



## NU version 9.0.2.1 Firmware Update

### **Applicable models**

NU-850C, NU-870H, NU-870C  
NU-860H, NU-860T, NU-860C  
NU-880H

### **Available Firmware Version**

9.0.2

### **Attention**

01 The system will reboot twice after upgrading the new version.  
It may take around 3 to 5 minutes.

### **Update**

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### **Configuration**

#### **Basic Setting**

MODIFY NU-860 series. When choosing LAN Acceleration Mode at General Setting,  
then you cannot use Bridge mode.  
ADD Drop Session Log switch button.

#### **Administrator**

FIX the error message when clearing WAF log at Clear Data.  
MODIFY After modifying the Privilege or User Defined Menu,  
the account will be logged out forcibly.

#### **Upgrade**

FIX If the password of administrators contained special character (+),  
the authentication would fail.  
MODIFY It will re-download a new firmware version if the update server releases a  
newer one when choosing Automatic Download at Firmware Message.

#### **Backup & Restore**

MODIFY Backup & Recovery > Reset Default. When choosing to Keep Interface Setting,  
it will remain DHCP service setting at the same time.

#### **Notification**

FIX the issue that did not clear the Notification Log regularly.  
ADD System Space Status Abnormal notification, including the notification at the main page.

#### **Signature Update**

FIX When clicking Check Now, the system might be stuck.



### **Cloud Management**

FIX the issue. Even though the device did not have any modification, it still uploaded the system setting backup file to Eye Cloud.

### **SSL Certificate**

FIX the issue. After clicking Reget And Change To Default, the browse still displayed the previous certificate.

ADD SSL Certification Import > File Intermediate Certificate filename and importing error notification.

ADD Reget And Change To Default, File Intermediate Certificate and Let's Encrypt Certificate apply function.

### **Uninterruptible Power System**

MODIFY the order of UPS Log, it will display the newest log first.

ADD Uninterruptible Power System > Model > Auto/Custom.

Now it supports Eaton 5E 650 and also supports SNMPv1, SNMPv2c, and SNMPv3 connection mode.

### **CMS**

MODIFY the order of CMS status > Server mode > CMS Connection Log, it will display the newest log first.

ADD outgoing interface under client mode. Administrators can self-defined outgoing interfaces. If the interface does not exist, it will point out to let administrators know.

## **Network**

### **Zone Setting**

MODIFY When the amount of ports has reduced and the reduced port has been set as a zone, it will notify the administrator to bind the zone again.

FIX an issue. When there were more than 10 ports, the application control and the URL control might fail.

MODIFY The related setting will show up, only when choosing Multiple Port.

ADD bypass information at Zone State Diagram.

ADD Multiple Port mode at NU-860 series.

### **Interface**

FIX some error notification message of Bonding under Bridge mode.

FIX the anomaly of DHCP client service that could not display the correct DHCP offer.

FIX Firewall Protection > Port Scan setting invalid.

### **Route**

FIX the destination IP invalid issue of Designated Gateway Group > Load Balance Mode.

FIX the line detection fail issue of IPv6 PPPoE of Designated Gateway.

FIX the error that the data went to wrong interfaces under routings that contained with same network segment but different interfaces.

MODIFY the line detection way of Spare Gateway. If it's PPPoE, then it should follow its own way.

ADD Line Detection Setting > By PPPoE(according to its own line detection way) and define(can be chosen) when the interface is PPPoE.



## **VLAN(802.1Q)**

ADD the space of Comment.

## **PPPoE**

MODIFY the drop-down menu of interface of NU-860 series, that the WAN interface will show first.

MODIFY Remove VLAN(802.1Q) from the interface.

## **IP Tunnel**

MODIFY the notification message of GRE key format error to let it easier to understand.

## **Policy**

### **Security Policy**

FIX the issue that Incoming/Advance/SYN Protection > Source Interface under incoming policy did not display the option VLAN(802.1Q).

FIX the disconnection issue of Incoming/Advance/SYN Protection > incoming policy that DNAT to internal IP and the internal interfaces were Bridge mode (contained with multiple ports).

FIX the issue of Incoming/Advance/SYN Protection > Edit Mapped port. If adding more than 8 settings, it would not add DNAT DEST Port automatically when entering Original DEST Port.

FIX the issue. When choosing PPPoE at Destination and choosing Drop at Action, administrators could not connect to the management interface with PPPoE connection.

FIX the issue that users could not connect to the internet when Outgoing/Advance setting different Assign Gateways and enabling WEB(S) > Anti-virus or DNS Filter.

FIX the issue that although the dropping log existed, actually it did not drop the packets.

FIX the issue that Incoming/Advance had set up Assign Gateway, it still transmitted the data via default route.

FIX the policy disappearing issue after rebooting when Source and Destination using self-defined IP and MAC address.

FIX the issue of Incoming/Advance. If using the same WAF setting with other policies, it could not cancel the WAF setting.

FIX the issue of Incoming/Advance. When setting PPPoE as Assign Gateway and enabling

### **NAT**

setting under IPv6 mode, these settings could not save normally.

FIX Incoming/Advance. When the Action choosing Drop and the Network Address Translation choosing Mapped Port, the setting would disappear after clicking save.

FIX Incoming/Advance. When the Action choosing Drop and the Network Address Translation choosing Mapped Port, WAF setting which should not appear would show up.

FIX the issue that did not eliminate Packet Tracing Log regularly and occupied too much space.

FIX the issue of Outgoing/Advance > Network Address Translation > Mapped Port using self-defined service group. When enabling WAF service, if the administrator modified the service group, the WAF setting would disappear and would pop out an error message.

FIX the issue of Outgoing/Advance. When setting NAT at Network Address Translation, Default at Destination and enabling SMTP Record, the outgoing email could not



deliver.

FIX the issue of Advance that incoming under transparent mode did not show source IP.

MODIFY TIP of Source and Destination, using the format ([code name] location) of IP Address Group.

MODIFY Interface > Define. Choosing this option will pop out the windows for self-defined.

ADD SYN Protection, to provide SYN related policy and statistics. The SYN Protection has a higher priority than advanced.

ADD TIP of Source and Destination. If IP Address Group includes AP, then TIP will show related information of users that are connecting to AP.

ADD SRC IP searching.

ADD hint at Policy > URL Access Control and WEB(S): Please install effective ssl certificate (in WEB Service) in pc when using setting. Or https web page cannot work.

ADD Copy Rules and Move Rules.

### **SD-WAN Policy**

FIX the issue. When SD-WAN was disconnected, it would not go through further policies and would not change to another route.

## **Object**

### **IP Address**

FIX IP Address > add code name before location.

FIX an issue. When adding members with the Firefox browser at IP Address Group, it would add those members that did not select.

FIX the invalid issue when using a drop-down menu or keyword searching with IE 11 browser.

FIX When an IP Address contains AP members and user-defined members at the same time, it would cause an error while editing.

MODIFY IP Address. After clicking enter, it would save and close the editing window automatically.

ADD searching function at IP Address Group > Location. Administrators can search by code name, or location name (in Traditional Chinese/ Simplified Chinese/English/Japanese). At least two characters need to be keyed in.

ADD IP Address Group > Add/Edit > Geo IP database source.

ADD IP Address > Add Computer Name and IP Address > Mode > Default Domain Black List.

### **Services**

FIX Service Group. If there was only one setting with UDP protocol, it would pop out PHP error message while editing.

ADD Service Group > If administrators want to delete all the data, it will pop out confirm message.

### **QoS**

FIX When resetting to default setting, Zone 0 would be selected automatically.

FIX When choosing to Keep Interface Setting at reset default, the QoS setting interface would appear error message.



### **Application Control**

- FIX the invalid issue when there were more than 11 ports ( $\geq$ zone11).
- MODIFY Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.
- MODIFY the expired "authorization period" message. It will show the original "authorization period".

### **URL Filter**

- MODIFY Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.
- MODIFY the expired "authorization period" message. It will show the original "authorization period".

### **DNS Filter**

- ADD DNS Filter full function. It will control and manage those searching objectives.
- ADD Sandstorm, Exact match, and Fuzzy match.
- ADD Block Log > searching log function.

### **Firewall Protection**

- MODIFY Attack Log > Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

### **Authentication**

- FIX the issue of POP3, IMAP, RADIUS USER > Add POP3, IMAP Server. Administrators did not enable Certification Ignore, but it still did not authenticate the certification.
- FIX the SSL VPN authentication failed issue when the account name and the password of AD user contained space.
- FIX the missing log of Log > Login IP Address > Cumulative Hours Online under IPv6 mode.
- FIX the issue that the invalid account still in the statistics.
- FIX the issue. If the system rebooted after authenticated success, the device could not connect to the internet and need to authenticate again.
- FIX the issue of User Group. If the members contained AD User Group, it might cause an error while saving the setting.
- FIX the CPU overloading issue when enabled authentication service and encountered some abnormal SSL connection.
- MODIFY Log > Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.
- ADD Auth Setting > Authentication General Setting > Allow connection. Let the devices that do not pass the authentication to connect to the authentication page.
- ADD Page Setting/User Group > Popup logout page when login successful.
- ADD Log > Authentication Method > IMAP.



## Service

### DHCP

FIX DHCP service failure issue.

FIX the issue that DHCP User List > VLAN network segment could not add into the blacklist.

FIX the issue of DHCP Server. If the VLAN(802.1Q) did not been set up,

the HA backup device would encounter an error while switching to this interface.

MODIFY the allocation of DHCP Enable and the drop-down menu of Interface.

The interface that has not enabled DHCP will display in red color.

### Anti-Virus Engine

FIX the Kaspersky license issue after resetting to default.

ADD Kaspersky Engine > Licenses Info > date that importing the license.

It will display different languages according to the setting.

### Sandstorm

FIX the issue of Sandstorm Record/Sandstorm Disable List > Items removed due to updates.

When clicking Detail, it would not show any information.

FIX the heavy loading issue of Sandstorm.

MODIFY Sandstorm Record/Sandstorm Disable List > Items removed due to updates to red color.

MODIFY Cancel all the file test and add Cloud Test function.

ADD Sandstorm > Domain.

ADD Sandstorm > Cloud Test function, Risk Level setting and displaying related information.

### WEB Service

FIX the issue that WEB > Certification Installer Setting > Source IP address could not eliminate the setting.

FIX the heavy loading and slow connection after enabling the service for a period.

MODIFY HTTPS LOG > Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

ADD Download SSL Certificate.

### Remote Syslog

MODIFY Even though administrators do not enable this service, they can still modify the Server IP/Port setting.

ADD Log Setting > Log Format. The log will show the device serial number and hostname.

ADD Log Item > Firewall Attack Log, URL Filter Log, Authentication Log, DNS Filter Block Log, Anomaly IP Analysis Log, Intranet Protection Log, WEB Record, and System Operation.

### High Availability

FIX Only can access to HA interface via the internal network segment.

FIX the sync of application control policy, SSL certificate of WEB service and AP management.

FIX the issue of master device that could not suspend HA service.

FIX the invalid issue of policy on the backup device.

MODIFY If The Zone setting of the master device cannot fit in the backup device

(because of the difference of port amount), the main page and the High Availability



interface will pop out the below message: Because of the lack of port, the setting of the zone will not sync temporarily.  
MODIFY The MAC address need to recover after suspending the HA service.

## **Advanced Protection**

### **Anomaly IP Analysis**

FIX the issue happened at NU-860 series. Common Setup > Detection Interface abnormally showed WAN interface.  
MODIFY Anomaly Log > Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

### **Switch**

FIX the issue of Switch Status. When binding port, it would cause the setting missing of other port bindings.  
FIX the error message when displayed the switch status according to the list.  
ADD Co-defense now supports the new model DGS1510-28X.  
Bind mode supports MAC + PORT and IP Source Guard.  
ADD TIP icon at POE Schedule Setup. It will display the model names that support the POE function.

### **Intranet Protection**

FIX the issue happened at NU-860 series. Spoofing Setup/ARP Spoofing Log > Detection Interface abnormally showed WAN interface.

## **IPS**

### **IPS Log**

MODIFY Today IPS Log/IPS Log search > Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

## **WAF**

### **WAF Setting**

FIX When enabled WAF service, it might cause disconnection issue if the website encounter with 302 redirect.  
MODIFY Now display the detail items of Classification and the administrators can choose items by themselves.  
ADD WAF Setting > Anomaly Connection Block, IP Blocking Period, Block Forever, and Blocking IP related settings.  
ADD Website Management > Administrators can import Intermediate Certificate right now and the interface will display the information of Intermediate Certificate.  
ADD WAF Whitelist interface. Administrators can add, edit, and delete whitelist by themselves.  
ADD Block Page interface, provide default and self-defined block page.



## **WAF Log**

FIX When resetting to default and format the hard disk, it could not generate WAF log.

MODIFY the order of WAF Log, it will display the newest log first.

The action will display according to browser language. And the drop packets record will display in red color.

MODIFY WAF Log > Combine Search Condition: Server Name, Dest Port, and Path / Query to Url.

MODIFY WAF Log > Divide Search Condition: Classification into Classification and Event.

MODIFY WAF Log > Destination Server this search condition to the drop-down menu and self-defined.

ADD WAF Log > Destination Server,

URL and information of communications protocol (http:// or https://).

ADD WAF Log > Whitelist. Administrators can add indicated log into WAF whitelist.

ADD WAF Reject Log that providing log of blocked connections.

## **Mail Security**

### **Filter & Log**

FIX the issue of Valid Account Setting > Invalid Account Setting > Block Log that did not eliminate the expired log.

FIX the issue of Graylisting and IP Resolved > Graylisting > Block Log that did not eliminate the expired log.

FIX invalid issue of Graylisting and IP Resolved > Receiver Delay Time after rebooting.

FIX TLS library problem when delivering encrypted mail via TLS/SSL.

## **Anti-Spam**

FIX the lost email issue when enabled Link Filter.

FIX the subject of emails appeared garbled issue when enabled Spam Setting > Action for Spam Mail > Tag Spam Mail's Subject.

ADD Link Filter > Link Filter Custom Whitelist, Link Filter Custom Blacklist, and Link Filter Test functions.

## **Mail Log**

FIX the error message when the size of let pass mail was too large.

## **Content Record**

### **WEB Record**

FIX the missing page of WEB Virus Log.

FIX the issue that Today WEB, WEB Search, Today WEB Virus and WEB Virus Search did not have split pages.

FIX the issue. When clicking order at Today WEB or WEB Search, it did not display the searching result.

FIX the issue that the setting of the amount of log per page would return to default while clicking order.

MODIFY Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.



## VPN

### IPSec Tunnel

FIX the error of drop-down menu of IPSec Tunnel > Local IP.

The drop-down menu did not display any IP.

FIX When the backup interface was PPPoE and had modified IP after reconnecting.

It did not switch to the backup route when disconnection happened.

FIX the heavy loading issue when the VPN tunnel that used PPPoE connection was disconnected.

FIX the issue that could not build up an IPSec Tunnel in the following situation:

When local device had two WAN: WAN1(network segment A) and WAN2(network segment B). WAN2 could not build up an IPSec Tunnel with a remote device's WANx(network segment A, which was the same as WAN1).

FIX the Auto VPN connection issue when remote Auto VPN Server had set up an administrator IP and did not contain local Auto VPN Client's local IP.

MODIFY the order of the Auto VPN log. It will display the newest log first.

ADD the column of Log at Auto VPN Server and Client. After clicking, it will display the connection log of IPSec.

ADD the icon of TIP which shows the information of the icon in the column of Status.

### PPTP Server

ADD PPTP server > Status.

### SSLVPN Server

FIX Even though disabled this service; users still could connect to sslvpn.php.

FIX dial-up failure issue when choosing PPPoE DDNS domain at

Server Setting > Local Interface, re-obtaining IP and updating DDNS record.

FIX When clients using the SSL VPN setting interface and IP that did not belong to the local server, it still could dial-up successfully after switching to port 2.

FIX If SSL VPN List > Authentication Group contained AD Group User. It could not get the account name of each user.

MODIFY the order of SSL Client On-Line Log > Refuse Connection Log/Log, it will display the newest log first.

ADD SSL VPN Setup > Client IP Range. It will pop out a notification message once the IP is the same as internal IP.

### L2TP

FIX the error when the device was under HA backup mode.

ADD Basic Setting > Service Status.

### SD-WAN

FIX the issue that Auto VPN Client did not connect and obtain a remote network segment, but still could set up SD-WAN.



## Log

### System Operation

FIX the TIP information of Events content that did not show the information according to the language setting.

FIX the missing log when Network > Interface > MAC address modifying to the default setting.

MODIFY Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

ADD Management IP. It will record the administrators' IP address.

## Status

### Connection Status

FIX Connection Track > Log that some of the logs did not record assign gateway and security policy.

MODIFY Computer List/Wireless Computer List. Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

### Flow Analysis

FIX the error of Flow Rank and Flow Rank Search under IPv6 mode.

FIX the error that did not show any information when using the gateway as searching a condition under IPv6 mode.

FIX the error of Flow Rank Search that did not contain the column of authentication when exporting the log.

FIX the error of DNS Query Rank Search. After restoring to the backup setting, the device might not record the log in a period.

MODIFY Enlarge the export amount to 50,000. If the data is more than 50,000, it will separate in different files.

ADD Flow Rank Search > Search Condition > IP Location and Gateway.  
Add export log function.

ADD IP Address and IP Address Group at the drop-down menu of  
Flow Rank Search > Src IP and Dst IP.

ADD Flow Rank/ Flow Rank Search > Ranking according to IP Location.

ADD Flow Rank by Location.

### Dashboard

FIX the overlapped issue of the diagram Threat Intelligence at the main page.

FIX Statistics > Type > Custom that did not have the option of IP location.

FIX Threat Intelligence > [DOS]Defense > First column Attacker IP to Victim IP.

MODIFY Threat Intelligence and Web Control > URL Control > Type to Sandstorm,  
Not Whitelist URL, Custom Black URL and Default Blacklist URL.

MODIFY Main page > Threat Intelligence > Instant Information. Combine the threat events that caused by the same IP to one record. Clicking the icon, it will display the threat event.



MODIFY Main page > Threat Intelligence > Instant Information. Clicking the IP Location,

it will display incoming IP and Outgoing IP.

ADD Main page > Threat Intelligence > Today diagram. It shares the same switch button with This month (the original one).

ADD IP Location > page of IPv6.

## Others

FIX anomaly record that occupied too much space of the hard disk.

FIX the error of those models that did not equip with a hard disk.

Once power on with USB plugged in, it would format the USB and use it as a hard disk.

FIX LCD button function error of NU-860 series.

FIX After upgrading to V9.0.2, ShareTech UTM (software version) would encounter an error.

FIX The IP Location record would causing overloading and reboot issue while encountering too many connections and large flow.

MODIFY the length of the default authentication key of the management interface to 2048 bits. Add HTTP security headers.

ADD Wizard at NU-860 series.

ADD driver of USB 3.0.

## Main Page

FIX the system disk SSD to Flash at simplified Chinese interface.

FIX the error of System Resource while using IE 11.

The progress bar would stay in loading status.

ADD HA icon while this service enabled. Green color means under service and yellow color means processing backup.

ADD the error message of hard disk anomaly.

## Console

ADD IP of HA interface.



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