Firmware for EDR-G903 Series Release Notes

Version: v5.7.21	Build: 23092017
Release Date: Sep 22, 2023	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

N/A

Enhancements

N/A

Bugs Fixed

- IPV-230306
- IPV-234880
- Server authentication will fail when establishing a connection to the SMTP server.
- The WAN interface connection is sometimes suddenly lost.
- LLDP causes a memory leak.
- The device is unable to synchronize the system time after enabling the NTP server.

Changes

N/A

Notes

N/A

Version: v5.7.15	Build: 22122311
Release Date: Jan 10, 2023	

Applicable Products

EDR-G903 Series

Supported Operating Systems

N/A

New Features

N/A

Enhancements

N/A

Bugs Fixed

• Compatibility issues with MXview One.

Changes

N/A

Notes

This is a beta firmware release for bug fixing only.

Version: v5.7.13	Build: 22110712
Release Date: Nov 16, 2022	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

N/A

Enhancements

N/A

Bugs Fixed

- The DDNS function behaves abnormally after rebooting the device.
- MPSA-221105

Changes

N/A

Notes

For more details about specific Moxa Product Security Advisories (MPSA), please visit https://www.moxa.com/en/support/product-support/security-advisory/security-advisories-all

Version: v5.7.11	Build: 22101315
Release Date: Oct 21, 2022	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

- Added an option for the WAN interface to reject PING requests from external devices.
- VLAN interfaces can now be used for VRRP redundancy.

Enhancements

- Increased the maximum supported number of interfaces for each VLAN from 5 to 15.

Bugs Fixed

- In some instances, SNMP applications will cause the system to reboot.
- The Dual WAN backup mechanism behaves abnormally under certain conditions.
- IPV-220703
- IPV-220805
- IPV-220811

Changes

N/A

Notes

This is a beta firmware release.

Version: v5.7	Build: 21121419
Release Date: Dec 28, 2021	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

N/A

Enhancements

• Improved the performance of SIP applications.
• Added secure authentication when users require Moxa remote technical support to access the device.

Bugs Fixed

• Potential command injection vulnerabilities and web console buffer overflow issues.
• Static routing rules sometimes disappear when repeated link-on and link-off events occur on the interface ports.
• The WAN backup function sometimes does not function properly when repeated link-on and link-off events occur on the WAN1 interface.
• The system records multiple duplicate “Authentication Failure” logs for the same event.
• The “IPsec Local Subnet” information is displayed incorrectly in the web console. This does not affect performance or functionality.
• NAT rules are not imported correctly when importing a configuration file created in firmware version 3.6.x and earlier to firmware version 5.5 and later.
• MXview does not show the “Link Down” status when unplugging the physical connection from the WAN interface.
• Minor LLDP issues.

Changes

N/A

Notes

N/A

Version: v5.6	Build: 20092212
Release Date: Oct 14, 2020	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

N/A

Enhancements

• Updated security for IPV-200502.

Bugs Fixed

N/A

Changes

N/A

Notes

N/A

Version: v5.5	Build: Build_20050420
Release Date: May 27, 2020	

Applicable Products

EDR-G903, EDR-G903-T

Supported Operating Systems

N/A

New Features

N/A

Enhancements

N/A

Bugs Fixed

Malicious operation of the crafted web browser cookie may cause stack buffer overflow to the system web server of the EDR-G900 Series.

Changes

N/A

Notes

N/A

Version: v5.4	Build: 19122011
Release Date: Dec 20, 2019	

Applicable Products

EDR-G903, EDR-G903-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

Version: v5.3	Build: 19090111
Release Date: Sep 12, 2019	

Applicable Products

EDR-G903 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

Version: v5.0	Build: Build_19010217
Release Date: Feb 01, 2019	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

• Support VRRP LED, VPN LED and State LED
• Support LFP (LINK FAULT PASS-THROUGH)

Enhancements

• Upgrade openssl kit
• Modbus DPI support filtering with source/destination port number and malformed packet
• CLI support to show RIP distribution information
• CLI support to enable/disable RIP redistribution (OSPF)
• Static route support to set destination address as 0.0.0.0/0
• Change wording of System File Update-- by Remote TFTP
• Add filter to show OSPF routing table only
• User can type in "/" in the EDR model
• "," ">", and "<" cannot be entered in the EDR model
• Event log can show through SNMP
• Through SNMP, in fun "MTU Configuration", when PRP traffic is disable, the MTU will reset to 1500
• Extend quantity of Modbus policy to 256
• When WAN backup function is disabled, users cannot configure gateway for WAN2 static IP
• When IPsec authentication mode is set as the Pre Share Key, users cannot leave the key empty
• When WAN1 and WAN2 are set as the static IP, the subnet can not be the same. The EDR-G903 will reject this configuration automatically.

Bugs Fixed

• After the SSH reconnects continuously, there is a possibility that the connection will be rejected since the session is full.
• When the VRRP virtual IP is the same as the interface IP, the interface IP will be unstable.
• Even though the VRRP master configuration has been canceled, the virtual IP remains in the routing table.
• When the VRRP settings performed via CLI are not completed, the interface will show undefined.
• When the interface is link-down and set as VRRP, the VRRP will not run normally even though the interface is link-up.
• With blacklist, Modbus DPI cannot filter function code 5, 6, 8, 21, 22.
• The CLI symbol check is not consistent with the Web UI.
• Via CLI, the static route metric can be up to 256.
• When the EDR firmware fails to upgrade, the EDR model will not reboot.
• In OSPF, when the area type is changed from normal to stub or NSSA, the OSPF will not function normally.
• In OSPF, when the area type is changed from stub or NSSA to normal, the OSPF will not function normally.
• Fix CVE-2018-19667.
• After system reboots, the L3 firewall name will disappear.
• In NAT, QoS, l2_filter, static route and VRRP, there is possibility that after configurations are added, the web UI will crash.
• In the L2 policy, when all rules are deleted, users cannot add new rules.

• In the port status, the info of "media type" is wrong.
• In the L3 policy, when the filter mode is set as Source MAC Filter, users cannot type in the source MAC address.
• When there are two static route rules for the same destination, but with different next hop and the user turns off the WAN1 port, the CLI will show the segment fault message..
• When changing the network mode via the CLI, if users cancel this change, the change is still valid

Changes

• In the v2.0.0 system, web UI and CLI shows 12 digits serial number
• In static route, if the mask is set as 0.0.0.0, the destination will be set as 0.0.0.0 automatically

Notes

Remark for firmware upgrade to v5.0:
• If the configuration file uses the following symbols “<”or “>” for the Firewall/NAT/Static route functions, user cannot import this kind of configuration file in to the EDR system that uses firmware v5.0.
• When the EDR system upgrades to v5.0, the EDR will check automatically if there are any characters “<”or “>” in the name of Firewall/NAT/Static route functions. If there are, the EDR will change “<” and “>” to "_".

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

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-Throughput 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

Version: v4.1	Build: Build_17031311
Release Date: Mar 21, 2017	

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

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

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

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

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

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

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

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

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

Version: v3.2	Build: N/A
Release Date: N/A	

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

Version: v3.1	Build: N/A
Release Date: N/A	

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

Version: v3.0	Build: N/A
Release Date: N/A	

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

Version: v2.12	Build: N/A
Release Date: N/A	

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

Version: v2.11	Build: N/A
Release Date: N/A	

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

Version: v2.2	Build: N/A
Release Date: N/A	

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

Version: v2.1	Build: N/A
Release Date: N/A	

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

Version: v2.0	Build: N/A
Release Date: N/A	

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

Version: v1.0	Build: N/A
Release Date: N/A	

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