



## Firmware for EDR-G902 Series Release Notes

<b>Version: v5.4</b>	<b>Build: Build_19122012</b>
<b>Release Date: Dec 20, 2019</b>	

### Applicable Products

EDR-G902, EDR-G902-T

### Supported Operating Systems

N/A

### New Features

- The TCP SACK panic attack Linux Kernel Vulnerabilities (CVE-2019-11477, CVE-2019-11478 & CVE-2019-11479) were fixed.

### Enhancements

N/A

### Bugs Fixed

- The port link-on and link-off activity caused the static routing rules to disappear.
- When the local time configuration was changed it sometimes failed to save in the system.

### Changes

N/A

### Notes

N/A



<b>Version: v5.3</b>	<b>Build: 19090200</b>
<b>Release Date: Sep 12, 2019</b>	

### **Applicable Products**

EDR-G902 Series

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

- Modbus policy enforcement was enhanced.
- The syslog agent was upgraded to improve memory usage and implement memory usage monitoring for syslog agent with event log.
- Prevented command injection of remote TFTP service.

### **Bugs Fixed**

- After the EDR-G900 Series was rebooted, the VRRP function did not work properly.
- When “ARP-Flood” protection was enabled, the layer 2 policy of the firewall settings did not work properly.
- Authentication of web console through the Radius server did not work properly.
- The layer 3 policy of the firewall settings did not inspect the IP address with the rule that included both the source IP and source MAC filtering.
- There was an incorrect prompt message after the maximum amount of login sessions in the command line interface were configured.
- The “show ip http-server” command received an incorrect prompt message regarding the maximum amount of login sessions.
- The layer 3 policy of the firewall settings did not have the configurations exported correctly with the rule that included both source IP and source MAC filtering.
- There was a risk that the device would fail to reboot after the firmware was upgraded.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v5.0</b>	<b>Build: N/A</b>
<b>Release Date: Feb 01, 2019</b>	

**Applicable Products**

N/A

**Supported Operating Systems**

N/A

**New Features**

N/A

**Enhancements**

N/A

**Bugs Fixed**

N/A

**Changes**

N/A

**Notes**

N/A

<b>Version: 4.2</b>	<b>Build: N/A</b>
<b>Release Date: Apr 18, 2018</b>	

## Applicable Products

N/A

## Supported Operating Systems

N/A

## New Features

- Support for virtual MAC on VLAN interfaces
- Add independent names of NAT rules and Firewall rules
- Support "Source IP-MAC Binding" in layer 3 policy for IP spoofing protection
- Link Fault Pass-Through for copper ports and fiber ports
- Add "Ping Track" and user-defined "Preempt Delay" for VRRP
- Support user-defined MTU size
- Add MPPE for PPTP

## Enhancements

- Hash algorithm SHA-256 in OpenVPN
- AES for SNMP v3
- Individual PSK for multiple "Site-to-Any" IPsec rules
- Remove weak algorithms and only keep highly secured algorithms for SSH: Ciphers aes128-ctr, aes192-ctr, aes256-ctr, MACs hmac-ripemd160, hmac-sha2-256, hmac-sha2-512
- Fix potential risk of "Web Application Vulnerable to Clickjacking"
- Support option to "Keep Certificate Management and Authentication Certificate" when resetting router to factory default
- Support user-defined interfaces for N-1 and port-forward NAT
- VPN support certificate using SHA-256 hash algorithm
- SSL certificate security level with 2048 bit key length with SHA-256 hash algorithm
- SHA-256 hash algorithm for encryption of login account and password in Web browser cookie

## Bugs Fixed

- EDR-G900 compatibility issue with CISCO ACS Radius Server
- Modbus filtering cannot filter "Modbus address range" correctly
- VRRP status in CLI and MIB file are incorrect
- Firewall log displays incorrect source MAC address (00:00:00:00:00:00) in bridge mode
- Fail to import configuration of "Syslog Server"
- Incorrect display of login banner in web console
- Frame Padding is not cleared
- Cannot use special character "\$" as login password
- SSH server cannot work after being reset to factory default
- L2TP over IPsec configuration cannot be imported correctly
- IPsec connection table displays incorrect information
- IPsec status does not show phase 1 and 2 established when L2TP client is connected
- Users cannot clear SMTP email settings from web console
- IPsec DPD detection fails
- Add city of the time zone settings for CLI commands
- Support multiple local subnets and remote subnets for one IPsec tunnel
- Cannot remove the last OpenVPN client account
- CA server sometimes generates incorrect certificate
- When login as "user", some EDR-G900 settings can still be changed
- Web console (HTTP) cannot work after changing "Router Name"



- Fix system log mechanism for better memory usage
- SNMP V3 cannot work after importing configurations back in
- "OpenVPN Server to user configuration" works incorrectly when the router's WAN interface is not a static IP
- OpenVPN configuration exporting has a problem the next time it imports
- Switching options between "TUN" mode and "TAP" mode causes OpenVPN to function abnormally
- Cannot display multiple subnet settings in CLI
- Cannot login to the web console after importing configurations via MXconfig
- User cannot use dash "-" character in the name of static route rules in web GUI
- NTP client does not sync time with NTP server correctly when the time gap is too large
- Cannot change router from "WAN2 Connect Mode" to "WAN2 Backup Mode"

### **Changes**

Changes:

- Change default privilege of SNMP "public" community to read only
- Support MIB query of Virtual MAC for VLAN interfaces
- "Ping" function follows the routing table to the next hop and "Ping Interface" option was removed
- The default session limit of "SSH" and "Telnet" changes to 5 concurrent sessions
- Remove "Auto Routing" from "Outside Interface" options in N-1 NAT settings

### **Notes**

N/A



<b>Version: v4.1</b>	<b>Build: Build_17031311</b>
<b>Release Date: Mar 21, 2017</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- IEC 62443-4-2 level 2 compliant.
- Supports ifAdminStatus MIB information as device's port setting.
- Supports 1-1 NAT redundancy of the two routers by VRRP binding.
- Supports Radius CHAP authentication.
- Integration of the certificate database for IPsec, OpenVPN, and X.509.
- Improved PPPoE performance.
- Supports special characters, "0-9 a-z A-Z \_@!#\$%^&\*().-," as part of the account password.
- Unlock the limitation of the configuration import between standard temperature and wide temperature models.

### **Enhancements**

N/A

### **Bugs Fixed**

- Link-on and link-off operations of WAN port cause static route policy to disappear.
- No encryption of the password-type information in the exported configuration file.
- Web content did not display correctly in some browsers.
- Removed unused residual web pages from the system.
- "User" privilege is allowed to export configuration files.
- Time zone setting has a problem.
- Fixed SNMP OID "ifAdminStatus" status.
- "Cold start" event was sometimes not recorded in the system log.
- Changed the default settings of preemption delay from 5 seconds to 120 seconds to enhance the stability of VRRP.
- Incorrect display of device IP address in MXview when 1:1 NAT function of the router was enabled.
- Failed to access EDR's service through IPsec tunnel when port forwarding (same as EDR's service port) NAT is enabled.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.6</b>	<b>Build: Build_16081017</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

- Optimized PPPoE performance.

### **Bugs Fixed**

- L2TP account configuration disappeared after upgrading to v3.5.
- Password configuration mismatch after upgrading to v3.5.
- After upgrading to v3.5, users cannot log in to EDR products via web console when the password contains special characters.
- Users cannot login into EDR products via serial console and telnet console when the password contains special characters.
- Cannot downgrade to old versions (before v3.5) from firmware v3.5.
- LLDP interpretation with CISCO devices.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.5</b>	<b>Build: Build_16060718</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- Supports OpenVPN as client or server.
- Supports text-based configuration file and configuration file encryption.
- Supports OSPF routing protocol.
- Supports MXstudio V2.4.
- Supports multiple L2TP clients.
- Supports multiple login user account.
- Supports user-defined login message on the web console.
- Supports IPsec X.509 with certificate issued by authorized CA.
- Supports CSR (Certificate Signing Request).
- Supports monitoring IPsec tunnel uptime.
- Supports bi-directional 1-1 NAT for local devices that do not have gateway settings.
- Supports configurable port speed.
- Supports VPN, firewall, DOS, and system security events stored in local storage or sent to SNMP trap server, and Syslog server.

### **Enhancements**

N/A

### **Bugs Fixed**

- Daylight saving time configuration issue.
- "Base 1" setting did not work in Modbus filtering function.

### **Changes**

- Changed the command line interface from "EDR-G903>>" to "EDR-G903#".

### **Notes**

N/A





<b>Version: v3.4</b>	<b>Build: Build_15081713</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

- Separated PPTP and L2TP user account management.
- Extended maximum NAT rules to 350 on EDR-G903 Series.
- Changed DPD configuration from “Hold” to “Restart” in default IPsec settings.

### **Bugs Fixed**

- System memory management was improved to solve system lockup problem by SDK upgrade.
- Improved several VRRP operational behaviors.
- During routing, the router occasionally dropped a few packets.
- When there are broadcast packets coming into the system continuously during link-up and link-down phase, traffic is possible to be blocked by MAC at 10 Mbps speed.
- When the WAN interface is down, router still send out RIP update for other VLAN interfaces which are bind on WAN.
- Simultaneously using "PING" from different consoles caused incorrect "PING Reply" result.

### **Changes**

- Changed the default settings of DHCP server from enabled to disabled.

### **Notes**

N/A



<b>Version: v3.3</b>	<b>Build: Build_15020316</b>
<b>Release Date: N/A</b>	

**Applicable Products**

EDR-G903

**Supported Operating Systems**

N/A

**New Features**

N/A

**Enhancements**

- Supports 10 Mbps speed configuration by CLI.

**Bugs Fixed**

- Repeated plugging the Ethernet cable in and out caused the NAT function to stop working.
- System stopped working after a long-term running with a large amount of traffic.

**Changes**

N/A

**Notes**

N/A



<b>Version: v3.2</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- Add "User Interface Management" to enable/disable http, https, telnet, SSH, and Moxa utility.

### **Enhancements**

- Changed default interface to "Auto" in NAT configuration after factory default.
- Changed behavior of Modbus TCP filtering to "stateless firewall" mode.

### **Bugs Fixed**

- "Packet Monitoring" did not display correctly with the latest JAVA version in the web console.
- "Drop Multiple Commands" in Modbus filtering did not work properly.
- Address configuration of Modbus filtering did not work properly when inputting 5-digit addresses.
- Cannot set NTP/SNTP time server correctly.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.1</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- Allow to configure TCP ports of user management interfaces (HTTP/HTTPS/Telnet/SSH).

### **Enhancements**

- Changed default setting of NAT interface to “Auto”.
- Incorrect display in the configuration items of Modbus TCP filtering.
- Changed behavior of Modbus TCP filtering to stateless mode
- Enlarged maximum firewall rules to 512 (EDR-G903) and 256 (EDR-G902).
- Enlarged maximum NAT rules up to 256 (EDR-G903) and 128 (EDR-G902).

### **Bugs Fixed**

- Display error in the monitoring page of “Packet Monitoring”.
- Failed to enable “Drop Multiple Function” in configuration of Modbus Policy.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.0</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- Deep Packet Inspection for Modbus TCP.
- Supports 5 VLANs per interface for NAT, Firewall Policy, RIP, and VRRP.
- Upgraded EDR-G903's maximum VPN tunnels to 100 (Max. 30 of 100 for start-in-initial mode).
- Upgraded EDR-G902's maximum VPN tunnels to 50 (Max. 15 of 100 for Start-in-initial mode).
- "Auto" mode in N-1 NAT Settings for routing packets to NAT or VPN.
- CLI of IPsec settings.
- Factory default login password changes from empty to "moxa" for higher security.

### **Enhancements**

- Changed the default gateway to PPTP interface when it is established.
- In 1-1 NAT mode, the router can automatically choose the outgoing interface according to the routing table. (In the previous versions, the outgoing interface is assigned by users.)

### **Bugs Fixed**

- Incorrect PWR1 and PWR2 LED displayed in the information bar of the web console.
- Cannot establish a VPN connection when setting "Encryption Algorithm" to "DES" in IPsec settings.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v2.12</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

**Applicable Products**

EDR-G903

**Supported Operating Systems**

N/A

**New Features**

N/A

**Enhancements**

N/A

**Bugs Fixed**

- Cannot save configurations after power cycle.

**Changes**

N/A

**Notes**

N/A



<b>Version: v2.11</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

**Applicable Products**

EDR-G903

**Supported Operating Systems**

N/A

**New Features**

N/A

**Enhancements**

- Removed undocumented account.
- Replaced hard-coded SSH/SSL key by dynamic-generated key.
- Supports special characters for login password.

**Bugs Fixed**

N/A

**Changes**

N/A

**Notes**

N/A



<b>Version: v2.2</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

**Applicable Products**

EDR-G903

**Supported Operating Systems**

N/A

**New Features**

N/A

**Enhancements**

N/A

**Bugs Fixed**

- Bug Fix: Under IE7 browser, some pages in web UI cannot display all functions
- Bug Fix: After system reboot, EDR-G903 may not establish VPN tunnel automatically

**Changes**

N/A

**Notes**

N/A





<b>Version: v2.1</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- Supports Broadcast Search by Moxa Ethernet switch utility (EDScfgui.exe) in Bridge mode.
- Supports Firmware Upgrade by Moxa Ethernet switch utility (EDScfgui.exe).

### **Enhancements**

N/A

### **Bugs Fixed**

- When using Chrome, the EDR-G903 checks against the user account password when logging in as Admin.
- After the EDR-G903 has been switched from router mode to bridge mode, NAT, Firewall, QoS policy, and LAN IP address settings for router mode are accessible prior to a restart.
- Firewall or QoS policy failed to clear when all the rules are deselected and cleared in one application. Previously, the policies would only all clear correctly after a restart or another policy change if all rules were cleared in one application.
- The same VPN local subnet settings cause EDR-G903 only pass packets through the first VPN tunnel to remote sites
- In bridge mode, the assigned interface will be invalid when configuring a layer 2 filtering policy.
- The 1-to-1 NAT rule will be invalid when it is assigned an interface.
- LLDP table is not empty when disabling LLDP.
- EDR-G903 ping fail from web console to LAN devices.
- EDR-G903 web page shows WAN IP 0.0.0.0 for WAN1 when using PPPoE connection.
- EDR-G903 ping fail from web console through PPPoE after rebooting.
- Must disable “Accessible IP” when using VPN tunnel or L2TP connection.
- After disabling “VPN Global Setting”, EDR-G903 cannot reactivate it again after rebooting.
- DHCP Server does not disable after EDR-G903 has been switched from router mode to bridge mode.
- Packets will only go through NAT rule if the local subnets of VPN tunnels and NAT rules are overlapped.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v2.0</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

EDR-G903

### **Supported Operating Systems**

N/A

### **New Features**

- Added IPsec, L2TP VPN function.
- Added RIP function.
- Added Bridge mode Firewall.
- Added SNMP Private MIB.

### **Enhancements**

N/A

### **Bugs Fixed**

- Login password check failed by Google Chrome browser.
- NAT or LAN IP did not clear when user changed Network mode from Router mode to Bridge mode.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v1.0</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

**Applicable Products**

EDR-G903

**Supported Operating Systems**

N/A

**New Features**

- First release for EDR-G903 series.

**Enhancements**

N/A

**Bugs Fixed**

N/A

**Changes**

N/A

**Notes**

N/A