



## Firmware for ICS-G7828A Series Release Notes

<b>Version: v5.8</b>	<b>Build: 21072218</b>
<b>Release Date: Sep 15, 2021</b>	

### Applicable Products

N/A

### Supported Operating Systems

N/A

### New Features

N/A

### Enhancements

- The CPU utilization now displays a percentage instead of "Normal" and "Busy".
- Firmware upgrade processing status is displayed.
- Email addresses can contain up to 39 characters.
- Email Mail Servers can contain up to 39 characters.
- Enhanced SSH with secure key exchange algorithm, Diffie-Hellman Group 14.
- Improved random distribution of TCP Initial Sequence Number (ISN) values.
- Added an additional encryption option and command to the web UI and CLI.

### Bugs Fixed

- [MSRV-2017-002][CVE-2019-6563] Predictable Session ID: Supports random salt to prevent session prediction attack of HTTP/HTTPS.
- [MSRV-2017-003][CVE-2019-6526] Encryption of sensitive data is missing: Supports encrypted Moxa service with enable/disable button on the GUI to support the communication of encrypted commands with MXconfig/MXview.
- [MSRV-2017-004][CVE-2019-6524] Improper restriction of excessive authentication attempts: Supports encrypted Moxa service with enable/disable button on the GUI to support the communication of encrypted commands with MXconfig/MXview.
- [MSRV-2017-005][CVE-2019-6559] Resource exhaustion: Supports encrypted Moxa service with enable/disable button on the GUI to support the communication of encrypted commands with MXconfig/MXview.
- [MSRV-2019-006] Denial of Service by PROFINET DCE-RPC Endpoint discovery packets.
- The device would restart due to memory leak during the Nmap (a freeware that can scan the available ports) scanning test.
- RSTP Port Status error with Modbus TCP.
- Trunk port was not shown correctly in the LLDP table.
- The head switch of Turbo Chain was blocked when connecting to a Cisco switch.
- SNMP v3 memory leak.
- The device rebooted when performing a Nessus basic scan.
- MAC authentication bypass with RADIUS re-authentication.
- When SNMP pooled every 10 seconds, the system would perform a cold start after 25 minutes.
- The LLDP Table hung up in a serial console.
- Packet flooding from MGMT VLAN to redundancy port PVID VLAN.
- CERT could not be imported.
- Error with Turbo Ring v2 and port trunk LLDP display, recovery time and log miswrite.
- Relay warning did not work properly after the system rebooted.
- RSTP was not activated correctly through the configuration file import.
- Incorrect value for IGMP Query Interval on the exported configuration file.



- Logging into the web console failed if authentication with local RADIUS and account lockout were both enabled at the same time.
- Turbo Ring v2 looped when too many slaves in the ring were powered on at the same time.
- Switch automatically performed a cold start when receiving specific SNMPv3 packets.
- [CRM #200811300717] If a username had a capitalized letter then the user would not be able to log in using Menu mode.
- [CRM #190726273178] Unauthorized 802.1x devices could receive multicast and broadcast packets.
- [CRM #210115312454] Trap Server Host Name cannot be set via web GUI.
- [CRM #201019305310] Incorrect SNMPV3 msgAuthoritativeEngineBoots behavior that the value will not count up after switch reboot.
- [CRM #200702298391] The relay trigger function by port traffic overload does not work.
- The VRRP advertisement timer may be calculated incorrectly and cause a value overflow. This will cause the VRRP master to be unable to send the VRRP Advertisement, resulting in dual VRRP masters.

### **Changes**

- The IEEE 802.1x traffic enablement method has changed from MAC-based to port-based.
- The length of the 802.1x username is increased from 32 bytes to 64 bytes.
- Implemented VRRP data tracking codes for debugging purposes.

### **Notes**

- MSRV is Moxa's internal security vulnerability tracking ID.



<b>Version: v5.7</b>	<b>Build: FWR_ICSG7828A_V5.</b>
<b>Release Date: Feb 17, 2020</b>	

### **Applicable Products**

ICS-G7828A Series

### **Supported Operating Systems**

N/A

### **New Features**

- Supports SFP-10GLRLC-T, SFP-10GZRLC-T, SFP-10GSRLC-T, SFP-10GERLC-T SFP+ modules.

### **Enhancements**

- [MSRV-2017-011][CVE-2019-6561] Supports browser cookie parameters “same-site” to eliminate CSRF attacks.

### **Bugs Fixed**

- The switch failed to recognize the SFP-1GTXRJ45-T SFP module.
- [MSRV-2017-006][CVE-2019-6557] Buffer overflow vulnerabilities that may have allowed remote control.
- [MSRV-2017-007][CVE-2019-6522] An attacker could read device memory on arbitrary addresses.
- [MSRV-2017-009][CVE-2019-6565] No proper validation of user inputs, which allows users to perform XSS attacks.
- [MSRV-2017-011][CVE-2019-6561] CSRF attacks were possible if browser cookie parameters were not correct.
- [MSRV-2017-012][CWE-121] A stack-based buffer overflow condition whereby the buffer that was being overwritten was allocated on the stack.

### **Changes**

N/A

### **Notes**

- MSRV is Moxa's internal security vulnerability tracking ID.



<b>Version: v5.6</b>	<b>Build: Build_18110820</b>
<b>Release Date: Jan 18, 2019</b>	

## Applicable Products

ICS-G7828A Series

## Supported Operating Systems

N/A

## New Features

Layer 3:

- Support tracking function.

## Security Related Functions

- System Notification: Definable successful/failed login notification.
- Password Policy: Password strength can be set.
- Account Lockout Policy: Failure threshold and lockout time can be set.
- Log Management: Full log handling.
- Remote Access Interface Enable/Disable.
- Configuration Encryption with password.
- Support SSL certification import.
- Support MAC authentication bypass via RADIUS authentication.
- MAC Address access control list or MAC address filtering.
- Protect against MAC flooding attack by MAC address sticky.
- NTP authentication to prevent NTP DDoS attack.
- Login Authentication: Support primary & backup database servers (RADIUS / TACACS+ / Local Account).
- Login Authentication via RADIUS Server: Support Challenge Handshake Authentication Protocol (CHAP) authentication mechanism.
- RADIUS Authentication: Support EAP-MSCHAPv2 (For Windows 7).
- MXview Security View Feature Support\* (with MXstudio V2.4).

## Redundancy

- Turbo Ring v2, Turbo Chain Support Port Trunking

## Enhancements

- Web GUI supports web browser Chrome 65.0
- CLI: Supports Multiple Sessions (up to six).
- SMTP Supports Transport Layer Security (TLS) Protocol and Removes SSL v2/v3.
- SNMPv3 Traps and Informs.
- Display Issues with Java Applet.
- Fiber Check: Add Threshold Alarm.
- Static Port Lock with VLAN filtering option.
- When GbE Port Speed is [Auto], MDI/MDIX is [Auto] Fixed.
- Web UI/CLI Command Enhancement and Modification.

## Bugs Fixed

- Fix abnormal display of packet counter in the web GUI.
- When the device receives large amounts of BPDU packets on a port, the RSTP function does not enable, which might cause the device to reboot.
- If there is an '&' in either the Switch Name or Switch Location column, the description will not display properly on the relevant page.

## Changes



- Rate limit adds more options on the ingress rate

### **Notes**

Suggestion:

- Reconfigure the device once you have upgraded to v5.x
- To ensure that the system remains stable, do not export configurations from v4.x or prior into v5.x or later



<b>Version: v4.5</b>	<b>Build: Build_16112110</b>
<b>Release Date: Dec 28, 2016</b>	

### **Applicable Products**

ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV

### **Supported Operating Systems**

N/A

### **New Features**

- Add DSCP remark function.
- Add Traceroute function.

### **Enhancements**

- Encrypt all security passwords and keys in web user interface and command-line interface.

### **Bugs Fixed**

- VRRP can't work on RSTP ports.
- VRRP state will be unexpectedly changed when it takes too much time to change IGMP querier.
- VRRP state will be unexpectedly changed when both VRRP Fast Switchover mode is enabled and Port Trunking is set.
- Configurations can't be imported through command line, when VRRP Fast Switchover mode is set with more than 16 entries.
- Device will reboot occasionally when enabling OSPF.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v4.2</b>	<b>Build: Build_15062312</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV

### **Supported Operating Systems**

N/A

### **New Features**

- Add new Multicast Fast Forwarding Mode
- Add new VRRP Fast Switchover Mode
- Add new Multicast Local Route

### **Enhancements**

- Increase IGMP Groups to 4096 (original 1000 groups).
- Improve Turbo Chain link status check mechanism at the head port.

### **Bugs Fixed**

- Device will reboot when using CLI command to backup device configuration to TFTP server.
- Device will reboot when using CLI command to change SNMP v3 data encryption key and the length of key is over than 100 characters.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v4.1</b>	<b>Build: Build_15030209</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

N/A

### **Bugs Fixed**

- PIM-SM multicast forwarding issues
- Randomly hang issue while booting up
- Topology drawing issue on MXview
- In IGMPv3, fail to forward multicast packets on MSTP DISABLED-STATUS port
- Fail to add Static default route (0.0.0.0/0) through Web console
- Randomly fail to recognize Moxa SFP modules
- In OSPF routing protocol, 10G ports have incorrect path cost
- Randomly fail to connect to ABC-02
- HTTPS certification validity issue
- Reboot issue while TFTP upgrading firmware with incorrect CLI command
- ACL CLI command fail on rules with Ether-type is 0 or IP-protocol is 0
- Hang issue while IGMP join and leave frequently

### **Changes**

N/A

### **Notes**

N/A





<b>Version: v4.0</b>	<b>Build: Build_14093015</b>
<b>Release Date: N/A</b>	

**Applicable Products**

ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV

**Supported Operating Systems**

N/A

**New Features**

- First release.

**Enhancements**

N/A

**Bugs Fixed**

N/A

**Changes**

N/A

**Notes**

N/A