

Brocade FastIron Features and Standards Support Matrix, 08.0.30h

Supporting FastIron Software Release 08.0.30h

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Document history

Document title	Release	Summary of changes	Publication date	Document number
FastIron Ethernet Switch Feature and Standards Support Matrix	08.0.30	Added new feature information for the 08.0.30 release.	March 31, 2015	53-1003635-01
FastIron Ethernet Switch Feature and Standards Support Matrix	08.0.30b	Added new feature information for the 08.0.30b release.	July 24, 2015	53-1003635-02
FastIron Ethernet Switch Feature and Standards Support Matrix	08.0.30b	Corrected entries for DHCP address acquisition, Layer 3 Subnet VLANs, and Trunking of stacked ports.	January 22, 2016	53-1003635-03
Brocade FastIron Features and Standards Support Matrix	08.0.30h	Added additional features for the 8.0.30h release.	May 20, 2016	53-1003635-04
Brocade FastIron Features and Standards Support Matrix, 08.0.30h	08.0.30h	Updated title to indicate the release number. Also removed Virtual routing interface statistics via SNMP, as this was erroneously reported as being supported.	August 3, 2016	53-1003635-05

Objective

The purpose of this document is to provide a consolidated view of all supported features and RFC compliance for Brocade FastIron platforms. For the supported features, the organization of the list matches the organization of the published guides. This document also lists the release in which each feature and RFC is introduced, with FastIron Release 8.0.01 serving as the release baseline. Setting the baseline to 8.0.01 means that features and RFCs listed as being introduced in release 8.0.01 are actually introduced in 8.0.01 or earlier.

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Basic software features

The following table lists the basic software features supported on FastIron devices and indicates the software release when support became available.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
System name, contact, and location	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMP trap receiver and trap source address	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Disabling Syslog messages and traps for CLI access	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Cancelling an outbound Telnet session	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Network Time Protocol Version 4 (NTP)	08.0.01	08.0.01	08.0.01 ¹	08.0.01	08.0.01	08.0.01 ²	08.0.30	08.0.20 ¹	08.0.10
Enhancement to port group naming	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
Show interface enhancements	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
System clock	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Byte-based broadcast, multicast, and unknown-unicast limits	No	No	No	No	No	08.0.01	08.0.30	08.0.20	08.0.10
Packet-based broadcast, multicast, and unknown-unicast limits	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.10
CLI banners	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Port name	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

¹ NTP on the router code only.

² 2nd and 3rd generation modules

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
10/100/1000 port speed	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Auto-negotiation	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Auto-negotiation maximum port speed advertisement and down-shift	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Duplex mode	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Auto MDI/MDIX detection	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
Port status (enable or disable)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Flow control: Responds to flow control packets, but does not generate them	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Symmetric flow control: Can transmit and receive 802.3x PAUSE frames	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Auto-negotiation and advertisement of flow control	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Interpacket Gap (IPG) adjustment	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for 100BaseTX and 100BaseFX	08.0.01 ³	08.0.01 ⁴	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
Gbps fiber negotiate mode	No	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
QoS priority	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VoIP auto-configuration and CDP	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
Port flap dampening	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Port loop detection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Shutdown prevention for loop-detect	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.30	08.0.20	08.0.20

Foundry Discovery Protocol (FDP) and Cisco Discovery Protocol (CDP) packets

Where indicated, the FastIron devices listed in the following table support FDP and CDP packets.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Foundry Discovery Protocol (FDP) for IPv4 and IPv6 traffic	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Cisco Discovery Protocol (CDP) for IPv4 and IPv6 traffic	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

³ For 100BaseTX. ICX 6430-C supports 100BaseFX.

⁴ For 100BaseTX.

Hardware component monitoring

The following table lists software features that support hardware component monitoring.

The following features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Virtual cable testing (VCT)	08.0.20	08.0.20	08.0.01	08.0.20	No	08.0.01	No	No	No
Digital optical monitoring	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Link Layer Discovery Protocol (LLDP) and Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED)

The following table documents software features supporting LLDP and LLDP-MED protocols.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
LLDP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LLDP-MED	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for tagged LLDP packets	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv4 management address advertisement	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 management address advertisement	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LLDP operating mode setting per port	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LLDP processing on 802.1x blocked port	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Setting the maximum number of LLDP neighbors	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMP and Syslog messages	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LLDP transmission intervals	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Hold-time multiplier for transmit TTL	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Configuring the minimum time between port reinitializations	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Fast start repeat count for LLDP-MED	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Location ID for LLDP-MED	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LLDP-MED network policy	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LLDP 802.3 Power-via-MDI	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.30	08.0.20	08.0.20
LLDP statistics and configuration details	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Management applications

The following table lists software features that support device management.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Management port	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Industry-standard Command Line Interface (CLI).	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Web Management Interface	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.30	08.0.20	08.0.20

Network monitoring

The following table lists software features that support network monitoring.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Elapsed timestamp for port statistics reset	08.0.30	08.0.30	08.0.30	08.0.30	No	No	08.0.30	08.0.30	08.0.30
Traffic counters for outbound traffic	08.0.01	08.0.01	No	No	No	08.0.01	08.0.30	08.0.20	08.0.10
Egress queue counters	No	No	08.0.01	08.0.01	08.0.01	No	08.0.30	08.0.20	08.0.20
Remote monitoring (RMON)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Specifying the maximum number of entries allowed in the RMON Control Table	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
sFlow version 2	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
sFlow version 5 (default)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
sFlow support for IPv6 packets	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
sFlow sample mode	No	08.0.30	08.0.30	08.0.30	No	No	No ⁵	No ⁵	No ⁵
sFlow source IP address	No	08.0.30	08.0.30	08.0.30	No	No	08.0.30	08.0.30	08.0.30
Uplink utilization lists	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Operations, administration, and maintenance (OAM)

The following table lists software features that support OAM.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Flash and boot code verification	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

⁵ Both dropped and non-dropped packets are included for sFlow sampling.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Flash image verification	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Changing flash timeout value	08.0.30	08.0.30	08.0.30	08.0.30	No	No	08.0.30	08.0.30	08.0.30
Software upgrade via CLI	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Software upgrade via SNMP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Hitless failover ⁶	08.0.01	008.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.20
Hitless switchover ⁶	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.20
Hitless OS upgrade	No	No	No	No	No	08.0.01	No	No	No
Boot code synchronization for active and redundant management modules	No	No	No	No	No	08.0.01	No	No	No
Software reboot	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Show boot preference	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Loading and saving configuration files	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
System reload scheduling	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Diagnostic error codes and remedies for TFTP transfers	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv4 ping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv4 traceroute	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Layer 3 hitless route purge	No	08.0.01	08.0.01	08.0.01	No	08.0.01 ⁷	08.0.30	08.0.20	08.0.20
RAS Histogram	08.0.30	08.0.30	No	No	No	No	08.0.30	08.0.30	08.0.30
Energy efficient Ethernet	No	No	No	No	No	No	08.0.30	08.0.30	No
External USB	No	No	No	No	No	No	08.0.30	08.0.30	08.0.30
EFM-OAM	No	No	No	No	No	No	08.0.30	08.0.30	No

Power over Ethernet (PoE)

The following table lists software features that support PoE.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

NOTE

The ICX 6450-C switch running software version 08.0.10 supports PoE pass-through in both the AC and Powered Device (PD) power modes.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Power over HDBaseT (PoH)	No	No	No	No	No	No	No	08.0.20 ⁸	No
uPoE	No	No	No	No	No	No	No	08.0.20 ⁸	No
4-Pair PoE+ (802.3at)	No	No	No	No	No	No	No	08.0.20 ⁸	No

⁶ Only when stacked, except for FSX 800 and FSX 1600 devices.

⁷ 3rd generation modules.

⁸ First eight ports of ICX 7450-24P and ICX 7450-48P modules only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
PoE+ (802.3at)	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01 ⁹	08.0.30	08.0.20	No
PoE (802.3af)	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
Detection of PoE power requirements advertised through CDP	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
Maximum power level for a PoE power-consuming device for LLDP-MED or CDP	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
Power class for PoE power-consuming device	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
Maximum power budget per PoE interface module	No	No	No	No	No	08.0.01	08.0.30	No	No
In-line power priority for a PoE port	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
PoE firmware upgrade via CLI	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
PoE firmware version update	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
PoE firmware download over SCP	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	No
PoE support on LAGs	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No

Simple Network Management Protocol (SNMP)

The following table lists software features that support SNMP.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
SNMPv1, v2, v3	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Community strings	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
User-based security model for SNMPv3	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMPv3 traps	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Defining the UDP port for SNMPv3 traps	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMPv3 over IPv6	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
AES encryption for SNMPv3	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

System monitoring

The following table lists software features that support system monitoring.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

⁹ SX-FI48GPP and SX-FI24GPP modules.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Fabric Adapter errors	No	No	No	No	No	08.0.01	No	No	No
Packet Processor errors	No	No	No	No	No	08.0.01	No	No	No
Cross Bar errors	No	No	No	No	No	08.0.01	No	No	No
Link errors	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No
Link InError detection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ECC errors	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	No

IPv6

The following table lists software features that support IPv6.

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv6 over IPv4 tunnels	No	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ECMP load sharing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Static IPv6 routes	No	08.0.01	08.0.01	08.0.01 ¹⁰	08.0.01	08.0.01 ¹¹	08.0.30	08.0.20	08.0.10

Syslog

The following table lists software features that support the system log (syslog).

These features are documented in the *FastIron Ethernet Switch Administration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Syslog messages (RFC 3164)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Enhanced Syslog headers specific to RFC 5424	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h
Default log buffer size (up to 1000 lines)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Real-time display of Syslog messages	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Real-time display for Telnet or SSH sessions	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Show log on all terminals	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Time stamps	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Multiple Syslog server logging (up to six Syslog servers)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

¹⁰ Supported with PREM license only.

¹¹ 3rd generation modules only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Disabling logging of a message level	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Changing the number of entries the local buffer can hold	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Changing the log facility	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Displaying Interface names in Syslog messages	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Displaying TCP and UDP port numbers in Syslog messages	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Retaining Syslog messages after a soft reboot	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Clearing Syslog messages from the local buffer	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Syslog messages for hardware errors	No	No	No	No	No	08.0.01	No	No	No
Broadcast, unknown unicast, and multicast (BUM) suppression Syslog and SNMP notification	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h	08.0.30h

IP Multicast Features

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IPv4 Multicast routing

The following table lists software features that support IP Multicast routing.

These features are documented in the *FastIron Ethernet Switch IP Multicast Configuration Guide*.

NOTE

Layer 3 Multicast features are not supported on ICX 6430-C, ICX 6450-C, or ICX 7250 devices.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IGMP (v1, v2, and v3)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IGMP membership tracking and fast leave for v3	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PMRI	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PIM-SSM	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF support	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IP Multicast Boundaries	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PIM Dense	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PIM Sparse	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multicast Source Discovery Protocol (MSDP)	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
MSDP Mesh Groups	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
MSDP Anycast RP	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PIM Anycast RP	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Concurrent support for Multicast Routing and Snooping	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Modifying the Prune Wait Timer	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IGMP Proxy	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Hardware replication resource sharing	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IPv4 ACLs for rendezvous points (RPs)	No	08.0.01 ¹²	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

¹² In a mixed stack only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv4 Multicast Non-stop routing (NSR) support for PIM-SM, SSM, and Anycast RP	No	08.0.01 ¹²	08.0.01	08.0.01	No	08.0.01	No	08.0.20	08.0.10
Static mroute support	No	08.0.10a ¹²	08.0.10a	08.0.10a	08.0.10a	08.0.10a	No	08.0.20	08.0.10a
IPv4 PIM convergence on MAC movement	No	08.0.30 ¹²	08.0.30	08.0.30	No	No	No	08.0.30	08.0.30

IP Multicast traffic reduction

The following table lists software features that support IP Multicast traffic reduction.

These features are documented in the *FastIron Ethernet Switch IP Multicast Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IGMP v1/v2/v3 snooping (global and local)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IGMP fast leave for v2	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IGMP membership tracking and fast leave for v3	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
PIM-SM v2 Snooping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Static IGMP groups with support for proxy	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IGMP static group traffic filtering	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.30	08.0.20	No
Disabling the flooding of unregistered IPv4 multicast frames in an IGMP-snooping-enabled VLAN	No	No	No	No	08.0.30	No	08.0.30	08.0.30	08.0.30

IPv6 Multicast traffic reduction

The following table lists software features that support IPv6 multicast traffic reduction.

These features are documented in the *FastIron Ethernet Switch IP Multicast Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv6 multicast traffic reduction v1/v2 snooping per VLAN (global and local)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 multicast traffic reduction fast leave for v1	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

¹² In a mixed stack only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv6 multicast traffic reduction tracking and fast leave for v2	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Static IPv6 multicast traffic reduction groups with support for proxy	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
PIM6-SM snooping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Disabling the flooding of unregistered IPv6 multicast frames in an MLD-snooping-enabled VLAN	No	No	No	No	08.0.01	No	No	No	08.0.30

IPv6 Multicast routing

The following table lists software features that support IPv6 Multicast routing.

These features are documented in the *FastIron Ethernet Switch IP Multicast Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
MLD (v1 and v2)	No	08.0.01	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
MLD membership tracking and fast leave for v2	No	08.0.01	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
IPv6 PMRI	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
IPv6 PIM-SSM	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
IPv6 PIM Sparse	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
IPv6 PIM Anycast RP	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
IPv6 multicast boundaries	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
Embedded RIPv6	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
Multi-VRF support	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
Hardware replication resource sharing	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
Concurrent support for multicast routing and snooping	No	08.0.01 ¹⁴	08.0.01	08.0.01	08.0.10a	08.0.01 ¹³	No	08.0.20	08.0.10
Static mroute	No	08.0.10a ¹⁴	08.0.10a	08.0.10a	08.0.10a	08.0.10a ¹³	No	08.0.20	08.0.10a
IPv6 PIM convergence on MAC movement	No	08.0.30 ¹⁴	08.0.30	08.0.30	No	No	No	08.0.30	08.0.30

¹³ 3rd generation modules only.

¹⁴ In a mixed stack only.

Licensing Features

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Software-based licensing

The following table lists software features that support software-based licensing.

These features are documented in the *FastIron Ethernet Switch Licensing Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Software-based licensing	No	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
License generation, License query, Deleting a license	No	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
Non-node locked licensing	No	No	No	No	No	No	08.0.30	08.0.20	No

Licensing for Ports on Demand

The following table lists the individual BrocadeFastIron switches and the software licensing features they support. These features are covered in the *Brocade FastIron Ethernet Switch Software Licensing Guide*.

TABLE 1 Supported software PoD licensing features

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	FSX 800 FSX 1600	ICX 6650	ICX 7250	ICX 7450	ICX 7750
PoD licensing	No	08.0.01	No	08.0.01	No	08.0.01	08.0.30	No	No
License generation	No	08.0.01	No	08.0.01	No	08.0.01	08.0.30	No	No
License query	No	08.0.01	No	08.0.01	No	08.0.01	08.0.30	No	No
Deleting a license	No	08.0.01	No	08.0.01	No	08.0.01	08.0.30	No	No

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Basic Layer 2

The following table lists basic Layer 2 software features.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
8,000 MAC addresses per switch	08.0.01	No	No	No	No	No	No	No	No
16,000 MAC addresses per switch	No	08.0.01	No	No	No	No	08.0.30	No	No
32,000 MAC addresses per switch	No	No	08.0.01	08.0.01	No	08.0.01 ¹⁵	No	08.0.20	No
64,000 MAC addresses per switch	No	No	No	No	08.0.01	No	No	No	08.0.01 ¹⁶
MAC learning rate control	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	No	No
Multi-port static MAC address	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Static MAC entries with option to set traffic priority	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Flow-based MAC address learning	No	No	No	No	No	08.0.01	No	No	No
Port-based VLANs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC address filter override of 802.1X	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC address filtering on source and destination MAC addresses	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC address move notification	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Ability to disable MAC learning	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Dynamic buffer allocation for QoS priorities	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Remote Fault Notification (RFN) for 1 Gbps fiber	No	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Link Fault Signaling (LFS) for 10 Gbps	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

¹⁵ 32,000 MAC addresses per FSX800/1600 switch when flow-based MAC address learning is enabled.

¹⁶ The ICX 7750 supports 96,000 MAC addresses.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Layer 2 jumbo frames	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
User-configurable buffer profiles	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.10	08.0.30	08.0.20	08.0.10
Preboot eXecution Environment (PxE) boot	No	No	No	08.0.01	08.0.01	No	No	No	No
SNMP MAC notification trap support	08.0.10	08.0.10	08.0.10	08.0.10	08.0.10	08.0.10	08.0.30	08.0.20	08.0.10
Ethernet loopback	08.0.30	08.0.30	08.0.30	08.0.30	No	No	08.0.30 ¹⁷	08.0.30 ¹⁷	08.0.30 ¹⁷

GARP VLAN Registration Protocol (GVRP)

The following table lists software features that support GVRP.

The following features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
GVRP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Configurable GVRP base VLAN ID	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Leaveall timer	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Ability to disable VLAN advertising	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Ability to disable VLAN learning	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
GVRP timers	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Conversion of a GVRP VLAN to a statically-configured VLAN	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Link Aggregation

The following table lists software features that support Link Aggregation.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
256 LAG scaling ¹⁸	No	No	No	No	No	No	08.0.30b	08.0.30b	08.0.30b
Symmetric load balancing ¹⁹	No	No	No	No	No	No	08.0.30b	08.0.30b	08.0.30b
LAG enhancement - 16 port support	No	No	No	No	No	No	08.0.30	08.0.30	08.0.30
Dynamic insertion and removal of ports	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
LAG threshold for static LAG	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

¹⁷ No support for flow-unaware mode.

¹⁸ Supports only 32 trunk groups.

¹⁹ IPv4 and IPv6 traffic only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Flexible LAG membership	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Option to exclude Layer 2 in LAG hash calculation	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.20	08.0.10
802.3ad link aggregation (dynamic LAG)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Link Aggregation Control Protocol (LACP)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Keepalive LAG	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Metro features

The following table lists Metro software features.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

NOTE

Topology groups, MRP, and VSRP are not supported on ICX 6430-C and ICX 6450-C devices.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Topology groups	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Metro Ring Protocol 1 (MRP 1)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Metro Ring Protocol 2 (MRP 2)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Extended MRP ring IDs from 1 through 1023	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Virtual Switch Redundancy Protocol (VSRP)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VSRP-Aware security features	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VSRP and MRP signaling	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VSRP Fast Start	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VSRP timer scaling	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Multi-Chassis Trunking (MCT)

The following table lists software features that support Multi-Chassis Trunking.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
MCT	No	No	No	No	08.0.01	08.0.01	No	No	08.0.10 ²⁰

²⁰ Not supported on ICX 7750 in stacking mode.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Cluster client automatic configuration	No	No	No	No	08.0.01	08.0.01	No	No	08.0.10 ²⁰
Cluster operation features	No	No	No	No	08.0.01	08.0.01	No	No	08.0.10 ²⁰
xSTP BPDU forwarding	No	No	No	No	08.0.01	08.0.01	No	No	08.0.10 ²⁰
IPv4/IPv6 Multicast traffic reduction features with MCT	No	No	No	No	08.0.01	08.0.01 ²¹	No	No	08.0.10 ²⁰

Port mirroring and monitoring

The following table lists software features that support port mirroring and monitoring.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Port mirroring and monitoring (mirroring of both inbound and outbound traffic on individual ports)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL-based mirroring of denied traffic	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01 ²²	08.0.30	08.0.20	08.0.10
ACL-based mirroring of permitted traffic	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC address filter-based mirroring	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.30	08.0.20	08.0.10
VLAN-based mirroring	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01 ²²	08.0.30	08.0.20	08.0.10

Spanning Tree Protocol (STP)

The following table lists software features that support STP.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
802.1s Multiple Spanning Tree	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1s Multiple Spanning Tree enhancement (MSTP+)	08.0.20	08.0.20	08.0.20	08.0.20	No	No	08.0.30	08.0.20	08.0.20
802.1W Rapid Spanning Tree Protocol (RSTP)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1D Spanning Tree Support	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Enhanced IronSpan support includes Fast Port Span, Fast	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

²⁰ Not supported on ICX 7750 in stacking mode.

²¹ 3rd generation modules.

²² 3rd generation modules.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Uplink Span, and Single-instance Span									
FastIron Layer 2 devices (switches) support up to 254 spanning tree instances for VLANs	08.0.01 ²³	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Layer 3 devices (routers) support up to 254 spanning tree instances for VLANs	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
PVST/PVST+ compatibility	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
PVRST+ compatibility	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Spanning Tree Protocol (STP) protection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
BPDU Guard	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Root Guard	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Port statistics	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Error disable recovery	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Unidirectional Link Detection (UDLD) and protected link groups

The following table lists software features that support UDLD.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Unidirectional Link Detection (UDLD) (Link keepalive)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
UDLD on tagged ports	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Protected link groups	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	No
Designated protect	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Virtual Local Area Networks (VLANs)

The following table lists software features that support VLANs.

These features are documented in the *FastIron Ethernet Switch Platform and Layer 2 Switching Configuration Guide*.

NOTE

Q-in-Q is not supported on ICX 6430-C and ICX 6450-C devices.

NOTE

The only IEEE 802.1Q features supported on FastIron products are those listed in this table.

²³ Up to 32 spanning tree instances.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
VLAN	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
4096 maximum VLANs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1Q with tagging	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1ad (Q-in-Q) tagging	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01 ²⁴	08.0.30	08.0.20	08.0.10
Dual-mode VLANs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Port-based VLANs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Uplink ports within a port-based VLAN	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	No
Protocol VLANs (Apple Talk, IPv4, dynamic IPv6, and IPX)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	No
Layer 3 Subnet VLANs (Apple Talk, IP subnet network, and IPX)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	No	No
VLAN groups	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Multi-range VLANs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Private VLANs (PVLANS)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.10a	08.0.01 ²⁵	08.0.30	08.0.20	08.0.20
Super Aggregated VLANs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Port statistics	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Tag ports	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Promiscuous ports for private VLANs	08.0.10	08.0.10	08.0.10	08.0.10	No	No	08.0.30	08.0.20	08.0.10

²⁴ Q-in-Q is not supported on SX series 3rd generation linecard modules.

²⁵ FSX 800/1600 PVLANS are software based.

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Layer 3 routing protocols

The following table documents software features that support Layer 3 routing protocols.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Static IP routing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Layer 3 system parameter limits	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Static ARP entries	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Configurable ARP priority	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.30	08.0.20	08.0.10
RIP V1 and V2 ²⁶	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Redistribution of IP static routes into RIP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RIP default route learning	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Route loop prevention: Split horizon, Poison reverse	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Route-only support (Base Layer 3 with Router image and Full licensed router image)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Border Gateway Protocol version 4 (BGP4)

The following table documents software features that support BGP4.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

²⁶ Static RIP support only in the base Layer 3 image. The Brocade device with base Layer 3 does not learn RIP routes from other Layer 3 devices. However, the device does advertise directly connected routes.

NOTE

If the Brocade FCX, FSX, or ICX device does not have a BGP license, you cannot configure BGP with the "router bgp" command at all. For details, refer to the *FastIron Ethernet Switch Software Licensing Guide*.

NOTE

On the Brocade ICX 6450, BGP4 is supported in a mixed stack only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
BGP4	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Graceful Restart	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.20
BGP4 Graceful Restart helper mode	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Redistributing IBGP routes	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Client-to-Client Route Reflection	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Route Flap Dampening	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Originating the Default Route	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multipath Load Sharing	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Using the IP Default Route as a Valid Next Hop for a BGP4 Route	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Next-Hop Recursion	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Next-Hop Update Timer	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Generalized TTL Security Mechanism Support	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Enhanced per-neighbor debug statements and per-neighbor BGP4 debug filters	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Peer Notification during a Management Module Switchover	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Encryption code for passwords, authentication keys, and community strings	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 MD5 Authentication	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Route redistribution to other protocols	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Peer Group	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Route Reflectors	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Neighbor Local-AS	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Local-AS for VRF	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Processing Optimization for Administratively Down Peers	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 Outbound Policy Processing Optimization	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Requiring the First AS to be the Neighbor's AS	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Four-byte AS Numbers (AS4)	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4 AS4 Confederation Error Checking	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Static BGP4 Networks	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

Border Gateway Protocol version 4 plus (BGP4+)

The following table documents software features that support BGP4+.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

NOTE

On the Brocade ICX 6450, BGP4 is supported in a mixed stack only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
BGP4+	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Configuring BGP4+ Neighbors Using Global or Link-Local IPv6 Addresses	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Importing Routes into BGP4+	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Advertising the Default BGP4+ Route	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Using the IP default route as a valid next-hop for a BGP4+ route	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Enabling next-hop recursion	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
BGP4+ Graceful Restart	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

IP configuration

The following table documents software features that support IP configuration.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

IP features are supported with the full Layer 3 software image except where explicitly noted.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
ARP Packet Validation	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.30	08.0.20	08.0.10a
Bandwidth for IP interfaces	08.0.30	08.0.30	08.0.30	08.0.30	08.0.30	08.0.30	08.0.30	08.0.30	08.0.30
BootP/DHCP relay	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Specifying which IP address will be included in a DHCP/BootP reply packet	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DHCP address acquisition	08.0.30	08.0.30	08.0.30	08.0.30	No	No	08.0.30	08.0.30	08.0.30
DHCP Server	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DHCP Client-Based Auto-Configuration	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DHCP Client-Based Flash image Auto-update	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DHCP assist	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Equal Cost Multi-Path (ECMP) load sharing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
32 ECMP support	No	No	No	No	No	No	No	No	08.0.30
IP helper	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Single source address for the following packet types: Telnet, TFTP, Syslog, NTP, TACACS, TACACS+, RADIUS, SSH, SNMP	No	No	No	No	08.0.01	08.0.01	No	No	08.0.10
IPv4 point-to-point GRE IP tunnels	No	08.0.01 ²⁷	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
GRE tunnel counters enhancement	No	No	08.0.01	No	No	No	No	No	No
Routing for directly connected IP subnets	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Virtual Interfaces: Up to 512 virtual interfaces	No	08.0.01 ²⁸	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
31-bit subnet mask on point-to-point networks	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Address Resolution Protocol (ARP)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Reverse Address Resolution Protocol (RARP)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IP follow	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Proxy ARP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Local proxy ARP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Learning Gratuitous ARP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Jumbo frames: Up to 10,000 bytes	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IP MTU (individual port setting)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Path MTU discovery	No	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ICMP Router Discovery Protocol (IRDP)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Domain Name System (DNS) resolver	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Delay time for notification of 'VE down' event	No	No	No	No	No	No	08.0.30b	08.0.30b	08.0.30b

IPv6 configuration

The following table documents software features that support IPv6 configuration on X Series, FCX, and ICX Series switches.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Global IPv6 address	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 access list	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 access list (management ACLs)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Site-local IPv6 address	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

²⁷ Supported on ICX 6450 devices with a Premium license.

²⁸ Up to 255 virtual interfaces.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Link-local IPv6 address	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv4 and IPv6 host stacks	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 copy	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 ncopy	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 debug	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 neighbor discovery	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 ping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 traceroute	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Network Time Protocol Version 4 (NTP)	08.0.01	08.0.01	08.0.01 ²⁹	08.0.01	No	08.0.01 ³⁰	08.0.30	08.0.20 ²⁹	08.0.10
DNS server name resolution	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
HTTP/HTTPS	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Logging (Syslog)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RADIUS	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SCP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SSH	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMP traps	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Telnet	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
TFTP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Router advertisement (RA) and solicitation	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Router advertisement (RA) preference support	08.0.10	08.0.10	08.0.10	08.0.10	08.0.10	08.0.10	08.0.30	08.0.20	08.0.10
IPv6 static routes	No	08.0.01	08.0.01	08.0.01 ³¹	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 over IPv4 tunnels	No	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ECMP load sharing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 ICMP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 routing protocols	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
ICMP redirect messages	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 Layer 3 forwarding	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 redistribution	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IPv6 MTU	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Static neighbor entries	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Hop limit for IPv6 packets	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Clear IPv6 global information	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DHCPv6 relay agent	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

²⁹ NTP on the router code only.

³⁰ 2nd and 3rd generation modules.

³¹ Supported with PREM license only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
DHCPv6 prefix delegation notification	No	No	08.0.10d	No	No	No	No	08.0.30	08.0.30

Open Shortest Path First (OSPF) Protocol Version 2

The following table documents software features that support OSPF v2.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
OSPF v2	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RFC 1583 compliant	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RFC 2178 compliant	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RFC 2328 Appendix E	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Dynamic OSPF memory	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Graceful restart	No	08.0.01 ³ ₂	08.0.01 ³ ₃	08.0.01 ³ ₄	08.0.01	08.0.01	08.0.30 ³ ₅	08.0.20 ³ ₆	08.0.10 ³⁷
Graceful restart helper-mode	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Block outbound LSA flooding	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
OSPF route redistribution filters	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Filter OSPF routes into IP Route table	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
OSPF group LSA pacing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
OSPF traps	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
OSPF debugging	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Encryption code for passwords, authentication keys and community strings	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VRF-lite for CE routers	No	08.0.01 ³²	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
OSPF NSR	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
OSPF distribution lists	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Open Shortest Path First (OSPF) Protocol Version 3

The following table documents software features that support OSPFv3.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

³² ICX 6450 stack only.

³³ FCX stack only.

³⁴ ICX 6610 stack only.

³⁵ ICX 7250 stack only.

³⁶ ICX 7450 stack only.

³⁷ ICX 7750 stack only.

NOTE

On the Brocade ICX 6450 OSPFv3 is supported in a mixed stack only. OSPFv3 is not supported on the Brocade ICX 6450-C12-PD.

Features supported	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
OSPFv3	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Route redistribution into OSPFv3	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
OSPFv3 route filtering	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Shortest Path First (SPF) Timers	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
OSPFv3 LSA Pacing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Modify exit overflow intervals	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Modify External LSA Database Limit	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
OSPFv3 Event Logging	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
OSPFv3 Debugging	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IPsec for OSPFv3	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Encryption code for passwords, authentication keys and community strings	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
OSPFv3 Graceful Restart Helper	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
OSPFv3 NSR	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

Routing Information Protocol (RIP)

The following table documents software features that support RIP.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RIP v1 and v2	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Route redistribution into RIP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Route loop prevention - poison reverse and split horizon	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RIP route filters	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
CPU utilization statistics for RIP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Routing Information Protocol Next Generation (RIPng)

The following table documents software features that support RIPng.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RIPng	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
RIPng Timers	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Route redistribution into RIPng	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Route loop prevention - poison reverse and split horizon	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

Virtual Router Redundancy Protocol (VRRP) and Virtual Router Redundancy Protocol Extended (VRRP-E)

The following table documents software features that support VRRP and VRRP-E.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

VRRP is supported with premium license on devices that are running the full Layer 3 code. VRRP-E is supported with premium and ADV FastIron devices that are running the full Layer 3 code.

NOTE

VRRP and VRRP-E are supported on the ICX 6450-C with a premium license.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Virtual Router Redundancy Protocol (VRRP)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VRRP timer scaling	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VRRP Extended (VRRP-E)	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 VRRP-E	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IPv6 VRRP v3	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
VRRP-E slow start timer	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VRRP-E timer scale	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Forcing a master router to abdicate to a standby router	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
VRRP-E Extension for Server Virtualization	No	No	No	No	08.0.01	08.0.01	No	No	08.0.10
VRRP and VRRP-E statistics enhancement	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30 ³⁸	08.0.20	08.0.10
VRRPv3 Enhancement: v2-checksum support	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
VRRPv3 Enhancement: IPv6 Link-Local Auto-generation	No	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Multi-VRF

The following table documents software features that support Multi-VRF.

These features are documented in the *FastIron Ethernet Switch Layer 3 Routing Configuration Guide*.

³⁸ VRRP only.

NOTE

Multi-VRF features are available on an ICX 6450 in a mixed stack only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Multi-VRF IPv4 forwarding	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF IPv6 forwarding	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF for IPv4 and IPv6 unicast- static routing	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF for IPv4 Unicast-RIP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF for IPv4 and IPv6 Unicast - OSPF	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF for IPv4 Unicast-BGP4	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF for BGP4+	No	08.0.30	08.0.30	08.0.30	08.0.30	No	No	08.0.30	08.0.30
VRRP and VRRP-E for IPv4 and IPv6	No	08.0.01 ³⁹	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IPv4 and IPv6 multicast forwarding	No	08.0.01	08.0.01	08.0.01	08.0.01 ³⁹	08.0.01	No	08.0.20	08.0.10
PIM-SM/DM for IPv4	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PIM-SM for IPv6	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01 ⁴⁰	No	08.0.20	08.0.10
MSDP for IPv4	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
PIM Anycast RP IPv4 and IPv6	No	08.0.01	08.0.01	08.0.01	08.0.01 ³⁹	08.0.01	No	08.0.20	08.0.10
Multicast over GRE for IPv4	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
DAI support for Multi-VRF	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
IPSG support for Multi-VRF	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
DHCP snooping support for Multi-VRF	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
sFlow on Multi-VRF	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF for IBGP	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Multi-VRF support for IPv4 and IPv6	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
Management VRF support	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10

Unicast Reverse Path Forwarding

The following table lists software features that support Unicast Reverse Path Forwarding.

These features are documented in the *FastIron Ethernet Switch Layer 3 Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Unicast reverse path forwarding	No	No	No	08.0.30	No	No	No	No	08.0.30

³⁹ Only IPv4 is supported.

⁴⁰ Third generation modules only.

Multi-Chassis Trunking

The following table lists software features that support Multi-Chassis Trunking.

These Multi-Chassis Trunking (MCT) features are documented in the *FastIron Ethernet Switch Layer 3 Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Layer 3 multicast routing over MCT	No	No	No	No	No	No	No	No	08.0.30 ⁴¹
Layer 3 unicast routing over MCT	No	No	No	No	08.0.30	08.0.30	No	No	08.0.30 ⁴¹

⁴¹ This feature is not supported in stack configurations.

Software Defined Networking (SDN) Features

- [OpenFlow 1.0](#)..... 37
- [OpenFlow 1.3](#)..... 37

OpenFlow 1.0

The following table lists supported OpenFlow 1.0 features.

These features are documented in the *FastIron Ethernet Switch Software Defined Networking (SDN) Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
OpenFlow 1.0	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30 ⁴ ₃
OpenFlow enabled on per-port basis (Hybrid switch mode)	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
OpenFlow Layer 3 Hybrid Port Mode	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
OpenFlow Layer 23 mode	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
OpenFlow Layer 23 matching	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
Layer 2 OpenFlow match rules	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
Layer 3 OpenFlow match rules	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
Match both source and destination MAC addresses	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
Support for passive mode on the device	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30
OpenFlow actions	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30

OpenFlow 1.3

OpenFlow 1.3 supports all the features of OpenFlow 1.0, in addition to the features listed in the following table.

These features are documented in the *FastIron Ethernet Switch SDN Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Multiple controller support	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30 ⁴ ₄
Group table support	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30

⁴³ OpenFlow 1.0 is not supported on the ICX 7750 in a stack configuration.

⁴⁴ OpenFlow 1.3 is not supported on the ICX 7750 in a stack configuration.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Meter table support	No	No	No	08.0.20	No	No	No	08.0.30	08.0.30

Security Features

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Flexible Authentication (802.1x Authentication and MAC Authentication)

The following table documents software features that support Flexible Authentication.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
802.1x port authentication ⁴⁵	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
EAP pass-through support	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1x accounting	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1x with dynamic ACL assignment	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1x with dynamic VLAN assignment	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RADIUS timeout action	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1x and multi-device port authentication on the same port	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1x and sFlow: 802.1x user name export support for encrypted and non-encrypted EAP types	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Flexible Authentication (FlexAuth)	08.0.20	08.0.20	08.0.20	08.0.20	No	No	08.0.30	08.0.20	08.0.20
Media Access Control Security (MACsec) ⁴⁶	No	No	No	08.0.20	No	No	No	08.0.30	No

⁴⁵ Some 802.1x port authentication feature implementation is slightly different on platforms that support the Flexible Authentication feature. Refer to the FastIron Ethernet Switch Security Configuration Guide for more details.

⁴⁶ MACsec encryption and related security features are covered in a separate chapter, Media Access Control Security (MACsec) - IEEE 802.1ae.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Support for MAC authentication together with IP Source guard protection	08.0.20	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for MAC authentication together with Dynamic VLAN assignment	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for MAC authentication together with Dynamic ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for MAC authentication together with 802.1x	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for MAC authentication together with Dynamic ARP inspection with dynamic ACLs	No	No	No	No	08.0.01	08.0.01	No	No	No
Support for MAC authentication together with DHCP snooping with dynamic ACLs	No	No	No	No	08.0.01	08.0.01	No	No	No
Support for MAC authentication together with Denial of Service (DoS) attack protection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Support for MAC authentication together with ACL-per-port-per-VLAN	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Automatic removal of Dynamic VLAN for MAC authenticated ports	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Authenticating multiple MAC addresses on an interface	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Authenticating clients that send tagged packets on non-member ports	No	No	No	No	No	08.0.01	No	No	No
Specifying the format of the MAC addresses sent to the RADIUS server	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Specifying the authentication-failure action	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Password override	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Specifying the RADIUS timeout action	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SNMP Traps for MAC authentication	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC Address Filters	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC address filtering (filtering on source and destination MAC addresses)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Aging time for blocked MAC Addresses	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
RADIUS Change of Authorization	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.30	08.0.20	08.0.20

Dynamic Host Configuration Protocol (DHCP)

The following table documents software features that support DHCP.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Dynamic ARP inspection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Dynamic ARP inspection over LAG	08.0.30b	08.0.30b	08.0.30b	08.0.30b	No	No	08.0.30b	08.0.30b	08.0.30b
DHCPv4 snooping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DHCPv4 snooping over LAG	08.0.30b	08.0.30b	08.0.30b	08.0.30b	No	No	08.0.30b	08.0.30b	08.0.30b
DHCP relay agent information (DHCP Option 82) RFC 3046	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Port statistics	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IP source guard	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IP source guard over LAG	08.0.30b	08.0.30b	08.0.30b	08.0.30b	No	No	08.0.30b	08.0.30b	08.0.30b

Dynamic Host Configuration Protocol version 6 (DHCPv6)

The following table documents software features that support DHCPv6.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
DHCPv6 snooping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Denial of Service (DoS) attack protection

The following table documents software features that support DoS attack protection.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Smurf attack (ICMP attack) protection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
TCP SYN attack protection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

IPv6 Access Control Lists (ACLs)

The following table documents software features that support IPv6 ACLs.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv6 ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Accounting ACLs	No	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.30	08.0.20	08.0.10a
Applying an IPv6 ACL to an interface	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 ACL comment text	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IPv6 ACL logging of denied packets	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

IPv6 Neighbor Discovery Inspection

The following table documents software features that support IPv6 Neighbor Discovery Inspection.

This feature is documented in the *FastIron Ethernet Switch Security Configuration Guide*.

NOTE

The IPv6 Neighbor Discovery Inspection feature is supported on both switch and router images.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv6 Neighbor Discovery Inspection	08.0.20	08.0.20	08.0.20	08.0.20	No	No	08.0.30	08.0.20	08.0.20

MAC port security

The following table documents software features that support MAC port security.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
MAC port security	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Setting the maximum number of secure MAC addresses on an interface	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Setting the port security age timer	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Specifying secure MAC addresses	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Autosaving secure MAC addresses to the startup-config file	08.0.01	08.0.01 ⁴⁷	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Specifying the action taken when a security violation occurs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Clearing port security statistics	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

⁴⁷ Hardware forwarding.

MAC-based VLANs

The following table documents software features that support MAC-based VLANs.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

NOTE

Beginning in FastIron release 08.0.20, MAC-based VLAN features are replaced on most FastIron platforms by Flexible Authentication (flexauth) features. Please refer to the *FastIron Ethernet Switch Security Configuration Guide* for more information.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
MAC-based VLANs <ul style="list-style-type: none"> Source MAC address authentication Policy-based classification and forwarding 	No	No	No	No	08.0.01	No	No	No	No
MAC-based VLANs and 802.1X security on the same port	No	No	No	No	08.0.01	No	No	No	No
MAC-based VLAN aging	No	No	No	No	08.0.01	No	No	No	No
Dynamic MAC-based VLANs	No	No	No	No	08.0.01	No	No	No	No

Rules-based IP Access Control Lists (ACLs)

The following table documents software features that support rules-based IP ACLs.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Supported ACL features on inbound traffic									
Hardware-based ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL accounting	No	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.30	08.0.20	08.0.10a
Standard named and numbered ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Extended named and numbered ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
User input preservation for ACL TCP/UDP port numbers	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL comment text	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL logging of denied packets	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL logging with traffic rate limiting (to prevent CPU overload)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Strict control of ACL filtering of fragmented packets	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL support for switched traffic in the router image ⁴⁸	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
ACL filtering based on VLAN membership or VE port membership	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACLs to filter ARP packets	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Filtering on IP precedence and ToS value	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Combined DSCP and internal marking in one ACL rule	No	No	No	No	No	08.0.01	No	No	No
QoS options for IP ACLs ⁴⁹	08.0.01 ⁵⁰	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DSCP CoS mapping	No	No	No	No	No	08.0.01	No	No	No
Priority mapping using ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Hardware usage statistics	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Policy-based routing (PBR) for IPv4	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10
No TTL decrement	No	No	No	No	No	No	No	08.0.30	08.0.30
Supported ACL features on outbound traffic									
Hardware-based ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL accounting	No	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.30	08.0.20	08.0.10a
Standard named and numbered ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Extended named and numbered ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
User input preservation for ACL TCP/UDP port numbers	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL comment text	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL logging of denied packets	No	No	No	No	No	No	No	No	No
ACL logging with traffic rate limiting (to prevent CPU overload)	No	No	No	No	No	No	No	No	No
Strict control of ACL filtering of fragmented packets	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL support for switched traffic in the router image.	No	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL filtering based on VLAN membership or VE port membership	No	No	No	No	08.0.01	No	08.0.30	08.0.20	08.0.10
ACLs to filter ARP packets	No	No	No	No	No	No	No	No	No
Filtering on IP precedence and ToS value	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Combined DSCP and internal marking in one ACL rule	No	No	No	No	No	No	No	No	No

⁴⁸ To enable, use the bridged-routed parameter.

⁴⁹ DSCP QoS mapping is not supported for outgoing traffic.

⁵⁰ ICX 6430 devices have only four priority queues.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
QoS options for IP ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DSCP CoS mapping	No	No	No	No	08.0.01	No	No	No	08.0.10
Priority mapping using ACLs	No ⁵¹	No ⁵¹	No ⁵¹	No ⁵¹	08.0.01	No ⁵¹		No ⁵¹	08.0.10
Hardware usage statistics	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01		08.0.20	08.0.10

Security access

The following table documents software features that support security access.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Authentication, Authorization and Accounting (AAA): RADIUS, TACACS, TACACS+	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
AAA support for console commands	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Restricting remote access to management functions	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Disabling TFTP access	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Using ACLs to restrict remote access	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Local user accounts	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Local user passwords	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SSL security	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SSL security for the Web Management Interface	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.30	08.0.20	08.0.20
AAA authentication-method lists	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Packet filtering on TCP flags	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.30	08.0.20	08.0.10

Secure Shell version 2 (SSHv2) and Secure Copy (SCP)

The following table documents software features that support SSHv2 and SCP.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Secure Shell (SSH) version 2	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
AES encryption for SSHv2	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

⁵¹ Internal priority marking is not supported for outgoing traffic.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Optional parameters for SSHv2	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Using secure copy (SCP) with SSHv2	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Filtering SSHv2 access using ACLs	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Terminating an active SSHv2 connection	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
SSH client	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Boot image download over SCP	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

SCP client support

The following table documents software features that support SCP client.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
SCP client support	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.20	08.0.30	08.0.20	08.0.20

IPv6 Router Advertisement (RA) Guard

The following table documents software features that support IPv6 RA Guard.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IPv6 RA Guard	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

MAC address filters

The following table documents software features that support MAC address filters.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
MAC accounting	No	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.10a	08.0.30	08.0.20	08.0.10a
MAC address filtering	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
MAC address filter override of 802.1X	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Web Authentication

The following table documents software features that support Web Authentication.

These features are documented in the *FastIron Ethernet Switch Security Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Enabling and disabling Web Authentication	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
Configuring the Web Authentication mode	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10
Web Authentication options	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.01	08.0.30	08.0.20	08.0.10

Stacking Features

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Mixed stacking

The following table documents software features that support mixed stacking.

These features are documented in the *FastIron Ethernet Switch Stacking Configuration Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Mixed stacking	No	08.0.01	No	08.0.01	No	No	No	No	No
Enhanced topology support	No	08.0.01	No	08.0.01	No	No	No	No	No

Traditional stacking

The following table documents software features that support traditional stacking.

These features are documented in the *FastIron Ethernet Switch Stacking Configuration Guide*.

NOTE

Stacking is not supported on ICX 6430-C12, ICX 6450-C12, or ICX 7250-24L devices.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Building traditional stacking: Secure-setup, Automatic configuration, Manual configuration	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Traditional stacking management	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Traditional stacking management MAC address	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Traditional stacking partitioning	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Persistent MAC address	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Traditional stacking software upgrade	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Traditional stacking and stack mismatch troubleshooting	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Hitless stacking: Hitless failover, Hitless switchover	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20
Trunking of stacked ports	08.0.01	08.0.01	No	08.0.01	No	No	08.0.30	08.0.30 ⁵ ₂	08.0.20
Auto Image Copy for stack units	08.0.01	08.0.01	08.0.01	08.0.01	No	No	08.0.30	08.0.20	08.0.20

⁵² Supported on 10G ports only.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Stack port resiliency	No	No	No	08.0.10a	No	No	No	No	No

Traffic Management Features

- Quality of Service (QoS).....51
- Rate limiting and rate shaping (X Series, FCX, and ICX Series).....51
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Quality of Service (QoS)

The following table documents software features that support QoS.

These features are documented in the *FastIron Ethernet Switch Traffic Management Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
802.1p Quality of Service (QoS): Strict Priority (SP), Weighted Round Robin (WRR), Combined SP and WRR, 8 priority queues	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1p priority override	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1p marking	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DiffServ support	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DSCP-based QoS	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
DSCP and PCP global remarking	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01 ⁵³	08.0.30	08.0.20	08.0.10
QoS mappings	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
User-configurable scheduler profiles	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.30	08.0.20	08.0.10
IPv6 QoS	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Rate limiting and rate shaping (X Series, FCX, and ICX Series)

The following table documents software features that support rate limiting and rate shaping on X Series, FCX, and ICX Series switches.

These features are documented in the *FastIron Ethernet Switch Traffic Management Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Inbound rate limiting (port-based rate limiting on inbound ports)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Outbound rate shaping	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10b
ACL-based rate limiting	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

⁵³ Third generation modules only.

Limiting broadcast, multicast, and unknown unicast traffic

The following table documents software features that support limiting broadcast, multicast, and unknown unicast traffic.

These features are documented in the *FastIron Ethernet Switch Traffic Management Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Byte-based broadcast, multicast, and unknown-unicast limits	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Packet-based broadcast, multicast, and unknown-unicast limits	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
Broadcast, multicast, and unknown-unicast suppression - port dampening	No	No	No	No	No	No	08.0.30h	08.0.30h	08.0.30h

Traffic policies

The following table documents software features that support traffic policies.

These features are documented in the *FastIron Ethernet Switch Traffic Management Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Traffic policies	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL-based fixed rate limiting	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL-based adaptive rate limiting	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
802.1p priority bit inspection in the ACL for adaptive rate limiting	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
ACL statistics	08.0.01 ⁵⁴	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
CPU rate limiting	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

Flow Control and Buffer Management

The following table documents the Flow Control and Buffer Management feature supported on Brocade devices.

The feature is documented in the *FastIron Ethernet Switch Traffic Management Guide*.

Feature	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
Flow Control and Buffer Management	08.0.10	08.0.10	08.0.10	08.0.10	08.0.10	08.0.10	08.0.30	08.0.20	08.0.10
Per-port PFC	No	No	No	No	No	No	No	No	08.0.20

⁵⁴ Statistics are supported in bytes only; there is no packet count.

FastIron RFC Compliance

The following table lists the RFCs that are supported on the Brocade FastIron platforms. Footnotes indicate exceptions.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 768	User Datagram Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 783	Trivial File Transfer Protocol (TFTP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 791	Internet Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 792	Internet Control Message Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 793	Transmission Control Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 826	Ethernet Address Resolution Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 854	Telnet Protocol Specification	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 855	Telnet Option Specifications	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 894	IP over Ethernet Frames	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 896	Congestion Control in IP/TCP Internetworks	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 903	A Reverse Address Resolution Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 906	Bootstrap Loading using TFTP	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 919	Broadcast Internet Datagrams	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 920	Domain Requirements	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 922	Broadcast Internet Datagrams in the Presence of Subnets	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 925	Multi-LAN Address Resolution	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 950	Internet Standard Subnetting Procedure	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 951	Bootstrap Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1027	Using ARP to Implement Transparent Subnet Gateways	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1042	IP Datagrams over IEEE 802 Networks (for Ethernet)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1057 (ANSI-TIA)	LLDP-MED	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1058	Route Information Protocol (RIP) Version 1	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 1112	Host Extensions for IP Multicasting	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1122 & RFC 1123	Requirements for Internet Hosts - Communication Layers	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1155	Structure and Identification of Management Information (SMI)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1156	Management Information Base for Network Management of TCP/IP-based Internets	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1157	Simple Network Management Protocol (SNMP) Version 1	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1191	Path MTU Discovery	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1212	Concise MIB Definitions	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1213	Management Information Base for Network Management of TCP/IP-based Internets: MIB-II	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1215	SNMP Generic Traps	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1269	Definitions of Managed Objects for the Border Gateway Protocol (Version 3)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1256	ICMP Router Discovery Messages	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1305	Network Time Protocol (Version 3) ⁵⁵	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFC 1321	The MD5 Message-Digest Algorithm	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1340	Assigned Numbers	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1350	The TFTP Protocol (Revision 2)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1354	IP Forwarding Table MIB	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1377	The PPP OSI Network Layer Control Protocol (OSINLCP)	No	No	No	No	No	8.0.01	No	No	No
RFC 1398	Definitions of Managed Objects for the Ethernet-like Interface Types	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1403	BGP OSPF Interaction	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁵⁵ All platforms are compliant with RFC 5905 NTPv4, which obsoletes RFC 1305 and RFC 4330.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 1492	An Access Control Protocol, Sometimes Called TACACS	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1493	Definition of Managed Objects for Bridges ⁵⁶	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1516	Definitions of Managed Objects for IEEE 802.3 Repeater Devices	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1519	Classless Inter-Domain Routing (CIDR): an Address Assignment and Aggregation Strategy	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1541	Dynamic Host Configuration Protocol (DHCP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1542	Clarifications and Extensions for the Bootstrap Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1573	SNMP MIB II	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1583	Open Shortest Path First (OSPF)	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1591	Domain Name Structure and Delegation (Client)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1587	The OSPF Not-So-Stubby Areas (NSSAs) Option	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1643	Definitions of Managed Objects for the Ethernet-like Interface Types	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1657	Definitions of Managed Objects for the Fourth Version of the Border Gateway Protocol (BGP4) using SMIv2	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1661	The Point-to-Point Protocol (PPP)	No	No	No	No	No	8.0.01	No	No	No
RFC 1723	RIP Version 2 Carrying Additional Information	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1724	RIP Version 2 MIB Extension	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1742	AppleTalk Management Information Base II	No	No	No	No	No	8.0.01	No	No	No
RFC 1745	BGP4/IDRP for IP-OSPF Interaction	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1757	Remote Network Monitoring (RMON) Management Information Base ⁵⁷	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁵⁶ Excludes filtering of objects.

⁵⁷ Groups 1, 2, 3, and 9.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 1765	OSPF Database Overflow	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1771	Border Gateway Protocol 4 (BGP4)	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1772	Application of BGP in the Internet (BGP4)	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1812	Requirements for IP Version 4 Routers	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1850	OSPF Version 2 MIB	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1886	DNS Extensions to Support IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1887	An Architecture for IPv6 Unicast Address Allocation	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1901	Introduction to Community-based SNMPv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1905	Protocol Operations for Version 2 of the Simple Network Management Protocol (SNMPv2)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1906	Transport Mappings for Version 2 of the Simple Network Management Protocol (SNMPv2)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1918	Address Allocation for Private Internets (Private Address Space)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1965	Autonomous System Confederations for BGP4	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1966	BGP Route Reflection	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1981	Path MTU Discovery for IPv6	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 1997	BGP Communities Attribute	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2011	SNMPv2 Management Information Base for the Internet Protocol using SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2012	SNMPv2 Management Information Base for the Transmission Control Protocol using SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2013	SNMPv2 Management Information Base for the User Datagram Protocol using SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2021	Remote Network Monitoring Management Information Base Version 2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 2068	Hypertext Transfer Protocol (HTTP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2080	RIPng for IPv6	No	No	8.0.01	8.0.01	8.0.01	8.0.01	No	8.0.20	8.0.10
RFC 2096	IP Forwarding Table MIB	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2131	Dynamic Host Configuration Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2132	DHCP Options and BOOTP Vendor Extensions	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2138	Remote Authentication Dial In User Server (RADIUS)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2139	RADIUS Accounting	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2154	OSPF with Digital Signatures	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2178	Open Shortest Path First (OSPF) Version 2	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2233	The Interfaces Group MIB using SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2236	Internet Group Management Protocol (IGMP) Version 2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2239	Managed Objects for IEEE 802.3 Medium Attachment Units (MAUs) using SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2283	Multiprotocol Extensions for BGP-4	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2328	OSPF Version 2 ⁵⁸	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2330	Framework for IP Performance Metrics (Port Interface Rates)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2338	Virtual Router Redundancy Protocol (VRRP)	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2362	Protocol Independent Multicast-Sparse Mode (PIM-SM): Protocol Specification	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2370	The OSPF Opaque LSA Option	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2373	IPv6 Addressing Architecture	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2374	IPv6 Aggregatable Global Unicast Address Format	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁵⁸ AS External LSA reduction is supported.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 2375	IPv6 Multicast Address Assignments	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2385	Protection of BGP Sessions via the TCP MD5 Signature Option ⁵⁹	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2404	HMAC-SHA 1-96	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2439	BGP Route Flap Dampening	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2453	RIP Version 2	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2460	Internet Protocol, Version 6 (IPv6) Specification	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2461	Neighbor Discovery for IP Version 6 (IPv6)	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2462	IPv6 Stateless Address Auto-configuration	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2463	ICMPv6	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2464	Transmission of IPv6 Packets over Ethernet Networks	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2473	Generic Packet Tunneling in IPv6	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2474	Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2475	An Architecture for Differentiated Services	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2526	Reserved IPv6 Subnet Anycast Addresses	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2545	BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2560	X.509 Internet Public Key Infrastructure Online Certificate Status Protocol - OCSP (PKI)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2570	Introduction to Version 3 of the Internet-standard Network Management Framework	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2571	An Architecture for Describing SNMP Management Frameworks	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2572	Message Processing and Dispatching for the Simple	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁵⁹ For BGP 4.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
	Network Management Protocol (SNMP)									
RFC 2573	SNMP Applications	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2574	User-based Security (USM) for Version 3 of the Simple Network Management Protocol (SNMPv3)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2575	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2576	Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2578	Structure of Management Information Version 2 (SMIv2)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2579	Textual Conventions for SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2580	Conformance Statements for SMIv2	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2597	Assured Forwarding PHB Group	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2665	Definitions of Managed Objects for the Ethernet-like Interface Types	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2674	Bridge MIB Extensions	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2698	A Two Rate, Three Color Marker	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2710	Multicast Listener Discovery (MLD) for IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2740	OSPF for IPv6	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2784	Generic Routing Encapsulation	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2787	Definitions of Managed Objects for the Virtual Router Redundancy Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2796	BGP Route Reflection	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2818	HTTP over TLS	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2819	Remote Network Monitoring Management Information Base	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2842	Capabilities Advertisement with BGP-4	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 2865	Remote Authentication Dial In User Service (RADIUS) [June 2000]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2866	RADIUS Accounting [June 2000]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2868	RADIUS Attributes for Tunnel Protocol Support [June 2000]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2869	RADIUS Extensions [June 2000]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2918	Route Refresh Capability for BGP-4	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2932	IPv4 Multicast Routing MIB	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2933	Internet Group Management Protocol MIB	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 2934	Protocol Independent Multicast MIB for IPv4	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3101	The OSPF Not-So-Stubby Area (NSSA) Option	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3137	OSPF Stub Router Advertisement	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3140	Per Hop Behavior Identification Codes [1]	No	No	No	No	No	No	No	No	No
RFC 3162	RADIUS and IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3164	The BSD Syslog Protocol (This RFC is obsoleted by RFC 5424)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3176	InMon Corporation's sFlow: A Method for Monitoring Traffic in Switched and Routed Networks	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3226	DNSSEC and IPv6 A6 Aware Server/resolver Message Size Requirements	No	No	No	No	No	No	No	No	No
RFC 3246	An Expedited Forwarding PHB (Per-Hop Behavior) [2]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3260	New Terminology and Clarifications for Diffserv	No	No	No	No	No	No	No	No	No
RFC 3289	Management Information Base for the Differentiated Services Architecture	No	No	No	No	No	No	No	No	No
RFC 3315	Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3376	Internet Group Management Protocol, Version 3	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3392	Capabilities Advertisement with BGP-4	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3394	Advanced Encryption Standard (AES) Key Wrap Algorithm	No	No	No	8.0.20	No	No	No	No	No

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 3410	Introduction and Applicability Statements for Internet Standard Management Framework	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3411	An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3412	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3413	Simple Network Management Protocol (SNMP) Applications	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3414	User-based Security Model (USM) for Version 3 of the Simple Network Management Protocol (SNMPv3)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3415	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3416	Version 2 of the Protocol Operations for SNMP	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3417	Transport Mappings for the Simple Network Management Protocol (SNMPv3)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3418	Management Information Base (MIB) for SNMP [December 2002]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3442	The Classless Static Route Option for DHCPv4 Version 4	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3446	Anycast Rendezvous Point (RP) Mechanism using Protocol Independent Multicast (PIM) and Multicast Source Discovery Protocol (MSDP)	No	8.0.01 ⁶⁰	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3513	IPv6 Addressing Architecture	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3579	RADIUS (Remote Authentication Dial In User Service) Support For Extensible Authentication Protocol (EAP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3587	An IPv6 Aggregatable Global Unicast Address Format	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3596	DNS Extensions to Support IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁶⁰ In a mixed stack only.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 3618	Multicast Source Discovery Protocol (MSDP)	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3623	Graceful OSPF Restart	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3704	Ingress Filtering for Multihomed Networks (Reverse Path Forwarding)	No	No	No	No	8.0.30	No	No	No	8.0.30
RFC 3748	Extensible Authentication Protocol (EAP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3768	Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3810	Multicast Listener Discovery Version 2 (MLDv2) for IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3879	Deprecating Site Local Addresses (IPv6)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3942	Reclassifying Dynamic Host Configuration Protocol v4 Options ⁶¹	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3973	Protocol Independent Multicast - Dense Mode (PIM-DM)	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 3986	Uniform Resource Identifier (URI): Generic Syntax (with IPv6)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4007	IPv6 Scoped Address Architecture	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4022	Management Information Base for the Transmission Control Protocol (TCP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4113	Management Information Base for the User Datagram Protocol (UDP)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4193	Unique Local IPv6 Unicast Addresses	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4188	Definitions of Managed Objects for Bridges [September 2005]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4213	Basic Transition Mechanisms for IPv6 Hosts and Routers	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4222	Prioritized Treatment of Specific OSPF Version 2 Packets and Congestion Avoidance	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4250	The Secure Shell (SSH) Protocol Assigned Numbers	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4251	The Secure Shell (SSH) Protocol Architecture	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁶¹ Partial Support. Options 66, 67, 82, and 150 are supported.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 4252	The Secure Shell (SSH) Authentication Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4253	The Secure Shell (SSH) Transport Layer Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4254	The Secure Shell (SSH) Connection Protocol	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4271	A Border Gateway Protocol 4 (BGP-4) [January 2006]	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4291	IP Version 6 Addressing Architecture [February 2006]	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4292	IP Forwarding Table MIB [April 2006]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4293	Management Information Base for the Internet Protocol (IP) [April 2006]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4330	Simple Network Time Protocol (SNTP) Version 4 ⁶²	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFC 4419	Diffie-Hellman Group Exchange for the Secure Shell (SSH) Transport Layer Protocol [March 2006]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4432	RSA Key Exchange for the Secure Shell (SSH) Transport Layer Protocol [March 2006]	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4443	Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) [March 2006]	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4459	MTU and Fragmentation Issues with In-the-Network Tunneling	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4541	IGMP and MLD Snooping Switches Considerations	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4552	Authentication/Confidentiality for OSPVv3	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4601	Protocol Independent Multicast - Sparse Mode (PIM-SM) [August 2006]	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4604	Using Internet Group Management Protocol Version 3 (IGMPv3) and Multicast Listener Discovery Protocol Version 2 (MLDv2) for Source-Specific Multicast	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4607	Source-Specific Multicast for IP	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁶² All platforms are compliant with RFC 5905 NTPv4, which obsoletes RFC 1305 and RFC 4330.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 4610	Anycast-RP using PIM	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4632	Classless Inter-domain Routing (CIDR): The Internet Address Assignment and Aggregation Plan	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4724	Graceful Restart Mechanism for BGP	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4760	Multiprotocol Extensions for BGP-4 ⁶³	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4861	Neighbor Discovery for IP Version 6 (IPv6)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4862	IPv6 Stateless Address Auto-configuration	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 4893	BGP Support for Four-octet AS Number Space	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5059	Bootstrap Router (BSR) Mechanism for Protocol Independent Multicast (PIM)	No	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5095	Deprecation of Type 0 Routing Headers in IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5136	Defining Network Capacity (Port Interface Rates)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5280	Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile (PKI Certification)	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5340	OSPF for IPv6 [July 2008]	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5424	Layered architecture for SYSLOG	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h
RFC 5494	IANA Allocation Guidelines for the Address Resolution Protocol (ARP) ⁶⁴	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5590	Transport Subsystem for the Simple Network Management Protocol (SNMP) ⁶⁵	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5676	Managed Objects for mapping SYSLOG messages to SNMP notifications	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h	8.0.30h
RFC 5709	OSPFv2 HMAC-SHA Cryptographic Authentication	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁶³ Partial support.

⁶⁴ Partial support

⁶⁵ All platforms follow the USM model. Transport security model with TLS is not supported for SNMP.

RFC Number	RFC Name	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
RFC 5798	Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 5905	Network Time Protocol Version 4 ⁶⁶	8.0.01	8.0.01	8.0.01	8.0.01	No	8.0.01	8.0.30	8.0.20	8.0.10
RFC 6085	Address Mapping of IPv6 Multicast Packets on Ethernet	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10
RFC 6668	SHA-2 Data Integrity Verification for the Secure Shell (SSH) Transport Layer Protocol	No	8.0.01	8.0.01	8.0.01	8.0.01	8.0.01	8.0.30	8.0.20	8.0.10

⁶⁶ All platforms are compliant with RFC 5905 NTPv4, which obsoletes RFC 1305 and RFC 4330.

FastIron IEEE Compliance

The following table lists the IEEE standards that are supported on the Brocade FastIron platforms. Footnotes indicate exceptions.

IEEE Number	IEEE Standard Description	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IEEE 802.1AB	Station and Media Access Control Connectivity Discovery (Link Layer Discovery Protocol, LLDP)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.1AE	Media Access Control (MAC) Security	No	No	No	08.0.20	No	No	No	No	No
IEEE 802.1D	Spanning Tree Protocol (STP)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.1S	Multiple Spanning Tree (MST)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.1W	Rapid Reconfiguration of Spanning Tree	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.1X	Port-based Network Access Control (PNAC) ⁶⁷	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.1 AX-2008	Link Aggregation	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3	Carrier Sense Multiple Access/Collision Detection (CSMA/CD)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3ab	1000BASE-T	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3ae	1BASE5	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3af	Power over Ethernet (15.4 W)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3at	Power over Ethernet enhancements (25.5 W); PoE+	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3az	Energy Efficient Ethernet	No	No	No	No	No	No	08.0.30	08.0.30	No
IEEE 802.3i	10BASE-T	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3j	10BASE-F	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3q	Guidelines for the Development of Managed Objects	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3u	100BASE-TX, 100BASE-T4, 100BASE-FX Fast Ethernet at 100 Mbit/s (12.5 MB/s) with auto-negotiation	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10

⁶⁷ Partial support.

IEEE Number	IEEE Standard Description	ICX 6430	ICX 6450	FCX	ICX 6610	ICX 6650	FSX 800 FSX 1600	ICX 7250	ICX 7450	ICX 7750
IEEE 802.3x	Full duplex and flow control	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3z	1000BASE-X Gbit/s Ethernet over Fiber-Optic at 1 Gbps (125 MB/s)	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.01	08.0.30	08.0.20	08.0.10
IEEE 802.3ba	40 Gbit/s and 100 Gbps Ethernet	No	No	08.0.01	08.0.01	08.0.01	08.0.01	No	08.0.20	08.0.10