

# Nusoft Firewall

## NFW - 460



Since the reliance on the Internet has proliferated with the growth of cloud services, any network interruption will cause tremendous loss and damage. Therefore, the top priority of implementing a network is to ensure a reliable Internet connection.

Accordingly, Nusoft NFW-460, an SPI firewall with multi-WAN interfaces and USB 3G/4G modem support, delivers stability and continuity to your wired and wireless network through link failover and load balancing capabilities, as well as serves as an internal firewall for advanced controls.

Besides, it comes equipped with AP controller, policy-based routing (PBR), QoS manager, Web filter, application blocker, anomaly traffic detection, file storage, full VPN connectivity (IPSec, PPTP, L2TP, SSL, Open VPN and trunking) and more, presenting you an all-in-one solution to cost-effectively simplify the management of your wired / wireless network, bandwidth and LAN users.

### Product Features

#### Custom NIC Ports & Groups

Up to 5 GbE RJ45 ports are available for defining as LAN, WAN (4 out of 5 ports at the most), DMZ, or isolated NIC groups. The user-definable interface frees you from the limits of default NIC properties and offers flexibility to network implementation.

#### SPI / Internal Firewall

Based on ICSA-certified SPI firewall technology, NFW-460 can be deployed at the network perimeter to fully protect against various security threats. In addition, the NIC Teaming feature enables it to physically segment a network, adding an extra layer of protection by serving as an internal firewall to deliver advanced controls (authentication, QoS, schedule, etc.), efficaciously increasing the security of internal network.

#### Anomaly Flow Detection

The NFW-460 is capable of preventing packet-flooding attacks from spreading across the network, as well as notifying related personnel of such an event to promptly attend to them, ensuring others' access to the Internet.

#### Internet-based Application Blocking

The use of instant messaging (both login and file transfer), peer-to-peer sharing, multimedia streaming, web-based email service, online gaming, VPN tunneling and remote controlling can be effortlessly blocked by their packet signatures.

#### Multiple Authentication Support

By supporting RADIUS, POP3 and LDAP servers, only the verified users are allowed to access the Internet services.

#### Bi-Directional Load Balancing & Policy-based Routing

Supporting up to 4 WAN ports with load balancing, the NFW-460 can distribute outbound traffic across WAN links, due to which it delivers bandwidth aggregation and link failover capabilities, making the most of bandwidth, and yet connecting reliably. Besides, inbound traffic to your company website can be evenly load-balanced across each link to mitigate the load of Web requests, ensuring the accessibility to the website should any link failure occur.

Moreover, the network traffic generated from a specific service or user can be routed through a designated WAN link based on the company's network policies.

#### Total VPN Solution

With the built-in IPSec, PPTP, L2TP, SSL, Open VPN support, NFW-460 provides you a fast, reliable and safe private connection.

It features VPN trunking to deliver link failover and bandwidth aggregation capabilities to VPN tunnels, greatly increasing the speed and stability of your Internet connection. This can be used to reduce the ownership cost of network infrastructure by replacing the expensive leased line with multiple low-cost DSL links, as well as to ensure the continuity of mission-critical services.

In addition, hardware authentication is incorporated into SSL VPN connectivity, which allows user authentication to base on hardware information, such as CPU ID, hard disk serial number, etc. Moreover, it also can effectively boost the security of VPN connectivity using its advanced controls, such as privileges, authentication and QoS.

## Wireless AP Controller

With the AP controlling capability, NFW-460 is able to centrally manage a number of access points, allowing you to perform an effortless AP unified configuration.

As for wireless client access, network policies can be applied to implement various authentication mechanisms (Captive Portal / RADIUS / LDAP / POP3), limit the user traffic, block Internet-based applications and more, fulfilling all your wireless management demands.

Note: The AP controller feature is only applicable for Nusoft APs.

## Web Filtering

The Web Filtering feature enables you to set restrictions on website access (using Black- / Whitelist), file transfer (using HTTP, FTP and file extension) and MIME / script type (pop-up window, ActiveX control, Java Applet, cookie, etc.), as well as offers you with detailed logs and statistics for diagnosis.

## Flexible Bandwidth Management

NFW-460 adds flexibility to bandwidth management not only by delivering guaranteed or maximum bandwidth along with prioritized access, but also by limiting the individual QoS or traffic quota. Besides, the bandwidth-intensive applications (e.g., P2P) can be regulated to prevent bandwidth from being exhausted by minorities.

## One-Time Password Authentication

An unpredictable and unrepeatable password can be generated at each login using Nusoft OTP (available on iOS and Android), offering your network a two-factor authentication protection.

## Multiple Authentication Support

By supporting RADIUS, POP3 and LDAP servers, only the verified users are allowed to access the Internet services.

## Full IPv6 Compatibility

NFW-460 is fully compatible with IPv6 addressing, the mainstream Internet protocol in the future. No additional budget is required for implementing another IPv6-based gateway simply for IPv4-to-IPv6 address translation.

## Business Promotion via Facebook Page Sharing / Weibo Check-in

By combining Wi-Fi authentication with Facebook page sharing / Weibo check-in, the free Wi-Fi service can be provided to customers who check in to your business location on Weibo or share your Facebook page. This combination can not only attract customers, but also grow your business exposure. When customers check in to use your Wi-Fi service, their friends can see your Facebook page/ Weibo in their News Feed, which gets your Facebook page/ Weibo to spread virally, allowing you to reach out to potential customers and increase profits for your business.

## Business Promotion via LINE, LINE@ / WeChat Official Account

By integrating LINE, LINE@ / WeChat official account with Wi-Fi authentication, the free Wi-Fi service can be provided to customers who have friended the business's LINE@ account/ WeChat official account.

This helps business strengthen ties with their customers and draws potential customers from online channels to physical stores. (Online-to-offline commerce)

## Business Promotion via Image/ Video Advertising

By combining Wi-Fi authentication with Sponsored Ad, customers are presented with the video/ image advertisement before starting to surf the Internet. This combination not only can attract customers but also can help promote your businesses and events.

## Built-in USB Port

The NFW-460 includes a USB port to attach a USB hard drive or a 3G/4G USB modem:

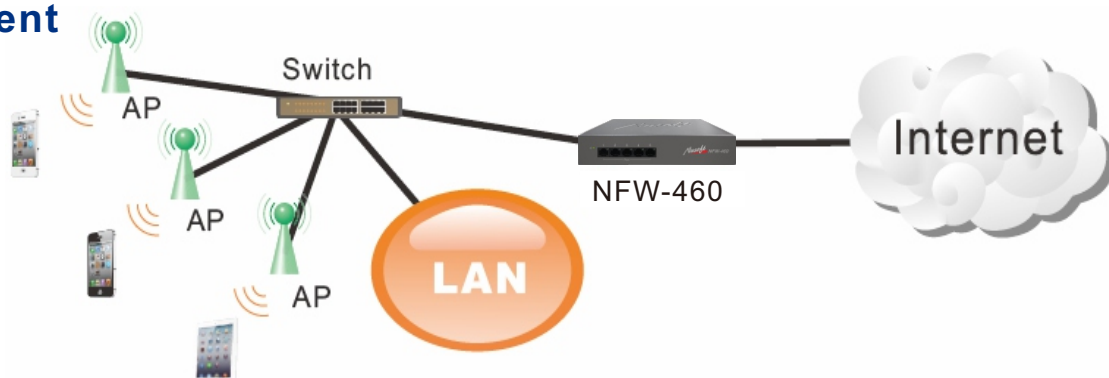
### USB hard drive:

Data and logs can be stored in the USB hard drive for long-term storage. The NFW-460 can be used as a private cloud, FTP and file server. In addition, storage accounts for accessing stored files can be created.

### 3G/4G USB modems:

The 3G/4G USB modems can be plugged into NFW-460 to be used as a WAN interface. In addition, stability and continuity are delivered to wireless network through the link failover, load balancing and policy-based routing capabilities. This is suitable for environments where non-stop wireless connectivity is needed or moving environments, such as trains or buses, etc.

## Deployment





## Product Highlights

Highlight	Benefit	Third-Party Product
Full IPv6 compatibility	Saves the budget for an IPv6-based gateway simply for IPv4-to-IPv6 address translation.	Either fully or partially (Web filtering, application blocking, policy-based routing, etc.) incompatible with IPv6 addressing.
Custom network interfaces and groups	Enables you to assign up to 4 ports as WAN interfaces and team up NIC ports as needed as well as offer protection by serving as a physical internal firewall.	Either fixed to factory default or incapable of multi-WAN load balancing.
Unified network management	Provides an effortless network management through a unified user interface.	Merely a firewall equipped with simple security mechanisms and cluttered management interfaces; operation requires a separate configuration for each feature.
LAN security mechanisms	Secures LAN networks with anomaly flow detection	No protection against DoS attack initiated from within the network.
Flexible bandwidth management	Adds flexibility to bandwidth management by applying settings of guaranteed/ maximum bandwidth, priority, traffic quota, P2P QoS, etc.	Lacks flexibility in bandwidth management due to the only option being maximum bandwidth.
Manageable VPN with link failover and bandwidth aggregation capabilities	Securely tunnels network connections using VPN capabilities along with trunking capability, bandwidth aggregation and policy-based management.	Network security is at risk due to the lack of link failover, bandwidth aggregation and advanced controls.
Open/ L2TP VPN	Allows you to connect to an internal network or establish a VPN tunnel using your iPhone.	Only provides PPTP VPN which is no longer supported by Apple since iOS 10.
High security authentication mechanisms	Greatly increases the network security by using a two-factor authentication.	Network security is at risk due to sole reliance on user credentials for authentication.
Policy-based routing	Allows in- / outbound traffic to be routed based on network polices.	The IP routing mechanisms are neither disclosed nor manageable.
Internet-based application blocking	Restrains the use of Internet-based applications such as IM clients, P2P software, etc.	Less effective in blocking the use of Internet-based applications by port number.
Bi-directional load balancing	Ensures stable connectivity to the Internet and reliable access to your website.	Fails to meet the needs of company websites for inbound load balancing.
Session persistence capability (for online banking & gaming)	Performs load balance by source IP to avoid connection interruption when connecting the online banking and gaming services.	No solution available for online banking or gaming service interruption due to IP inconsistency.
AP & Wi-Fi client management	Centrally manages a number of APs as well as applies network policies to wireless client access (e.g., QoS, website category, etc.).	Requires a purchase of an AP controlling device.
Free Wi-Fi Marketing	The combination of Wi-Fi service and Facebook/ Weibo check-in, Image/ Video advertising and LINE@/ WeChat official account can be used for business promotion.	Requires an annual fee for business promotion via social networking site.
File Storage with account management (a USB hard disk is required)	By connecting to a USB hard disk, NFW-460 can be used as a private cloud, FTP or file server with storage accounts.	Lacks either file storage function or account management.

USB 3G/4G Modem support

Uses 3G/4G modem as a WAN interface with link failover, load balancing and policy-based routing capabilities.

Lacks either USB 3G/4G modem support or link failover and load balancing capabilities.



IPv6 Compatibility



Dual-Core Processor



Custom NIC Ports



SPI Firewall



Multi-WAN Load Balancing



Link Failover



VPN Capability



Policy-based Management



User Authentication



OTP Authentication



AP Controller



Free Wi-Fi Marketing



PBR



Application Blocking



QoS



Anomaly Traffic Detection



USB 3G/4G Modem Support



Storage Device Support

## NFW Series Product Comparison

Model		NFW-460	NFW-650	NFW-850	NFW-1600	MHG-2600	MHG-3600
Networking	No. of NIC Ports	5 GbE	8 GbE	8 GbE	8 GbE	8~16 GbE	8~32 GbE
	Connector Type	RJ45	RJ45	RJ45	RJ45	RJ45 / Mini-GBIC	RJ45 / Mini-GBIC
	Custom NIC Ports	○	○	○	○	○	○
Power Redundancy		×	×	×	×	×	○
Form Factor		8.5" Desktop	1U Rackmount	1U Rackmount	1U Rackmount	1U Rackmount	2U Rackmount

### Features

IPv6 Compatibility		○	○	○	○	○	○
Virtual WAN		×	×	×	×	○	○
SPI / Internal Firewall		○	○	○	○	○	○
Web Filtering Database [Optional]		×	○	○	○	○	○
AP Controller	No. of Supported APs	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
	AP Unified-Configuration	○	○	○	○	○	○
	AP Status	○	○	○	○	○	○
	Connection Status Notification	○	○	○	○	○	○
	Wi-Fi Client Management	○	○	○	○	○	○
	AP Load Balancing	○	○	○	○	○	○
	E-Map	×	○	○	○	○	○
	Active Client List	×	○	○	○	○	○
	Wi-Fi Billing	×	○	○	○	○	○
Dedicated App	×	○	○	○	○	○	
Free Wi-Fi Marketing	Facebook/Weibo Marketing	○	○	○	○	○	○
	Image/ Video Advertising	○	○	○	○	○	○
	LINE/ WeChat Marketing	○	○	○	○	○	○
In/ Outbound Load Balancing		○	○	○	○	○	○
AAA Server (Authentication, Authorization, Accounting)		○	○	○	○	○	○
VPN Connectivity	IPSec / PPTP VPN	○	○	○	○	○	○
	VPN Trunking / Bandwidth Aggregation	○	○	○	○	○	○
	SSL / L2TP / Open	○	○	○	○	○	○
	SSL Application	×	×	×	○	○	○
Hardware Authentication		○	○	○	○	○	○
QoS	Guaranteed/ Maximum/ Prioritized	○	○	○	○	○	○
	Quota	○	○	○	○	○	○
	P2P	○	○	○	○	○	○
USB Port	Hard Disk (Log Storage)	○	○	○	○	○	○
	3G/4G modem	○	○	○	○	○	○
Policy-based Routing		○	○	○	○	○	○
FQDN Management		○	○	○	○	○	○
Up- / Download Blocking		○	○	○	○	○	○
Application Blocking		○	○	○	○	○	○
VLAN / VLAN Trunking		○	○	○	○	○	○
High Availability		×	×	○	○	○	○
OTP Authentication		○	○	○	○	○	○