Firmware for TN-5900 Series Release Notes

Version: v4.0	Build: 24081518
Release Date: Sep 27, 2024	

Applicable Products

TN-5900 Series

Supported Operating Systems

N/A

New Features

- Support ring port bypass LLDP packet.
- Support TRDP packet filter as advanced firewall protection.
- Support Ethernet port bandwidth consumption information display on UI.
- Support use of configurations generated by older firmware versions by newer versions.
- Support DHCP server (IP-port binding) with LLDP validation.
- Support Firewall degraded mode.
- Support RADIUS Server.
- Support dot1x authenticated by local RADIUS Server.
- Support CPU Usage Alarm when exceeding configured threshold.
- Support Port Usage Alarm when exceeding configured threshold.
- Support device export Process and Status Report.

Enhancements

- Upgrade Linux kernel and 40+ packages to newer versions to address vulnerabilities.
- Support firmware signature to enhance integrity checks and prevent forged firmware.
- Complement VRRP Log.
- Complement DHCP Log.
- Complement NTP/SNTP Log.
- Complement IGMP Log.
- Complement Turbo Ring v2 Debug Log.
- Apply a new account rule for usernames. When admin creates a user account either on web or CLI, the username can only contain letters, numbers, and special characters such as ".-_", but the password rules remain unchanged.
- Show error line(s) in the event log when configuration import fails.
- Increase the number of static multicast entries from 128 to 256.
- Add notification mechanism in the UI when the multicast sharing table is full.
- Configuration Version will be updated on the web banner when it is configured.
- DHCP Relay supports LAN interface IP as remote ID.

Bugs Fixed

- Importing configuration may cause some missing configurations or unexpected errors.
- After disabling and enabling HTTP/HTTPS a few times, the web cannot be accessed.
- DHCP IP-Port Binding fails to assign an IP address when an end device is moved from one port to another in a different subnet.
- MAC flooding attack causes router reboot.
- The web page displays incorrect information for the TX/RX packets on the interface.
- Asterisks (*) and hyphens (-) are not allowed in CSR common names.
- The bridge interface does not appear in the routing table.
- Setting up an L2TP server via CLI results in the LAN interface IP becoming 0.0.0.0.
- Error message "Access Error: Site or Page Not Found" appears after a normal failure message

when importing an invalid format of a CA file.
- Attempting to modify System Information attributes like Router Location by clicking the Apply button results in a "bad request" error.
- [Vulnerability] Using an outdated jQuery version, weak encryption protocols, and insecure session cookie settings.
- [Vulnerability] Remote unauthenticated code execution vulnerability in OpenSSH.
- [Vulnerability] NTP Denial of Service.

Changes

- Change DoS UI description.
- Remove unused column in web UI - "Auto Learned Multicast Router Port."
- Block the import of configurations with incompatible password hashes.
- Allow DNS, NTP, and Ping services whether an IP address is in Trusted Access or not.

Notes

Starting with TN-5916 firmware v4.0, digital signatures are now supported to enhance integrity checks and prevent exploitation by forged firmware. Because earlier firmware versions did not implement a digital signature algorithm, an intermediate firmware version must be installed before upgrading your TN-5916 to firmware v4.0 or higher.

-UPGRADING TN-5916 TO FIRMWARE v4.0 OR HIGHER:
Install the TN-5916 intermediate firmware v3.99.1 first, then upgrade your device to the desired firmware version.

-DOWNGRADING TN-5916 FROM FIRMWARE v4.0 OR HIGHER TO v3.x OR LOWER:
Install the TN-5916 intermediate firmware v3.99.3 first, then downgrade your device to the desired firmware version.

Version: v3.0	Build: N/A
Release Date: Dec 16, 2019	

Applicable Products

N/A

Supported Operating Systems

N/A

New Features

- Support Security Guideline Level 2, including Auto-logout, Default Password, Encrypted Account Password, Password Policy, Radius for Web Login, Encrypted Configuration File Export, and Key/Certificate of SSL/SSH Management
- Support NAT, including Bi-direction 1-1 NAT, Bi-direction N-1 NAT, Bi-direction Port Forwarding NAT, and 512 NAT rules
- Support L2 Firewall, L3 Firewall, and Bridge Mode
- Support DHCP Server with Option 66/67/82
- Support DHCP Client with Option 66/67
- Support PIM-SM
- Support DVMRP
- Support OSPF
- Support VRRP
- Support DNS Server
- Support IPSec, L2TP
- Support IEEE802.1x
- Support MXstudio

Enhancements

- Support SNMPv3 AES/DES Encryption Type
- Support Port Status and Interface Status on Web UI
- Upgrate NTP Server to ntp-4.2.8p13
- Set Trunk Port to Auto-negotiation by Default
- Use Javascript for Statistics Monitoring on Web UI
- Support CLI-based Configuration Export
- Support 12-digit Serial Number
- Support HTTPS Certificate using SHA256 with 2048 Key Length
- Upgrade OpenSSH to v7.5p1

Bugs Fixed

- Fix bug that Static Route doesn't work after importing configuration
- Fix CLI Command Injection issue
- Fix bug that MAC aging time doesn't work after importing configuration or port linking down and up
- Fix bug that Turbo Ring V2 sends lots of topology changes after rebooting
- Fix but that NTP date doesn't synchronize with RTC immediately
- Fix bug that CLI command "clock set <hh:mm:ss>" doesn't work
- Fix bug that Port still links up after Trunk Port is disabled
- Fix bug that physical port is not configured correctly when Trunk Port setting is involved
- Fix bug that Relay Bypass causes interface down and up instantly

Changes

N/A

Notes

N/A

Version: v1.2	Build: N/A	
Release Date: Dec 16, 2015		

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