

53-1002971-02
11 October 2013



FastIron Ethernet Switch

Software Upgrade Guide

Supporting FastIron Software Release 08.0.01

BROCADE

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Document conventions

Text formatting conventions

The following text formatting conventions may be used in the flow of the text to highlight specific words or phrases.

Format	Description
bold text	Identifies command names Identifies keywords and operands Identifies the names of user-manipulated GUI elements Identifies text to enter at the GUI
<i>italic text</i>	Identifies emphasis Identifies variables and modifiers Identifies paths and Internet addresses Identifies document titles
<code>code</code>	Identifies CLI output Identifies command syntax examples

Command syntax conventions

The following text formatting conventions identify command syntax components.

Convention	Description
bold text	Identifies command names, keywords, and command options.
<i>italic text</i>	Identifies a variable.
value	In Fibre Channel products, a fixed value provided as input to a command option is printed in plain text, for example, --show WWN

Convention	Description
[]	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
{x y z}	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one. In Fibre Channel products, square brackets may be used instead for this purpose.
x y	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, for example, passwords, are enclosed in angle brackets.
...	Repeat the previous element. For example, member[member...]
\	Indicates a "soft" line break in command examples. If a backslash separates two lines of a command input enter the entire command at the prompt without the backslash
<i>italic text</i>	Identifies a variable.
bold text	Identifies command names, keywords, and command options.

Notes, cautions, and warnings

The following notices and statements may be used in this document. They are listed below in order of increasing severity of potential hazards.

NOTE

A note provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

ATTENTION

An Attention statement indicates potential damage to hardware or data.



CAUTION

A Caution statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.



DANGER

A Danger statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations

Brocade Resources

Related publications

You can download additional publications supporting your product from the Brocade website at www.brocade.com.

- Adapter documentation is available on the [Downloads and Documentation for Brocade Adapters](#) page. Select your platform and scroll down to the documentation section.
- For all other products, select the Brocade product to open the individual product page, click the Brocade product name or image to open the individual product page. The user manuals are available in the resources module at the bottom of the page under the Documentation category.

Additional Brocade resources

To get up-to-the-minute information, go to [MyBrocade](#). You can register at no cost to obtain a user ID and password.

Release Notes are available on [MyBrocade](#) under Product Downloads.

White papers, online demonstrations, and data sheets are available through the [Brocade website](#).

Getting technical help

For product support information and the latest information on contacting the Technical Assistance Center, go to <http://www.brocade.com/services-support/index.html>

Contact Brocade Support 24x7

Use one of the following methods to contact the Brocade Technical Assistance Center.

Online	Telephone	Email
Preferred method of contact for non-urgent issues:	Required for Sev 1-Critical and Sev 2-High issues:	support@brocade.com
• My Cases through MyBrocade • Software downloads & licensing tools • Knowledge Base	• Continental US: 1-800-752-8061 • Europe, Middle East, Africa, and Asia Pacific: +800-AT FIBREE (+800 28 34 27 33) • For areas unable to access toll free number: +1-408-333-6061 • Toll-free numbers are available in many countries.	Please include: • Problem summary • Serial number • Installation details • Environment description

Document feedback

Quality is our first concern at Brocade and we have made every effort to ensure the accuracy and completeness of this document. However, if you find an error or an omission, or you think that a topic needs further development, we want to hear from you. You can provide feedback in two ways:

- Through the online feedback form in the HTML documents posted on www.brocade.com.
- By sending your feedback to documentation@brocade.com.

Provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

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Introduction

This guide includes procedures for configuring the software. The software procedures show how to perform tasks using the CLI. This guide also describes how to monitor Brocade products using statistics and summary screens.

Supported Hardware

This guide supports the following product families from Brocade:

- FastIron X Series devices (chassis models):
 - FastIron SX 800
 - FastIron SX 1600
- Brocade FCX Series (FCX) Stackable Switch
- Brocade ICX™ 6610 (ICX 6610) Stackable Switch
- Brocade ICX 6430 Series (ICX 6430)
- Brocade ICX 6450 Series (ICX 6450)
- Brocade ICX 6650 series (ICX 6650)
- *Brocade Turbolron 24X Series*

For information about the specific models and modules supported in a product family, refer to the hardware installation guide for that product family. [Related publications](#) on page 8 lists the hardware installation guides.

NOTE

- The Brocade ICX 6430-C switch supports the same feature set as the Brocade ICX 6430 switch unless otherwise noted.
 - The Brocade ICX 6450-C switch supports the same feature set as the Brocade ICX 6450 switch unless otherwise noted.
-

Unsupported features

Features that are not documented in [Related publications](#) on page 8 are not supported.

Audience

This document is designed for network engineers with a working knowledge of Layer 2 and Layer 3 switching and routing.

If you are using a Brocade Layer 3 Switch, you should be familiar with the following protocols if applicable to your network - IP, RIP, OSPF, BGP, ISIS, IGMP, PIM, DVMRP, and VRRP.

What's new in this document

ICX 6650 support is included wherever applicable in this guide for FastIron release 08.0.01.

Related publications

The following Brocade Communication Systems, Inc documents supplement the information in this guide and can be located at <http://www.brocade.com/ethernetproducts>.

- FastIron Ethernet Switch Administration Guide
- FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide
- FastIron Ethernet Switch Layer 3 Routing Configuration Guide
- FastIron Ethernet Switch IP Multicast Configuration Guide
- FastIron Ethernet Switch Security Configuration Guide
- FastIron Switch Stacking Configuration Guide
- FastIron Ethernet Switch Traffic Management Guide
- FastIron Ethernet Switch Software Licensing Guide
- FastIron Feature Support Matrix
- Brocade Turbolron 24X Series Configuration Guide
- Brocade ICX 6430-C Switch Installation Guide
- Brocade ICX 6430 and ICX 6450 Stackable Switches Hardware Installation Guide
- Brocade FCX Series Hardware Installation Guide
- Brocade FastIron ICX 6610 Stackable Switch Hardware Installation Guide
- Brocade ICX 6650 Ethernet Switch Installation Guide
- Brocade FastIron SX Series Chassis Hardware Installation Guide
- Brocade Turbolron 24X Series Hardware Installation Guide
- Brocade ICX 6450-C12-PD Switch Installation Guide
- Brocade FastIron FCX, ICX, and Turbolron Diagnostic Reference
- Unified IP MIB Reference

Upgrade and downgrade considerations

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- [Changes between FastIron 07.4.00 and 08.0.xx release..... 11](#)
- [Changes between FastIron 07.5.00 and 08.0.01 release..... 26](#)

This chapter contains the upgrade and downgrade considerations, and the major differences between FastIron 07.4.00 and 08.0.xx releases. For information on devices and FastIron software versions that can be upgraded to FastIron 08.0.xx, see the release notes.

Upgrade and downgrade considerations

The following sections covers the details that should be considered before upgrading to FastIron 08.0.xx or downgrading to previous releases from FastIron 08.0.xx.

General considerations

General

- The **erase startup-config** command will erase all the startup configuration files (startup-config.txt and also the backup files).
- FSX device with FastIron 08.0.xx, ICX 6430, and ICX 6450 devices support only one configured system boot preference.
- For ICX 6430 devices, the **system-max mac-filter-sys** parameter value has changed from 512 to 508 in FastIron 08.0.xx. If the current value of **system-max mac-filter-sys** is more than 508, you should change this value to 508 before upgrading. Otherwise, during upgrade, its value will be set to the default value of 64.
- To use 07.x.xx configuration on a device upgraded to 08.0.xx image, replacing the running configuration with 07.x.xx configuration is not supported. You will be required to copy the 07.x.xx configuration onto the startup configuration file and reload the device.

Deprecated or removed features and commands

- SNTP is no longer supported. NTPv4 replaces SNTP.
- Port Speed Down-Shift feature is deprecated in FastIron 08.0.xx. The **link-config gig copper autoneg-control down-shift ethernet** command is deprecated.
- The **show cpu-utilization** command replaces the **show process cpu** command.

Flash memory capacity

Consider the following limitations of different devices when upgrading software:

- FSX and FCX devices can hold two Full Layer 3 or Layer 2 or Base Layer 3 images.
- ICX 6430 devices can hold two Layer 2 images.
- ICX 6450 devices can hold two Layer 2 or Layer 3 images.

Security

- SSHv2 RSA host key format is different between FastIron 07.x.xx, and 08.0.xx software versions.
- When you upgrade from FastIron 07.x.xx, 08.0.00 to 08.0.xx software version, if RSA key is present in FastIron 07.x.xx or 08.0.00 software version, same size will be regenerated in FastIron 08.0.xx software version. Old SSHv2 host key is retained unless they are cleared by the **crypto key zeroize** command.
- SSH host keys created with DSA method is interoperable between FastIron 07.x.xx, 08.0.00 and 08.0.xx software versions.
- RADIUS Server key default encryption type is 2 (simple_encryption_base64) in FastIron 08.0.xx release instead of 1 (simple_encryption) as compared to the earlier releases. If you do not follow the upgrade procedure, the RADIUS server key configuration will be removed during downgrade.

Downgrade considerations

- Any new command in FastIron 08.0.xx will be discarded during downgrade.
- The startup configuration as well as the run time changes in FastIron 08.0.xx configuration will be lost during downgrade.
- If software-based licensing is in effect on the device, and if the software is downgraded to a version earlier than 07.1.00, software-based licensing will not be supported.
- SSHv2 RSA host key format is different between FastIron 07.x.xx, 08.0.00, and 08.0.xx software versions.
- When you downgrade the FastIron software from version 08.0.xx to 08.0.00 or 07.x.xx, consider the following scenarios:
 - When SSHv2 RSA host key in FastIron 08.0.00a and above is retained from FastIron 07.x.xx or 08.0.00 software version, booting up with FastIron 07.x.xx or 08.0.00 software versions reads the old format SSHv2 RSA host keys and enables the SSHv2 RSA server on the switch.
 - When SSHv2 RSA host key is created in FastIron 08.0.00a and above, booting up with FastIron 07.x.xx or 08.0.00 software versions does not read the new-format SSHv2 RSA host keys and SSHv2 server is not enabled on the switch.

Considerations for devices with LAG

- If you are upgrading to FastIron 08.0.xx and have either LAGs or LACP configured, the previous configuration will be automatically updated to form a new equivalent LAG. To accomplish this, the old **trunk** and **link-aggregation** commands are maintained during startup configuration parsing, but disabled during normal configurations. The following are the major differences in LAG configuration in FastIron 08.0.xx compared to earlier releases:
 - A LAG is not created until a LAG is deployed using the **deploy** command.
 - LACP is not started until a dynamic LAG is deployed.
 - The number of LAG ports is 1 to 8. For FSX 3rd generation modules, the range is 1 to 12.
 - A LAG is created even if a static or dynamic LAG has only one port.
- If link aggregation is configured on your device and you are upgrading to FastIron 08.0.xx configuration, the link aggregation configuration should have the key configured to identify the LAG. If the key is not configured, when you upgrade to FastIron 08.0.xx, all the link aggregation interfaces (without key) will be bundled as one misconfigured LAG. The configuration will fail if it exceeds the supported maximum number of members per LAG limit.

- All LAG configurations are lost during downgrade.
- The trunk configuration commands `--trunk ethernet` , `trunk deploy` , `trunk-cfg-ind` , `link-aggregation active | passive` , `link-aggregation conf key` --are deprecated. Instead, you can use the new LAG configuration commands.

Considerations for devices in stack configurations

Upgrade considerations

- The image for FastIron 07.2.00a and later uses different Interprocessor Communications (IPC) versions for FCX devices; however, units in a stack must run the same IPC version to communicate. After upgrading from FastIron 07.2.00 or earlier to FastIron 08.0.xx, you must verify that the same image is downloaded to every unit in the stack before reloading the entire stack. To verify the images, enter the **show flash** command at any level of the CLI. A stack cannot be built and will not operate if one or more units have different software images.
- All devices in a mixed stack must run the same version of the software. A stack cannot form if the software images are of different major versions. A stack member is not operational if it runs a different minor version than other stack members.
- In FCX, ICX 6610, ICX 6430, and ICX 6450 devices, the auto-image upgrade feature in FastIron 08.0.xx release will automatically update the software image on member units when an image mismatch occurs.
- For upgrading to mixed stack, the peripheral ports need to be configured manually.
- The Layer 3 configuration on your device will be part of the default VRF after upgrade. If no configurations are done, all interfaces are part of the default VRF.

Downgrade considerations

- ICX 6610 devices in a mixed stack will form a homogenous stack when downgrading from FastIron 08.0.xx. Other members of the mixed stack are left out. You should manually configure the mixed stack with devices other than ICX 6610 after downgrade from FastIron 08.0.xx.
- On downgrade, core ICX 6610 devices lose the ICX 6450 configuration and they also lose the peri-port and peri-trunk configurations.
- After downgrade, a mixed stack changes into a homogenous stack.
- For FCX units, the 10G module name differs in software releases FastIron 08.0.xx compared to releases 07.0.01b and 07.0.01c. Therefore, if an FCX device is downgraded from FastIron 08.0.xx to release 07.0.01b or 07.0.01c, the stacking port configuration will be lost and the unit will not be able to join the stack.
- If FCX units in an traditional stack are downgraded from FastIron 08.0.xx to earlier releases, in some instances, the units may not be able to form a stack. This will occur if there is a mismatch of BGP capability within the stack (that is, some units support it and others do not). If you encounter this problem, contact Brocade Technical Support for assistance.

Changes between FastIron 07.4.00 and 08.0.xx release

FastIron 08.0.xx release brings support and enhanced functionality for a variety of desired Layer 3 features.

The changes in specific features have fundamentally changed a large amount of CLI configuration commands, **show** commands, and **show** command output. A large reason for this change is due to the VRF-lite support in the FastIron products: FSX 800, FSX 1600, ICX 6610, ICX 6650, and FCX.

The FastIron 08.0.xx release newly supports BGP4+(IPv6), IPv6 Multicast, Management VRF, and Multi-VRF. There are also changes to BGP4 (IPv4), OSPFv2, OSPFv3, RIP, RIPng, and IP Multicast. While some of these protocols are new to the FastIron family, some have been supported since Layer 3 routing has been supported. There are changes in the implementation to have a more unified CLI and approach across the entire IP product portfolio.

For detailed information on the commands, configurations, and feature behaviors, see the FastIron 08.0.xx configuration guides.

For more information on supported features and platforms, see FastIron 08.0.xx release notes.

New or modified parameter values

The following sections cover the changes in the parameter values for various protocols in FastIron 08.0.xx as compared to FastIron 07.4.00:

NOTE

Only the parameters whose allowed value or range is changed have been listed.

Management parameter default values

TABLE 1 Changes in management defaults

Parameter	FastIron 08.0.xx	FastIron 07.4.00
Maximum number of outbound Telnet sessions	5	1
Maximum number of outbound SSH sessions	5	1

Multicast parameter values

TABLE 2 Changes in multicast parameter values

Parameter	Device	FastIron 08.0.xx(minimum/ maximum/default)	FastIron 07.4.00(minimum/maximum/ default)
L2 Multicast			
IGMP Group	ICX 6430	256/4096/1024	256/1024/256
MLD Groups	FCX	256/8192/4096	256/32768/8192
	ICX 6610	256/8192/4096	256/32768/8192
	SX Gen2	256/8192/4096	256/32768/8192
	SX Gen3	256/8192/4096	256/32768/8192
	ICX 6450	256/8192/4096	256/32768/8192
	ICX 6430	256/4096/1024	256/1024/256

TABLE 2 Changes in multicast parameter values (Continued)

Parameter	Device	FastIron 08.0.xx(minimum/ maximum/default)	FastIron 07.4.00(minimum/maximum/ default)
L3 Multicast			
IGMP Groups	FCX	1/8192/4096	256/8192/4096
	ICX 6610	1/8192/4096	256/8192/4096
	SX Gen2	1/8192/4096	256/8192/4096
	SX Gen3	1/8192/4096	256/8192/4096
PIM (S,G) mcache	FCX	256/6144/1024	256/4096/1024
	ICX 6610	256/6144/1024	256/4096/1024
	SX Gen3	256/6144/1024	256/4096/1024
MSDP SA cache	FCX	1024/8192/4096	Not supported in FastIron 07.4.00
	ICX 6610	1024/8192/4096	Not supported in FastIron 07.4.00
MLD Groups	FCX	1/8192/4096	Not supported in FastIron 07.4.00
	ICX 6610	1/8192/4096	Not supported in FastIron 07.4.00
	SX Gen2	1/8192/4096	Not supported in FastIron 07.4.00
	SX Gen3	1/8192/4096	Not supported in FastIron 07.4.00
PIM6 (S,G) mcache	FCX	256/1024/512	Not supported in FastIron 07.4.00
	ICX 6610	256/1024/512	Not supported in FastIron 07.4.00
	SX Gen3	256/1800/1024	Not supported in FastIron 07.4.00

BGP parameter default values**TABLE 3** Changes in BGP, BGP4+, and Route Maps defaults

Parameter	FastIron 08.0.xx	FastIron 07.4.00	Note
Maximum retry interval	160	NA	If an error occurs during the establishment of BGP adjacency, the retry interval would have exponential backoff. The maximum delay can be 160 seconds.
Maximum routemap length	81	32	Configures the maximum routemap length when configured through SNMP (not configurable).

TABLE 3 Changes in BGP, BGP4+, and Route Maps defaults (Continued)

Parameter	FastIron 08.0.xx	FastIron 07.4.00	Note
Default behavior for invalid confederation as path	Ignore	Not ignored	Not configurable.
Minimal route advertisement interval	0	30	Configurable.
Maximum router advertisement interval	3600 sec	600 sec	Configurable.
Update time	0 - 30 sec	1 - 30 sec	Configures iBGP route update interval.
Maximum ECMP paths in BGP	8/6 (stackable and TI/ others)	8	Configures the number of ECMP paths.
Minimum allowed update time	0	1	Not configurable.
Routes displayed per page	13	5	Not configurable.

Command changes

Several commands have been replaced or modified in FastIron 08.0.xx release. It is recommended to use the new set of commands. The following sections summarize the differences in commands between FastIron 08.0.xx and 07.4.00.

OSPFv2

TABLE 4 New OSPFv2 commands

Command	Note
Global level command (router OSPF and sub-command)	
[no] router ospf <i>vrf</i>	Configures OSPF instance with VRF index.
[no] default-passive-interface	Sets OSPF interface passive.
[no] max-metric	Configures Stub Router Advertisement.
[no] nonstop-routing	Enables OSPF nonstop routing capability.
[no] nssa-translator	Enables NSSA Type 7 to Type 5 LSA translation.
[no] vrf-lite-capability	Configures CE Router VRF Lite capability (disable DN bit checks).
cost (area <i>decimal range</i> sub-command)	Configures area range cost.

TABLE 4 New OSPFv2 commands (Continued)

Command	Note
cost (area decimal range advertise sub-command)	Configures area range cost for Advertise this type-3 summarization.
cost (area decimal range not-advertise sub-command)	Configures the area range cost for Not Advertise this type-3 summarization.
Interface level command	
[no] active	Configures Active information. FastIron 07.4.00 behavior was always active.
Show command	
show ip ospf database database-summary	Displays summary of OSPF database.
show ip ospf summary	Displays summary of OSPF instances.
show ip ospf traffic	Displays OSPF packet counters and errors.
show ip ospf vrf	Displays OSPF information for interfaces configured in a particular VRF.
Clear command	
clear ip ospf traffic	Clears OSPF packet counters and errors.
clear ip ospf vrf	Resets OSPF for VRF.

TABLE 5 Modified OSPFv2 commands

FastIron 08.0.xx	FastIron 07.4.00	Note
Global level command (router OSPF and sub-command)		

TABLE 5 Modified OSPFv2 commands (Continued)

FastIron 08.0.xx	FastIron 07.4.00	Note
[no] timers throttle spf <i>delay hold-time max-hold</i>	timers spf <i>delay hold-time</i>	FastIron 07.4.00: <i>delay</i> corresponds to delay between receiving a change to SPF calculation. The valid range is 0 to 65535. <i>hold-time</i> corresponds to hold time between consecutive SPF calculations. The valid range is 0 to 65535. FastIron 08.0.xx: <i>delay</i> corresponds to initial delay (milliseconds) between receiving a change to SPF, valid range is 0-60000. <i>hold-time</i> corresponds to hold time (milliseconds) between two SPF calculations. Default is 0 and valid range is 0-60000. <i>max-hold</i> corresponds to max hold time (milliseconds) between two SPF calculations. Default is 0 and valid range is 0-60000.
default-information-originate always	default-information-originate	In FastIron 07.4.00 release, the default-information-originate command was enough to originate default route irrespective of any static or dynamic default route present on the router. However, in FastIron 08.0.xx, if no default route is present on the router, then you are required to use the default-information-originate always command.
distribute-list [<i>standard-ip-access-list</i> extended-ip-access-list access-list-name route-map <i>route-map-name</i>] in	distribute-list [<i>standard-ip-access-list</i> extended-ip-access-list access-list-name] in [ethernet ve]	In FastIron 08.0.xx release, the distribute-list is applied to all interfaces. Also, you can configure the OSPF distribution using route map as input.
Show command		
show ip ospf area <i>ip-addr database link-state nssa link-id adv-router router-id</i>	show ip ospf area <i>ip-addr database link-state nssa</i>	In FastIron 08.0.xx, you can display the link state for specific advertising router.
show ip ospf virtual link	show ip ospf virtual-links	Displays OSPF virtual link information.
show ip ospf virtual neighbor	show ip ospf virtual-neighbor	Displays OSPF virtual neighbour information.
Clear command		
clear ip ospf route	clear ospf route	Clears all or specific OSPF route.

TABLE 6 Deprecated OSPFv2 commands

Command	Note
Global level commands (router OSPF and sub-commands)	
RFC 1583-type3-cost	If RFC 1583-compatibility is configured, sets the cost for advertised type 3 summary LSAs to the smallest cost of any of the component networks in FastIron 08.0.00.
Show command	
show ip ospf error	Displays OSPF warnings and errors.
show growable pool info	Displays growable pool information.
Clear command	
clear ip ospf area	Clears OSPF area.
clear ip ospf error	Clears OSPF error.
clear ip ospf graceful-restart	Clears OSPF graceful-restart
clear ip ospf redistribution	Clears all routes redistributed through other protocols.

OSPFv3

TABLE 7 New OSPFv3 commands

Command	Note
Global level command (router OSPF and sub-command)	
[no] ipv6 router ospf vrf	Configures OSPFv3 with a VRF index.
[no] graceful-restart helper	Configures OSPFv3 graceful restart options (helper only).
[no] nonstop-routing	Enables the OSPFv3 nonstop routing capability.
area decimal sub-command nssa	Specifies an NSSA area.
area decimal range sub-command cost	Configures area range cost.
area decimal range advertise sub-command cost	Configures area range cost for Advertise this type-3 summarization.
area decimal range not-advertise sub-command cost	Configures area range cost for Not Advertise this type-3 summarization.
distribute-list prefix-list ascii string in loopback	Configures OSPFv3 distribution list using an IPv6 prefix list as input.

TABLE 7 New OSPFv3 commands (Continued)

Command	Note
Interface level commands	
[no] active	Sets active status. FastIron 07.4.00 behavior was always active.
[no] hello-jitter	Configures jitter between HELLO packets, in percentage.
[no] suppress-linklsa	Suppresses link LSA advertisements.
Show command	
show ipv6 ospf summary	Displays summary of IPv6 OSPF instances.
show ipv6 ospf vrf	Displays IPv6 OSPF information for a VRF or all VRF interfaces.
Clear command	
clear ipv6 ospf route	Clears OSPF routes.
clear ipv6 ospf vrf	Clears OSPF all or specific data in a specific vrf.

TABLE 8 Deprecated OSPFv3 commands

Command	Note
Global level command (router OSPF and sub-command)	
[no] virtual-link-if-address	Configures source address to use with virtual links.

RIP

TABLE 9 New RIP commands

Command	Note
Global level command (router RIP and sub-command)	
[no] learn-default	Enables learning of RIP default routes.
[no] poison-local-routes	Advertises local routes with maximum metrics when they go down.
Interface level commands	
[no] ip rip learn-default	Enables learning of RIP default routes from this interface.

TABLE 10 Modified RIP commands

FastIron 08.0.xx	FastIron 07.4.00	Note
Global level command (router RIP and sub-command)		
[no] redistribute connected bgp ospf static [metric value route-map name]	[no] redistribution	Redistributes routes from other routing protocols.
[no] prefix-list <i>name</i> in out	filter <i>filter-num</i> permit deny <i>source-ip-address</i> any <i>source-mask</i> any [log]	Specifies the prefix list as route map to filter out specific routes.
[no] timers <i>seconds</i>	update-time <i>1-1000</i>	Configures timer to set how often should RIP send updates. This command is added for backward compatibility.
Interface level command		
[no] ip rip metric-offset <i>num</i> in out	ip metric <i>1-16</i>	ip metric is not supported. Since ip metric was used to modify RIP metric, it is changed to ip rip metric-offset . It is added for backward compatibility only.
[no] ip rip prefix-list <i>name</i> in out	[no] ip rip filter-group in out <i>filter-list</i>	Specifies the prefix list as route map to filter out specific routes.

TABLE 11 Deprecated RIP commands

Command	Note
Global level command (router RIP and sub-command)	
[no] offset-list <i>ACL-number-or-name</i> in out offset [ethernet <i>port</i>]	Instead, the route-map or prefix-list command can be used.
[no] permit deny redistribute <i>filter-num</i> all bgp ospf static address <i>ip-addr ip-mask</i> [match-metric <i>value</i> set-metric <i>value</i>]	Instead, the route-map command can be used.
[no] dont-advertise-connected	Connected routes are not redistributed by default in FastIron 08.0.00.

BGP and Route-Map

TABLE 12 Modified BGP commands

FastIron 08.0.xx	FastIron 07.4.00	Note
Clear command		

TABLE 12 Modified BGP commands (Continued)

FastIron 08.0.xx	FastIron 07.4.00	Note
clear ip bgp flap-statistics	clear ip bgp flap-statistics as-path-filter <i>list-num</i>	The as-path-filter option is removed because flap statistics do not have as-path-filter option anymore.

TABLE 13 Deprecated BGP and Route-Map commands

Command	Note
Global level command	
[no] set mirror-interface <i>int-num</i>	Sets a mirror interface for route maps.
[no] neighbor <i>ipvx-addr</i> distribute-list [in out] <i>list-num</i>	Configures the distribution list for BGP neighbors.
[no] neighbor <i>ipvx-addr</i> filter-list [in out] <i>filter-num</i>	Configures the filter list for BGP neighbors.
[no] neighbor <i>peer-group</i> distribute-list [in out] <i>list-num</i>	Configures the distribution list for BGP peer groups.
[no] neighbor <i>peer-group</i> filter-list [in out] <i>filter-num</i>	Configures the filter list for BGP peer groups.
[no] set next-hop <i>next-hop-addr</i>	Configures the set route map rule for a next hop address.
[no] match address-filter <i>filter-num</i>	Configures the match route map rule with an address filter.
[no] match as-path-filters <i>filter-num</i>	Configures the match route map rule with an as-path filter.
[no] match community-filters <i>num</i>	Configures the match route map rule with a community filter.
[no] match next-hop <i>next-hop-addr</i>	Configures the match route map rule with a next hop address.
[no] aggregate-address <i>ip-addr mask nlri</i> [multicast unicast] [multicast unicast]	Configures MBGP Aggregate Address to advertise in BGP.
[no] neighbor <i>ip-addr</i> peer-group <i>string</i> nlri [multicast unicast] [multicast unicast]	Configures BGP peer group with specific NLRIs to advertise.
[no] network <i>ip-addr mask nlri</i> [multicast unicast] [multicast unicast]	Configures the BGP neighbor to announce a network with specific NLRIs to filter.
[no] match nlri [multicast unicast]	Configures the route map match rule with multicast or unicast NLRI.

TABLE 13 Deprecated BGP and Route-Map commands (Continued)

Command	Note
[no] set nlri [multicast unicast]	Configures the route map set rule with multicast or unicast NLRI.
[no] neighbor <i>peer-group</i> update-source pos interface	Configures the router to communicate with a neighbor through specified interface.

ARP

TABLE 14 Modified ARP commands

FastIron 08.0.xx	FastIron 07.4.00	Note
[no] arp ip-addr mac-addr [ethernet slot/port vlan vlan-id]	[no] arp num ip-addr mac-addr ethernet port	For static ARP configuration, index number in the CLI is not needed anymore.

IGMP-Snooping

TABLE 15 Modified IGMP-Snooping command

FastIron 08.0.xx	FastIron 07.4.00	Note
Global level command		
[no] system-max igmp-snoop-group-addr num	[no] system-max igmp-max-group-addr num	Sets the maximum limit for the IGMP group records.

TABLE 16 Deprecated IGMP-Snooping command

Command	Note
VLAN level command	
[no] multicast static-group group-addr	Configures static IGMP groups on entire VLAN.

MLD-Snooping

TABLE 17 Modified MLD-Snooping commands

FastIron 08.0.xx	FastIron 07.4.00	Note
Global level command		
ipv6 multicast	ipv6 mld-snooping	Configures MLD snooping globally. This command is now consistent with IGMP snooping command.

TABLE 17 Modified MLD-Snooping commands (Continued)

FastIron 08.0.xx	FastIron 07.4.00	Note
[no] system-max mld-snoop-group-addr <i>num</i>		
[no] system-max mld-max-group-addr <i>num</i>		
Sets the maximum limit for the MLD group records.		
VLAN level command		
multicast6	mld-snooping	Configures MLD snooping on a particular VLAN. This command is now consistent with IGMP snooping command.
Show command		
show ipv6 multicast	show ipv6 mld-snooping	Shows MLD snooping related information. This command is now consistent with IGMP snooping command.
Clear command		
clear ipv6 multicast	clear ipv6 mld-snooping	Clears MLD snooping mcache or counters. This command is now consistent with IGMP snooping command.

IGMP (L3 Routing)**TABLE 18** New IGMP L3 routing commands

Command	Note
Show command	
show ip igmp [vrf <i>vrf-name</i>] static	Displays IGMP static membership information. The show ip igmp group command also displays static IGMP membership information.

TABLE 19 Modified IGMP L3 routing commands

FastIron 08.0.xx	FastIron 07.4.00	Note
Global level command		
[no] ip igmp group-membership-time <i>seconds</i> default: 260 secs allowed range: [5 -26000] secs	[no] ip igmp group-membership-time <i>seconds</i> default: 260 secs allowed range: [20 - 7200] secs	Configures IGMP group membership times. The allowed range for time has changed from [20 - 7200] to [5 - 26000].
Interface level command		
[no] ip igmp port-version <i>version ethernet num</i>	[no] ip igmp port-version <i>version ethernet num</i>	Configures the IGMP version on a physical port within a virtual routing interface. The allowed IGMP version range has changed from [2-3] to [1-3].

TABLE 19 Modified IGMP L3 routing commands (Continued)

FastIron 08.0.xx	FastIron 07.4.00	Note
[no] ip igmp static-group <i>group-addr</i> [ethernet ...]	[no] ip igmp static-group <i>group-addr</i> [count <i>num</i>] [ethernet ...]	Configures a static member of an IGMP group. In FastIron 08.0.xx, it does not support specifying multiple contiguous static groups using "count" option.

PIM**TABLE 20** New PIM commands

Command	Note
ipv6 pimsm-snooping	Enables PIM6 SM snooping globally.
multicast6 pimsm-snooping	Enables PIM6 SM snooping on the VLAN.
Show command	
show ipv6 multicast pimsm-snooping	Displays PIM6 SM snooping information.
show ip igmp [vrf <i>vrf-name</i>] static	Displays IGMP static membership information. The show ip igmp group command also displays static IGMP membership information.
Clear command	
clear ipv6 multicast pimsm-snooping	Clears PIM6 SM snooping information.

TABLE 21 Modified PIM commands

FastIron 08.0.xx	FastIron 07.4.00	Note
Global level command		
[no] hello-timer <i>seconds</i> default: 30 secs allowed range: [10 -3600] secs	[no] hello-timer <i>seconds</i> default: 60 secs allowed range: [10 -3600] secs	Configures the hello timer. The default value has been changed from 60 seconds to 30 seconds.
[no] nbr-timeout <i>seconds</i> default: 105 secs allowed range: [3 - 65535] secs	[no] nbr-timeout <i>seconds</i> default: 180 secs allowed range: [60 - 8000] secs	Configures the PIM neighbor timeout value. The default value has been changed from 180 seconds to 105 seconds and the allowed range has been changed from [60-8000] seconds to [3-65535] seconds.
[no] prune-wait <i>seconds</i> default: 3 secs allowed range: [0 - 30] secs	[no] prune-wait <i>seconds</i> default: 3 secs allowed range: [0 - 3] secs.	Configures the PIM prune wait timer. The allowed range has been changed from [0-3] seconds to [0-30] seconds.

TABLE 21 Modified PIM commands (Continued)

FastIron 08.0.xx	FastIron 07.4.00	Note
[no] message-interval <i>seconds</i> default: 60 secs allowed range: [10 - 65535] secs	[no] message-interval <i>seconds</i> default: 60 secs allowed range: [1 - 65535] secs	Configures PIM prune wait timer. The allowed range has been changed from [1-65535] seconds to [10-65535] seconds.
[no] hardware-drop-disable	[no] hardware-drop Default: PMRI is enabled	Configures Passive Multicast Router Insertion (PMRI). PMRI is enabled by default.
[no] rp-address <i>address</i> <i>[acl-num acl-name]</i>	[no] rp-address <i>address</i> <i>[std-acl-num [override]]</i>	Configures static RP using ACL. FastIron 07.4.00 supports only standard numbered ACL, whereas in FastIron 08.0.xx, all ACLs (standard, extended, numbered, and named) are supported. In FastIron 07.4.00, RP address learned from the Bootstrap protocol takes precedence over static RP, so override option was provided to give precedence to static RP. In FastIron 08.0.xx, static-RP takes precedence.
[no] rp-candidate ethernet ve loopback <i>num</i>	[no] rp-candidate ethernet ve loopback <i>num [group-list std-acl-num]</i>	Configures RP candidate using ACL. In FastIron 07.4.00, ACLs can be used to limit RP candidate for certain groups. In FastIron 08.0.xx, this feature is not available. So, RP candidate is for all the groups.
[no] system-max pim-hw-mcache <i>num</i>	[no] system-max pim-mcache <i>num</i>	Sets the maximum limit for the PIM mcache (flows) that can be programmed in the hardware.
Interface level command		
[no] ip pim [version]	[no] ip pim [version]	Configures the PIM SM/DM version on particular interface. PIM DM version 1 is not supported any more. PIM-SM v2, PIM-DM v1, and PIM-DM v2 are supported versions.

TABLE 22 Deprecated PIM commands

Command	Note
Global level command	
[no] disable-pim	Disables the PIM operation without removing the PIM configuration.
[no] rp-address all	Removes all static RP configurations. In FastIron 08.0.xx, all static RP address configuration have to be deleted individually.

TABLE 22 Deprecated PIM commands (Continued)

Command	Note
Interface level command	
[no] ip pim ttl-threshold <i>ttl</i>	Configures Multicast TTL-threshold on a particular interface. This feature was never supported in FastIron even though the command was available. TTL threshold value of 1 was used internally. The behavior is same in FastIron 08.0.00.
ip-multicast-disable	Disables multicast routing and snooping on this particular interface or list of ports within a virtual interface.
Show command	
show ip pim error	Displays PIM errors counters. In FastIron 08.0.xx, a new command show ip pim counter displays the error counters.
Clear command	
clear pim flow	Clears all PIM flows from hardware.

Network Management

TABLE 23 New network management commands

Command	Note
show ip dns	Shows the Domain List and IP address of the DNS server.
show ip dns-server domain-list	Shows the Domain List of DNS servers.
show ip dns-server server-address	Shows the IP addresses of DNS servers.
show ip ssl	Displays the SSL connection in use.
show management-vrf	Shows the Management VPN Routing/Forwarding (VRF) instance information.
show ntp associations	Shows NTP associations.
show ntp associations detail	Shows NTP associations in detail.
show ntp associations detail	Shows the IPv4 address of NTP server/peer.
show ntp associations detail	Shows the IPv6 address of NTP server/peer.
show ntp status	Shows the NTP Status information.
show snmp buffer	Shows the SNMP buffer.

TABLE 23 New network management commands (Continued)

Command	Note
show cpu-utilization tasks	Shows the CPU utilization.
show running-config vrf	Shows the VRF-Lite running configuration.
show running-config vlan <i>vlanid</i>	Shows the information on a VLAN ID in the running configuration.

TABLE 24 Deprecatcd network management commands

Command	Note
show cpu-utilization detail	Shows the CPU utilization rate in detail.
show rmon statistics unit	Shows the RMON Ethernet statistics table.
show rmon statistics unit <i>num</i>	Shows the RMON Ethernet statistics table for the specified unit.

Changes between FastIron 07.5.00 and 08.0.01 release

The changes between FastIron 07.5.00 and 08.0.01 release are same as those documented in the section [Changes between FastIron 07.4.00 and 08.0.00 release](#).

Software Upgrade and Downgrade

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For easy software image management, all Brocade devices support the download and upload of software images between the flash modules on the devices and a TFTP server on the network.

Brocade devices have two flash memory modules:

- Primary flash - The default local storage device for image files and configuration files.
- Secondary flash - A second flash storage device. You can use the secondary flash to store redundant images for additional booting reliability or to preserve one software image while testing another one.

Only one flash device is active at a time. By default, the primary image becomes active when you reboot the device.

You can update the software contained on a flash module using TFTP to copy the update image from a TFTP server onto the flash module. You can also use SCP to copy images to and from a host that has the images that you need. In addition, you can copy software images and configuration files from a flash module to a TFTP server when you want to backup the current configuration and images on the device.

NOTE

Brocade devices are TFTP clients but not TFTP servers. You must perform the TFTP transaction from the Brocade device.

Software upgrade overview

The upgrade procedure consists of the following steps:

1. Determine the current software versions, license requirements, and download the software. See the [Initial steps](#) on page 28.
2. Upgrade the software. See the [Upgrade process](#) on page 28.

FastIron 08.0.00a and above also supports Manifest file upgrade but this process can be used only to upgrade from 08.0.00a and above to later release. For more information, see the section [Upgrade using a manifest file](#) on page 33.

Initial steps

Perform the following steps before doing an upgrade or downgrade.

NOTE

Please note that in this section the output is truncated only relevant portion of the output is displayed. For detailed output, see the [Sample output - determining the software versions](#) on page 42 section.

1. Determine the current boot image version using the **show flash** command

```
Brocade#show flash
Active Management Module (Slot 9):
Compressed Pri Code size = 3613675, Version 03.1.00aT3e3 (sxr03100a.bin)
Compressed Sec Code size = 2250218, Version 03.1.00aT3e1 (sxs03100a.bin)
Compressed BootROM Code size = 524288, Version 03.0.01T3e5
Code Flash Free Space = 9699328
<output is truncated to show relevant sections only>
```

2. Determine the current flash image version using the **show version** command.

```
device#show version
Copyright (c) 1996-2012 Brocade Communications Systems, Inc. All rights reserved.
UNIT 1: compiled on Mar  2 2012 at 12:38:17 labeled as ICX64S07400
        (10360844 bytes) from Primary ICX64S07400.bin
        SW: Version 07.4.00T311

Boot-Monitor Image size = 774980, Version:07.4.00T310 (kxz07400)
HW: Stackable ICX6450-24
<output is truncated to show relevant sections only>
```

3. Determine the current license installed using the **show version** command.

```
device#show version
...
License: BASE_SOFT_PACKAGE (LID: dbuFJJHiFFi)
        P-ENGINE 0: type DEF0, rev 01
...
<output is truncated to show relevant sections only>
```

4. Generate a new license, if required from [Software License](#) page on Brocade.com. If you are upgrading to a different type of image that uses a different license from the one which is already on the device, generate a separate license file. For more information on license, see the *FastIron Ethernet Switch Administration Guide*.
5. Download the required software images from the [Downloads](#) page in MyBrocade web site. For the exact list of software image files available for FastIron Release 08.0.xx, see the release notes.

Upgrade process

FastIron 08.0.xx release introduces several new features and enhancements across all FastIron products. Before upgrading the software on the device, see [Upgrade and downgrade considerations](#) on page 9.

Software upgrade on ICX 6610, ICX 6430, ICX 6450, ICX 6650, and FCX devices

NOTE

For limitations on upgrading an ICX 6650 device from 07.5.xx to 08.0.01, see [Software upgrade from 07.5.xx to 08.0.01](#) on page 30.

1. Load the boot code and flash code. For detailed steps, refer to [Loading images on the device](#) on page 30.
2. Enter the **write memory** command to backup the existing startup configuration and to save the running configuration as the startup configuration. The existing startup configuration file, startup-config.txt is automatically copied/synced to the standby unit.

NOTE

When a device boots up with a FastIron 08.0.xx image after an upgrade, the commands in the startup configuration are converted to corresponding 08.0.xx supported commands. The running configuration will have FastIron 08.0.xx-supported commands and the startup configuration file will have the configuration commands supported in releases prior to FastIron 08.0.xx. When you enter the **write memory** command, it will first backup the startup configuration file (startup-config.txt) as startup-config.legacy file, and then save the running configuration file as the startup configuration. The backup configuration file (startup-config.legacy) is used when you downgrade to an earlier version.

Software upgrade on FSX devices

FastIron 08.0.xx software is supported only with FastIron SX Series 0-Port management module. You cannot upgrade the older management module with FastIron 08.0.xx software. The new management module comes with a factory-loaded 08.0.00a or above image. To upgrade an FSX device to 08.0.xx, perform the following steps.

1. Uninstall the older management module.
2. Install the FastIron SX Series 0-Port management module. For information on installing the management module in FSX, see the *Brocade FastIron SX Series Chassis Hardware Installation Guide*.

NOTE

The new management module has a factory-loaded FastIron 08.0.xx image.

3. To change the factory-loaded FastIron 08.0.xx image with another FastIron 08.0.xx image, load the new boot and flash code. For detailed steps, refer to [Loading images on the device](#) on page 30.

Software upgrade on ICX 6430-C devices

ICX 6430-C devices have a factory-loaded FastIron 08.0.xx image.

To change the factory-loaded FastIron 08.0.xx image with another or later version FastIron image, load the new boot and flash code. For detailed steps, refer to [Loading images on the device](#) on page 30.

Software upgrade from 07.5.xx to 08.0.01

The following limitations are applicable while upgrading from 07.5.xx to 08.0.01:

- When you load the 08.0.01 boot code on a 07.5.xx FastIron device, the device loses all boot environment variables. As a result, you cannot use the **boot system flash primary** or **boot system flash secondary** commands to configure boot preference. The device also ignores any boot preference stated in the startup configuration file. Therefore, the device boots from the default primary flash. This is only an upgrade limitation. After the completion of upgrade, the device boots from the preferred flash partition, as configured.
- You must load the primary as well as the secondary flash with the 08.0.01 flash image. A mix of 07.5.xx and 08.0.01 images in the flash partitions is not supported.

Loading images on the device

Any software upgrade or downgrade require you to copy the downloaded images on to the device and load the new image on the device. You need to load the boot code and flash code on the device.

Load the boot code

You can load the boot code using either TFTP or SCP as described in the following sections:

NOTE

For upgrading 07.3.00f to 08.0.xx and 08.0.00a to 08.0.01, it is strongly recommended that you use SCP for reliable and secure loading of boot code. For upgrading 07.4.xx to 08.0.xx and 07.5.xx to 08.0.01, use TFTP ensuring that you have no network disruptions during upgrade.

Load the boot code using TFTP

1. Place the new boot code on a TFTP server to which the Brocade device has access.
2. If the device has only 8 MB of flash memory or if you want to install a full layer 3 image on an FCX or FSX device, delete both the primary and secondary images using the **erase flash** command.
3. Enter the following command at the privileged EXEC level of the CLI to copy the boot code from the TFTP server into flash memory:

copy tftp flash ip-addr image-file-name bootrom

For example:

```
Brocade # copy tftp flash 192.168.10.12 grz07302.bin bootrom
```

FSX, FCX, and ICX 6610 devices generate an output similar to the following:

```
Brocade # Flash Memory Write (8192 bytes per
dot) .....
(Boot Flash Update)Erase.....Write.....
TFTP to Flash Done
```

ICX 6430 and ICX 6450 devices generate an output similar to the following:

```
Brocade # Load to buffer (8192 bytes per dot)
```



```

.....
.....
SYNCING IMAGE TO FLASH. DO NOT SWITCH OVER OR POWER DOWN THE UNIT...
.....
.....
TFTP to Flash Done

```

NOTE

It is recommended that you use the **copy tftp flash** command to copy the boot code to the device during a maintenance window. Attempting to do so during normal networking operations may cause disruption to your network.

4. Verify that the code has been successfully copied by using the **show flash** command at any level of the CLI to check the boot code version. The output will display the compressed boot ROM code size and the boot code version.

Load the boot code using SCP**NOTE**

Turbolron devices do not support loading the boot code using SCP.

1. Place the new boot code on a SCP-enabled host to which the Brocade device has access.
2. If the device has only 8 MB of flash memory or if you want to install a full Layer 3 image, delete both the primary and secondary image using the **erase flash** command.
3. Enter the following command to copy the boot code from the SCP-enabled host into flash memory:

```
pscp image-file-name hostname@management-ip:flash:bootrom
```

For example:

```
C:\> pscp grz07302.bin terry@10.168.1.50:flash:bootrom
```

4. Verify that the code has been successfully copied onto the device by using the **show flash** command at any level of the CLI. The output will display the compressed boot ROM code size and the boot code version.

Load the flash code

You can load the flash code using either TFTP or SCP as described in the following sections.

NOTE

It is strongly recommended that you use SCP for reliable and secure loading of flash code.

Load the flash code using TFTP

1. Place the new flash code on a TFTP server to which the Brocade device has access.
2. If the device has only 8 MB of flash memory or if you want to install a Full Layer 3 image, make sure that the TFTP server and the image file are reachable and then delete the primary and secondary images before proceeding further.

NOTE

If the primary flash contains additional files that are not related to the software update, it is recommended that these files are also deleted.

3. Enter the following command at the privileged EXEC level of the CLI to copy the flash code from the TFTP server into flash memory.

copy tftp flash ip-addr image-file-name primary | secondary

For example,

```
Brocade # copy tftp flash 192.168.10.12 TIS07300f.bin primary
```

FSX, FCX, and ICX 6610 devices generate an output similar to the following:

```
Device# Flash Memory Write (8192 bytes per
dot) .....
.....
TFTP to Flash Done
```

ICX 6430 and ICX 6450 devices generate an output similar to the following:

```
Brocade # Load to buffer (8192 bytes per dot)
.....
.....
SYNCING IMAGE TO FLASH. DO NOT SWITCH OVER OR POWER DOWN THE UNIT...
.....
TFTP to Flash Done.
```

4. Verify the flash image version by using the **show flash** command at any level of the CLI.

NOTE

When upgrading the flash image version, the image is automatically updated across all stack units. For other devices, when upgrading from one major release to another (for example, from software release 07.1.00 to 07.2.00), make sure that every unit in the traditional stack has the same code. If you reboot the stack while units are running different code versions, the units will not be able to communicate.

5. Reboot the device using the **reload** or **boot system** command.
6. Verify that the new flash image is running on the device by using the **show version** command.

Load the flash code using SCP

1. Place the new flash code on a SCP-enabled host to which the Brocade device has access.
2. If the device has only 8 MB of flash memory or if you want to install a Full Layer 3 image, delete the primary and secondary images before upgrading the image. If the primary flash contains additional files that are not related to the software update, delete these files also.
3. Copy the flash code from the SCP-enabled host into the flash memory with either the following command:

scp image-file-name hostname@management-ip:flash:primary | secondary

OR

If you also want to specify the name for the image file on the FastIron device, enter the following command:

scp image-file-name-on-scp-host hostname@management-ip:flash:pri | sec:image-file-name-on-device

NOTE

The *image-file-name-on-device* variable is case-insensitive and converts any upper case characters in the image filename to lower case characters.

For example:

```
C:\> scp FCXR08000.bin terry@10.168.1.50:flash:primary
```

or

```
C:\> scp FCXR08000.bin terry@10.168.1.50:flash:pri:FCXR08000.bin
```

or

```
C:\> scp FCXR08000.bin terry@10.168.1.50:flash:secondary
```

or

```
C:\> scp FCXR08000.bin terry@10.168.1.50:flash:sec:FCXR08000.bin
```

NOTE

On ICX 6430 and ICX 6450 devices, you can use the same syntax as FCX devices. However, after the copy operation is completed at the host, you do not get the command prompt back because the device is synchronizing the image to flash. To ensure that you have successfully copied the file, issue the **show flash** command. If the copy operation is not complete, the **show flash** command output will show the partition (primary or secondary) as EMPTY.

4. Verify that the flash code has been successfully copied onto the device by using the **show flash** at any level of the CLI.
5. Reboot the device using the **reload** or **boot system** command.
6. Verify that the new flash image is running on the device by using the **show version** command.

Upgrade using a manifest file

FastIron 08.0.00a introduces a manifest file to provide a simplified upgrade mechanism from FastIron 08.0.00a to later releases, especially for units in a stack. You can use a single command to copy boot and flash images. Using the official manifest file, the images are copied onto the devices and all the member units are upgraded.

NOTE

Software upgrade using manifest file is supported on FCX, ICX 6610, ICX 6430, ICX 6430-C, and ICX 6450 standalone devices and on both homogeneous and mixed stacks.

NOTE

The manifest file upgrade process is only applicable when you upgrade a device from FastIron 08.0.00a to a higher version. For upgrade from 07.x.xx to 08.0.xx, see [Upgrade process](#) on page 28.

1. Unzip the downloaded FastIron image files on the TFTP server. This will place the manifest file at the top of the directory structure with the images in sub directories. Ensure that the Brocade device has access to the TFTP server.
2. Delete the following lines from the manifest text file.

```
-DIRECTORY /RP/Boot

fxz08001b007.bin

-DIRECTORY /RP/Images

ICXS08001q033.bin
ICXR08001q033.bin

-DIRECTORY /RP/Signatures

fxz08001b007.sig
ICXS08001q033.sig
ICXR08001q033.sig

-DIRECTORY /RP/MIBs

ICXS08001q033.mib
ICXR08001q033.mib

-DIRECTORY /RP/Manuals
```

3. If the FastIron device has only 8 MB of flash memory or if you want to install a Full Layer 3 image on a device, delete the primary and secondary images before upgrading the image.

NOTE

Make sure that the TFTP server and the image files are reachable before deleting the image from flash. If the primary flash contains additional files that are not related to the software update, it is recommended that those files are also deleted.

4. Manifest file upgrade process does not support download of boot images in a mixed stack. Therefore, if a newer boot image version is available for upgrade, load the boot code manually in the stack units of a mixed stack. For detailed steps, see [Load the boot code](#) on page 30
5. Enter the following commands to copy the manifest file and the images from the TFTP server to the device:

copy tftp system-manifest *server-ip-address manifest-file-name* [**primary** | **secondary**]

OR

copy tftp system-manifest *server-ip-address manifest-file-name* [**all-images-primary** | **all-images-secondary**]

For example:

```
Brocade # copy tftp system-manifest 192.168.10.12 manifest.txt primary
```

You can use the *all-images-primary* and *all-images-secondary* options to copy all the images.

NOTE

Copying manifest file using SCP is not supported.

NOTE

For standalone devices or homogenous stack, the manifest upgrade process will download the boot image to the device only if a newer boot image version is available for upgrade.

The manifest file specifies images for both router and switch types. Depending on the device family and the type of image (switch or router image), the appropriate images are installed.

After all the relevant images have been installed on the device, you will be prompted to reboot the device to complete the upgrade process.

Software downgrade

Before downgrading the software on the device, see [Upgrade and downgrade considerations](#) on page 9.

Software downgrade on ICX 6610, ICX 6430, ICX 6450, ICX 6650, and FCX

1. Enter the **downgrade_to** command at the Privileged EXEC level to downgrade the software from FastIron 08.0.xx. This command backs up the **startup.config.legacy** file as **startup-config.txt** and overwrites the existing startup configuration file.

```
Brocade#downgrade to 7.x-releases
This operation will delete the current configuration. Are you sure?
(enter 'y' or 'n'):
```

NOTE

Do not run the **write memory** command after using **downgrade_to** command; otherwise you will lose the legacy configuration.

NOTE

The **downgrade_to** command renames the backup configuration file startup-config.legacy as startup-config.txt overwriting the FastIron 08.0.xx startup configuration file. If there is no startup-config.legacy file, the device will boot with the default configuration. During downgrade, the FastIron 08.0.xx startup configuration file is not saved. You can manually back up the FastIron 08.0.xx startup configuration file if required.

NOTE

If you reboot from a flash partition that has a FastIron image version earlier than 08.0.xx without running the **downgrade_to** command, a warning message will prompt you to run this command.

2. Load an earlier version of the boot code and flash code. See the section [Loading images on the device](#) on page 30.

NOTE

If you are downgrading an ICX 6650 device from 08.0.01 to 07.5.xx, see [Software downgrade from 08.0.01 to 07.5.xx](#) on page 36

NOTE

For downgrade of ICX 6610, ICX 6430, ICX 6450, and FCX devices, it is not mandatory to load an earlier version of the boot code.

Software downgrade on FSX devices

The new FastIron SX Series 0-Port Management Module is not compatible with the versions of FastIron software earlier than 08.0.00a.

To use a version earlier than FastIron 08.0.00a image, perform the following steps.

1. Replace the new FastIron SX Series 0-Port management module with the old management module. For information on installing the management module in FSX, see the *Brocade FastIron SX Series Chassis Hardware Installation Guide*.
2. Load an earlier version of the boot and flash code. Refer to [Loading images on the device](#) on page 30.

Software downgrade from 08.0.01 to 07.5.xx

Note the following while downgrading from 08.0.01 to 07.5.xx:

- You must load the primary as well as the secondary flash with the 07.5.xx flash image. A mix of 07.5.xx and 08.0.01 images in the flash partitions is not supported.
- After loading the 07.5.xx boot and flash images, reboot the device. Then, load just the 07.5.xx flash image again and reboot the device. This completes the downgrade process.

Upgrading software for Turbolron 24X

NOTE

FastIron 07.4.00 configurations and commands will work the same way even after upgrade. For the supported Turbolron features, refer to the FastIron 08.0.00a Release Notes.

Upgrading the Boot Code

1. Place the new boot code on a TFTP server to which the device has access.
2. Enter the following command at the Privileged EXEC level of the CLI (example: FastIron Switch#) to copy the boot code from the TFTP server into flash memory: **copy tftp flash ip-addr image-file-name bootrom**
3. Use the **copy tftp flash** command to copy the boot code to the Brocade device only during a maintenance window. Attempting to do so during normal networking operations can cause disruption to the network.
4. Verify that the code has been successfully copied by entering the **show flash** command at any level of the CLI. The output will display the compressed boot ROM code size and the boot code version.
5. Upgrade the flash code as instructed in the following section.

Upgrading the Flash Code

1. Place the new flash code on a TFTP server to which the Brocade device has access.
2. Enter the following command at the Privileged EXEC level of the CLI (example: FastIron#) to copy the flash code from the TFTP server into the flash memory: **copy tftp flash ip-addr image-file-name primary | secondary**
3. Verify that the flash code has been successfully copied by entering the **show flash** command at any level of the CLI.
4. If the flash code version is correct, go to step 5. Otherwise, go to step 1.
5. Reload the software by entering the **reload** command. The reload command boots from the default boot source, which is the primary flash area by default.

Software recovery

If the software upgrade or downgrade fails, the device might reboot continuously as shown in the following CLI output:

```
bootdelay: ===
Booting image from Primary
  Bad Magic Number
could not boot from primary, no valid image; trying to boot from secondary
Booting image from Secondary
  Bad Magic Number
## Booting image at 01ffffc0 ...
Bad Magic Number
## Booting image at 01ffffc0 ...
Bad Magic Number
could not boot from secondary, no valid image; trying to boot from primary
Booting image from Primary
  Bad Magic Number
## Booting image at 01ffffc0 ...
Bad Magic Number
```

This section explains how to recover devices from image installation failure or deleted or corrupted flash images.

NOTE

It is recommended that software recovery is performed under the supervision of a Brocade support engineer.

Software recovery on FCX, FSX, and ICX 6610 devices

NOTE

In practice, the TFTP server is also used as terminal server to see the CLI output.

1. Connect a console cable from console port to the terminal server.
2. Connect Ethernet cable from the management port (port located under the console port on the device) to the TFTP server.
3. On the TFTP server, assign an IP address to the connected NIC. For example, 10.10.10.1 mask 255.255.255.0.

4. Reboot the device and go to the boot monitor mode by pressing "**b**". For example:

```
BOOT INFO: RESET ACTIVE
master arbitrate : become primary arbitrator.
BOOT INFO: Become active CPU module
M2 BI Boot Code Version 07.06.05
Enter 'b' to go to boot monitor ...
BOOT MONITOR>
```

5. Set a temporary IP address of the same subnet as the TFTP server NIC, for the device management port using the **ip address** command. For example:

```
BOOT MONITOR> ip address 10.10.10.2/24
BOOT INFO: set ip addr to 10.10.10.2, ip mask to 255.255.255.000
```

6. Test the connectivity from the device to the TFTP server using the **ping** command to ensure a working connection. For example:

```
BOOT MONITOR> ping 10.10.10.1
Reply from 10.10.10.1 : bytes=100 time=1ms TTL=64
```

7. Enter the following command to boot from the image on a TFTP server that hosts a valid software image:

boot system tftp ip-address image-file-name

For example:

```
Brocade # boot system tftp 192.168.1.200 FCXR08000.bin
```

You will get an output similar to the following:

```
BOOT MONITOR>
BOOT MONITOR> boot system tftp 192.168.1.200 FCXR08000.bin
BOOT INFO: try to boot thru tftp 192.168.001.200, FCXR08000.bin
BOOT INFO: tftp copy successful!
BOOT INFO: bootparam at 27ffffe0, mp_flash_size = 002d022b
BOOT INFO: code decompression completed
BOOT INFO: start with hardware reset
BOOT INFO: branch to 20000104

Reset all modules ...
Init Management module 1 ...
Init DMA 1.. 2.. 3.. 4..
Init module 5 ...
Init DMA 1.. 2.. 3..
Parsing Config Data ...
Load config data from flash memory...
SW: Version 08.0.00acT5 Copyright (c) 1996-2004 Foundry Networks, Inc.
Compiled on Apr 06 2013 at 20:13:29 labeled as FCXR08000
(2949675 bytes) from Tftp
```

8. Copy the image from the TFTP server to the primary and secondary flash partition using the **copy tftp flash ip-address image-file-name primary | secondary** command. For example:

```
copy tftp flash 192.168.1.200 FCXR08000.bin primary
```
9. Enter the **show flash** command to check whether image copy process is successful.
10. Reboot the device using the **reload** command.

Software recovery on ICX 6430 and ICX 6450 devices

NOTE

In practice, the TFTP server is also used as terminal server to see the CLI output.

1. Connect a console cable from console port to the terminal server.
2. Connect Ethernet cable from the management port (port located under the console port on the device) to the TFTP server.
3. On the TFTP server, assign an IP address to the connected NIC. For example, *IP address 10.10.10.1 mask 255.255.255.0*.
4. Reboot the device and go to the boot monitor mode by pressing "**b**".
5. When in boot mode, enter the **printenv** command to display details of the images available on the device memory. For example:

```
BOOT MONITOR> printenv
baudrate=9600
uboot=/foundry/FGS/bootcode/kxz07400.bin
ver=07.4.00T310 (Mar 1 2012 - 11:28:23)
```

6. Provide the IP address of the TFTP server that hosts a valid software image using the **setenv serverip** command. For example:

```
BOOT MONITOR> setenv serverip 10.10.10.1
```

7. Set an IP address of the same subnet as the TFTP server NIC, for the device management port using the **setenv ipaddr** command. For example:

```
BOOT MONITOR> setenv ipaddr 10.10.10.2
```

8. Enter the **printenv** command to verify the IP addresses that you configured for the device and the TFTP server. For example:

```
BOOT MONITOR> printenv
baudrate=9600
ipaddr=10.10.10.2
serverip=10.10.10.1
uboot=/foundry/FGS/bootcode/kxz07400.bin
ver=07.4.00T310 (Mar 1 2012 - 11:28:23)
```

9. Test the connectivity to the TFTP server from the device using the **ping** command to ensure a working connection. For example:

```
BOOT MONITOR> ping 10.10.10.1
ethPortNo = 0
Using egiga0 device
host 10.10.10.1 is alive
```

10. Provide the filename of the image that you want to copy from the TFTP server using the **setenv** command. For example:

```
BOOT MONITOR> setenv ICX64R08000.bin images/ICX/ICX64R08000.bin
```

11. Update the primary flash using the **update_primary** command. For example:

```
BOOT MONITOR> update_primary
ethPortNo = 0
Using egiga0 device
TFTP from server 198.162.32.2; our IP address is 198.162.32.1
Download Filename 'ICX64S07400.bin'.
Load address: 0x3000000
Download to address: 0x3000000
Loading:
#####
#####
#####
#####
#####
#####
```

```
#####
#####
#####
#####
#####
done
Bytes transferred = 10360844 (9e180c hex)
prot off f8100000 f907ffff
.....
.....
.....
.....
.....
Un-Protected 248 sectors
erase f8100000 f907ffff
.....
.....
.....
.....
Erased 248 sectors
copying image to flash, it will take sometime...
sflash write 3000000 100000 f80000
TFTP to Flash Done.
```

12. Load the image from the primary flash using the **boot_primary** command. For example:

```
BOOT MONITOR> boot_primary
Booting image from Primary
## Booting image at 00007fc0 ...
   Created:    2012-03-02  20:38:52 UTC
   Data Size:  10360268 Bytes =  9.9 MB
   Load Address: 00008000
   Entry Point: 00008000
   Verifying Checksum ... OK
OK
Starting kernel in BE mode ...
Uncompressing
Image.....
.....
.....
.....
.....
.....
..... done, booting the kernel.
Config partition mounted.
```

13. Enter **show flash** and see the output to check whether image copy process is successful.
14. Reboot the device to boot in normal mode.
15. Copy the image from primary to secondary flash partition using the **copy flash flash secondary** command.

Example of manifest file upgrade

```
Brocade#copy tf sys 10.20.65.49 FI08000B3_Manifest.txt all-images-primary
```

```
You are about to download boot image and boot signature image as well, ARE YOU SURE?(enter 'y' or 'n'): y
Brocade#Flash Memory Write (8192 bytes per dot) .
DOWNLOADING MANIFEST FILE Done.
Brocade#Flash Memory Write (8192 bytes per dot)
Automatic copy to member units: 2
DOWNLOAD OF ICX6610 BOOT SIGNATURE Done.
Brocade#Load to buffer (8192 bytes per dot)
Automatic copy to member units: 2
.....Write to
boot flash..
DOWNLOAD OF ICX6610 BOOT Done.
Brocade#Flash Memory Write (8192 bytes per dot)
Automatic copy to member units: 2
Copy ICX6610 signature from TFTP to Flash Done
Brocade#Flash Memory Write (8192 bytes per dot)
Automatic copy to member units: 2
.....
.....
.....
WARNING: New user connected to this port.
Current number of users: 5
.....
.....
.....
.....
.....
.....
.....
Copy ICX6610 from TFTP to Flash Done.
Brocade#Flash Memory Write (8192 bytes per dot)
Automatic copy to member units: 3 4 5 7 8
.
COPY ICX6450 SIGNATURE TFTP to Flash Done .
Brocade#Flash Memory Write (8192 bytes per dot)
Automatic copy to member units: 3 4 5 7 8
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....PLEASE WAIT. MEMBERS SYNCING IMAGE TO FLASH. DO NOT SWITCH
OVER OR POWER DOWN THE UNIT....
Copy ICX6450 from TFTP to Flash Done
Brocade#Flash Memory Write (8192 bytes per dot)
Automatic copy to member units: 3 4 5 7 8
.
DOWNLOAD OF ICX6450 BOOT SIGNATURE Done
Brocade#Load to buffer (8192 bytes per dot)
Automatic copy to member units: 3 4 5 7 8
.....
.....PLEASE WAIT. MEMBERS SYNCING IMAGE TO FLASH. DO NOT
SWITCH OVER OR POWER DOWN THE UNIT...Write to boot flash..
ICX6450 Boot Image COPY IS DONE .
```

Sample output - determining the software versions

Example for determining the flash image version

Enter the **show version** command at any level of the CLI. The following shows an example output:

```
device#show version
Copyright (c) 1996-2012 Brocade Communications Systems, Inc. All rights
reserved.
  UNIT 1: compiled on Mar  2 2012 at 12:38:17 labeled as ICX64S07400
          (10360844 bytes) from Primary ICX64S07400.bin
          SW: Version 07.4.00T311

  Boot-Monitor Image size = 774980, Version:07.4.00T310 (kxz07400)
  HW: Stackable ICX6450-24
=====
UNIT 1: SL 1: ICX6450-24 24-port Management Module
      Serial #: BZSXXXXXXXXX
      License: BASE_SOFT_PACKAGE (LID: dbuFJJHiFFi)
      P-ENGINE 0: type DEF0, rev 01
=====
UNIT 1: SL 2: ICX6450-SFP-Plus 4port 40G Module
=====
      800 MHz ARM processor ARMv5TE, 400 MHz bus
      65536 KB flash memory
      512 MB DRAM
STACKID 1 system uptime is 3 minutes 39 seconds
The system : started=warm start reloaded=by "reload"
```

The version information is shown in bold type in this example:

- "07.4.00T311" indicates the flash code version number. The "T311" is used by Brocade for record keeping.
- "labeled as ICX64S07400" indicates the flash code image label. The label indicates the image type and version and is especially useful if you change the image file name.
- "Primary ICX64S07400.bin" indicates the flash code image file name that was loaded.
- "License: BASE_SOFT_PACKAGE (LID: dbuFJJHiFFi)" indicates the license currently installed on the device.

Example for determining the boot image versions

To determine the boot and flash images installed on a device, enter the **show flash** command at any level of the CLI. The following shows an example output:

```
device#show flash
Active Management Module (Slot 9):
Compressed Pri Code size = 3613675, Version 03.1.00aT3e3 (sxr03100a.bin)
Compressed Sec Code size = 2250218, Version 03.1.00aT3e1 (sxs03100a.bin)
Compressed BootROM Code size = 524288, Version 03.0.01T3e5
Code Flash Free Space = 9699328
Standby Management Module (Slot 10):
Compressed Pri Code size = 3613675, Version 03.1.00aT3e3 (sxr03100a.bin)
Compressed Sec Code size = 2250218, Version 03.1.00aT3e1 (sxs03100a.bin)
Compressed BootROM Code size = 524288, Version 03.0.01T3e5
Code Flash Free Space = 524288
```

- The "Compressed Pri Code size" line lists the flash code version installed in the primary flash area.
- The "Compressed Sec Code size" line lists the flash code version installed in the secondary flash area.
- The "Compressed BootROM Code size" line lists the boot code version installed in flash memory. The device does not have separate primary and secondary flash areas for the boot image. The flash memory module contains only one boot image.

Example for determining the current licenses installed

Use the **show version** command to display the licenses installed on the device. For example, the following line from the output of this command lists the license ID.

```
device#show version
Copyright (c) 1996-2012 Brocade Communications Systems, Inc. All rights
reserved.
  UNIT 1: compiled on Mar  2 2012 at 12:38:17 labeled as ICX64S07400
          (10360844 bytes) from Primary ICX64S07400.bin
          SW: Version 07.4.00T311
          Boot-Monitor Image size = 774980, Version:07.4.00T310 (kxz07400)
          HW: Stackable ICX6450-24
=====
UNIT 1: SL 1: ICX6450-24 24-port Management Module
          Serial #: BZSXXXXXXXXX
          License: BASE SOFT PACKAGE (LID: dbuFJJHiFFi)
          P-ENGINE 0: type DEF0, rev 01
```


show command output differences between 07.4.00 and 08.0.xx release

There are differences in several show command outputs between FastIron 07.4.00 and 08.0.xx release. This section provides more information about the show command output changes.

07.4.00 CLI	08.0.xx Output	Comments
show ip ospf database external- link-state advertise 2	Brocade#sh ip ospf database external-link-state advertise 1 Type-5 AS External Link States Index Age LS ID Router Netmask Metric Flag Fwd Address SyncState 1 343 0.0.0.0 192.168.98.190 0 0000000a 0000 0.0.0.0 Done LSA Header: age: 343, options: 0x02, seq-nbr: 0x80001ab8, length: 36 NetworkMask: 0.0.0.0 TOS 0: metric_type: 2, metric: 10 forwarding_address: 0.0.0.0 external_route_tag: 0	The output display includes the "Fwd Address" and "Sync State" fields.
show ip ospf database external- link-state extensive	Brocade#sh ip ospf database external-link-state extensive Type-5 AS External Link States Index Age LS ID Router Netmask Metric Flag Fwd Address SyncState 1 427 0.0.0.0 192.168.98.190 0 0000000a 0000 0.0.0.0 Done LSA Header: age: 427, options: 0x02, seq-nbr: 0x80001ab8, length: 36 NetworkMask: 0.0.0.0 TOS 0: metric_type: 2, metric: 10 forwarding_address: 0.0.0.0 external_route_tag: 0	The output display includes the "Fwd Address" and "Sync State" fields.
show ip ospf database external- link-state link-state- id 1.2.3.4	Brocade#sh ip ospf database external-link-state link-state-id 0.0.0.0 Ospf ext link-state by link-state ID 0.0.0.0 are in the following: Type-5 AS External Link States Index Age LS ID Router Netmask Metric Flag Fwd Address SyncState 1 476 0.0.0.0 192.168.98.190 0 0000000a 0000 0.0.0.0 Done LSA Header: age: 476, options: 0x02, seq-nbr: 0x80001ab8, length: 36 NetworkMask: 0.0.0.0 TOS 0: metric_type: 2, metric: 10 forwarding_address: 0.0.0.0 external_route_tag: 0	The output display includes the "Fwd Address" and "Sync State" fields.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf database external- link-state router-id 1.2.3.4	Brocade#sh ip ospf database external-link-state router-id 192.168.98.190 Ospf ext link-state by router ID 192.168.98.190 are in the following: Type-5 AS External Link States Index Age LS ID Router Netmask Metric Flag Fwd Address SyncState 1 536 0.0.0.0 192.168.98.190 0 0000000a 0000 0.0.0.0 Done LSA Header: age: 536, options: 0x02, seq-nbr: 0x80001ab8, length: 36 NetworkMask: 0.0.0.0 TOS 0: metric_type: 2, metric: 10 forwarding_address: 0.0.0.0 external_route_tag: 0	The output display includes the "Fwd Address" and "Sync State" fields.
show ip ospf database external- link-state sequence- number 7FFF	Brocade#sh ip ospf database external-link-state sequence-number 80001ab8 Ospf ext link-state by sequence number 80001ab8 are in the following: Type-5 AS External Link States Index Age LS ID Router Netmask Metric Flag Fwd Address SyncState 1 707 0.0.0.0 192.168.98.190 0 0000000a 0000 0.0.0.0 Done LSA Header: age: 707, options: 0x02, seq-nbr: 0x80001ab8, length: 36 NetworkMask: 0.0.0.0 TOS 0: metric_type: 2, metric: 10 forwarding_address: 0.0.0.0 external_route_tag: 0	The output display includes the "Fwd Address" and "Sync State" fields.
show ip ospf database external- link-state ?	Brocade#sh ip ospf database external-link-state Type-5 AS External Link States Index Age LS ID Router Netmask Metric Flag Fwd Address SyncState 1 198 0.0.0.0 192.168.98.190 0 0000000a 0000 0.0.0.0 Done	The output display includes the "Fwd Address" and "Sync State" fields.

<pre>show ip ospf interface ?</pre>	<pre>Brocade#sh ip ospf interface e 2/3/1 admin down, oper down, ospf enabled, state down IP Address 192.213.112.213, Area 0.0.0.200 Database Filter: Not Configured State down, Pri 1, Cost 1, Options 2, Type broadcast Events 0 Timers(sec): Transmit 1, Retrans 5, Hello 10, Dead 40 DR: Router ID 0.0.0.0 Interface Address 0.0.0.0 BDR: Router ID 0.0.0.0 Interface Address 0.0.0.0 Packets Received Packets Sent Hello 0 0 Database 0 0 LSA Req 0 0 LSA Upd 0 4 LSA Ack 0 0 No Packet Errors! Neighbor Count = 0, Adjacent Neighbor Count= 0 Authentication-Key: None MD5 Authentication: Key None, Key-Id None, Auth-change-wait-time 300 e 4/3/1 admin up, oper up, ospf enabled, state up IP Address 193.213.111.213, Area 0.0.0.200 Database Filter: Not Configured State DR, Pri 1, Cost 1, Options 2, Type broadcast Events 3 Timers(sec): Transmit 1, Retrans 5, Hello 10, Dead 40 DR: Router ID 192.168.98.213 Interface Address 193.213.111.213 BDR: Router ID 192.168.98.111 Interface Address 193.213.111.111 Packets Received Packets Sent Hello 525 524 Database 4 3 LSA Req 0 1 LSA Upd 106 24 LSA Ack 17 52 No Packet Errors! Neighbor Count = 1, Adjacent Neighbor Count= 1 Neighbor: 193.213.111.111 [id 192.168.98.111] (BDR) Authentication-Key: None MD5 Authentication: Key None, Key-Id None, Auth-change-wait-time</pre>	The output display includes the "DataBase Filter" and Packet Count table.
<pre>show ip ospf interface 1.2.3.4</pre>	<pre>Brocade#sh ip ospf interface 192.213.111.213 ve 17 admin up, oper up, ospf enabled, state up IP Address 192.213.111.213, Area 0.0.0.200 Database Filter: Not Configured State DR, Pri 1, Cost 1, Options 2, Type broadcast Events 2 Timers(sec): Transmit 1, Retrans 5, Hello 10, Dead 40 DR: Router ID 192.168.98.213 Interface Address 192.213.111.213 BDR: Router ID 192.168.98.111 Interface Address 192.213.111.111 Packets Received Packets Sent Hello 536 538 Database 3 3 LSA Req 0 1 LSA Upd 108 27 LSA Ack 24 104 No Packet Errors! Neighbor Count = 1, Adjacent Neighbor Count= 1 Neighbor: 192.213.111.111 [id 192.168.98.111] (BDR) Authentication-Key: None MD5 Authentication: Key None, Key-Id None, Auth-change-wait-time 300</pre>	The output display includes the "DataBase Filter" and Packet Count table.

show command output differences between 07.4.00 and 08.0.xx

show snmp group	Brocade#show snmp group groupname = admingrp security model = v3 security level = authNoPriv ACL id = 0 readview = all writeview = all	The output display does not include the "notifyview = all" field.																																																																																																																																																																																																																																																												
show ip ospf database link-state ?	Brocade#sh ip ospf database link-state Link States <table><tr><th>Index</th><th>Area ID</th><th>Type</th><th>LS ID</th><th>Adv Rtr</th><th>Seq(Hex)</th><th>Age</th></tr><tr><td>Cksum SyncState</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td>0.0.0.200</td><td>Rtr</td><td>192.168.98.111</td><td>192.168.98.111</td><td>800001ce</td><td>1432</td></tr><tr><td>0xafbc</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td>0.0.0.200</td><td>Rtr</td><td>192.168.98.213</td><td>192.168.98.213</td><td>8000001e</td><td>852</td></tr><tr><td>0xb281</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td>0.0.0.200</td><td>Rtr</td><td>192.168.98.113</td><td>192.168.98.113</td><td>800001ad</td><td>790</td></tr><tr><td>0x8749</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td>0.0.0.200</td><td>Rtr</td><td>192.168.98.112</td><td>192.168.98.112</td><td>80000256</td><td>720</td></tr><tr><td>0x2532</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td>0.0.0.200</td><td>Net</td><td>192.113.112.113</td><td>192.168.98.113</td><td>800000c0</td><td>790</td></tr><tr><td>0xfbd4</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td>0.0.0.200</td><td>Net</td><td>192.213.111.213</td><td>192.168.98.213</td><td>80000006</td><td>1572</td></tr><tr><td>0x6595</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td>0.0.0.200</td><td>Net</td><td>192.113.111.113</td><td>192.168.98.113</td><td>80000113</td><td>1512</td></tr><tr><td>0x5727</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td>0.0.0.200</td><td>Net</td><td>193.213.111.213</td><td>192.168.98.213</td><td>80000007</td><td>852</td></tr><tr><td>0x56a2</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td>0.0.0.200</td><td>Summ</td><td>192.213.1.166</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0xca12</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td>0.0.0.200</td><td>Summ</td><td>192.213.2.180</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0x339a</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td>0.0.0.200</td><td>Summ</td><td>192.213.1.242</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0xcfc0</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>12</td><td>0.0.0.200</td><td>Summ</td><td>192.213.2.62</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0xd370</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>13</td><td>0.0.0.200</td><td>Summ</td><td>192.213.1.48</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0x6be7</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>14</td><td>0.0.0.200</td><td>Summ</td><td>192.213.2.138</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0xd81f</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>15</td><td>0.0.0.200</td><td>Summ</td><td>192.213.1.124</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0x7096</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>16</td><td>0.0.0.200</td><td>Summ</td><td>192.213.1.200</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0x7545</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>17</td><td>0.0.0.200</td><td>Summ</td><td>192.213.2.214</td><td>192.168.98.112</td><td>80000004</td><td>720</td></tr><tr><td>0xddcd</td><td>Done</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Index	Area ID	Type	LS ID	Adv Rtr	Seq(Hex)	Age	Cksum SyncState							1	0.0.0.200	Rtr	192.168.98.111	192.168.98.111	800001ce	1432	0xafbc	Done						2	0.0.0.200	Rtr	192.168.98.213	192.168.98.213	8000001e	852	0xb281	Done						3	0.0.0.200	Rtr	192.168.98.113	192.168.98.113	800001ad	790	0x8749	Done						4	0.0.0.200	Rtr	192.168.98.112	192.168.98.112	80000256	720	0x2532	Done						5	0.0.0.200	Net	192.113.112.113	192.168.98.113	800000c0	790	0xfbd4	Done						6	0.0.0.200	Net	192.213.111.213	192.168.98.213	80000006	1572	0x6595	Done						7	0.0.0.200	Net	192.113.111.113	192.168.98.113	80000113	1512	0x5727	Done						8	0.0.0.200	Net	193.213.111.213	192.168.98.213	80000007	852	0x56a2	Done						9	0.0.0.200	Summ	192.213.1.166	192.168.98.112	80000004	720	0xca12	Done						10	0.0.0.200	Summ	192.213.2.180	192.168.98.112	80000004	720	0x339a	Done						11	0.0.0.200	Summ	192.213.1.242	192.168.98.112	80000004	720	0xcfc0	Done						12	0.0.0.200	Summ	192.213.2.62	192.168.98.112	80000004	720	0xd370	Done						13	0.0.0.200	Summ	192.213.1.48	192.168.98.112	80000004	720	0x6be7	Done						14	0.0.0.200	Summ	192.213.2.138	192.168.98.112	80000004	720	0xd81f	Done						15	0.0.0.200	Summ	192.213.1.124	192.168.98.112	80000004	720	0x7096	Done						16	0.0.0.200	Summ	192.213.1.200	192.168.98.112	80000004	720	0x7545	Done						17	0.0.0.200	Summ	192.213.2.214	192.168.98.112	80000004	720	0xddcd	Done						The output display includes the "Sync State" field.
Index	Area ID	Type	LS ID	Adv Rtr	Seq(Hex)	Age																																																																																																																																																																																																																																																								
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show command output differences between 07.4.00 and 08.0.xx

show ip ospf border- routers ?	Brocade#sh ip ospf border-routers router ID router type next hop router outgoing interface Area 1 192.168.98.111 ABR 193.213.111.111 4/3/1*8/3/1 0.0.0.200 1 192.168.98.111 ABR 192.213.111.111 v17 0.0.0.200 1 192.168.98.112 ABR 193.213.111.111 4/3/1*8/3/1 0.0.0.200 1 192.168.98.112 ABR 192.213.111.111 v17 0.0.0.200 1 192.168.98.113 ABR 193.213.111.111 4/3/1*8/3/1 0.0.0.200 1 192.168.98.113 ABR 192.213.111.111 v17 0.0.0.200 1 192.168.98.113 ABR 192.213.163.163 v222 400 1 192.168.98.111 ABR 193.213.111.111 4/3/1*8/3/1 0 1 192.168.98.111 ABR 192.213.111.111 v17 0 1 192.168.98.112 ABR 193.213.111.111 4/3/1*8/3/1 0 1 192.168.98.112 ABR 192.213.111.111 v17 0 1 192.168.98.190 ASBR 193.213.111.111 4/3/1*8/3/1 0 1 192.168.98.190 ASBR 192.213.111.111 v17 0 Brocade#	The output display field "type" is renamed as "Router type".
show ip ospf border- routers 1.2.3.4	Brocade#sh ip ospf border-routers 192.168.98.111 router ID router type next hop router outgoing interface 192.168.98.111 ABR 193.213.111.111 4/3/1*8/3/1 0	The output display field "type" is renamed as "router type".
show ipv6 vrrp ?	Brocade#sh ipv6 vrrp brief Summary ethernet Ethernet port stat Status statistics VRRP/VRRP-E packet counts ve Virtual Ethernet port vrid Virtual router ID Output modifiers <cr>	The "show ipv6 vrrp" command output display includes the Hello TX statistics packet counts.

show command output differences between 07.4.00 and 08.0.xx

show ip vrrp stat	<pre> Brocade#sh ip vrrp stat Interface ethernet 1/1/12 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 200 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 991 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 11 Interface ethernet v100 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 100 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 991 backup advertisements received = 0 </pre>	The "show ip vrrp statistics" command output display includes the Hello TX statistics packet counts.
show ip vrrp stat ethernet 1/1	<pre> Brocade#sh ip vrrp stat eth 1/1/12 Interface ethernet 1/1/12 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 200 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1282 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 16 </pre>	The "show ip vrrp-extended statistics [ethernet <slackid> <slotnum> <portnum>]" command output display includes the Hello TX statistics packet counts.

<pre>show ip vrrp stat ve 2</pre>	<pre>Brocade#sh ip vrrp stat ve 100 Interface ethernet v100 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 100 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1353 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 23</pre>	The "show ip vrrp statistics [ve <num>]" command output display includes the Hello TX statistics packet counts.
<pre>show ip vrrp-extended stat</pre>	<pre>Brocade#sh ip vrrp-extended stat Interface ethernet 1/1/12 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 200 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 991 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 11 Interface ethernet v100 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 100 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 991 backup advertisements received = 0</pre>	The "show ip vrrp-extended statistics" command output display includes the Hello TX statistics packet counts.

show command output differences between 07.4.00 and 08.0.xx

show ip vrrp- extended stat ethernet 1/1	Brocade#sh ip vrrp-extended stat eth 1/1/12 Interface ethernet 1/1/12 rxed vrrp header error count = 0 rxed vrrp auth error count = 0 rxed vrrp auth passwd mismatch error count = 0 rxed vrrp vrid not found error count = 0 VRID 200 rxed arp packet drop count = 0 rxed ip packet drop count = 0 rxed vrrp port mismatch count = 0 rxed vrrp number of ip address mismatch count = 0 rxed vrrp ip address mismatch count = 0 rxed vrrp hello interval mismatch count = 0 rxed vrrp priority zero from master count = 0 rxed vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1282 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 16	The "show ip vrrp-extended statistics [ethernet <slotid> <slotnum> <portnum>]" command output display includes the Hello TX statistics packet counts.
show ip vrrp- extended stat ve 2	Brocade#sh ip vrrp-extended stat ve 100 Interface ethernet v100 rxed vrrp header error count = 0 rxed vrrp auth error count = 0 rxed vrrp auth passwd mismatch error count = 0 rxed vrrp vrid not found error count = 0 VRID 100 rxed arp packet drop count = 0 rxed ip packet drop count = 0 rxed vrrp port mismatch count = 0 rxed vrrp number of ip address mismatch count = 0 rxed vrrp ip address mismatch count = 0 rxed vrrp hello interval mismatch count = 0 rxed vrrp priority zero from master count = 0 rxed vrrp higher priority count = 1 transitioned to master state count = 2 transitioned to backup state count = 3 total number of vrrp-extended packets received = 1697 backup advertisements received = 0 total number of vrrp-extended packets sent = 14 backup advertisements sent = 31	The "show ip vrrp-extended statistics [ve <num>]" command output display includes the Hello TX statistics packet counts.

<pre>show ipv6 vrrp stat</pre>	<pre>Brocade#sh ipv6 vrrp stat Interface ethernet 1/1/12 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 200 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1802 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 31 Interface ethernet v100 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 100 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1801 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 31</pre>	The "show ipv6 vrrp statistics " command output display includes the Hello TX statistics packet counts.
<pre>show ipv6 vrrp stat ethernet 1/1</pre>	<pre>Brocade#sh ipv6 vrrp stat ethernet 1/1/12 Interface ethernet 1/1/12 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 200 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1864 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 32</pre>	The "show ipv6 vrrp statistics [ethernet <slotid> <slotnum> <portnum>]" command output display includes the Hello TX statistics packet counts.

show command output differences between 07.4.00 and 08.0.xx

<pre>show ipv6 vrrp stat ve 2</pre>	<pre>Brocade#sh ipv6 vrrp stat ve 100 Interface ethernet v100 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 100 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1873 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 32</pre>	The "show ipv6 vrrp statistics [ve <num>]" command output display includes the Hello TX statistics packet counts.
<pre>show ipv6 vrrp-extended stat</pre>	<pre>Brocade#sh ipv6 vrrp-extended stat Interface ethernet 1/1/12 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 200 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 991 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 11 Interface ethernet v100 rxd vrrp header error count = 0 rxd vrrp auth error count = 0 rxd vrrp auth passwd mismatch error count = 0 rxd vrrp vrid not found error count = 0 VRID 100 rxd arp packet drop count = 0 rxd ip packet drop count = 0 rxd vrrp port mismatch count = 0 rxd vrrp number of ip address mismatch count = 0 rxd vrrp ip address mismatch count = 0 rxd vrrp hello interval mismatch count = 0 rxd vrrp priority zero from master count = 0 rxd vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 991 backup advertisements received = 0</pre>	The "show ipv6 vrrp-extended statistics " command output display includes the Hello TX statistics packet counts.

show ipv6 vrrp- extended stat ethernet 1/1	Brocade#sh ipv6 vrrp-extended stat eth 1/1/12 Interface ethernet 1/1/12 rxed vrrp header error count = 0 rxed vrrp auth error count = 0 rxed vrrp auth passwd mismatch error count = 0 rxed vrrp vrid not found error count = 0 VRID 200 rxed arp packet drop count = 0 rxed ip packet drop count = 0 rxed vrrp port mismatch count = 0 rxed vrrp number of ip address mismatch count = 0 rxed vrrp ip address mismatch count = 0 rxed vrrp hello interval mismatch count = 0 rxed vrrp priority zero from master count = 0 rxed vrrp higher priority count = 0 transitioned to master state count = 0 transitioned to backup state count = 1 total number of vrrp packets received = 1282 backup advertisements received = 0 total number of vrrp packets sent = 0 backup advertisements sent = 16	The "show ipv6 vrrp-extended statistics [ethernet <slackid> <slotnum> <portnum>]" command output display includes the Hello TX statistics packet counts.
show ipv6 vrrp- extended stat ve 2	Brocade#sh ipv6 vrrp-extended stat ve 100 Interface ethernet v100 rxed vrrp header error count = 0 rxed vrrp auth error count = 0 rxed vrrp auth passwd mismatch error count = 0 rxed vrrp vrid not found error count = 0 VRID 100 rxed arp packet drop count = 0 rxed ip packet drop count = 0 rxed vrrp port mismatch count = 0 rxed vrrp number of ip address mismatch count = 0 rxed vrrp ip address mismatch count = 0 rxed vrrp hello interval mismatch count = 0 rxed vrrp priority zero from master count = 0 rxed vrrp higher priority count = 1 transitioned to master state count = 2 transitioned to backup state count = 3 total number of vrrp-extended packets received = 1697 backup advertisements received = 0 total number of vrrp-extended packets sent = 14 backup advertisements sent = 31	The "show ipv6 vrrp-extended statistics [ve <num>]" command output display includes the Hello TX statistics packet counts.
show ip vrrp ?	Brocade#sh ipv6 vrrp brief Summary ethernet Ethernet port stat Status statistics VRRP/VRRP-E packet counts ve Virtual Ethernet port vrid Virtual router ID Output modifiers <cr>	The new Hello TX statistics packet counts is added in the output.
show ip vrrp- extended ?	Brocade#show ip vrrp-extended brief Summary ethernet Ethernet port stat Status statistics VRRP/VRRP-E packet counts ve Virtual Ethernet port vrid Virtual router ID Output modifiers <cr>	The new Hello TX statistics packet counts is added in the output.

show command output differences between 07.4.00 and 08.0.xx

show ipv6 vrrp- extended ?	Brocade#show ipv6 vrrp-extended brief Summary ethernet Ethernet port stat Status statistics VRRP/VRRP-E packet counts ve Virtual Ethernet port vrid Virtual router ID Output modifiers <cr>	The new Hello TX statistics packet counts is added in the output.
show arp mac- address ?	Brocade#show arp mac-address HHHH.HHHH.HHHH MAC address in xxxx.xxxx.xxxx	pipe and <CR> removed from output.
show cluster	Brocade#sh cluster Brocade#sh cluster Cluster SX800 1 =====	Due to LAG changes, LACP column is removed.
	Rbridge Id: 1, Session Vlan: 2 Cluster State: Deploy Client Isolation Mode: Loose Member Vlan Range: 101 to 118 ICL Info: ----- Name Port Trunk 1 8/1 449 Peer Info: ----- Peer IP: 1.1.1.2, Peer Rbridge Id: 2, ICL: 1 KeepAlive Interval: 10 , Hold Time: 90, Fast Failover Active Vlan Range: 101 to 121 Peer State: CCP Up (Up Time: 0 days: 0 hr: 5 min:26 sec) Client Info: ----- Number of Clients configured: 13 Name Rbridge-id Config LACP Port Trunk FSM- State A-CCEP-102--002438795280 2426 Deployed yes 3/5 - Local Deploy A-CCEP-103--002438790240 2488 Deployed yes 3/9 - Local Deploy A-CCEP-104--002438793f20 2070 Deployed yes 3/13 - Local Deploy A-CCEP-105--0012f2e5dbc0 888 Deployed no 3/17 145 Up A-CCEP-106--002438d1c0c0 320 Deployed no 3/21 149 Local Deploy A-CCEP-107--001beda4a1c0 4072 Deployed no 4/1 193 Up A-CCEP-108--00e052000100 3032 Deployed yes 4/5 - Local Deploy A-CCEP-110--001bed902400 1632 Deployed no 4/13 205 Up	

show ipv6 route 2000:5678: 90ab:cdef: 0123:4567: 890a:bcde/ 64debug	Brocade#show ipv6 route 2000:5:5:5::5/64 deb Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime C 2000:5:5:5::/64 :: loopback 5 0/0 5d18h IPv6 fwd route 2000:5:5:5::/64 (0x1003a98e) rib#:0, rib:0x1003e325, redis:0x40, best:1 type:1, sub:0, tag:0, path:1 PIM:0 route info:0x1004459b, direct 1 Parent fwd route ::/0 (0x1003aa21)	The output is modified.
show ipv6 route connect	Brocade#show ipv6 route connect Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime C 2000:2:2:2::/64 :: loopback 2 0/0 5d18h C 2000:5:5:5::/64 :: loopback 5 0/0 5d18h C 2000:10:10:10::/64 :: loopback 10 0/0 5d18h C fd00:60:69bc:224::/64 :: e mgmt1 0/0 5d18h	New field "Uptime" is added.
show ipv6 route 2000:5678: 90ab:cdef: 0123:4567: 890a:bcde	Brocade#show ipv6 route 2000:5:5:5::5 Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime C 2000:5:5:5::/64 :: loopback 5 0/0 5d18h	New field "Uptime" is added.
show ip pim rp-set	Brocade#show ip pim rp-set Number of group prefixes Learnt from BSR: 1 Group prefix = 224.0.0.0/4 # RPs expected: 4 # RPs received: 4 RP 1: 25.0.0.25 priority=0 age=0 holdtime=150	"age", and "holdtime" information is added.
show ip pim interface ?	Brocade#show ip pim int ethernet Ethernet port loopback Loopback port tunnel Tunnel Interface ve Virtual port Output modifiers <cr>	Explanation for options "ethernet" and "loopback" added in help.

show command output differences between 07.4.00 and 08.0.xx

show ip pim interface STR ?	<pre> Brocade#sh ip pim interface ethernet Ethernet port loopback Loopback port tunnel Tunnel Interface ve Virtual port Output modifiers <cr> Brocade# Brocade#sh ip pim vrf white interface ethernet Ethernet port loopback Loopback port tunnel Tunnel Interface ve Virtual port Output modifiers <cr> Brocade# </pre>	Explanation for options "ethernet" and "loopback" added in help.
show ip pim mcache 1.2.3.4 ?	<pre> Brocade#show ip pim mc 226.0.0.201 A.B.C.D Multicast cache IP source or group address Output modifiers <cr> </pre>	Filtering option is added.
show ip pim flowcache 1.2.3.4 1.2.3.4	<pre> Brocade#show ip pim flowcache 90.1.1.32, 226.0.0.201 Invalid input -> 90.1.1.32, 226.0.0.201 Type ? for a list Brocade#show ip pim flowcache 90.1.1.32 226.0.0.201 1. Multicast flow (90.1.1.32 226.0.0.201): Vidx for source vlan forwarding: 4188 (Blackhole, no L2 clients) Hardware MC Entry hit on devices: 0 Route Prefix TCAM Index: Row=3103 Column=2 MC Entry[14]: [3]=00000000, [2]=00040000, [1]=00148002, [0]=05A00000 ----- MLL contents read from Device 0 ----- MLL[2]: [3]=00000800, [2]=405F8169, [1]=00000800, [0]=40738371 last0 [0]= last mll startOfTunnel0 [1]= False mllVid0 [3:14]= 110 useVIDX0 [15]= True VIDX0 [16:28]= 115 mllRpfFailCmd0 [29:31]= trap ttl/HopLimitThreshold0 [43:50]= 1 excludeSrcVlan0 [51]= False last1 [64]= last mll startOfTunnel1 [65]= False reserved [66]= 0 mllVid1 [67:78]= 45 useVIDX1 [79]= True VIDX1 [80:92]= 95 mllRpfFailCmd1 [93:95]= trap ttl/HopLimitThreshold1 [107:114]= 1 excludeSrcVlan1 [115]= False nextMllPtr [116:127]= 0x000 1 flow printed </pre>	MLL and Vidx information is added.

show ip pim mcache 1.2.3.4 1.2.3.4	<pre> Brocade#show ip pim mc 90.1.1.32 226.0.0.201 IP Multicast Mcache Table Entry Flags : SM - Sparse Mode, SSM - Source Specific Multicast, DM - Dense Mode RPT - RPT Bit, SPT - SPT Bit, LSRC - Local Source, LRCV - Local Receiver HW - HW Forwarding Enabled, FAST - Resource Allocated, TAG - Need For Replication Entry REGPROB - Register In Progress, REGSUPP - Register Suppression Timer MSDPADV - Advertise MSDP, NEEDRTE - Route Required for Src/RP, PRUN - DM Prune Upstream Interface Flags: IM - Immediate, IH - Inherited, WA - Won Assert MJ - Membership Join, MI - Membership Include, ME - Membership Exclude BR - Blocked RPT, BA - Blocked Assert, BF - Blocked Filter, BI - Blocked IIF 1 (90.1.1.32, 226.0.0.201) in v90 (tag e1/3/2), Uptime 02:09:34, Rate 0 (SM) Source is directly connected. RP 25.0.0.25 Flags (0x2042cce1) SM SPT L2REG LSRC HW FAST TAG MSDPADV fast ports: ethe 1/1/13 AgeSltMsk: 1, FID: NotReq, DIT: 2 , RegPkt: 0, AvgRate: 0, profile: none Forwarding_oif: 1, Immediate_oif: 1, Blocked_oif: 0 L3 (HW) 1: TR(e1/1/13,e1/1/13)(VL110), 01:28:23/174, Flags: IM IH L2 FID: 105c Src-Vlan: 90 REP_IDX 2: L:VL110 FID: 1073 FSID: 2a680a00 </pre>	More detailed explanation provided for the acronyms in the output.
show ip pim sparse	<pre> Brocade#show ip pim sparse Global PIM Sparse Mode Settings Maximum Mcache : 4096 Current Count : 605 Hello interval : 30 Neighbor timeout : 105 Join/Prune interval : 60 Inactivity interval : 180 Hardware Drop Enabled : Yes Prune Wait Interval : 3 Bootstrap Msg interval : 60 Candidate-RP Msg interval : 60 Register Suppress Time : 60 Register Probe Time : 10 Register Stop Delay : 60 Register Suppress interval : 60 SSM Enabled : No SPT Threshold : 1 Route Precedence : mc-non-default mc-default uc-non-default uc- default </pre>	More fields added for detailed PIM parameters.
show ip pim mcache ?	<pre> Brocade#show ip pim mc A.B.C.D Multicast cache IP source or group address counts Display only the count of entries dense Display only the Dense entries dit-idx Display on the entries using this resource fid Display on the entries using this resource g_entries Display only the (*, G) entries receiver Display the IGMP/PIM Receiver sg_entries Display only the (S, G) entries sparse Display only the Sparse entries ssm Display only the SSM entries Output modifiers <cr> </pre>	More options such as "counts", "dense", etc. have been added.

	<pre> Brocade#show ip pim all-vrf Show all VRF anycast-rp PIM Anycast RP info bsr Bootstrap router counter PIM internal counters dense Dense-mode settings flowcache Active PIM flow group IP multicast group and its associated information interface PIM interface mcache PIM multicast cache neighbor PIM neighbor states nsr Multicast NSR status optimization PIM Optimization prune Active prunes for PIM operations resource PIM resources rp-candidate Candidate rendezvous point (RP) rp-hash Multicast group to rendezvous point (RP) hash rp-map Active multicast group to rendezvous point (RP) mappings rp-set List of rendezvous point (RP) candidates rpf Find the reverse path forwarding sparse Sparse-mode settings traffic Active multicast traffic vrf VRF-based PIM </pre>	Options such as "all-vrf", "anycast-rp", "nsr", "optimization", "vrf". And Deprecate option "error" have been added.
<pre> show ip pim flowcache 1.2.3.4 ? </pre>	<pre> Brocade#show ip pim flowcache 226.1.1.1 A.B.C.D Multicast flow IP group address Output modifiers <cr> </pre>	Pipe option for filtering is added.
<pre> show ip pim prune </pre>	<pre> Brocade#show ip pim prune Total Prune entries: 0 </pre>	Prune entry count information is added.
<pre> show ip pim bsr </pre>	<pre> Brocade#show ip pim bsr PIMv2 Bootstrap information for Vrf Instance : default-vrf ----- This system is a Candidate BSR BSR address: 54.0.0.54. Hash Mask Length 4. Priority 20. Configuration: Candidate loopback 1 (Address 25.0.0.25). Hash Mask Length 4. Priority 20. Next Candidate-RP-advertisement in 00:00:20 RP: 25.0.0.25 group prefixes: 224.0.0.0 / 4 Candidate-RP-advertisement period: 60 </pre>	VRF category, etc. are added.

show ip pim resource	PIM IPV4 CLASS Num alloc:1, System max:17, Size:378155 Vrf Instance : default-vrf ----- <table><thead><tr><th></th><th>alloc</th><th>in-use</th><th>avail</th><th>get-fail</th><th>limit</th><th>get-mem</th></tr></thead><tbody><tr><td>size init</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>NBR list</td><td>256</td><td>5</td><td>251</td><td>0</td><td>512</td><td>17</td></tr><tr><td>96 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>RP set list</td><td>256</td><td>1</td><td>255</td><td>0</td><td>1536</td><td>1480</td></tr><tr><td>49 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Static RP</td><td>64</td><td>0</td><td>64</td><td>0</td><td>64</td><td>0</td></tr><tr><td>42 64</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>LIF Entry</td><td>512</td><td>0</td><td>512</td><td>0</td><td>512</td><td>0</td></tr><tr><td>47 512</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Anycast RP</td><td>64</td><td>0</td><td>64</td><td>0</td><td>64</td><td>0</td></tr><tr><td>190 64</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>timer</td><td>256</td><td>0</td><td>256</td><td>0</td><td>59392</td><td>26</td></tr><tr><td>64 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>prune</td><td>128</td><td>0</td><td>128</td><td>0</td><td>29696</td><td>0</td></tr><tr><td>34 128</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>pimsm J/P elem</td><td>1024</td><td>0</td><td>1024</td><td>0</td><td>48960</td><td>8687</td></tr><tr><td>29 1024</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Timer Data</td><td>256</td><td>118</td><td>138</td><td>0</td><td>59392</td><td>589</td></tr><tr><td>28 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>mcache SLIB Sync</td><td>1280</td><td>0</td><td>1280</td><td>0</td><td>296960</td><td>13464</td></tr><tr><td>34 1280</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>mcache</td><td>1024</td><td>605</td><td>419</td><td>0</td><td>4096</td><td>794</td></tr><tr><td>1144 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>graft if no mcache</td><td>197</td><td>0</td><td>197</td><td>0</td><td>45704</td><td>0</td></tr><tr><td>64 197</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>HW replic vlan</td><td>2000</td><td>133</td><td>1867</td><td>0</td><td>464000</td><td>624</td></tr><tr><td>66 2000</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>HW replic port</td><td>1024</td><td>133</td><td>891</td><td>0</td><td>237568</td><td>624</td></tr><tr><td>81 1024</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>pim/dvm intf. group</td><td>256</td><td>0</td><td>256</td><td>0</td><td>59392</td><td>0</td></tr><tr><td>24 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>pim/dvm global group</td><td>256</td><td>1</td><td>255</td><td>0</td><td>59392</td><td>1</td></tr><tr><td>46 256</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>repl entry(Global)</td><td>1024</td><td>7</td><td>1017</td><td>0</td><td>237568</td><td>601</td></tr></tbody></table>		alloc	in-use	avail	get-fail	limit	get-mem	size init							NBR list	256	5	251	0	512	17	96 256							RP set list	256	1	255	0	1536	1480	49 256							Static RP	64	0	64	0	64	0	42 64							LIF Entry	512	0	512	0	512	0	47 512							Anycast RP	64	0	64	0	64	0	190 64							timer	256	0	256	0	59392	26	64 256							prune	128	0	128	0	29696	0	34 128							pimsm J/P elem	1024	0	1024	0	48960	8687	29 1024							Timer Data	256	118	138	0	59392	589	28 256							mcache SLIB Sync	1280	0	1280	0	296960	13464	34 1280							mcache	1024	605	419	0	4096	794	1144 256							graft if no mcache	197	0	197	0	45704	0	64 197							HW replic vlan	2000	133	1867	0	464000	624	66 2000							HW replic port	1024	133	891	0	237568	624	81 1024							pim/dvm intf. group	256	0	256	0	59392	0	24 256							pim/dvm global group	256	1	255	0	59392	1	46 256							repl entry(Global)	1024	7	1017	0	237568	601	VRF category, ITC, etc. are added.
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repl entry(Global)	1024	7	1017	0	237568	601																																																																																																																																																																																																																																																	
show ip pim group	Brocade#show ip pim group Total number of groups for VRF default-vrf: 1 1 Group 226.1.1.1 Group member at e2/3/4: v90	VRF information category is added.																																																																																																																																																																																																																																																					
show ip bgp peer- group STR	Brocade#show ip bgp peer-group STR 1 BGP peer-group is STR Address family : IPV4 Unicast activate Address family : IPV4 Multicast no activate Address family : IPV6 Unicast no activate Address family : IPV6 Multicast no activate Address family : VPNV4 Unicast no activate Address family : L2VPN VPLS no activate Members: IP Address: 125.1.1.1, AS: 5	"activate" or "no activate" information is added for Address- family.																																																																																																																																																																																																																																																					

show command output differences between 07.4.00 and 08.0.xx

show ipv6 interface tunnel 2	<pre> Brocade#show ipv6 interface tunnel 1 Interface Tunnel 1 is up, line protocol is up IPv6 is enabled, link-local address is fe80::101:102 [Preferred] Global unicast address(es): 2001:100::2 [Preferred], subnet is 2001:100::/64 2001:100:: [Anycast], subnet is 2001:100::/64 Joined group address(es): ff02::1:ff00:2 ff02::1:ff01:102 ff02::16 ff02::d ff02::1:ff00:0 ff02::2 ff02::1 Port belongs to VRF: default-vrf MTU is 1480 bytes ICMP redirects are disabled No Inbound Access List Set Outbound Access List </pre>	Anycast and VRF information are added.
show ip ospf routes 1.2.3.4 ?	<pre> Brocade#sh ip ospf route 192.190.101.0 Destination Mask Path_Cost Type2_Cost Path_Type Adv_Router Link_State Dest_Type State Tag Flags 192.168.98.190 192.168.98.190 Network Valid 0 0000 Paths Out_Port Next_Hop Type State 1 e 4/3/1 193.213.111.111 OSPF 29 a8 2 ve 17 192.213.111.111 OSPF 00 00 </pre>	ARP index field is deprecated.
show ipv6 cache 2	<pre> Total number of IPv6 and IPv6 VPN cache entries: 44 IPv6 Address Next Hop Port 2 2000:824:824:824::8 DIRECT ve 824 3 fe80:512::512:1 LOCAL e 5/1/2 4 2000:202:202:202::1 LOCAL loopback 2 5 2000:400:400:400::2 LOCAL ve 400 6 2000:824:824:824::4 LOCAL ve 824 7 2000:411:411:411::1 LOCAL e 1/1/1 8 2000:400:400:400::3 DIRECT ve 400 9 fe80:824::824:4 LOCAL ve 824 10 fe80:411::411:1 LOCAL e 1/1/1 11 2000:512:512:512::1 LOCAL e 5/1/2 12 fe80::234:ff:fe34:34 LOCAL loopback 2 </pre>	The output is modified as highlighted in red.

show ipv6 debug	<pre> Brocade#show ipv6 debug RTM Class for vrf default-vrf/0, safi 0, route_update 0 client connected (0x10042036): enabled 1, itc_id 0, import default 0 EventQ: count 0, head 0, tail 0 alloc 0, get 0, free 0 client static (0x10042064): enabled 1, itc_id 0, import default 0 EventQ: count 0, head 0, tail 0 alloc 0, get 0, free 0 client ripng (0x10042092): enabled 0, itc_id 0, import default 0 EventQ: count 0, head 0, tail 0 alloc 0, get 0, free 0 client ospf6 (0x100420c0): enabled 1, itc_id 35, import default 0 EventQ: count 0, head 0, tail 0 alloc 0, get 0, free 0 client bgp (0x1004211c): enabled 0, itc_id 0, import default 0 bgp route limit 4294967295, current 0 EventQ: count 0, head 0, tail 0 alloc 0, get 0, free 0 client mcast (0x10042178): enabled 0, itc_id 0, import default 0 EventQ: count 0, head 0, tail 0 alloc 0, get 0, free 0 RTM6: switchover_over_pending 0x0 rtm6 (0x23327d54), itc_ctx 0x2660ec00, routes 400 (alloc 401, config 0), path 8 mem 0x10042000, size 216909, event 0x10077000, size 10875 rtable 0x100421dc, count 1, default_valid 0, default 0x0 top 0x100422d4, pool 0x10042298, next 0x10042310 (0x10042298) fwd 0x1004809c, next 0x100480fe, count 1, mng 0 0 rib 0x1004cd65, next 0x1004cdb9, count 1, max 800, dy_pool 0 pool: 23327fa7, unit_size: 0, initial_number:0, upper_limit:0 total_number:0, allocated_number:0, alloc_failure 0 flag: 0, pool_index:0, avail_data:0 rinfo 0x100550ad, next 0x100550ff, count 1 (1), max 1600, dy pool 0 </pre>	RTM6 class for VRF is displayed.
show ip ospf neighbor detail (show ip ospf neighbor extensive)	<pre> Brocade#sh ip ospf neigh extensive Number of Neighbors is 3, in FULL state 3 Port Address Pri State Neigh Address Neigh ID Ev Opt Cnt 4/3/1*8/3/1 193.213.111.213 1 FULL/BDR 193.213.111.111 192.168.98.111 6 2 0 Neighbor is known for 0d:01h:32m:39s and up for 0d:01h:32m:36s v17 192.213.111.213 1 FULL/BDR 192.213.111.111 192.168.98.111 6 2 0 Neighbor is known for 0d:01h:32m:37s and up for 0d:01h:32m:36s v222 192.213.163.213 1 FULL/BDR 192.213.163.163 192.168.98.163 6 2 0 Neighbor is known for 0d:01h:32m:40s and up for 0d:01h:32m:36s </pre>	Command is changed to "sh ip ospf neighbor extensive". Options and CNT fields are added.
show ip route 1.2.3.0 255.255.25.5.0 longer	<pre> Brocade#show ip route 1.102.1.0 255.255.255.0 longer 1 1.102.1.0/24 1.1.1.2 ve 100 110/2 0 6m46s </pre>	Description field removed.
show ip route 1.2.3.0/24 longer	<pre> Brocade#show ip route 1.102.1.0/24 longer 1 1.102.1.0/24 1.1.1.2 ve 100 110/2 0 9m5s </pre>	Description field removed.

show command output differences between 07.4.00 and 08.0.xx

<pre>show ip ospf virtual- neighbor 2</pre>	<pre>Brocade# sh ip ospf virtual-neigh 1 Transit Area Router ID Neighbor address options 0.0.0.200 192.168.98.111 192.213.111.111 2 Port Address state events count 4/3/1*8193.213.111.213 FULL 5 0 address 192.213.111.111, priority 1, id 192.168.98.111 designated_router 0.0.0.0, backup_designated_router 0.0.0.0, interface state Point To Point state 8, event 5, mode 2, flags 1, option 2 ls_request_queue_count 0, ls_request_list_has_changed 0, ls_req_can_be_sent 0 retransmit_queue_count 0, database_summary_queue_count 0 pkt_rx_count 0 inactivity_timer_enabled 1, periodic_inactivity_time_counter 10 md5_sequence 0, sequence 43320, neighbor_sequence 0 last_dd_sequence 43319, last_exchange 0 last_dd_flags 24d713d9, last_dd_options 24d713d8 periodic_slave_hold_time_counter 6126 sptr_retransmit 0, sptr_retransmit_tail 0 sptr_database_summary 0 sptr_ls_request[1-5, 9] 0 0 0 0 0 0 interface 4/3/1*8/3/1, address 193.213.111.213, subnet/nexthop 193.213.111.111 sptr_nbr->retransmit_queue:</pre>	The output is more detailed.
<pre>show sflow</pre>	<pre>Brocade#sh sflow sFlow version: 5 sFlow services are enabled. sFlow agent IPv6 address: 10::12 4 collector destinations configured: Collector IP 10.37.224.233, UDP 6343, Configured VRF: None, Using VRF: default-vrf Collector IP 10.37.224.233, UDP 6343, Configured VRF: sflow Collector IP 10.37.224.164, UDP 6343, Configured VRF: None, Using VRF: default-vrf Collector IPv6 10::2, UDP 6343, Configured VRF: 6sflow UDP source port: 8888 (Default) Polling interval is 20 seconds. Configured default sampling rate: 1 per 500 packets. Actual default sampling rate: 1 per 500 packets. The maximum sFlow sample size: 128. sFlow exporting cpu-traffic is disabled. 123 UDP packets exported 0 sFlow flow samples collected. sFlow ports: ethe 1/1/9 to 1/1/10 ethe 1/2/4 ethe 2/1/7 to 2/1/8 ethe 2/1/12 Module Sampling Rates ----- Port Sampling Rates ----- Port=1/1/9, configured rate=200, actual rate=200 Port=1/1/10, configured rate=500, actual rate=500 Port=1/2/4, configured rate=500, actual rate=500 Port=2/1/7, configured rate=500, actual rate=500 Port=2/1/8, configured rate=500, actual rate=500 Port=2/1/12, configured rate=400, actual rate=400</pre>	The output is more detailed.

show radius aaa- auth-queue	<pre> Brocade#sh radius aaa-auth-queue AAA Queue Display Start... PortId=1/1/1 context=0 Username=, RadiusClient=0 PortId=1/1/1 context=1 Username=, RadiusClient=0 PortId=1/1/1 context=2 Username=, RadiusClient=0 PortId=1/1/1 context=3 Username=, RadiusClient=0 PortId=1/1/1 context=4 Username=, RadiusClient=0 PortId=1/1/1 context=5 Username=, RadiusClient=0 PortId=1/1/1 context=6 Username=, RadiusClient=0 PortId=1/1/1 context=7 Username=, RadiusClient=0 PortId=1/1/1 context=8 Username=, RadiusClient=0 PortId=1/1/1 context=9 Username=, RadiusClient=0 PortId=1/1/1 context=10 Username=, RadiusClient=0 PortId=1/1/1 context=11 Username=, RadiusClient=0 PortId=1/1/1 context=12 Username=, RadiusClient=0 PortId=1/1/1 context=13 Username=, RadiusClient=0 PortId=1/1/1 context=14 Username=, RadiusClient=0 PortId=1/1/1 context=15 Username=, RadiusClient=0 PortId=1/1/1 context=16 Username=, RadiusClient=0 PortId=1/1/1 context=17 Username=, RadiusClient=0 PortId=1/1/1 context=18 Username=, RadiusClient=0 PortId=1/1/26 context=19 Username=, RadiusClient=0 PortId=1/1/1 context=20 Username=, RadiusClient=0 PortId=1/1/1 context=21 Username=, RadiusClient=0 PortId=1/1/1 context=22 Username=, RadiusClient=0 PortId=1/1/1 context=23 Username=, RadiusClient=0 PortId=1/1/1 context=24 Username=, RadiusClient=0 PortId=1/1/1 context=25 Username=, RadiusClient=0 PortId=1/1/1 context=26 Username=, RadiusClient=0 PortId=1/1/1 context=27 Username=, RadiusClient=0 PortId=1/1/1 context=28 Username=, RadiusClient=0 PortId=1/1/1 context=29 Username=, RadiusClient=0 PortId=1/1/1 context=30 Username=, RadiusClient=0 PortId=1/1/1 context=31 Username=, RadiusClient=0 PortId=1/1/1 context=32 Username=, RadiusClient=0 PortId=1/1/1 context=33 Username=, RadiusClient=0 PortId=1/1/1 context=34 Username=, RadiusClient=0 PortId=1/1/1 context=35 Username=, RadiusClient=0 PortId=1/1/1 context=36 Username=, RadiusClient=0 </pre>	The output is more detailed.
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show command output differences between 07.4.00 and 08.0.xx

<pre>show webauth vlan 2 webpage</pre>	<pre>Brocade#sh who Console connections: established, monitor enabled, privilege super-user, in config mode you are connecting to this session Telnet server status: Enabled Telnet connections (inbound): 1 established, client ip address 10.120.35.95, user is rose, privilege super-user using vrf default-vrf. 4 seconds in idle 2 closed 3 closed 4 closed 5 closed Telnet connection (outbound): 6 closed 7 closed 8 closed 9 closed 10 closed SSH server status: Enabled SSH connections: SSH connections (inbound): 1 closed 2 closed 3 closed 4 closed 5 closed SSH connection (outbound): 6 closed 7 closed 8 closed 9 closed 10 closed HTTP server status: Enabled HTTPS server status: Disabled</pre>	The ouput is more detailed.
<pre>show ip pim interface STR ethernet 1/1</pre>	<pre>Brocade#sh ip pim interface e 1/1/7 -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ Interface Local Ver St Designated Router TTL Multicast VRF DR Override Address Address Port Thr Boundary Prio Interval +-----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ e1/1/7 33.0.0.6 SMv2 Ena Itself 1 None default 1 3000ms Total Number of Interfaces : 1 Brocade#</pre>	The output is modified and it now also shows VRF information.

show command output differences between 07.4.00 and 08.0.xx

show ip pim interface STR loopback 2	<pre> Brocade#sh ip pim interface loopback 6 -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ Interface Local Ver St Designated Router TTL Multicast VRF DR Override Address Address Port Thr Boundary Prio Interval -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ 16 100.0.0.6 SMv2 Ena Itself 1 None default 1 3000ms Total Number of Interfaces : 1 Brocade# </pre>	The output is modified and it now also shows VRF information.
show ip pim interface STR tunnel	<pre> Brocade#sh ip pim vrf white interface tunnel DECIMAL Number Brocade# </pre>	The output is modified and it now also shows VRF information.
show ip pim interface STR tunnel 2	<pre> Brocade#sh ip pim vrf white interface tunnel 11 -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ Interface Local Ver St Designated Router TTL Multicast VRF DR Override Address Address Port Thr Boundary Prio Interval -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ tn11 61.0.0.6 SMv2 Ena 61.0.0.11 1/1/7 1 None white 1 3000ms Total Number of Interfaces : 1 Brocade# </pre>	The output is modified and it now also shows VRF information.
show ip pim interface STR ve	<pre> Brocade#sh ip pim vrf white interface ve DECIMAL Number Brocade# </pre>	The output is modified and it now also shows VRF information.
show ip pim interface STR ve 2	<pre> Brocade#sh ip pim vrf white interface ve 25 -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ Interface Local Ver St Designated Router TTL Multicast VRF DR Override Address Address Port Thr Boundary Prio Interval -----+-----+-----+-----+-----+-----+-----+-----+ +-----+-----+-----+ v25 25.0.0.6 SMv2 Ena Itself 1 None white 1 3000ms Total Number of Interfaces : 1 Brocade# </pre>	The output is modified and it now also shows VRF information.
show auth- mac- addresses 1234.4567. 89AB ip- addr	<pre> Brocade#sh auth-mac-addresses 54d1.1896.0000 ip-addr ----- MAC Address SourceIp Port Vlan Auth Age dot1x ACL ----- 54d1.1896.0000 102.1.1.1 2/1/8 1006 Yes S28 Ena 103 </pre>	The output is displayed differently. ACL field is shown before dot1x in FastIron 07.4.00b.

show command output differences between 07.4.00 and 08.0.xx

<pre>show auth- mac- addresses authorized- mac ip- addr</pre>	<pre>Brocade#sh auth-mac-addresses authorized-mac ip-add ----- MAC Address SourceIp Port Vlan Auth Age dot1x ACL ----- 54d1.1896.0000 102.1.1.1 2/1/8 1006 Yes Ena Ena 103</pre>	The output is displayed differently. ACL field is shown before dot1x in FastIron 07.4.00b.
<pre>show ipv6 interface ethernet 1/1 ?</pre>	<pre>Interface Eth 1/1/1 is up, line protocol is up IPv6 is enabled, link-local address is fe80:411::411:1 [Preferred] Global unicast address(es): 2000:411:411:411::1 [Preferred], subnet is 2000:411:411:411::/64 2000:411:411:411:: [Anycast], subnet is 2000:411:411:411::/64 Joined group address(es): ff02::1:ff00:1 ff02::1:ff11:1 ff02::16 ff02::d ff02::1:ff00:0 ff02::2 ff02::1 Port belongs to VRF: default-vrf MTU is 1500 bytes ICMP redirects are disabled ND DAD is enabled, number of DAD attempts: 3 ND reachable time is 30000 milliseconds ND retransmit interval is 1000 milliseconds ND advertised reachable time is 0 seconds ND advertised retransmit interval is 0 milliseconds ND router advertisements are sent every 113 seconds ND router advertisements live for 1800 seconds Hosts use stateless autoconfig for addresses No Inbound Access List Set Outbound Access List</pre>	"Port belongs to VRF" information is added.

show tech-support memory	Brocade#sh tech-support memory MEMORY Related Information : Stack unit 1: Total DRAM: 536870912 bytes Dynamic memory: 427036672 bytes total, 291012608 bytes free, 31% used Stack unit 2: Total DRAM: 536870912 bytes Dynamic memory: 427053056 bytes total, 293904384 bytes free, 31% used FLASH Related Information : Stack unit 1: Compressed Pri Code size = 8780516, Version:008.0.00a.00áT7f3 (FCXR08000b1.bin) Compressed Sec Code size = 7184942, Version:07.4.00bT7f3 (FCXR07400b.bin) Compressed Boot-Monitor Image size = 370733, Version:07.3.03T7f5 Code Flash Free Space = 48627712 Stack unit 2: Compressed Pri Code size = 8780516, Version:008.0.00a.00BT7f3 (FCXR08000b1.bin) Compressed Sec Code size = 7184942, Version:07.4.00BT7f3 (FCXR07400b.bin) Compressed Boot-Monitor Image size = 370733, Version:07.3.03T7f5 Code Flash Free Space = 48889856	DM memory-related information is removed.
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show command output differences between 07.4.00 and 08.0.xx

show auth- mac- addresses detailed ethernet ?	Brocade#sh auth-mac-addresses detailed e 2/1/8 Port : 2/1/8 Dynamic-Vlan Assignment : Enabled RADIUS failure action : Block Traffic Failure restrict use dot1x : No Override-restrict-vlan : Yes Port Default VLAN : 1006 (RADIUS assigned: Yes) (1006) Port Vlan State : RADIUS VLAN 802.1x override Dynamic PVID : NO Original PVID : 1 DOS attack protection : Disabled Accepted Mac Addresses : 1 Rejected Mac Addresses : 0 Authentication in progress : 0 Authentication attempts : 0 RADIUS timeouts : 0 RADIUS timeouts action : Retry MAC Address on PVID : 1 MAC Address authorized on PVID : 1 Aging of MAC-sessions : Enabled Port move-back vlan : Port-configured-vlan Max-Age of sw mac session : 120 seconds hw age for denied mac : 70 seconds MAC Filter applied : No Dynamic Acl applied : Yes(103) default ACL ID on port : 0 number of dynamic ACL : 1 num Dynamic Tagged Vlan : 0 ----- ----- MAC Address RADIUS Server Authenticated Time Age Dot1x ----- ----- 54d1.1896.0000 10.20.79.121 Yes 00d00h01m57s Ena Ena	"Dynamic ACL applied" field shows correct information in FastIron 08.0.00a.
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show ipv6 interface ve 2 debug	<pre> Brocade#show ipv6 int ve 400 debug Interface ve 400 , Port 2065, addr c:0x263019d6, p:0x2a588300, n:0x263886c6 Conf: #Addr 1, enabled_conf 1, curr: enabled 1 port_enabled 1, port_is_up 0, mtu 1500, metric 1, redir 0 Address: 2000:400:400:400::3/64 LL address fe80:400::400:1 RUN: Port 2065, EUI 205:ff:fe05:5/64, MAC 0005.0005.0005/6, #Addr 0 MC addr ff02::16, ref 1, valid 1 MC addr ff02::d, ref 1, valid 1 MC addr ff02::1:ff00:0, ref 1, valid 1 MC addr ff02::2, ref 1, valid 1 MC addr ff02::1, ref 1, valid 1 ND6: reachable time 23241, base 30000 dad_transmit 3, retransmit_timer(NS) 1000 (mSecs) link_mtu 0, max_mtu 0, hop_limit 64 flags 0, managed_flag 0, other_config_flag 0 send_router_solicit 0, solicit_sent_count 0, solicit_timer 0 send_rtr_advert 1, send_init_rtr_advert 0, time_since_last_ra_sent 2 rtr_adv_interval (cfg)(curr) 3(3), rtr_adv_timer 2, rtr_adv_sent_cnt 3 adv: default_lifetime 1800, reachable_time 0, retransmit_timer 0 (miliseecs) adv: link_mtu 1500, hop_limit 64, managed_flag 0, other_config_flag 0 Brocade# </pre>	VLAN ID greater than 255 can now be used.
show ipv6 interface loopback 2 ?	<pre> Interface Loopback 2 is up, line protocol is up IPv6 is enabled, link-local address is fe80::205:ff:fe05:5 [Preferred] Global unicast address(es): 2000:2:2:2::20 [Preferred], subnet is 2000:2:2:2::/64 2000:2:2:2:: [Anycast], subnet is 2000:2:2:2::/64 Joined group address(es): ff02::1:ff00:20 ff02::1:ff05:5 ff02::16 ff02::d ff02::1:ff00:0 ff02::2 ff02::1 Port belongs to VRF: default-vrf MTU is 1500 bytes ICMP redirects are disabled No Inbound Access List Set Outbound Access List OSPF enabled </pre>	"Port belongs to VRF" information is added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf area 1.2.3.4 database link-state ?	<pre> Brocade#sh ip ospf area 0.0.0.200 database link-state Link States Index Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 1 0.0.0.200 Rtr 192.168.98.111 192.168.98.111 800001c3 498 0x2cb1 Done 2 0.0.0.200 Rtr 192.168.98.213 192.168.98.213 8000000b 498 0x723b Done 3 0.0.0.200 Rtr 192.168.98.113 192.168.98.113 800001a4 1246 0x9940 Done 4 0.0.0.200 Rtr 192.168.98.112 192.168.98.112 8000024f 646 0x332b Done 5 0.0.0.200 Net 192.113.112.113 192.168.98.113 800000ba 1246 0x08ce Done 6 0.0.0.200 Net 192.213.111.111 192.168.98.111 80000002 535 0x6d5e Done 7 0.0.0.200 Net 192.113.111.113 192.168.98.113 8000010e 1246 0x6122 Done 8 0.0.0.200 Net 193.213.111.213 192.168.98.213 80000002 498 0x609d Done </pre>	The output format is different. And, new "sync state" field is added.
show ip ospf ?	<pre> Brocade#sh ip ospf OSPF Version Version 2 Router Id 192.168.98.213 ASBR Status Yes ABR Status Yes (1) Redistribute Ext Routes from Connected RIP Initial SPF schedule delay 0 (msecs) Minimum hold time for SPFs 0 (msecs) Maximum hold time for SPFs 0 (msecs) External LSA Counter 2 External LSA Checksum Sum 000104fc Originate New LSA Counter 737 Rx New LSA Counter 1591 External LSA Limit 6990506 Database Overflow Interval 0 Database Overflow State : NOT OVERFLOWED RFC 1583 Compatibility : Enabled NSSA Translator: Enabled Nonstop Routing: Disabled Graceful Restart: Enabled, timer 120 Graceful Restart Helper: Enabled </pre>	The output format is different. And, more fields are added including ABR Status, Redistribution status, SPF delay, Hold time for SPFs, NSSA translator, Nonstop routing info, and GR helper.

show ip ospf area 1.2.3.4 database link-state advertise 2	<pre> Brocade#sh ip ospf area 0.0.0.200 database link-state advertise 1 Index Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 1 0.0.0.200 Rtr 192.168.98.111 192.168.98.111 8000010a 477 0xbe56 Done LSA Header: options: 0x02, seq-nbr: 0x8000010a, length: 72, flags:0x0500 link id = 193.213.111.213, link data = 193.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.113.111.113, link data = 192.113.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.111.111, link data = 192.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 193.113.111.113, link data = 193.113.111.111, type = transit(2) tos count = 0, tos0_metric = 1 </pre>	The output format is different. And, new "sync state" field is added.
show ip ospf area 1.2.3.4 database link-state asbr	<pre> Brocade#sh ip ospf area 0.0.0.200 database link-state asbr Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 ASBR 192.168.98.213 192.168.98.113 80000003 1129 0xc1b7 Done LSA Header: options: 0x02, seq-nbr: 0x80000003, length: 28 NetworkMask: 0.0.0.0 TOS 0: metric: 2 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 ASBR 192.168.98.190 192.168.98.111 80000108 1776 0x9def Done LSA Header: options: 0x02, seq-nbr: 0x80000108, length: 28 NetworkMask: 0.0.0.0 TOS 0: metric: 1 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 ASBR 192.168.98.190 192.168.98.112 80000143 814 0x2b25 Done LSA Header: options: 0x02, seq-nbr: 0x80000143, length: 28 NetworkMask: 0.0.0.0 TOS 0: metric: 2 </pre>	The output format is different. And, new "sync state" field is added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf area 1.2.3.4 database link-state extensive	Brocade#sh ip ospf area 0.0.0.200 database link-state extensive Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Rtr 192.168.98.111 192.168.98.111 800001cc 874 0xb3ba Done LSA Header: options: 0x02, seq-nbr: 0x800001cc, length: 72, flags:0x0500 link id = 193.213.111.213, link data = 193.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.113.111.113, link data = 192.113.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.111.213, link data = 192.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 193.113.111.0, link data = 255.255.255.0, type = stub(3) tos count = 0, tos0_metric = 1 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Rtr 192.168.98.213 192.168.98.213 8000001c 337 0xb67f Done LSA Header: options: 0x02, seq-nbr: 0x8000001c, length: 3072, flags:0x0700 link id = 192.168.98.213, link data = 255.255.255.255, type = stub(3) tos count = 0, tos0_metric = 1 link id = 192.169.98.113, link data = 255.255.255.255, type = stub(3) tos count = 0, tos0_metric = 1 link id = 193.213.111.213, link data = 193.213.111.213, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.111.213, link data = 192.213.111.213, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.101.0, link data = 255.255.255.0, type = stub(3) tos count = 0, tos0_metric = 1 link id = 192.213.1.2, link data = 255.255.255.254, type = stub(3) tos count = 0, tos0 metric = 1	The output format is different. And, new "sync state" field is added.
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show command output differences between 07.4.00 and 08.0.xx

show ip ospf area 1.2.3.4 database link-state link-state- id 1.2.3.4	<pre>Brocade#sh ip ospf area 0.0.0.200 database link-state link-state-id 192.168.98.111 Ospf link-state by link-state ID 192.168.98.111 are in the following: Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 991 192.168.98.111 192.168.98.111 800001cc 0000b3ba Done RTR LSA Header: options: 0x02, seq-nbr: 0x800001cc, length: 72, flags:0x0500 link id = 193.213.111.213, link data = 193.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.113.111.113, link data = 192.113.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.111.213, link data = 192.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 193.113.111.0, link data = 255.255.255.0, type = stub(3) tos count = 0, tos0_metric = 1 Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 746 192.168.98.111 192.168.98.111 80000107 0000c618 Done SUMM LSA Header: options: 0x02, seq-nbr: 0x80000107, length: 28 NetworkMask: 255.255.255.255 TOS 0: metric: 1 Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 1686 192.168.98.111 192.168.98.112 800001fc 0000de08 Done SUMM LSA Header: options: 0x02, seq-nbr: 0x800001fc, length: 28 NetworkMask: 255.255.255.255 TOS 0: metric: 2</pre>	The output format is different. And, new "sync state" field is added.
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show command output differences between 07.4.00 and 08.0.xx

<pre>show ip ospf area 1.2.3.4 database link-state network</pre>	<pre>Brocade#sh ip ospf area 0.0.0.200 database link-state network Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Net 192.113.112.113 192.168.98.113 800000be 409 0xffd2 Done LSA Header: options: 0x02, seq-nbr: 0x800000be, length: 32 NetworkMask: 255.255.255.254 attached router: 192.168.98.113 attached router: 192.168.98.112 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Net 192.213.111.213 192.168.98.213 80000004 1063 0x6993 Done LSA Header: options: 0x02, seq-nbr: 0x80000004, length: 32 NetworkMask: 255.255.255.0 attached router: 192.168.98.213 attached router: 192.168.98.111 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Net 192.113.111.113 192.168.98.113 80000111 1098 0x5b25 Done LSA Header: options: 0x02, seq-nbr: 0x80000111, length: 32 NetworkMask: 255.255.255.0 attached router: 192.168.98.113 attached router: 192.168.98.111 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Net 193.213.111.213 192.168.98.213 80000005 436 0x5aa0 Done LSA Header: options: 0x02, seq-nbr: 0x80000005, length: 32 NetworkMask: 255.255.255.0 attached router: 192.168.98.213 attached router: 192.168.98.111 Brocade#</pre>	The output format is different. And, new "sync state" field is added.
<pre>show ip ospf area 1.2.3.4 database link-state router</pre>	<pre>Brocade#sh ip ospf area 0.0.0.200 database link-state router Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Rtr 192.168.98.111 192.168.98.111 800001ce 260 0xafbc Done LSA Header: options: 0x02, seq-nbr: 0x800001ce, length: 72, flags:0x0500 link id = 193.213.111.213, link data = 193.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.113.111.113, link data = 192.113.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.111.213, link data = 192.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 193.113.111.0, link data = 255.255.255.0, type = stub(3) tos count = 0, tos0_metric = 1</pre>	The output format is different. And, new "sync state" field is added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf area 1.2.3.4 database link-state router-id 1.2.3.4	<pre>Brocade#sh ip ospf area 0.0.0.200 database link-state router-id 192.168.98.111 Ospf link-state by router ID 192.168.98.111 are in the following: Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 1928 192.168.98.111 192.168.98.111 800001cd 0000b1bb Done RTR LSA Header: options: 0x02, seq-nbr: 0x800001cd, length: 72, flags:0x0500 link id = 193.213.111.213, link data = 193.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.113.111.113, link data = 192.113.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 192.213.111.213, link data = 192.213.111.111, type = transit(2) tos count = 0, tos0_metric = 1 link id = 193.113.111.0, link data = 255.255.255.0, type = stub(3) tos count = 0, tos0_metric = 1 Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 1686 192.168.42.111 192.168.98.111 80000108 00002fe6 Done SUMM LSA Header: options: 0x02, seq-nbr: 0x80000108, length: 28 NetworkMask: 255.255.255.255 TOS 0: metric: 1 Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 1686 192.190.101.0 192.168.98.111 80000108 0000fe34 Done SUMM LSA Header: options: 0x02, seq-nbr: 0x80000108, length: 28 NetworkMask: 255.255.255.0 TOS 0: metric: 2</pre>	The output format is different. And, new "sync state" field is added.
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show command output differences between 07.4.00 and 08.0.xx

show ip ospf area 1.2.3.4 database link-state summary	<pre> Brocade#sh ip ospf area 0.0.0.200 database link-state summary Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Summ 192.213.1.166 192.168.98.112 80000003 1670 0xcc11 Done LSA Header: options: 0x02, seq-nbr: 0x80000003, length: 28 NetworkMask: 255.255.255.254 TOS 0: metric: 4 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Summ 192.213.2.180 192.168.98.112 80000003 1670 0x3599 Done LSA Header: options: 0x02, seq-nbr: 0x80000003, length: 28 NetworkMask: 255.255.255.254 TOS 0: metric: 4 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Summ 192.213.1.242 192.168.98.112 80000003 1670 0xd1bf Done LSA Header: options: 0x02, seq-nbr: 0x80000003, length: 28 NetworkMask: 255.255.255.254 TOS 0: metric: 4 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Summ 192.213.2.62 192.168.98.112 80000003 1670 0xd56f Done LSA Header: options: 0x02, seq-nbr: 0x80000003, length: 28 NetworkMask: 255.255.255.254 TOS 0: metric: 4 Area ID Type LS ID Adv Rtr Seq(Hex) Age Cksum SyncState 0.0.0.200 Summ 192.213.1.48 192.168.98.112 80000003 1670 0x6de6 Done LSA Header: options: 0x02, seq-nbr: 0x80000003, length: 28 NetworkMask: 255.255.255.254 </pre>	The output format is different. And, new "sync state" field is added.
show ip ospf area 1.2.3.4 database link-state sequence- number 7FFF	<pre> Brocade#sh ip ospf area 0.0.0.200 database link-state sequence-number 80000143 Ospf link-state by sequence number 80000143 are in the following: Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 865 192.168.98.190 192.168.98.112 80000143 0000430d Done SUMM LSA Header: options: 0x02, seq-nbr: 0x80000143, length: 28 NetworkMask: 255.255.255.255 TOS 0: metric: 3 Area ID Aging LS ID Router Seq(hex) Chksum SyncState Type 0.0.0.200 865 192.168.98.190 192.168.98.112 80000143 00002b25 Done ASBR LSA Header: options: 0x02, seq-nbr: 0x80000143, length: 28 NetworkMask: 0.0.0.0 TOS 0: metric: 2 </pre>	The output format is different. New "sync state" field is added. "tos count" field is changed to "TOS", "tosO_metric" is changed to "metric". "Flags" option is removed.

show command output differences between 07.4.00 and 08.0.xx

show ip bgp debug network 1.2.3.0 255.255.25 5.0	Brocade#show ip bgp debug network 1.1.1.32/32 BGP: network 1.1.1.32/32 found (x26ce0498, 0, 26ce0405) 1.1.1.32/32 weight:32768 back_door:0 imported:1 route-map:<> sptr:x0 next_hop:0.0.0.0 med:0 tag:0 type:1	Found entry is added in front of network.
show ipv6 ospf memory	Brocade#sh ipv6 ospf memory Total Dynamic Memory Allocated for this instance : 7944947 bytes Memory Type Size Allocated Max-alloc Alloc- Fails MTYPE_OSPF6_AREA 471191 3 4 0 MTYPE_OSPF6_AREA_RANGE 29 0 4 0 MTYPE_OSPF6_SUMMARY_ADDRE 25 0 4 0 MTYPE_OSPF6_IF 280 254 256 0 MTYPE_OSPF6_NEIGHBOR 12502 3 8 0 MTYPE_OSPF6_ROUTE_NODE 21 324 512 0 MTYPE_OSPF6_ROUTE_INFO 35 322 512 0 MTYPE_OSPF6_PREFIX 20 0 4 0 MTYPE_OSPF6_LSA 129 976 1024 0 MTYPE_OSPF6_VERTEX 166 14 16 0 MTYPE_OSPF6_SPFTREE 44 3 4 0 MTYPE_OSPF6_NEXTHOP 28 258 512 0 MTYPE_OSPF6_EXTERNAL_INFO 40 2 512 0 MTYPE_THREAD 32 75 1024 0 MTYPE_OSPF6_LINK_LIST 20 15544 16384 0 MTYPE_OSPF6_LINK_NODE 12 2885 4096 0 MTYPE_OSPF6_LSA_RETRANSMI 6 0 1024 0 global memory pool for all instances Memory Type Size Allocated Max-alloc Alloc- Fails MTYPE_OSPF6_TOP 61475 1 1 0 MTYPE_OSPF6_LSA_HDR 5072 976 977 0 MTYPE_OSPF6_RMAP_COMPILED 0 0 0 0 MTYPE_OSPF6_OTHER 0 0 0 0 MTYPE_THREAD_MASTER 84 1 1 0	Global Memory pool for all instances is added.
show ip ssh config	Brocade#show ip ssh config SSH server : Enabled SSH port : tcp\22 Host Key : DSA 1024 Encryption : AES-256, AES-192, AES-128, 3-DES Permit empty password : No Authentication methods : Password, Public-key, Interactive Authentication retries : 3 Login timeout (seconds) : 120 Idle timeout (minutes) : 0 Strict management VRF : Disabled SCP : Enabled SSH IPv4 clients : All SSH IPv6 clients : All SSH IPv4 access-group : SSH IPv6 access-group : SSH Client Keys : Brocade#	The output is modified and now it also shows Host Key, Strict management VRF, and SSH Client Keys.

show command output differences between 07.4.00 and 08.0.xx

show ipc_stats	<pre> Brocade#show ipc_stats Total available Hsync channel space = 1572868 Total available Appl channel space = 1572868 Total number of application msgs in dyn queue = 0 Total number of hsync msgs in dyn queue = 0 Total number of rx pkt msgs in standby dynamic queue = 0 Total number of rx pkts relayed = 458429 Total number of rx pkts received = 0 Total number of dy-sync messages received so far = 0 Total number of rel-sync pending complete = 0 Total number of L3 baseline-sync packets = 1 Avg number of retries for packet send on IPC = 0 Is image_sync_in_progress? = 0 Is hotswap_in_progress? = 0 Is mgmt_hswap_in_progress? = 0 Total num of rx dyn queue drops = 0 Total num of jumbo corrupts = 0 Is l3_ip6_cleanup_not_done? = 0 Rel Sync Ready Status = 2 Is Console Access through Appl Task? = 1 Is reload required? = 0 Real-time yeilds = 0 Brocade# </pre>	The output is modified.
show ipv6 memory	<pre> Brocade#show ipv6 memory Memory Type Size Allocated Max-alloc Alloc- Fails MTYPE_TMP 0 0 0 0 MTYPE_ROUTE_TABLE 180 121 121 0 MTYPE_ROUTE_NODE 0 0 0 0 MTYPE_IF_PORT 120 22 22 0 MTYPE_IF_ADDRESS_CONFIG 23 27 27 0 MTYPE_IF_ADDRESS 56 66 66 0 MTYPE_IF_PREFIX 0 0 0 0 MTYPE_MC_ADDRESS 24 187 187 0 MTYPE_DEFAULT_ROUTE 0 0 0 0 MTYPE_ND6_NEIGHBOR_STATIC 0 0 0 0 MTYPE_ND6_DAD 22 0 34 0 MTYPE_ND6_PREFIX_ADV 0 0 0 0 MTYPE_LINK_LIST 0 0 0 0 MTYPE_LINK_NODE 0 0 0 0 MTYPE_ECHO_RESULTMTYPE_RI 0 0 0 0 </pre>	MTYPE_RIPNG_PO RT field is removed. Also, MTYPE_ECHO_RESULT fields are different.

<pre>show ipv6 interface loopback 2 debug</pre>	<pre>Interface Loopback 2 is up, line protocol is up IPv6 is enabled, link-local address is fe80::234:ff:fe34:34 [Preferred] Global unicast address(es): 2000:202:202:202::1 [Preferred], subnet is 2000:202:202:202::/64 2000:202:202:202:: [Anycast], subnet is 2000:202:202:202::/64 Joined group address(es): ff02::1:ff00:1 ff02::1:ff34:34 ff02::16 ff02::d ff02::1:ff00:0 ff02::2 ff02::1 Port belongs to VRF: default-vrf MTU is 1500 bytes ICMP redirects are disabled No Inbound Access List Set Outbound Access List OSPF enabled Interface loopback 2, Port 2304, addr c:0x2598e600, p:0x29c03880, n:0x259f6600 Conf: #Addr 1, enabled_conf 1, curr: enabled 1 port_enabled 1, port_is_up 1, mtu 1500, metric 1, redir 0 Address: 2000:202:202:202::1/64 RUN: Port 2304, EUI 234:ff:fe34:34/64, MAC 0034.0034.0034/6, #Addr 2 LL Addr fe80::234:ff:fe34:34, Preferred, Cache 0 flags 00, preferred_lifetime 4294967295, valid_lifetime 4294967295 Addr 2000:202:202:202::1, Preferred, subnet 2000:202:202:202::/64 flags 00, preferred_lifetime 4294967295, valid_lifetime 4294967295 Addr 2000:202:202:202::, Anycast, subnet 2000:202:202:202::/64 flags 21, preferred_lifetime 4294967295, valid_lifetime 4294967295 MC addr ff02::1:ff00:1, ref 1, valid 1 MC addr ff02::1:ff34:34, ref 1, valid 1 MC addr ff02::16, ref 1, valid 1 MC addr ff02::d, ref 1, valid 1 MC addr ff02::1:ff00:0, ref 1, valid 1</pre>	"Port belongs to VRF" information is added.
<pre>show ipv6 ospf area 1.2.3.4</pre>	<pre>Brocade#show ipv6 ospf area 100 Area 100: Authentication: Not Configured Active interface(s) attached to this area: ve 100 Inactive interface(s) attached to this area: None Number of Area scoped LSAs is 5 Sum of Area LSAs Checksum is 2e293 Statistics of Area 100: SPF algorithm executed 3 times SPF last updated: 15 sec ago Current SPF node count: 3 Router: 2 Network: 1 Maximum of Hop count to nodes: 2</pre>	Inactive interfaces and virtual-link interface information are added.

show command output differences between 07.4.00 and 08.0.xx

show tech-support l3 ipv4-uc	Too big to paste	IP Routing Table, IP Ospf Trap, IP Ospf Error, IP Ospf Resource, IP Ospf Neighbor Detail, IP Ospf Virtual-link, IP Ospf Virtual-neighbor, IP RIP Routes, and IP RIP Interfaces information removed.
show ipv6 route rip	Brocade#show ipv6 route rip Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime R 7124::/64 fe80::224:38ff:febb:e500 ve 4011 100/2 0m0s R 8111::1/128 fe80::224:38ff:febb:e500 ve 4011 100/2 0m0s Brocade#	ISIS option is added. And, OSPF Codes displayed in a different format.
show ipv6 route static	Brocade#show ipv6 route static Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime	ISIS option is added. And, OSPF codes are displayed in a different format.
show ipv6 route summary	Brocade#show ipv6 route summary IPv6 Routing Table - 6 entries: 6 connected, 0 static, 0 RIP, 0 OSPF, 0 BGP, 0 ISIS Number of prefixes: /64:6	ISIS option is added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf config	Brocade#sh ip osp config Router OSPF: Enabled Nonstop Routing: Enabled Graceful Restart: Disabled Graceful Restart Helper: Enabled Graceful Restart Time: 120 Graceful Restart Notify Time: 0 Redistribution: Disabled Default OSPF Metric: 10 OSPF Auto-cost Reference Bandwidth: Disabled Default Passive Interface: Disabled OSPF Redistribution Metric: Type2 OSPF External LSA Limit: 6990506 OSPF Database Overflow Interval: 0 RFC 1583 Compatibility: Enabled Router id: 1.2.3.4 Interface State Change Trap: Enabled Virtual Interface State Change Trap: Enabled Neighbor State Change Trap: Enabled Virtual Neighbor State Change Trap: Enabled Interface Configuration Error Trap: Enabled Virtual Interface Configuration Error Trap: Enabled Interface Authentication Failure Trap: Enabled Virtual Interface Authentication Failure Trap: Enabled Interface Receive Bad Packet Trap: Enabled Virtual Interface Receive Bad Packet Trap: Enabled Interface Retransmit Packet Trap: Disabled Virtual Interface Retransmit Packet Trap: Disabled Originate LSA Trap: Disabled Originate MaxAge LSA Trap: Disabled Link State Database Overflow Trap: Disabled Link State Database Approaching Overflow Trap: Disabled OSPF Area currently defined: Area-ID Area-Type Cost 100 normal 0 0 normal 0	List of OSPF configure interfaces is not listed under this command in FastIron 08.0.00a. You can instead use "show ip ospf interface" command to see them.
show ip pim flowcache	Router OSPF: Enabled	Explanation is changed.
show arp ?	Nonstop Routing: Enabled	Management and VRF option is added.
show arp	Graceful Restart: Disabled	Maximum capacity is removed. And, default routing instance is added.
show arp 2	Graceful Restart Helper: Enabled	Maximum capacity is removed. And, default routing instance is added.
show arp inspect	Graceful Restart Time: 120	Maximum capacity is removed. And, default routing instance is added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf redistribu te route ?	Graceful Restart Notify Time: 0	"metric" keyword is added.
show ip ospf redistribu te route 1.2.3.4 1.2.3.4	Redistribution: Disabled	"metric" keyword is added.
show ip pim nbr	Default OSPF Metric: 10	Header format is modified.
show ip pim neighbor	OSPF Auto-cost Reference Bandwidth: Disabled	Header format is modified.
show ip pim traffic	Default Passive Interface: Disabled	Header format is modified.
show ip pim rp-map	OSPF Redistribution Metric: Type2	Header format is modified.
show ip rip ?	OSPF External LSA Limit: 6990506	The output is modified to provide more details.
show snmp server	OSPF Database Overflow Interval: 0	More options are added. For example, "Status: Enabled".
show ip rip interface ?	RFC 1583 Compatibility: Enabled	The output format is modified. Metric-offset, Prefix List, and Route-map information are added.
show ip rip interface ethernet 1/1	Router id: 1.2.3.4	The output format is different. Metric-offset, Prefix List, Route-map information, RIP sent/receive packet statistics, and RIP error packet statistics information are added.

show command output differences between 07.4.00 and 08.0.xx

show ip rip interface ve 2	Interface State Change Trap: Enabled	The output format is different. Metric-offset, Prefix List, Route-map information, RIP sent/receive statistics, and Error information are added.
show ip ?	Virtual Interface State Change Trap: Enabled	"mroute" is removed. And, dns-server, msdp, rtm, ssl, and vrf are added.
show ipsec policy	Interface Authentication Failure Trap: Enabled	The output format is different.
show ipv6 ospf interface ?	Virtual Interface Authentication Failure Trap: Enabled	The output format is different.
show ipv6 ospf interface tunnel ?	Interface Receive Bad Packet Trap: Enabled	The output format is different.
show ipv6 ospf routes 2000:5678: 90ab:cdef: 0123:4567: 890a:bcde	Virtual Interface Receive Bad Packet Trap: Enabled	The output format is different.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf debug memory	<pre>WEN-FCX(config-vif-100)#sh ip osp debug mem OSPF Memory Use 1233360, Mem_Quota 251658240, DEFAULT_LSDB_LIMIT 6990506 Pid BlkSize BlkTotal UsedBlks FreeBlks AllocErr StartAddr ListAddr 0 0 0 0 0 0 0 0 1 40 2000 13 1987 0 274a4004 274a41e4 2 104 4000 11 3989 0 274b8004 274b847c 3 132 32 0 32 0 2751e004 2751e004 4 260 16 0 16 0 27520004 27520004 5 519 32 2 30 0 27522004 27522412 6 1504 32 0 32 0 27527004 27527004 7 4309 16 1 15 0 27533004 275340d9 8 37204 16 2 14 0 27544004 275562ac 9 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 11 0 0 0 0 0 0 0 Total Memory blocks allocated 29 Mega Memory List Pool Id = 1, Total Mega blocks = 1 Errors = 0 Pool Id = 2, Total Mega blocks = 1 Errors = 0 Pool Id = 3, Total Mega blocks = 1 Errors = 0 Pool Id = 4, Total Mega blocks = 1 Errors = 0 Pool Id = 5, Total Mega blocks = 1 Errors = 0 Pool Id = 6, Total Mega blocks = 1 Errors = 0 Pool Id = 7, Total Mega blocks = 1 Errors = 0 Pool Id = 8, Total Mega blocks = 1 Errors = 0 OSPF Main Routing Table: 2660fc00 node_count 3, top 0x26857024, default_valid 0, default_route 0xffffffff Table private pool: init#=4096 unit_s=36 total=4096 in_use=2 **fail=0** limit=950272 UsedBlks AllocErr TotAlloc PType 0 0 0 0 OSPF_MEMORY_POOL_ANY 1 3 0 9 OSPF_MEMORY_POOL_ROUTER_LINK_ADVERTISEMENT 2 1 0 1 OSPF_MEMORY_POOL_NETWORK_LINK_ADVERTISEMENT 3 3 0 5 OSPF_MEMORY_POOL_SUMMARY_LINK_ADVERTISEMENT 4 0 0 0 OSPF_MEMORY_POOL_EXTERNAL_LINK_ADVERTISEMENT 5 0 0 0 OSPF_MEMORY_POOL_OPAQUE_LINK_ADVERTISEMENT 6 0 0 2 OSPF_MEMORY_POOL_LS_DATABASE_SUMMARY 7 0 0 2 OSPF_MEMORY_POOL_LS_DATABASE_NODE 8 0 0 10 OSPF_MEMORY_POOL_SHORTEST_PATH_NODE</pre>	New memory allocation table is added.
show ip route summary	<pre>Brocade#show ip route summary IP Routing Table - 13 entries: 7 connected, 2 static, 1 RIP, 2 OSPF, 1 BGP Number of prefixes: /8: 1 /24: 7 /26: 1 /30: 2 /32: 2 Nexthop Table Entry - 9 entries</pre>	Nexthop Table Entry information is added.

show processes cpu 2	<pre> Brocade#show process cpu 2 Statistics for last 1 sec and 988 ms Process Name Sec(%) Time(ms) ARP 0.08 1 BGP 0.00 0 DOT1X 0.00 0 GVRP 0.00 0 ICMP 0.00 0 IP 0.00 0 OSPF 0.00 0 RIP 0.00 0 STP 0.00 0 VRRP 0.70 14 Statistics for last 1 sec and 988 ms Process Name Sec(%) Time(ms) IPv6 0.00 0 ICMP6 0.01 0 ND6 0.02 0 RIPng 0.00 0 OSPFv3 0.00 0 IPV6_RX 0.00 0 NULL 0.00 0 Brocade# </pre>	NULL entry is added.
show ipv6 route ?	<pre> Brocade#show ipv6 route X::X::X:X IPv6 address X::X::X:X/M IPv6 prefix bgp Display BGP routes connect Display directly attached routes ospf Display OSPFv3 routes rip Display RIPng routes static Display static IPv6 routes summary Summary display vrf Display VRF routes Output modifiers <cr> </pre>	Option vrf will now display VRF specific routes.
show ipv6 ospf virtual-neighbor	<pre> Brocade#sh ipv6 ospf virtual-neigh Index Router ID Address State Interface 1 192.168.98.111 5100::192:113:111:111 Full e 4/3/1 Option: 00-00-00 QCount: 0 Timer: 476 </pre>	Option, Qcount and Timer options are added.
show ip ospf neighbor ?	<pre> Brocade#sh ip ospf neigh Number of Neighbors is 3, in FULL state 3 Port Address Pri State Neigh Address Neigh ID Ev Opt Cnt 4/3/1*8/3/1 193.213.111.213 1 FULL/BDR 193.213.111.111 192.168.98.111 6 2 0 v17 192.213.111.213 1 FULL/BDR 192.213.111.111 192.168.98.111 6 2 0 v222 192.213.163.213 1 FULL/BDR 192.213.163.163 192.168.98.163 6 2 0 </pre>	Options and CNT fields are added.
show ip ospf neighbor 2	<pre> Brocade#sh ip ospf neigh 2 Port Address Pri State Neigh Address Neigh ID Ev Opt Cnt v17 192.213.111.213 1 FULL/BDR 192.213.111.111 192.168.98.111 6 2 0 </pre>	Options and CNT fields are added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf neighbor router-id 1.2.3.4	Brocade#sh ip ospf neighbor router-id 192.168.98.111 Port Address Pri State Neigh Address Neigh ID Ev Opt Cnt 4/3/1*8/3/1 193.213.111.213 1 FULL/BDR 193.213.111.111 192.168.98.111 6 2 0 v17 192.213.111.213 1 FULL/BDR 192.213.111.111 192.168.98.111 6 2 0	Options and CNT fields are added.
show ip route 2	Brocade#show ip route 2 Total number of IP routes: 8 Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 2 1.0.0.2/32 1.1.1.2 ve 100 110/501 O 41m45s 3 1.1.1.0/30 DIRECT ve 100 0/0 D 42m24s 4 1.100.1.0/24 DIRECT e 1/1/24 0/0 D 45m26s 5 1.102.1.0/24 1.1.1.2 ve 100 110/2 O 13m26s 6 1.111.1.0/30 DIRECT tunnel 2 0/0 D 29m12s 7 10.0.0.0/8 10.20.75.126 e mgmt1 1/1 S 12h24m 8 10.20.75.64/26 DIRECT e mgmt1 0/0 D 12h24m	OSPF and BGP sub- codes, and Uptime information are added.
show ip route bgp	Brocade#show ip route bgp Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 1 1.202.1.0/24 1.1.1.2 ve 100 200/0 Bi 2m3s	OSPF and BGP sub- codes, and Uptime information are added.
show ip route direct	Brocade#show ip route direct Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 1 1.0.0.1/32 DIRECT loopback 1 0/0 D 12h36m 2 1.1.1.0/30 DIRECT ve 100 0/0 D 54m2s 3 1.100.1.0/24 DIRECT e 1/1/24 0/0 D 57m4s 4 1.111.1.0/30 DIRECT tunnel 2 0/0 D 40m50s 5 1.201.1.0/24 DIRECT loopback 2 0/0 D 4m13s 6 10.20.75.64/26 DIRECT e mgmt1 0/0 D 12h36m	OSPF and BGP sub- codes, and Uptime information are added.

show ip route ospf	<pre> Brocade#show ip route ospf Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 1 1.0.0.2/32 1.1.1.2 ve 100 110/501 O 1h3m 2 1.102.1.0/24 1.1.1.2 ve 100 110/2 O 35m5s </pre>	OSPF and BGP sub-codes, and Uptime information are added.
show ip route rip	<pre> Brocade#show ip route rip Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 1 1.252.1.0/24 1.1.1.2 ve 100 120/2 R 0m28s </pre>	OSPF and BGP sub-codes, and Uptime information are added.
show ip route static	<pre> Brocade#show ip route static Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 1 1.212.1.0/24 1.1.1.2 ve 100 1/1 S 0m29s 2 10.0.0.0/8 10.20.75.126 e mgmt1 1/1 S 12h49m </pre>	OSPF and BGP sub-codes, and Uptime information are added.
show ipv6 rip route 2000:5678: 90ab:cdef: 0123:4567: 890a:bcde	<pre> Brocade#show ipv6 route 2001:db8:: Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime C 2001:db8::/64 :: e 1/2/3 0/0 3h8m Brocade# Brocade# </pre>	Output has Uptime and other header information.
show ipv6 rip route 2000:5678: 90ab:cdef: 0123:4567: 890a:bcde/ 64	<pre> Brocade# Brocade#show ipv6 route 2001:db8::/64 Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime C 2001:db8::/64 :: e 1/2/3 0/0 3h8m Brocade# Brocade# </pre>	Output has Uptime and other header information.

show command output differences between 07.4.00 and 08.0.xx

show ip rip route	Brocade#show ip rip route RIP Routing Table - 8 entries: 1.1.1.1/32, from 0.0.0.0, null (0) CONNECTED, metric 1, tag 0, timers: none 1.1.1.2/32, from 192.168.1.2, e 1/1/1 (5923) RIP, metric 2, tag 0, timers: aging 15 1.1.1.3/32, from 192.168.1.2, e 1/1/1 (7043) RIP, metric 4, tag 0, timers: aging 15 1.1.1.4/32, from 192.168.1.2, e 1/1/1 (5513) RIP, metric 3, tag 0, timers: aging 15 1.1.1.5/32, from 192.168.1.2, e 1/1/1 (5514) RIP, metric 4, tag 0, timers: aging 15 1.1.1.6/32, from 192.168.1.2, e 1/1/1 (5515) RIP, metric 3, tag 0, timers: aging 15 1.1.1.7/32, from 192.168.1.2, e 1/1/1 (9650) RIP, metric 3, tag 0, timers: aging 15	The output is modified.
show ip mtu- profile detail	Brocade#show ip mtu-profile detail idx size usage ref-count 0 1500 1 default port(s) ethe 1/1/1 to 1/1/2 1 1480 1 1 port(s) ethe 1/1/2 2 1476 0 1	Port information is added.
show ip ospf virtual- neighbor ?	Brocade# sh ip ospf virtual-neigh Indx Transit Area Router ID Neighbor address options 1 0.0.0.200 192.168.98.111 192.213.111.111 2 Port Address state events count 4/3/1*8193.213.111.213 FULL 5 0	Port information is added.
show dot1x configurat ion ethernet	Brocade#sh dot1x configuration e 2/1/8 Port-Control : control-auto filter strict security : Enable Action on RADIUS timeout : Treat as a successful authentication Authentication-fail-action : Global action PVID State : Normal (1006) Original PVID : 1006 Authorized PVID ref count : 1 Restricted PVID ref count : 0 Radius assign PVID ref count : 0 num mac sessions : 1 num mac authorized : 1 num Dynamic Tagged Vlan : 0 Number of Auth filter : 0	PVID state shows as Radius in FastIron 07.4.00 whereas it shows as Normal in FastIron 08.0.00a.

show ip traffic	<pre> Brocade#show ip traffic IP Statistics 5145 received, 5751 sent, 0 forwarded 0 filtered, 0 fragmented, 0 reassembled, 0 bad header 0 no route, 0 unknown proto, 0 no buffer, 0 other errors ARP Statistics 944 total recv, 826 req recv, 143 req sent, 99 rep sent 0 pending drop, 0 invalid source, 0 invalid dest ICMP Statistics Received: 0 total, 0 errors, 0 unreachable, 0 time exceed 0 parameter, 0 source quench, 0 redirect, 0 echo, 0 echo reply, 0 timestamp, 0 timestamp reply, 0 addr mask 0 addr mask reply, 0 irdp advertisement, 0 irdp solicitation Sent: 0 total, 0 errors, 0 unreachable, 0 time exceed 0 parameter, 0 source quench, 0 redirect, 0 echo, 0 echo reply, 0 timestamp, 0 timestamp reply, 0 addr mask 0 addr mask reply, 0 irdp advertisement, 0 irdp solicitation UDP Statistics 102 received, 216 sent, 0 no port, 0 input errors TCP Statistics 1 active opens, 0 passive opens, 1 failed attempts 2 active resets, 0 passive resets, 0 input errors 130 in segments, 128 out segments, 1 retransmission </pre>	RIP Statistics removed.
show ipv6 ospf ?	<pre> Brocade#show ipv6 ospf OSPFv3 Process number 0 with Router ID 0xc0a862d5(192.168.98.213) Running 0 days 2 hours 55 minutes 36 seconds Number of AS scoped LSAs is 4 Sum of AS scoped LSAs Checksum is 18565 External LSA Limit is 250000 Database Overflow Interval is 10 Database Overflow State is NOT OVERFLOWED Route calculation executed 15 times Pending outgoing LSA count 0 Authentication key rollover interval 300 seconds Number of areas in this router is 3 Router is operating as ABR Router is operating as ASBR, Redistribute: CONNECTED RIP High Priority Message Queue Full count: 0 Graceful restart helper is enabled, strict lsa checking is disabled Nonstop Routing is disabled </pre>	Router role information , GR helper info and NONSTOP routing information is added.
show snmp ?	<pre> Brocade#show snmp engineid show local and remote SNMP engine IDs group show SNMP groups server Display SNMP server status and trap information user show SNMPv3 users Output modifiers <cr> </pre>	Server explanation is added.

show command output differences between 07.4.00 and 08.0.xx

show ipv6 route rip	<pre> Brocade#show ipv6 route rip Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime R ada::1:1:1:2/128 fe80::224:38ff:fe8f:3000 e 1/1/1 120/2 22h11m R 2003:db8::/64 fe80::224:38ff:fe8f:3000 e 1/1/1 120/2 22h11m R 2004:db8::/64 fe80::224:38ff:fe8f:3000 e 1/1/1 120/2 22h11m R 2004:db9::/64 fe80::224:38ff:fe8f:3000 e 1/1/1 120/2 22h11m R 2006:db8::/64 fe80::224:38ff:fe8f:3000 e 1/1/1 120/3 22h11m R 2007:db8::/64 fe80::224:38ff:fe8f:3000 e 1/1/1 120/4 22h11m R bebe::1:1:1:4/128 fe80::224:38ff:fe8f:3000 e 1/1/1 120/3 22h11m R cccc::1:1:1:3/128 fe80::224:38ff:fe8f:3000 e 1/1/1 120/4 22h11m R feed:acee:0:0:223:223::/96 fe80::224:38ff:fe8f:3000 e 1/1/1 120/5 22h11m </pre>	Uptime information is added.
show ip pim dense	<pre> Brocade#show ip pim dense Global PIM Dense Mode Settings Maximum Mcache : 4096 Current Count : 105 Hello interval : 30 Neighbor timeout : 105 Join/Prune interval : 60 Inactivity interval : 180 Hardware Drop Enabled : Yes Prune Wait Interval : 3 Graft Retransmit interval : 180 Prune Age : 180 Route Precedence : mc-non-default mc-default uc-non-default uc-default </pre>	More pim dense parameter information is displayed.

show command output differences between 07.4.00 and 08.0.xx

show ipv6 interface ?	Brocade#sh ipv6 interface Routing Protocols : R - RIP O - OSPF Interface Status Routing Global Unicast Address VRF Eth 1/1/1 up/up 2000:411:411:411::1/64 default-vrf Eth 5/1/2 up/up 2000:512:512:512::1/64 default-vrf Ve 300 up/up O 2000:300:300:300::2/64 alpha Ve 301 up/up O 2000:301:301:301::2/64 scale1 Ve 302 up/up O 2000:302:302:302::2/64 scale2 Ve 303 up/up O 2000:303:303:303::2/64 scale3 Ve 304 up/up O 2000:304:304:304::2/64 scale4 Ve 305 up/up O 2000:305:305:305::2/64 scale5 Ve 306 up/up O 2000:306:306:306::2/64 scale6 Ve 307 up/up O 2000:307:307:307::2/64 scale7 Ve 308 up/up O 2000:308:308:308::1/64 scale8 Ve 309 up/up O 2000:309:309:309::1/64 scale9 Ve 310 up/up O 2000:310:310:310::1/64 scale10 Ve 311 up/up O 2000:311:311:311::1/64 scale11 Ve 312 up/up O 2000:312:312:312::1/64 scale12 Ve 313 up/up O 2000:313:313:313::1/64 scale13 Ve 314 up/up O 2000:314:314:314::1/64 scale14 Ve 315 up/up O 2000:315:315:315::1/64	The VRF to which the interface belongs, is added in the output.
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show command output differences between 07.4.00 and 08.0.xx

show ip route ?	Brocade#show ip route rip Type Codes - B:BGP D:Connected O:OSPF R:RIP S:Static; Cost - Dist/Metric BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Destination Gateway Port Cost Type Uptime 1 1.1.1.2/32 192.168.1.2 e 1/1/1 120/2 R 1d3h 2 1.1.1.3/32 192.168.1.2 e 1/1/1 120/4 R 1d0h 3 1.1.1.4/32 192.168.1.2 e 1/1/1 120/3 R 1d3h 4 1.1.1.6/32 192.168.1.2 e 1/1/1 120/3 R 1d3h 5 1.1.1.7/32 192.168.1.2 e 1/1/1 120/3 R 1d3h 6 1.1.2.1/32 192.168.1.2 e 1/1/1 120/2 R 1d3h 7 1.1.6.1/32 192.168.1.2 e 1/1/1 120/3 R 1d3h 8 1.1.26.1/32 192.168.1.2 e 1/1/1 120/2 R 1d3h 9 1.1.26.2/32 192.168.1.2 e 1/1/1 120/2 R 1d3h 10 1.1.26.3/32 192.168.1.2 e 1/1/1 120/2 R 1d3h 11 1.1.26.4/32 192.168.1.2 e 1/1/1 120/2 R 1d3h	Row number and uptime for a route, are added.
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show tech-support stack	<pre> Brocade#sh tech-support stack Stacking Status. alone: standalone, D: dynamic config, S: static config ID Type Role Mac Address Pri State Comment 1 S ICX6610-24F standby 748e.f834.8198 0 remote Ready 2 S ICX6610-24 active 748e.f893.4e1c 0 local Ready active standby +----+ +----+ =2/6 2 2/1==2/6 1 2/1= +----+ +----+ ----- ----- Standby u1 - protocols ready, can failover or manually switch over Current stack management MAC is 748e.f834.8199 Image-Auto-Copy is Enabled. Stack Port Status Unit# Stack-port1 Stack-port2 Neighbors Stack-port1 Stack-port2 1 up (1/2/1-1/2/2) up (1/2/6-1/2/7) U2 (2/2/6-2/2/7) U2 (2/2/1- 2/2/2) 2 up (2/2/1-2/2/2) up (2/2/6-2/2/7) U1 (1/2/6-1/2/7) U1 (1/2/1- 1/2/2) Unit# System uptime 1 2 days 20 hours 57 minutes 35 seconds 2 2 days 21 hours 33 seconds Stack Resource information. alloc in-use avail get-fail limit get-mem size init register attribute 19200 13636 5564 0 556800 18708 336 2400 general 12B data 32 2 30 0 7424 3 12 32 RB-tree node 16384 13641 2743 0 237568 14114 18 1024 </pre>	Some extra information is added in "sh tech-support stack" output.
show ip bgp filtered-routes as-path-access-list STR	<pre> Brocade#sh ip bgp filtered-routes as-path-access-list Block Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 42.42.42.42/32 103.1.1.1 0 100 0 EF AS_PATH: 5 2 42.42.42.42/32 106.1.1.1 0 100 0 EF AS_PATH: 5 </pre>	Status string m: not-local-multipath is changed to m: not-installed-multipath.

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show ip bgp filtered- routes detail prefix- list STR	Brocade#sh ip bgp filtered-routes detail prefix-list STR Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE 1 Prefix: 42.42.42.42/32, Status: EF, Age: 0h29m37s NEXT_HOP: 103.1.1.1, Not Reachable, Learned from Peer: 103.1.1.1 (5) LOCAL_PREF: 100, MED: 0, ORIGIN: igp, Weight: 0 AS_PATH: 5 2 Prefix: 42.42.42.42/32, Status: EF, Age: 0h29m33s NEXT_HOP: 106.1.1.1, Not Reachable, Learned from Peer: 106.1.1.1 (5)	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes as-path- access- list STR	Brocade#show ip bgp routes as-path-access-list Block Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 1.1.1.2/32 6.1.1.1 30 100 32768 BL AS_PATH: 2 1.1.1.32/32 0.0.0.0 0 100 32768 BL AS_PATH: 3 6.6.6.0/24 6.1.1.1 30 100 32768 BL AS_PATH: 4 7.7.7.0/24 6.1.1.1 30 100 32768 BL AS_PATH: 5 11.1.1.0/24 6.1.1.1 30 100 32768 BL AS_PATH:	Status string m: not-local-multipath is changed to m: not-installed- multipath.

show ip bgp routes best	<pre> Brocade#sh ip bgp routes best Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 36.5.5.5/32 36.0.0.1 100 0 BE AS_PATH: 3 2 36.5.5.6/32 36.0.0.1 100 0 BE AS_PATH: 3 3 36.5.5.7/32 36.0.0.1 100 0 BE AS_PATH: 3 4 36.5.5.8/32 36.0.0.1 100 0 BE AS_PATH: 3 5 36.5.5.9/32 36.0.0.1 100 0 BE AS_PATH: 3 6 36.5.5.10/32 36.0.0.1 100 0 BE AS_PATH: 3 7 36.5.5.11/32 36.0.0.1 100 0 BE AS_PATH: 3 8 36.5.5.12/32 36.0.0.1 100 0 BE AS_PATH: 3 9 36.5.5.13/32 36.0.0.1 100 0 BE AS_PATH: 3 --More--, next page: Space, next line: Return key, quit: Control-c </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community 2	<pre> Brocade#sh ip bgp routes community 2 Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 18.18.18.0/24 106.1.1.2 0 150 200 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community 0:11	<pre> Brocade#sh ip bgp routes community 0:11 Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 18.18.18.0/24 106.1.1.2 0 150 200 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.

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show ip bgp routes community internet	<pre> Brocade#sh ip bgp routes community internet Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 36.5.5.5/32 36.0.0.1 100 0 BE AS_PATH: 3 2 36.5.5.6/32 36.0.0.1 100 0 BE AS_PATH: 3 3 36.5.5.7/32 36.0.0.1 100 0 BE AS_PATH: 3 4 36.5.5.8/32 36.0.0.1 100 0 BE AS_PATH: 3 5 36.5.5.9/32 36.0.0.1 100 0 BE AS_PATH: 3 6 36.5.5.10/32 36.0.0.1 100 0 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community local-as	<pre> Brocade#sh ip bgp routes community local-as Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 18.18.18.0/24 106.1.1.2 0 150 200 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community no- advertise	<pre> Brocade#sh ip bgp routes community no-advertise Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 18.18.18.0/24 106.1.1.2 0 150 200 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.

show ip bgp routes community no-export	<pre> Brocade#sh ip bgp routes community no-export Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 18.18.18.0/24 106.1.1.2 0 150 200 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community- access- list STR	<pre> Brocade#show ip bgp routes community-access-li SECURE:IXP Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 1.1.1.1/32 0.0.0.0 1 100 32768 BL AS_PATH: 2 1.1.1.2/32 100.1.1.2 30 100 0 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community- reg- expression STR regexp	<pre> Brocade#sh ip bgp routes community-reg-expression n Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 18.18.18.0/24 106.1.1.2 0 150 200 BE AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes detail 2	<pre> Brocade#sh ip bgp routes detail 36.5.5.5 Number of BGP Routes matching display condition : 1 Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE 1 Prefix: 36.5.5.5/32, Status: BE, Age: 0h2m10s NEXT_HOP: 36.0.0.1, Metric: 0, Learned from Peer: 36.0.0.1 (3) LOCAL_PREF: 100, MED: none, ORIGIN: igp, Weight: 0 AS_PATH: 3 Adj_RIB_out count: 2, Admin distance 20 Last update to IP routing table: 0h2m10s, 1 path(s) installed: Route is advertised to 2 peers: 100.0.0.3(65002) 100.0.0.5(65002) </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.

show command output differences between 07.4.00 and 08.0.xx

show ip bgp routes best	Brocade#show ip bgp routes best Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 1.1.1.2/32 6.1.1.1 30 100 32768 BL AS_PATH: 2 1.1.1.32/32 0.0.0.0 0 100 32768 BL AS_PATH: 3 18.18.0.0/16 0.0.0.0 100 32768 BAL AS_PATH: 4 18.18.18.0/24 0.0.0.0 0 100 32768 BLS AS_PATH: 5 160.10.0.0/16 0.0.0.0 100 32768 BAL AS_PATH: 6 160.10.10.10/32 0.0.0.0 30 100 32768 BL AS_PATH: 7 192.213.0.0/16 0.0.0.0 30 100 32768 BL AS_PATH:	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes cidr-only	Brocade#show ip bgp routes cidr-only Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 1.1.1.2/32 6.1.1.1 30 100 32768 BL AS_PATH: 2 1.1.1.32/32 0.0.0.0 0 100 32768 BL AS_PATH: 3 18.18.0.0/16 0.0.0.0 100 32768 BAL AS_PATH: 4 18.18.18.0/24 0.0.0.0 0 100 32768 BLS AS_PATH: 5 160.10.10.10/32 0.0.0.0 30 100 32768 BL AS_PATH: 6 192.213.0.0/16 0.0.0.0 30 100 32768 BL AS_PATH:	Status string m: not-local-multipath is changed to m: not-installed- multipath.

show ip bgp routes best	<pre> Brocade#show ip bgp routes best Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 1.1.1.2/32 6.1.1.1 30 100 32768 BL AS_PATH: 2 1.1.1.32/32 0.0.0.0 0 100 32768 BL AS_PATH: 3 18.18.0.0/16 0.0.0.0 0 100 32768 BAL AS_PATH: 4 18.18.18.0/24 0.0.0.0 0 100 32768 BLS AS_PATH: 5 160.10.0.0/16 0.0.0.0 0 100 32768 BAL AS_PATH: 6 160.10.10.10/32 0.0.0.0 30 100 32768 BL AS_PATH: 7 192.213.0.0/16 0.0.0.0 30 100 32768 BL AS_PATH: </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes community 2	<pre> Brocade#sh ip bgp routes detail 36.5.5.5 Number of BGP Routes matching display condition : 1 Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE 1 Prefix: 36.5.5.5/32, Status: BE, Age: 0h2m10s NEXT_HOP: 36.0.0.1, Metric: 0, Learned from Peer: 36.0.0.1 (3) LOCAL_PREF: 100, MED: none, ORIGIN: igp, Weight: 0 AS_PATH: 3 Adj_RIB_out count: 2, Admin distance 20 Last update to IP routing table: 0h2m10s, 1 path(s) installed: Route is advertised to 2 peers: 100.0.0.3(65002) 100.0.0.5(65002) </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.

show command output differences between 07.4.00 and 08.0.xx

show ip bgp routes community internet	<pre> Brocade#show ip bgp routes community internet Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE Prefix Next Hop MED LocPrf Weight Status 1 1.1.1.2/32 125.1.1.2 30 150 0 BE AS_PATH: 3 2 1.1.1.2/32 100.1.1.2 30 100 0 E AS_PATH: 3 3 1.1.1.2/32 101.1.1.2 30 100 0 E AS_PATH: 3 4 1.1.1.2/32 104.1.1.2 30 100 0 E AS_PATH: 3 65540 65540 65540 3 5 1.1.1.2/32 105.1.1.2 30 100 0 E AS_PATH: 3 6 1.1.1.2/32 107.1.1.2 30 100 0 E AS_PATH: 3 7 1.1.1.2/32 109.1.1.2 30 100 0 E AS_PATH: 3 8 1.1.1.2/32 110.1.1.2 30 100 0 E AS_PATH: 3 9 1.1.1.2/32 111.1.1.2 30 100 0 E AS_PATH: 3 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.
show ip bgp routes detail local	<pre> Brocade#show ip bgp routes detail local Searching for matching routes, use ^C to quit... Status A:AGGREGATE B:BEST b:NOT-INSTALLED-BEST C:CONFED_EBGP D:DAMPED E:EBGP H:HISTORY I:IBGP L:LOCAL M:MULTIPATH m:NOT-INSTALLED- MULTIPATH S:SUPPRESSED F:FILTERED s:STALE 1 Prefix: 1.1.1.2/32, Status: BL, Age: 8h48m10s NEXT_HOP: 6.1.1.1, Learned from Peer: Local Router LOCAL_PREF: 100, MED: 30, ORIGIN: incomplete, Weight: 32768 AS_PATH: Adj_RIB_out count: 58, Admin distance 120 2 Prefix: 18.18.0.0/16, Status: BAL, Age: 4h49m11s NEXT_HOP: 0.0.0.0, Learned from Peer: Local Router LOCAL_PREF: 100, MED: none, ORIGIN: igp, Weight: 32768 AS_PATH: ATOMIC_AGGREGATE: set, AGGREGATOR: 3(32.32.32.32) Adj_RIB_out count: 58, Admin distance 200 </pre>	Status string m: not-local-multipath is changed to m: not-installed- multipath.

show ipv6 ospf database ?	Brocade#sh ipv6 ospf database LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace <pre> Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 897 192.168.98.213 80000007 1277 9044 64 Yes 0.0.0.200 Link 136 192.168.98.111 80000007 582 fb0b 64 Yes 0.0.0.200 Link 2049 192.168.98.213 80000006 1277 381a 64 Yes 0.0.0.200 Link 1156 192.168.98.111 80000007 582 cf38 64 Yes 0.0.0.200 Link 2052 192.168.98.213 80000004 799 5b06 64 Yes 0.0.0.200 Rtr 0 192.168.98.111 800002ea 823 cb7b 56 Yes 0.0.0.200 Rtr 0 192.168.98.213 800001c7 799 8402 56 Yes 0.0.0.200 Net 1156 192.168.98.111 80000004 823 b2d2 32 Yes 0.0.0.200 Net 136 192.168.98.111 80000008 823 aed2 32 Yes </pre>	Sync information is added.
show ipv6 ospf database advrtr 1.2.3.4	Brocade#sh ipv6 ospf database advr 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace <pre> Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 136 192.168.98.111 80000007 634 fb0b 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::768e:f8ff:fe3e:1800 Number of Prefix: 1 Prefix Options: Prefix: 5100::193:213:111:0/112 </pre>	Sync information is added.

show command output differences between 07.4.00 and 08.0.xx

show ipv6 ospf database as- external	Brocade#sh ipv6 ospf database as-external LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync N/A Extn 2 192.168.98.213 80000004 895 6e5e 44 Yes Bits: E-- Metric: 0 Prefix Options: Referenced LSType: 0 Prefix: 5100:213:213:0:192:213:1:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync N/A Extn 1 192.168.98.190 80001394 643 1cc9 28 Yes Bits: E-- Metric: 1 Prefix Options: Referenced LSType: 0 Prefix: ::/0 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync N/A Extn 2 192.168.98.71 80000258 132 a3ff 32 Yes Bits: E-T	Sync information is added.
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show ipv6 ospf database extensive	<pre> Brocade#sh ipv6 ospf database extensive LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 897 192.168.98.213 80000007 1432 9044 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::214:ff:fe77:96ff Number of Prefix: 1 Prefix Options: Prefix: 5100::193:213:111:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 136 192.168.98.111 80000007 737 fb0b 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::768e:f8ff:fe3e:1800 --More--, next page: Space, next line: Return key, quit: Control-c </pre>	Sync information is added.
show ipv6 ospf database inter- prefix	<pre> Brocade#sh ipv6 ospf database inter-prefix LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Inap 32 192.168.98.213 80000004 987 4198 44 Yes Metric: 1 Prefix Options: Prefix: 5100::192:111:6:111/128 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Inap 750 192.168.98.111 800000e2 772 199d 44 Yes Metric: 1 Prefix Options: Prefix: 5100::192:111:101:0/112 </pre>	Sync information is added.

show command output differences between 07.4.00 and 08.0.xx

show ipv6 ospf database inter- router	Brocade#sh ipv6 ospf database inter-router LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Inar 8 192.168.98.111 800000b4 811 aaf9 32 Yes Options: V6E---R-- Metric: 1 Destination Router ID: 192.168.98.190 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Inar 23 192.168.98.111 80000004 571 8e40 32 Yes Options: ----- Metric: 3 Destination Router ID: 192.168.98.71 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link	Sync information is added.
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<pre>show ipv6 ospf database intra- prefix</pre>	<pre>Brocade#sh ipv6 ospf database intra-prefix LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Iap 3 192.168.98.213 80000009 1054 6a0e 1272 Yes Number of Prefix: 62 Referenced LS Type: Router Referenced LS ID: 0 Referenced Advertising Router: 192.168.98.213 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:186:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:187:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:188:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:189:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:190:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:191:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:192:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:193:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:194:0/112 Prefix Options: Metric: 1 Prefix: 5100:213:213:0:192:213:195:0/112 Prefix Options: Metric: 1</pre>	<pre>Sync information is added.</pre>
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show command output differences between 07.4.00 and 08.0.xx

show ipv6 ospf database link	Brocade#sh ipv6 ospf database link LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 897 192.168.98.213 80000007 1574 9044 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::214:ff:fe77:96ff Number of Prefix: 1 Prefix Options: Prefix: 5100::193:213:111:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 136 192.168.98.111 80000007 879 fb0b 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::768e:f8ff:fe3e:1800 Number of Prefix: 1 Prefix Options: Prefix: 5100::193:213:111:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 2049 192.168.98.213 80000006 1575 381a 64	Sync information is added.
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show ipv6 ospf database link-id 2	Brocade#sh ipv6 ospf database link-id 1156 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 1156 192.168.98.111 80000007 914 cf38 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::768e:f8ff:fe3e:1800 Number of Prefix: 1 Prefix Options: Prefix: 5100::192:213:111:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Net 1156 192.168.98.111 80000004 1155 b2d2 32 Yes Options: V6E---R-- Attached Router: 192.168.98.111 Attached Router: 192.168.98.213	Sync information is added.
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show command output differences between 07.4.00 and 08.0.xx

show ipv6 ospf database network	Brocade#sh ipv6 ospf database network LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Net 1156 192.168.98.111 80000004 1238 b2d2 32 Yes Options: V6E---R-- Attached Router: 192.168.98.111 Attached Router: 192.168.98.213 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Net 136 192.168.98.111 80000008 1238 aed2 32 Yes Options: V6E---R-- Attached Router: 192.168.98.111 Attached Router: 192.168.98.213 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter	Sync information is added.
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show command output differences between 07.4.00 and 08.0.xx

show ipv6 ospf database prefix 2000:5678: 90ab:cdef: 0123:4567: 890a:bcde/ 64	Brocade#sh ipv6 ospf database prefix 5100::192:168:98:190/128 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Inap 839 192.168.98.111 800000db 1033 8153 44 Yes Metric: 1 Prefix Options: Prefix: 5100::192:168:98:190/128 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Inap 270 192.168.98.213 80000004 1250 235d 44 Yes Metric: 2 Prefix Options: Prefix: 5100::192:168:98:190/128 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 400 Inap 272 192.168.98.213 80000004 1249 0f6f 44 Yes Metric: 2 Prefix Options: Prefix: 5100::192:168:98:190/128 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter	Sync information is added.
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show command output differences between 07.4.00 and 08.0.xx

<pre>show ipv6 ospf database router</pre>	<pre>Brocade#sh ipv6 ospf database router LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Rtr 0 192.168.98.111 800002ea 1300 cb7b 56 Yes Capability Bits: --V-B Options: V6E---R-- Type: Transit Metric: 1 Interface ID: 136 Neighbor Interface ID: 136 Neighbor Router ID: 192.168.98.111 Type: Transit Metric: 1 Interface ID: 1156 Neighbor Interface ID: 1156 Neighbor Router ID: 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Rtr 0 192.168.98.213 800001c7 1276 8402 56 Yes Capability Bits: --VEB Options: V6E---R-- Type: Transit Metric: 1 Interface ID: 897 Neighbor Interface ID: 136 Neighbor Router ID: 192.168.98.111 Type: Transit Metric: 1 Interface ID: 2049 Neighbor Interface ID: 1156 Neighbor Router ID: 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace</pre>	Sync information is added.
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show ipv6 ospf database scope area ?	Brocade#sh ipv6 ospf database scope area LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Rtr 0 192.168.98.111 800002ea 1356 cb7b 56 Yes Capability Bits: --V-B Options: V6E---R-- Type: Transit Metric: 1 Interface ID: 136 Neighbor Interface ID: 136 Neighbor Router ID: 192.168.98.111 Type: Transit Metric: 1 Interface ID: 1156 Neighbor Interface ID: 1156 Neighbor Router ID: 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Rtr 0 192.168.98.213 800001c7 1332 8402 56 Yes Capability Bits: --VEB Options: V6E---R-- Type: Transit Metric: 1 Interface ID: 897 Neighbor Interface ID: 136 Neighbor Router ID: 192.168.98.111 Type: Transit Metric: 1 Interface ID: 2049 Neighbor Interface ID: 1156 Neighbor Router ID: 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace	Sync information is added.
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show command output differences between 07.4.00 and 08.0.xx

show ipv6 ospf database scope area 0.0.0.200	Brocade#sh ipv6 ospf database scope area 0.0.0.200 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Rtr 0 192.168.98.111 800002ea 1383 cb7b 56 Yes Capability Bits: --V-B Options: V6E---R-- Type: Transit Metric: 1 Interface ID: 136 Neighbor Interface ID: 136 Neighbor Router ID: 192.168.98.111 Type: Transit Metric: 1 Interface ID: 1156 Neighbor Interface ID: 1156 Neighbor Router ID: 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Rtr 0 192.168.98.213 800001c7 1359 8402 56 Yes Capability Bits: --VEB Options: V6E---R-- Type: Transit Metric: 1 Interface ID: 897 Neighbor Interface ID: 136 Neighbor Router ID: 192.168.98.111 Type: Transit Metric: 1 Interface ID: 2049 Neighbor Interface ID: 1156 Neighbor Router ID: 192.168.98.111 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace	Sync information is added.
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show ipv6 ospf database scope as	Brocade#sh ipv6 ospf database scope as LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync N/A Extn 2 192.168.98.213 80000004 1409 6e5e 44 Yes Bits: E-- Metric: 0 Prefix Options: Referenced LSType: 0 Prefix: 5100:213:213:0:192:213:1:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync N/A Extn 1 192.168.98.190 80001394 1157 1cc9 28 Yes Bits: E-- Metric: 1 Prefix Options: Referenced LSType: 0 Prefix: ::/0 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync N/A Extn 2 192.168.98.71 80000258 630 a3ff 32 Yes Bits: E-T	Sync information is added.
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show command output differences between 07.4.00 and 08.0.xx

<pre>show ipv6 ospf database scope link</pre>	<pre>Brocade#sh ipv6 ospf database scope link LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 136 192.168.98.111 80000007 1227 fb0b 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::768e:f8ff:fe3e:1800 Number of Prefix: 1 Prefix Options: Prefix: 5100::193:213:111:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 897 192.168.98.213 80000008 11 8e45 64 Yes Router Priority: 1 Options: V6E---R-- LinkLocal Address: fe80::214:ff:fe77:96ff Number of Prefix: 1 Prefix Options: Prefix: 5100::193:213:111:0/112 LSA Key - Rtr:Router Net:Network Inap:InterPrefix Inar:InterRouter Extn:ASExternal Grp:GroupMembership Typ7:Type7 Link:Link Iap:IntraPrefix Grc:Grace Area ID Type LSID Adv Rtr Seq(Hex) Age Cksum Len Sync 0.0.0.200 Link 1156 192.168.98.111 80000007 1228 cf38 64</pre>	Sync information is added.
<pre>show ipv6 ?</pre>	<pre>Brocade#show ipv6 access-list Show IPv6 Access Lists bgp Show IPv6 bgp cache Show IPv6 cache dhcp-relay Show IPv6 dhcp relay agent info dhcp6 Show DHCPv6 info dns-server Show IPv6 DNS server info interface Show interface level IPv6 settings mld Show MLD commands multicast Show MLD snooping neighbor Show IPv6 neighbors ospf Show IPv6 ospf version 3 pim Show IPv6 pim prefix-lists Show IPv6 Prefix Lists commands raguard Show IPv6 RA-guard information rip Show IPv6 rip route Show IPv6 routes router Show local IPv6 routers static Show static route information tcp Show TCP INFO traffic Show IPv6 traffic statistics tunnel Show IPv6 tunnels vrrp Show VRRP commands vrrp-extended Show VRRP-Extended commands Output modifiers <cr></pre>	The output is modified.

show tech-support cpu	<pre> Brocade#sh tech-support cpu CPU Usage Information Current total CPU utilization = 73% ... Usage average for all tasks in the last 1 second ... ===== Name % idle 27 con 0 mon 0 flash 0 dbg 0 boot 0 main 0 stkKeepAliveTsk 0 keygen 0 itc 0 poeFwdfsm 0 tmr 0 scp 0 appl 73 snms 0 rtm 0 rtm6 0 rip 0 bgp 0 bgp_io 0 ospf 0 ospf_r_calc 0 mcast_fwd 0 mcast 0 msdp 0 ripng 0 ospf6 0 ospf6_rt 0 mcast6 0 </pre>	The CPU usage information is shown differently as FastIron 08.0.00a has task based achitecture. CPU utilization is shown for each task.
show ip cache 1.2.3.4	<pre> Brocade#show ip cache 5.1.1.1 Entries in default routing instance: D:Dynamic P:Permanent F:Forward U:Us C:Complex Filter W:Wait ARP I:ICMP Deny K:Drop R:Fragment S:Snap Encap IP Address Next Hop MAC Type Port Vlan Pri 5.1.1.1 DIRECT 0000.0000.0000 PU n/a 0 </pre>	Total number of cache entries is removed. Entries in default routing instance are added.
show ip cache 2	<pre> Brocade#show ip cache 2 Entries in default routing instance: D:Dynamic P:Permanent F:Forward U:Us C:Complex Filter W:Wait ARP I:ICMP Deny K:Drop R:Fragment S:Snap Encap IP Address Next Hop MAC Type Port Vlan Pri 3 5.20.1.1 DIRECT 0000.0000.0000 PU n/a 0 4 5.10.1.1 DIRECT 0000.0000.0000 PU n/a 0 5 5.1.1.1 DIRECT 0000.0000.0000 PU n/a 0 6 5.3.1.254 DIRECT 0000.0000.0000 PU n/a 0 7 10.20.75.99 DIRECT 0000.0000.0000 PU n/a 0 8 255.255.255.255 DIRECT 0000.0000.0000 PU n/a 0 </pre>	Total number of cache entries is removed. Entries in default routing instance are added.

show command output differences between 07.4.00 and 08.0.xx

show ip pim rpf 1.2.3.4 ?	Brocade#show ip pim rpf A.B.C.D Source address for RPF check	The explanation for A.B.C.D is updated.
show ip pim rpf 1.2.3.4 1.2.3.4	Brocade#show ip pim rpf 90.1.1.32 226.0.0.201 upstream nbr 110.1.1.25 on v110	The explanation details are updated.
show ipv6 route ospf	Brocade#show ipv6 route ospf Type Codes - B:BGP C:Connected I:ISIS L:Local O:OSPF R:RIP S:Static BGP Codes - i:iBGP e:eBGP OSPF Codes - i:Inter Area 1:External Type 1 2:External Type 2 Type IPv6 Prefix Next Hop Router Interface Dis/Metric Uptime O2 ::/0 fe80::768e:f8ff:fe3e:1800 e 4/3/1 110/1 6h12m fe80::768e:f8ff:fe3e:1800 ve 17 O 5100::192:61:1001:0/112 fe80::768e:f8ff:fe3e:1800 e 4/3/1 110/3 6h7m fe80::768e:f8ff:fe3e:1800 ve 17 O 5100::192:111:3:111/128 fe80::768e:f8ff:fe3e:1800 e 4/3/1 110/1 6h7m fe80::768e:f8ff:fe3e:1800 ve 17 O 5100::192:111:4:111/128 fe80::768e:f8ff:fe3e:1800 e 4/3/1 110/1 6h7m fe80::768e:f8ff:fe3e:1800 ve 17	Uptime field is added.
show ip interface ethernet 1/1	Brocade#show ip interface ethernet 1/1/24 Interface Ethernet 1/1/24 port enabled port state: UP ip address: 1.100.1.1 subnet mask: 255.255.255.0 Port belongs to VRF: default-vrf encapsulation: ETHERNET, mtu: 1500, metric: 1 directed-broadcast-forwarding: disabled proxy-arp: disabled ip arp-age: 10 minutes No Helper Addresses are configured. No inbound ip access-list is set No outgoing ip access-list is set	VRF information is added.

show ip interface loopback 2	Brocade#show ip interface loopback 1 Interface Loopback 1 port enabled port state: UP ip address: 1.0.0.1 subnet mask: 255.255.255.255 Port belongs to VRF: default-vrf encapsulation: ETHERNET, mtu: 1500, metric: 1 directed-broadcast-forwarding: disabled proxy-arp: disabled ip arp-age: 10 minutes No Helper Addresses are configured. No inbound ip access-list is set No outgoing ip access-list is set	VRF information is added.
show ip interface tunnel 2	Brocade#show ip interface tunnel 2 Interface Tunnel 2 port enabled port state: UP ip address: 1.111.1.1 subnet mask: 255.255.255.252 Port belongs to VRF: default-vrf encapsulation: GRE, mtu: 1476, metric: 1 directed-broadcast-forwarding: disabled proxy-arp: disabled ip arp-age: 10 minutes No Helper Addresses are configured. No inbound ip access-list is set No outgoing ip access-list is set	VRF information is added.
show ip interface ve 2	Brocade#show ip interface ve 100 Interface Ve 100 members: ethe 1/1/1 active: ethe 1/1/1 port enabled port state: UP ip address: 1.1.1.1 subnet mask: 255.255.255.252 Port belongs to VRF: default-vrf encapsulation: ETHERNET, mtu: 1500, metric: 1 directed-broadcast-forwarding: disabled proxy-arp: disabled ip arp-age: 10 minutes No Helper Addresses are configured. No inbound ip access-list is set No outgoing ip access-list is set	VRF information is added.
show ip tcp status 1.2.3.4 2 1.2.3.4 2	Brocade#show ip tcp status 1.0.0.1 179 1.0.0.2 8132 TCP: TCB = 0x24dcee60 TCP: 1.0.0.1:179 <-> 1.0.0.2:8132: state: ESTABLISHED VRF: 0 Send: initial sequence number = 2676825448 Send: first unacknowledged sequence number = 2676826779 Send: current send pointer = 2676826779 Send: next sequence number to send = 2676826779 Send: remote received window = 16384 Send: total unacknowledged sequence number = 0 Send: total used buffers 0 Receive: initial incoming sequence number = 725765880 Receive: expected incoming sequence number = 725767021 Receive: received window = 16384 Receive: bytes in receive queue = 0 Receive: congestion window = 1455	VRF information is added.

show command output differences between 07.4.00 and 08.0.xx

show ip ospf routes ?	<pre> Brocade#sh ip ospf summ Total number of OSPF instances: 1 Seq Instance Intfs Nbrs Nbrs-Full LSAs Routes 1 default-vrf 259 4 4 1742 310 Brocade#sh ip ospf route OSPF Area 0 ASBR Routes 1: Destination Mask Path_Cost Type2_Cost Path_Type 192.168.98.190 255.255.255.255 2 0 Intra Adv_Router Link_State Dest_Type State Tag Flags 192.168.98.190 192.168.98.190 Asbr Valid 0 4000* Paths Out_Port Next_Hop Type State 1 e 4/3/1 193.213.111.111 OSPF 29 a8 2 ve 17 192.213.111.111 OSPF 00 00 OSPF Regular Routes 309: Destination Mask Path_Cost Type2_Cost Path_Type 0.0.0.0 0.0.0.0 2 10 Type2_Ext Adv_Router Link_State Dest_Type State Tag Flags 192.168.98.190 0.0.0.0 Ase Valid 0 1800 Paths Out_Port Next_Hop Type State 1 e 4/3/1 193.213.111.111 OSPF 29 a8 2 ve 17 192.213.111.111 OSPF 00 00 Destination Mask Path_Cost Type2_Cost Path_Type 192.112.61.0 255.255.255.0 3 0 Intra Adv_Router Link_State Dest_Type State Tag Flags 192.168.98.112 192.112.61.112 Network Valid 0 0000 Paths Out_Port Next_Hop Type State 1 e 4/3/1 193.213.111.111 OSPF 29 a8 2 ve 17 192.213.111.111 OSPF 00 00 </pre>	VRF instance information is added.
show running- config ?	<pre> Brocade#show running-config interface Interface running-config section vlan VLAN running-config section vrf VRF-Lite running-config section Output modifiers <cr> </pre>	VRF option is added.
show ip bgp ?	<pre> Brocade#sh ip bgp A.B.C.D or A.B.C.D/L Route IP address attribute-entries Display AS-path attribute entries config Display BGP running configuration dampened-paths Display paths suppressed due to dampening filtered-routes Display filtered routes flap-statistics Display flap statistics of routes neighbors Details on TCP and BGP neighbor connections peer-group Display information of peer-groups routes BGP routes information summary Summary of BGP neighbor status vrf Display information for a Virtual Routing/Forwarding instance Output modifiers <cr> </pre>	VRF option is added.

show ip cache ?	Brocade#show ip cache DECIMAL Cached entry index A.B.C.D Cached IP address vrf VPN Routing/Forwarding instance Output modifiers <cr>	VRF option is added.
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