Firmware for MDS-G4000-4XGS Series Release Notes

Version: v5.0	Build: N/A
Release Date: Aug 01, 2025	

Applicable Products

MDS-G4012-4XGS Series, MDS-G4020-4XGS Series, MDS-G4028-4XGS Series

Supported Operating Systems

N/A

New Features

• Added support for Multi-Language WebUI
• Added support for MACsec
• Added support for VLAN Assignment
• Added support for PROFINET
• Added support for MRP Interconnection
• Added support for Tracking
• Added support for Multiple Network Coupling
• Added support for Multiple Dual Homing
• Added support for GOOSE Check

Enhancements

• Added a shortcut for setting event notification.
• Redirection to the new page after setting new IP address.
• Support LLDP Management Object, LLDP Data Table Object (Neighbor device information)
• E-mail notification support for special character specification
• Change the severity of the event logs display in the backup file from number to word, making it easier to understand.
• Freeze the first column of the Statistic WebUI, making it easier for users to see as they swipe to the right.
• Add error messages : "No USB device detected", "Unsupported USB memory format", and "Insufficient space on USB" when using ABC-02 and ABC-03 to import and export.
• Support PVID as both tagged and untagged member in VLAN Trunk mode.
• PVID will be assigned as an untagged member by default in VLAN Trunk mode.
• The LLDP function now shows more detailed information about neighbor devices.
• Support deleting all files or reamin startup configuration when applying Factory Default
• Added support for periods (.) in the Device Name
• Add CLI command "Show Power" to display redundant power information
• Add OIDs of CPU Usage and System Time
• Support LED Fault blinks according Relay behavior
• Shorten Ping latency
• The LLDP function now shows information about the port connection medium (copper or fiber)

Bugs Fixed

• Logged out due to setting wrong account or password when copy event-logs through sftp by CLI.
• Failed to auto restore signed configuration.
• Record a log out event log without occurring.
• Customer key of file signature can exceed 16 bytes, which is not expected.
• Do not auto backup configuration after the switch auto logout even ABC-02 is plugged in.
• Customer key can be imported and cleared as the privilege of supervisor and user when using CLI, which is not expected.

• Auto restore failure when the ABC-02's or ABC-03's memory is full and having no Moxa/config root path in the external storage will trigger LEDs rotate blinking sequentially.
• Automatic backup of event-log will not restart after failure if user does not unplug the device and then plug it back in.
• LLDP remote table will be destroyed when port link down.
• PTP packets will pass through blocked port, which may cause looping.
• When updating the port mode, VLAN settings are not updated to related functions that use VLAN.
• Show wrong information of running configuration after execution of lldp port-id-subtype local command.
• No ping response to PRP nodes due to the length difference of RPR trailer frames.
• SNMP Engine ID returns no responses.
• System operates abnormally when no IP address set on switch.
• Shows default address IP 10.0.0.1 if there's no setting on the interface vlan 1.
• The router ID will be wrong if the IP address of interface vlan 1 is empty.
• When setting Location of Information Settings, there's no error hint when entering the special character that not supported.
• IGMPv3 source list can learn more than 32 entries.
• TxOctets of Statistic don't show completely.
• The switch will send group-specific query and display an error when receiving two different IGMPv3 membership report frames (exclude and include) continuously from the same port.
• Delay Request Timer stops on end-to-end mode
• PTP is not working with specific PLC while the value of "transportSpecific" in the frame is 1.
• DHCP floods the unicast DHCP packet even when DHCP Relay on the interface has already been disabled.
• Does not always send SNMP trap frames.
• DHCP relay packets sent back to the client might mistakenly be forwarded to the server as well.
• If the DHCP client and server are in different subnets, after the DHCP client obtains an IP address and sends a DHCP request to the server, the server may not receive it.
• Tx and Rx counters cannot be reset by SNMP.
• NTP client time synchronization too long.
• Non-Root Switches don't synchronize Hello Time from the Root Switch.
• Different error messages show in Layer 2 and Layer 3 switches.
• IP output route selection problem occurs when related IP interface status is down.
• MAB cannot make authentication with 2nd radius server when 1st radius server stops service but remains pingable.
• Special character "?" can be entered when setting system location.
• PoE LED doesn’t keep blinking due to port interruption.

• The master switch probabilistically records an event log of PoE events even when PoE function was globally disabled in Turbo Ring topology.
• No port can provide power probabilistically after setting PoE force mode.
• Username is able to enter special character "?" before setting server IP address on Email Notification settings.
• Event log of PoE over power budget limit always shows 0 on maximum input power.
• Some values of the VRRP status table are empty after exporting it to the Web.
• The PoE status of allocated power doesn't show the value of force power in force mode.
• The Querier switch didn’t return Group & Source Specify Query after receiving IGMPv3 leave group frame.
• The status of relay alarm are different on CLI and Web.
• The maximum age can be set higher than the expection based on RSTP forward time value.
• Router port of the switch was also cleared when transfering from Non-querier to Querier.
• Cannot complete authentication to the second RADIUS server after the first RADIUS Server not found.
• Receiving the same announce message will cause port state error
• Random non-recording of event log after reboot due to internal error.
• Fluctuating power sourcing equipment (PSE) detection that continuously cause interrupts which consume CPU resources.
• User account cannot be created if user doesn’t enter email, however email is not required.
• Memory leak caused due to incorrect feeding of Check JSON_Value type data.
• Tail Port will keep blocking when Head Port is link down.
• The switch will logout automatically after setting login authentication mode.
• Wrong switch may be selected as Querier when configured as Non-querier when applying IGMP Snooping.
• Several functions will be affected if user set the username as "system".
• VLAN-unaware DHCP clients cannot send the request back after receving the offer frame with VLAN tag.
• Looping may occur after performing port shutdown on chain ports when operating Turbo Chain.
• Firmware upgrade successful/failed event log lacks username information.
• Additional commands show after exporting and importing configurations.
• An IGMP static router port cannot join the forwarding table even when the link is down.
• IGMP Static Router Port is deleted when the port link down.
• Ingress VLAN is not functional for VLAN-based ACL entry.
• Enabling PTP before PTP hardware ready will cause PTP transmission to fail.
• Abnormal forwarding behavior on the Non- querier switch after all members leave the group.
• The state LED light blinks randomly after cold start, should stay solid.

• 100Mbps fiber may fail to link up.
• The switch records an event-log about exporting configuration after enter "Show running-config" command via CLI.
• The MMS tool cannot connect with the switch due to different default remote P selector.
• Other source streams cannot be forwarded after the certain source is excluded on IGMPv3.
• Vulnerability issues: CVE-2023-48795?CVE-2023-38546?CVE-2019-20372?CVE-2002-20001
• Certain IP fragments may be recognized as PTP packets.
• The dynamic entry learned by the DHCP trusted port cannot be deleted.
• SNMPv1 trap will cause segmentation fault
• The device name will be changed to all caps when the length is over 17.
• The status of PTP peer-to-peer BC mode port will change syncing and locked multiple times when operating Turbo Ring v2.
• Event log entry of the wrong domain will be recorded when connecting to the GM in a different domain even if PTP is not enabled.
• The modbus service may not initialize successfully on the first attempt.
• Temporary looping may occur when link down event occurs on Turbo ring V2.
• Rate limit port shutdown fails to take effect even after the packet is sent for more than 60 seconds.
• The status block port of the Turbo Ring v2 master may not change to forwarding correctly.
• Link Aggregation ports may not join IGMP static router port via CLI.
• CLI command show gmrp statistics display has incorrect format.
• Incorrect MSTP port status shown on web when Bridge ID of another switch is configured between 8192 and 57344.
• Some ports may not be able to enable due to the conflict of Admin status update and Fiber Check port status.
• There may be no record on the forwarding table after received join group message on IGMP Snooping.
• The switch didn’t prevent user from importing files in the wrong format, which may cause abnormal display on the WebUI.
• The multicast IP address 255.0.0.18 cannot be recorded on the IGMP group table and multicast route table.
• System doesn't auto backup earliest 1000 logs to ABC-02 when the maximum number of logs is reached.
• Referring to the wrong length of PTP packets may cause out of bound memory access when doing timescale tlv parsing.
• VRRP can't work with port trunk.
• "Connection refused" may display when entering the command "show ip ospf neighbor" after reloading the switch.

- Wrong ring number shows on Turbo Ring v2 status page.
- The IGMP Snooping character of the switch may not turn back to Querier after two times Query interval.
- Empty table when entering the command "show lldp neighbors" if more than 256 entries are learned.
- Memory leak caused by memory not being freed correctly after handling LLDP frames.
- The switch may warm reboot due to memory leak after receiving 15 management address tlv.
- MSTP related event cannot be gotten in switching-event group.
- The "dot1qTpFdbTable" information is partially cut off in SNMP.
- The status of the PTP TC mode would not turn to 'freerun' and remaining 'syncing' after link down until link on again.
- MMS unable to establish connection.
- Cannot create VLAN by SNMP.
- Event log not recorded when the input voltage is below 46V at PoE bt mode.
- Multicast IP address cannot be entered when setting IP-based ACL.
- Incorrect MSTP trap OIDs are assigned for MSTP notification.
- Static router port does not work after being disabled then exanbled by VLAN IGMP.
- Incorrect OIDs are assigned for Relay.
- CPU usage reaches 100% when connecting via SSH.
- OSPF routing packets lost probabilistically.
- OSPF redistributing connected route with Type 2 metric does not work properly.
- Users can read/write/excute Syslog authentication when the priviledge is user.
- Does not show the correct RSTP information after setting Port Channel and RSTP.
- MRP default ring port blocked unexpectedly.
- Warning message not shown when configuring source port for RSPAN destination session.
- Switch logs out when setting session timeout to 0 and importing configuration file.
- Port Channel may fail and show empty output.
- Loop Protection may not function correctly when dealing with VLAN-tagged frames.
- Some Port Mirroring error messages may be duplicated.
- MRP operation causes random reboots.
- PTP operation causes random sign outs.
- Configuring Syslog server IP causes IP address column to be required.
- The DHCP Snooping VLAN ID cannot be cleared.
- Binding database Link Aggregation port not shown correctly.
- DHCP server IP address may be incorrectly formatted.
- SNMP may be unreachable after extended periods.
- After disabling MRP, link-down ports may remain in blocking state even after link reestablished.

- Checking RSTP root via MMS always returns false, even when role of switch is RSTP root.
- MMS web does not respond after reloading factory defaults.
- Disabling IGMP and then receiving IGMP frames causes switch reboot.
- Querier ports not completely cleared after the switch changes to querier.
- Event log timestamp inconsistency after browser time sync.
- Power Consumption informaion not shown on the Resource Utilization page.

Changes

- Reorder of Web UI Menu Tree.
- Save Auto-restore configuration to start-up configuration.
- Backup the oldest 1000 event logs to the external storage when reaching 10000 event logs, and then delete them after completion.
- Timezone settings location change for better setting operation.
- Expiration date of WebUI SSL shortened to 10 years for improved security.
- Change the acceptable VLAN port mode of destination port for SPAN and RPAN from Access to Hybrid/Trunk.
- Change the acceptable VLAN port mode of refect port for RPAN from Access to Hybrid/Trunk.
- Threshold of SFP updated on Fiber Check.
- Remove NTP key index setting on CLI.
- Change the configurable value range of the max steps removed to 2~255.
- Update copyright year to 2025 on Web interface.

Notes

- If you are using MRP, make sure the ring ports are configured to VLAN Hybrid or Trunk mode before upgrading to V5.0 to prevent looping.

Version: v4.0	Build: N/A
Release Date: Sep 26, 2023	

Applicable Products

MDS-G4012-4XGS Series, MDS-G4020-4XGS Series, MDS-G4028-4XGS Series

Supported Operating Systems

N/A

New Features

• Added support for DHCP Relay Agent/Option 82.
• Added support for Media Redundancy Protocol (MRP).
• Added support for DHCP Snooping.
• Added support for IP Source Guard.
• Added support for Dynamic ARP Inspection.
• Added support for Fiber Check.
• Added support for RSPAN.
• Added support for EtherNet/IP.
• Added support for Modbus TCP.
• Added support for additional 1588 PTP power profiles: IEC 61850-9-3, C37.238-2017.

Enhancements

• Improved the layout of the Daylight Saving settings for easier configuration. (Note: A one-time pop-up reminder will appear to check the Daylight Saving settings when logging in for the first time after upgrading to the v4.x firmware.)
• Added support for additional special characters for the User Account, Password, and Device Name fields.
• Added Power Management mode for PoE which allows users to choose Consumption mode with the Auto power cutting mechanism or Allocated Power mode based on application needs.
• Added MS-CHAPv2 authentication for RADIUS Server Login Authentication.
• Improved the DHCP Server UI page to be consistent with the system behavior. Users can only assign IP addresses within the range of the network domain of the management IP.
• Added the “Transmitting Synchronized”, “Receiving Synchronized”, and “Disabled” port states for Transparent Clock mode.

Bugs Fixed

• IGMP Multicast Group entries are unexpectedly deleted.
• When receiving an IGMP Leave request, the system will delete the IGMP Static Router Port.
• Specific SNMP OIDs may cause the system to be unable to complete the SNMP Walk application.
• Users are unable to delete NTP settings via the CLI.
• The existing certificate and digital signature key information are not deleted after performing a factory reset.
• When File Encryption and File Signature for configuration backup and restore are both enabled, users are unable to import the exported configuration.
• The PoE LED blinks red when connecting a non-PD device.
• Vulnerability issues: CVE-2022-1292, CVE-2022-0778, CVE-2022-2068.
• The Fault LED stays lit after the port has returned to a normal forwarding state.
• Inconsistent wording on the Turbo Chain Status and LLDP Settings web interface pages.
• Entries remain in the forwarding table after being deleted from the IGMP Snooping Group Table.
• The dynamic GVRP port does not show the correct status in the VLAN table when it is in the Permanent state.
• If BPDU Guard is enabled and a BPDU is received on the edge port, the status is shown as “Blocking” instead of “Err-Disabled”.

• The system does not show the “config conflict” state when a non-repeating PoE rule conflicts with a daily repeated rule.
• The VLAN table in the web interface may randomly turn blank.
• If users are logged out of the web interface due to idling, they are automatically kicked out by the system when trying to log in again.
• The wording of the protocol/interface and undersize packets statistics in the web interface is incorrect.
• Users are able to select more than 8 ports for the port channel configuration in the web interface.
• The LLDP web interface page generates an internal error when the remote system name contains specific symbols.
• The “no management vlan” CLI command does not work properly.
• Multicast recovery times for redundancy protocols are longer than intended.
• After configuring the PTP Max Steps Removed value, the system will incorrectly identify a device which exceeds the specified Max Steps Removed as the PTP Master.
• The 10G port does not recognize the installed 10G SFP module, causing the link to fail.
• A memory leak occurs when the system sends "LLDP remote table change" event notifications.

Changes

• The PROFINET (0x8892), MRP (0x88E3), PTP (0x88F7 and 0x88B5) EtherType options for ACL rules have been removed for consistency with system behavior.

Notes

N/A

Version: v3.0	Build: N/A
Release Date: Aug 31, 2022	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

First Release

Enhancements

N/A

Bugs Fixed

N/A

Changes

N/A

Notes

N/A