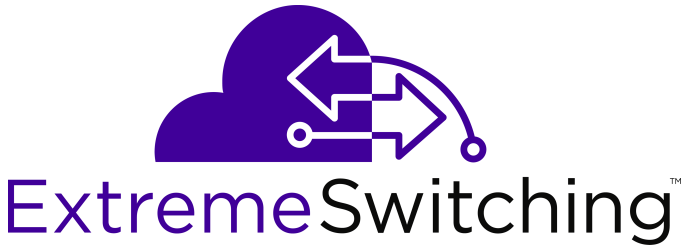

Release Notes for Ethernet Routing Switch ERS 3500 Series

Release 5.3.6
NN47203-400
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Chapter 1: Preface

Purpose

This document describes new features, hardware, upgrade alerts, known and resolved issues, and limitations for Extreme Networks Ethernet Routing Switch 3500 in this software release.

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  - Email: support@extremenetworks.com. To expedite your message, enter the product name or model number in the subject line.
- GTAC Knowledge – Get on-demand and tested resolutions from the GTAC Knowledgebase, or create a help case if you need more guidance.
- The Hub – A forum for Extreme customers to connect with one another, get questions answered, share ideas and feedback, and get problems solved. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.
- Support Portal – Manage cases, downloads, service contracts, product licensing, and training and certifications.

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- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

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Extreme Networks Documentation

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Current Product Documentation	www.extremenetworks.com/documentation/

Table continues…

Archived Documentation (for previous versions and legacy products)	www.extremenetworks.com/support/documentation-archives/
Release Notes	www.extremenetworks.com/support/release-notes

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Procedure

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3. Type the name of your company.
4. Type your email address.
5. Type your job title.
6. Select the industry in which your company operates.
7. Confirm your geographic information is correct.
8. Select the products for which you would like to receive notifications.
9. Click **Submit**.

Chapter 2: New in this release

New in this Release

There are no new feature changes in this release.

Chapter 3: Important notices

This section provides important software and hardware related notices.

File names

The following table describes the software files for ERS 3500 Series Software Release 5.3.2.

Module or file type	Description	File name	File size (bytes)
Standard (non-SSH) runtime image	Standard software image for the Ethernet Routing Switch 3500 Series	3500_532016.img	9,512,628
Secure (SSH) runtime image	Standard software image for the Ethernet Routing Switch 3500 Series	3500_532017s.img	9,776,532
Diagnostic software version 5.3.0.6	Diagnostic software for the Ethernet Routing Switch 3500 Series	3500_53006_diag.bin	2,090,269
MIB definition files	Management Information Base (MIB) definition files	Ethernet_Routing_Switch_35xx_MIBs_5.3.2.zip	1,944,141
EDM Help file zip	A downloadable zip file containing Help information for Enterprise Device Manager (EDM)	ers3500v532_HELP_EDM.zip	2,692,000
COM Plug in file zip	COM Plug in for Enterprise Device Manager (EDM)	ers3500v5.3.2.0.zip	4,045,626

Upgrading the Diag image using CLI

Perform the following procedure to upgrade the Diag image using CLI.

Procedure

1. Connect a default switch to a TFTP server.
2. Set a valid IP address and subnet mask.
3. Configure the TFTP server address using the following command from Privileged EXEC mode:

   ```
   tftp-server <A.B.C.D>
   ```

4. Verify the connection to the TFTP Server.
5. At the command prompt, enter the **download** command with the following parameters.

   ```
   download diag <WORD>
   ```

   The Diag image is downloaded and then the switch is rebooted. To avoid rebooting the switch after the download, add the option *<no-reset>* to the **download** command.

Variable definitions

The following table describes the parameters for the **download** command.

Variable	Value
<A.B.C.D>	Enter the IP address of the TFTP server in the format XXX.XXX.XXX.XXX
<*WORD*>	The filename of the diagnostic image

Updating the Diag image from the Boot menu

Use this procedure to update the Diagnostics image from the Boot menu.

Procedure

1. Connect a default switch to a TFTP server.
2. Reboot the switch (either a soft or hard reset).
3. During the boot process, press `CTRL+C` until the following menu is displayed:
   a. Press `'a'` to run Agent code.
   b. Press `'d'` to download the agent/diag/bootloader code.
   c. Press `'e'` to display Errors.
   d. Press `'i'` to initialize config flash.
   e. Press `'p'` to run POST tests.

f. Press `'r'` to reset the switch.

4. Press `'d'`.
5. Choose `option: 2 – Diagnostics`.
6. Choose `option: 1 — Download via TFTP`.
7. Enter the filename, along with its extension; for example `3500_53006_diag.bin`
8. Enter the TFTP server IP address.
9. Enter the switch IP address.
10. Enter the subnet mask.
11. Enter the port in which the cable is connected.

    The download of the DIAG image begins.

Supported software and hardware capabilities

The following table summarizes the known capabilities for the ERS 3500 Series software.

Table 1: Supported capabilities for the ERS 3500 Series

Feature	Maximum number supported
QoS egress queues	4
QoS filters per precedence	256
QoS precedence	4
Total QoS filters	(4 x 256) = 1024
MAC addresses	16000
Layer 2	
VLANs	256
Spanning Tree Groups in STPG and RSTP modes	1
Multiple Spanning Tree Instances (MSTI) in MSTP mode	8
MultiLink Trunking (MLT), Link Aggregation (LAG) groups	6
Links for each MLT or LAG	4
Layer 3	
ARP entries (local, static & dynamic)	512 (of which 32 are reserved for local ARPs)
Local ARP Entries (local IP interfaces)	32
Static ARP entries	256

Table continues…

Feature	Maximum number supported
Dynamic ARP entries	max 480 (shares 480 entries with dynamic ARPs)
IPv4 route entries (local, static & dynamic)	32 local + 32 static + 0 dynamic
Static routes and Non-local Static routes	32
Local routes	32
Management routes	4
UDP Forwarding entries	128
DHCP relay entries	256
DHCP relay forward paths	256
DHCP Server Pools	16 (one per VLAN)
DHCP Server clients per pool	256
DHCP Server clients per switch/stack	2000
Miscellaneous	
802.1X EAP scaling (clients for each port)	32
ADAC (IP Phones)	16
Jumbo frame support	9 K bytes
IGMP multicast groups	up to 59
802.1X (EAP) clients per port, running in MHMA	32
802.1X (EAP) clients per switch	384
LLDP Neighbors	160 on ERS 3510GT 416 on ERS 3524GT 448 on ERS 3526T 816 on ERS 3549GTS 816 on ERS 3550T
RMON alarms	400
RMON events	400
RMON Ethernet statistics	128 per unit
RMON Ethernet history	196 per unit

Supported standards RFCs and MIBs

Standards

The standards in the following list are supported on the switch:

- IEEE 802.1AB (Link Layer Discovery Protocol (LLDP) and LLDP-Media Endpoint Discover (LLDP-MED))
- IEEE 802.1Q (VLANs)
- IEEE 802.1p (Priority Queues)
- IEEE 802.1D (Spanning Tree)
- IEEE 802.1w (Rapid Spanning Tree)
- IEEE 802.1s (Multiple Spanning Tree Groups)
- IEEE 802.1X (Extensible Authentication Protocol (EAP))
- IEEE 802.3 (10BASE-T/100BASE-TX)
- IEEE 802.3u (100BASE-T (ANSI) Auto-Negotiation)
- IEEE 802.3x (Pause Frames / Flow Control)
- IEEE 802.3z (1000BASE-X)
- IEEE 802.3ab (1000BASE-T)
- IEEE 802.3ad (Link Aggregation Control Protocol (LACP))
- IEEE 802.3af (PoE) – 15.4W max
- IEEE 802.3aq (10GBASE-LRM 10 Gbit/s Ethernet over fiber)
- IEEE 802.3at (Power over Ethernet plus— PoE+ (32W))
- IEEE 802.3az Energy Efficient Ethernet (EEE)

RFCs and MIBs

For more information about networking concepts, protocols, and topologies, consult the following RFCs and MIBs:

- RFC 783 Trivial File Transfer Protocol (TFTP)
- RFC 791/ 950 Internet Protocol (IP)
- RFC 792 Internet Control Message Protocol (ICMP)
- RFC 826 Address Resolution Protocol (ARP)
- RFC 854 Telnet Server and Client

- RFC 951/ 1542 (BOOTP)
- RFC 1112 Internet Group Management Protocol v1 (IGMPv1)
- RFC 1213 MIB-II
- RFC 1215 SNMP Traps Definition
- RFC 1271 / 1757 / 2819 RMON
- RFC 1361 / 1769 Simple Network Time Protocol (SNTP)
- RFC 1493 (Bridge MIB)
- RFC 1573 / 2863 Interface MIB
- RFC 1643 / 2665 Ethernet MIB
- RFC 1905 / 3416 SNMP
- RFC 1906 / 3417 SNMP Transport Mappings
- RFC 1907 / 3418 SNMP MIB
- RFC 1945 HTTP v1.0
- RFC 1981 Path MTU Discovery for IPv6
- RFC 2011 SNMP v2 MIB for IP
- RFC 2012 SNMP v2 MIB for TCP
- RFC 2013 SNMP v2 MIB for UDP
- RFC 2131 DHCP Client
- RFC 2132 DHCP Options 6, 43 & 60
- RFC 2138 RADIUS
- RFC 2236 Internet Group Management Protocol v2 (IGMPv2)
- RFC 2460 Internet Protocol v6 (IPv6) Specification
- RFC 2461 Neighbor Discovery for IPv6
- RFC 2462 Auto-configuration of link local addresses
- RFC 2464 IPv6 over Ethernet
- RFC 2474 Differentiated Services Support
- RFC 2570 / 3410 SNMPv3
- RFC 2571 / 3411 SNMP Frameworks
- RFC 2572 / 3412 SNMP Message Processing
- RFC 2573 / 3413 SNMPv3 Applications
- RFC 2574 / 3414 SNMPv3 USM
- RFC 2575 / 3415 SNMPv3 VACM

- RFC 2576 / 3584 Co-existence of SNMP v1/v2/v3
- RFC 2616 HTTP
- RFC 2660 HTTPS (Secure Web)
- RFC 2665 Ethernet MIB
- RFC 2674 Q-Bridge MIB
- RFC 2737 Entity MIBv2
- RFC 2819 RMON MIB
- RFC 2863 Interfaces Group MIB
- RFC 2866 RADIUS Accounting
- RFC 2869 RADIUS Extensions (interim updates)
- RFC 3046 (& 5010) DHCP option 82, Relay Agent Information Option
- RFC 3058 RADIUS Authentication
- RFC 3361 DHCP option 120 SIP Servers
- RFC 3376 Internet Group Management Protocol v3 (IGMPv3)
- RFC 3484 Default Address Selection for IPv6
- RFC 3576 RADIUS Change of Authorization
- RFC 3596 DNS Extensions for IPv6
- RFC 3879 Deprecating Site Local Addresses
- RFC 4007 Scoped Address Architecture
- RFC 4022 MIB for TCP
- RFC 4113 MIB for UDP
- RFC 4193 Unique Local IPv6 Unicast Addresses
- RFC 4252 SSH
- RFC 4291 IPv6 Addressing Architecture
- RFC 4293 MIB for IP
- RFC 4301 Security Architecture for the Internet Protocol
- RFC 4432 SSHv2 RSA
- RFC 4443 Internet Control Message Protocol (ICMPv6) Update to RFC 2463
- RFC 4541 IGMP and MLD Snooping Switches Considerations
- RFC 4675 RADIUS Attributes for VLAN and Priority Support
- RFC 4861 Neighbor Discovery for IPv6
- RFC 4862 IPv6 Stateless Address Autoconfig

- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- RFC 5859 TFTP Server DHCP option

Chapter 4: Resolved issues

The following table lists the issues resolved in the current software release.

Reference number	Description
ERS3500-383	ERS 3500: 5.2.0.0: DHCP functionality not working for some of the IP address range.
ERS3500-385	ERS 3500: PoE getting disabled after upgrade to 5.3 software release.
ERS3500-386	PC's mac address is not learned when Filter Unregistered Frame is enable.
ERS3500-387	Switch stops responding to SNMPv3 GET requests after properly responding to few initial requests.
ERS3500-388	No ssh,telnet and http through Firewall but ping and snmp works.
ERS3500-417	ERS 3500: Ports with MDIX Feature set to Normal go Oper Down After Reboot.
ERS3500-418	Issue is with how vlan 1 information is displayed in the output for show running-configuration.
ERS3500-436	"cli password serial " fall back to local from radius after reboot of the switch.
ERS3500-439	Telnet: TCP port 23 is opened when telnet access is disabled.
ERS3500-442	ERS 3500 5.3.1: SSL/TLS not working after regeneration of SSL certificate.

Chapter 5: Known issues and limitations

The following table lists and describes known issues and limitations. Where available and appropriate, workarounds are provided.

Reference number	Description
For Release 5.3.1	
ERS3500–293	LLDP: Vendor specific avaya TLVs are set to false state after upgrade from 5.3.0.005 to 5.3.1.x
ERS3500–296	IGMP-EDM: undefined lines are continuously incremented in Groups-Ext tab when version v3 is configured and v1/v2
ERS3500–305	EDM: EAPOL block-different-radius-assigned-vlan option is not available in EDM - EAP Tab - inconsistency between CLI
ERS3500–346	After setting the duplex parameter on all ports, speed is randomly set on ports
ERS3500–347	MDIX command is not available in EDM, there is an inconsistency between CLI and EDM
ERS3500–348	MDIX ForceAuto inconsistency appears after speed configuration
ERS3500–349	EDM: SSHC DsaKeySize range values should be modified to <1024-3072> - inconsistency with CLI
ERS3500–353	MDIX setting does not automatically change to normal after setting the duplex parameter
ERS3500–354	Flowcontrol activates on random ports when setting duplex to full
ERS3500–374	EDM: STP - SpanningTreeBpduFilterIgnoreSelf should be implemented in EDM - inconsistency with CLI
ERS3500–375	IGMP-EDM: Inconsistency between CLI & EDM regarding last IGMPv3 entry when sending max number of groups
ERS3500–377	EAP settings configured through FA Zero Touch are present in running config even after port is shut down
ERS3500–380	EDM:IPv6 Addresses Tab - Insert option is not active by default
ERS3500–381	In CLI should show the following message: “% Could not set custom MDIX on a port with enabled auto-negotiation” only