



ExtremeSwitching™

Release Notes for Ethernet Routing Switch ERS 3600 Series

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Contents

Chapter 1: Preface	6
Purpose.....	6
Training.....	6
Providing Feedback to Us.....	6
Getting Help.....	6
Extreme Networks Documentation.....	7
Subscribing to service notifications.....	8
Chapter 2: New in this release	9
New in this Release.....	9
Overview of features by release.....	9
Chapter 3: Important notices	16
File names.....	16
Upgrading the Diag image using CLI.....	16
Updating the Diag image from the Boot menu.....	17
Supported software and hardware capabilities.....	18
Supported standards RFCs and MIBs.....	19
Standards.....	19
RFCs and MIBs.....	20
Chapter 4: Resolved issues	23
Chapter 5: Known issues and limitations	24

Chapter 1: Preface

Purpose

This document describes new features, hardware, upgrade alerts, known and resolved issues, and limitations for Extreme Networks Ethernet Routing Switch 3600 in this software release.

Training

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- Content errors or confusing or conflicting information.
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- Broken links or usability issues.

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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)
Release Notes

www.extremenetworks.com/support/documentation-archives/

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About this task

You can modify your product selections at any time.

Procedure

1. In an Internet browser, go to <http://www.extremenetworks.com/support/service-notification-form/>.
2. Type your first and last name.
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.

Overview of features by release

This section provides an overview of the ERS 3600 software features up to Release 6.1.

This following table lists software features in *Using CLI and EDM on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
CLI pipe filter	x	
ASCII Config File	x	
HTTP web-based management	x	
Show Running Config (verbose, non-verbose, module) enhancement	x	
WEB HTTP download of ASCII — downloading of ASCII configuration files through HTTP	x	
Writemem and save config command	x	

This following table lists software features in *Quick Start Configuration for Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
802.3af (Power over Ethernet —PoE) and 802.3at (PoE+)	x	
802.3x (Flow Control – Gig ports only)	x	
ACG (ASCII Config Generator)	x	
Agent Auto Unit Replacement (AAUR)	x	
Auto save Disable	x	

Table continues...

New in this release

Autosave configuration enhancements	x	
BootP or Default IP	x	
BootP/TFTP for downloading software and config file	x	
CLI Quick Start script	x	
DNS – Domain Name Service capa	x	
Downloading agent without reset	x	
Factory-default command	x	
No Banner & CTRL-Y Skip	x	
Ping enhancement	x	
Port Naming	x	
Run IP Office Script	x	
Show software status	x	
Telnet (up to 4 sessions)	x	
Telnet out – ability to open telnet sessions from the box	x	
Username Password Enhancement	x	

This following table lists software features in *Configuring VLANs, Spanning Tree, and Multi-Link Trunking on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
256 port-based VLANs with IVL.	x	
802.3ad- Link Aggregation Control Protocol (LACP)	x	
802.1Q tagging	x	
802.1w – rapid spanning tree	x	
Autotopology	x	
BPDU Filtering	x	
Default settings for Spanning Tree mode		x
Distributed LAG (802.3ad LACP), up to 6 trunks with 4 links per trunk	x	
Distributed MLT (DMLT), up to 6 trunks with 4 links per trunk	x	
IPv6 VLANs (protocol based)	x	
LAG (802.3ad LACP), up to 6 trunks with 4 links per trunk	x	
MAC flush	x	
MLT enable/disable whole trunk	x	
MLT/DMLT/LAG dynamic add/delete	x	

Table continues...

Multi-Link Trunking (MLT) with up to 6 trunks and 4 links per trunk	x	
Show MAC Address enhancement	x	
Single 802.1d Spanning Tree Protocol (STP) on all ports	x	
SLPP Guard	x	
Spanning Tree 802.1d compliance mode	x	
Spanning Tree port mode	x	
Static LACP key to trunk ID binding	x	
Static STP Multicast Destination Configuration	x	
VLACP	x	
VLAN Tagging Enhancement	x	
Voice VLAN Integration	x	

This following table lists software features in *Configuring System Monitoring on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
Auto Detection And Configuration (ADAC) with 802.1AB interaction	x	
CPU & Memory Utilization	x	
Cumulative system uptime	x	
Dual Syslog servers	x	
Identify Units (Blink LEDs)	x	
Port mirroring (1-1, manytoOne)	x	
Remote Logging - ability to log on remote servers	x	
RMON (RFC1757): per port Statistics, History, Alarm and Events	x	
Secure SLA Monitor agent-server communication	x	
Service Level Agreement (SLA) Monitor	x	
Show environmental	x	
SLAMon	x	
SLAMon phase 2 (including EDM)	x	
SNMP MIB web page in EDM	x	
SNMP Trap list web page in EDM	x	
Software Exception Log	x	
Stack Health Check	x	

Table continues...

New in this release

Syslog	x	
Syslog enhancements	x	
Unit Stack Uptime	x	

This following table lists software features in *Configuring IP Routing and Multicast on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
DHCP Client	x	
DHCP Option 82	x	
DHCP Relay	x	
DHCP Server	x	
IGMP Selective Channel Block		x
IGMPv1/v2 snooping/proxy	x	
IGMPv3 Snooping/proxy	x	
IP Blocking	x	
IP Local Static Routes	x	
IP Non-Local Static Routes	x	
L3 - RIPv1v2	x	
MLD Proxy (MLDv1/MLDv2)	x	
MLD snooping (MLDv1/MLDv2)	x	
Proxy ARP	x	
RIP Policies	x	
Static Routing with default route	x	
UDP Forwarding	x	

This following table lists software features in *Configuring Quality of Service on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
Advanced QoS	x	
Automatic QoS	x	
COS/DSCP — mapping the DSCP value	x	
Traffic Profile	x	

This following table lists software features in *Configuring Security on Ethernet Routing Switch 3600 Series*.

Feature	New in this release
---------	---------------------

Table continues...

	6.0	6.1
802.1X EAP Accounting	x	
802.1X EAP (MHSA, MHMV, Guest VLAN, Fail Open VLAN, Non-EAP, and RADIUS MAC)	x	
802.1X EAP Separate enable/disable	x	
802.1X Enhancement: Dynamic VLAN assignment for NEAP	x	
802.1X Enhancement: Unicast request, Non-EAP IP Phone support	x	
802.1X NEAP Accounting	x	
802.1X NEAP and Guest VLAN on same port	x	
802.1X NEAP Fail Open VLAN	x	
802.1X NEAP Phone Support	x	
802.1X NEAP re-authentication timer	x	
802.1X NEAP with VLAN names	x	
802.1X RFC2866/2869 RADIUS interim accounting updates	x	
802.1X RFC3576 RADIUS auth extensions - CoA and DM	x	
ARP Inspection	x	
Configurable SNMP trap port (only SNMP v1 & v2)	x	
DA Filtering	x	
Default all EAP settings	x	
DHCPv6 filtering	x	
DHCP Snooping	x	
Duplicate Address Detection (DAD) snooping and filtering	x	
Dynamic "IPv6 Neighbor solicitation/advertisement" inspection	x	
EAP enhancements		x
Extended IP Manager (IPv4 & IPv6)	x	
HTTP port change	x	
HTTPS/SSL secure web management	x	
IPv6 Source Guard	x	
IPv6 Enhancements - IPv6 Host Enhancement and IPv6 Loopback	x	
IPV6 First Hop Security	x	
Local password protection	x	

Table continues...

New in this release

MAC address based security with autolearn (BaySecure)	x	
Multiple Host with Multiple VLANs (MHMV)	x	
Multiple Host with Single Authentication (MHSA) — No limit	x	
NEAP Not Member of VLAN	x	
Neighbor Unreachability Detection (NUD) filtering	x	
Password security	x	
RADIUS-based security	x	
RADIUS EAP / NEAP to different servers	x	
RADIUS password fallback	x	
RADIUS Server reachability	x	
RADIUS use-management-ip	x	
Router Advertisements (RA) filtering	x	
Secure FTP (SFTP) – full support	x	
SNMP-based network management	x	
SNMP trap enhancements	x	
SNMPv3 security	x	
SSH enhancement to support RSA	x	
SSHv2	x	
Stack Monitor and Statistics	x	
Sticky MAC	x	
Storm Control	x	
TACACS+	x	
Unified Authentication	x	

This following table lists software features in *Configuring Fabric Attach on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1
Fabric Attach	x	
Fabric Attach Proxy	x	
Fabric Attach enhancements		x

This following table lists software features in *Configuring Systems on Ethernet Routing Switch 3600 Series*.

Feature	New in this release	
	6.0	6.1

Table continues...

802.1AB (LLDP) Standards Based Auto Topology	x	
802.1AB and ADAC interoperability	x	
802.1AB Customization features	x	
802.1AB Integration features	x	
802.1AB Location TL	x	
802.1AB MED	x	
Auto Unit Replacement (AUR) per trunk	x	
Extreme Networks Energy Saver	x	
Backup configuration	x	
Custom Autonegotiation Advertisements (CANA)	x	
Configure Asset ID	x	
IPv6 Management	x	
Low PoE power mode		x
Manual-MDI/X	x	
PoE enhancements		x
Rate Limiting	x	
Show Flash History	x	
Show UTC Timestamp	x	
Shutdown, reload enhancement	x	
SNTP and SNTP timezone enhancement	x	
Stack Forced Mode	x	
Stack IP Address	x	
Time Domain Reflectometer		x
Video Surveillance Script	x	

Chapter 3: Important notices

This section provides important software and hardware related notices.

File names

The following table describes the software files for ERS 3600 Series Software Release 6.1.

Module or file type	Description	File name	File size (bytes)
SSH runtime image	Software image for the Ethernet Routing Switch 3600 Series	ers3600_6.1.0.005.img	15,451,688
Diagnostic software	Diagnostic software for the Ethernet Routing Switch 3600 Series	ers3600_6.0.0.3_diag.bin	7,096,944
MIB definition files	Management Information Base (MIB) definition files	Ethernet_Routing_Switch_36xx_MIBs_6.1.0.zip	1,615,219
EDM Help file zip	A downloadable zip file containing Help information for Enterprise Device Manager (EDM)	ers3600v610_HELP_EDM.zip	2,907,786
COM Plug in file zip	COM Plug in for Enterprise Device Manager (EDM)	ers3600v6.1.0.0.zip	4,219,989

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

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:

```
DIAGNOSTIC BREAK MENU

 1 - Launch Primary Agent-1
 2 - Download Agent/Diag
 3 - Reinitialize Agent Configuration Files
 4 - Display Error Log
 5 - Display System Information
 6 - Continue Boot Sequence
 7 - Reset
 8 - Toggle Do-POST Selection [ENABLED]
 9 - Run POST tests
```

4. Press **`2'**.
5. Choose option: 3 - Diagnostics.

6. Choose option: 1 – Download via TFTP.
 7. Enter the filename, along with its extension; for example `_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 3600 Series software.

Table 1: Supported capabilities for the ERS 3600 Series

Feature	Maximum number supported
QoS egress queues	4
QoS filters per precedence	256
QoS precedence	8
Total QoS filters	(4 x 256) = 1024
MAC addresses	16000
Layer 2	
VLANs	256
IGMP SCB filters	240
Multiple Spanning Tree Instances (MSTI) in MSTP mode	8
Multicast entries (IPv4 and IPv6)	248
IGMP Snoop VLANs	256
LLDP Neighbors (3626/3650)	416/800
LLDP Neighbors per port	16
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	480
IPv4 route entries (local, static & dynamic)	32 local + 32 static + 256 dynamic
Static routes and Non-local Static routes	32
Local routes	32
Management routes	4
RIP routes	256
RIP Interfaces	16
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
IPv6 Interfaces	64
IPv6 Static Routes	128
Miscellaneous	
802.1X EAP scaling (clients for each port)	32
Jumbo frame support	9 K bytes
IGMP multicast groups	248
802.1X (EAP and NEAP) clients per stack	768
RMON alarms	400
RMON events	400
RMON Ethernet statistics	128 per unit
RMON Ethernet history	196 per unit
Fabric Attach operational mode	Proxy
Fabric Attach clients –proxy requests (proxy VLANs)	256

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))

Important notices

- 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 1058 RIPv1
- 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 2453 RIPv2
- 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

Important notices

- RFC 2710 MLDv1 for IPv6
- 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 3810 MLDv2 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
ERS3600–356	USB- Wrong error message when try to download diag/image to USB and USB port is disabled
ERS3600–380	COM: EDM Offbox: AES - Wrong error message when try to delete a schedule when AES is active
ERS3600–385	COM: EDMoffbox - inconsistent value displayed when trying to disable faElementType & falsidVlanAsgns TLVs from LLDP menu
ERS3600–403	COM/EDM-offbox: QoS traffic-profile is not implemented in EDM off-box
ERS3600–418	EDM: USB support for ASCII config file tab does not exist in EDM
ERS3600–425	Stack- Link leds for stacking ports are not lit. The Stacking ports have been migrated to the front of the switch, and the ports can be used either as Stacking or as Standalone 10G ports. <ul style="list-style-type: none"> • When used as Stacking ports, the LEDs on the left of the switch indicate Stack port status. The Stack Up and Stack Down LED's are updated as the Stack ports become active or idle. Their local port LEDs do not indicate Stack port status. • When used as Standalone ports, the local LEDs indicate port status, like all other ports.
ERS3600-508	DHCP Snooping is not updated with end-user IP address and sometime end-user cannot obtain an IP address
ERS3600–515	No MAC learning after upgrade to 7.4 for POE device with FA enabled
ERS3600–518	Unable to configure call server IP in this range (x.x.x.224 through x.x.x.255) for LLDP
ERS3600–520	Mac-address of the PC not learned on a EAP port after force authorization on that port
ERS3600–521	End-user loses network connection through ERS3600 with DAI and IPSPG configuration
ERS3600–526	Random ports show negative value for last change field

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
ERS3600–69	Inconsistency between CLI and EDM: In EDM it should exist a tab in the folder RUN script for RUN VS.
ERS3600–310	EAP: Auto-configured VLAN should be deleted when NEAP clients are disconnected  Note: Removing all authenticated clients on a dynamically autocreated VLAN by EAP, may cause that auto-created VLANs to not be deleted under some circumstances.
ERS3600–345	EDM offbox: After creating vlan from EDM offbox with assigned IP address, the vlan created in EDM offbox are displayed in ACG in incorrect order in module I3-protocols.
ERS3600–404	COM: Error "CommitFailed" when configuring DHCPv6 Guard ServerAccessListName and ReplyPrefixListName with invalid values in EDMOffBox.
ERS3600–426	EDM: Port status is not updated instantly when link state changes.
ERS3600–432	EDM: Refresh button in EDM does not function. Workaround: Use the F5 function key.
ERS3600–435	Disabled SFP Ports do not flash when disabled.
ERS3600–450	Cannot upload ASCII config when vlans dynamically created are present (FA, EAP). The VLANs created dynamically are not automatically re-created after a device reboot. When executing a ASCII config file (after a reboot) the CLI commands that are using these VLANs will fail. Manual re-creation of the missing VLANs is recommended before executing the ASCII script.
ERS3600–459	Inconsistency between CLI and EDM: Track All Mac should be implemented in EDM.
ERS3600–485	FA ZT EDM: Should not accept auto-port-mode-fa-client and auto-pvid-mode-fa-client enabled at the same time

Table continues...

Reference number	Description
	<p> Note:</p> <p>When both policies are configured, only the one that was configured first is applied.</p>
ERS3600–486	<p>FA ZT EDM: Should not accept auto-port-mode-fa-client and auto-client-attach enabled at the same time.</p> <p> Note:</p> <p>When both policies are configured, only the one that was configured first is applied.</p>
ERS3600–505	<p>FA transition from stack to standalone: FA ZT policy is not applied on AP after transition</p> <p>Workaround: In case that the FA ZT policy is not applied on a AP after transition from stack to standalone, do the following:</p> <ul style="list-style-type: none"> • Make sure there is only a single connection to the server. • Eliminate the other proxy connections (proxy to proxy is not supported). • Delete the binding data configured on the AP so that the only configuration being installed is the ZTC data.
ERS3600–519	<p>Autosave won't re-enable after reload is canceled without reboot when ASCII config not available.</p> <p>The autosave is not re-enabled when a reload is activated then canceled. A device reboot is required for the autosave activation.</p>
ERS3600–523	<p>EDM does not display any link info about stacking ports in stack mode in device physical view.</p> <p>In the stacking mode the number of available ports is 26/50 (the stacking ports are not counted); therefore, there are no instances of the SNMP objects for the stacking ports.</p>