

Customer Release Notes

ISW-Series 12-Port Industrial Switches

Firmware Version 1.01.02.0009

April 2020

INTRODUCTION:

This document provides specific information for version 01.01.02.0009 of firmware for the ISW-Series products:

ISW 8-10/100P, 4-SFP, PoE Switch (FE)	ISW 8GbP, 4-SFP, PoE Switch (GE)
---------------------------------------	----------------------------------

NOTE: Image ISW-TLN-12PORT_V01.01.02.0009 is not compatible with 8-port ISW-Series platforms.

Extreme Networks recommends that you thoroughly review this document prior to installing or upgrading this product.

For the latest firmware versions, visit the download site at:
www.extremenetworks.com/support/

FIRMWARE SPECIFICATION:

Status	Version No.	Type	Release Date
Current Version	1.01.02.0009	Maintenance Release	April 2020
Previous Version	1.01.02.0005	Maintenance Release	January 2019
Previous Version	1.01.02.0004	Maintenance Release	June 2017
Previous Version	1.01.01.0005	Feature Release	August 2016
Previous Version	1.01.01.C001	Intermediate Upgrade	August 2016
Previous Version	1.00.00.0003	Feature Release	April 2016

FIRMWARE BASE

MSCC VSC7429, VSC7425 Compatible

OS: eCos Operating System

Version 3.65 CE Service

BOOTROM COMPATIBILITY:

This version of firmware is compatible with all boot code versions.

PLUGGABLE TRANSCEIVERS SUPPORTED:

P/N	Description
10051H	1000Base-SX SFP, MMF 220 &550 meter, LC Connector, Industrial Temp
10052H	1000Base-LX, IEEE 802.3 SM, 1310 nm Long Wave Length, 10 KM, LC SFP

P/N	Description
10053G	1000Base-ZX SFP, SMF 70km, LC Connector, Industrial Temp
10056H	1000Base-BX10-D Single Fiber SM, Bidirectional, 1490nm Tx / 1310nm Rx, 10 km, Simplex LC SFP (must be paired with 10057H)
10057H	1000Base-BX10-U, 1 Gb, Single Fiber SM, Bidirectional 1310nm Tx / 1490nm Rx, 10 km, Simplex LC SFP (must be paired with 10056H)
10066	100Base-LX10 SFP module, SMF 10km, LC Connector for Fast Ethernet SFP port
10067	100Base-FX SFP module, MMF 2km, LC Connector for Fast Ethernet SFP port

PRODUCT FEATURES:

Product Features	
Port Control:	802.3ad Dynamic and Static Link Aggregation
Speed/Duplex/Flow Ctrl	
Frame Size	
Status	
Statistics	
802.1D	IGMP Snooping v2/v3
802.1Q	MLDv1/v2 Snooping
Private VLAN	MAC based VLAN
Protocol based VLAN	Subnet based VLAN
DHCP Relay	MVR
802.1ad Provider Bridge	MSTP, RSTP, STP
ARP Inspection	MVR Profile
DHCP Snooping	IP Source Guard
Port Mirror	Flow Control
GVRP GARP VLAN Registration	IPv6 Software Unicast Routing
802.1X - VLAN and QoS Assignment	MAC Authentication
Guest VLAN	RADIUS Accounting
MAC Address Limit	TACACS+
ACL for filtering/policing/port copy	Voice VLAN
Web and CLI Authentication	QoS
Storm Control	SSHv2 Management
RMON (Group 1,2,3,& 9)	RMON Alarm and Event (CLI and Web)
LLDP	sFlow
NTP	Syslog
Ethernet Ring Protection Switching (ERPS)	802.3az - Energy Efficient Ethernet (EEE)

INSTALLATION AND CONFIGURATION NOTES:

The ISW-Series switch may not be shipped to you pre-configured with the latest version of software. It is strongly recommended that you upgrade to the latest firmware version before deploying any new switches. Please refer to the product pages at www.extremnetworks.com/support/ for the latest firmware updates to the ISW-Series.

Please refer to the **Firmware** tab on the ISW-Series product pages on the Extranet downloads site to view information on changes previous to the release information listed in this document.

Soft copies of the *ISW-Series Web Configuration Guide* and the *ISW-Series CLI Reference* are available on the Extreme Networks documentation site, www.extremenetworks.com/documentation.

Note:

Images prior to 1.01.01.0005 cannot be directly upgraded to 1.01.01.0005 (or later releases) without first loading image 1.01.01.C001. This image should only be used as an intermediate step in upgrading from images prior to 1.01.01.0005. This is a note.

CAPACITIES

Feature	Capacity
IEEE 802.1s MSTP instances	8
IEEE 802.3ad LACP – Max LAGs	8
Port-based VLAN	4095
Guest VLAN	1
Private VLAN	Depends on port number: 8 or 12
Voice VLAN	1
MAC table size	8K
Multicast address	1K
MAC address limit	1024
Static MAC entries	64
RADIUS authentication servers	5
TACACS+ authentication servers	5
RADIUS accounting servers	5
Telnet/SSH v2	4
Max ARP inspection	1024
IP Source Guard entries	Up to 256
Policy-based security filtering	512
Password length	0~32
ACL Rate Limiter	16
Authorization user levels	15
ACE	Up to 256
User Account	20
Access Management Entries	16
DHCP Relay Server	1
DHCP Server Pool	64
Static Route	32
NTP Server	5
MVR VLAN	4
MAC-based VLAN	256
Protocol-based VLAN : Protocol to group mapping	128
Protocol-based VLAN : Group to VLAN mapping	64

Feature	Capacity
Voice VLAN OUI	16
Feature (Port)	Capacity
Jumbo Frames	Up to 9600
Port Security aging	10 to 10000000s

FIRMWARE CHANGES AND ENHANCEMENTS IN 1.01.02.0009:

New Features

Support for SFTP client added

Added SFTP client support for firmware upgrade and configuration import and export processes.

Command syntax:

```
firmware upgrade sftp://<username>:<password>@<ip address of server>/image/<image file name>
```

Example:

```
firmware upgrade sftp://test:test@192.168.7.82/image/ISW-TLN-8PORT_V01.01.02.0009.dat
```

```
copy running-config sftp://<username>:<password>@<hostname|IP>/path/file
```

Example:

```
copy running-config sftp://test:123@172.16.9.136/abc.txt
```

Note:

When using SFTP, keep in mind the following:

- SFTP is usually engaged in transferring files due to encoding/decoding of data.
- While SFTP file transfer is in progress, initiating another new SSH session will interrupt the SFTP file transfer.

Features Updated

PSE (PoE Chipset) firmware upgrade function available in normal mode

The PSE (PoE Chipset) firmware upgrade function was available only in the *debug* mode. Starting with v01.01.02.0009, PSE (PoE Chipset) firmware upgrade function will also be available in the *normal* mode. The PoE firmware v211 is bundled in side.

Command syntax:

The following CLI command manually upgrades the PoE chipset firmware:

```
poet firmware upgrade
```

The following CLI command displays the PoE chipset firmware version:

```
show poe firmware
```

Bug Fixes

The following customer issues have been fixed in 01.01.02.0009:

SSH authentication method follows telnet configuration, rather than SSH.

The following customer issues have been fixed in 01.01.02.0009:

Customer is having an issue power a license plate camera created by Vigilant Solutions

Details:

PoE AF/AT/POH 3 mode are available in this release. To support Vigilant Solutions IPCAM, PoE should operate in POH mode.

High CPU in most of the network switches

Unable to provide POE to an MR62e Controller

Details:

PoE firmware v211 bundled in this release to solve MR62e Controller issue.

Note: After upgrading your ISW to v01.01.02.0009, use the following CLI command to upgrade the PoE chipset firmware:

```
poe firmware upgrade
```

Do ISW switches support writeable SNMP values for these MIB entries - ifXEntry.ifAlias & ifEntry.ifDescr?

Details:

ifXEntry.ifAlias is writable now, but ifEntry.ifDescr is still read-only because it is standard MIB, we just follow it. BTW, "Port Description" has been added to switch, switch returns value to ifXEntry.ifAlias as per this new field of each port.

Configurable in CLI/Web. Web page "Configuration/Port", support length 255 char, however, ifAlias length is defined as 64 octets(char).

Manager have to make "reload default" or "reload default keep-ip" to load default "Port Description" of each port.

CLI example as below:

```
(config)# interface g 1/1
```

```
(config-if)# description ?
```

```
<line255> Port description
```

```
(config-if)# description Port-1
```

SNMPWalk result by default:

```
***** SNMP QUERY STARTED *****
```

```
1: ifAlias.1000001 (octet string) Port-1 [50.6F.72.74.2D.31 (hex)]
```

```
2: ifAlias.1000002 (octet string) Port-2 [50.6F.72.74.2D.32 (hex)]
```

```
3: ifAlias.1000003 (octet string) Port-3 [50.6F.72.74.2D.33 (hex)]
```

```
4: ifAlias.1000004 (octet string) Port-4 [50.6F.72.74.2D.34 (hex)]
```

```
5: ifAlias.1000005 (octet string) Port-5 [50.6F.72.74.2D.35 (hex)]
```

```
6: ifAlias.1000006 (octet string) Port-6 [50.6F.72.74.2D.36 (hex)]
```

```
7: ifAlias.1000007 (octet string) Port-7 [50.6F.72.74.2D.37 (hex)]
```

```
8: ifAlias.1000008 (octet string) Port-8 [50.6F.72.74.2D.38 (hex)]
```

SNMPv3 does not work when NTP is configured

The ISW switch or NTP server calculated the wrong time causing SNMPv3 to stop working.

PREVIUOS FIRMWARE CHANGES AND ENHANCEMENTS:**Changes and Enhancements in 1.01.02.0005**

Corrected issue where creating a MOTD Banner could result in loss of configuration on reboot of the device.

Changes and Enhancements in 1.01.02.0004

Added support for DHCP Option 66.

Added support for System High & Low Temperature Alarm for Alarm Profile/ Current Alarm/ History Alarm.

Corrected an issue where Snmpv3 stopped working when NTP was enabled.

Corrected an issue where disconnecting a port receiving LLDP-MED packets could result in the switch hanging.

Changes and Enhancements in 1.01.01.0005

Add support for Ethernet Ring Protection Switching (ERPS).

KNOWN RESTRICTIONS AND LIMITATIONS:**Known Issues in 1.01.02.0009**

There are no new known restrictions or limitations associated with this release.

Known Issues in Previous Releases

This implementation of ERPS does not support subrings.

Upgrade to 1.01.01.0005 from previous images requires first loading intermediate image 1.01.01.C001.

Copper SFP transceivers are not recommended as link detect time is longer hence increased recovery time.

STANDARD MIB SUPPORT:

RFC No.	Title
RFC 1213	MIBII
RFC 1215	A Convention for Defining Traps for use with the SNMP
RFC 2613	Remote Network Monitoring MIB Extensions for Switched Networks
RFC 2674	Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN Extensions
RFC 2819	Remote Network Monitoring Management Information Base
RFC 3411	An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks
RFC 3414	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
RFC 3415	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
RFC 3635	Definitions of Managed Objects for the Ethernet-like Interface Types
RFC 3636	Definitions of Managed Objects for IEEE 802.3 Medium Attachment Units (MAUs)
RFC 4133	Entity MIB (Version 3)
RFC 4188	Definitions of Managed Objects for Bridges
RFC 4668	RADIUS Authentication Client MIB for IPv6
RFC 4670	RADIUS Accounting Client MIB for IPv6
RFC 5519	Multicast Group Membership Discovery MIB
	sFlow

PRIVATE ENTERPRISE MIB SUPPORT:

VTSS-ACCESS-MANAGEMENT-MIB	Private Access management MIB
VTSS-ACL-MIB	Private ACL MIB
VTSS-AGGR-MIB	Private AGGR MIB
VTSS-ARP-INSPECTION-MIB	Private ARP Inspection MIB
VTSS-AUTH-MIB	Private Authentication MIB
VTSS-DAYLIGHT-SAVING-MIB	Private Daylight Saving MIB
VTSS-DDMI-MIB	Private DDMI MIB
VTSS-DHCP6-CLIENT-MIB	Private DHCP6 Client MIB
VTSS-DHCP-RELAY-MIB	Private DHCP Relay MIB
VTSS-DHCP-SERVER-MIB	Private DHCP Server MIB
VTSS-DHCP-SNOOPING-MIB	Private DHCP Snooping MIB
VTSS-DNS-MIB	Private DNS MIB
VTSS-EEE-MIB	Private EEE MIB
VTSS-ERPS-MIB	Private ERPS MIB
VTSS-FIRMWARE-MIB	Private Firmware MIB
VTSS-GVRP-MIB	Private GVRP MIB
VTSS-HTTPS-MIB	Private HTTPS MIB
VTSS-ICFG-MIB	Private ICFG MIB
VTSS-IPMC-MVR-MIB	Private ICMP MVR MIB
VTSS-ICMP-PROFILE-MIB	Private ICMP Profile MIB
VTSS-ICMP-SNOOPING-MIB	Private ICMP Snooping
VTSS-IP-MIB	Private IP MIB
VTSS-JSON-RPC-NOTIFICATION-MIB	Private JSON RPC Notification MIB
VTSS-LACP-MIB	Private LACP MIB
VTSS-LLDP-MIB	Private LLDP MIB
VTSS-LOOP-PROTECTION-MIB	Private Loop Protection MIB
VTSS-MAC-MIB	Private MAC MIB
VTSS-MEP-MIB	Private MEP MIB
VTSS-MSTP-MIB	Private MSTP MIB
VTSS-NAS-MIB	Private NAS MIB
VTSS-NTP-MIB	Private NTP MIB
VTSS-POE-MIB	Private POE MIB
VTSS-PORT-MIB	Private PORT MIB
VTSS-PRIVILEGE-MIB	Private Priviledge MIB
VTSS-PSEC-MIB	Private PSEC MIB
VTSS-PVLAN-MIB	Private VLAN MIB
VTSS-QOS-MIB	Private QOS MIB
VTSS-SMI-MIB	Private SMI MIB
VTSS-SNMP-MIB	Private SNMP MIB
VTSS-SSH-MIB	Private SSH MIB
VTSS-SYSLOG-MIB	Private SYSLOG MIB
VTSS-SYSUTIL-MIB	Private System Utilities MIB
VTSS-TC-MIB	Private Textual Convention
VTSS-USERS-MIB	Private Users MIB
VTSS-VLAN-MIB	Private VLAN MIB

VTSS-VOICE-VLAN-MIB

Private Voice VLAN MIB

SNMP TRAP SUPPORT:

RFC No.	Supported Traps
RFC 1213	Warm Start Link Up Link Down Authentication Failure
RFC 1493	New Root Topology Change
RFC 1757	RisingAlarm FallingAlarm

GLOBAL SUPPORT:

By Phone: +1 800-998-2408 (toll-free in U.S. and Canada)

For the toll-free support number in your country:
www.extremenetworks.com/support/

By Email: support@extremenetworks.com

By Web: www.extremenetworks.com/support/

By Mail: Extreme Networks, Inc.
6480 Via Del Oro
San Jose, CA 95119

For information regarding the latest software available, recent release note revisions, or if you require additional assistance, please visit the Extreme Networks Support website.