for retransmitting a request to any TACACS+ server. The range is from 1 to 60. The default value is 3.
-----------	--

Usage

This command can be overridden with the **tacacs-server host** command.

The **no** command option resets the value to the default value.

Example

```
amnesiac (config) # tacacs-server timeout 30
```

Related Topics

[“show aaa,” “show tacacs”](#)

tcpdump stop-trigger delay

Configures the time to wait before stopping a TCP dump.

Syntax

[no] tcpdump stop-trigger delay <duration>

Parameters

<duration>	Specify the amount of time to wait before stopping all running TCP dumps when RiOS finds a match. The default delay is 30 seconds.
------------	--

Usage

You might not want to stop your TCP dump immediately. By configuring a delay, the system has time to log more data without abruptly cutting off the dumps. The default delay is 30 seconds.

Example

```
amnesiac (config) # tcpdump stop-trigger delay 10
```

Related Topics

[“tcpdump stop-trigger enable,” “tcpdump stop-trigger regex,” “tcpdump stop-trigger restart,” “show tcpdump stop-trigger”](#)

tcpdump stop-trigger enable

Enables the TCP dump to stop running, triggered by a match against a configured regular expression and the system log file.

Syntax

[no] tcpdump stop-trigger enable

Parameters

None

Usage

There is a limit to the amount of TCP dump data the system can collect. After a problem has occurred, the TCP dump buffer could have rotated, overwriting the information about the problem. This command enables a trigger that stops a continuous TCP dump after a specific log event occurs. This enables you to troubleshoot issues and isolate the TCP dump data specific to a problem.

The **no** command option disables the TCP dump stop-trigger process.

Example

```
amnesiac (config) # tcpdump stop-trigger regex ntp
amnesiac (config) # tcpdump stop-trigger delay 20
amnesiac (config) # tcpdump stop-trigger enable
```

Related Topics

[“tcpdump stop-trigger delay,” “tcpdump stop-trigger regex,” “tcpdump stop-trigger restart,” “show tcpdump stop-trigger”](#)

tcpdump stop-trigger regex

Sets the regular expression that triggers the stopping of TCP dumps.

Syntax

tcpdump stop-trigger regex <regex>

Parameters

<regex>	Specify a PERL regular expression to match. RiOS compares the PERL regular expression against each entry made to the system logs. The system matches on a per-line basis.
---------	---

Usage

Use the **tcpdump stop-trigger regex** command to configure a regular expression that represents a condition that, when matched, stops all running TCP dumps. After this match is found, all TCP dump sessions are stopped after the delay configured by the **tcpdump stop-trigger delay** command.

Example

In the following example, RiOS searches for the pattern *ntp* in the system logs. The system waits 20 seconds after there is a match and then stops all TCP dumps that are still running.

```
amnesiac (config) # tcpdump stop-trigger regex ntp
amnesiac (config) # tcpdump stop-trigger delay 20
amnesiac (config) # tcpdump stop-trigger enable
```

Related Topics

[“tcpdump stop-trigger delay,”](#) [“tcpdump stop-trigger enable,”](#) [“tcpdump stop-trigger restart,”](#) [“show tcpdump stop-trigger”](#)

tcpdump stop-trigger restart

Restarts the TCP dump stop-trigger process.

Syntax

tcpdump stop-trigger restart

Parameters

None

Usage

If you change the regular expression or delay, use the **tcpdump stop-trigger restart** command to restart the stop-trigger process.

Example

```
amnesiac (config) # tcpdump stop-trigger regex ntp
amnesiac (config) # tcpdump stop-trigger delay 50
amnesiac (config) # tcpdump stop-trigger enable
amnesiac (config) # tcpdump stop-trigger restart
```

Related Topics

[“tcpdump stop-trigger delay,”](#) [“tcpdump stop-trigger enable,”](#) [“tcpdump stop-trigger regex,”](#) [“show tcpdump stop-trigger”](#)

tcpdump-x all-interfaces

Configures a list of all interfaces for a TCP dump capture.

Syntax

[no] tcpdump-x all-interfaces [capture-name <capture-name>] continuous | | buffer-size <size> | duration <seconds> [schedule-time <hh:mm:ss> [schedule-date <yyyy/mm/dd>]] | [rotate-count <number>] | [snaplength <snaplength>] | [sip <src-address>] | [dip <dst-address>] | [sport <src-port>] | [dport <dst-port>] | [dot1q {tagged | untagged | both}] | [ip6] | [custom <custom-param>] | [file-size <megabytes>]

Parameters

capture-name <capture-name>	Specify a capture name to help you identify the TCP Dump. The default filename uses the following format: <hostname>_<interface>_<timestamp>.cap Where hostname is the hostname of the appliance, interface is the name of the interface selected for the trace (for example, lan0_0 , wan0_0), and timestamp is in the 'yyyy/mm/dd hh:mm:ss' format. Note: The cap file extension is not included with the filename when it appears in the capture queue.
continuous	Start a continuous capture.
buffer-size <size>	Specify the size in kilobytes for all packets.
duration <seconds>	Specify the run time for the capture in seconds. The default is 30 seconds.
schedule-time <hh:mm:ss>	Specify a time to initiate the trace dump in the format 'hh:mm:ss'.
schedule-date <yyyy/mm/dd>	Specify a date to initiate the trace dump in the format 'hh:mm:ssyyyy/mm/dd'.
rotate-count <number>	Specify the number of files to rotate.
snaplength <snaplength>	Specify the snap length value for the trace dump. The default value is 1518. Specify 0 for a full packet capture (recommended for CIFS, MAPI, and SSL traces).
sip <src-address>	Specify a comma-separated list of source IP addresses. The default setting is all IP addresses.
dip <dst-address>	Specify a comma-separated list of destination IP addresses. The default setting is all IP addresses.
sport <src-port>	Specify a comma-separated list of source ports. The default setting is all ports.
dport <dst-port>	Specify a comma-separated list of destination ports. The default setting is all ports.
dot1q {tagged untagged both}	Specify one of the following to filter dot1q packets: <ul style="list-style-type: none"> • tagged - Capture only tagged traffic. • untagged - Capture only untagged traffic. • both - Capture all traffic. Note: Do not use the sip , dip , sport , dport and custom parameters together when using the dot1q both option. Use the tcpdump command instead to capture this information. For detailed information about dot1q VLAN tunneling, see your networking equipment documentation.
ip6	Specify IPv6 packets for packet capture.
custom <custom-param>	Specify custom parameters (flags) for packet capture. You need to enclose the customer parameter in quotes if it contains more than one word.
file-size <megabytes>	Specify the file size of the capture in megabytes.

Usage

You can capture and retrieve multiple TCP trace dumps. You can generate trace dumps from multiple interfaces at the same time and you can schedule a specific date and time to generate a trace dump.

Example

The following example starts a continuous capture for a file named *tcpdumpexample* with a duration of 120 seconds:

```
amnesiac (config) # tcpdump-x all-interfaces capture-name tcpdumpexample continuous duration 120
```

The following example captures untagged traffic on destination port 7850 and ARP packets:

```
amnesiac (config) # tcpdump-x all-interfaces dot1q untagged dport 7850 custom "and arp"
```

The following example captures VLAN tagged traffic for host 10.11.0.6 and ARP packets:

```
amnesiac (config) # tcpdump-x all-interfaces dot1q tagged sip 10.11.0.6 custom "or arp"
```

The following example captures tagged ARP packets only:

```
amnesiac (config) # tcpdump-x all-interfaces dot1q tagged custom "and arp"
```

The following example captures untagged ARP packets only:

```
amnesiac (config) # tcpdump-x all-interfaces dot1q untagged custom "and arp"
```

Related Topics

[“show tcpdump-x,” “tcpdump”](#)

tcpdump-x capture-name stop

Stops the specified TCP dump capture.

Syntax

```
[no] tcpdump-x capture-name <capture-name> stop
```

Parameters

<capture-name>	Specify the capture name to stop.
----------------	-----------------------------------

Example

```
amnesiac (config) # tcpdump-x capture-name example stop
```

Related Topics

[“show tcpdump-x,” “tcpdump”](#)

tcpdump-x interfaces

Configures a comma-separated list of interfaces to capture in the background.

Syntax

```
[no] tcpdump-x interfaces <interface-name> continuous | duration <seconds> [schedule-time <hh:mm:ss>
[schedule-date <yyyy/mm/dd>]] | [rotate-count <#number>] | [snaplength <snaplength>] | [sip <src-address>] |
[dip <dst-address>] | [sport <src-port>] [dport <dst-port>] | [dot1q {tagged | untagged | both}] [ip6] | [custom
<custom-param>] | [file-size <megabytes>]
```

Parameters

<interface-name>	Specify a comma-separated list of interfaces: primary , aux , lan0_0 , wan0_0
continuous	Start a continuous capture.
duration <seconds>	Specify the run time for the capture in seconds.
schedule-time <hh:mm:ss>	Specify a time to initiate the trace dump in the format 'hh:mm:ss'.
schedule-date <yyyy/mm/dd>	Specify a date to initiate the trace dump in the format 'yyyy/mm/dd'.
rotate-count <#number>	Specify the number of files to rotate.
snaplength <snaplength>	Specify the snap length value for the trace dump. The default value is 1518. Specify 0 for a full packet capture (recommended for CIFS, MAPI, and SSL traces).
sip <src-address>	Specify the source IP addresses. The default setting is all IP addresses.
dip <dst-address>	Specify a comma-separated list of destination IP addresses. The default setting is all IP addresses.
sport <src-port>	Specify a comma-separated list of source ports. The default setting is all ports.
dport <dst-port>	Specify a comma-separated list of destination ports. The default setting is all ports.
dot1q {tagged untagged both}	Specify one of the following to filter dot1q packets: <ul style="list-style-type: none"> • tagged - Capture only tagged traffic. • untagged - Capture only untagged traffic. • both - Capture all traffic. <p>Note: Do not use the sip, dip, sport, dport and custom parameters together when using the dot1q both option. Use the tcpdump command to capture this information.</p> <p>For detailed information about dot1q VLAN tunneling, see your networking equipment documentation.</p>
ip6	Specify IPv6 packets for packet capture.
custom <custom-param>	Specify custom parameters (flags) for packet capture.
file-size <megabytes>	Specify the file size of the capture in megabytes.

Example

```
amnesiac (config) # tcpdump-x interfaces inpath0_0 continuous
amnesiac (config) # tcpdump-x interfaces aux ip6 sip 2003::5
```

Related Topics

[“tcpdump,” “show tcpdump-x”](#)

telnet-server enable

Enables you to access the CLI using telnet. This feature is disabled by default.

Syntax

[no] telnet-server enable

Parameters

None

Usage

You can use telnet to troubleshoot your system. It enables you to access the CLI from another system.

Example

```
amnesiac (config) # telnet-server enable
```

Related Topics

[“show telnet-server”](#)

username disable

Disables the account so that no one can log in.

Syntax

[no] username <userid> disable

Parameters

<userid>	Specify the user login: admin or monitor .
-----------------------	--

Usage

The **no** command option reenables the specified user account.

Example

```
amnesiac (config) # username monitor disable
```

Related Topics

[“show usernames”](#)

username nopassword

Disables password protection for a user.

Syntax

username <userid> nopassword

Parameters

<userid>	Specify the user login: admin or monitor .
-----------------------	--

Example

```
amnesiac (config) # username monitor nopassword
```

Related Topics

[“show usernames”](#)

username password

Sets the password for the specified user.

Syntax

username <userid> password <cleartext> [old-password <cleartext>]

Parameters

<userid>	Specify the user login: admin or monitor .
<cleartext>	Specify the password. The password must be at least 6 characters.
old-password	Specify the old password.

Usage

The password is entered in cleartext format on the command line.

The **old-password** option allows you to check the minimum character difference between the old and new passwords under account control management.

Example

```
amnesiac (config) # username admin password xyzzzZ
```

Related Topics

[“show usernames,” “authentication policy enable”](#)

username password 0

Sets the password for the specified user.

Syntax

```
username <userid> password 0 <cleartext password>
```

Parameters

<userid>	Specify the user login: admin or monitor .
<cleartext password>	Specify the password. The password must be at least 6 characters.

Usage

The password is entered in cleartext format on the command line.

Example

```
amnesiac (config) # username admin password 0 xyzzzZ
```

Related Topics

[“show usernames”](#)

username password 7

Sets the password for the specified user using the encrypted format of the password. Use this command if it becomes necessary to restore your appliance configuration, including the password.

Syntax

```
username <userid> password 7 <encrypted password>
```

Parameters

<userid>	Specify the user login: admin or monitor .
<encrypted password>	Specify the encrypted password. The password must be at least 6 characters.

Usage

Use this command to restore your password using an encrypted version of the password. You can display the encrypted version of the password using the **show running configuration** command.

For example, executing **username monitor password awesomepass** results in the following line being added to the running configuration file:

```
username monitor password 7 $1$f2Azp8N8$n0oy6Y1KhCfuMo93f24ku/
```

If you need to restore your password in the future, you would paste:

```
username monitor password 7 $1$f2Azp8N8$n0oy6Y1KhCfuMo93f24ku/
```

in the CLI, to restore your monitor password to **awesomepass**.

Example

```
amnesiac (config) # username admin password 7 $1$f2Azp8N8$n0oy6Y1KhCfuMo93f24ku/
```

Related Topics

[“show usernames”](#)

web auto-logout

Sets the number of minutes before the Management Console automatically logs out the user.

Syntax

[no] web auto-logout <minutes>

Parameters

<minutes>	Specify the number of minutes before the system automatically logs out the user. The default value is 15 minutes.
------------------------	---

Usage

The **no** command option disables the automatic log out feature.

Example

```
amnesiac (config) # web auto-logout 20
```

Related Topics

[“show web”](#)

web auto-refresh timeout

Enables session timeouts on auto-refreshing report pages.

Syntax

[no] web auto-refresh timeout

Parameters

None

Usage

Disabling this feature keeps you logged in indefinitely on a report page that is auto-refreshing. This can be a security risk.

The **no** command option disables time-out.

Example

```
amnesiac (config) # web auto-refresh timeout
```

Related Topics

[“show web”](#)

web enable

Enables the Management Console.

Syntax

[no] web enable

Parameters

None

Usage

The Management Console is enabled by default.

The **no** command option disables the Management Console.

Example

```
amnesiac (config) # web enable
```

Related Topics

[“show web”](#)

web http enable

Enables HTTP access to the Management Console.

Syntax

[no] web http enable

Parameters

None

Usage

The Management Console is enabled by default.

The **no** command option disables the Management Console.

Example

```
amnesiac (config) # web http enable
```

Related Topics

[“show web”](#)

web httpd log-format

Changes the web server log format (Apache httpd LogFormat).

Syntax

[no] web httpd log-format <Apache-httpd>

Parameters

<Apache-httpd>

Log format arguments for Apache LogFormat. For detailed information about the Apache LogFormat arguments, see <http://httpd.apache.org/docs>.

Usage

The **no** command returns to the default Web server log format.

Example

```
amnesiac (config) # web httpd log-format "%h %l %u %t \"%r\" %>s %b"
```

Related Topics

[“show web”](#)

web httpd server-header

Changes the Apache Server header line.

Syntax

```
[no] web httpd server-header <server-header-line>
```

Parameters

<server-header-line>	Apache Server header line. For detailed information about the Apache Server header line, see http://httpd.apache.org/docs .
-----------------------------------	--

Usage

The **no** command option returns to the default "Server:" header line.

Example

```
amnesiac (config) # web httpd server-header "Server:Example HTTPD Server"
```

Related Topics

[“show web”](#)

web http port

Sets the Web port for HTTP access.

Syntax

```
[no] web http port <port-number>
```

Parameters

<port-number>	Number of the port. The default value is 80.
----------------------------	--

Usage

The **no** command option resets the Web port to the default value.

Example

```
amnesiac (config) # web http port 8080
```

Related Topics

[“show web”](#)

web https enable

Enables HTTPS access to the Web-based management console.

Syntax

```
[no] web https enable
```

Parameters

None

Usage

The **no** command option disables access to the Web-based management console.

Example

```
amnesiac (config) # web https enable
```

Related Topics

[“show web”](#)

web https port

Sets the HTTPS secure Web port.

Syntax

[no] web https port <port-number>

Parameters

<port-number> Number of the port. The default value is 80.

Usage

The **no** command option disables support on a secure port.

Example

```
amnesiac (config) # web https port 8080
```

Related Topics

[“show web”](#)

web prefs log lines

Sets the number of lines for the system log page.

Syntax

[no] web prefs log lines <lines>

Parameters

<lines> Number of lines per log page.

Usage

The **no** command option disables the number of log lines.

Example

```
amnesiac (config) # web prefs logs lines 10
```

Related Topics

[“show web”](#)

web proxy host

Sets the HTTP, HTTPS, and FTP proxy.

Syntax

[no] web proxy host <ip-address> [port <port>] [user-cred username <username> password <password> [authtype <authentication type>]]

Parameters

<ip-address>	Specify the IP address for the host.
port <port>	Specify the port for the host.
user-cred	Specifies the user credentials for the autolicensing feature.
username <username>	Specifies the username.
password <password>	Specifies the password in cleartext format
authtype <authentication-type>	Specifies the authentication type: <ul style="list-style-type: none"> • basic - Authenticates user credentials by requesting a valid username and password. This is the default setting. • digest - Provides the same functionality as basic authentication; however, digest authentication improves security because the system sends the user credentials across the network as a Message Digest 5 (MD5) hash. • ntlm - Authenticates user credentials based on an authentication challenge and response.

Usage

Use this command to enable the appliance to use a Web proxy to contact the Riverbed licensing portal and fetch licenses in a secure environment. You can optionally require user credentials to communicate with the Web proxy for use with the autolicensing feature. You can specify the method used to authenticate and negotiate these user credentials.

The **no** command option resets the Web proxy settings to the default behavior. Web proxy access is disabled by default.

RiOS supports the following proxies: Squid, Blue Coat Proxy SG, Microsoft WebSense, and McAfee Web Gateway.

Example

```
amnesiac (config) # web proxy host 10.1.2.1 port 1220
```

Related Topics

[“show web”](#)

web rest-server enable

Enables the Representational State Transfer (REST) server.

Syntax

```
[no] web rest-server enable
```

Parameters

None

Usage

The **no** command disables the REST server.

Example

```
amnesiac (config) # web rest-server enable
```

Related Topics

[“papi rest access_code generate,”](#) [“papi rest access_code import,”](#) [“show papi rest access_codes,”](#) [“show web”](#)

web session renewal

Sets the session renewal time. This is the time before the Web session time-out. If a Web request comes in, it automatically renews the session.

Syntax

[no] web session renewal <minutes>

Parameters

<minutes>	Number of minutes. The default value is 10.
-----------	---

Usage

The **no** command option resets the session renewal time to the default value.

Example

```
amnesiac (config) # web session renewal 5
```

Related Topics

[“show web”](#)

web session timeout

Sets the session time-out value. This is the amount of time the cookie is active.

Syntax

[no] web session timeout <minutes>

Parameters

<minutes>	Number of minutes. The default value is 60.
-----------	---

Usage

The **no** command option resets the session time-out to the default value.

Example

```
amnesiac (config) # web session timeout 120
```

Related Topics

[“show web”](#)

web snmp-trap conf mode enable

Enables SNMP traps in Web configure mode.

Syntax

[no] web snmp-trap conf mode enable

Parameters

None

Usage

The **no** command option disables this setting.

Example

```
amnesiac (config) # web snmp-trap conf mode enable
```

Related Topics

[“show web”](#)

web soap-server enable

Enables the Simple Object Access Protocol (SOAP) server.

Syntax

[no] web soap-server enable

Parameters

None

Usage

The **no** command option disables this setting.

Example

```
amnesiac (config) # web soap-server enable
```

Related Topics

[“show web”](#)

web soap-server port

Enables the Simple Object Access Protocol (SOAP) server port.

Syntax

[no] web soap-server port <port-number>

Parameters

<port-number>	Number of the port.
---------------	---------------------

Usage

The **no** command option disables this setting.

Example

```
amnesiac (config) # web soap-server port 1234
```

Related Topics

[“show web”](#)

web ssl cert generate

Generates a new SSL key and self-signed certificate.

Syntax

web ssl cert generate [key-size <size>] [country <string>] [email <address>] [locality <string>] [org <string>] [org-unit <string>] [state <string>] [valid-days <duration>]

Parameters

key-size <size>	Specifies the key size in bits: 1024, 2048, 3072, or 4096.
country <string>	Specifies the certificate two-letter country code. The country code can be any two-letter code, such as the ISO 3166 Country Codes, as long as the appropriate Certificate Authority can verify the code.
email <address>	Specifies the email address of the contact person.
locality <string>	Specifies the city.
org <string>	Specifies the organization.
org-unit <string>	Specifies the organization unit (for example, the company).
state <string>	Specifies the state. You cannot use abbreviations.
valid-days <duration>	Specifies how many days the certificate is valid. If you omit valid-days , the default is 2 years.

Example

```
amnesiac (config) # web ssl cert generate
```

Related Topics

[“show web ssl cert”](#)

web ssl cert generate-csr

Generates a certificate signing request with the current private key.

Syntax

```
web ssl cert generate-csr [common-name <name>] [country <string>] [email <address>] [locality <string>] [org <string>] [org-unit <string>] [state <string>]
```

Parameters

common-name <name>	Specifies the common name of the certificate authority.
country <string>	Specifies the certificate two-letter country code. The country code can be any two-letter code, such as the ISO 3166 Country Codes, as long as the appropriate Certificate Authority can verify the code.
email <email address>	Specifies the email address of the contact person.
locality <string>	Specifies the city.
org <string>	Specifies the organization.
org-unit <string>	Specifies the organization unit (for example, the company).
state <string>	Specifies the state. You cannot use abbreviations.

Example

```
amnesiac (config) # web ssl cert generate-csr
```

Related Topics

[“show web ssl cert”](#)

web ssl cert import-cert

Imports a certificate, optionally with current private key, in PEM format, and optionally a password.

Syntax

```
web ssl cert import-cert <cert-data> [import-key <key>] [password <password>]
```

Parameters

import-cert <cert-data>	Specifies a certificate file in PEM format.
import-key <key>	Specifies a private key in PEM format.
password <password>	Specifies a password.

Usage

If no key is specified, the incoming certificate is matched with the existing private key and accepted if the two match. A password is required if imported certificate data is encrypted.

Example

```
amnesiac (config) # web ssl cert import-cert mydata.pem import-key mykey
```

Related Topics

[“show web ssl cert”](#)

web ssl cert import-cert-key

Imports a certificate with current private key in PEM format.

Syntax

```
web ssl cert import-cert-key <cert-key-data> [password <password>]
```

Parameters

<cert-key-data>	Private key and certificate file in PEM format.
password <password>	Specifies a password.

Example

```
amnesiac (config) # web ssl cert import-cert-key mykey
```

Related Topics

[“show web ssl cert”](#)

web ssl protocol

Sets the protocols for Apache to use.

Syntax

```
[no] web ssl protocol {ssl v3 | tlsv1 | tlsv1.1 | tlsv1.2}
```

Parameters

ssl v3	Sets the SSL v3 protocols for Apache to use.
tlsv1	Sets the TLSV v1 protocols for Apache to use.
tlsv1.1	Sets the TLSV v1.1 protocols for Apache to use.
tlsv1.2	Sets the TLSV v1.2 protocols for Apache to use.

Usage

The **no** command option disables this setting.

Example

```
amnesiac (config) # web ssl protocol tlsv1
```

Related Topics

[“show web”](#)

write memory

Saves the current configuration settings to memory.

Syntax

write memory

Parameters

None

Example

```
amnesiac (config) # write memory
```

Related Topics

[“show info”](#)

write terminal

Displays commands to re-create the current running configuration.

Syntax

write terminal

Parameters

None

Example

```
amnesiac (config) # write terminal
```

Related Topics

[“show info”](#)

SteelFusion Core Commands

This section describes the Core system commands. You can use the command line to perform basic configuration tasks, display configuration information, and check status.

device-failover activate

Activates the high-availability configuration for the current Core.

Syntax

device-failover activate

Parameters

None

Usage

Use this command to activate the configuration on the Core. Activating the configuration is required when both Cores in a high availability setup were down and one of them has recently recovered. Manual activation of a configuration is required as the Core cannot detect an active high availability peer.

Note: If both Cores have restarted and require manual activation, it is important that you activate the correct Core, as the other appliance will obtain its configuration from the Core that you choose.

Example

```
Core_02 (config) # device-failover activate
```

Product

SteelFusion Core

Related Topics

[“device-failover peer-config activate,”](#) [“show device-failover \(Core\)”](#)

device-failover peer set (Core)

Sets the failover peer configuration. You configure the local interface parameters in pairs.

Syntax

```
device-failover peer set <peer-ip> [local-if <local-interface>] additional-ip <additional-ip> [local-if2 <local-interface2>]
```

Parameters

<peer-ip>	IP address of the failover peer appliance.
local-if <local-interface>	Specifies the local interface for connecting with the failover peer appliance IP.
additional-ip <additional-ip>	Specifies an additional IP address for the failover peer appliance.
local-if2 <local-interface2>	Specifies an additional local interface for connecting with the failover peer appliance IP.

Usage

Use this command to enable two Cores to be configured so that either one can fail without disrupting the service of any of the LUNs being provided by SteelFusion.

Example

```
Core_02 (config) # device-failover peer set 10.1.1.1 local-if eth0_0 additional-ip 10.2.1.1
```

Product

SteelFusion Core

Related Topics

[“device-failover peer-config activate,”](#) [“show device-failover \(Core\)”](#)

device-failover peer clear (Core)

Clears the failover peer configuration for the current Core.

Syntax**device-failover peer clear****Parameters**

None

Usage

This command is used to properly deactivate high availability between two Cores.

To remove a high-availability configuration between two Cores (Core 01 and Core 02, for the purposes of this example), use the following commands in the listed sequence:

1. On Core 02, stop the Core service using the **no service enable** command.
2. On Core 01, run [“device-failover peer clear \(Core\)”](#) to clear the local failover configuration.
3. On Core 02, run [“device-failover self-config activate”](#) to return the appliance to solo mode.
4. Enable Core 02 and run [“device-failover peer clear \(Core\)”](#) to clear the local failover configuration.

Example

```
Core 02 (config) # device-failover peer clear
Core 02 (config) # show device-failover
```

Product

SteelFusion Core

Related Topics[“show device-failover \(Core\)”](#)

device-failover peer-config activate

Forces Core to start serving the failover peer’s LUNs in case of failure.

Syntax**device-failover peer-config activate****Parameters**

None

Usage

Use this command to enable two Cores to be configured so that either one can fail without disrupting the service of any of the LUNs being provided by SteelFusion.

Example

```
Core_02 (config) # device-failover peer-config activate
```

Product

SteelFusion Core

Related Topics[“device-failover peer clear \(Core\),” “device-failover peer set \(Core\),” “device-failover peer-config activate,” “show device-failover \(Core\)”](#)

device-failover self-config activate

Forces Core to start serving its own LUNs in case of failure of the peer device.

Syntax**device-failover self-config activate**

Parameters

None

Usage

Use this command to enable two Cores to be configured so that either one can fail without disrupting the service of any of the LUNs being provided by SteelFusion.

Example

```
Core_02 (config) # device-failover self-config activate
```

Product

SteelFusion Core

Related Topics

[“device-failover peer clear \(Core\),” “device-failover peer set \(Core\),” “device-failover peer-config activate,” “show device-failover \(Core\)”](#)

device-failover peerip

Adds or removes the specified IP address to or from the failover configuration.

Syntax

```
device-failover peerip {add <peer-ip> [local-if <local-interface>] | remove <peer-ip>}
```

Parameters

add <peer-ip>	Specifies the IP address of the failover peer.
local-if <local-interface>	Specifies the local interface for connecting with the failover peer.
remove <peer-ip>	Specifies the IP address of the peer to be removed from the failover configuration.

Usage

Use this command to modify the IP address of the failover peer. First remove the existing setting and then add the new value.

Example

```
Core_02 (config) # device-failover peerip remove 10.1.1.1
Core_02 (config) # device-failover peerip add 10.1.1.2
```

Product

SteelFusion Core

Related Topics

[“device-failover peer set \(Core\),” “device-failover peer clear \(Core\),” “device-failover peer-config activate,” “show device-failover \(Core\)”](#)

edge add id

Adds an Edge to the running Core configuration.

Syntax

```
[failover-peer] edge add id <id>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.

Usage

Use this command to add an Edge to the current Core configuration. Each Edge is configured with a unique self-identifier (which is configured through the Edge).

All **failover-peer edge** commands enable you to configure an unavailable Core through its failover peer. When the intended Core becomes operational, the new configuration is added automatically.

Example

```
Core_01 (config) # edge add id BranchEdge001
Core_02 (config) # failover-peer edge add id Edge3
```

Product

SteelFusion Core

Related Topics

[“show edge,” “show storage iscsi”](#)

edge id blockstore enc-type

Configures the blockstore for the specified Edge.

Syntax

```
[failover-peer] edge id <id> blockstore enc-type <enc-type>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
<enc-type>	Set the blockstore encryption type: <ul style="list-style-type: none"> • NONE - No blockstore encryption. • AES_128 - Encrypt blockstore with AES 128-bit key. • AES_192 - Encrypt blockstore with AES 192-bit key. • AES_256 - Encrypt blockstore with AES 256-bit key.

Example

```
Core_01 (config) # edge id Branch006a blockstore enc-type AES_128
Core_02 (config) # failover-peer edge id Edge1 blockstore enc-type AES_128
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id blockstore uncommitted

Sets alarms to be triggered if uncommitted blockstore data exceeds specified thresholds.

Syntax

[failover-peer] edge id <id> blockstore uncommitted [trigger-pct <percentage>] [repeat-pct <percentage>] [repeat-interval <interval>]

Usage

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
trigger-pct <percentage>	Triggers the alarm if the percentage of uncommitted data exceeds the specified threshold.
repeat-pct <percentage>	Repeatedly triggers the alarm if the percentage of uncommitted data increases from a previous triggered value by more than the specified percentage.
repeat-interval <interval>	Repeatedly triggers the uncommitted data alarm at periodic time intervals until the percentage of uncommitted data falls below the clear threshold limit.

Example

```
Core 03 (config) # edge id Edge2 blockstore uncommitted trigger-pct 50 repeat-pct 25
Core 03 (config) # failover-peer edge id Edge3 blockstore uncommitted trigger-pct 50 repeat-pct 25
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id iscsi data-digest

Includes or excludes the data digest data in the iSCSI packet for the specified Edge.

Syntax

[failover-peer] edge id <id> iscsi data-digest {enable | disable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
enable	Includes the data digest in the iSCSI packet in communications with the specified Edge.
disable	Excludes the data digest from the iSCSI packet in communications with the specified Edge.

Usage

All **failover-peer** **edge** commands enable you to configure an unavailable Core through its failover peer. When the intended Core becomes operational, the new configuration is added automatically.

Example

```
Core_01 (config) # edge id branch-009a iscsi data-digest disable
Core_01 (config) # edge id branch-009a iscsi data-digest enable

Core_02 (config) # failover-peer edge id Edge1 iscsi data-digest disable
Core_02 (config) # failover-peer edge id Edge1 iscsi data-digest enable
```

Product

SteelFusion Core

Related Topics

[“show edge,” “storage iscsi data-digest”](#)

edge id iscsi header-digest

Includes or excludes the header digest in the iSCSI packet for the specified Edge.

Syntax

[failover-peer] edge id <id> iscsi header-digest {enable | disable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
enable	Includes the header digest in the iSCSI packet in communications with the specified Edge.
disable	Excludes the header digest from the iSCSI packet in communications with the specified Edge.

Usage

The header digest can help to identify, reject, or request retransmission of a corrupt Protocol Data Unit (PDU).

All **failover-peer edge** commands enable you to configure an unavailable Core through its failover peer. When the intended Core becomes operational, the new configuration is added automatically.

Example

```
Core_01 (config) # edge id branch-009a iscsi header-digest disable
Core_01 (config) # edge id branch-009a iscsi header-digest enable

Core_02 (config) # failover-peer edge id Edge1 iscsi header-digest disable
Core_02 (config) # failover-peer edge id Edge1 iscsi header-digest enable
```

Product

SteelFusion Core

Related Topics

[“show edge,” “storage iscsi header-digest”](#)

edge id iscsi initiator add

Adds an iSCSI initiator to the specified Edge.

Syntax

[failover-peer] edge id <id> iscsi initiator add <name> auth {CHAP chap-user <name> | None} [mutual-chap <name>]}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
<name>	Name of the iSCSI initiator to add.
auth	Specify one of the following authentication options: <ul style="list-style-type: none"> • CHAP chap-user <name> - Enables CHAP and specifies the CHAP username. You must specify an existing CHAP user. • None - No authentication.
mutual-chap <name>	Specifies the new value for the mutual CHAP user.

Example

```
Core_01 (config) # edge id Branch006a iscsi initiator add ign.1991-05.com.microsoft:jshmoe-
win7.wannabe.com CHAP chap-user Chap13NYC
```

```
Core_02 (config) # failover-peer edge id Edge1 iscsi initiator add ign.1991-05.com.microsoft:jshmoe-
win7.wannabe.com CHAP chap-user Chap13NYC
```

Product

SteelFusion Core

Related Topics

[“edge id iscsi initiator modify,”](#) [“edge id iscsi initiator remove,”](#) [“show edge”](#)

edge id iscsi initiator modify

Modifies the authorization configuration of an existing iSCSI initiator credential in the specified Edge.

Syntax

```
[failover-peer] edge id <id> iscsi initiator modify <name> auth {CHAP chap-user <chap-user> | None} [mutual-
chap <name>]}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
<name>	Name of the iSCSI initiator to modify.
auth	Specify one of the following authentication options: <ul style="list-style-type: none"> • CHAP chap-user <name> - Enables CHAP and specifies the CHAP username. You must specify an existing CHAP user. • None - No authentication.
mutual-chap <name>	Specifies the new value for the mutual CHAP user.

Usage

Use this command to modify the CHAP authorization settings for the specified iSCSI initiator credential at the specified Edge.

All **failover-peer edge** commands enable you to configure an unavailable Core through its failover peer. When the intended Core becomes operational, the new configuration is added automatically.

Example

```
Core_01 (config) # edge id Branch006a iscsi initiator modify ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com auth CHAP chap-user Chap13NYC
Core_02 (config) # failover-peer edge id Edge1 iscsi initiator modify ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com auth CHAP chap-user Chap13NYC
```

Product

SteelFusion Core

Related Topics

[“edge id iscsi initiator add,”](#) [“edge id iscsi initiator remove,”](#) [“show edge”](#)

edge id iscsi initiator remove

Removes the specified iSCSI initiator credential from the specified Edge configuration.

Syntax

```
[failover-peer] edge id <id> iscsi initiator remove <name>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
<name>	Specifies the iSCSI initiator credential to be removed.

Usage

All **failover-peer edge** commands enable you to configure an unavailable Core through its failover peer. When the Core returns to service, the new configuration is added automatically.

Consider the following example: Core1 and Core2 are configured as failover peers. Edge1 is linked to Core1. You want to remove an iSCSI initiator credential from the Edge1 configuration. However, Core1 is down but Core2 is operational. On Core2, run the following command:

```
failover-peer edge id Edge1 iscsi initiator remove ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com
```

When Core1 resumes operation, the Edge1 configuration changes are added to its configuration.

Example

```
Core_01 (config) # edge id Branch006a iscsi initiator remove ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com
```

```
Core_02 (config) # failover-peer edge id Edge1 iscsi initiator remove ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com
```

Product

SteelFusion Core

Related Topics

[“edge id iscsi initiator modify,” “show edge”](#)

edge id iscsi initiator-group

Creates or deletes an iSCSI initiator group for the specified Edge.

Syntax

```
[failover-peer] edge id <id> iscsi initiator-group {create | delete} <name>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
create <name>	Creates the specified iSCSI initiator group.
delete <name>	Deletes the specified iSCSI initiator group.

Example

```
Core_01 (config) # edge id Branch006a iscsi initiator-group create defaultiGroup
```

```
Core_02 (config) # failover-peer edge id Branch006a iscsi initiator-group create defaultiGroup
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id iscsi initiator-group modify

Modifies the iSCSI initiator group in the specified Edge by adding or removing an iSCSI initiator credential.

Syntax

```
[failover-peer] edge id <id> iscsi initiator-group modify <group-name> initiator {add | remove} <name>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
<group-name>	Specify the iSCSI initiator group to be modified.
add <name>	Adds the specified iSCSI initiator credential to the group.
remove <name>	Adds the specified iSCSI initiator credential to the group.

Example

```
Core_01 (config) # edge id Branch006a iscsi initiator-group modify defaultiGroup initiator add
ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com
```

```
Core_02 (config) # failover-peer edge id Branch006a iscsi initiator-group modify defaultiGroup
initiator add ign.1991-05.com.microsoft:jshmoe-win7.wannabe.com
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id iscsi target modify-name

Modifies the target name setting in the specified Edge.

Syntax

```
[failover-peer] edge id <id> iscsi target modify-name <target-name>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
<target-name>	New value for the target name.

Example

```
Core_01 (config) # edge id Edge1 iscsi target modify-name ign.2003-10.com.hoosgau:432716056
```

```
Core_02 (config) # failover-peer edge id Edge1 iscsi target modify-name ign.2003-
10.com.hoosgau:432716056
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id iscsi target security-only

Configures the iSCSI target on the specified Edge to accept either secured or unsecured initiator authentication.

Syntax

[failover-peer] edge id <id> iscsi target security-only {enable | disable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
id <id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
enable	Enables the specified Edge to accept only secured initiator authentication.
disable	Enables the specified Edge to accept unsecured initiator authentication.

Example

```
Core_01 (config) # edge id 10.1.2.3 iscsi target security-only enable
Core_02 (config) # failover-peer edge id 10.1.2.3 iscsi target security-only enable
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id prepop schedule add

Adds a new prepopulation schedule for the specified Edge.

Syntax

[failover-peer] edge id <id> prepop schedule add sched-name <sched-name> start-week-day <start-week-day> start-time <start-time> stop-week-day <stop-week-day> stop-time <stop-time>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9 , a to z , A to Z , . , and - .
sched-name <sched-name>	Specifies the name of the prepopulation schedule.
start-week-day <start-week-day>	Specifies the start day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
start-time <start-time>	Specifies the start time for the schedule. Use the format hh:mm:ss.
stop-week-day <stop-week-day>	Specifies the stop day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
stop-time <stop-time>	Specifies the stop time for the schedule. Use the format hh:mm:ss.

Example

```
Core_01 (config) # edge id Branch006a prepop schedule add sched-name WeeklySynch start-week-day mon
start-time 00:01:00 stop-week-day mon stop-time 03:01:00
Core_02 (config) # failover-peer edge id Branch006a prepop schedule add sched-name WeeklySynch
start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
```

Product

SteelFusion Core

Related Topics[“show edge”](#)

edge id prepop schedule modify

Modifies the settings of the specified prepopulation schedule on the specified Edge.

Syntax

[failover-peer] edge id <id> prepop schedule modify sched-name <sched-name> start-week-day <start-week-day> start-time <start-time> stop-week-day <stop-week-day> stop-time <stop-time>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
sched-name <sched-name>	Specifies a modified name of the prepopulation schedule.
start-week-day <start-week-day>	Specifies a modified start day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
start-time <start-time>	Specifies a modified start time for the schedule. Use the format hh:mm:ss.
stop-week-day <stop-week-day>	Specifies a modified stop day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
stop-time <stop-time>	Specifies a modified stop time for the schedule. Use the format hh:mm:ss.

Example

```
Core_01 (config) # edge id Branch006a prepop schedule modify sched-name MondaySynch start-week-day
mon start-time 00:02:00 stop-week-day mon stop-time 03:02:00
Core_02 (config) # failover-peer edge id Branch006a prepop schedule modify sched-name MondaySynch
start-week-day mon start-time 00:02:00 stop-week-day mon stop-time 03:02:00
```

Product

SteelFusion Core

Related Topics[“show edge”](#)

edge id prepop schedule remove

Removes the specified new prepopulation schedule from the specified SteelFusion Edge.

Syntax

[failover-peer] edge id <id> prepop schedule remove sched-name <sched-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
sched-name <sched-name>	Specifies the name of the prepopulation schedule to be removed.

Example

```
Core_01 (config) # edge id Branch006a prepop schedule remove sched-name MondaySynch
Core_02 (config) # failover-peer edge id Branch006a prepop schedule remove sched-name MondaySynch
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge id virtual-ip

Adds or removes a virtual IP address configuration for the specified Edge.

Syntax

```
[failover-peer] edge id <id> virtual-ip {add | remove} <ip-address>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
<ip-address>	Specifies the IP address to be configured for the specified Edge.
remove <address>	Specifies the virtual IP address to be removed from the configuration.

Example

```
Core_01 (config) # edge id Branch006a virtual-ip add 10.0.0.2
Core_02 (config) # failover-peer edge id Branch006a virtual-ip add 10.0.0.2
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge modify id branch-recovery clear

Clears the branch recovery state for all LUNs mapped to the Edge.

Syntax

```
[failover-peer] edge modify id <id> branch-recovery clear
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.

Example

```
Core_01 (config) # edge modify id Branch006a branch-recovery clear
Core_02 (config) # failover-peer edge modify id Branch006a branch-recovery clear
```

Product

SteelFusion Core

Related Topics

[“storage lun modify branch-recovery,” “show storage lun”](#)

edge modify id clear-serial

Clears the saved serial value for the Edge so that it can be replaced. This command is meant to be used while replacing an Edge in a non-HA configuration.

Syntax

[failover-peer] edge modify id <id> clear-serial

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.

Usage

You should run this command on the Core first, and then add the Core on the replacement Edge.

Example

```
Core_01 (config) # edge modify id Branch006a clear-serial
Core_02 (config) # failover-peer edge modify id Branch006a clear-serial
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge modify id serialize-snap enable**Syntax**

[failover-peer] edge modify id <id> serialize-snap enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge to which the configuration is to be pushed. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, . , and - .

Example

```
Core_01 (config) # edge modify id Branch006a -snap enable
Core_02 (config) # failover-peer edge modify id Branch006a -snap enable
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge modify preferred-if

Sets the preferred interface on the Core for Edge connections.

Syntax

```
[failover-peer] edge modify preferred-if {add | remove} <preferred-if>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
add <interface>	Adds the specified interface to the Edge configuration.
remove <interface>	Removes the specified interface from the Edge configuration.
<preferred-if>	Preferred interface for Edge connections.

Usage

Use this command for high availability deployments.

In the event of a failover event, this setting ensures that the Edges will connect to the Core failover peer.

For redundancy, add multiple interfaces in the order of preference.

Example

```
Core_01 (config) # edge modify preferred-if add aux
Core_02 (config) # failover-peer edge modify preferred-if add aux
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

edge remove id

Removes the specified Edge from the Core configuration.

Syntax

```
[failover-peer] edge remove id <id>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Specify the Edge identifier to be removed. This value is case sensitive and limited to the following characters: 0 through 9, a through z, A through Z, ., and -.

Example

```
Core_01 (config) # edge remove id Branch006a
Core_02 (config) # failover-peer edge remove id Branch006a
```

Product

SteelFusion Core

Related Topics

[“show edge”](#)

storage block-disk

Configures block-disk settings.

Syntax

```
[failover-peer] storage block-disk [io-timeout <seconds> | post-scan-sleep <seconds> | read-pending <bytes> | write-pending <bytes>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
io-timeout <seconds>	Specifies the SG I/O timeout value in seconds.
post-scan-sleep <seconds>	Specifies the sleep time in seconds before scanning for new local disks available for discovery.
read-pending <bytes>	Specifies the maximum number of bytes allowed pending a read operation.
write-pending <bytes>	Specifies the maximum number of bytes allowed pending a write operation.

Example

```
Core_02 (config) # storage block-disk post-scan-sleep 20
```

Product

SteelFusion Core

Related Topics

[“storage block-disk rescan,”](#) [“storage block-disk scan enable”](#)

storage block-disk rescan

Rescans for new local disks available for discovery.

Syntax

```
storage block-disk rescan [full]
```

Parameters

full	Performs a full rescan.
-------------	-------------------------

Example

```
Core_01 (config) # storage block-disk rescan
```

Product

SteelFusion Core

Related Topics

[“storage host-info add,”](#) [“storage host-info modify,”](#) [“storage host-info remove”](#)

storage block-disk scan enable

Enables block-device scanning.

Syntax

[failover-peer] storage block-disk scan enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```
Core_01 (config) # storage block-disk scan enable
```

Product

SteelFusion Core

Related Topics

[“storage block-disk rescan,”](#) [“storage block-disk”](#)

storage coredr clear

Clears the existing data center replication setup. This command is only available from the primary data center, and only permitted if the secondary data center is connected. When high-availability is configured, this command is only permitted on the primary data center leader. For more information about leader and follower roles, see the *SteelFusion Core Management Console User's Guide*.

Syntax

storage coredr clear

Parameters

None

Usage

This command is part of a workflow for terminating disaster recovery on the Core:

1. Use the [“storage coredr lun remove-replica”](#) command to unmap each replica LUN from the secondary data center before proceeding.
2. Use the [“storage coredr clear”](#) command.
3. Use the [“storage coredr edge”](#) command to stop replication on the Edges.
4. Use the [“show storage coredr edge”](#) command to verify that replication is stopped. If "Peer Site ID" is shown as "Not Configured", you have stopped replication successfully.
5. Use the [“storage coredr clear-params”](#) command to completely remove disaster recovery settings.

Example

```
amnesiac (config) # storage coredr clear
```

Product

SteelFusion Core

Related Topics

[“storage coredr clear-params,”](#) [“storage coredr lun remove-replica,”](#) [“storage coredr edge,”](#) [“storage coredr setup peer”](#)

storage coredr clear-params

Clears the previously set parameters for replication, such as data center name, journal LUN, and replication interface.

Syntax

storage coredr clear-params

Parameters

None

Usage

After you terminate the replication configuration, use this command to clear the configured disaster recovery parameters.

Example

```
amnesiac (config) # storage coredr clear-params
```

Product

SteelFusion Core

Related Topics

[“storage coredr set-params,”](#) [“storage coredr clear”](#)

storage coredr edge

Starts or stops replication for the LUNs on the specified Edge.

Syntax

[failover-peer] storage coredr edge <id> {start | stop}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<id>	Self-identifier of the Edge you want to start or stop. This value is case sensitive and limited to the following characters: 0 to 9, a to z, A to Z, ., and -.
start	Starts replication on the specified Edge.
stop	Stops replication on the specified Edge.

Usage

Use this command as a first step to stopping replication and clearing the existing configuration.

Product

SteelFusion Core

Example

```
amnesiac (config)# > storage coredr edge Edge01NYC start
```

Related Topics

[“storage coredr clear,” “storage coredr lun remove-replica,” “storage coredr lun replicate-to,” “show storage coredr edge”](#)

storage coredr failover

Initiates failover to a secondary data center if the primary data center goes down. After failover, writes from the Edges will be committed to the new primary data center storage array and will also be journaled. When the original primary data center recovers and the connections between data centers are reestablished, the original primary data center will automatically take the role of secondary data center and replication to the new secondary data center is automatically resumed.

Syntax

storage coredr failover

Parameters

None

Usage

You must enter this command from the secondary data center Core.

To verify that failover was successful, use the [“show storage coredr settings”](#) command from the secondary Core. The Core’s Site Role should now show as “Primary”.

Example

```
amnesiac (config) # storage coredr failover
```

Product

SteelFusion Core

Related Topics

[“show storage coredr edge,” “storage coredr replication suspend”](#)

storage coredr interface

Adds or removes an interface for replication.

Syntax

storage coredr interface {add | remove} <interface-name>

Parameters

add	Adds the specified interface for replication.
remove	Removes the specified interface for replication.
<interface-name>	Interface to be used for replication.

Usage

Use the **storage coredr interface add** command to add an interface for replication between disaster recovery sites. Additional interfaces provide extra redundancy for the connection.

Use the **storage coredr interface remove** command to remove an interface from being used for replication. This is useful if the connection on the particular interface is down or if the interface itself becomes faulty.

Product

SteelFusion Core

Example

```
amnesiac (config) # storage coredr interface add eth0_0
```

Related Topics

[“storage coredr set-params,”](#) [“storage coredr clear-params”](#)

storage coredr lun remove-replica

Removes the specified replicated LUN from the configuration.

Syntax

```
[failover-peer] storage coredr lun {alias <lun-alias> | site-serial <lun-serial>} remove-replica
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <lun-alias>	Specifies the alias for the LUN.
site-serial <lun-serial>	Specifies the serial number for the LUN.

Usage

Use this command when you no longer want to replicate a LUN to the secondary data center.

Before using this command, you must stop replication on the Edge where the specified LUN is mapped.

Example

```
Core01 # storage coredr lun serial ORIG12P5D remove-replica
Core02 # failover-peer storage coredr lun alias ORIG12P5D remove-replica
```

Product

SteelFusion Core

Related Topics

[“storage coredr lun replicate-to”](#)

storage coredr lun replicate-to

Creates a copy of existing data on the primary data center and transfers it to a replica LUN on the secondary data center.

Syntax

```
[failover-peer] storage coredr lun {alias <lun-alias> | site-serial <lun-serial>} replicate-to <secondary-lun-serial>
[first-sync {full | none}]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <lun-alias>	Specify the alias for the replicable LUN.
site-serial <lun-serial>	Specify the site-specific serial number for the LUN.
<secondary-lun-serial>	Specify the serial number of the LUN at the secondary data center.
first-sync	<p>Configure the first-sync type for the replication between the primary and replica LUNs.</p> <ul style="list-style-type: none"> • full - Block-by-block replication that can take longer, depending on the size of the LUN. • none - Does not synchronize between data centers. Use this option if the LUNs are already block-for-block identical in both data centers, i.e. the LUNs are empty or unformatted. <p>Note: It is important that only SteelFusion has access to the data center LUNs in order to ensure block-for-block consistency between the primary and secondary data centers.</p>

Usage

After you have set up the witness using the [“storage coredr witness set”](#) command, use [“storage coredr lun replicate-to”](#) (this command) to set up the replica LUNs and start the first sync.

Replica LUNs should be equal in size or larger than the primary LUNs; however, some storage arrays do not allocate exact sizes. For this reason, Core will allow a small size leeway for the replica LUN. Possible candidates for replicas are auto-completed and displayed.

To view a list of primary and replica LUNs and their serial numbers on each data center, use the [“show storage coredr edge”](#) command.

Example

```
Core02 # failover-peer storage coredr lun alias lun1 replicate-to P3KRP50GDleg first-sync none
Core01 # storage coredr lun site-serial P3KRP50GDleg replicate-to P3KRP4zabEvw first-sync full
```

Product

SteelFusion Core

Related Topics

[“storage coredr lun remove-replica,”](#) [“show storage coredr replica size-leeway,”](#) [“show storage coredr edge”](#)

storage coredr replication resume

Resumes replication. When replication is resumed, the journaled writes will be re-synced to the secondary data center.

Syntax

```
[failover-peer] storage coredr replication resume
```

Parameters

failover-peer	Perform the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
resume	Resumes replication on the current Core.

Usage

When the WAN connection is recovered between disaster recovery sites, use this command to restart replication between the data centers.

Example

```
Core02 # failover-peer storage coredr replication resume
```

Product

SteelFusion Core

Related Topics

[“storage coredr replication suspend”](#)

storage coredr replication suspend

Suspends replication. During a planned or extended WAN failure, suspending replication will allow Edge writes to be committed to the primary data center storage array without being replicated to the secondary data center. This will prevent overfilling the blockstore on the Edge. Writes will be journaled when replication is suspended.

Syntax

```
[failover-peer] storage coredr replication suspend
```

Parameters

failover-peer	Perform the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	---

Usage

Use this command during a planned or extended WAN failure when the connection between disaster recovery sites is down. While the data center is down, this command allows Edge writes to be committed to the primary data center storage backend.

Example

```
Core01 # storage coredr replication suspend
```

Product

SteelFusion Core

Related Topics

[“storage coredr replication resume”](#)

storage coredr set-params

Sets the parameters for disaster recovery in the primary or secondary data center.

Syntax

```
storage coredr set-params {primary | secondary} site <site-id> journal-lun <journal-lun> interface <interface-name>
```


Parameters

primary	Sets disaster recovery parameters for the primary data center.
secondary	Sets disaster recovery parameters for the secondary data center.
site <site-id>	Specifies the site ID for the primary or secondary data center.
journal-lun <journal-lun>	Specifies the serial number for the journal LUN that you created on the storage array. For more information about journal LUNs and configuring replication, see the <i>SteelFusion Core Management Console User's Guide</i> .
interface <interface-name>	Specifies the interface for replication use. Riverbed recommends that you use different replication interfaces for each data center; however, if you have two Cores that are set up for high availability, assign the same interface to both.

Usage

This command is part of a workflow for configuring disaster recovery on the Core:

1. Use the [“storage coreclr set-params”](#) (the current command) to specify the roles and parameters of the primary and secondary data centers. To review these parameters before continuing, use the [“show storage coreclr settings”](#) command.
2. On the secondary data center Core, use the [“storage coreclr setup peer”](#) command to peer the two data centers together. To confirm that you have successfully peered the Cores before continuing, use the [“show storage coreclr settings”](#) command.
3. Use the [“storage coreclr witness set”](#) command to set up the Witness Edge.
4. Use the [“storage coreclr lun replicate-to”](#) command to map the replica LUNs and start first sync.

Example

```
amnesiac (config) # storage coreclr set-params secondary site NYC journal-lun P3KRP53Wrqqy interface eth0_0
```

Product

SteelFusion Core

Related Topics

[“storage coreclr setup peer”](#)

storage coreclr setup peer

Enables the secondary data center to communicate with the primary data center.

Syntax

```
storage coreclr setup peer <secondary-ip> site <secondary-site-id>
```

Parameters

secondary-ip	IP address for the secondary data center.
secondary-site-id	Site ID for the secondary data center.

Usage

After you have specified the roles of the primary and secondary data center using the [“storage coreclr set-params”](#) command, you will use [“storage coreclr setup peer”](#) (this command) from the primary data center to peer the Cores with one another.

Example

```
amnesiac (config) # storage coreclr setup peer 10.5.123.122 site site2
```

Product

SteelFusion Core

Related Topics

[“storage coredr set-params,”](#) [“storage coredr witness set”](#)

storage coredr witness set

Sets up the witness Edge for disaster recovery. The witness monitors the state of both the primary and secondary Cores. If both Cores are in a state where failover is not possible (due to failed configuration synchronization, etc.), the witness will report that failover is not ready and will not succeed.

Syntax

storage coredr witness set <edge-id>

Parameters

<edge-id>	Specifies the IP address for the Edge that will serve as the witness.
------------------------	---

Usage

After you have peered the Cores together using the [“storage coredr setup peer”](#) command, you will use [“storage coredr witness set”](#) (this command) to set up the witness.

Example

```
amnesiac (config) # storage coredr witness set Edge01NYC
```

Product

SteelFusion Core

Related Topics

[“storage coredr setup peer,”](#) [“storage coredr lun replicate-to”](#)

storage host-info add

Adds a new host configuration for snapshot operations.

Syntax

[failover-peer] storage host-info add host <hostname> username <username> password <password> host-type <host-type>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
hostname	Specifies the hostname or IP address.
username	Creates the required username.
password	Creates the required password.
host-type	Specifies the host type.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the [“storage host-info add”](#) (the current command) or [“storage host-info modify”](#) command to configure one or more proxy hosts for the snapshots.
- Use the [“storage lun modify client-type”](#) command to specify the LUN client type as Windows or VMware.
- Enable and configure application-consistent snapshots:
 - [“storage lun modify snapshot-config clear-host”](#)

- “storage lun modify snapshot-config app-consistent”
- Enable and configure data protection:
 - “storage lun modify snapshot host”
 - “storage lun modify snapshot-config proxy-backup”
- Enable and configure the snapshot schedule:
 - “storage lun modify scheduled-snaps”
 - “storage lun modify scheduled-snaps add”

Example

```
Core_01 (config) # storage host-info add host SAN-14
Core_02 (config) # failover-peer storage host-info add host SAN-14
```

Product

SteelFusion Core

Related Topics

“storage host-info modify,” “storage host-info remove”

storage host-info modify

Modifies an existing host configuration for snapshot operations.

Syntax

[failover-peer] storage host-info modify host <hostname> [username <username> password <password>] [host-type <host-type>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
hostname	Specifies the hostname or IP address of the host whose configuration is to be modified.
username	Modifies the username.
password	Modifies the password.
host-type	Modifies the host type.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the “storage host-info add” or “storage host-info modify” command (the current command) to configure one or more proxy hosts for the snapshots.
- Use the “storage lun modify client-type” command to specify the LUN client type as Windows or VMware.
- Enable and configure application-consistent snapshots:
 - “storage lun modify snapshot-config clear-host”
 - “storage lun modify snapshot-config app-consistent”
- Enable and configure data protection:
 - “storage lun modify snapshot host”
 - “storage lun modify snapshot-config proxy-backup”
- Enable and configure the snapshot schedule:
 - “storage lun modify scheduled-snaps”

– “storage lun modify scheduled-snaps add”

Example

```
Core_01 (config) # storage host-info modify host SAN-14 username pilot62 password Sw3245e
Core_02 (config) # failover-peer storage host-info modify host SAN-14 username pilot62 password Sw3245e
```

Product

SteelFusion Core

Related Topics

“storage host-info remove”

storage host-info remove

Removes the specified snapshot host configuration.

Syntax

[failover-peer] storage host-info remove host <hostname>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
hostname	Specifies the hostname or IP address of the host whose configuration is to be removed.

Example

```
Core_01 (config) # storage host-info remove host SAN-14
Core_02 (config) # failover-peer storage host-info remove host SAN-14
```

Product

SteelFusion Core

Related Topics

“storage host-info modify”, “storage host-info add”

storage iscsi chap add

Adds a CHAP user to the current storage configuration.

Syntax

[failover-peer] storage iscsi chap add username <username> password <password>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
username <username>	Specifies the username for CHAP authentication.
password <password>	Specifies the password for the new CHAP user.

Example

```
Core_01 (config) # storage iscsi chap add username DefaultChap password CHAPpw
Core_02 (config) # failover-peer storage iscsi chap add username DefaultChap password CHAPpw
```

Product

SteelFusion Core

Related Topics[“show storage iscsi”](#)

storage iscsi chap delete

Deletes the specified CHAP user from the current storage configuration.

Syntax

[failover-peer] storage iscsi chap delete username <username> [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
username <username>	Specifies the CHAP user to be deleted.
force	Forces deletion if the CHAP user is currently enabled.

Example

```
Core_01 (config) # storage iscsi chap delete username DefaultChap
Core_02 (config) # failover-peer storage iscsi chap delete username DefaultChap
```

Product

SteelFusion Core

Related Topics[“show storage iscsi”](#)

storage iscsi chap modify

Modifies the password of the specified CHAP user.

Syntax

[failover-peer] storage iscsi chap modify username <username> password <password>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
username <username>	Specifies the CHAP user whose password is to be modified.
password <password>	Specifies the new password for the CHAP user.

Example

```
Core_01 (config) # storage iscsi chap modify username DefaultChap password newCHAPpw
Core_02 (config) # failover-peer storage iscsi chap modify username DefaultChap password newCHAPpw
```

Product

SteelFusion Core

Related Topics[“show storage iscsi”](#)

storage iscsi chap username

Enables or disables the specified CHAP user.

Syntax

[failover-peer] storage iscsi chap username <name> {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<name>	Specifies the CHAP user to be enabled or disabled.
disable	Disables the specified CHAP user.
enable	Enables the specified CHAP user.

Usage

Run the “[show storage iscsi](#)” command to display whether or not the CHAP user is enabled. Disable or enable the CHAP user as needed.

Example

```
Core_01 (config) # storage iscsi chap username JoeyD disable
Core_02 (config) # failover-peer storage iscsi chap username JoeyD disable
```

Product

SteelFusion Core

Related Topics

“[show storage iscsi](#)”

storage iscsi data-digest

Includes or excludes the data digest in the iSCSI PDU.

Syntax

[failover-peer] storage iscsi data-digest {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
disable	Excludes the data digest from the iSCSI PDU.
enable	Includes the data digest in the iSCSI PDU.

Usage

The data digest can help to identify, reject, or request retransmission of a corrupt PDU.

Example

```
Core_01 (config) # storage iscsi data-digest disable
Core_01 (config) # storage iscsi data-digest enable

Core_02 (config) # failover-peer storage iscsi data-digest disable
Core_02 (config) # failover-peer storage iscsi data-digest enable
```

Product

SteelFusion Core

Related Topics[“edge id blockstore uncommitted,” “show storage iscsi”](#)

storage iscsi header-digest

Includes or excludes the header digest in or from the iSCSI PDU.

Syntax**[failover-peer] storage iscsi header-digest {enable | disable}****Parameters**

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
enable	Includes the header digest in the iSCSI PDU.
disable	Excludes the header digest from the iSCSI PDU.

Usage

The header digest can help to identify, reject, or request retransmission of a corrupt PDU.

Example

```
Core_01 (config) # storage iscsi header-digest disable
Core_01 (config) # storage iscsi header-digest enable
```

```
Core_02 (config) # failover-peer storage iscsi header-digest disable
Core_02 (config) # failover-peer storage iscsi header-digest enable
```

Product

SteelFusion Core

Related Topics[“edge id iscsi header-digest,” “show storage iscsi”](#)

storage iscsi initiator modify auth mutual-chap

Configures iSCSI initiator authentication mutual CHAP settings.

Syntax**[failover-peer] storage iscsi initiator modify auth mutual-chap {chap-user <name> | disable | enable}**

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
chap-user <name>	Specifies the mutual CHAP user. You must specify an existing CHAP user.
disable	Disables mutual CHAP authentication.
enable	Enables mutual CHAP authentication.

Usage

Use this command to:

- enable or disable mutual CHAP authentication for the iSCSI initiator configuration.
- specify the mutual CHAP user.

You can specify only existing CHAP users.

Example

```
Core_02 (config) # storage iscsi initiator modify auth mutual-chap chap-user existingCHAPUser
Core_02 (config) # storage iscsi initiator modify auth mutual-chap enable
```

Product

SteelFusion Core

Related Topics

[“storage iscsi initiator modify name,” “show storage iscsi”](#)

storage iscsi initiator modify name

Modifies the initiator name in the iSCSI initiator configuration.

Syntax

[failover-peer] storage iscsi initiator modify name <name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<name>	New initiator name for the iSCSI initiator configuration.

Example

```
Core_01 (config) # storage iscsi initiator modify name iqn.2003-10.com.hoosgow:werdna-initiator
Core_02 (config) # failover-peer storage iscsi initiator modify name iqn.2003-10.com.hoosgow:werdna-initiator
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi”](#)

storage iscsi mpio interface add

Adds the specified local interface for MPIO to the iSCSI initiator configuration.

Syntax

storage iscsi mpio interface add name <name>

Parameters

name <name>	Specify the local interface to be added.
-------------	--

Example

```
Core_01 (config) # storage iscsi mpio interface add name eth0_1
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface remove name,”](#) [“storage iscsi session mpio standard-routes,”](#) [“show storage iscsi mpio interfaces”](#)

storage iscsi mpio interface remove name

Removes the specified local interface for MPIO from the iSCSI initiator configuration.

Syntax

[failover-peer] storage iscsi mpio interface remove name <name> [all]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<name>	Local interface to be removed. To view a list of local interfaces configured for MPIO, use the “show storage iscsi mpio interfaces” command.
all	Removes all MPIO interfaces.

Example

```
Core_01 (config) # show storage iscsi mpio interfaces
Interfaces configured for MPIO
    eth0_2
    eth0_3
Core_01 (config) # storage iscsi mpio interface remove name eth0_2

Core_02 (config) # failover-peer storage iscsi mpio interface remove name eth0_2
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi disc-portals portal,”](#) [“storage iscsi session mpio standard-routes,”](#) [“storage iscsi mpio interface add”](#)

storage iscsi portal add host

Adds an iSCSI portal configuration to the iSCSI initiator configuration.

Syntax

[failover-peer] storage iscsi portal add host <hostname> [port <port-number>] auth {CHAP chap-user <name> | None}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Specifies the hostname of the iSCSI portal.
port <port-number>	Specifies a port number. The default is 3260.
auth	Specifies the authentication option: <ul style="list-style-type: none"> • CHAP chap-user <name> - Enables CHAP and specifies the CHAP username. You must specify an existing CHAP user. • None - No authentication.

Example

```
Core_01 (config) # storage iscsi portal add host 10.2.3.4 port 3260 auth CHAP chap-user JoeyD
Core_02 (config) # failover-peer storage iscsi portal add host 10.2.3.4 port 3260 auth CHAP chap-user JoeyD
```

Product

SteelFusion Core

Related Topics

[“storage iscsi portal host target add,” “storage iscsi portal host target modify,” “storage iscsi portal host target remove,” “storage iscsi portal modify host auth,” “storage iscsi portal modify host port,” “storage iscsi portal remove host”](#)

storage iscsi portal host disc-portal add

Manually adds a discovered portal IP address to the iSCSI portal configuration.

Syntax

```
[failover-peer] storage iscsi portal host <hostname> disc-portal add ip <ip-address> [port <port-number>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal configuration to which the additional IP address is to be added.
ip <ip-address>	IP address of the added, discovered portal.
[port <port-number>]	Specifies the discovered portal port number.

Usage

If you have enabled multi-path I/O (MPIO), this command enables you to add existing IP addresses available on the filer for connections with the Core.

MPIO enables a single iSCSI portal configuration to connect with the filer on multiple IP addresses.

Use the [“storage iscsi portal host rescan-portals”](#) command to discover portals on the specified iSCSI initiator.

Example

```
Core_01 (config) # storage iscsi portal host 123.45.6.789 add 132.45.6.780
Core_02 (config) # failover-peer storage iscsi portal host 123.45.6.789 add 132.45.6.780
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi disc-portals portal,”](#) [“storage iscsi portal host disc-portal modify,”](#) [“storage iscsi portal host disc-portal remove,”](#) [“storage iscsi portal host rescan-portals”](#)

storage iscsi portal host disc-portal modify

Modifies the ID and/or port settings of the specified portal host configuration.

Syntax

[failover-peer] storage iscsi portal host <hostname> disc-portal modify id <disc-portal> port <port-number>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal configuration that is to be modified.
id <disc-portal>	Specifies the new ID value for the specified portal host.
<port-number>	New port number for specified portal host.

Usage

This command is intended to be used for portals discovered for multi-path I/O (MPIO) configurations. MPIO enables a single iSCSI portal configuration to connect with the filer on multiple IP addresses.

Use the [“storage iscsi portal host rescan-portals”](#) command to discover portals on the specified iSCSI initiator portal.

Example

```
Core_01 (config) # storage iscsi portal host 123.45.6.789 disc-portal modify id principal port 3260
Core_02 (config) # failover-peer storage iscsi portal host 123.45.6.789 disc-portal modify id
principal port 3260
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi disc-portals portal”](#)

storage iscsi portal host disc-portal remove

Removes the specified discovered portal configuration from the iSCSI portal configuration.

Syntax

[failover-peer] storage iscsi portal host <hostname> disc-portal remove id <disc-portal>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal configuration to which the additional IP address is to be added.
id <disc-portal>	Specifies the IP address of the discovered portal to be removed from the iSCSI portal configuration.

Usage

This command is intended to be used for portals discovered for multi-path I/O (MPIO) configurations. MPIO enables a single iSCSI portal configuration to connect with the filer on multiple IP addresses.

Use the [“storage iscsi portal host rescan-portals”](#) command to discover portals on the specified iSCSI initiator portal.

Example

```
Core_01 (config) # storage iscsi portal host 123.45.6.789 disc-portal remove 132.45.6.780
Core_02 (config) # failover-peer storage iscsi portal host 123.45.6.789 disc-portal remove
132.45.6.780
```

Product

SteelFusion Core

Related Topics

[“show stats storage filer-iops,”](#) [“storage iscsi portal host disc-portal add,”](#) [“storage iscsi portal host disc-portal modify,”](#) [“storage iscsi portal host rescan-portals”](#)

storage iscsi portal host offline-luns

Takes offline all configured LUNs serviced by the specified portal.

Syntax

[failover-peer] storage iscsi portal host <hostname> offline-luns

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal.

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 offline-luns
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 offline-luns
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host disc-portal modify,”](#) [“storage iscsi portal host target modify”](#)

storage iscsi portal host rescan-luns

Rescans iSCSI targets associated with the specified portal.

Syntax

[failover-peer] storage iscsi portal host <hostname> rescan-luns {all | target name <name>}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Specify the IP address of the iSCSI portal.
all	Rescans all iSCSI targets associated with the specified portal.
target name <name>	Rescans only the specified target.

Usage

Use this command to ensure that recently configured iSCSI targets are added.

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 rescan all
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 rescan all
```

Product

SteelFusion Core

Related Topics

[“storage iscsi portal host rescan-targets”](#)

storage iscsi portal host rescan-portals

Rescans the specified iSCSI portal configuration for discoverable and available portals.

Syntax

```
[failover-peer] storage iscsi portal host <hostname> rescan-portals
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal configuration from which the discovered portal is to be removed.

Usage

After portals have been discovered, you can add them to the iSCSI portal configuration using the [“storage iscsi portal host disc-portal add”](#) command.

This command is intended to be used for portals discovered for multi-path I/O (MPIO) configurations. MPIO enables a single iSCSI portal configuration to connect with the filer on multiple IP addresses.

Example

```
Core_01 (config) # storage iscsi portal host 123.45.6.789 rescan-portals
Core_02 (config) # failover-peer storage iscsi portal host 123.45.6.789 rescan-portals
```

Product

SteelFusion Core

Related Topics

[“show stats storage filer-iops,”](#) [“storage iscsi portal host disc-portal add,”](#) [“storage iscsi portal host disc-portal remove,”](#) [“storage iscsi portal host disc-portal modify,”](#)

storage iscsi portal host rescan-targets

Rescans all iSCSI targets associated with the specified portal.

Syntax

[failover-peer] storage iscsi portal host <hostname> rescan-targets

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal.

Usage

Use this command to ensure that recently configured iSCSI targets are added.

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 rescan-targets
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 rescan-targets
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify,”](#) [“storage iscsi portal host rescan-luns”](#)

storage iscsi portal host target add

Adds an iSCSI target configuration to the specified portal.

Syntax

[failover-peer] storage iscsi portal host <hostname> target add name <name> [port <port-number>] [snapshot-host <hostname>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal to which the target is to be added.
name <name>	Specifies the name of the target.
port <port-number>	Specifies a port number the iSCSI target is listening on. The default is 3260.
snapshot-host <hostname>	Specifies the IP address for the storage snapshot.

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 target add name iqn.2003-10.com.hoosgau:432716056 port 3260
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 target add name iqn.2003-10.com.hoosgau:432716056 port 3260
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify”](#)

storage iscsi portal host target modify

Modifies the settings of the specified iSCSI portal target.

Syntax

[failover-peer] storage iscsi portal host <hostname> target modify name <name> [latency threshold <ms>] [port <port-number>] [snapshot-host <hostname>] [snapshot-method {none | auto}]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the iSCSI portal with the target configuration.
name <name>	Modifies the name of the target.
latency threshold <ms>	Modifies the latency threshold, in milliseconds.
port <port-number>	Modifies the port number the iSCSI target is listening on. The default is 3260.
snapshot-host <hostname>	Modifies the IP address for the storage snapshot.
snapshot-method <method>	Modifies the snapshot method by specifying one of the following: <ul style="list-style-type: none"> none - No snapshot management auto - Automatically detect snapshot management if already configured

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 target modify name ign.2003-10.com.hoosgau:432716056
```

```
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 target modify name ign.2003-10.com.hoosgau:432716056
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target remove”](#)

storage iscsi portal host target offline-luns

Takes offline all configured LUNs serviced by the specified iSCSI target.

Syntax

[failover-peer] storage iscsi portal host <hostname> target offline-luns name <name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the iSCSI portal with the target configuration.
name <name>	Specifies the name of the target.

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 target offline-luns name iqn.2003-10.com.hoosgau:432716056
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 target offline-luns name iqn.2003-10.com.hoosgau:432716056
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify”](#)

storage iscsi portal host target remove

Removes an iSCSI target configuration from the specified portal.

Syntax

[failover-peer] storage iscsi portal host <hostname> target remove name <name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the iSCSI portal with the target configuration to be removed.
name <name>	Specifies the name of the target to be removed.

Usage

You must first remove all LUNs from a target before you can remove the target itself.

Use the [“storage lun remove”](#) command to remove all LUNs from a target.

Example

```
Core_01 (config) # storage iscsi portal host 10.2.3.4 target remove name iqn.2003-10.com.hoosgau:432716056
Core_02 (config) # failover-peer storage iscsi portal host 10.2.3.4 target remove name iqn.2003-10.com.hoosgau:432716056
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify”](#)

storage iscsi portal modify host auth

Modifies the authentication settings of the specified iSCSI portal.

Syntax

[failover-peer] storage iscsi portal modify host <hostname> auth {CHAP chap-user <name> | None}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the iSCSI portal to be modified.
auth	Specifies the authentication option: <ul style="list-style-type: none"> • CHAP chap-user <name> - Enables CHAP and specifies the CHAP username. You must specify an existing CHAP user. • None - No authentication.

Usage

This command allows you to modify the portal within a running session.

Example

```
Core_01 (config) # storage iscsi portal modify host 10.2.3.4 auth None
Core_02 (config) # failover-peer storage iscsi portal modify host 10.2.3.4 auth None
```

Product

SteelFusion Core

Related Topic

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify,”](#) [“storage iscsi portal host target remove”](#)

storage iscsi portal modify host port

Modifies the port settings of the specified iSCSI portal.

Syntax

[failover-peer] storage iscsi portal modify host <hostname> port <port-number>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the iSCSI portal whose port setting is to be modified.
port <port-number>	Specifies the new port number for the iSCSI portal to listen on. The default is 3260.

Example

```
Core_01 (config) # storage iscsi portal modify host 10.2.3.4 port 3260
Core_02 (config) # failover-peer storage iscsi portal modify host 10.2.3.4 port 3260
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify,”](#) [“storage iscsi portal remove host”](#)

storage iscsi portal remove host

Removes an iSCSI portal configuration from the iSCSI initiator configuration.

Syntax

[failover-peer] storage iscsi portal remove host <hostname>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the iSCSI portal configuration to be removed.

Example

```
Core_01 (config) # storage iscsi portal remove host 10.2.3.4
Core_02 (config) # failover-peer storage iscsi portal remove host 10.2.3.4
```

Product

SteelFusion Core

Related Topics

[“storage iscsi mpio interface add,”](#) [“storage iscsi portal host target modify,”](#) [“storage iscsi portal host target remove”](#)

storage iscsi report-naa-id enable

Enables reporting of the iSCSI NAA serial format at the configured Edges.

Syntax

[failover-peer] storage iscsi report-naa-id enable [edge id <id>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
edge id <id>	Specifies the identifier of a particular configured Edge.

Example

```
Core_01 (config) # storage iscsi portal report-naa-id enable edge id main-sh123
Core_02 (config) # failover-peer storage iscsi portal report-naa-id enable
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi”](#)

storage iscsi session data-digest enable

Includes the data digest in the iSCSI PDU for the current session; the running configuration does not change.

Syntax

[no] [failover-peer] storage iscsi session data-digest enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Usage

The data digest can help to identify, reject, or request retransmission of a corrupt PDU for the current. This does not affect the running configuration or other sessions. To change the configuration permanently, use the [“storage iscsi data-digest”](#).

Use the **no** command option to disable this feature.

Example

```
Core_01 (config) # storage iscsi session data-digest enable
Core_02 (config) # no storage iscsi session data-digest enable
```

Product

SteelFusion Core

Related Topics

[“storage iscsi session header-digest enable,”](#) [“show storage iscsi”](#)

storage iscsi session header-digest enable

Includes the header digest in the iSCSI PDU for the current session; the running configuration does not change.

Syntax

[no] [failover-peer] storage iscsi session header-digest enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Usage

The header digest can help to identify, reject, or request retransmission of a corrupt PDU. This does not affect the running configuration or other sessions. To change the configuration permanently, use the **storage iscsi header-digest** command.

Use the **no** command option to disable this feature.

Example

```
Core_02 (config) # storage iscsi session header-digest enable
Core_02 (config) # failover-peer storage iscsi session header-digest enable
```

Product

SteelFusion Core

Related Topics

[“edge id iscsi header-digest”](#) [“storage iscsi session data-digest enable”](#) [“show storage iscsi”](#)

storage iscsi session immediate-data enable

Enables the initiator to attach the write data command to the initial iSCSI PDU.

Syntax

[no] [failover-peer] storage iscsi session immediate-data enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Usage

Together with the “[storage iscsi session initial-r2t enable](#)” command, the “[storage iscsi session immediate-data enable](#)” command can reduce I/O time by eliminating the need for an additional round trips in small write commands between the initiator the target.

Use the **no** command option to disable this feature.

Example

```
Core_02 (config) # storage iscsi session immediate-data enable
Core_02 (config) # failover-peer storage iscsi session immediate-data enable
```

Product

SteelFusion Core

Related Topics

“[storage iscsi session initial-r2t enable](#),” “[show storage iscsi](#)”

storage iscsi session initial-r2t enable

Enables the initiator to send unsolicited data to the target without requiring an explicit R2T (ready-to-transfer) PDU from the target.

Syntax

[no] [failover-peer] storage iscsi session initial-r2t enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Usage

Together with the “[storage iscsi session immediate-data enable](#)” command, the “[storage iscsi session initial-r2t enable](#)” command can reduce I/O time by eliminating the need for an additional round trips in small write commands between the initiator the target.

The **no** command option disables this feature.

Example

```
Core_01 (config) # storage iscsi session initial-r2t enable
Core_02 (config) # failover-peer storage iscsi session initial-r2t enable
```

Product

SteelFusion Core

Related Topics

“[storage iscsi session immediate-data enable](#),” “[show storage iscsi](#)”

storage iscsi session mpio

Enables or disables MPIO functionality for the iSCSI initiator configuration.

Syntax

[failover-peer] storage iscsi session mpio {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
disable	Disables MPIO functionality.
enable	Enables MPIO functionality.

Example

```
Core_01 (config) # storage iscsi session mpio enable
Core_02 (config) # failover-peer storage iscsi session mpio enable
```

Product

SteelFusion Core

Related Topics

[“storage iscsi session mpio standard-routes”](#)

storage iscsi session mpio standard-routes

Enables or disables standard routing for MPIO interfaces.

Syntax

[failover-peer] storage iscsi session mpio standard-routes {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
disable	Disables standard routing for MPIO connections.
enable	Enables standard routing for MPIO connections.

Usage

If the iSCSI portal is not in the same subnet as the interfaces configured for MPIO, this functionality allows the connection to be established using standard routing.

Example

```
Core_01 (config) # storage iscsi session mpio standard-routes enable
Core_02 (config) # failover-peer storage iscsi session mpio standard-routes enable
```

Product

SteelFusion Core

Related Topics

[“storage iscsi session mpio”](#)

storage iscsi session scan-interval

Specifies the backend scan interval in seconds.

Syntax

[failover-peer] storage iscsi session scan-interval <seconds>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<seconds>	Specify the interval in seconds.

Example

```
Core_01 (config) # storage iscsi session scan-interval 1200
Core_02 (config) # failover-peer storage iscsi session scan-interval 1200
```

Product

SteelFusion Core

Related Topics

[“storage iscsi session wait-interval”](#)

storage iscsi session serialize-write enable

Enables serialization of writes for all storage arrays in the vendor write serialization list.

Syntax

[no] [failover-peer] storage iscsi session serialize-write enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
enable	Enables default serialization of writes.

Usage

The **no** command option disables this feature.

To view the vendor write serialization list and whether write serialization is currently enabled for those vendor IDs, use the **show storage iscsi session** command.

Example

```
Core_01 (config) # storage iscsi session serialize-write enable
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi”](#), [“storage lun modify serialize-write enable”](#)

storage iscsi session serialize-write vendor-ids

Modifies the vendor write serialization list.

Syntax

[failover-peer] storage iscsi session serialize-write [vendor-ids <ids>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
enable	Enables default serialization of writes.
vendor-ids <ids>	Identifies the storage array using the format <VendorID>:<ProductID>:<Revision>.

Usage

If a storage array does not support write ordering, you can use this command to serialize all writes to the storage array. by default, Core s writes to EQLOGIC:100E-00:7.0 and Nimble:Server:1.0. Use this command to add more storage arrays to the list.

You must restart the Core service (use the **service restart** command) for this command to take effect.

Example

```
Core_01 (config) # storage iscsi session serialize-write vendor-ids EQLOGIC:100E-00:7.0, Nimble-Server:1.0
Service restart required for changes to take effect
Core 01 (config) # service restart
```

```
Core_02 (config) # failover-peer storage iscsi session serialize-write vendor-ids EQLOGIC:100E-00:7.0
Service restart required for changes to take effect
Core 02 (config) # service restart
```

Product

SteelFusion Core

Related Topics

[“show storage iscsi”](#), [“storage lun modify serialize-write enable,”](#) [“service restart”](#)

storage iscsi session wait-interval

Specifies the backend wait interval in seconds.

Syntax

[failover-peer] storage iscsi session wait-interval <seconds>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<seconds>	Interval in seconds.

Example

```
Core_01 (config) # storage iscsi session wait-interval 1200
Core_02 (config) # failover-peer storage iscsi session wait-interval 1200
```

Product

SteelFusion Core

Related Topics

[“storage iscsi session scan-interval,”](#) [“show storage iscsi”](#)

storage iscsi session write-balance enable

Enables the write balance feature.

Syntax

[no] [failover-peer] storage iscsi session write-balance enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Usage

The **no** command option disables this feature.

Example

```
Core_01 (config) # storage iscsi session write-balance enable
Core_02 (config) # failover-peer storage iscsi session write-balance enable
```

Product

SteelFusion Core

Related Topics

[“storage lun modify snapshot-config app-consistent”](#)

storage lun add block-disk

Adds a block disk LUN for the Core. Note that you can add only discovered LUNs.

Syntax

[failover-peer] storage lun add block-disk serial <serial> alias <alias-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
serial <serial>	Specifies the LUN with its serial number.
alias <alias-name>	Specifies an alias name for the added LUN.

Example

```
Core_01 (config) # storage lun add block-disk serial 60a98132486e2f374f9f6f795f61565a alias
LUN4Edge2
Core_02 (config) # failover-peer storage lun add block-disk serial 60a98132486e2f374f9f6f795f61565a
alias LUN4Edge2
```

Product

SteelFusion Core

Related Topics

[“storage lun add edge-local”](#), [“storage lun add iscsi”](#)

storage lun add edge-local

Adds an edge local LUN for the Core. Note that you can add only discovered LUNs.

Syntax

[failover-peer] storage lun add edge-local edge-id <id> size <megabytes> alias <alias-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
edge-id <id>	Specifies the self-identifier of the SteelFusion Edge to which the LUN is to be added.
size <megabytes>	Specify the size of the LUN, in megabytes. The minimum value is 8 MB. The maximum depends on the available space for the blockstore.
alias <alias-name>	Specify an alias name for the added LUN.

Example

```
Core_01 (config) # storage lun add edge-local edge-id Edge2 size 256 alias LUN4Edge2
Core_02 (config) # failover-peer storage lun add edge-local edge-id Edge2 size 256 alias LUN4Edge2
```

Product

SteelFusion Core

Related Topics

[“storage lun add block-disk,”](#) [“storage lun add iscsi”](#)

storage lun add iscsi

Adds an iSCSI LUN for the Core.

Syntax

[failover-peer] storage lun add iscsi serial <serial> alias <alias-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
serial <serial>	Specifies the iSCSI serial number at the storage array. You must use a multiple of 512.
alias <alias-name>	Specifies an alias name for the LUN.

Example

```
Core_01 (config) # storage lun add iscsi serial hqD6WohWNjx alias LUN4Edge2
Core_02 (config) # failover-peer storage lun add iscsi serial hqD6WohWNjx alias LUN4Edge2
```

Product

SteelFusion Core

Related Topics

[“storage lun add block-disk,”](#) [“storage lun add edge-local”](#)

storage lun clear-pxy-state

Clears the proxy-backup related state for the specified LUN.

Syntax

[failover-peer] storage lun clear-pxy-state {alias <alias-name> | serial <serial>}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias-name>	Clears the proxy-backup related state for the LUN with the specified alias.
serial <serial>	Clears the proxy-backup related state for the LUN with the specified serial number.

Usage

Core's proxy backup feature enables backup integration directly from the data center. Core clones the snapshot specified for data protection and mounts the cloned LUN on the proxy server. The backup software then communicates with the proxy server to perform the backup.

Example

```
Core_01 (config) # storage lun clear-pxy-state serial hqD6WohWNjx
Core_02 (config) # failover-peer storage storage lun clear-pxy-state serial hqD6WohWNjx
```

Product

SteelFusion Core

Related Topics

["show storage lun"](#)

storage lun modify accelerate-iops enable

Enables I/O operations per second acceleration on the LUN.

Syntax

[no] [failover-peer] storage lun modify {alias <alias> | serial <serial>} accelerator-iops enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Usage

The **no** command option disables I/O operations per second acceleration.

Example

```
Core_01 (config) # storage lun modify alias DC-B01 accelerator-iops enable
Core_02 (config) # failover-peer storage lun modify alias DC-B01 accelerator-iops enable
```

Product

SteelFusion Core

Related Topics

["show storage lun"](#)

storage lun modify auth-igroup

Adds or removes an authorized group of iSCSI initiator credentials (igroup) to the LUN specified by its LUN alias.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} auth-igroup {add | remove} <igroup-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
add <igroup-name>	Specifies the authorized group of iSCSI initiator credentials (igroup) to be added the specified LUN.
remove <igroup-name>	Specifies the authorized group of iSCSI initiator credentials (igroup) to be removed from the specified LUN.

Example

```
Core_01 (config) # storage lun modify alias DC-B01 auth-igroup add igroupname
Core_02 (config) # failover-peer storage lun modify alias DC-B01 auth-igroup add igroupname
```

Product

SteelFusion Core

Related Topics

[“storage lun modify auth-igroup,”](#) [“storage lun modify auth-initiator”](#)

storage lun modify auth-initiator

Adds or removes an authorized iSCSI initiator to or from the LUN specified by its alias.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} auth-initiator {add | remove} <initiator-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
add <initiator-name>	Adds the specified, authorized iSCSI initiator to the specified LUN.
remove <initiator-name>	Removes the authorized iSCSI initiator from the specified LUN.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 auth-initiator add iqn.2003-10.com.hoosgow:werdna-initiator
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 auth-initiator add iqn.2003-10.com.hoosgow:werdna-initiator
```

Product

SteelFusion Core

Related Topics[“storage lun modify auth-igroup”](#)

storage lun modify branch-recovery

Adds or removes a Windows VM to a LUN to enable a branch recovery operation.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} branch-recovery {add-vm <vm-name> [cap <percentage>] | remove-vm <vm-name>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
add-vm <vm-name>	Adds the specified VM to the branch recovery operation.
cap <percentage>	Specifies the maximum percentage of the disk to prepopulate. For example, if you specify cap <20> , the amount of data pushed per virtual disk would be 20% of the disk size.
remove-vm <vm-name>	Removes the specified VM from the branch recovery operation.

Usage

Currently, the **add-vm** and **remove-vm** keywords apply only to VMFS LUNs. If you are using an NTFS LUN, do not provide a value for the VM parameters.

Example

```
Core_01 (config) # storage lun modify alias alias-vmfs_lun branch-recovery add-vm Win7 cap 10
Core_02 (config) # failover-peer storage lun modify alias alias-vmfs branch-recovery
```

Product

SteelFusion Core

Related Topics[“edge modify id branch-recovery clear,”](#) [“storage lun modify branch-recovery schedule,”](#) [“show storage lun”](#)

storage lun modify branch-recovery enable

Enables the branch recovery operation on a LUN.

Syntax

```
[no] [failover-peer] storage lun modify {alias <alias> | serial <serial>} branch-recovery enable
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Usage

The **no** command option disables branch recovery mode.

To configure branch recovery from the CLI:

1. Show the current configuration for a LUN: **show storage lun alias alias-vmfs_lun branch-recovery**
2. Add a schedule: **storage lun modify alias alias-vmfs_lun branch-recovery schedule start-now**
3. Add a VM - **storage lun modify alias alias-vmfs_lun branch-recovery add-vm Win7**
4. Enable branch recovery: **storage lun modify alias alias-vmfs_lun branch-recovery enable**
5. Monitor progress: **show storage lun alias alias-vmfs_lun branch-recovery**

```

Enabled          : yes
Status           : started
Progress         : 3729920 Bytes pushed
Start date       : 2014/02/20
Start time       : 10:32:59

```

VMs:

```

Name             : Win7
Status           : In-progress
Cap              : 10

```

Example

```

Core_01 (config) # storage lun modify alias alias-vmfs_lun branch-recovery enable
Core_02 (config) # failover-peer storage lun modify alias alias-vmfs_lun branch-recovery enable

```

Product

SteelFusion Core

Related Topics

[“edge modify id branch-recovery clear,”](#) [“storage lun modify branch-recovery schedule,”](#) [“show storage lun”](#)

storage lun modify branch-recovery restart

Restarts the branch recovery operation after it has completed.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} branch-recovery restart

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Example

```

Core_01 (config) # storage lun modify alias alias-vmfs_lun branch-recovery restart

```

```
Core_02 (config) # failover-peer storage lun modify alias alias-vmfs_lun branch-recovery restart
```

Product

SteelFusion Core

Related Topics

[“edge modify id branch-recovery clear,”](#) [“storage lun modify branch-recovery,”](#) [“storage lun modify branch-recovery enable,”](#) [“storage lun modify branch-recovery schedule”](#)

storage lun modify branch-recovery schedule

Sets the schedule for when branch recovery runs on the LUN.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} branch-recovery schedule {start-date <date> start-time <time> | start-now}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
start-date <date>	Specifies the start date for the branch-recovery prepopulation schedule. Use the format yyyy/mm/dd.
start-time <time>	Specifies the start time for the branch-recovery prepopulation schedule. Use the format hh:mm:ss'
start-now	Specifies to start branch recovery immediately.

Example

```
Core_01 (config) # storage lun modify alias alias-vmfs_lun branch-recovery schedule start-date 2015/03/01 start-time 00:01:00
```

```
Core_02 (config) # failover-peer storage lun modify alias alias-vmfs_lun branch-recovery schedule start-now
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“edge modify id branch-recovery clear,”](#) [“storage lun modify branch-recovery,”](#) [“storage lun modify branch-recovery enable,”](#) [“storage lun modify branch-recovery restart”](#)

storage lun modify client-type

Modifies the client type (VMware, Windows, or Other) of the configured LUN, specified by its alias.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} client-type <client-type>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
client-type	Specify the client type for the LUN: <ul style="list-style-type: none"> • vmware - This LUN is mounted by VMware ESXi and formatted with VMFS. • windows - This LUN is mounted by Microsoft Windows and formatted with NTFS. • other - All other cases.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the “[storage host-info add](#)” or “[storage host-info modify](#)” command to configure one or more proxy hosts for the snapshots.
- Use the “[storage lun modify client-type](#)” command (the current command) to specify the LUN client type as Windows, VMware, or Other.
- Enable and configure application-consistent snapshots:
 - “[storage lun modify snapshot-config clear-host](#)”
 - “[storage lun modify snapshot-config app-consistent](#)”
- Enable and configure data protection:
 - “[storage lun modify snapshot host](#)”
 - “[storage lun modify snapshot-config proxy-backup](#)”
- Enable and configure the snapshot schedule:
 - “[storage lun modify scheduled-snaps](#)”
 - “[storage lun modify scheduled-snaps add](#)”

Example

```
Core_01 (config) # storage lun modify alias LUN2GO client-type vmware
Core_02 (config) # failover-peer storage lun modify alias LUN2GO client-type vmware
```

Product

SteelFusion Core

Related Topics

“[show storage lun](#)”

storage lun modify failover

Enables or disables the failover configuration. This command is enabled by default.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} failover {disable | enable}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
disable	Disables the failover configuration.
enable	Enables the failover configuration.

Example

```
Core_01 (config) # storage lun modify alias LUN2GO failover enable
Core_02 (config) # failover-peer storage lun modify alias LUN2GO failover enable
```

Product

SteelFusion Core

Related Topics

[“show storage lun”](#)

storage lun modify map edge-id

Maps the LUN to the specified Edge.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} map edge-id <edge-self-identifier>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
<edge-self-identifier>	Self-identifier of the Edge to which the LUN is to be added.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 map edge-id Edge2
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 map edge-id Edge2
```

Product

SteelFusion Core

Related Topics

[“storage host-info add”](#)

storage lun modify mpio path

Configures MPIO paths for the LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} mpio path {allow | exclude | preferred} path-id <path-id>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
allow	Allows the specified path to be used in the MPIO configuration.
exclude	Excludes the specified path from being used in the MPIO configuration.
preferred	Configures the specified path as the preferred (principal) path for connections.
path-id <path-id>	Specifies the ID of the path to allow.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 mpio path allow path-id aux
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 mpio path allow path-id aux
```

Product

SteelFusion Core

Related Topics

[“storage lun modify mpio policy”](#)

storage lun modify mpio policy

Configures MPIO paths for the LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} mpio policy {roundrobin | fixedpath}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
roundrobin	Rotates path usage.
fixedpath	Configures a specific path.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 mpio policy roundrobin
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 mpio policy roundrobin
```

Product

SteelFusion Core

Related Topics

[“storage lun modify mpio path”](#)

storage lun modify new-alias

Modifies the alias name for the specified LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} new-alias <new-alias>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
new-alias <new-alias>	Specifies the new alias name. In addition to alphanumeric characters, you may also use the hyphen (-), underscore (_), and forward slash (/).

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 new-alias LUN4EDGE6
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 new-alias LUN4EDGE6
```

Product

SteelFusion Core

Related Topics

[“show storage lun”](#)

storage lun modify offline

Takes offline the LUN indicated by the alias or serial number.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} offline

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Usage

This process might take a few minutes to complete.

Before taking the LUN offline with this command, you must stop the Windows server at the Edge using the LUN and unmount the LUN (if the Windows server is running on ESX).

To complete LUN removal, use the [“storage lun remove”](#) command.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 offline
Core_01 (config) # storage lun modify serial hqD6WohWNjx offline

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 offline
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx offline
```

Product

SteelFusion Core

Related Topics[“storage lun remove,” “storage lun modify online”](#)

storage lun modify online

Brings online the LUN indicated by the alias or serial number.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} online

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 online
Core_01 (config) # storage lun modify serial hqD6WohWNjx online

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 online
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx online
```

Product

SteelFusion Core

Related Topics[“storage lun modify offline”](#)

storage lun modify pinned

Pins or unpins the LUN specified by its alias or serial number.

When a LUN is pinned, the data is reserved and not subject to the normal blockstore eviction policies.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} pinned {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
disable	Sets the LUN to an unpinned state.
enable	Sets the LUN to a pinned state.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 pinned enable
```

```
Core_01 (config) # storage lun modify serial hqD6WohWNjx pinned enable
```

```
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 pinned enable
```

```
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx pinned enable
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify prepop”](#)

storage lun modify prepop

Enable prepopulation for the LUN specified by its alias or serial number.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} prepop {enable | disable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
enable	Enables prepopulation from the specified LUN.
disable	Disables prepopulation from the specified LUN.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 prepop enable
```

```
Core_01 (config) # storage lun modify serial hqD6WohWNjx prepop disable
```

```
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 prepop enable
```

```
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx prepop disable
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify prepop schedule add,”](#) [“storage lun modify prepop schedule modify-sched,”](#) [“storage lun modify prepop schedule remove”](#)

storage lun modify prepop schedule add

Adds a new prepopulation schedule for the LUN specified by its alias or serial number.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} prepop schedule add sched-name <sched-name> start-week-day <start-week-day> start-time <start-time> stop-week-day <stop-week-day> stop-time <stop-time>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
sched-name <sched-name>	Specifies the name of the prepupulation schedule.
start-week-day <start-week-day>	Specifies the start day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
start-time <start-time>	Specifies the start time for the schedule. Use the format hh:mm:ss.
stop-week-day <stop-week-day>	Specifies the stop day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
stop-time <stop-time>	Specifies the stop time for the schedule. Use the format hh:mm:ss.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 prepup schedule add sched-name WeeklySynch
start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
Core_01 (config) # storage lun modify serial hqD6WohWNjx prepup schedule add sched-name WeeklySynch
start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 prepup schedule add sched-name
WeeklySynch start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx prepup schedule add sched-
name WeeklySynch start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify prepup,”](#) [“storage lun modify prepup schedule modify-sched,”](#) [“storage lun modify prepup schedule remove”](#)

storage lun modify prepup schedule modify-sched

Modifies the prepupulation schedule for the LUN specified by its alias or serial number.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} prepup schedule modify-sched sched-name
<sched-name> start-week-day <start-week-day> start-time <start-time> stop-week-day <stop-week-day> stop-time
<stop-time>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
sched-name <sched-name>	Specifies the modified name of the existing prepupulation schedule to be modified.
start-week-day <start-week-day>	Specifies the modified start day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
start-time <start-time>	Specifies the modified start time for the schedule. Use the format hh:mm:ss.
stop-week-day <stop-week-day>	Specifies the modified stop day for the schedule. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
stop-time <stop-time>	Specifies the modified the stop time for the schedule. Use the format hh:mm:ss'

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 prepup schedule modify-sched sched-name
WeeklySynch start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
Core_01 (config) # storage lun modify serial hqD6WohWNjx prepup schedule modify-sched sched-name
WeeklySynch start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
```

```
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 prepup schedule modify-sched
sched-name WeeklySynch start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx prepup schedule modify-sched
sched-name WeeklySynch start-week-day mon start-time 00:01:00 stop-week-day mon stop-time 03:01:00
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify prepup,”](#) [“storage lun modify prepup schedule add,”](#) [“storage lun modify prepup schedule remove”](#)

storage lun modify prepup schedule remove

Removes the prepupulation schedule from the specified LUN.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} prepup schedule remove sched-name <sched-name>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
sched-name <sched-name>	Specifies the name of the prepopulation schedule to be removed.

Example

```
Core_01 (config) # storage lun modify alias LUN2 prepop schedule remove sched-name MondaySynch
Core_01 (config) # storage lun modify serial hqD6WohWNjx prepop schedule remove sched-name
MondaySynch
Core_02 (config) # failover-peer storage lun modify alias LUN2 prepop schedule remove sched-name
MondaySynch
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx prepop schedule remove sched-
name MondaySynch
```

Product

SteelFusion Core

Related Topics

[“show storage lun,” “storage lun modify prepop,” “storage lun modify prepop schedule add,” “storage lun modify prepop schedule modify-sched”](#)

storage lun modify prepop smart

Enables smart prepopulation on the LUN specified by its alias or serial number.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} prepop smart {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
disable	Disables prepopulation on the specified LUN.
enable	Enables prepopulation on the specified LUN.

Usage

You need to use smart prepopulation only if your LUN is not NTFS or VMFS.

Prepopulation can be enabled only if the LUN is pinned. For details, see the [“storage lun modify pinned”](#) command.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 prepop smart enable
Core_01 (config) # storage lun modify serial hqD6WohWNjx prepop smart enable

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 prepop smart enable
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx prepop smart enable
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify prepup,”](#) [“storage lun modify prepup schedule add,”](#) [“storage lun modify prepup schedule modify-sched”](#)

storage lun modify prepup start-now

Begins the prepopulation process for the specified LUN configuration, starting from the current time.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} prepup start-now

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Example

```
Core_01 (config) # storage lun modify alias LUN2 prepup start-now
Core_01 (config) # storage lun modify serial hqD6WohWNjx prepup start-now

Core_02 (config) # failover-peer storage lun modify alias LUN2 prepup start-now
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx prepup start-now
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify prepup,”](#) [“storage lun modify prepup schedule add,”](#) [“storage lun modify prepup schedule modify-sched,”](#) [“storage lun modify prepup smart”](#)

storage lun modify pri-snap

Configures private snapshot settings for the LUN specified by its alias or serial numbers.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} pri-snap {max <count> | static-name {enable name <pri-snap-name> | disable}}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
max <count>	Specifies the maximum number of private snapshots to be taken of the specified LUN.
static-name <pri-snap-name>	Specifies a private snapshot static name to be prepended to the filenames of snapshots taken of this LUN.
disable	Disables the private snapshot static name from the LUN snapshot filename.

Usage

You set either the maximum number of private snapshots that can be retained at any time, or enable and set a static value to be prepended to the private snapshot filenames.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 pri-snap max 14
Core_01 (config) # storage lun modify serial hqD6WohWNjx pri-snap static-name disable

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 pri-snap max 14
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx pri-snap static-name disable
```

Product

SteelFusion Core

Related Topics

[“show storage lun,”](#) [“storage lun modify scheduled-snaps,”](#) [“storage lun modify scheduled-snaps add”](#)

storage lun modify scheduled-snaps

Enables or disables the scheduled snapshots feature for the specified LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} scheduled-snaps {enable | disable} [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
{enable disable}	Enables or disables the scheduled snapshots feature for the specified LUN.
force	Forces the enabling or disabling of the scheduled snapshots feature if the LUN is online. Riverbed recommends that you take the LUN offline before enabling or disabling the scheduled snapshots feature.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the [“storage host-info add”](#) or [“storage host-info modify”](#) command to configure one or more proxy hosts for the snapshots.

- Use the “[storage lun modify client-type](#)” command to specify the LUN client type as Windows or VMware.
- Enable and configure application-consistent snapshots:
 - “[storage lun modify snapshot-config clear-host](#)”
 - “[storage lun modify snapshot-config app-consistent](#)”
- Enable and configure data protection:
 - “[storage lun modify snapshot host](#)”
 - “[storage lun modify snapshot-config proxy-backup](#)”
- Enable and configure the snapshot schedule:
 - “[storage lun modify scheduled-snaps](#)” (the current command)
 - “[storage lun modify scheduled-snaps add](#)”

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 scheduled-snaps enable
Core_01 (config) # storage lun modify serial hqD6WohWNjx scheduled-snaps disable

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 scheduled-snaps enable
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx scheduled-snaps disable
```

Product

SteelFusion Core

Related Topics

“[storage lun modify scheduled-snaps add](#)”

storage lun modify scheduled-snaps add

Adds the specified snapshot policy to the configuration of the specified LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} scheduled-snaps add <policy-name> [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
add <policy-name>	Specifies the snapshot policy to be added to the LUN. You define snapshot policies using the “ storage snapshot policy add ” command.
force	Forces the invocation of the policy if the LUN is online. Riverbed recommends that you take the LUN offline before making changes to snapshot configurations.

Usage

A single snapshot policy can be assigned to more than one LUN, but each LUN can be associated with only a single snapshot policy.

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the “[storage host-info add](#)” or “[storage host-info modify](#)” command to configure one or more proxy hosts for the snapshots.
- Use the “[storage lun modify client-type](#)” command to specify the LUN client type as Windows or VMware.

- Enable and configure application-consistent snapshots:
 - “[storage lun modify snapshot-config clear-host](#)”
 - “[storage lun modify snapshot-config app-consistent](#)”
- Enable and configure data protection:
 - “[storage lun modify snapshot host](#)”
 - “[storage lun modify snapshot-config proxy-backup](#)”
- Enable and configure the snapshot schedule:
 - “[storage lun modify scheduled-snaps](#)”
 - “[storage lun modify scheduled-snaps add](#)” (the current command)

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 scheduled-snaps add company1policy
Core_01 (config) # storage lun modify serial hqD6WohWNjx scheduled-snaps add company1policy
```

```
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 scheduled-snaps add
company1policy
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx scheduled-snaps add
company1policy
```

Product

SteelFusion Core

Related Topics

“[storage lun modify scheduled-snaps remove](#)”

storage lun modify scheduled-snaps remove

Removes any currently associated snapshot policy from the configuration of the specified LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} scheduled-snaps remove [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
force	Forces the disassociation of the policy if the LUN is online. Riverbed recommends that you take the LUN offline before making changes to snapshot configurations.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 scheduled-snaps remove
Core_01 (config) # storage lun modify serial hqD6WohWNjx scheduled-snaps remove

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 scheduled-snaps remove
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx scheduled-snaps remove
```

Product

SteelFusion Core

Related Topics

[“storage lun modify scheduled-snaps,” “storage lun modify scheduled-snaps add”](#)

storage lun modify scsi-res

Enables or disables the specified LUN using SCSI reservations.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} scsi-res {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
disable	Disables the LUN using SCSI reservations.
enable	Enables the LUN using SCSI reservations.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 scsi-res disable
Core_01 (config) # storage lun modify serial hqD6WohWNjx scsi-res enable

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 scsi-res disable
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx scsi-res enable
```

Product

SteelFusion Core

Related Topics

[“storage lun modify-all scsi-res”](#)

storage lun modify serialize-write enable

Enables write for the LUN.

Syntax

[no] [failover-peer] storage lun modify {alias <alias> | serial <serial>} serialize-write enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Usage

The **no** command option disables this feature.

Example

```
Core_01 (config) # storage lun modify serialize-write enable
Core_02 (config) # failover-peer storage lun modify serialize-write enable
```

Product

SteelFusion Core

Related Topics[“show storage lun”](#)

storage lun modify snapshot-config clear-host

Clears the snapshot host configuration from the configuration of the specified LUN.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} snapshot-config clear-host

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the [“storage host-info add”](#) or [“storage host-info modify”](#) command to configure one or more proxy hosts for the snapshots.
- Use the [“storage lun modify client-type”](#) command to specify the LUN client type as Windows or VMware.
- Enable and configure application-consistent snapshots:
 - [“storage lun modify snapshot-config clear-host”](#) (the current command)
 - [“storage lun modify snapshot-config app-consistent”](#)
- Enable and configure data protection:
 - [“storage lun modify snapshot host”](#)
 - [“storage lun modify snapshot-config proxy-backup”](#)
- Enable and configure the snapshot schedule:
 - [“storage lun modify scheduled-snaps”](#)
 - [“storage lun modify scheduled-snaps add”](#)

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 snapshot-config clear-host
Core_01 (config) # storage lun modify serial hqD6WohWNjx snapshot-config clear-host

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 snapshot-config clear-host
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx snapshot-config clear-host
```

Product

SteelFusion Core

Related Topics[“storage lun modify snapshot-config app-consistent”](#)

storage lun modify snapshot-config app-consistent

Configures application-consistent snapshots for the current appliance.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} snapshot-config app-consistent {clear | disable | enable | vmware} [host-info <host-info>] [fail-on-acs-err enable] [datacenter <datacenter>] [include-vms <include-vm-regex>] [exclude-vms <exclude-regex>] [script-timeout <seconds>] [quiesce-guest {enable | disable}]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
clear	Clears the application-consistent snapshot configuration for the current appliance.
disable	Disables application-consistent snapshots for the current appliance.
enable	Enables application-consistent snapshots for the current appliance.
vmware	<p>Modifies VMware-specific parameters for the application-consistent snapshots configuration. Specify any combination of the following parameters:</p> <ul style="list-style-type: none"> • host-info <host-info> - Specifies the host information for VMware. • fail-on-acs-error enable - Causes the snapshot operation to fail if the Edge is unable to take a snapshot with the VM being quiesced. • datacenter <datacenter> - Specifies a data center for VMware-based application-consistent snapshots. • include-vms <include-regex> - Specifies by regular expression the names of the VMs to be included. • exclude-vms <exclude-regex> - Specifies by regular expression the names of the VMs to be excluded. • script-timeout <seconds> - Specifies the time-out period for the application-consistent snapshot operation. <p>Alternatively, specify any combination of the following parameters:</p> <ul style="list-style-type: none"> • quiesce-guest {enable disable} - Enables or disables quiescing VMs in the application-consistent snapshots. You cannot combine this parameter with any other VMware-specific parameters.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the “[storage host-info add](#)” or “[storage host-info modify](#)” command to configure one or more proxy hosts for the snapshots.
- Use the “[storage lun modify client-type](#)” command to specify the LUN client type as Windows or VMware.
- Enable and configure application-consistent snapshots:
 - “[storage lun modify snapshot-config clear-host](#)”
 - “[storage lun modify snapshot-config app-consistent](#)” (the current command)
- Enable and configure data protection:
 - “[storage lun modify snapshot host](#)”
 - “[storage lun modify snapshot-config proxy-backup](#)”
- Enable and configure the snapshot schedule:
 - “[storage lun modify scheduled-snaps](#)”
 - “[storage lun modify scheduled-snaps add](#)”

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 snapshot-config app-consistent quiesce-guest enable
Core_01 (config) # storage lun modify serial hqD6Wo/hWNjx snapshot-config app-consistent quiesce-guest disable
```

```
Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 snapshot-config app-consistent quiesce-guest enable
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx snapshot-config app-consistent quiesce-guest disable
```

Product

SteelFusion Core

Related Topics

[“storage lun modify snapshot-config clear-host”](#)

storage lun modify snapshot-config proxy-backup

Configures data protection for snapshots for the failover peer of the current appliance.

Syntax

```
[failover-peer] storage lun modify {alias <alias> | serial <serial>} snapshot-config proxy-backup {clear | disable | enable | vmware [[datacenter <datacenter>] [exclude-hosts <exclude-host-regex>] [exclude-vms <exclude-regex>] [host-info <host-info>] [include-hosts <include-host-regex>] [include-vms <include-regex>] [script-timeout <seconds>] [snapshot-type <snapshot-type>]] | windows [[host-info <host-info>] [proxy-group <proxy-group>] [script-timeout <seconds>] [snapshot-type <snapshot-type>]]}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
clear	Clears the proxy backup host configuration.
disable	Disables the proxy backup for snapshots.
enable	Enables the proxy backup for snapshots.
vmware	<p>Modifies VMware-specific parameters for the proxy backup configuration.</p> <p>Specify any combination of the following parameters:</p> <ul style="list-style-type: none"> • datacenter <datacenter> - Specifies a data center for VMware-based application-consistent snapshots. • exclude-hosts <exclude-host-regex> - Specifies by regular expression the ESXi hosts to be excluded. • exclude-vms <exclude-regex> - Specifies by regular expression the names of the VMs to be excluded. • host-info <host-info> - Specifies the host information for the proxy backup. • include-hosts <include-host-regex> - Specifies by regular expression the ESXi hosts to be included. • include-vms <include-regex> - Specifies by regular expression the names of the VMs to be included. • script-timeout <seconds> - Specifies the time-out period for the backup operation on the proxy server. • snapshot-type <snapshot-type> - Specifies the type of backup: daily, hourly, or weekly.
windows	<p>Modifies Windows-specific parameters for the proxy backup configuration.</p> <p>Specify any combination of the following parameters:</p> <ul style="list-style-type: none"> • host-info <host-info> - Specifies the host information for the proxy backup. • proxy-group <proxy-group> - Specifies the storage group/Initiator group for the proxy (backup) server. • script-timeout <seconds> - Specifies the time-out period for the backup operation on the proxy server. • snapshot-type <snapshot-type> - Specifies the type of backup: daily, hourly, or weekly.

Usage

This command is part of a workflow for configuring application-consistent snapshot and data protection settings on the current appliance:

- Use the “[storage host-info add](#)” or “[storage host-info modify](#)” command to configure one or more proxy hosts for the snapshots.
- Use the “[storage lun modify client-type](#)” command to specify the LUN client type as Windows or VMware.
- Enable and configure application-consistent snapshots:
 - “[storage lun modify snapshot-config clear-host](#)”
 - “[storage lun modify snapshot-config app-consistent](#)”
- Enable and configure data protection:
 - “[storage lun modify snapshot host](#)”
 - “[storage lun modify snapshot-config proxy-backup](#)” (the current command)

- Enable and configure the snapshot schedule:
 - [“storage lun modify scheduled-snaps”](#)
 - [“storage lun modify scheduled-snaps add”](#)

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 snapshot-config proxy-backup datacenter
gandolfo
Core_01 (config) # storage lun modify serial hqD6WohWNjx snapshot-config proxy-backup datacenter
gandolfo

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 snapshot-config proxy-backup
datacenter gandolfo
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx snapshot-config proxy-backup
datacenter gandolfo
```

Product

SteelFusion Core

Related Topics

[“storage lun modify scheduled-snaps,”](#) [“storage lun modify scheduled-snaps add”](#)

storage lun modify snapshot-config handoff enable

Enables the handoff host feature.

Syntax

[no] [failover-peer] storage lun modify {alias <alias> | serial <serial>} snapshot-config handoff enable [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
force	Forces the change in handoff configuration type.

Example

```
Core_01 (config) # storage lun modify serial P3KRP4qfq5iS snapshot-config handoff enable
Core_01 (config) # storage lun modify alias lun1 snapshot-config handoff enable

Core_02 (config) # failover-peer storage lun modify serial P3KRP4qfq5iS snapshot-config handoff
enable
Core_02 (config) # failover-peer storage lun modify alias lun1 snapshot-config handoff enable
```

Product

SteelFusion Core

Related Topics

[“storage snapshot handoff-host”](#)

storage lun modify snapshot host

Creates the hostname of the storage array used as the snapshot host.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} snapshot host <host>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
<hostname>	Name of the storage array.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 snapshot host LUN4Edge2
Core_01 (config) # storage lun modify serial hqD6WohWNjx snapshot host LUN4Edge2

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 snapshot host LUN4Edge2
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx snapshot host LUN4Edge2
```

Product

SteelFusion Core

Related Topics

[“storage lun modify snapshot-config clear-host”](#)

storage lun modify storage-group

Specifies the storage group applicable to LUNs in an EMC storage array.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} storage-group <storage-group>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
<storage-group>	Name of the storage group.

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 storage-group central
Core_01 (config) # storage lun modify serial hqD6WohWNjx storage-group central

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 storage-group central
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx storage-group central
```

Product

SteelFusion Core

Related Topics

[“show storage lun”](#)

storage lun modify unmap

Unmaps the specified LUN from the Core.

Syntax

[failover-peer] storage lun modify {alias <alias> | serial <serial>} unmap [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the LUN to be modified by its alias.
serial <serial>	Specifies the LUN to be modified by its serial number.
force	Forces the unmapping if the LUN is online. Riverbed recommends that you take the LUN offline before unmapping it. See “storage lun modify offline” on page 260 .

Example

```
Core_01 (config) # storage lun modify alias LUN4Edge2 unmap
Core_01 (config) # storage lun modify serial hqD6WohWNjx unmap

Core_02 (config) # failover-peer storage lun modify alias LUN4Edge2 unmap
Core_02 (config) # failover-peer storage lun modify serial hqD6WohWNjx unmap
```

Product

SteelFusion Core

Related Topics

[“storage lun modify offline”](#)

storage lun modify-all scsi-res

Enables or disables SCSI reservations for all configured LUNs.

Syntax

[failover-peer] storage lun modify-all scsi-res {disable | enable}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
disable	Disables SCSI reservations.
enable	Enables SCSI reservations.

Example

```
Core_01 (config) # storage lun modify-all scsi-res enable
Core_02 (config) # failover-peer storage lun modify-all scsi-res enable
```

Product

SteelFusion Core

Related Topics

[“storage lun modify scsi-res”](#)

storage lun remove

Removes the specified LUN from the Core configuration.

Syntax

[failover-peer] storage lun remove {alias <alias> | serial <serial>} [force]

Parameters.

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the alias of the LUN to be removed.
serial <serial>	Specifies the iSCSI serial number of the LUN to be removed.
force	Forces the removal if the LUN is online.

Usage

Before removing the LUN from the Core configuration, you must take it offline using [“storage lun modify offline” on page 260](#).

Example

```
Core_01 (config) # storage lun remove alias LUN4Edge2 force
Core_02 (config) # failover-peer storage lun remove alias LUN4Edge2 force
```

Product

SteelFusion Core

Related Topics

[“storage lun modify offline”](#)

storage lun resize

Resizes the specified LUN in the Core configuration.

Syntax

[failover-peer] storage lun resize {alias <alias> | serial <serial>}

Parameters.

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the alias of the LUN to be removed.
serial <serial>	Specifies the iSCSI serial number of the LUN to be removed.

Usage

Before removing the LUN from the Core configuration, you must take it offline using [“storage lun modify offline” on page 260](#).

Example

```
Core_01 (config) # storage lun resize alias LUN4Edge2
Core_02 (config) # failover-peer storage lun resize alias LUN4Edge2
```

Product

SteelFusion Core

Related Topics[“storage lun modify offline”](#)

storage lun setup-pxy-state

Creates a cloned LUN and mounts it on the proxy server.

Syntax

[failover-peer] storage lun setup-pxy-state {alias <alias> | serial <serial>} [snapshot-type <type>]

Parameters.

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the alias of the LUN to be cloned.
serial <serial>	Specifies the iSCSI serial number of the LUN to be cloned.
snapshot-type <type>	Specifies the type of snapshot to be mounted on the proxy host.

Example

```
Core_01 (config) # storage lun setup-pxy-state alias LUN4Edge2 force
Core_02 (config) # failover-peer storage lun setup-pxy-state alias LUN4Edge2
```

Product

SteelFusion Core

storage snapshot br-proxy-host

Adds or modifies the hosts used for configuring application-consistent snapshots or proxy backup for a LUN.

Syntax

[failover-peer] storage snapshot br-proxy-host {add | modify} host <hostname> username <username> password <password> host-type <host-type>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
add	Adds the host.
modify	Modifies the host.
host <host>	Specify the name of the host you want to add or modify.
username <username>	Specifies the username for the host. If you are configuring a Windows host, use the format <code>WindowsDomain\Username</code> .
password <password>	Specifies the password for the host.
host-type <host-type>	Specify the host type: <ul style="list-style-type: none"> • vmware-branch - Specifies the VMware host at the branch. • vmware-vcenter - Specifies the VMware VCenter. • windows-proxy - Specifies the Windows host (backup proxy) at the data center. • vmware-proxy - Specifies the VMware host (backup proxy) at the data center.

Examples

```
Core01 (config) # storage snapshot br-proxy-host modify host oak-vva14 username
WindowsDomain\John.Smith password HostPwd1 host-type windows-proxy
```

```
Core02 (config) # failover-peer storage snapshot br-proxy-host add host oak-vva14 username
John.Smith password HostPwd1 host-type vmware-vcenter
```

Product

SteelFusion Core

Related Topics

[“storage snapshot br-proxy-host remove host”](#)

storage snapshot br-proxy-host remove host

Removes the host used for configuring application-consistent snapshots or proxy backup for a LUN.

Syntax

```
[failover-peer] storage snapshot br-proxy-host remove host <hostname>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
hostname	Name of the host you want to remove.

Example

```
amnesiac (config) # storage snapshot br-proxy-host remove host oak-vva14
```

Product

SteelFusion Core

Related Topics

[“storage snapshot br-proxy-host”](#)

storage snapshot handoff-host

Adds or modifies the handoff host used for managing LUN snapshots.

Syntax

```
[failover-peer] storage snapshot handoff-host {add | modify} host <hostname> [username <username> password <password>] script-path <script-path> script-args <script-args>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
add	Adds the handoff host.
modify	Modifies the handoff host.
host <hostname>	Specifies the hostname of the host.
username <username>	Specifies a username for the snapshot credential.
password <password>	Specifies a password for the snapshot credential.
script-path <script-path>	Specifies the paths to both the executable and the script on the handoff host. In both cases, you must provide the absolute path and enclose it in quotation marks. For example: C:\Python27\python.exe C:\handoff_scripts\sample_script.py.txt
script-args <script-args>	Specifies the arguments that conform to your script to configure the snapshot settings. Enclose the arguments in quotation marks.

Usage

Core can interoperate with any iSCSI-compliant storage array, but support for application-consistent snapshots is limited to storage arrays from qualified vendors (Dell EqualLogic, EMC CLARiiON, EMC VNX, or NetApp). The handoff host feature enables you to configure external hosts and scripts to take the snapshots on other, nonqualified storage arrays.

Example

```
Core_01 (config) # storage snapshot handoff-host add chief-cs123.lab.nbttech.com username testuser
password testpwd script-path "c:\python\python.exe c:\handoff_scripts\sample_script.py" script-
args "-option1 value1"
```

```
Core_02 (config) # failover-peer storage snapshot handoff-host add chief-cs123.lab.nbttech.com
username testuser password testpwd script-path "c:\python\python.exe
c:\handoff_scripts\sample_script.py" script-args "-option1 value1"
```

Product

SteelFusion Core

Related Topics

[“show storage snapshot,”](#) [“storage snapshot handoff-host,”](#) [“storage snapshot handoff-host remove host”](#)

storage snapshot handoff-host remove host

Removes a snapshot host from the list of hosts configured for LUN snapshots.

Syntax

```
[failover-peer] storage snapshot handoff-host remove host <host>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<host>	Specify the name of the host.

Example

```
amnesiac (config) # storage snapshot handoff-host remove host oak-vva14
```

Product

SteelFusion Core

Related Topics

[“storage snapshot handoff-host”](#)

storage snapshot storage-array

Adds or modifies the storage arrays that can be used for snapshots.

Syntax

```
[failover-peer] storage snapshot storage-array {add | modify} host <host> type {EMC-Clariion | EMC-VNX | Dell-EqualLogic | IBM-V7000 | NetApp} port <port> protocol <protocol> username <username> password <password>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
{add modify}	Specify whether you want to add or modify the storage array.
host <host>	Specify the name of the host.
type	Specify one of the following types of arrays: <ul style="list-style-type: none"> • EMC-Clariion • EMC-VNX • Dell-EqualLogic • IBM V7000 • NetApp
username <username>	Specify the username for the host.
password <password>	Specify the password for the host.
port <port>	For NetApp storage arrays, specify the port number.
protocol <protocol>	For NetApp storage arrays, specify the protocol type.

Example

```
amnesiac (config) # storage snapshot storage-array add host oak-vva14 type EMC-Clariion username admin password 1234
amnesiac (config) # storage snapshot storage-array add host 1.1.3.4 type NetApp username admin password 1234
```

Product

SteelFusion Core

Related Topics[“storage snapshot storage-array remove host”](#)

storage snapshot storage-array remove host

Removes a storage array from the list of hosts on which snapshots can be taken.

Syntax

[failover-peer] storage snapshot storage-array remove host <host>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<host>	Specify the name of the host to remove.

Example

```
amnesiac (config) # storage snapshot storage-array remove host oak-vva14
```

Product

SteelFusion Core

Related Topics[“storage snapshot storage-array”](#)

storage snapshot storage-array modify host redundant-paths add rp-host

Configures redundant paths to the specified snapshot host in case of failure.

Syntax

[failover-peer] storage snapshot storage-array modify host <host> redundant-paths add rp-host <rp-host> [rp-port <port>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<host>	Specify the hostname of the storage array.
<rp-host>	Specify the redundant hostname to add for the chosen storage array.
rp-port <port>	Specify the redundant port number for the chosen storage array.

Example

```
amnesiac (config) # storage snapshot storage-array modify host oak-vva14 redundant-paths add rp-host oak-vva20 rp-port 90
```

Product

SteelFusion Core

storage snapshot storage-array modify host redundant-paths remove rp-host

Removes the specified redundant path for the snapshot host.

Syntax

[failover-peer] storage snapshot storage-array modify host <host> redundant-paths remove rp-host <rp-host>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<host>	Specify the hostname of the storage array.
<rp-host>	Specify the redundant hostname to remove for the chosen storage array.

Example

```
amnesiac (config) # storage snapshot storage-array modify host oak-vva14 redundant-paths remove rp-host oak-vva20
```

Product

SteelFusion Core

storage snapshot storage-array remove host

Removes a snapshot host.

Syntax

[failover-peer] storage snapshot storage-array remove host <host>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<host>	Specify the hostname of the storage array.

Example

```
amnesiac (config) # storage snapshot storage-array remove host oak-vva14
```

Product

SteelFusion Core

storage snapshot skip_vm_reg_op enable

When using backup software packages such as Veeam, Core will modify the cleanup operations it performs between successive snapshots. To ensure that incremental changes between these snapshots are captured, the data protection operation will skip unregistering VMs on the Proxy ESX server, but still perform other cleanup operations such as unmounting the ESXi datastore and detaching the cloned LUNs.

Syntax

[no] [failover-peer] storage snapshot skip_vm_reg_op enable

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
---------------	--

Usage

Please use caution when using this command.

The **no** command option disables the feature.
This command applies to all LUNs on the Core.

Example

```
amnesiac (config) # failover-peer storage snapshot skip_vm_reg_op enable
```

Product

SteelFusion Core

storage snapshot policy add

Adds a new snapshot policy to the configuration of the current appliance.

Syntax

[failover-peer] storage snapshot policy add <policy-name>

Parameters

failover-peer	Perform the command on an unavailable failover peer of the current appliance. The changed configuration is automatically applied when the appliance returns to service.
<policy-name>	Name of the new policy.

Example

```
Core_01 (config) # storage snapshot policy add Weekly20150303
Core_02 (config) # failover-peer storage snapshot policy add Weekly20150303
```

Product

SteelFusion Core

Related Topics

[“storage snapshot policy remove,”](#) [“storage snapshot policy modify add-daily,”](#) [“storage snapshot policy modify add-hourly,”](#) [“storage snapshot policy modify add-weekly,”](#) [“storage snapshot policy rename”](#)

storage snapshot policy modify add-daily

Adds a daily snapshot schedule to the specified snapshot policy.

Syntax

[failover-peer] storage snapshot policy modify <policy-name> add-daily hour <schedule-hour> {days <schedule-days> | everyday} [max-snap-count <max-count>] [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<policy-name>	Name of the policy to be modified.
hour <schedule-hour>	Specifies the time for the snapshot to be taken. Use the 24-hr clock format. For example, to specify 4pm: 16 .
days <schedule-days>	Specifies the day of the week for the snapshot to be taken. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
everyday	Specifies daily snapshots.
max-snap-count <max-count>	Specifies the maximum number of weekly snapshots to be retained.
force	Forces the change (in case the policy is currently assigned).

Example

```
Core_01 (config) # storage snapshot policy modify DailyLUN17 add-daily everyday
Core_02 (config) # failover-peer storage snapshot policy modify DailyLUN17 add-daily everyday
```

Product

SteelFusion Core

Related Topics

[“storage snapshot policy add,”](#) [“storage snapshot policy modify add-hourly,”](#) [“storage snapshot policy modify add-weekly,”](#) [“storage snapshot policy remove,”](#) [“storage snapshot policy rename”](#)

storage snapshot policy modify add-hourly

Adds an hourly snapshot schedule to the specified snapshot policy.

Syntax

```
[failover-peer] storage snapshot policy modify <policy-name> add-hourly {everyhour | hours <schedule-hours>}
[max-snap-count <max-count>] [force]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<policy-name>	Specifies the name of the policy to be modified.
everyhour	Specifies hourly snapshots.
hours <schedule-hours>	Specifies the time for the snapshot to be taken. To specify multiple times, add a comma after each time. Use the 24-hr clock format. For example, to specify 4pm: 16 .
max-snap-count <max-count>	Specifies the maximum number of hourly snapshots to be retained.
force	Forces the change (in case the policy is currently assigned).

Example

```
Core_01 (config) # storage snapshot policy modify DailyLUN17 add-hourly everyhour
Core_02 (config) # failover-peer storage snapshot policy modify DailyLUN17 add-hourly everyhour
```

Product

SteelFusion Core

Related Topics

[“storage snapshot policy add,”](#) [“storage snapshot policy remove,”](#) [“storage snapshot policy modify add-hourly,”](#)
[“storage snapshot policy modify add-weekly,”](#) [“storage snapshot policy rename”](#)

storage snapshot policy modify add-weekly

Adds a weekly snapshot schedule to the specified snapshot policy.

Syntax

[failover-peer] storage snapshot policy modify <policy-name> add-weekly hour <schedule-hour> day <schedule-day> [max-snap-count <max-count>] [force]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<policy-name>	Name of the policy to be modified.
hour <schedule-hour>	Specifies the time for the snapshot to be taken. Use the 24-hr clock format. For example, to specify 4pm: 16 .
day <schedule-day>	Specifies the day of the week for the snapshot to be taken. Use the first three characters (lowercase) of the English term for the day of the week: for example, sun , mon , tue , and so on.
max-snap-count <max-count>	Specifies the maximum number of weekly snapshots to be retained.
force	Forces the change (in case the policy is currently assigned).

Example

```
Core_01 (config) # storage snapshot policy modify WeeklyLUN17 add-weekly 10:00:00 day mon
Core_02 (config) # failover-peer storage snapshot policy modify WeeklyLUN17 add-weekly 10:00:00 day mon
```

Product

SteelFusion Core

Related Topics

[“storage snapshot policy add,”](#) [“storage snapshot policy modify add-hourly,”](#) [“storage snapshot policy modify add-daily,”](#) [“storage snapshot policy remove,”](#) [“storage snapshot policy rename”](#)

storage snapshot policy remove

Removes the specified snapshot policy from the configuration of the current appliance.

Syntax

[failover-peer] storage snapshot policy remove <policy-name>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<policy-name>	Specify the name of the policy to be removed.

Example

```
Core_01 (config) # storage snapshot policy remove Weekly20150303
Core_02 (config) # failover-peer storage snapshot policy remove Weekly20150303
```

Product

SteelFusion Core

Related Topics

[“storage snapshot policy add,” “storage snapshot policy modify add-hourly,” “storage snapshot policy modify add-daily,” “storage snapshot policy modify add-weekly,” “storage snapshot policy rename”](#)

storage snapshot policy rename

Adds a new snapshot policy to the configuration of the current appliance.

Syntax

```
[failover-peer] storage snapshot policy rename <policy-name> new-name <new-policy-name>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<policy-name>	Name of the policy to be modified.
<new-policy-name>	New policy name.

Example

```
Core_01 (config) # storage snapshot policy rename Weekly20130606 new-name WeeklyLUNJacob
Core_02 (config) # failover-peer storage snapshot policy rename Weekly20130606 new-name
WeeklyLUNJacob
```

Product

SteelFusion Core

Related Topics

[“storage snapshot policy add,” “storage snapshot policy modify add-hourly,” “storage snapshot policy modify add-daily,” “storage snapshot policy modify add-weekly,” “storage snapshot policy remove”](#)

storage snapshot test handoff delete serial

Test deletes a LUN snapshot without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test handoff delete serial <lun-serial> snap-name <snap-name> [host <hostname>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<lun-serial>	Snapshot LUN by the LUN serial number.
snap-name <snap-name>	Specifies the snapshot by name.
host <hostname>	Specifies a handoff host.

Usage

Use this command for handoff host configurations only. All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test handoff delete serial ORIG12P5D snap-name snapshot1 host win_handoff_host
```

```
Core_02 (config) # failover-peer storage snapshot test handoff delete serial ORIG12P5D snap-name snapshot1 host win_handoff_host
```

Product

SteelFusion Core

Related Topics

[“storage snapshot handoff-host,”](#) [“storage snapshot handoff-host,”](#) [“storage snapshot test handoff take serial”](#)

storage snapshot test handoff hello serial

Tests the connection to the storage array.

Syntax

```
[failover-peer] storage snapshot test handoff hello serial <lun-serial> [host <hostname>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<lun-serial>	LUN serial number.
host <hostname>	Specifies a handoff host.

Usage

Use this command for handoff host configurations only. All test commands enable you to test different snapshot configurations without affecting your configuration. This command does not change the configuration.

Example

```
Core_01 (config) # storage snapshot test handoff hello serial ORIG12P5D host win_handoff_host
```

```
Core_02 (config) # failover-peer storage snapshot test handoff hello serial ORIG12P5D host win_handoff_host
```

Product

SteelFusion Core

Related Topics

[“storage snapshot handoff-host,”](#) [“storage snapshot test handoff take serial”](#)

storage snapshot test handoff take serial

Test creates a LUN snapshot without changing the current configuration. For handoff host configurations only.

Syntax

[failover-peer] storage snapshot test handoff take serial <lun-serial> [snap-name <snap-name>] [host <hostname>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-name <snap-name>	Specifies the name for the snapshot to be test created.
host <hostname>	Specifies the handoff host.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test handoff take serial ORIG12P5D snap-name snapshot1 host
win_handoff_host
```

```
Core_02 (config) # failover-peer storage snapshot test handoff take serial ORIG12P5D snap-name
snapshot1 host win_handoff_host
```

Product

SteelFusion Core

Related Topics

[“storage snapshot handoff-host,”](#) [“storage snapshot test handoff delete serial”](#)

storage snapshot test integrated delete serial

Test deletes a LUN snapshot without changing the current configuration.

Syntax

[failover-peer] storage snapshot test integrated delete serial <lun-serial> snap-name <snap-name> [group <group-name>]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-name <snap-name>	Specifies the name of the snapshot.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name. • NetApp storage arrays - initiator group name. • IBM - host, which is a collection of initiators.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated delete host kabar-vva35 serial ORIG12P5D snap-name snapshot1 private
```

```
Core_02 (config) # failover-peer storage snapshot test integrated delete host kabar-vva35 serial ORIG12P5D snap-name snapshot1 private
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose serial,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated delete type

Test deletes a LUN snapshot, specified by array type, without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated delete type <array-type> host <hostname> [serial <lun-serial>] [snap-name <snap-name>] user <username> password <password> [group <group-name>] [use-ssl]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
type <array-type>	Specifies the storage array type: <ul style="list-style-type: none"> • emc_clariion - EMC-CLARiiON • emc_vnx - EMC-VNX • dell_equallogic - Dell EqualLogic • netapp - NetApp • ibm_v7000 - IBM V7000 • file - File-based backend storage arrays
host <hostname>	Specifies the hostname of the storage array.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-name <snap-name>	Specifies the snapshot by name.
user <username>	Specifies a username for the snapshot credential.
password <password>	Specifies a password for the snapshot credential.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name. • NetApp storage arrays - initiator group name. • IBM - host, which is a collection of initiators.
use-ssl	For NetApp storage arrays, uses HTTPS to dport=443.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated delete type emc host kabar-vva35 serial
ORIG12P5D snap-name snapshot1 user admincentral password adminpass367
```

```
Core_02 (config) # failover-peer storage snapshot test integrated delete type emc host kabar-vva35
serial ORIG12P5D snap-name snapshot1 user admincentral password adminpass367
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose serial,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated expose serial

Test creates a clone LUN out of a snapshot and exposes it to initiators, without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated expose serial <lun-serial> snap-name <snap-name> [group <group-name>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-name <snap-name>	Specifies the name of the snapshot.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name. • NetApp storage arrays - initiator group name. • IBM - host, which is a collection of initiators.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated expose serial CLONE12P5D snap-name snapshot1
```

```
Core_02 (config) # failover-peer storage snapshot test integrated expose serial CLONE12P5D snap-name snapshot1
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose serial,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated expose type

Test creates a clone LUN out of a snapshot, specified by array type, without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated expose type <array-type> host <hostname> serial <lun-serial> snap-name <snap-name> user <username> password <password> [group <group-name>] [use-ssl]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
type <array-type>	Specifies the storage array type: <ul style="list-style-type: none"> • emc_clariion - EMC-CLARiiON • emc_vnx - EMC-VNX • dell_equallogic - Dell EqualLogic • netapp - NetApp • ibm_v7000 - IBM V7000 • file - File-based backend storage arrays
host <hostname>	Specifies the hostname of the storage array.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-name <snap-name>	Specifies the name of the snapshot.
user <username>	Specifies a username for the snapshot credential.
password <password>	Specifies a password for the snapshot credential.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name • NetApp storage arrays - initiator group name • IBM - host, which is a collection of initiators.
use-ssl	For NetApp storage arrays, uses HTTPS to dport=443.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated expose type netapp host kabar-vva35 serial
CLONE12P5D snap-name snapshot1 user admincentral password adminpass367 use-ssl
```

```
Core_02 (config) # failover-peer storage snapshot test integrated expose type netapp host kabar-
vva35 serial CLONE12P5D snap-name snapshot1 user admincentral password adminpass367 use-ssl
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose serial,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated proxy-backup serial

Test runs a proxy backup test.

Syntax

```
[failover-peer] storage snapshot test integrated proxy-backup serial <lun-serial>
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

The proxy backup feature of Core enables backup integration directly from the data center. Core clones the snapshot specified for data protection and mounts the cloned LUN on the proxy server. The backup software then communicates with the proxy server to perform the backup.

Example

```
Core_01 (config) # storage snapshot test integrated proxy-backup serial ORIG12P5D
Core_02 (config) # failover-peer storage snapshot test integrated proxy-backup serial ORIG12P5D
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,” “storage snapshot test integrated delete type,” “storage snapshot test integrated expose serial,” “storage snapshot test integrated expose type,” “storage snapshot test integrated take type,” “storage snapshot test integrated un-expose serial,” “storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated take serial

Test creates a LUN snapshot without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated take serial <lun-serial> [group <group-name>] [snap-name <snap-name>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name. • NetApp storage arrays - initiator group name • IBM - host, which is a collection of initiators.
snap-name <snap-name>	Specifies the name of the snapshot.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated take serial ORIG12P5D
Core_02 (config) # failover-peer storage snapshot test integrated take serial ORIG12P5D
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose serial,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated take type

Test creates a LUN snapshot, specified by array type, without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated take type <array-type> host <hostname> serial <lun-serial> user
<username> password <password> [group <group-name>] [use-ssl]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
type <array-type>	Specifies the array type: <ul style="list-style-type: none"> • emc_clariion - EMC-CLARiiON • emc_vnx - EMC-VNX • dell_equallogic - Dell EqualLogic • netapp - NetApp • ibm_v7000 - IBM V7000 • file - File-based backend storage arrays
host <hostname>	Specifies the hostname of the storage array.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
user <username>	Specifies a valid username for the snapshot credential.
password <password>	Specifies a valid password for the snapshot credential.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name • NetApp storage arrays - initiator group name • IBM - host, which is a collection of initiators.
use-ssl	For NetApp storage arrays, uses HTTPS to dport=443.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated take type vnx host kabar-vva35 serial ORIG12P5D
user admincentral password adminpass367
```

```
Core_02 (config) # failover-peer storage snapshot test integrated take type vnx host kabar-vva35
serial ORIG12P5D user admincentral password adminpass367
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated un-expose serial,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated un-expose serial

Test deletes the cloned LUN, which was created from the snapshot, without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated un-expose serial <lun-serial> snap-lun-serial <snap-lun-serial>
[group <group-name>] [use-ssl]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
host <hostname>	Specifies the hostname of the storage array.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-lun-serial <snap-lun-serial>	Specifies the serial number of the cloned LUN to be deleted.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name. • NetApp storage arrays - initiator group name. • IBM - host, which is a collection of initiators.
use-ssl	For NetApp storage arrays, uses HTTPS to dport=443.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated un-expose host kabarcvva35 serial CLONE12P5D

Core_02 (config) # failover-peer storage snapshot test integrated un-expose host kabarcvva35 serial
CLONE12P5D
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose type”](#)

storage snapshot test integrated un-expose type

Test deletes the cloned LUN, specified by the array type, without changing the current configuration.

Syntax

```
[failover-peer] storage snapshot test integrated un-expose type <array-type> host <hostname> serial <lun-serial>
snap-lun-serial <snap-lun-serial> user <username> password <password> [group <group-name>] [use-ssl]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
type <array-type>	Specifies the array type: <ul style="list-style-type: none"> • emc - EMC-CLARiiON • vnx - EMC-VNX • eql - Dell-EqualLogic • netapp - NetApp • v7000 - IBM-V7000
host <hostname>	Specifies the hostname of the storage array.
serial <lun-serial>	Specifies the snapshot LUN by the LUN serial number.
snap-lun-serial <snap-lun.serial>	Specifies the serial number of the cloned LUN to be deleted.
group <group-name>	Specifies the group name as follows depending on your configuration: <ul style="list-style-type: none"> • CLARiiON storage arrays - storage group name. • NetApp storage arrays - initiator group name. • IBM - host, which is a collection of initiators.
use-ssl	For NetApp storage arrays, uses HTTPS to dport=443.

Usage

All test commands enable you to test different snapshot configurations without affecting your configuration.

Example

```
Core_01 (config) # storage snapshot test integrated un-expose type emc host kabar-vva35 serial
CLONE12P5D user admincentral password adminpass367
```

```
Core_02 (config) # failover-peer storage snapshot test integrated un-expose type emc host kabar-
vva35 serial CLONE12P5D user admincentral password adminpass367
```

Product

SteelFusion Core

Related Topics

[“storage snapshot test integrated delete serial,”](#) [“storage snapshot test integrated delete type,”](#) [“storage snapshot test integrated expose serial,”](#) [“storage snapshot test integrated expose type,”](#) [“storage snapshot test integrated take serial,”](#) [“storage snapshot test integrated take type,”](#) [“storage snapshot test integrated un-expose serial”](#)

Displaying Core Information

This section describes the commands to display performance reports and information regarding LUNs, iSCSI and snapshot settings, and replication.

show debug health-report

Displays the health report settings.

Syntax

```
show debug health-report
```


Parameters

None

Example

```
amnesiac# show debug health-report
Enable Health Report: yes
```

Product

SteelFusion Core

Related Topics

[“debug health-report enable”](#)

show debug uptime-report

Displays the uptime report settings.

Syntax

show debug uptime-report

Parameters

None

Example

```
amnesiac # show debug uptime-report
Enable Uptime Report: yes
```

Product

SteelFusion Core

Related Topics

[“debug uptime-report enable”](#)

show device-failover (Core)

Displays the failover configuration settings (if any), including failover peer hostname, failover peer port, local state, peer state, self-configuration, peer configuration, and peer interfaces.

Syntax

show device-failover

Parameters

None

Usage

Use this command to display the configuration settings for failover.

Example

```
Core_02 (config) # show device-failover
Device failover settings
  Failover peer hostname : kabar-vva62
  Config(s) being served : Self
  HA state                : Active Self
Heartbeat Connections
  10.12.6.133 -> 10.12.6.141 : Connected
  10.12.5.240 -> 10.12.5.244 : Connected
```

Product

SteelFusion Core

Related Topics

[“device-failover peer set \(Core\),” “device-failover peer clear \(Core\),” “device-failover peer-config activate,” “device-failover peerip”](#)

show edge

Displays detailed information about the Edges connected to the current Core.

Syntax

show [**failover-peer**] **edge** [**preferred-if** | **id** <id> | **id** <id> [**blockstore**] | **id** <id> **iscsi initiator-group** [**name** <initiator group>] | **id** <id> **iscsi initiators** [**name** <initiator>] | **id** <id> **iscsi targets** [**name** <target-name>]]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
preferred-if	Displays the preferred interface for Edge connections. Note: This keyword is not available when the failover-peer keyword is included.
id <id>	Specifies the ID of an Edge to limit the output to information about that appliance.
blockstore	Displays the write reserve and encryption type settings of the blockstore. You must use this keyword in conjunction with the id <id> keyword.
iscsi initiator-group	Displays the details of iSCSI initiator groups, including configuration status and the initiators in the group.
name <initiator group>	Specifies the name of an initiator group (igroup) to limit the output to information about that group. You must use this keyword in conjunction with the id <id> keyword.
iscsi initiators	Displays the details of iSCSI initiator credentials.
name <initiator>	Specifies the name of a particular initiator to limit the output to information about that initiator. You must use this keyword in conjunction with the id <id> keyword.
iscsi targets	Displays the details of iSCSI targets, including description, security-only status, header-digest status, data-digest status, initiator groups, initiator credentials, and network portals.
name <target-name>	Specifies the name of a particular initiator to limit the output to information about that target. You must use this keyword in conjunction with the id variable.

Usage

Use this command to display configuration details about Edges connected to the current Core. The following information is displayed:

- ID of the Edge
- Configuration status
- IP address
- Connection duration
- Virtual IP address

- Mapped LUNs
- Prepopulation schedule details

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show edge
SteelFusion Edge Id: amnesia
  Configuration status:    Ready
  Address:                 Unknown
  Connection duration:     0s

Virtual IP addresses:

Mapped LUNs:
  Serial :                 IET:VIRTUAL-DISK:0001:768

Prepop schedules:
```

Product

SteelFusion Core

Related Topics

[“edge add id,” “edge remove id,” “edge modify preferred-if,” “edge remove id,” “edge modify id clear-serial,” “edge modify preferred-if,” “edge id prepop schedule add,” “edge id prepop schedule modify,” “edge id prepop schedule remove,” “storage lun modify map edge-id”](#)

show stats storage dr-bytes-synced

When using replication, this command displays the total number of bytes written to the secondary data center for the specified LUN.

Syntax

```
show stats [failover-peer] storage dr-bytes-synced {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun {<lun-id > | <all>}}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
all	Returns statistics for all LUNs.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core 01 > show stats storage dr-bytes-synced interval day lun P3KRP502Gu8x
Total Number of bytes written to secondary datacenter: 2.78 GB
```

```
Core 02 > show stats failover-peer storage dr-bytes-synced start-time '2015/01/31 23:59:59' end-
time '2015/02/15 23:59:59' lun all
Total Number of bytes written to secondary datacenter: 2.71 GB
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-latency”](#)

show stats storage dr-disk-journal

When using replication in suspended mode, this command displays the number of blocks recorded in the journal for the specified LUN. When replication is resumed, all of these blocks will be written to the secondary data center so the LUNs are in sync.

Syntax

```
show stats [failover-peer] storage dr-disk-journal {interval <time-interval> lun <lun-id> | start-time <start> end-
time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance. This command is only available when replication is suspended or replication is being re-synchronized.

Example

```
Core 01 > show stats storage dr-disk-journal interval week lun P3KRP502Gu8x
Number of blocks pending in the Journal on disk: 0
```

```
Core 02 > show stats failover-peer storage dr-disk-journal start-time '2015/01/31 23:59:59' end-
time '2015/02/15 23:59:59' lun all
Number of blocks pending in the Journal on disk: 197.1 kBlocks
```

Product

SteelFusion Core

Related Topics[“show stats storage dr-mem-journal”](#)**show stats storage dr-fsync-bytes**

When using replication, this command displays the bytes remaining to be copied to the secondary data center during the first sync (first sync creates the initial copy of the primary data center LUN in the secondary data center).

Syntax

```
show stats [failover-peer] storage dr-fsync-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core 01 > show stats storage dr-fsync-bytes interval hour lun P3KRP502Gu8x
Current First Sync bytes remaining: 2.1 GB
```

```
Core 02 > show stats failover-peer storage dr-fsync-bytes start-time '2015/01/31 23:59:59' end-time
'2015/02/15 23:59:59' lun all
Current First Sync bytes remaining: 15.9 GB
```

Product

SteelFusion Core

Related Topics[“show stats storage dr-resync-bytes”](#)

show stats storage dr-latency

When using replication, this command displays the average latency (in milliseconds) of write operations to the secondary data center for the specified LUN. This includes the latency of the inter-data center network and the latency of the backend being used on the secondary.

Syntax

```
show stats [failover-peer] storage dr-latency {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_01 > show stats storage dr-latency interval 5min lun P3KRP502Gu8x
Mean Latency of write operations to secondary datacenter in ms: 0.00
```

```
Core 02 > show stats failover-peer storage dr-latency start-time '2015/01/31 23:59:59' end-time
'2015/02/05 23:59:59' lun all
Mean Latency of write operations to secondary datacenter in ms: 579.00
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-bytes-synced”](#)

show stats storage dr-mem-journal

When using replication, this command displays the number of blocks that have been received from the Edge that are in the process of being written to the secondary data center.

Syntax

```
show stats [failover-peer] storage dr-mem-journal {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance. A high value indicates possible issues in the secondary data center write path.

Example

```
Core 01 > show stats storage dr-mem-journal interval 1min lun P3KRP502Gu8x
Number of blocks pending in the Journal in memory: 0
```

```
Core 02 > show stats failover-peer storage dr-mem-journal start-time '2015/01/31 23:59:59' end-time
'2015/02/02 23:59:59' lun all
Number of blocks pending in the Journal in memory: 113880
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-disk-journal”](#)

show stats storage dr-resync-bytes

Displays statistics summarizing the amount of data remaining to be written to the secondary data center to bring it into sync after replication is resumed. These bytes were recorded to the journal LUN while replication was suspended.

Syntax

```
show stats [failover-peer] storage dr-resync-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```


Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the identifier of the desired LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core 01 > show stats storage dr-resync-bytes interval day lun P3KRP502Gu8x
Current Resync bytes remaining: 0 Bytes
```

```
Core 02 > show stats failover-peer storage dr-resync-bytes start-time '2015/01/31 15:59:59' end-
time '2015/01/31 16:10:00' lun all
Current Resync bytes remaining: 552.2 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage dr-fsync-bytes”](#)

show stats storage edge-bytes

Displays connectivity statistics that summarize the standard I/O data traffic read from and written to the specified Edge for the specified period of time.

Syntax

```
show stats [failover-peer] storage edge-bytes {interval <time-interval> edge <edge-self-identifier> | start-time
<start> end-time <end> edge <edge-self-identifier>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
edge <edge-self-identifier>	Specifies the self-identifier of the desired Edge.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to answer the following questions:

- How many megabytes have been written to and read from the specified Edge for the specified period?
- How many megabytes have been prefetched to the specified Edge for the specified period?

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage edge-bytes interval month edge Edge01
Total Data Read: 0 Bytes
Total Data Prefetched: 0 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

["show stats storage filer-bytes," "show stats storage filer-iops," "show stats storage filer-latency," "show stats storage lun-bytes," "show stats storage edge-stats," "show stats storage lun-iops," "show stats storage lun-latency," "show stats storage network-bytes," "show stats storage network-iops," "show stats storage network-latency"](#)

show stats storage edge-stats

Gives you a high-level performance overview of all configured Edges connected to the current Core.

Syntax

```
show stats [failover-peer] storage edge-stats {commit-delay <edges> | readio-latency <edges> | space-util <edges>
| time-to-sync <edges> | uncommitted <edges> | writeio-latency <edges>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
commit-delay <edges>	Displays the current delay to commit the blockstore data on the Edge (in seconds).
readio-latency <edges>	Displays the average read I/O latency across all LUNs for that Edge for the last hour (in milliseconds).
space-util <edges>	Displays the percentage of blockstore currently being used by uncommitted data.
time-to-sync <edges>	Blockstore uncommitted data estimated time to sync to Core (in seconds).
uncommitted <edges>	Displays the amount uncommitted data currently in the blockstore on the Edge (in bytes).
writeio-latency <edges>	Displays the average write I/O latency across all LUNs for that Edge for the last hour (in milliseconds).

Usage

The configured Edges send their statistics every 5 minutes to Core. Core then displays this point-in-time information in the report, giving you a network-wide view of valuable details on how they are performing.

The highest values are displayed on the left and descend to the right, enabling you to easily identify any Edges with performance problems. Each Edge is assigned a color so you can compare statistics between several Edges at a glance.

If you have set up the Core for high-availability, the SteelFusion Edge Stats report will only display Edges that are served by individual Cores. If one Core is down, the report shows Edges served by both Cores, however on separate pages.

Example

```
amnesiac (config) # show stats storage edge-stats uncommitted
```

Product

SteelFusion Core

Related Topics

[“edge id blockstore uncommitted”](#)

show stats storage filer-bytes

Displays the number of bytes written to and read from the specified SAN (storage area network) for the specified period of time.

Syntax

```
show stats [failover-peer] storage filer-bytes [interval <time-interval> filer <hostname> | start-time <start> end-time <end> filer <hostname>]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
filer <hostname>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display how many megabytes have been written to and read from the specified SAN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage filer-bytes interval month filer 10.1.x.x
Total Data Read: 512 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage filer-iops

Displays the standard I/O operations per second written to and read from the specified SAN (storage area network) for the specified period of time.

Syntax

```
show stats [failover-peer] storage filer-iops {interval <time-interval> filer <hostname> | start-time <start> end-time <end> filer <hostname>}
```

Parameters

failover-peer	Performs the command on the failover-peer of the appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
filer <hostname>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display how many operations have been written to and read from the specified SAN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage filer-iops interval month filer 10.1.x.x
Total Read IOs: 1
Total Write IOs: 0
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage filer-latency

Displays the average read I/O and write I/O times (in milliseconds) for the specified SAN (storage area network) for the specified period of time.

Syntax

```
show stats [failover-peer] storage filer-latency {interval <time-interval> filer <hostname> | start-time <start> end-time <end> filer <hostname>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
filer <hostname>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average read and write latencies for the specified SAN for the specified period. All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage filer-latency interval month filer 10.1.x.x
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage lun-bytes

Displays the number of bytes written to and read from the specified LUN for the specified period of time.

Syntax

```
show stats [failover-peer] storage lun-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the IP address of the filer portal.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the number of megabytes written to and read from the specified LUN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage lun-bytes interval month lun hqD9Vosusiw
Total Data Prefetched: 0 Bytes
Total Data Read (no-prefetch): 0 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage lun-iops

Displays the standard I/O operations per second written to and read from the specified LUN for the specified period of time.

Syntax

```
show stats [failover-peer] storage lun-iops {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the locally assigned serial number of the LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display how many operations have been written to and read from the specified LUN for the specified period.

All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage lun-iops interval month lun hqD9Vo/hRSYU
Total Read IOs: 1
Total Write IOs: 0
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage lun-latency

Displays the average read and write latency for the specified LUN for the specified period of time.

Syntax

```
show stats [failover-peer] storage lun-latency {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```


Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
lun <lun-id>	Specifies the locally assigned serial number of the LUN.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average read and write latencies for the specified LUN for the specified period. All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage lun-latency interval month lun hqD9Vo
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage network-bytes

Displays the number of bytes written to and read from the network for the specified period of time.

Syntax

```
show stats storage network-bytes {interval <time-interval> | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the number of bytes written to and read from the network for the specified period. All **failover-peer** commands enable you to perform the command on the failover peer of the current appliance.

Example

```
Core_02 > show stats storage network-bytes interval month
Total Data Read: 3 Bytes
Total Data Written: 0 Bytes
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-iops,”](#) [“show stats storage network-latency”](#)

show stats storage network-iops

Displays the standard I/O operations per second written to and read from the network for the specified period of time.

Syntax

```
show stats storage network-iops {interval <time-interval>] | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average network read and write latencies for the specified period.

Example

```
Core_02 > show stats storage network-iops interval month
Total Read IOs: 3
Total Write IOs: 0
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-latency”](#)

show stats storage network-latency

Displays the average network read I/O and write I/O times (in milliseconds) for the specified period of time.

Syntax

```
show stats storage network-latency {interval <time-interval> | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Returns statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Specifies the start time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.
end-time <end>	Specifies the end time to return statistics. Use the format 'yyyy/mm/dd hh:mm:ss'.

Usage

Use this command to display the average network read and write latencies for the specified period.

Example

```
Core_02 > show stats storage network-latency interval month
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Core

Related Topics

[“show stats storage edge-bytes,”](#) [“show stats storage filer-bytes,”](#) [“show stats storage filer-iops,”](#) [“show stats storage filer-latency,”](#) [“show stats storage lun-bytes,”](#) [“show stats storage lun-iops,”](#) [“show stats storage lun-latency,”](#) [“show stats storage network-bytes,”](#) [“show stats storage network-iops”](#)

show storage coredr edge

Displays disaster recovery replication status for all Edges or the specified Edge.

Syntax

show [failover-peer] storage coredr edge {all | id <id>} [detail]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
all	Displays replication status for all Edges.
id <id>	Specifies the hostname of the storage array.
detail	Specifies the snapshot LUN by the LUN serial number.

Usage

Use this command to view each Edge’s replication status and configured replica LUNs.

Example

```
Core 01 > show storage coredr edge id EdgeNYC detail
Edge : EdgeNYC
Replication : enabled
```

```

Connected      : Yes

LUN alias : lun5
  Serial (Site2)      : B9EWn$DzraVc
  Serial (Site1)      : B9EWn$DzraVa
  State               : active
  Sync percentage     : Not applicable
  First-sync Type     : full
  Remaining bytes to sync : 0

LUN alias : lun6
  Serial (Site2)      : B9EWn$DzraVf
  Serial (Site1)      : P3KRP52h0TpK
  State               : active
  Sync percentage     : Not applicable
  First-sync Type     : full
  Remaining bytes to sync : 0

Core 01 > show storage coredr edge id Edge all
Edge : edge1
  Replication      : disabled
  Connected        : Yes

LUN Alias      Serial (site1)  Serial (site2)  State (Sync %)
-----
lun3           P3KRP502GuZw                unmapped

```

Product

SteelFusion Core

Related Topics

[“storage coredr replication resume,”](#) [“storage coredr replication suspend,”](#) [“storage coredr edge”](#)

show storage coredr replica size-leeway

Displays the replica LUN size leeway. The replica LUN size leeway is the allowed size difference (1 GB) between the original LUN on the primary data center and its replica LUN on the secondary site. Note that the replica LUN configured on the secondary site must be of the same size or larger (but within the leeway) than the original LUN on primary site.

Syntax

```
show storage coredr replica size-leeway
```

Parameters

None

Example

```
Core01 > show storage coredr replica size-leeway
Replica size leeway : 100000000 bytes
```

Product

SteelFusion Core

Related Topics

[“show storage coredr sec-site-luns,”](#) [“show storage coredr settings,”](#) [“storage coredr lun replicate-to,”](#) [“storage coredr lun remove-replica”](#)

show storage coredr sec-site-luns

Displays all LUNs available for replication from the secondary data center storage array, as well as their size and whether they are mapped.

Syntax

show storage coredr sec-site-luns

Parameters

None

Usage

This command is only available from the primary Core.

Example

```
Core01 > show storage coredr sec-site-luns
LUNs available on secondary site (site1) for replication:
```

Serial	Mapped	Size (bytes)
P3KRP502GlrZ	no	6.00 GB (6442450944)
P3KRP502Gt52	no	503.00 MB (527433728)
P3KRP502GtWz	no	503.00 MB (527433728)
P3KRP502Gu8x	yes	503.00 MB (527433728)
P3KRP502GuZw	no	503.00 MB (527433728)

Product

SteelFusion Core

Related Topics

[“show storage coredr replica size-leeway,”](#) [“show storage coredr settings,”](#) [“storage coredr lun replicate-to,”](#) [“storage coredr lun remove-replica”](#)

show storage coredr settings

Displays the currently configured settings for replication.

Syntax

show storage coredr settings

Parameters

None

Example

```
Core01 > show storage coredr settings
Site Role       : primary
Journal-LUN     : P3KRP51OJ2tR (35434506240 Bytes)
Site id         : Site1
Site interfaces : eth0_0
                : eth0_1
Peer site id    : Site2
Peer site ips   : 10.5.147.185
                : 10.5.147.188
Peer connected  : Yes (state: replicating)
Witness Edge    : Edge01NYC
```

Product

SteelFusion Core

Related Topics[“storage coredr clear-params”](#)**show storage iscsi**

Displays the details of the storage iSCSI settings.

Syntax

```
show [failover-peer] storage iscsi {chap [username <name>] | data-digest | disc-luns-all | disc-targets [portal
<hostname>] | header-digest | initiator | lun-alias <lun-alias> | lun-serial <lun-serial> | luns | portals | session
| targets}
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
chap	Displays the CHAP users.
username <name>	Specifies a CHAP user by name to view the details of that specific user.
data-digest	Indicates whether the data digest is enabled or not.
disc-luns-all	Displays detailed list of discovered iSCSI LUN.
disc-targets	Displays a detailed list of discovered iSCSI targets..
portal <hostname>	Specifies the hostname of the portal to display the details of that specific target.
header-digest	Indicates whether the header digest is enabled or not.
initiator	Displays the iSCSI initiator settings, including name, mutual CHAP configuration (enabled or not), and mutual CHAP username (if enabled).
lun-alias <lun-alias>	Displays the details of the LUN indicated by the specified alias value, including configuration status, size, type, vendor, serial number, and so on.
lun-serial <lun-serial>	Displays the details of the LUN indicated by the specified serial value, including configuration status, size, type, vendor, serial number, and so on.
luns	Displays the details of all configured LUNs, including configuration status, size, type, vendor, serial number, and so on.
portals	Displays the details of all iSCSI portals, including name, port, and CHAP authentication settings (if applicable).
session	Displays the details of the iSCSI session, such as MPIO support, iSCSI2 and iSCSI3 reservation support, and iSCSI2 reservation fallback.
targets	Displays the details of the configured iSCSI target.

Example

```
Core_02 > show storage iscsi chap username asdf
CHAP user : asdf
  Configuration status:    Ready
  Enabled:                Yes
  Password:               *****
  In Use                   No
```

```
Core_02 > show storage iscsi lun-alias test
Locally Assigned Serial: hqD9Vo/hRSYU
  Configuration status:    Ready
  Alias:                   test
  LUN size:                101.975 MB
```

```

LUN type:          iscsi
Origin LUN vendor: NetApp
Origin LUN serial: hqD9Vo/hRSYU
Online:            yes
Pinned:            no
...

```

Product

SteelFusion Core

show storage iscsi disc-portals portal

Displays the interfaces available on the filer for the specified iSCSI portal configuration.

Syntax

show [failover-peer] storage iscsi disc-portals portal <hostname>

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
<hostname>	Hostname of the iSCSI portal configuration.

Usage

This command is intended to be used for portals discovered for Multi-Path I/O (MPIO) configurations. MPIO enables a single iSCSI portal configuration to connect with the filer on multiple IP addresses.

After portals have been discovered, you can add them to the iSCSI portal configuration using the “[storage iscsi portal host disc-portal add](#)” command.

Example

```
Core_02 > show storage iscsi disc-portals portal 123.45.6.789
```

Product

SteelFusion Core

show storage iscsi mpio interfaces

Displays the interfaces currently configured for MPIO connections.

Syntax

show [failover-peer] storage iscsi mpio interfaces

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```

Core_02 > show storage iscsi mpio interfaces
Interfaces configured for MPIO
    eth0_2
    eth0_3

```

Product

SteelFusion Core

Related Topics[“show storage iscsi mpio-paths”](#)

show storage iscsi mpio-paths

Displays the interfaces currently configured for MPIO paths.

Syntax

show [failover-peer] storage iscsi mpio-paths {lun-alias <alias> | lun-serial <serial>}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
lun-alias <alias>	Displays the MPIO details of the LUN indicated by the specified alias value, including path ID, remote IP and port, source IP and port, state, and so on.
lun-serial <serial>	Displays the MPIO details of the LUN indicated by the specified serial value, including path ID, remote IP and port, source IP and port, state, and so on.

Example

```
Core_02 > show storage iscsi mpio-paths lun-alias alias-vmfs_lun1
MPIO paths:
  Path ID       : 10.12.4.XXX:0-10.12.4.XX:3260
  Remote IP     : 10.12.4.39
  Remote Port   : 3260
  Source IP     : 10.12.4.XXX
  Source Port   : 58614
  Excluded      : No
  Preferred     : No
  Connected     : Yes
  state         : Active Optimized
  Filer Preferred: no

  Current MPIO read path ID : 10.12.4.XXX:0-10.12.4.XX:3260
  Current MPIO write path ID: 10.12.4.XXX:0-10.12.4.XX:3260
```

Product

SteelFusion Core

Related Topics[“show storage iscsi mpio interfaces”](#)

show storage lun

Displays the details of the storage LUN settings.

Syntax

show [failover-peer] storage lun {alias <alias> | serial <serial>} [branch-recovery | snapshot {all | id} | snapshot-config | snapshot-log]

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
alias <alias>	Specifies the alias of the LUN to be displayed.
serial <serial>	Specifies the serial value of the LUN to be displayed.
branch-recovery	Specifies to display branch recovery information.
snapshot all	Displays all snapshots associated with a LUN.
snapshot id	Displays snapshot information associated with a specific ID.
snapshot-config	Specifies to display snapshot configuration details.
snapshot-log	Specifies to display snapshot log information.

Example

```
Core_02 > show storage lun alias yoga_iscsi
Locally Assigned Serial: hoigdoX\/xxxx
Configuration status      : Ready
Alias                     : xxxx_iscsi
LUN Size                  : 1.00351 GB
LUN Type                  : iscsi
Online                    : yes
IOPs acceleration        : Disabled
Failover Enabled          : yes
Prefetch                  : Enabled
Edge mapping              : gen1-sh15
Target mapping            : iqn.2003-10.com.xxxxxxxxxx.000
...
```

Product

SteelFusion Core

show storage luns

Displays details about all the LUNs configured for the current appliance, including:

- Configuration status
- LUN size and type
- Prefetch setting
- Mapped edge appliances
- Target and portal mapping
- Session status
- Prepopulation settings, status, progress, and schedules
- Snapshot settings and schedules
- MPIO policy settings

Syntax

```
show [failover-peer] storage luns [block-disk | edge-local | iscsi | discovered {block-disk | iscsi}]
```

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
block-disk	Limits the output to block-disk LUNs.
edge-local	Limits the output to local edge LUNs.
iscsi	Limits the output to iSCSI LUNs.
discovered block-disk	Limits the output to discovered block-disk LUNs.
discovered iscsi	Limits the output to discovered iSCSI LUNs.

Example

```
Core_02 > show storage luns iscsi
Locally Assigned Serial: P3KRP414Q4m6
  Configuration status      : Ready
  Alias                     : snapLun
  LUN Size                  : 101.975 MB
  LUN Type                  : iscsi
  Online                    : yes
  Failover Enabled         : yes
  Prefetch                  : Enabled
...
```

Product

SteelFusion Core

show storage lun-global settings

Displays the settings that are applicable to all LUNs.

Syntax

show [failover-peer] storage lun-global settings

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```
amnesiac > show storage lun-global settings
iSCSI reservations      : Enabled
Minimum local lun size  : 8 MBs
```

Product

SteelFusion Core

show storage snapshot

Displays the snapshot settings for the specified host.

Syntax

show [failover-peer] storage snapshot {br-proxy-host host <hostname> | handoff-host host <hostname> | storage-array host <hostname> | policies}

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
br-proxy-host host <hostname>]	Specifies the branch or proxy host hostname for which you want to display snapshot settings.
handoff-host host <hostname>]	Specifies the handoff host hostname for which you want to display snapshot settings.
storage-array host <hostname>]	Specifies the storage array hostname for which you want to display snapshot settings.
policies	Shows snapshot schedule policies.

Usage

Core can interoperate with any iSCSI-compliant storage array, but support for application-consistent snapshots is limited to storage arrays from qualified vendors (Dell EqualLogic, EMC CLARiiON, EMC VNX, or NetApp). The handoff host feature enables you to configure external hosts and scripts to take the snapshots on other, nonqualified storage arrays.

Example

```
Core_01 > show storage snapshot handoff-host
Core_02 > show failover-peer storage snapshot storage-array host chief-cs123.lab.nbttech.com
```

Product

SteelFusion Core

Related Topics

[“storage snapshot br-proxy-host,”](#) [“storage snapshot handoff-host”](#)

show storage snapshot policies

Displays details about all currently configured snapshot schedule policies.

Syntax

show [failover-peer] storage snapshot policies

Parameters

failover-peer	Performs the command on the failover peer of the current appliance. If the failover peer is unavailable, the changed configuration is automatically applied when the appliance returns to service.
----------------------	--

Example

```
Core_02 (config) # show storage snapshot policies
Snapshot Schedule Policy : default_policy
  Max Hourly Snaps          : 5
  Max Daily Snaps           : 5
  Max Weekly Snaps          : 5
  Schedule :
    hourly                  : everyday @ everyhour

Snapshot Schedule Policy : default_schedule_policy
  Max Hourly Snaps          : 5
  Max Daily Snaps           : 5
  Max Weekly Snaps          : 5
  Schedule :
```

```
hourly : everyday @ everyhour
```

```
Snapshot Schedule Policy : test_yoga
Max Hourly Snaps          : 5
Max Daily Snaps           : 5
Max Weekly Snaps          : 5
```

Product

SteelFusion Core

SteelFusion Edge Commands

This section describes the Edge system commands. You can use the command line to perform basic configuration tasks, display configuration information, and check status. It includes the following information:

- [“Hypervisor Commands” on page 327](#)
- [“Displaying Hypervisor Information” on page 344](#)
- [“Storage Commands” on page 352](#)
- [“Displaying Storage Information” on page 357](#)

Hypervisor Commands

The hypervisor is included in the SteelFusion Edge functionality and does not require a separate download or license. You set up and manage the hypervisor through the management console or command-line interface; you set up and configure virtual machines through the VMware vSphere Client or vCenter.

clear hypervisor hardware error-log

Clears the hypervisor Intelligent Platform Management Interface (IPMI) System Event Log (SEL).

Syntax

```
clear hypervisor hardware error-log
```

Parameters

None

Usage

The amber LED light stops blinking on the system when you enter this command.

Example

```
amnesiac # clear hypervisor hardware error-log
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor hardware error-log”](#)

hypervisor console

Allows access to the hypervisor serial console.

Syntax

hypervisor console

Parameters

None

Usage

This command exposes the hypervisor serial console through an internal serial-over-LAN to hypervisor baseboard management controller (BMC). By observing the serial console activity, you can detect errors in the hypervisor installation. The escape sequence for this command is the tilde character (~).

Example

```
Edge1 (config) # hypervisor console
VMware ESXi 5.5.0 (VMKernel Release Build 2068190)
x
x
x   Riverbed SteelFusion Edge
x
x   Intel(R) Xeon(R) CPU E5-2609 v2 @ 2.50GHz
x   48 GiB Memory
x
x
x
x   Download tools to manage this host from:
x   http://machine-edgeXXX-vsp1/
x   http://10.X.X.X/ (DHCP)
x   http://[fe80::20e:b6ff:febe:fe05]/ (STATIC)
x
x
x
x
x <F2> Customize System/View Logs          <F12> Shut Down/Restart
```

Product

SteelFusion Edge

Related Topics

[“Displaying Hypervisor Information”](#)

hypervisor initialize

Initializes the hypervisor to the default factory settings.

Syntax

hypervisor initialize [confirm]

Parameters

confirm	Confirms that you want to initialize the hypervisor to the default factory settings.
----------------	--

Usage

The Edge appliance ships with a hypervisor that is initialized and ready to install. ESXi is preinstalled and already deployed on the hypervisor.

Reinitializing is a destructive operation that restores the hypervisor to the default factory settings. Reinitialize with caution and only to fix critical virtualization errors.

Example

```
Edge1 (config) # hypervisor initialize
```

% Hypervisor is already installed. Reinitialization will restore hypervisor to the factory default settings. If you wish to proceed, use the command 'hypervisor initialize confirm'.

Product

SteelFusion Edge

Related Topics

[“hypervisor reinstall,” “show virtualization”](#)

hypervisor install

Installs the hypervisor configuration settings.

Syntax

hypervisor install password <password>

Parameters

password <password>	Specifies the hypervisor root password.
---------------------	---

Usage

All the hypervisor install configuration commands are static and are not applied until this command is entered.

Example

```
Edge1 (config) # hypervisor install password admin821
Successfully installed hypervisor
```

Product

SteelFusion Edge

Related Topics

[“hypervisor reinstall”](#)

hypervisor install-config hostname

Configures the hypervisor hostname.

Syntax

[no] hypervisor install-config hostname <hostname>

Parameters

<hostname>	Hypervisor hostname.
------------	----------------------

Usage

The hostname maps to the IP address of the hypervisor and is used to identify the hypervisor on the network.

This command changes the hostname. If the hostname does not match this configuration, check that the host is not acquiring its name from a DNS server.

Example

```
Edge1 (config) # hypervisor install-config hostname vSphere-host
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor install-config”](#)

hypervisor install-config license key

Configures a hypervisor custom license key.

Syntax

[no] hypervisor install-config license key <license-key>

Parameters

<license-key>	Hypervisor license key.
---------------	-------------------------

Usage

Use this command to override the Riverbed hypervisor license and install a custom license key.

The Edge appliance ships with a Riverbed VMware vSphere 5 license, VSPESXI, that enables basic hypervisor functions without support for more advanced vSphere features such as vCenter, vMotion, or high availability. If you need additional features beyond what the embedded VSPESXI level licensing provides, you must purchase a license upgrade through your VMware reseller.

Example

```
Edge1 (config) # hypervisor install-config license key 0H44L-37J51-37Y40-05A2H-CJTKH
```

Product

SteelFusion Edge

Related Topics

[“hypervisor license restore,”](#) [“show hypervisor license”](#)

hypervisor install-config network dns

Configures the DNS settings for the hypervisor.

Syntax

[no] hypervisor install-config network dns {domain-name <hostname> | import-rios | name-server <ip-address>}

Parameters

domain-name <hostname>	Specifies the hypervisor DNS domain setting.
import-rios	Imports DNS settings from RiOS.
name-server <ip-address>	Specifies the IPv4 address or IPv6 name server address.

Usage

You can only configure the hypervisor DNS settings through the command-line interface.

Example

```
Edge1 (config) # hypervisor install-config network dns import-rios
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor installed”](#)

hypervisor install-config network nic

Configures the hypervisor NIC settings.

Syntax

[no] hypervisor install-config network nic <nic> speed <speed> duplex <duplex>

Parameters

<nic>	<p>Hypervisor NIC interfaces with onboard uplinks (vmnicx) to the vSwitch. Uplinks serve as bridges between physical and virtual networks. The number of uplinks depend on the appliance model.</p> <p>The ports are labeled:</p> <ul style="list-style-type: none"> • gbe0_0 (vmnic4) • gbe0_1 (vmnic5) • gbe0_2 (vmnic6) • gbe0_3 (vmnic7) <p>Use these interfaces to connect VMs to any LAN switch connected to an ESXi host.</p>
speed <speed>	Configures the hypervisor NIC speed.
duplex <duplex>	Specifies the duplex setting: auto , full , or half . The default value is auto .

Usage

You can use any of the four data ports labeled gbe 0_0, gbe0_1, gbe0_2, and gbe0_3 for virtualization depending on the hypervisor configuration. You configure these ports during the initial configuration and manage them using the VMware vSphere client or vCenter.

Example

```
Edge1 (config) # hypervisor install-config network nic gbe0_0 speed auto duplex auto
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor installed”](#)

hypervisor install-config network route ipv4

Configures the IPv4 network route settings for the hypervisor.

Syntax

[no] hypervisor install-config network route ipv4 {default-gw <gateway-ipv4-address> | ipv4-prefix <ipv4-prefix> gateway <ipv4-address>}

Parameters

default-gw <gateway-ipv4-address>	<p>Specifies the hypervisor IPv4 default gateway.</p> <p>The default gateways are used by the hypervisor to send packets outside the local network.</p>
ipv4-prefix <ipv4-prefix>	Specifies the IPv4 route prefix.
gateway <ipv4-address>	Specifies the IPv4 address of the route gateway.

Usage

You must configure the default gateway for the hypervisor if you want it to route outside the network. The **no** command option clears the hypervisor IPv4 network route settings.

Example

```
Edge1 (config) # hypervisor install-config network route ipv4 default-gw 10.5.16.233
```

Product

SteelFusion Edge

Related Topics[“show hypervisor installed”](#)

hypervisor install-config network route ipv6

Configures the IPv6 network route settings for the hypervisor.

Syntax

```
[no] hypervisor install-config network route ipv6 {default-gw <gateway-ipv6-address> | ipv6-prefix <ipv6-prefix> gateway <ipv6-address>}
```

Parameters

default-gw <gateway-ipv6-address>	Specifies the hypervisor IPv6 default gateway. The default gateways are used by the hypervisor to send packets outside the local network.
ipv6-prefix <ipv6-prefix>	Specifies the IPv6 route prefix.
gateway <ipv6-address>	Specifies the IPv6 address of the route gateway.

Usage

You must configure the default gateway for the hypervisor if you want it to route outside the network. The **no** command option clears the hypervisor IPv6 network route settings.

Example

```
Edge1 (config) # hypervisor install-config network route ipv6 default-gw 2001:38dc:52::1/64
```

Product

SteelFusion Edge

Related Topics[“show hypervisor installed”](#)

hypervisor install-config network use-auto-config

Configures the RiOS software to use the network automatic configuration settings.

Syntax

```
[no] hypervisor install-config network use-auto-config [confirm]
```

Parameters

confirm	Confirms that you want to use the automatic network configuration settings.
----------------	---

Usage

This command defaults to the same network settings configured by the hypervisor installer. By default, the installer:

- creates one vSwitch called vSwitch0
- attaches all onboard hypervisor NIC uplinks to the vSwitch (the number of uplinks depends on the appliance model), but excludes add-on NICs for the hypervisor node. You can configure add-on hypervisor NICs for the hypervisor node through vSphere.
- creates one VMKernel port group named Management Network.
- creates one VM port group called VM Network.
- enables DHCP for IPv4 addressing and tagged with management traffic.

The no version of this command allows you to configure the network settings manually. The **show hypervisor install-config network use-auto-config** command shows whether or not the hypervisor is using auto configuration.

For more information about the hypervisor installer, see the *SteelFusion Edge Management Console User's Guide*.

Example

```
Edge1 (config) # hypervisor install-config network use-auto-config
% Choosing auto configuration will overwrite all existing networking configurations.
```

```
Edge1 (config) # hypervisor install-config network use-auto-config confirm
```

Product

SteelFusion Edge

Related Topics

["show hypervisor install-config network"](#)

hypervisor install-config network vswitch uplink

Configures the active uplinks for the vSwitch.

Syntax

```
[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>]
uplink <active-uplinks>
```

Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotes if it contains spaces, for example "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<active-uplinks>	Active uplinks for this vSwitch. Use a comma separated list enclosed in quotation marks for multiple uplinks: for example "uplink1, uplink2, ...<uplinkN>".

Usage

The SteelFusion Edge ships with ESXi preinstalled and a single internal vSwitch (rvbd_vswitch). Do not modify or delete this virtual switch.

By "teaming" multiple uplinks to a single vSwitch, you add redundancy and bandwidth to your network. You can verify your configuration through vSphere and vCenter.

Example

```
Edge1 (config) # hypervisor install-config network vswitch "vswitch 2" mtu 4000 uplink "uplink1,
uplink2, uplink3"
```

Product

SteelFusion Edge

Related Topics

["show hypervisor installed"](#)

hypervisor install-config network vswitch vm-port

Configures the hypervisor vSwitch settings for the VM port group.

Syntax

[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>] vm-port <portgroup-name> [vm-vlan-id <vlan-id>]

Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotation marks if it contains spaces: for example, "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<portgroup-name>	VM port group name on the vSwitch. Enclose the VM port group name in quotation marks if it contains spaces: for example, "portgroup 1".
vm-vlan-id <vlan-id>	Specifies the VM port group VLAN ID. The range is from 0 to 4095.

Usage

ESXi and a single vSwitch (virtual switch) are preinstalled on the SteelFusion Edge. This is an internal switch used for communication within the appliance. Do not modify or delete this virtual switch.

Example

```
Edge1 (config) # hypervisor install-config network vswitch "vswitch 2" mtu 4000 uplink "uplink1, uplink2, uplink3"
```

Product

SteelFusion Edge

Related Topics

["show hypervisor installed"](#)

hypervisor install-config network vswitch vmk-port ipv4-dhcp

Configures the hypervisor vSwitch settings for the VM kernel (VMK) port group and enables IPv4 address assignment through DHCP.

Syntax

[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>] vmk-port <portgroup-name> [vmk-mtu <bytes>] [vmk-tag <tag>] [vmk-vlan-id <vlan-id>] ipv4-dhcp [ipv4-dhcp-dns]

Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotation marks if it contains spaces, for example "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<portgroup-name>	Name of the VMK port group on the vSwitch. Enclose the VMK port group name in quotes if it contains spaces, for example "portgroup 1".
vmk-mtu <bytes>	Specifies the VMK port group MTU.
vmk-tag <tag>	Tags with any of the following VMK port group vSphere traffic types: <ul style="list-style-type: none"> • Management • VMotion • faultToleranceLogging • vSphereReplication Use a comma separated list enclosed in quotation marks for multiple tags; for example "tag1, tag2,<tagN>".
vmk-vlan-id <vlan-id>	Specifies the VMK port group VLAN ID. The range is from 0 to 4095; 0 means none and 4095 means all.
ipv4-dhcp-dns	Dynamically obtains IPv4 network settings from a DNS server using dynamic DNS.

Usage

ESXi and a single vSwitch (virtual switch) are preinstalled on the SteelFusion Edge. The vSwitch has a kernel port and a virtual machine port. This is an internal switch used for communication within the appliance. Do not modify or delete this virtual switch.

Example

```
Edge1 (config) # hypervisor install-config network vswitch test vmk-port test_vmk vmk-tag Management
ipv4-dhcp
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor installed”](#)

hypervisor install-config network vswitch vmk-port ipv4-ip

Configures the hypervisor vSwitch settings for the VM kernel port group and configures a static IPv4 address.

Syntax

```
[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>]
vmk-port <portgroup-name> [vmk-mtu <bytes>] [vmk-tag <tag>] [vmk-vlan-id <vlan-id>] ipv4-ip <ipv4-address>
ipv4-netmask <ipv4-netmask>
```

Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotation marks if it contains spaces: for example, "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<portgroup-name>	Name of the VMK port group on the vSwitch. Enclose the VMK port group name in quotes if it contains spaces, for example "portgroup 1".
vmk-mtu <bytes>	Specifies the VMK port group MTU.
vmk-tag <tag>	Tags with any of the following VMK port group vSphere traffic types: <ul style="list-style-type: none"> • Management • VMotion • faultToleranceLogging • vSphereReplication Use a comma separated list enclosed in quotation marks for multiple tags: for example, "tag1, tag2,...<tagN>".
vmk-vlan-id <vlan-id>	Specifies the VMK port group VLAN ID. The range is from 0 to 4095; 0 means none and 4095 means all.
<ipv4-address> ipv4-netmask <ipv4-netmask>	Specifies the IPv4 static address and static IPv4 netmask for the VMK port group.

Usage

ESXi and a single vSwitch (virtual switch) are preinstalled on the SteelFusion Edge. The vSwitch has a kernel port and a virtual machine port. This is an internal switch used for communication within the appliance. Do not modify or delete this virtual switch.

Example

```
Edge1 (config) # hypervisor install-config network vswitch test vmk-port test_vmk vmk-tag Management
ipv4-ip 10.24.24.1 ipv4-netmask /24
```

Product

SteelFusion Edge

Related Topics

["show hypervisor installed"](#)

hypervisor install-config network vswitch vmk-port ipv6-dhcp

Configures the hypervisor vSwitch settings for the VM kernel port group and enables IPv6 address assignment through DHCP.

Syntax

```
[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>]
vmk-port <portgroup-name> [vmk-mtu <bytes>] [vmk-tag <tag>] [vmk-vlan-id <vlan-id>] ipv6-dhcp [ipv6-dhcp-
dns]
```

Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotation marks if it contains spaces: for example "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<portgroup-name>	Name of the VMK port group on the vSwitch. Enclose the VMK port group name in quotation marks if it contains spaces: for example "portgroup 1".
vmk-mtu <bytes>	Specifies the VMK port group MTU.
vmk-tag <tag>	Tags with any of the following VMK port group vSphere traffic types: <ul style="list-style-type: none"> • Management • VMotion • faultToleranceLogging • vSphereReplication Use a comma separated list enclosed in quotation marks for multiple tags: for example, "tag1, tag2,<tagN>".
vmk-vlan-id <vlan-id>	Specifies the VMK port group VLAN ID. The range is from 0 to 4095; 0 means none and 4095 means all.
ipv6-dhcp-dns	Dynamically obtains IPv6 network settings from a DNS server using dynamic DNS.

Usage

ESXi and a single vSwitch (virtual switch) are preinstalled on the SteelFusion Edge. The vSwitch has a kernel port and a virtual machine port. This is an internal switch used for communication within the appliance. Do not modify or delete this virtual switch.

Example

```
Edge1 (config) # hypervisor install-config network vswitch test vmk-port test_vmk vmk-tag Management
ipv6-dhcp
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor installed”](#)

hypervisor install-config network vswitch vmk-port ipv6-ip

Configures the hypervisor vSwitch settings for the VM kernel port group and configures a static IPv6 address.

Syntax

```
[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>]
vmk-port <portgroup-name> [vmk-mtu <bytes>] [vmk-tag <tag>] [vmk-vlan-id <vlan-id>] ipv6-ip <ipv6-address>
ipv6-masklen <ipv6-netmask>
```

Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotation marks if it contains spaces: for example "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<portgroup-name>	Name of the VMK port group on the vSwitch. Enclose the VMK port group name in quotes if it contains spaces, for example "portgroup 1".
vmk-mtu <bytes>	Specifies the VMK port group MTU.
vmk-tag <tag>	Tags with any of the following VMK port group vSphere traffic types: <ul style="list-style-type: none"> • Management • VMotion • faultToleranceLogging • vSphereReplication Use a comma separated list enclosed in quotes for multiple tags; for example "tag1, tag2,<tagN>".
vmk-vlan-id <vlan-id>	Specifies the VMK port group VLAN id. The range is from 0 to 4095; 0 means none and 4095 means all.
<ipv6-address> ipv6-masklen <ipv6-netmask>	Specifies the IPv6 static address and static IPv6 netmask for the VMK port group.

Usage

ESXi and a single vSwitch (virtual switch) are preinstalled on the SteelFusion Edge. The vSwitch has a kernel port and a virtual machine port. This is an internal switch used for communication within the appliance. Do not modify or delete this virtual switch.

Example

```
Edge1 (config) # hypervisor install-config network vswitch test vmk-port test_vmk vmk-tag Management
ipv6-ip 2001:38dc:52::e9a4:c5:6282 ipv6-masklen /64
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor installed”](#)

hypervisor install-config network vswitch vmk-port ipv6-router-adv

Enables IPv6 router advertisement for the VMK port group.

Syntax

```
[no] hypervisor install-config network vswitch <vswitch-name> [mtu <bytes>] [max-ports <number-of-ports>]
vmk-port <portgroup-name> [vmk-mtu <bytes>] [vmk-tag<tag>] [vmk-vlan-id <vlan-id>] ipv6-router-adv
```


Parameters

<vswitch-name>	Name of the vSwitch. Enclose the name in quotation marks if it contains spaces: for example "vSwitch 1".
mtu <bytes>	Specifies the vSwitch maximum transmission unit in bytes. The valid range is from 1280 to 9000.
max-ports <number-of-ports>	Specifies the vSwitch maximum number of ports. The range is from 1 to 1536.
<portgroup-name>	Name of the VMK port group on the vSwitch. Enclose the VMK port group name in quotation marks if it contains spaces: for example "portgroup 1".
vmk-mtu <bytes>	Specifies the VMK port group MTU.
vmk-tag<tag>	Tags with any of the following VMK port group vSphere traffic types: <ul style="list-style-type: none"> • Management • VMotion • faultToleranceLogging • vSphereReplication Use a comma separated list enclosed in quotes for multiple tags; for example "tag1, tag2,<tagN>".
vmk-vlan-id <vlan-id>	Specifies the VMK port group VLAN ID. The range is from 0 to 4095; 0 means none and 4095 means all.

Usage

ESXi and a single vSwitch (virtual switch) are preinstalled on the SteelFusion Edge. The vSwitch has a kernel port and a virtual machine port. This is an internal switch used for communication within the appliance. Do not modify or delete this virtual switch.

Example

```
Edge1 (config) # hypervisor install-config network vswitch test vmk-port test_vmk vmk-tag Management
ipv6-router-adv
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor install-config”](#)

hypervisor install-config ntp enable

Configures the hypervisor to use RiOS Network Time Protocol (NTP) settings.

Syntax

[no] hypervisor install-config ntp enable

Parameters

None

Usage

Riverbed strongly recommends using the RiOS NTP server settings to ensure consistent time synchronization between the RiOS software and your virtual machines. You can only configure these settings through the command-line interface.

The **no** command option resets the NTP server settings to the default.

Example

```
Edge1 (config) # hypervisor install-config ntp enable
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor install-config”](#)

hypervisor install-config storage core-managed

Configures the hypervisor storage settings when managed by the SteelFusion Core.

Syntax

[no] hypervisor install-config storage core-managed lun <lun-alias>

Parameters

lun <lun-alias>	Configures the core-managed LUN to be used by the hypervisor during the next installation.
-----------------	--

Usage

All hypervisor storage is provided by RiOS through iSCSI using Riverbed BlockStream technology. A hypervisor has no local disks for storage. SteelFusion Edge supports two storage operating modes: direct attached storage and storage managed by the SteelFusion Core. Use this command if you are using the SteelFusion Core to manage storage at your data center. This command is only available when the BlockStream is managed by SteelFusion Core.

If the settings at the Core change between the time you run this command and when you run your install or reinstall, your results may be different than expected.

See the *SteelFusion Core Management Console User's Guide* for more information on how to configure SteelFusion Core.

Example

```
Edge1 (config) # hypervisor install-config storage core-managed lun lun1
```

Product

SteelFusion Edge

Related Topics

[“show hypervisor install-config”](#)

hypervisor install-config storage direct-attached delete-existing

Deletes the existing directly attached LUNs from the SteelFusion Edge.

Syntax

[no] hypervisor install-config storage direct-attached delete-existing

Parameters

None

Usage

All hypervisor storage is provided by RiOS through iSCSI using Riverbed BlockStream technology. A hypervisor has no local disks for storage. SteelFusion Edge supports two storage operating modes: direct attached storage and storage managed by the SteelFusion Core. Direct attached storage is a single, pinned LUN exposed to the hypervisor over iSCSI without connecting to a SteelFusion Core. Use this command to delete the existing directly attached local LUN from the SteelFusion Edge.

Example

```
Edge1 (config) # hypervisor install-config storage direct-attached delete-existing
```

Product

SteelFusion Edge

Related Topics[“show hypervisor install-config”](#)

hypervisor install-config storage direct-attached lun

Allocates an amount of direct attached storage to the hypervisor without connecting to the SteelFusion Core.

Syntax

```
[no] hypervisor install-config storage direct-attached lun percent-size <lun-size> datastore-name <datastore-name>
vmfs <vmfs-version>
```

Parameters

percent-size <lun-size>	Configures the hypervisor LUN size as a percentage of the total of the directly attached storage size. The default value is 50 percent.
datastore-name <datastore-name>	Specifies the name of the datastore. The default datastore name is rvbd_vsp_datastore.
vmfs <vmfs-version>	Specifies the version of the Virtual Machine File System (VMFS). The default VMFS is VMFS5.

Usage

All hypervisor storage is provided by RiOS through iSCSI using Riverbed BlockStream technology. A hypervisor has no local disks for storage. SteelFusion Edge supports two storage operating modes: direct attached storage and storage managed by the SteelFusion Core. As an alternative to using a SteelFusion Core for storage, you can create a local LUN on the Edge to be used as direct-attached storage by the hypervisor.

You can allocate 100 percent to the datastore, but to allow for future expansion, Riverbed recommends against using the entire amount. If you allocate 100 percent and then decide later to connect a Core to project remote LUNs, writes to remote LUNs could experience lower throughputs and low or no space conditions.

The SteelFusion Edge blockstore allocation changes dynamically depending on the amount of attached storage you specify. Direct attached storage is local to the SteelFusion Edge appliance and the data is not backed up.

Example

```
Edge1 (config) # hypervisor install-config storage direct-attached lun percent-size 43 datastore-
name jackandjill vmfs vmfs5
```

Product

SteelFusion Edge

Related Topics[“show hypervisor install-config”](#)

hypervisor license restore

Restores the Riverbed hypervisor license.

Syntax

```
hypervisor license restore
```

Parameters

None

Usage

The Edge appliance ships with an embedded Riverbed-specific VMware ESXi vSphere Hypervisor license named VSPEXSI. This license enables basic hypervisor functions such as monitoring and management of a single instance of ESXi or ESXi server. However, this license does not support more advanced vSphere features such as vCenter, vMotion, or high availability.

Use this command to replace the existing license with the default VSPEXSI license.

Example

```
Edge1 (config) # hypervisor license restore
```

Product

SteelFusion Edge

Related Topics

[“hypervisor install-config hostname,” “show hypervisor license”](#)

hypervisor password

Updates the hypervisor root password.

Syntax

hypervisor password <password>

Parameters

<password>	Root password that is used to log into the root user account of the hypervisor through vSphere or the vCenter client.
	The password must meet the current vSphere password complexity requirements. Enclose the password in quotation marks if it contains spaces.

Usage

If you change a hypervisor password in VCenter or vSphere, you must change it on the SteelFusion Edge.

Example

```
Edge1 (config) # hypervisor password work736
```

Product

SteelFusion Edge

Related Topics

[“hypervisor reinstall”](#)

hypervisor reinstall

Reinstalls the hypervisor.

Syntax

hypervisor reinstall password <password>

Parameters

password <password>	Specifies the hypervisor root user account password. This is the same password used to log in to the hypervisor through the vSphere and vCenter client.
confirm	Confirms that you want to reinstall the hypervisor.

Usage

Reinstallation consists of a reinitialization and installation in one step. The **hypervisor reinstall** command uses the most recently configured install-config settings during the reinstallation.

Example

```
Edge1 (config) # hypervisor reinstall password branch213
```

When you enter this command, the CLI returns the following alert:

```
WARNING: This will wipe out the current hypervisor installation, please backup any data if necessary.
To proceed, use this command:
'hypervisor reinstall password <password> confirm'
```

Product

SteelFusion Edge

Related Topics

[“hypervisor install,” “hypervisor initialize”](#)

hypervisor restart

Restarts the hypervisor.

Syntax

hypervisor restart

Parameters

None

Usage

Before you run this command, ESXi should be in maintenance mode and all virtual machines shut down.

Example

```
Edge1 (config) # hypervisor restart
```

Product

SteelFusion Edge

Related Topics

[“hypervisor install,” “hypervisor initialize”](#)

hypervisor upgrade

Upgrades the hypervisor to the latest hypervisor image.

Syntax

hypervisor upgrade

Parameters

None

Usage

After you install the hypervisor, you can upgrade to a later hypervisor image, if one is available. This command lets you upgrade the hypervisor version as a separate upgrade from updating the RiOS version.

For Edge version 4.0, a later hypervisor image is not available. This feature will be supported in a future Edge version.

Example

```
Edge1 (config) # hypervisor upgrade
```

Product

SteelFusion Edge

Related Topics

[“hypervisor install,” “hypervisor initialize”](#)

Displaying Hypervisor Information

This section describes the **show** commands for displaying hypervisor information.

show hypervisor hardware all

Displays all hypervisor hardware information.

Syntax

show hypervisor hardware all

Parameters

None

Example

```
Edge1 > show hypervisor hardware all
Mainboard:  SteelFusion Hypervisor Motherboard 1U 3.5, 425-00118-01
Slot 0:  ..... 4 Port Copper GigE Gen2 PCIe Non-Bypass Module, Integrated
Slot 7:  ..... SteelFusion Backplane Interconnect, Integrated
```

Product

SteelFusion Edge

Related Topics

[“Hypervisor Commands”](#)

show hypervisor hardware error-log

Displays hypervisor hardware IPMI system event log entries.

Syntax

show hypervisor hardware error-log {all | new}

Parameters

all	Displays all the IPMI SEL entries.
new	Displays hypervisor IPMI SEL entries since the last show hypervisor hardware error-log command was issued.

Example

```
Edge1 > show hypervisor hardware error-log all
```

Product

SteelFusion Edge

Related Topics[“clear hypervisor hardware error-log”](#)

show hypervisor hardware licensing

Displays hypervisor hardware licensing information.

Syntax**show hypervisor hardware licensing****Parameters**

None

Usage**Example**

```
Edge1 > show hypervisor hardware licensing
Hypervisor memory licensing information
=====
Total Licensed Memory: 32 GB
Total Unlicensed Memory: 0 GB
HYP_CPU0_DIMM_A0: 16384 Licensed
HYP_CPU0_DIMM_C0: 16384 Licensed
Number of DIMMs: 2
```

```
Hypervisor NIC licensing information
=====
hpn_storage0 Licensed
df0_0 Licensed
df0_1 Licensed
gbe0_3 Licensed
gbe0_2 Licensed
gbe0_1 Licensed
gbe0_0 Licensed
hpn_mgmt Licensed
```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)

show hypervisor hardware memory-error

Displays hypervisor memory error information.

Syntax**show hypervisor hardware memory-error****Parameters**

None

Example

```
Edge1 > show hypervisor hardware memory-error
Error Type      Count      Memory Dimms
-----
```

```
Correctable      2      HYP_CPU0_DIMMA0, HYP_CPU0_DIMMA1
Uncorrectable    0      None
```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)**show hypervisor hardware temperature**

Displays hardware temperature information.

Syntax**show hypervisor hardware temperature****Parameters**

None

Example

```
Edge1 > show hypervisor hardware temperature
Description      Temperature      Max Temperature  Status
CPU 0 Temperature      26              87              ok
Hypervisor Board Temperature  20              60              ok
Hypervisor PCH Temperature  39              80              ok
```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)**show hypervisor install-config**

Displays the hypervisor install configuration settings that will be pushed during the next install or reinstall.

Syntax**show hypervisor install-config {hostname | license | ntp}****Parameters**

hostname	Displays the configured hostname that will be pushed during the next install or reinstall.
license	Displays the hypervisor license that will be pushed during the next install or reinstall.
ntp	Displays configured hypervisor NTP settings that will be pushed during the next install or reinstall.

Usage

The values displayed in this command show what will be pushed during the next installation or reinstallation. These values might not match what are currently installed.

Example

```
Edge1 > show hypervisor install-config ntp
Use RiOS NTP settings for the hypervisor:      yes
NTP enabled in RiOS:                          yes
NTP Startup Policy:                          Start and stop with host
NTP servers configured in RiOS
Name      Enabled
-----
0.riverbed.pool.ntp.org      true
```



```

1.riverbed.pool.ntp.org      true
2.riverbed.pool.ntp.org      true
208.70.196.25                true
3.riverbed.pool.ntp.org      true

```

```

Edge1 > show hypervisor install-config license
Hypervisor license: Riverbed hypervisor license

```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)

show hypervisor install-config network

Displays the hypervisor network install configurations that will be pushed during the next install or reinstall.

Syntax

show hypervisor install-config network {dns | routes | use-auto-config | nics | vswitches}

Parameters

dns	Displays the hypervisor DNS configuration that will be pushed during the next install or reinstall.
routes	Displays hypervisor IPv4 and IPv6 route settings that will be pushed during the next install or reinstall.
use-auto-config	Displays autoconfiguration settings that will be pushed during the next install or reinstall.
nics	Displays hypervisor NIC configurations that will be pushed during the next install or reinstall..
vswitches	Displays hypervisor vSwitch settings that will be pushed during the next install or reinstall.

Usage

The values displayed in this command show what will be pushed during the next installation or reinstallation. These values might not match what are currently installed.

Example

```

Edge1 > show hypervisor install-config network nics
Name                               Speed  Duplex
-----
gbe0_0 (vmnic8)                    auto   auto
gbe0_1 (vmnic9)                    auto   auto

```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)

show hypervisor install-config storage

Displays hypervisor install configuration storage settings.

Syntax

show hypervisor install-config storage

Parameters

None

Example

```
Edge1 > show hypervisor install-config storage
Total direct-attached storage size: 578.81 GB
Direct-attached LUN (to be created): None
```

Existing direct-attached LUNs (to be used for hypervisor):

Alias	Size	LUN Id
vsp_OH0TP000038D6	289.00 GB	1

Product

SteelFusion Edge

Related Topics

[“hypervisor install-config storage core-managed,” “hypervisor install-config storage direct-attached lun”](#)

show hypervisor installed

Displays the hypervisor installation status.

Syntax

show hypervisor installed

Parameters

None

Example

```
Edge1 > show hypervisor installed
Hypervisor installed: yes
```

Product

SteelFusion Edge

Related Topics

[“Hypervisor Commands”](#)

show hypervisor install notifications

Displays hypervisor installation notifications.

Syntax

show hypervisor install notifications

Parameters

None

Usage

This command reports "soft" error conditions that failed during the hypervisor installation but did not halt the installation. The installer continues to completion. For example, a custom license key might not be accepted by ESXi and the embedded license is pushed instead. This command reports these error conditions and is reset upon the next reinitialization or reinstall.

Example

```
Edge1 > show hypervisor install notifications
Failed hypervisor installation configs
-----
```

User specified alternate license was rejected, Riverbed hypervisor license was applied.

Product

SteelFusion Edge

Related Topics

[“Hypervisor Commands”](#)

show hypervisor license

Displays hypervisor license information.

Syntax

show hypervisor license

Parameters

None

Example

```
Edge1 > show hypervisor license
Hypervisor installed: yes
License key: Riverbed Hypervisor License
Expires in: N/A
CPU limit: 1
Hypervisor manager capable: No
```

Product

SteelFusion Edge

Related Topics

[“Hypervisor Commands”](#)

show hypervisor log

Displays the hypervisor system logs.

Syntax

show hypervisor log {name <name> [matching] | continuous <name> | reverse name <name> [matching] | matching}

Parameters

name <name> [matching]	Displays hypervisor log messages for the specified file.
matching	Displays matching hypervisor log messages for the file.
continuous <name>	Displays the log continuously, similar to the Linux tail -f command.
reverse name <name> [matching]	Displays the log information, in reverse order, with the latest entry at the top. Optionally, displays matching hypervisor log messages in reverse order for the file.

Example

```
Edge1 # show hypervisor log hostd.log
Apr  8 19:57:53 vSphere-host Hostd: [FFC2A920 verbose 'SoapAdapter'] Unrecognized version URI
"urn:vim25/test"; using default handler for "urn:vim25/5.5"
Apr  8 19:57:53 vSphere-host Hostd: [21C40B70 verbose 'Hostsvc.DvsTracker' opID=
<partial output>
```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)**show hypervisor network**

Displays hypervisor network information.

Syntax**show hypervisor network {default-gateway | vmks | vmnics}****Parameters**

default-gateway	Displays the hypervisor default gateway.
vmks	Displays the hypervisor kernel adapters.
vmnics	Displays the hypervisor physical adapters.

Example

```

Edge1 # show hypervisor network vmks
vmk0 :
  MTU:                1500
  MAC:                00:0E:B6:BF:A4:72
  vSwitch:            rvbd_vswitch
  IPv4
    Type:              DHCP
    DHCP-DNS enabled:  false
    Address:           169.254.199.2
    Netmask:           255.255.255.0
  IPv6
    DHCP enabled:      false
    DHCP-DNS enabled:  false
    Router Advert enabled: false
    IP 1:              fe80::20e:b6ff:febf:a472/64

```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)**show hypervisor usage**

Displays hypervisor usage information.

Syntax**show hypervisor usage****Parameters**

None

Example

```

Edge1 # show hypervisor usage
CPU usage:           39 MHz
CPU capacity:        10.00 GHz
Memory usage:        1.55 GB
Memory capacity:     31.97 GB
Number of running VMs: 0
Number of suspended VMs: 0
Total number of VMs: 0

```

Hypervisor datastore usage: Hypervisor datastore information is not available when virtualization status is 'Ready to install'

Product

SteelFusion Edge

Related Topics

[“Hypervisor Commands”](#)

show hypervisor version

Displays the hypervisor version.

Syntax

show hypervisor version

Parameters

None

Usage

The hypervisor and RiOS versions are uncoupled; the upgrade or revert of a RiOS version does not affect your hypervisor version.

Example

```
Edge1 > show hypervisor version
Hypervisor:      VMware vSphere
Current Version: 5.5.0-2.33.2068190
Supported Versions: 5.5.0-2.33.2068190
```

Product

SteelFusion Edge

Related Topics

[“Hypervisor Commands”](#)

show hypervisor version-history

Displays hypervisor version history.

Syntax

show hypervisor version-history

Parameters

None

Usage

The hypervisor and RiOS versions are uncoupled; the upgrade or revert of a RiOS version does not affect your hypervisor version.

Example

```
Edge1 > show hypervisor version-history
[20150206-160332] Hypervisor version changed to VMware vSphere 5.5.0-2.33.2068190
```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)

show virtualization

Displays virtualization information.

Syntax

show virtualization

Parameters

None

Example

```
amnesiac # show virtualization
Power:                On
Status:               Ready to install
Storage:              578.81 GB
CPU cores:            4 CPUs x 2.50 GHz
Memory:               32 GB
IQN:                  iqn.1998-01.com.vmware:54fa5e80-8a23-421a-2077-000eb6befba6-504c44fb
```

Product

SteelFusion Edge

Related Topics[“Hypervisor Commands”](#)

Storage Commands

device-failover peer clear (Edge)

Clears the failover peer settings for the current SteelFusion Edge device.

Syntax

device-failover peer clear

Parameters

None

Example

```
Edge1 (config) # device-failover peer clear
Edge1 (config) # show device-failover
```

Product

SteelFusion Edge

Related Topics[“show device-failover \(Edge\)”](#)

device-failover peer set (Edge)

Specifies and sets the failover peer settings for the current Edge.

Syntax

device-failover peer set <serial-number> **ip** <ip-address> **local-if** <local-interface-name> **additional-ip** <additional-ip> **local-if2** <local-interface-name2> **edge-id** <edge-id> [**local-if-dc** <local-interface-name>]

Parameters

<serial-number>	Serial number of the Edge active peer.
ip <ip-address>	Specifies the IP address of the Edge active peer appliance.
local-if <local-interface-name>	Specifies the local interface for the standby peer to connect to the active peer.
additional-ip <additional-ip>	Specifies the IP address of the Edge active peer, which is different from the first peer IP address specified by the ip <ip-address> parameter.
local-if2 <local-interface-name2>	Specifies the second local interface name for the standby peer to connect to the second IP address specified by the additional-ip <additional-ip> parameter.
edge-id <edge-id>	Specifies the self-identifier for the active peer. This value is case-sensitive and limited to the following characters: 0 to 9, a to z, A to Z, period (.) , and hyphen (-) . Both peer appliances must use the same self-identifier. In this case, you can use a value that represents the group of appliances.
local-if-dc <local-interface-name>	Specifies the local interface for the current appliance to use when connecting with the Core appliance.

Usage

This command configures the failover peer settings to provide high availability between SteelFusion Edge appliances. High availability enables you to configure two Edge appliances so that either one can fail without disrupting the service of the LUNs being provided by SteelFusion Core.

Example

```
Edge1 (config) # device-failover peer set DA3XS000085C5 ip 10.2.2.2 local-if primary additional-ip 10.3.2.2 local-if2 wan0_0 edge-id branch12
```

Product

SteelFusion Edge

Related Topics

[“show device-failover \(Edge\)”](#)

storage core add host

Configures the SteelFusion Core connection.

Syntax

storage core add host <hostname> **edge-id** <id> [**local-interface** {aux | primary}]

Parameters

<hostname>	Hostname of the SteelFusion Core host device.
edge-id <id>	Specifies the self-identifier of the SteelFusion Core device.
local-interface aux	Specifies the local interface for the connection to the SteelFusion Core device as auxiliary.
local-interface primary	Specifies the local interface for the connection to the SteelFusion Core device as primary.

Usage

Use this command to specify and configure the connection to the intended SteelFusion Core host.

If you configure any direct attached storage to be used by the hypervisor before connecting to a Core, those LUNs will be converted to core-managed edge local LUNs once connected to a the Core.

Example

```
Edge1 (config) # storage core add host CoLo2 edge-id Branch1 local-interface aux
```

Product

SteelFusion Edge

Related Topics

[“show storage core,”](#) [“show service storage,”](#) [“storage core host local-interface,”](#) [“storage core remove”](#)

storage core host local-interface

Configures SteelFusion Core local interface connection settings.

Syntax

storage core host <hostname> local-interface {add <local-interface-name> | remove <local-interface-name>}

Parameters

<hostname>	Hostname of the SteelFusion Core host device.
add <local-interface-name>	Adds the local interface used to connect to the SteelFusion Core.
remove <local-interface-name>	Removes the local interface used to connect to the SteelFusion Core device.

Example

```
Edge1 (config) # storage core host CoLo1 local-interface add primary
```

Product

SteelFusion Edge

Related Topics

[“storage core add host,”](#) [“show storage core,”](#) [“storage core remove”](#)

storage core host modify

Modifies the existing SteelFusion Core connection settings.

Syntax

storage core host <hostname> modify {port <port> | new-host <host>}

Parameters

<hostname>	Hostname of the SteelFusion Core host device.
port <port>	Specifies the port the SteelFusion Core device is to listen on.
new-host <host>	Specifies the new hostname of the SteelFusion Core host device.

Example

```
Edge1 (config) # storage core host CoLo2 modify new-host Calif2
```

Product

SteelFusion Edge

Related Topics

[“storage core add host,”](#) [“show storage core,”](#) [“storage core remove”](#)

storage core remove

Removes the connection to the specified SteelFusion Core host device.

Syntax

storage core remove host <hostname> [preserve-config] [force]

Parameters

host <hostname>	Hostname of the SteelFusion Core host device.
preserve-config	Preserves local LUN, iSCSI target, and access list configurations on the Edge appliance.
force	Skips the validation check and forces the removal, even if the LUNs are still online. Caution: Data from online LUNs might be lost. Riverbed strongly recommends that you take the LUN offline first.

Usage

Before using this command, Riverbed strongly recommends that you take offline the LUNs associated with the Core host device.

Example

```
Edge1 (config) # storage core remove host CoLo2
```

Product

SteelFusion Edge

Related Topics

[“show storage core,”](#) [“show service storage”](#)

storage iscsi mpio interface (Edge)

Adds or removes the specified multi-path I/O (MPIO) interface.

Syntax

storage iscsi mpio interface {add name <mpio-interface> | remove {name <mpio-interface> | all}}

Parameters

add name <mpio-interface>	Specifies an MPIO interface to add.
remove name <mpio-interface>	Removes an MPIO interface.
all	Removes all MPIO interfaces.

Usage

MPIO interfaces connect the Core appliance to the network and to the filer through multiple physical interfaces. These redundant connections help prevent loss of connectivity in the event of an interface, switch, cable, or other physical failure. The **all** parameter is only available on the Edge (not on the Core).

Example

```
Edge1 (config) # storage iscsi mpio interface primary
```

Product

SteelFusion Edge

Related Topics[“show storage iscsi”](#)

storage lun activate

Activates the specified LUN.

Syntax

storage lun activate {alias <lun-alias> | serial <lun-serial>}

Parameters

alias <lun-alias>	Activates the LUN specified by the alias value number.
serial <lun-serial>	Activates the LUN specified by the serial number.

Usage

Use this command to activate a LUN that was previously deactivated because of low space in the SteelFusion Edge blockstore.

Example

```
Edge1 (config) # storage lun activate alias LUN2
```

Product

SteelFusion Edge

Related Topics[“show storage lun”](#)

storage lun snapshot create

Creates a storage snapshot on the specified LUN.

Syntax

storage lun {alias <alias> | serial <serial>} **snapshot create** [proxy-backup]

Parameters

alias <alias>	Specifies the alias of the LUN.
serial <serial>	Specifies the serial value of the LUN.
proxy-backup	Enables proxy backup for this private snapshot.

Usage

You configure the proxy backup for the specified LUN on the SteelFusion Core appliance. See the *SteelFusion Deployment Guide* and the *SteelFusion Core Management Console User's Guide* for information about the types of snapshots supported.

Example

```
Edge1 (config) # storage lun alias LUN2 snapshot create
```

Product

SteelFusion Edge

Related Topics[“show storage lun”](#)

storage lun snapshot remove

Removes a storage snapshot on the specified LUN.

Syntax

storage lun {alias <alias> | serial <serial>} snapshot remove id <snapshot-id> [rm-proxy-backup]

Parameters

alias <alias>	Specifies the alias of the LUN.
serial <serial>	Specifies the serial value of the LUN.
id <snapshot-id>	Removes the private storage snapshot for the LUN as specified by the ID value.
rm-proxy-backup	Removes the proxy-backup for this private snapshot if it exists.

Usage

You configure the proxy backup for the specified LUN on the Core appliance. See the *SteelFusion Deployment Guide* and the *SteelFusion Core Management Console User's Guide* for information about the types of snapshots supported.

Example

```
Edge1 (config) # storage lun alias LUN2 snapshot remove id 2
```

Product

SteelFusion Edge

Related Topics

["show storage lun"](#)

storage lun snapshot remove non-replicated

Removes all nonreplicated snapshots for the LUN.

Syntax

storage lun {alias <alias> | serial <serial>} snapshot remove non-replicated

Parameters

alias <alias>	Specifies the alias of the LUN. This is the alias of the parent LUN.
serial <serial>	Specifies the serial value of the LUN. This is the serial value of the parent LUN.

Usage

This command removes all non-replicated snapshots on the SteelFusion Edge.

Example

```
Edge1 (config) # storage lun alias LUN2 snapshot remove non-replicated
```

Product

SteelFusion Edge

Related Topics

["show storage lun"](#)

Displaying Storage Information

This section describes the **show** commands for displaying storage information.

show device-failover (Edge)

Displays the failover settings for the current SteelFusion Edge device or BlockStream-enabled SteelHead EX.

Syntax

show device-failover

Parameters

None

Example

```
Edge1 # show device-failover
Device failover settings
Failover peer hostname : oak-sh65
Config(s) being served : Self
HA state                : Active Self
Heartbeat Connections
    10.5.133.71 -> 10.5.129.32 : Connected
    10.5.133.74 -> 10.5.129.33 : Connected
```

Product

SteelFusion Edge

Related Topics

[“device-failover peer set \(Edge\)”](#)

show service storage

Displays the status of the SteelFusion Edge service.

Syntax

show service storage

Parameters

None

Example

```
Edge1 # show service storage
SteelFusion Edge Service: Running
```

Product

SteelFusion Edge

Related Topics

[“SteelFusion Edge Commands”](#)

show stats storage core-io-bytes

Displays the number of bytes of data read from and written to the SteelFusion Core appliance.

Syntax

show stats storage core-io-bytes {interval <time-interval> | start-time <start> end-time <end>}

Parameters

interval <time-interval>	Use this parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <end> parameter to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> parameter to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.

Example

```
Edge1 # show stats storage core-io-bytes interval month
Total Bytes Read: 333 Bytes
Total Bytes Prefetched: 250
Total Bytes Written: 333
```

Product

SteelFusion Edge

Related Topics

[“storage core add host”](#)

show stats storage initiator-bytes

Displays the number of bytes written to and read from the blockstore via the specified initiator for the specified time period.

Syntax

```
show stats storage initiator-bytes {interval <time-interval> initiator <initiator> | start-time <start> end-time <end>
initiator <initiator>}
```

Parameters

interval <time-interval>	Use this parameter in conjunction with the initiator <initiator> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <end> and initiator <initiator> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and initiator <initiator> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
initiator <initiator>	Specifies the name of the initiator.

Example

```
Edge1 # show stats storage initiator-bytes interval month initiator ign.1998-01.com.vmware:localhost-29e36c8b
Total Bytes Read: 217.86 MB
Total Bytes Written : 6.30 MB
```

Product

SteelFusion Edge

Related Topics

[“show stats storage initiator-iops,”](#) [“show stats storage initiator-ltncy”](#)

show stats storage initiator-iops

Displays the standard I/O operations per second written to and read from the blockstore via the specified initiator for the specified time period.

Syntax

```
show stats storage initiator-iops {interval <time-interval> initiator <initiator> | start-time <start> end-time <end> initiator <initiator>}
```

Parameters

interval <time-interval>	Use this parameter in conjunction with the initiator <initiator> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <end> and initiator <initiator> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and initiator <initiator> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
initiator <initiator>	Specifies the name of the initiator.

Example

```
Edge1 # show stats storage initiator-iops interval month initiator ign.1998-
01.com.vmware:localhost-29e36c8b
Average Read IOPS: 0
Average Write IOPS: 0
```

Product

SteelFusion Edge

Related Topics

[“show stats storage initiator-bytes,” “show stats storage initiator-bytes”](#)

show stats storage initiator-ltncy

Displays the average read and write latency for blocks written to and read from the blockstore via the specified initiator for the specified time period.

Syntax

```
show stats storage initiator-ltncy {interval <time-interval> initiator <initiator> | start-time <start> end-time <end>
initiator <initiator>}
```

Parameters

interval <time-interval>	Use this parameter in conjunction with the initiator <initiator> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <end> and initiator <initiator> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and initiator <initiator> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
initiator <initiator>	Specifies the name of the initiator.

Example

```
Edge1 > show stats storage initiator-ltncy interval month initiator all
Time: msre:localhost-29e36c8b
Avg Write IO Time: 4 ms
```

Product

SteelFusion Edge

Related Topics

[“show stats storage initiator-bytes,” “show stats storage initiator-iops”](#)

show stats storage lun-bytes

Displays the number of bytes written to and read from the specified LUN for the specified period of time.

Syntax

```
show stats storage lun-bytes {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```


Parameters

interval <time-interval>	Use this parameter in conjunction with the lun <lun-id> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <end> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
lun <lun-id>	Specifies the name of the LUN.

Usage

Use this command to display the number of megabytes written to and read from the specified LUN for the specified period.

Example

```
Edge1 # show stats storage lun-bytes interval month lun lun2
Total Bytes Read: 571.23 MB
Total Bytes Written : 19.77 MB
Total Hit Count : 558.10 MB
Total Miss Count : 171.50 KB
Mean Commit delay : 0s
Total Bytes Written : 6.64 MB
Total Committed Bytes : 6.64 MB
Total Uncommitted Bytes : 0 Bytes
```

Product

SteelFusion Edge

Related Topics

[“show stats storage lun-commit-rate”](#)

show stats storage lun-commit-rate

Displays the commit rate for the specified LUN for the specified time period.

Syntax

```
show stats storage lun-commit-rate {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

interval <time-interval>	Use this parameter in conjunction with the lun <lun-id> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
lun <lun-id>	Specifies the name of the LUN. Optionally, you can specify all to display information for all configured LUNs.

Usage

Use this command to display the commit rates for the specified LUN for the specified period.

Example

```
Edge1 # show stats storage lun-commit-rate interval month lun 000001
Average Blockstore Commits Throughput: 92.90 KB/sec
Peak Blockstore Commits Throughput: 3.55 MB/sec
Peak Blockstore Commits Throughput at: 20:00:00 on 2015/03/18
```

Product

SteelFusion Edge

Related Topics

[“show stats storage lun-latency,” “show stats storage lun-bytes”](#)

show stats storage lun-iops

Displays the LUN I/O report for the specified time period.

Syntax

```
show stats storage lun-iops {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

interval <time-interval>	Use this parameter in conjunction with the lun <lun-id> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
lun <lun-id>	Specifies the name of the LUN. Optionally, you can specify all to display information for all configured LUNs.

Usage

Use this command to display the number of megabytes and operations written to and read from the specified LUN for the specified period.

Example

```
Edge1 # show stats storage lun-iops interval month lun 000001
Average Read IOPS: 0.6668 op/sec
Average Write IOPS: 1.3347 op/sec
```

Product

SteelFusion Edge

Related Topics

[“show stats storage lun-latency,” “show stats storage lun-bytes”](#)

show stats storage lun-latency

Displays the average read and write latency for the specified LUN for the specified time period.

Syntax

```
show stats storage lun-latency {interval <time-interval> lun <lun-id> | start-time <start> end-time <end> lun <lun-id>}
```

Parameters

interval <time-interval>	Use this parameter in conjunction with the lun <lun-id> parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> and lun <lun-id> parameters to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
lun <lun-id>	Specifies the name of the LUN.

Usage

Use this command to display the average read and write latencies for the specified LUN for the specified period.

Example

```
Edge1 (config) # show stats storage lun-latency interval month lun lun2
Avg Read IO Time: 0 ms
Avg Write IO Time: 0 ms
```

Product

SteelFusion Edge

Related Topics

[“show stats storage lun-bytes”](#)

show stats storage rebuild-status

Displays the SteelFusion Edge high availability rebuild progress report.

Syntax

```
show stats storage rebuild-status {interval <time-interval> | start-time <start> end-time <end>}
```

Parameters

interval <time-interval>	Use this parameter to return statistics for one of the following time intervals: <ul style="list-style-type: none"> • 1min - Returns statistics for the last one minute. • 5min - Returns statistics for the last five minutes. • hour - Returns statistics for the last hour. • day - Returns statistics for the last day. • week - Returns statistics for the last week. • month - Returns statistics for the last month.
start-time <start>	Use this parameter in conjunction with the end-time <end> parameter to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.
end-time <end>	Use this parameter in conjunction with the start-time <start> parameter to return statistics for the specified time period. Use the format YYYY/MM/DD HH:MM:SS.

Usage

During a standby rebuild operation, the Edge passively accepts updates from the active peer, but its blockstore is not yet current with the state of the active peer.

Example

```
Edge1 > show stats storage rebuild-status interval month
Average Total Rebuild Pages: 4294967295
Remaining Rebuild Pages: 0
Current Rebuild Progress: 100.0%
```

Product

SteelFusion Edge

Related Topics

[“Storage Commands”](#)

show storage blockstore

Displays blockstore information.

Syntax

show storage blockstore [rdc-policy]

Parameters

rdc-policy	Returns statistics for the current SSD read cache population policy. Read cache must be enabled on the appliance for this output to display.
-------------------	--

Example

```
Edge1 > show storage blockstore
Blockstore usable bytes : 2.927 TB
Blockstore maximum pinnable bytes : 2.634 TB
Blockstore remaining pinnable bytes : 2.502 TB
```

Product

SteelFusion Edge

Related Topics

[“show storage core”](#)

show storage core

Displays detailed status and information about the configured SteelFusion Core.

Syntax

show storage core

Parameters

None

Example

```
Edge1 # show storage core
Configured Core Hostname/IP      : kabar-vva60
  SteelFusion Edge Identifier    : kabar-vva61
  Port                          : 7970

Current Active Core              : kabar-vva62

Local Interfaces                 : primary          (priority: 1)

Core Site : primary
  SteelFusion Core              : kabar-vva62
  HA Role                      : active
  Connected                    : yes
  Redundant IPs                 : 10.1.34.64        (priority: 8)

Core Site : secondary
  SteelFusion Core              : kabar-vva60
  HA Role                      : active
  Connected                    : yes
  Redundant IPs                 : 10.1.34.62        (priority: 1)
```

Product

SteelFusion Edge

Related Topics

[“storage core add host,”](#) [“storage core host local-interface,”](#) [“storage core remove”](#)

show storage iscsi

Displays the iSCSI target configuration details.

Syntax

show storage iscsi [initiators [name <initiator>] | initiator-group [name <initiator-group>] | lun-alias <lun-alias> | lun-serial <lun-serial> | luns | mpio interfaces | targets]

Parameters

initiators	Displays information specific to iSCSI initiator credentials.
name <initiator>	Specifies the name of a specific initiator to limit the output to information about that initiator.
initiator-group	Displays the details of iSCSI initiator groups, including configuration status and the initiators in the group.
name <initiator-group>	Specifies the name of the iSCSI initiator group.
lun-alias <lun-alias>	Displays LUN details, including configuration status, size, type, vendor, serial number, and so on. Note: Alternatively, you can identify the LUN by its serial number.
lun-serial <lun-serial>	Displays LUN details, including configuration status, size, type, vendor, serial number, and so on. Note: Alternatively, you can identify the LUN by its alias.
luns	Displays the details of all configured LUNs, including configuration status, size, type, vendor, serial number, and so on.
mpio interfaces	Displays the details of multi-path I/O interfaces.
targets	Displays the details of iSCSI targets, including description, security-only status, header-digest status, data-digest status, initiator groups, initiator credentials, and network portals.

Example

```
Edge1 # show storage iscsi
General iSCSI target Configuration:
  Packet data digest:      Enabled
  Packet header digest:    Enabled
  Report iSCSI NAA serials: Enabled
```

Product

SteelFusion Edge

Related Topics

[“show stats storage initiator-bytes,” “show stats storage initiator-iops,” “show storage core,” “show service storage,” “storage iscsi mpio interface \(Edge\)”](#)

show storage lun

Displays the details of the storage LUN settings.

Syntax

```
show storage lun {alias <alias> | serial <serial>} [snapshot {all | id} | snapshot-config | snapshot-log]
```

Parameters

alias <alias>	Specifies the alias of the LUN to be displayed.
serial <serial>	Specifies the serial value of the LUN to be displayed.
snapshot all	Displays all snapshots associated with a LUN.
snapshot id	Displays all snapshots associated with an ID.
snapshot-config	Displays snapshot configuration details.
snapshot-log	Displays snapshot log information.

Example

```
Edge_01 > # show storage lun alias lun_0
Locally Assigned Serial: 000001
Alias                : lun_0
LUN Size             : 25.00 GB
LUN Type             : iscsi
Parent VLUNID        : Unknown
Snapshot Status      : Unknown
Scheduled snapshots  : Disabled
Originating SteelFusion Core : core-sh13
LUN ID               : 1
Online               : Yes
Offline percentage   : Not applicable
IOPs acceleration    : Disabled
iSCSI Target         : iqn.2003-10.com.riverbed:Edge_01.000
SteelFusion Core Session : Connected
Origin LUN serial    : 000001
Pinned               : no

Mapped igroups:
  ig0

Mapped initiators:
  iqn.1998-01.com.vmware:oak-esxstor2-node1-760e73ee

Snapshot Policy : default_policy
Max Hourly snaps      : 5
Max Daily snaps       : 5
Max Weekly snaps      : 5
Schedule :
  daily      : everyday @ 00
  hourly     : everyday @ 04,08,12,16,20
  weekly     : sun @ 23
```

Product

SteelFusion Edge

Related Topics

[“show storage luns”](#)

show storage luns

Displays details about all the LUNs configured for the current appliance, including:

- Configuration status
- LUN size and type
- Prefetch setting
- Mapped edge appliances

- Target and portal mapping
- Session status
- Prepopulation settings, status, progress, and schedules
- Snapshot settings and schedules
- MPIO policy settings

Syntax

show storage luns [**block-disk** | **deactivated** | **edge-local** | **iscsi**]

Parameters

block-disk	Limits the output to block-disk LUNs.
deactivated	Limits the output to deactivated LUNs.
edge-local	Limits the output to local edge LUNs.
iscsi	Limits the output to iSCSI LUNs.

Example

```
Edge_01 > show storage luns iscsi
Locally Assigned Serial: P3KRP4l4Q4m6
Configuration status      : Ready
Alias                     : snapLun
LUN Size                  : 101.975 MB
LUN Type                  : iscsi
Online                    : yes
Failover Enabled          : yes
Prefetch                  : Enabled
<partial output>
```

Product

SteelFusion Edge

Related Topics

[“show storage lun”](#)

APPENDIX A SteelFusion Ports

This appendix provides a reference to ports used by SteelFusion. For information on SteelHead ports, see the *Riverbed Command-Line Interface Reference Manual*.

SteelFusion Ports

The following table summarizes SteelFusion Edge + BlockStream default ports with the port label: Granite.

Default Ports	Description
7950	Data requests for data-blocks absent in Edge from the data center
7951	New data created at the Edge to the data center
7952	Prefetch data for which SteelFusion has highest confidence (for example, file read ahead)
7953	Prefetch data for which SteelFusion has medium confidence (for example, boot)
7954	Prefetch data for which SteelFusion has lowest confidence (for example, prepopulation)
7970	Management information exchange between Edge and Core appliances

Index

A

- aaa accounting per-command default 69
- aaa authentication cond-fallback 70
- aaa authentication console-login default 70
- aaa authentication login default 71
- aaa authorization map default-user 71
- aaa authorization map order 71
- access enable 72
- access inbound rule add 73
- access inbound rule edit rulenum 75
- access inbound rule move 76
- alarm clear 76
- alarm clear-threshold 77
- alarm enable (Core) 77
- alarm enable (Edge) 80
- alarm error-threshold 87
- alarm rate-limit 88
- alarms reset-all 88
- arp 88
- authentication policy enable 89
- authentication policy login max-failures 89
- authentication policy password 90
- authentication policy template 91
- authentication policy user lock never 93
- authentication policy user login-failures reset 93

B

- banner login 93
- banner motd 94
- boot bootloader password 94
- boot system 94

C

- clear arp-cache 39
- clear hardware edac-ue-alarm 39
- clear hardware error-log 40
- clear hypervisor hardware error-log 327
- CLI

- command negation 8
- connecting 5
- online help 7

- overview of 6

- saving configurations 8
- cli clear-history 95
- cli default auto-logout 95
- cli default paging enable 95
- cli session 96
- clock set 40
- clock timezone 96
- cmc enable 97
- cmc hostname 97
- configuration bulk export 40
- configuration bulk import 41
- configuration copy 97
- configuration delete 98
- configuration factory 98
- configuration fetch 98
- configuration jump-start 99
- configuration jump-start command, restarting the wizard 8
- configuration merge 100
- configuration move 101
- configuration new 101
- configuration revert keep-local 102
- configuration revert saved 102
- configuration switch-to 102
- configuration upload 103
- Configuration wizard
 - restarting 8
- configuration write 103
- configure terminal 41

D

- debug generate dump 42
- debug uptime-report enable 104
- device-failover peer clear (Core) 205
- device-failover peer clear (Edge) 352
- device-failover peer set 204
- device-failover peer set (Core) 205
- device-failover peer set (Edge) 352
- device-failover peer-config activate 206
- device-failover peerip 207

device-failover self-config activate 206
 disable 42
 Document conventions, overview of 2

E

edge add id 207
 edge id blockstore 208
 edge id iscsi data-digest 209
 edge id iscsi header-digest 210
 edge id iscsi initiator add 210
 edge id iscsi initiator modify 211
 edge id iscsi initiator remove 212
 edge id iscsi initiator-group 213
 edge id iscsi initiator-group modify 213
 edge id iscsi target modify-name 214
 edge id iscsi target security-only 214
 edge id prepop schedule add 215
 edge id prepop schedule modify 216
 edge id prepop schedule remove 216
 edge id virtual-ip 217
 edge modify id branch-recovery clear 217
 edge modify id clear-serial 218
 edge modify id serialize-snap enable 218
 edge modify preferred-if 219
 edge remove id 219
 email autosupport enable 104
 email domain 105
 email from-address 105
 email mailhub 105
 email mailhub-port 106
 email notify events enable 106
 email notify events recipient 106
 email notify failures enable 107
 email notify failures recipient 107
 email send-test 108
 enable 9
 Ethernet network compatibility ii
 exit 9

F

failover-peer edge add id 207
 failover-peer edge id blockstore 208
 failover-peer edge id iscsi data-digest 209
 failover-peer edge id iscsi header-digest 210
 failover-peer edge id iscsi initiator add 210
 failover-peer edge id iscsi initiator modify 211
 failover-peer edge id iscsi initiator remove 212
 failover-peer edge id iscsi initiator-group 213
 failover-peer edge id iscsi initiator-group modify 213
 failover-peer edge id iscsi target modify-name 214
 failover-peer edge id iscsi target security-only 214
 failover-peer edge id prepop schedule add 215
 failover-peer edge id prepop schedule modify 216
 failover-peer edge id prepop schedule remove 216
 failover-peer edge id virtual-ip 217

failover-peer edge modify id branch-recovery
 clear 217
 failover-peer edge modify id clear-serial 218
 failover-peer edge modify id serialize-snap enable 218
 failover-peer edge modify preferred-if 219
 failover-peer edge remove id 219
 failover-peer iscsi portal host disc-portal modify 237
 failover-peer iscsi portal host rescan-portals 239
 failover-peer lun modify auth-initiator 253
 failover-peer snapshot policy add 285
 failover-peer storage block-disk 220
 failover-peer storage block-disk scan enable 221
 failover-peer storage host-info add 228
 failover-peer storage host-info modify 229
 failover-peer storage host-info remove 230
 failover-peer storage iscsi chap add 230
 failover-peer storage iscsi chap delete 231
 failover-peer storage iscsi chap modify 231
 failover-peer storage iscsi chap username 232
 failover-peer storage iscsi data-digest 232
 failover-peer storage iscsi header-digest 233
 failover-peer storage iscsi initiator modify auth
 mutual-chap 233
 failover-peer storage iscsi initiator modify name 234
 failover-peer storage iscsi mpio interface remove
 name 235
 failover-peer storage iscsi portal add host 235
 failover-peer storage iscsi portal host disc-portal
 add 236
 failover-peer storage iscsi portal host disc-portal
 remove 237
 failover-peer storage iscsi portal host offline-luns 238
 failover-peer storage iscsi portal host rescan-
 targets 240
 failover-peer storage iscsi portal host target add 240
 failover-peer storage iscsi portal host target
 modify 241
 failover-peer storage iscsi portal host target offline-
 luns 241
 failover-peer storage iscsi portal host target
 remove 242
 failover-peer storage iscsi portal modify host auth 242
 failover-peer storage iscsi portal modify host port 243
 failover-peer storage iscsi portal remove host 244
 failover-peer storage iscsi report-naa-id enable 244
 failover-peer storage iscsi session data-digest
 enable 244
 failover-peer storage iscsi session header-digest
 enable 245
 failover-peer storage iscsi session immediate-data
 enable 245
 failover-peer storage iscsi session initial-rt2a
 enable 246
 failover-peer storage iscsi session mpio 246

- failover-peer storage iscsi session mpio standard-routes 247
 - failover-peer storage iscsi session scan-interval 247
 - failover-peer storage iscsi session serialize-write 248
 - failover-peer storage iscsi session wait-interval 249
 - failover-peer storage iscsi session write-balance enable 250
 - failover-peer storage lun add block-disk 250
 - failover-peer storage lun add edge-local 250
 - failover-peer storage lun add iscsi 251
 - failover-peer storage lun clear-pxy-state 251
 - failover-peer storage lun modify accelerate-iops 252
 - failover-peer storage lun modify auth-igroup 253
 - failover-peer storage lun modify branch-recovery 254
 - failover-peer storage lun modify branch-recovery enable 254
 - failover-peer storage lun modify branch-recovery restart 255
 - failover-peer storage lun modify branch-recovery schedule 256
 - failover-peer storage lun modify client-type 256
 - failover-peer storage lun modify failover 257
 - failover-peer storage lun modify map edge-id 258
 - failover-peer storage lun modify mpio path 258
 - failover-peer storage lun modify mpio policy 259
 - failover-peer storage lun modify new-alias 260
 - failover-peer storage lun modify offline 260
 - failover-peer storage lun modify online 261
 - failover-peer storage lun modify pinned 261
 - failover-peer storage lun modify prepop 262
 - failover-peer storage lun modify prepop schedule add 262
 - failover-peer storage lun modify prepop schedule modify-sched 263
 - failover-peer storage lun modify prepop schedule remove 264
 - failover-peer storage lun modify prepop smart 265
 - failover-peer storage lun modify prepop start-now 266
 - failover-peer storage lun modify pri-snap 266
 - failover-peer storage lun modify scheduled-snaps add 268
 - failover-peer storage lun modify scheduled-snaps remove 269
 - failover-peer storage lun modify scsi-res 270
 - failover-peer storage lun modify serialize-write enable 270
 - failover-peer storage lun modify snapshot clear-host 271
 - failover-peer storage lun modify snapshot host 275
 - failover-peer storage lun modify snapshot-config app-consistent 271
 - failover-peer storage lun modify snapshot-config handoff enable 275
 - failover-peer storage lun modify snapshot-config proxy-backup 273
 - failover-peer storage lun modify storage-group 276
 - failover-peer storage lun modify unmap 277
 - failover-peer storage lun modify-all scsi-res 277
 - failover-peer storage lun remove 278, 279
 - failover-peer storage snapshot policy modify add-daily 285
 - failover-peer storage snapshot policy modify add-hourly 286
 - failover-peer storage snapshot policy modify add-weekly 287
 - failover-peer storage snapshot policy remove 287
 - failover-peer storage snapshot policy rename 288
 - failover-peer storage snapshot test handoff delete serial 288
 - failover-peer storage snapshot test handoff hello serial 289
 - failover-peer storage snapshot test handoff take serial 290
 - failover-peer storage snapshot test integrated delete serial 290
 - failover-peer storage snapshot test integrated delete type 291
 - failover-peer storage snapshot test integrated expose serial 292
 - failover-peer storage snapshot test integrated expose type 293
 - failover-peer storage snapshot test integrated proxy-backup serial 294
 - failover-peer storage snapshot test integrated take serial 295
 - failover-peer storage snapshot test integrated take type 296
 - failover-peer storage snapshot test integrated un-expose serial 297
 - failover-peer storage snapshot test integrated un-expose type 297
 - file debug-dump delete 43
 - file debug-dump email 43
 - file debug-dump upload 43
 - file process-dump delete 44
 - file process-dump upload 44
 - file stats delete 45
 - file stats move 45
 - file stats upload 45
 - file tcpdump delete 46
 - file tcpdump upload 46
 - file upload clear-stats 46
 - fips enable 108
- H**
- Hardware dependencies, overview of 2
 - hardware watchdog enable 108
 - hardware watchdog shutdown 109
 - host-label 109

hostname 110
 hypervisor console 328
 hypervisor initialize 328
 hypervisor install 329
 hypervisor install-config hostname 329, 330
 hypervisor install-config network dns 330
 hypervisor install-config network nic 330
 hypervisor install-config network route ipv4 331, 332, 333
 hypervisor install-config network route ipv6 332
 hypervisor install-config network vswitch vmk-port
 ipv4-dhcp 334
 hypervisor install-config network vswitch vmk-port
 ipv4-ip 335
 hypervisor install-config network vswitch vmk-port
 ipv6 337, 338
 hypervisor install-config network vswitch vmk-port
 ipv6-dhcp 336
 hypervisor install-config network vswitch vm-port 333
 hypervisor install-config storage core-managed 340
 hypervisor install-config storage direct-attached delete-
 existing 340
 hypervisor install-config storage direct-attached lun 341
 hypervisor license restore 341
 hypervisor password 342
 hypervisor reinstall 342
 hypervisor restart 343
 hypervisor upgrade 343

I

image boot 111
 image check upgrades 111
 image delete 47
 image delete-all 47
 image fetch 47
 image fetch version 112
 image install 48
 image move 48
 image upgrade 48
 interface 112
 ip default-gateway 113
 ip domain-list 114
 ip fqdn override 114
 ip host 114
 ip name-server 116
 ip route 116
 ipv6 default-gateway 115
 ipv6 route 115

J

job command 116
 job comment 117
 job date-time 117
 job enable 118
 job execute 118

job fail-continue 119
 job name 119
 job recurring 119

K

Known issues 3

L

license autolicense enable 120
 license autolicense fetch 120
 license autolicense server 120
 license client fetch 121
 license client init 121
 license delete 122
 license install 122
 license request gen-key 122
 license request set-token 123
 license server 123
 logging 124
 logging facility 124
 logging files delete oldest 125
 logging files rotation criteria frequency 125
 logging files rotation criteria size 125
 logging files rotation force 126
 logging files rotation max-num 126
 logging filter 126
 logging local 127
 logging trap 128

N

ntp authentication 129
 ntp authentication trustedkeys 129
 ntp disable 130
 ntp enable 130
 ntp peer 131
 ntp peer key 131
 ntp server 132
 ntp server enable 132
 ntp server key 132
 ntpdate 49

O

Online documentation 3
 Online notes 3

P

papi rest access_code generate 133
 papi rest access_code import 133
 ping 10
 ping6 11
 Ports
 default listening 373

R

radius-server host 134
 radius-server retransmit 135
 radius-server timeout 136

- raid alarm silence 136
- raid swraid add-disk 136
- raid swraid add-disk-force 137
- raid swraid fail-disk 137
- raid swraid get-rate 137
- raid swraid mdstat 138
- raid swraid set-rate 138
- rbm user 138
- Related reading 2, 3
- Release notes 3
- reload 49
- remote dhcp 139
- remote ip address 140
- remote ip default-gateway 141
- remote ip netmask 141
- remote password 141
- resolve host-labels 142
- Riverbed Services Platform, 32-bit and 64-bit support 2
- Riverbed, contacting 3
- RSP, 32-bit and 64-bit support 2

S

- secure-vault 142
- service enable 50
- service restart 50
- show aaa 50
- show access inbound rules 12
- show access status 12
- show alarm 12
- show alarms 13
- show arp 51
- show authentication policy 14
- show autolicense status 51
- show banner 52
- show bootvar 14
- show cli 15
- show clock 15
- show cmc 16
- show configuration 52
- show configuration files 53
- show configuration running 54
- show debug health-report 143, 298
- show debug uptime-report 143, 299
- show device-failover (Core) 143, 299
- show device-failover (Edge) 358
- show edge 144, 300
- show email 16
- show failover-peer edge 144, 300
- show failover-peer storage coredr edge 162, 318
- show failover-peer storage iscsi 165, 321
- show failover-peer storage iscsi disc-portals portal 166, 322
- show failover-peer storage iscsi mpio interfaces 166, 322
- show failover-peer storage iscsi mpio-paths 167, 323

- show failover-peer storage lun 167, 323
- show failover-peer storage luns 168, 324, 370
- show failover-peer storage snapshot policies 170, 326
- show files debug-dump 54
- show files process-dump 55
- show files stats 55
- show files tcpdump 55
- show fips status 16
- show hardware all 56
- show hardware error-log 17
- show hardware licensing info 56
- show hardware watchdog 17
- show host-label 18
- show hosts 18
- show hypervisor hardware error-log 344
- show hypervisor hardware licensing 345
- show hypervisor hardware memory-error 345
- show hypervisor hardware temperature 346
- show hypervisor install notifications 348
- show hypervisor install-config 346
- show hypervisor install-config network 347
- show hypervisor install-config storage 347
- show hypervisor installed 348, 349
- show hypervisor log 349
- show hypervisor network 350
- show hypervisor usage 350
- show hypervisor version 351
- show hypervisor version-history 351
- show images 19
- show info 19
- show interfaces 56
- show ip default-gateway 57
- show ip route 57
- show ipv6 default-gateway 58
- show ipv6 route 58
- show job 59
- show license request token 59
- show license-client 60
- show licenses 60
- show license-servers 60
- show log 61
- show logging 19
- show ntp 20
- show ntp active-peers 21
- show ntp authentication 21
- show papi rest access_codes 62
- show protocol ms-sql rules 22
- show radius 62
- show raid configuration 22
- show raid diagram 22
- show raid error-msg 23
- show raid info 23
- show raid physical 23
- show rbm user 62

show rbm users 63
 show remote ip 63
 show running-config 63
 show service 24
 show service storage 358
 show snmp 24
 show snmp acl-info 25
 show snmp ifindex 25
 show snmp usernames 26
 show ssh client 26
 show ssh server 26
 show stats cpu 27
 show stats ecc-ram 28
 show stats failover peer storage dr-resync-bytes 150, 306
 show stats failover-peer storage dr-bytes-synced 146, 301
 show stats failover-peer storage dr-disk-journal 147, 303
 show stats failover-peer storage dr-fsync-bytes 148, 304
 show stats failover-peer storage dr-latency 149, 305
 show stats failover-peer storage dr-mem-journal 149, 305
 show stats failover-peer storage edge-bytes 151, 307
 show stats failover-peer storage edge-stats 152, 308
 show stats failover-peer storage filer-bytes 153, 309
 show stats failover-peer storage filer-iops 154, 310
 show stats failover-peer storage filer-latency 155, 311
 show stats fan 28
 show stats memory 28
 show stats storage core-io-bytes 358
 show stats storage dr-bytes-synced 146, 301
 show stats storage dr-disk-journal 147, 303
 show stats storage dr-fsync-bytes 148, 304
 show stats storage dr-latency 149, 305
 show stats storage dr-mem-journal 149, 305
 show stats storage dr-resync-bytes 150, 306
 show stats storage edge-bytes 151, 307
 show stats storage edge-stats 152, 308
 show stats storage filer-bytes 153, 309
 show stats storage filer-iops 154, 310
 show stats storage filer-latency 155, 311
 show stats storage initiator-bytes 359
 show stats storage initiator-iops 360
 show stats storage initiator-ltncy 361
 show stats storage lun-bytes 156, 312, 362
 show stats storage lun-commit-rate 363
 show stats storage lun-iops 157, 313, 364
 show stats storage lun-latency 158, 314, 365
 show stats storage network-bytes 159, 315
 show stats storage network-iops 160, 316
 show stats storage network-latency 161, 317
 show stats storage rebuild-status 366
 show storage blockstore 367
 show storage core 368
 show storage coredr edge 162, 318
 show storage coredr replica size-leeway 163, 319
 show storage coredr sec-site-luns 164, 320
 show storage coredr settings 164, 320
 show storage iscsi 165, 321, 368
 show storage iscsi disc-portals portal 166, 322
 show storage iscsi mpio interfaces 166, 322
 show storage iscsi mpio-paths 167, 323
 show storage lun 167, 323, 369
 show storage lun-global settings 169, 325
 show storage luns 168, 324, 370
 show storage snapshot 169, 325, 371
 show storage snapshot policies 170, 326
 show tacacs 64
 show tcpdump stop-trigger 29
 show tcpdump-x 29
 show telnet-server 64
 show terminal 30
 show uploads 30
 show userlog 64
 show usernames 65
 show version 30
 show virtualization 352
 show web 31
 show web prefs 32
 show web ssl cert 32
 show web ssl cipher 65
 slogin 33
 snmp-server acl 171
 snmp-server community 172
 snmp-server contact 172
 snmp-server enable 172
 snmp-server group 173
 snmp-server host 173
 snmp-server host version 174
 snmp-server ifindex 175
 snmp-server ifindex-persist 176
 snmp-server ifindex-reset 176
 snmp-server listen enable 176
 snmp-server listen interface 177
 snmp-server location 177
 snmp-server security-name 178
 snmp-server trap-interface 178
 snmp-server trap-test 179
 snmp-server user 179
 snmp-server view 180
 Software dependencies, overview of 2
 ssh client generate identity user 181
 ssh client user authorized-key key sshv2 181
 ssh server allowed-ciphers 181
 ssh server enable 182
 ssh server listen enable 182
 ssh server listen interface 183
 ssh server max-auth-tries 183

- ssh server port 184
- ssh server v2-only enable 184
- ssh slogin 33
- stats clear-all 66
- stats export 33
- SteelFusion
 - common ports used by the system 373
- storage block-disk 220
- storage block-disk rescan 220
- storage block-disk scan enable 221
- storage core add host 353
- storage core host local-interface 354
- storage core host modify 354
- storage core remove 355
- storage coredrr lun replicate-to 224
- storage coredr clear 221
- storage coredr clear-params 222
- storage coredr edge 222
- storage coredr failover 223
- storage coredr interface 223
- storage coredr lun remove-replica 224
- storage coredr replication resume 225
- storage coredr replication suspend 226
- storage coredr set-params 226
- storage coredr setup peer 227
- storage coredr witness set 228
- storage host-info add 228
- storage host-info modify 229
- storage host-info remove 230
- storage iscsi chap add 230
- storage iscsi chap delete 231
- storage iscsi chap modify 231
- storage iscsi chap username 232
- storage iscsi data-digest 232
- storage iscsi header-digest 233
- storage iscsi initiator modify auth mutual-chap 233
- storage iscsi initiator modify name 234
- storage iscsi mpio interface (Edge) 355
- storage iscsi mpio interface add 234
- storage iscsi mpio interface remove 235
- storage iscsi portal add host 235
- storage iscsi portal host disc-portal add 236
- storage iscsi portal host disc-portal modify 237
- storage iscsi portal host disc-portal remove 237
- storage iscsi portal host offline-luns 238
- storage iscsi portal host rescan-luns 238
- storage iscsi portal host rescan-portals 239
- storage iscsi portal host rescan-targets 240
- storage iscsi portal host target add 240
- storage iscsi portal host target modify 241
- storage iscsi portal host target offline-luns 241
- storage iscsi portal host target remove 242
- storage iscsi portal modify host auth 242
- storage iscsi portal modify host port 243
- storage iscsi portal remove host 244
- storage iscsi portal report-naa-id enable 244
- storage iscsi session data-digest enable 244
- storage iscsi session header-digest enable 245
- storage iscsi session immediate-data enable 245
- storage iscsi session initial-rt2 enable 246
- storage iscsi session mpio 246
- storage iscsi session mpio standard-routes 247
- storage iscsi session scan-interval 247
- storage iscsi session serialize-write 248
- storage iscsi session wait-interval 249
- storage iscsi session write-balance enable 250
- storage lun activate 356
- storage lun add block-disk 250
- storage lun add edge-local 250
- storage lun add iscsi 251
- storage lun clear-pxy-state 251
- storage lun modify accelerate-iops 252
- storage lun modify auth-igroup 253
- storage lun modify auth-initiator 253
- storage lun modify branch-recovery 254
- storage lun modify branch-recovery enable 254
- storage lun modify branch-recovery restart 255
- storage lun modify branch-recovery schedule 256
- storage lun modify client-type 256
- storage lun modify failover 257
- storage lun modify map edge-id 258
- storage lun modify mpio path 258
- storage lun modify mpio policy 259
- storage lun modify new-alias 260
- storage lun modify offline 260
- storage lun modify online 261
- storage lun modify pinned 261
- storage lun modify prepop 262
- storage lun modify prepop schedule add 262
- storage lun modify prepop schedule modify-sched 263
- storage lun modify prepop schedule remove 264
- storage lun modify prepop smart 265
- storage lun modify prepop start-now 266
- storage lun modify pri-snap 266
- storage lun modify scheduled-snaps 267
- storage lun modify scheduled-snaps add 268
- storage lun modify scheduled-snaps remove 269
- storage lun modify scsi-res 270
- storage lun modify serialize-write enable 270
- storage lun modify snapshot clear-host 271
- storage lun modify snapshot host 275
- storage lun modify snapshot-config app-consistent 271
- storage lun modify snapshot-config handoff enable 275
- storage lun modify snapshot-config proxy-backup 273
- storage lun modify storage-group 276

storage lun modify unmap 277
 storage lun modify-all scsi-res 277
 storage lun remove 278
 storage lun resize 278, 279
 storage lun snapshot create 356
 storage lun snapshot remove 357
 storage lun snapshot remove non-replicated 357
 storage snapshot br-proxy-host 279
 storage snapshot policy add 285
 storage snapshot policy modify add-daily 285
 storage snapshot policy modify add-hourly 286
 storage snapshot policy modify add-weekly 287
 storage snapshot policy remove 287
 storage snapshot policy rename 288
 storage snapshot test handoff delete serial 288
 storage snapshot test handoff hello serial 289
 storage snapshot test handoff take serial 290
 storage snapshot test integrated delete serial 290
 storage snapshot test integrated delete type 291
 storage snapshot test integrated expose serial 292
 storage snapshot test integrated expose type 293
 storage snapshot test integrated proxy-backup
 serial 294
 storage snapshot test integrated take serial 295
 storage snapshot test integrated take type 296
 storage snapshot test integrated un-expose serial 297
 storage snapshot test integrated un-expose type 297

T

tacacs-server first-hit 184
 tacacs-server host 185
 tacacs-server key 186
 tacacs-server retransmit 186
 tacacs-server timeout 186
 tcpdump 66
 tcpdump stop-trigger delay 187
 tcpdump stop-trigger enable 187
 tcpdump stop-trigger regex 188
 tcpdump stop-trigger restart 188
 tcpdump-x all-interfaces 188
 tcpdump-x capture-name stop 191
 tcpdump-x interfaces 191
 telnet 34
 telnet-server enable 192
 terminal 35
 traceroute 36
 traceroute6 36

U

username disable 193
 username nopassword 193
 username password 193
 username password 0 194
 username password 7 194

W

web auto-logout 195
 web auto-refresh timeout 195
 web enable 196
 web http enable 196
 web http port 197
 web httpd server-header 197
 web https enable 197
 web https port 198
 web prefs log lines 198
 web proxy host 198
 web rest-server enable 199
 web session renewal 199
 web session timeout 200
 web snmp-trap conf-mode enable 200
 web soap-server enable 201
 web soap-server port 201
 web ssl cert generate 201
 web ssl cert generate-csr 202
 web ssl cert import-cert 202
 web ssl cert import-cert-key 203
 web ssl protocol 203
 Wizard, restarting 8
 write memory 204
 write terminal 204