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

• Firmware version 4.0 is the last regular firmware upgrade following the discontinuation of TN-5916 series on August 10, 2022. In this major release, in addition to new features and enhancements, we also upgraded the Linux kernel and over 40 packages to newer versions to address vulnerabilities. Software maintenance for the TN-5900 series will continue until August 2025, three years after the TN-5900 series EOL.

• 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