NSFOCUS WAF V6.0
Installation Guide

Version: V6.0R07F03(2020-6-10)

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Preface

Overview

This document describes basic information about NSFOCUS Web Application Firewall (WAF) V6.0 and takes WAF NX3-P600A as an example to describe how to install and configure WAF.

This document is provided for reference only. It may slightly differ from the actual product due to version upgrade or other reasons.

Audience

This document is intended for the following users:

- Users who wish to know main features and usage of this product
- System administrator
- Network administrator

This document assumes that you have knowledge in the following areas:

- Network security
- Linux and Windows operating systems
- TCP/IP protocols

Organization

Chapter	Description
1 Overview	Describes the appearance and basic hardware information of WAF.
2 Preparation	Describes preparations for installing WAF.
3 Installation Procedure	Describes how to install WAF.
4 Basic Configuration	Describes basic configuration of WAF.
A Default Parameters	Describes default settings and communication parameters of the console port of WAF.

Conventions

Convention	Description
Bold font	Keywords, names of screen elements like buttons, drop-down lists or fields, and user-entered text appear in bold font.
Italic font	Document titles, new or emphasized terms, and arguments for which you supply values are in italic font.

Convention	Description
Note	Reminds users to take note.
Tip	Indicates a tip to make your operations easier.
Caution	Indicates a situation in which you might perform an action that could result in equipment damage or loss of data.
Warning	Indicates a situation in which you might perform an action that could result in bodily injury.
A > B	Indicates selection of menu options.

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1 Overview

1.1 Introduction

WAF offers 100M to 10G processing performance for various networking environments of government agencies, enterprises, operators, and others. WAF devices are classified into two series:

- 100M/1000M WAF NX3 series:
  - WAF NX3-HD300D
  - WAF NX3-HD600D
  - WAF NX3-HD800D
  - WAF NX3-P1000A
  - WAF NX3-P1000B
  - WAF NX3-P1000E
  - WAF NX3-P1600B
  - WAF NX3-P2000A
- 10G WAF NX5 series:
  - WAF NX5-P1600A
  - WAF NX5-P2020A
  - WAF NX5-P1600E
  - WAF NX5-P2020E
  - WAF NX5-P6000E

1.2 Product Appearance

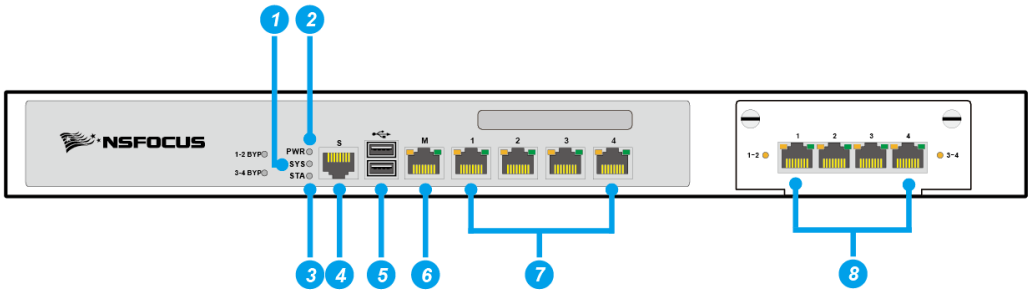
Real products of different lots or models may differ slightly.

1.2.1 100M WAF NX3 Series

Figure 1-1, Figure 1-2, and Figure 1-3 show the appearance of WAF NX3-HD300D/HD600D/HD800D.

Front Panel

Figure 1-1 Front panel of WAF NX3-HD300D/HD600D/HD800D



① System LED	② Power LED	③ Status LED	④ Console port (RJ-45)
⑤ USB port	⑥ Management interface	⑦ Extension module	

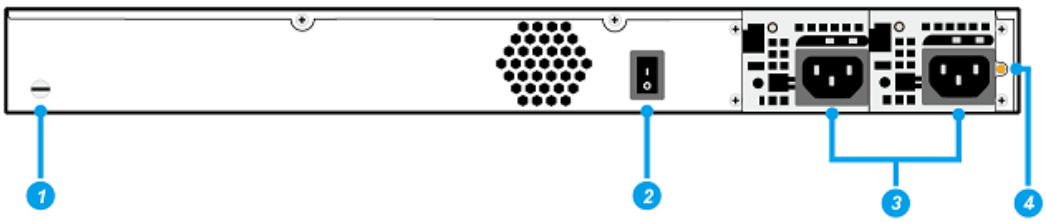
Rear Panel

WAF NX3-HD300D/HD600D/HD800D can be equipped with a single or redundant power supplies, as shown in Figure 1-2 and Figure 1-3.

Figure 1-2 Rear panel of WAF NX3-HD300D/HD600D/HD800D (with a single power supply)

① Grounding	② Power switch	③ Power cable interface

Figure 1-3 Rear panel of WAF NX3-HD300D/HD600D/HD800D (with redundant power supplies)

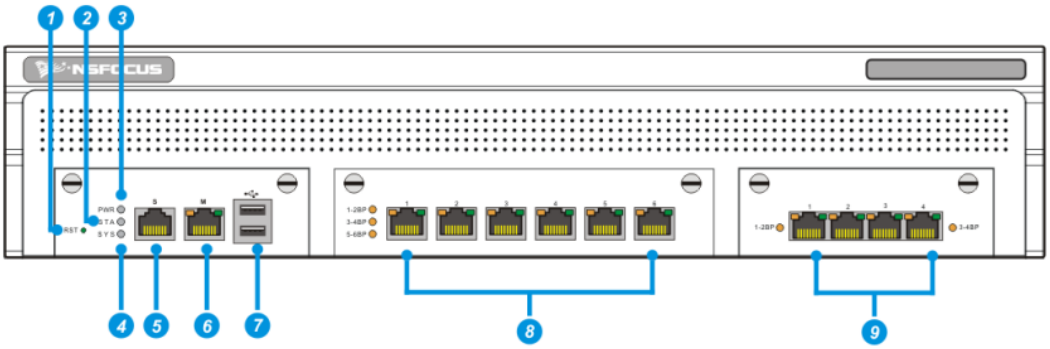


① Grounding	② Power switch	③ Power port	④ Mute button for clearing the single-supply alert

1.2.2 WAF NX3-P1000B

Front Panel

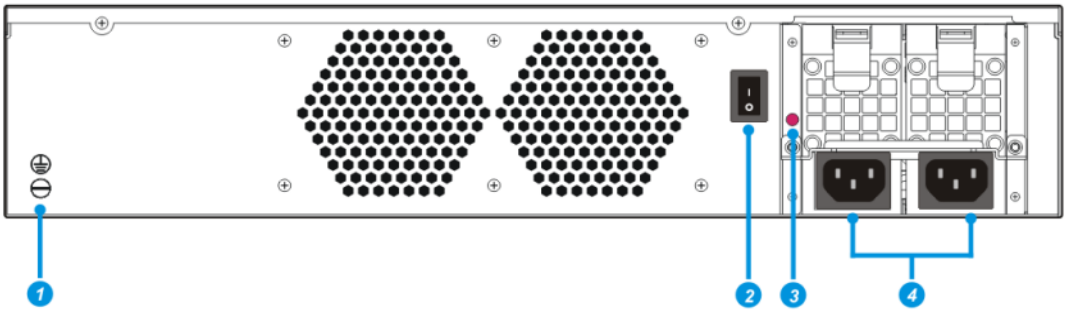
Figure 1-4 Front panel of WAF NX3-P1000B



① Reset key	② Status LED	③ Power LED	④ System LED	⑤ Console port (RJ-45)
⑥ Management interface	⑦ USB port	⑧ Management interface/working interface	⑨ Extension module	

Rear Panel

Figure 1-5 Rear panel of WAF NX3-P1000B



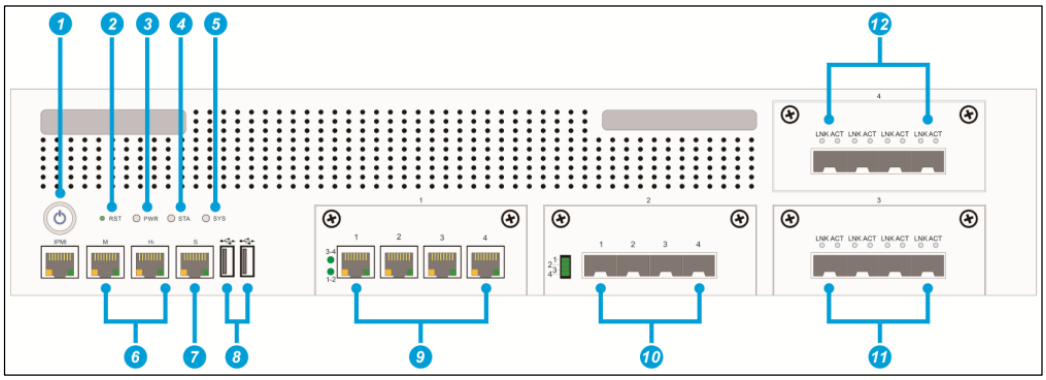
⑤ Grounding	⑥ Power switch	⑦ Mute button for clearing the single-supply alert	⑧ Power cable interface

1.2.3 WAF NX5-P6000E

WAF NX5-P6000E supports SSL cards.

Front Panel

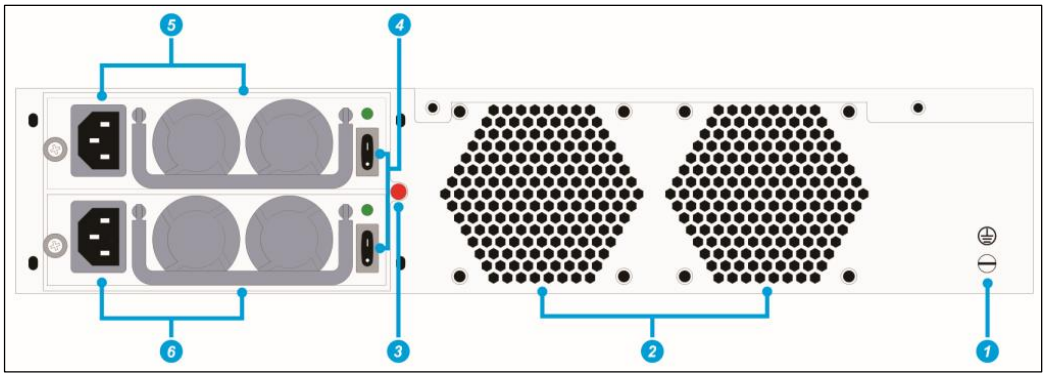
Figure 1-6 Front panel of WAF NX5-P6000E



① Power switch	② Reset key	③ Power LED	④ Status LED
⑤ System LED	⑥ Management interface	⑦ Serial RJ-45 port	⑧ USB port
⑨ Expansion module	⑩ Expansion module	⑪ Expansion module	⑫ Expansion module

Rear Panel

Figure 1-7 Rear panel of WAF NX5-P6000E



① Grounding	② Heat dissipation holes	③ Mute button: The device supports two power supplies. If only one power supply is configured, a sound alert will be generated. To clear the alert, press the mute button.
④ Power switch	⑤ Power supply 1	⑥ Power supply 2

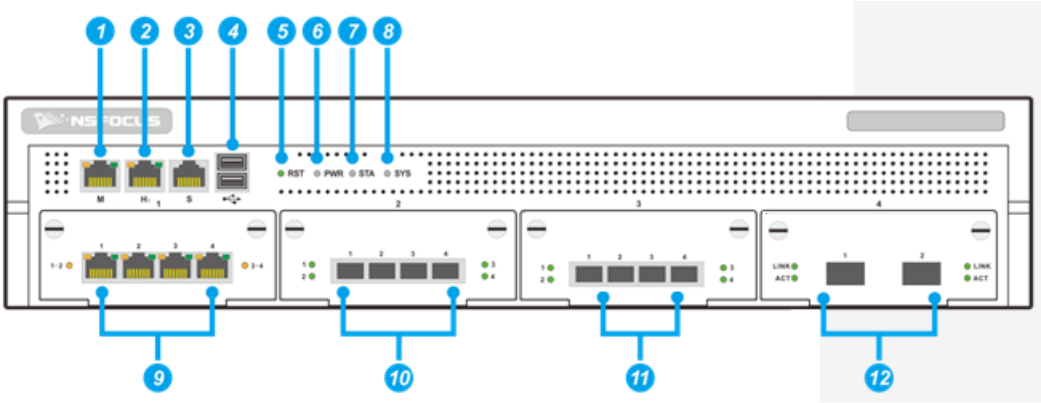
1.2.4 Other 1000M and 10G Series

Other 1000M and 10G WAF devices such as NX3-P1000A, NX3-P1000E, NX3-P1600B, NX3-P2000A, NX5-P1600A, NX5-P2020A, NX5-P1600E, and NX5-P2020E have the same appearance but vary in the type and quantity of working interfaces.

Only NX3-P1000E, NX5-P1600E, and NX5-P2020E support SSL cards.

Front Panel

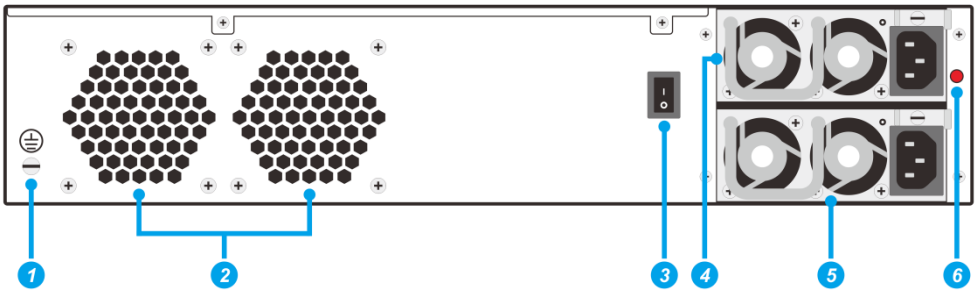
Figure 1-8 Front panel of the other 1000M and 10G series



① Management interface	② Management interface	③ Console port (RJ-45)	④ USB port
⑤ Reset button	⑥ Power LED	⑦ Status LED	⑧ System LED
⑨ Working interface: GE electrical interface (RJ-45)	⑩ Working interface: GE optical interface (SFP)	⑪ Working interface: GE optical interface (SFP)	⑫ Working interface: 10GE optical interface (SFP+)

Rear Panel

Figure 1-9 Rear panel of the other 1000M and 10G series



①	Grounding	②	Heat dissipation holes	③	Power switch
④	Power supply 1	⑤	Power supply 2	⑥	Mute button: The device supports two power supplies. If only one power supply is configured, a sound alert will be generated. To clear the alert, press the mute button.

1.3 Power Supply

WAF 1000M and 10G series can receive AC power input from two power supplies. If two independent power supplies are used, connect WAF to both of them to maintain WAF's reliability even when one power supply breaks down.

The power switch and the power cable interface are located at the rear of the chassis, as shown in Figure 1-2, Figure 1-5, Figure 1-7, and Figure 1-9.

The power module achieves AC input of the following specifications:

- Voltage range: 100–240 V AC; 50 Hz/60 Hz
- Maximum output power: 400 W

Note	100M WAF series support one power system only.

1.4 LEDs

There are four types of LEDs on the front panel of the chassis: power LED, status LED, system LED, and network interface LEDs. Different models of devices have different types and numbers of LEDs.

Power LED

Table 1-1 describes the power LED.

Table 1-1 Power LED indications

LED Status	Indication
On	The power is normal
Off	The power is off or abnormal.

Status LED

Table 1-2 describes the status LED.

Table 1-2 Status LED indications

LED Status	Indication
Off	The system is in the idle state.
Blinking	The system is reading and writing data.

System LED

Table 1-3 describes system LED indications.

Table 1-3 System LED indications

LED Status	Indication
Green	The device runs properly.
Orange	The CPU usage of the device is high.
Red	The CPU usage of the device is too high.

Link/Act LEDs

Table 1-4 describes the indications of network interface LEDs.

Table 1-4 Link/Act LED indications

LED Status	Indication
Link LED on	A link has been established.
Link LED off	No link has been established.

LED Status	Indication
ACT LED blinking	The device is transmitting or receiving data.
ACT LED off	No data is transmitted or received.

1.5 System Software

A web-based manager is provided for users to configure and manage WAF. Users can implement various configurations and operations by accessing the web-based manager via a browser, for example, Internet Explorer, Firefox, or Chrome.

1.6 System Information

Table 1-5 shows basic hardware information of WAF NX3-HD300D/HD600D/HD800D.

Table 1-5 Hardware information of WAF NX3-HD300D/HD600D/HD800D

Interfaces	• 1 x RJ-45 console port • 2 x USB port • 5 x 1000M Ethernet electrical port
Memory	8 GB
Rack	1 U
Weight	• Device with one power supply: 5.65 kg • Device with redundant power supplies: 6.15 kg
Dimensions	440 x 330 x 44 (mm)
Power Supply	• 100–240 V AC • Maximum power: 60 W for one power supply; 80 W for redundant power supplies
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-6 shows basic hardware information of WAF NX3-P1000B.

Table 1-6 Basic hardware information of WAF NX3−P1000B

Ports	• 1 x RJ-45 console port • 2 x USB port • 7 x 1000M Ethernet electrical port • 4 x 1000M Ethernet electrical port or optical port (optional)
Memory	8 GB
Rack	2 U
Weight	12.6 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-7 shows basic hardware information of WAF NX3-P1000A/P1600B/P2000A.

Table 1-7 Hardware information of WAF NX3-P1000A/P1600B/P2000A

Ports	• 1 x RJ-45 console port • 2 x USB port • 4 x 1000M Ethernet electrical port or optical port (optional)
Memory	8 GB
Rack	2 U
Weight	11 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-8 shows basic hardware information of WAF NX3-P1000E

Table 1-8 Basic hardware information of WAF NX3−P1000E

Ports	• 1 x RJ-45 serial port • 2 x USB port • 4 x 1000M Ethernet electrical port or optical port or 4 x SSL card with a 1000M electrical port (optional)
Memory	16 GB
Rack	2 U
Weight	11 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-9 shows basic hardware information of WAF NX5-P1600A.

Table 1-9 Basic hardware information of WAF NX5-P1600A

Ports	• 1 x RJ-45 console port • 2 x USB port • 2 x 10 Gigabit optical ports • 4 x 1000M Ethernet electrical port or optical port (optional)
Memory	8 GB
Rack	2 U
Weight	11 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-10 shows basic hardware information of WAF NX5-P2020A.

Table 1-10 Basic hardware information of WAF NX5-P2020A

Ports	• 1 x RJ-45 console port • 2 x USB port • 2x 10 Gigabit optical ports • 4 x 1000M Ethernet electrical port or optical port (optional)
Memory	32 GB
Rack	2 U
Weight	11 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-11 shows basic hardware information of WAF NX5-P1600E.

Table 1-11 Basic hardware information of WAF NX5-P1600E

Ports	• 1 x RJ-45 serial port • 2 x USB port • 4 x 1000M Ethernet electrical port or optical port or 4 x SSL card with a 1000M electrical port or 2 x 10 Gigabit optical port (optional)
Memory	32 GB
Rack	2 U
Weight	11 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-12 shows basic hardware information of WAF NX5-P2020E.

Table 1-12 Basic hardware information of WAF NX5-P2020E

Ports	• 1 x RJ-45 serial port • 2 x USB port • 50 Gigabit SSL card • 4 x 1000M Ethernet electrical port or optical port or 2 x 10 Gigabit optical port (optional)
Memory	32 GB
Rack	2 U
Weight	11 kg
Dimensions	575 x 432 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

Table 1-13 Basic hardware information of WAF NX5-P6000E

Ports	• 1 x RJ-45 serial port • 2 x USB port • 50 Gigabit SSL card (optional) • 4 x 1000M Ethernet electrical port or optical port or 2 x 10 Gigabit optical port (optional)
Memory	128 GB
Rack	2 U
Weight	16.5 kg
Dimensions	626 x 443 x 88 (mm)
Power Supply	• 100–240 V AC • Maximum power: 350 W
Mean Time Between Failures (MTBF)	45,000 hours
Operating Temperature	0–40 ℃
Storage Temperature	–20 ℃ to +65 ℃

2 Preparation

Before installing WAF, you need to make basic preparations, including checking accessories shipped with the device, common tools, and the equipment room environment.

2.1 Accessories Shipped with the Device

Accessories supplied may vary with the product model. For specific accessories, see the packing list.

Before installation, ensure that the following items are included in the accessory kit delivered with the device:

Table 2-1 Accessories

Accessory	Description
Straight-through cable (green)	Used to connect the device to the network.
Crossover cable (yellow)	Used to connect a PC to the management port of WAF so that you can log in to the web-based manager of WAF to perform configurations
Power cable	One or two power cables are available for each device.
Rubber pad	Cut it into four pieces along the dotted line and attach them to the four angles or tabs of the device chassis to avoid abrasion.
Rack-mounting ears	If WAF needs to be put on a rack, you are required to use rack-mounting ears to fasten it.
Rack-mounting screw	Used to fasten the device onto the rack.
Serial cable	Used to connect to WAF's console port for configurations via the console manager.

2.2 Network Environment Preparation

Table 2-2 describes network environment preparation for WAF going live.

Table 2-2 Network environment preparation

Item	Description
IP address	IP address reserved for WAF.
Computer	This computer is used for direct connection to WAF so that you can log in to the web-based manager of WAF in HTTPS mode for management.
Terminal software	Terminal software must be available for connecting to the serial port, such as HyperTerminal that comes with the Windows operating system.
Browser	Make sure that the Internet Explorer 7.0, 8.0, or 9.0, Chrome, or Firefox 3.6 (or later) browser is available on the computer.

2.3 User-Provided Tools and Devices

- Screwdrivers and screws of various specifications.
- Instruments and meters, such as hub, terminal, optional modules, and multi-meter
- ESD wrist strap.

2.4 Environment

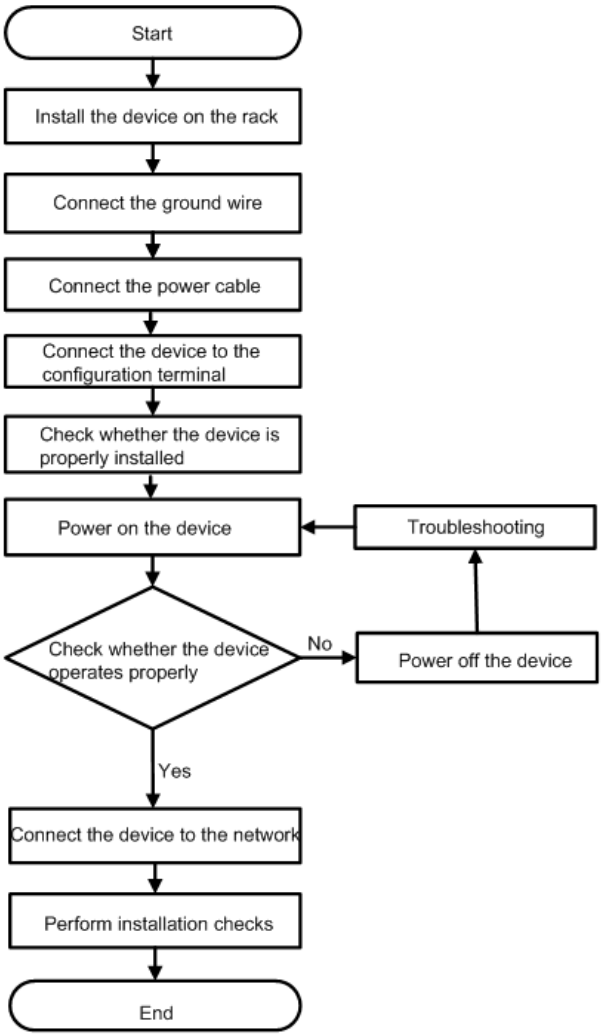
- Temperature and humidity
  - Good ventilation and cooling system
  - Temperature: 0–40 ℃
  - Relative humidity: 10%–95%
- ESD precaution
  - WAF and the floor are well grounded.
  - Dust-proof room.
  - Proper temperature and humidity.
  - Wear ESD gloves or wrist straps and an ESD garment when touching the circuit board.
- Power supply

  Keep the position of the power switch in mind so as to promptly cut off the power supply in the case of an accident during operation.
- Cabinet
  - The cabinet should be strong enough to support the device and accessories.
  - The cabinet size should fit the device.

3 Installation Procedure

3.1 Installation Flow

Figure 3-1 Installation flow



3.2 Connecting Power Cables

The procedure for connecting the AC power cables is as follows:

Step 1 Verify that the device is properly grounded.

Step 2 Turn the power switch of the AC power module to the OFF position.

Step 3 Connect one end of a power cable to the power socket of the AC power module and the other end to the power socket of the equipment room.

Step 4 Turn the power switch of the AC power module to the ON position.

Step 5 Check the status of the power LED on the front panel. For the indications of power LEDs, see Table 1-1.

----End

3.3 Connecting Interface Cables

3.3.1 Connecting the Serial Cable

WAF NX3-P600A is used as an example to describe how to connect the serial cable:

Step 1 Select a terminal.

The terminal can be a standard character terminal with an RS-232 console port, or more often, an ordinary personal computer.

Step 2 Connect the serial cable.

Power off the device. Connect the RJ-45 connector of the serial cable to the console port of the device, and the DB9 (female) connector to the console port of the terminal.

Step 3 Check the connection and power on the device.

Verify that the device is properly connected to the terminal. Then power on the device. If the connection succeeds, startup information about the device will be displayed.

----End

3.3.2 Connecting the Ethernet Cable

If an electrical cable is used, connect one end of the cable to the Ethernet electrical interface of WAF and the other end to the Ethernet interface on the peer device. Check the LED status of the Ethernet electrical interface. For the indications of status LEDs, see Table 1-4.

3.4 Shutdown

You are advised to power a running device off as follows:

- On the web-based manager, choose **System Management** > **System Tools** > **System Control** and click **Apply** following **Shutdown System** to shut down the device.
- On the console-based manager, choose **Appliance Control** > **Poweroff** to shut down the device.

Power off the device (that is, turn the power switch to the OFF position) two minutes after the preceding operations.

4 Basic Configuration

4.1 Device Configurations

Before using WAF, you need to configure basic network settings and import the license file. The procedure is as follows:

- Logging In to the Web-based Manager
- Configuring the Management Interface
- Importing the License
- Verifying the Bypass Function

4.1.1 Logging In to the Web-based Manager

The default IP address of management interface on WAF is 192.168.0.1. To log in to the web-based manager, perform the following steps:

Step 1 Provide a computer with an IP address that belongs to subnet 192.168.0.0/24.

The computer's IP address cannot be 192.168.0.1 as it is management IP address of WAF.

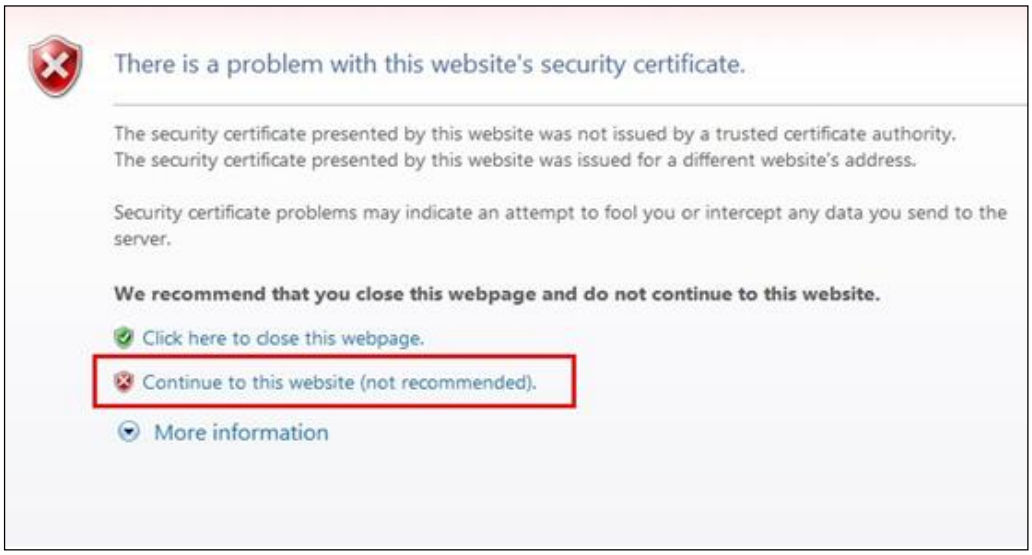
Step 2 Connect to management interface of WAF.

Open a browser (for example, Microsoft Internet Explorer) and go to the IP address of WAF in HTTPS mode: https://192.168.0.1.

A security alert dialog box appears, as shown in Figure 4-1.

Step 3 Click **Continue to this website (not recommended)** to accept the channel secured by the WAF certificate.

Figure 4-1 Security alert dialog box

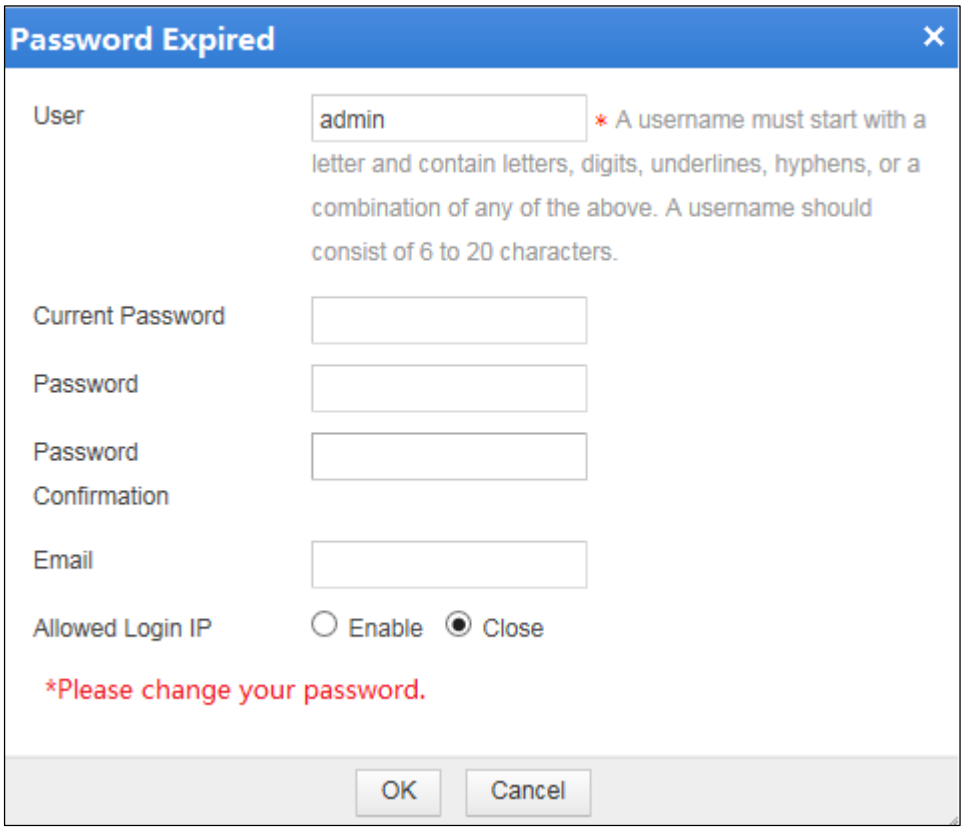


Step 4 Type a valid user name and password (both are **admin** by default) and click **Login**.

Figure 4-2 Login page

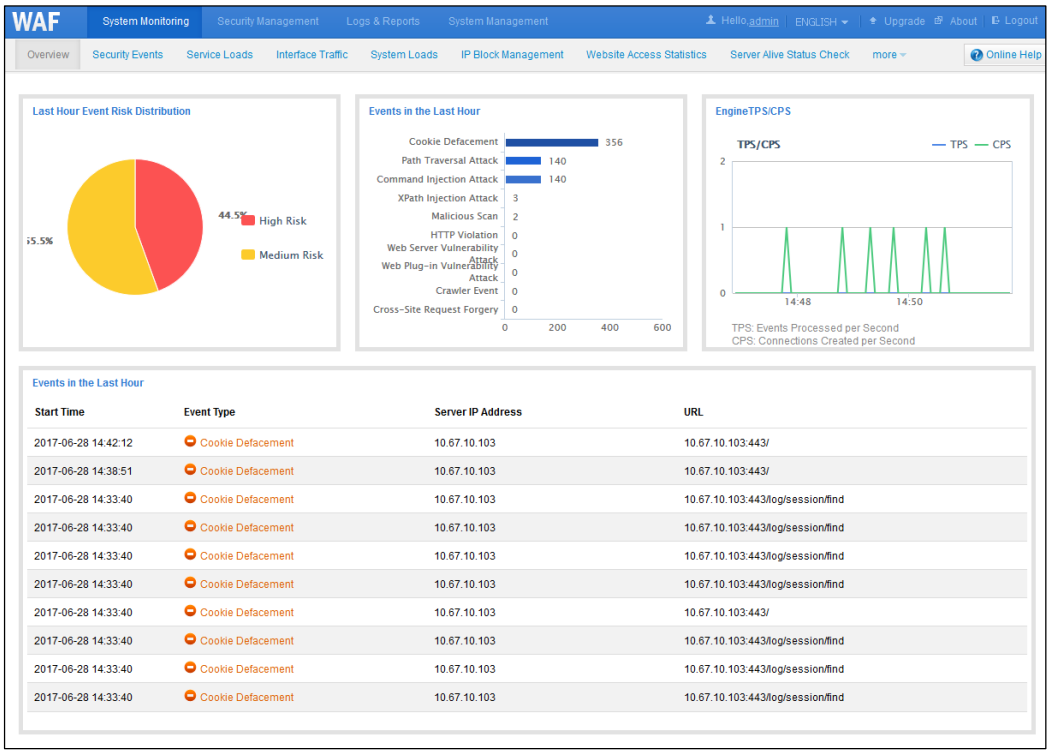
Step 5 For initial login, the password change page appears, as shown in Figure 4-3.

Figure 4-3 Password change page



Step 6 Set a new password and click **OK**. Then log in to the device with the new password. After a successful login, the **Overview** page appears, as shown in Figure 4-4.

Figure 4-4 Overview page



Caution	• You are advised to use the Internet Explorer 7.0, 8.0, or 9.0, Firefox 3.6 or later, or Chrome browser and set the display resolution to 1024 x 768 or higher. • For the initial use, you must log in to WAF using the default IP address and user name. • Possible causes for login failures: incorrect user name, incorrect password, and upper/lower case confusion of the user name or password. • Before login, check whether **Turn on Pop-up Blocker** is selected in the browser. If yes, deselect it.

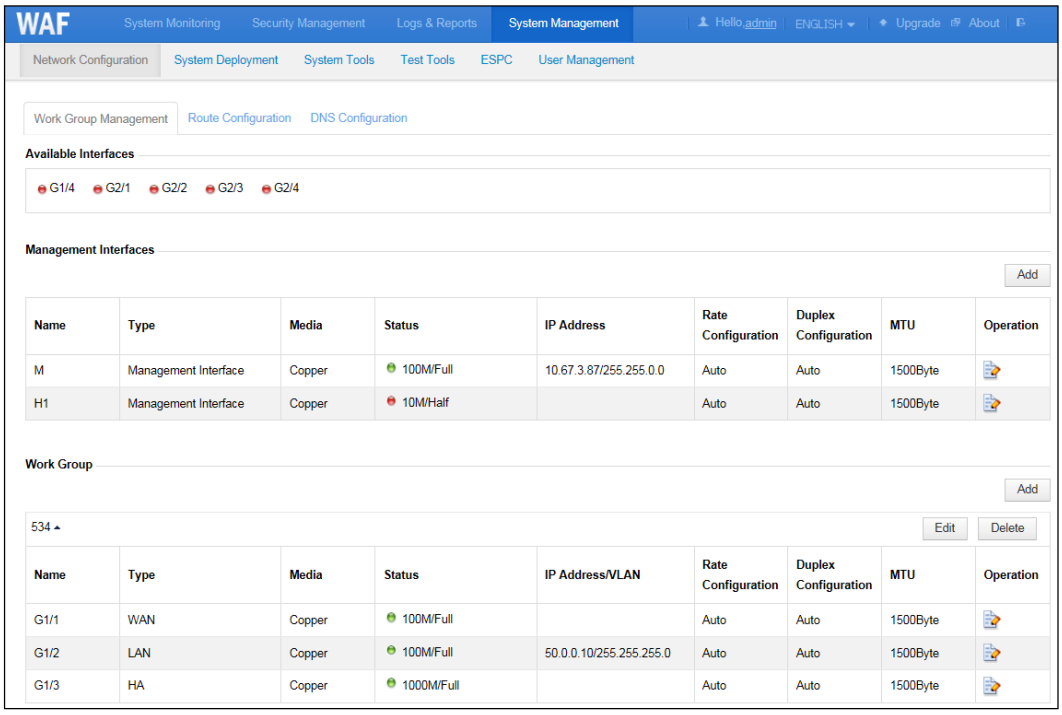
----End

4.1.2 Configuring the Management Interface

For initial login, you usually need to change the default IP address of the management interface according to the actual network environment. Here, WAF NX3-P600A (M is the management interface) is used as an example to describe how to change the IP address of the management interface. The procedure is as follows:

Step 1 Choose **System Management** > **Network Configuration** > **Work Group Management**.

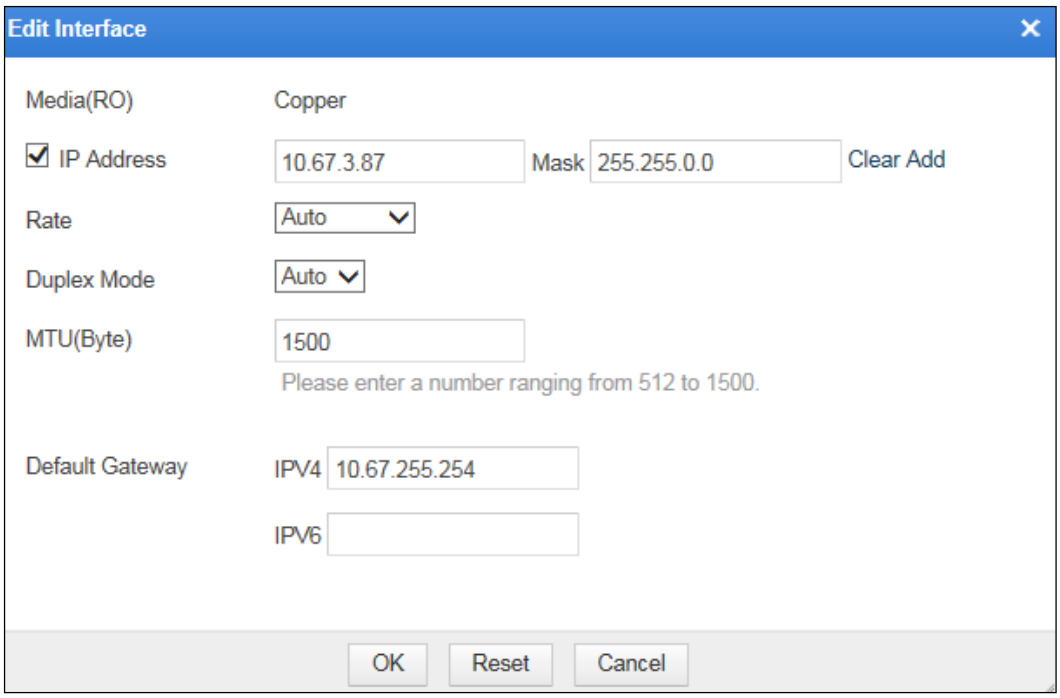
Figure 4-5 Work Group Management page



Step 2 Click in the row of interface M.

The **Edit Interface** dialog box appears.

Figure 4-6 Editing an interface



Step 3 Modify the interface information as required.

Step 4 Click **OK** to complete the configuration.

----End

4.1.3 Importing the License

Before a license is imported, WAF is in the packet forwarding state and thus cannot assume its protective role. To make it play its due role, you need to import a valid license.

To import a license, perform the following steps:

Step 1 Choose **System Management > System Tools > License**.

The **License** page appears.

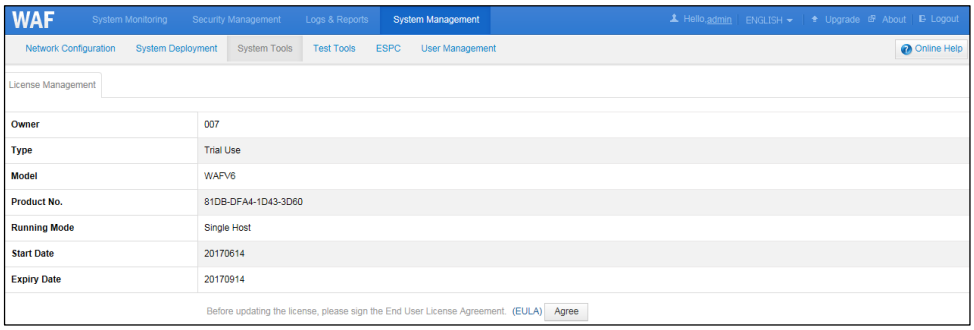
Step 2 Click **Browse**.

Step 3 Select a license file and click **Open**.

Step 4 Click **Submit** on the **License** page to upload the license file.

After the license is successfully imported, the system asks you to verify the license information and accept the End User License Agreement (EULA).

Figure 4-7 Confirming license information and EULA

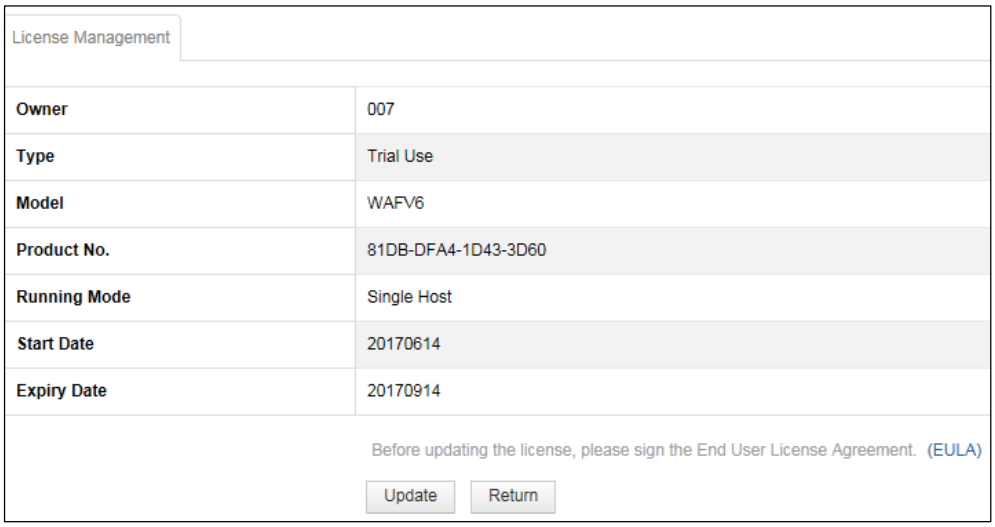


Note	• To obtain a license file, contact technical support personnel of NSFOCUS. • WAF can function properly only after a valid license is imported and **Mode Configuration** is set to **Protection Mode** on the **Running Mode** page under **System Management > System Deployment**.

Step 5 After verifying license information, click the **EULA** link to open the NSFOCUS cloud EULA page.

Step 6 Read the EULA and click **Agree** to accept it.

Figure 4-8 License information



Step 7 Click **Update** to complete license update and make the new license take effect or click **Back** to upload a correct license.

----End

4.1.4 Verifying the Bypass Function

Before deploying a WAF in in-path mode, perform the following steps to check whether its bypass function is available:

Step 1 Directly connect two PCs to the WAN interface and LAN interface of the WAF, for example, PC-1 (IP address: 192.168.1.1/24) to the WAF interface and PC-2 (IP address: 192.168.1.2/24) to the LAN interface.

Step 2 After the WAF is powered on, ping PC-2 on PC-1.

The ping operation succeeds.

Step 3 After the WAF is powered off, ping PC-2 on PC-1.

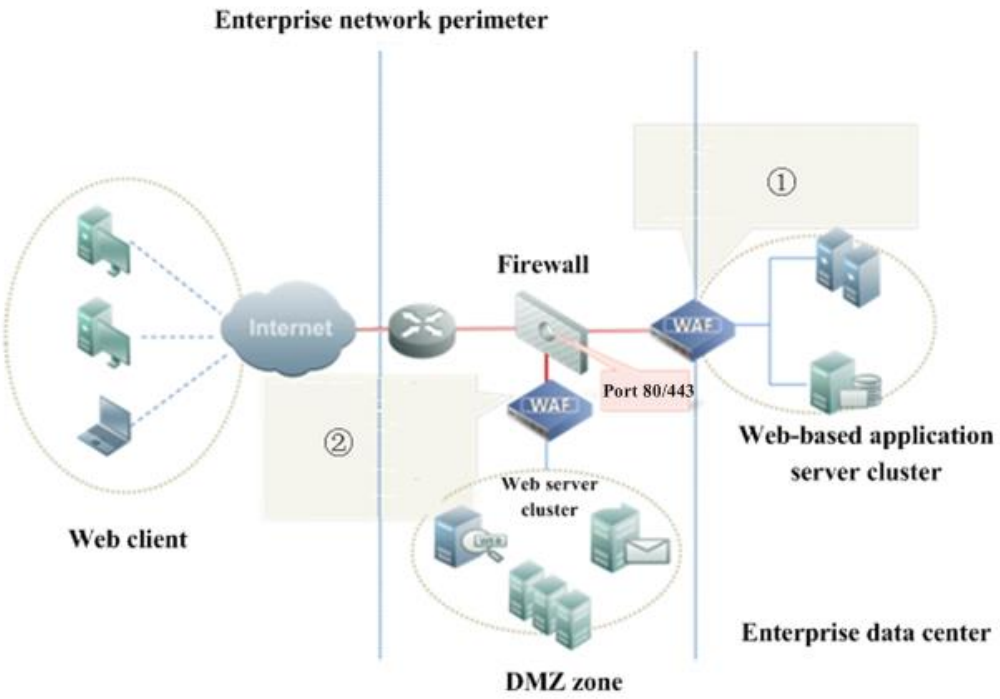
The ping operation succeeds, indicating that the bypass function of WAF works properly.

----End

4.2 Connecting WAF to the Network

The most common deployment mode for WAF is single-link in-path deployment, as shown in Figure 4-9. Deployed in in-path mode, WAF is located in front of the access switch of the web server cluster in the DMZ security zone, to efficiently monitor traffic flowing into the web server cluster, thus ensuring the security of web applications.

Figure 4-9 WAF deployment topology



You can use WAF to protect the web server cluster after completing configuration of interfaces and protection policies according to the actual network topology. For details, see *NSFOCUS WAF V6.0 User Guide*.

Note	• For better manageability of WAF, you are advised to connect the M or H1 management interface of the device via a dedicated network link. • In in-path mode, the LAN interface on the device is connected to the protected server and WAN interface is connected to the uplink interface. • For deployment details, see *NSFOCUS WAF V6.0 Deployment Guide*.

4.3 Configuring WAF via Console

If WAF is inaccessible via HTTPS in the case of a network failure, you can log in to the console of WAF to modify the device configuration.

This section covers the following parts:

- Logging In to the Console
- Modifying Network Settings on the Console

4.3.1 Logging In to the Console

Network settings can be configured through the console, which requires the connection between WAF and the computer. The serial port rate is 115200 bps. After login, select corresponding menus for configuration.

Before logging in to the console, make the following preparations:

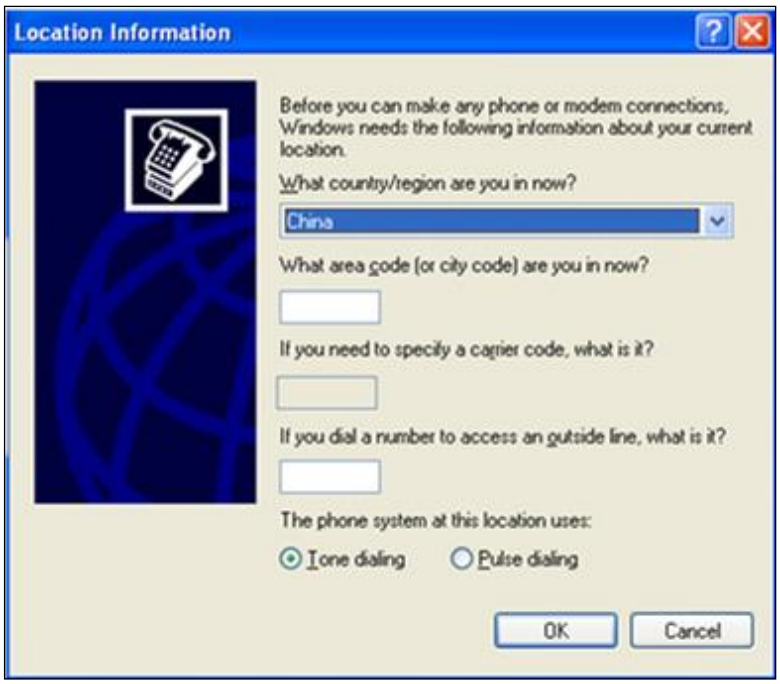
- Prepare a computer.
- Fetch a serial cable from the accessory box.
- Prepare terminal software that can connect to the console port (for example, the HyperTerminal software that comes with the Windows operating system).
- Connect WAF and the computer via the serial cable.

The following takes HyperTerminal as an example to detail how to log in to the console of WAF:

Step 1 In the Windows system, choose **Start** > **All Programs** > **Accessories** > **Communications** > **HyperTerminal**.

The **Location Information** dialog box shown in Figure 4-10 is displayed.

Figure 4-10 Location Information dialog box



Step 2 Click **Cancel** in the preceding dialog box, and then **Yes** and **OK** in subsequent dialog boxes.

The **Connection Description** dialog box appears. See Figure 4-11.

Figure 4-11 Connection Description dialog box

Step 3 Type the connection name (for example, **WAF**) and then click **OK**.

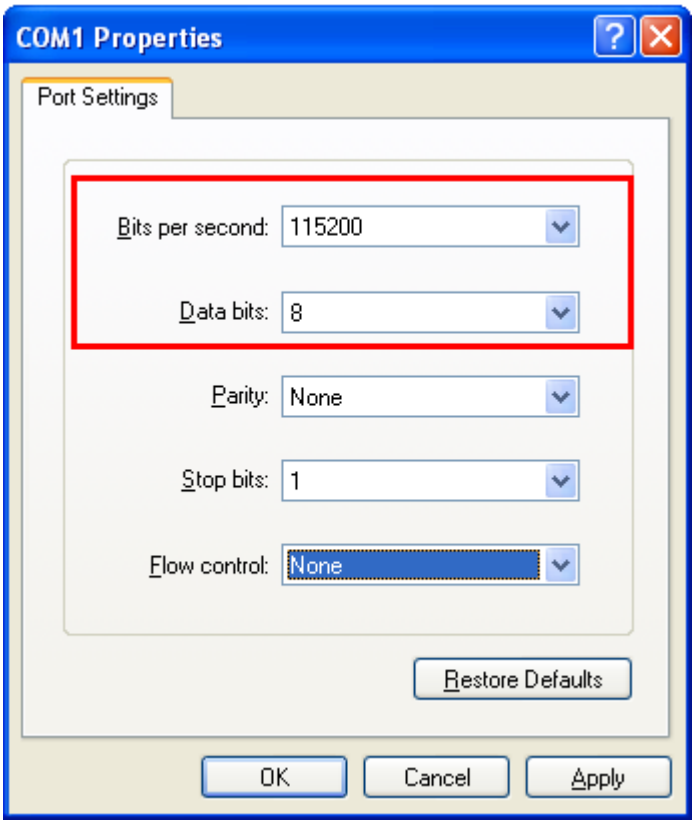
The **Connect To** dialog box appears. See Figure 4-12.

Figure 4-12 Connect To dialog box

Step 4 Select a port (COM1 in this example) that is connected to the computer via a serial cable. Then click **OK**.

The **COM1 Properties** dialog box appears. See Figure 4-13.

Figure 4-13 COM1 Properties dialog box



Step 5 Configure port properties, for example, setting **Bits per second** to **115200** and **Data bits** to **8**. For details, see appendix A Default Parameters.

Step 6 Click **OK** and press **Enter**. Then the **login:** prompt appears, as shown in Figure 4-14. Type the user name and password (both are **nsadmin** by default) of the console administrator. If the user name and password are correct, the administrator will successfully log in to the console.

Figure 4-14 Console login interface

```
localhost login: nsadmin
Password:
```

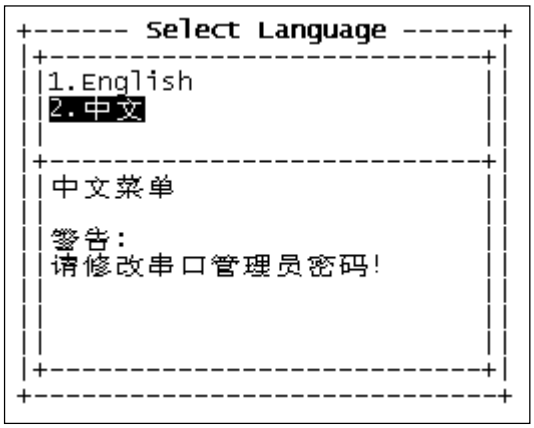
----End

4.3.2 Modifying Network Settings on the Console

To modify network settings on the console, perform the following steps:

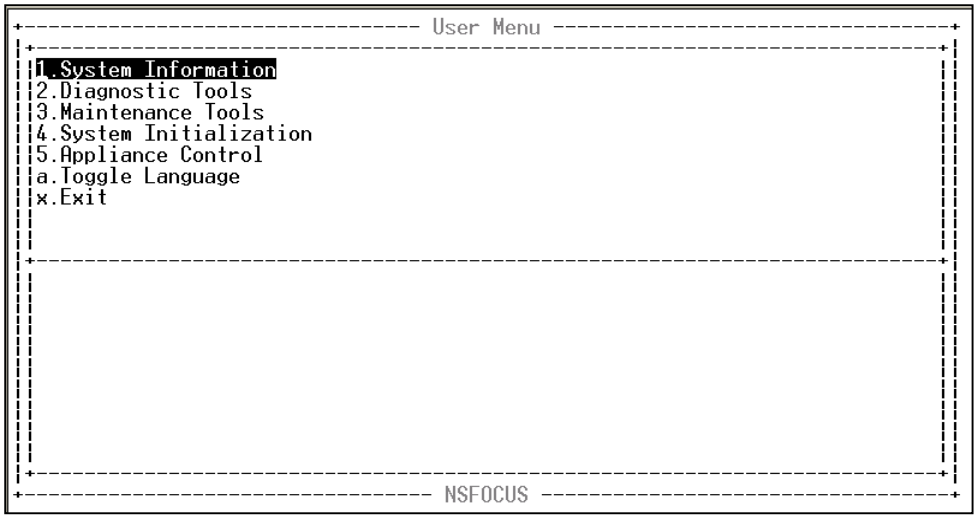
Step 1 After logging in to the console-based manager, select a language, as shown in Figure 4-15.

Figure 4-15 Selecting the language



Step 2 Press **1** to select English. Then the main menu appears, as shown in Figure 4-16.

Figure 4-16 Main menu on the console



Step 3 Select **3 Maintenance Tools** on the main menu to go to the system maintenance submenu. On the **Maintenance Tools** menu, select **2 Set IP and route** to set your IP address, subnet mask, and gateway address, as shown in Figure 4-17.

Caution	You can only change the IP address of the management interface here.

Figure 4-17 Setting the IP address

```
+-------------------------------- User Menu --------------------------------+
|+----------------------------- Maintenance Tools -----------------------------+|
||+-----------------------------------------------------------------------------+||
|||1.Set Console Password                                                      |||
|||2.Set IP & Route                                                            |||
|||3.Set IPv6 & Route                                                          |||
|||4.Reset Web Admin Password                                                  |||
|||5.Reset Web Audit+----------- Set IP & Route -----------+                   |||
|||6.Unlock Web Admi|                                      |                   |||
|||7.Set Web Default| IP (eth0):     10.67.3.86            |                   |||
|||8.Remote Assistan| Netmask(eth0): 255.255.0.0           |                   |||
|||9.Bypass Control | Gateway (ip):  10.67.255.254          |                   |||
|||a.Clear ACL      |                                      |                   |||
||+-v(Down)---------+--------------------------------------+-----------------+||
|||                 |        < OK >      < Cancel >        |                   |||
|||                 +--------------------------------------+                   |||
|||                                                                             |||
|||                                                                             |||
|||                                                                             |||
||+-----------------------------------------------------------------------------+||
|+-----------------------------------------------------------------------------+|
+-------------------------------- NSFOCUS ---------------------------------+
```

Tip	When setting the IP address, note the following: • You can use the Tab key to switch between items that you want to modify. • The gateway address (default route) is mandatory. If you delete the gateway address and select Cancel, the gateway address remains. • If the system runs properly, your IP address settings will be saved. WAF applies these settings only after you restart the device.

----End

A Default Parameters

A.1 Default Settings of the Management Interface

IP Address	eth0/M:192.168.0.1
Subnet Mask	255.255.255.0

A.2 Default Accounts

	User Name	Password
Web Administrator	admin	admin
Web Auditor	auditor	auditor
System Maintainer	maintainer	maintainer
Console Administrator	nsadmin	nsadmin

A.3 Communication Parameters of the Console Port

Baud Rate	115200
Data Bit	8
Parity	None
Stop Bit	1
Data Flow Control	None