

ZXHN H267N Home Gateway Maintenance Management Guide

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Safety Precautions

Warning!

Before using the device, read the following safety precautions. ZTE bears no liability to the consequences incurred by violation of the safety instructions.

Usage Cautions

- Read all the safety cautions carefully before using the device.
- Only use the accessories included in the package, such as power supply adapter and battery.
- Do not extend the power cord, otherwise the device will not work.
- The power supply voltage must meet the requirements of the device input voltage (The voltage fluctuation range is less than 10%).
- Keep the power plug clean and dry to prevent any risk of electric shock or other dangers.
- Disconnect all the cables during a lightning storm to prevent the device from damage.
- Power off and unplug the power plug when the device is not in use for a long time.
- Do not attempt to open the covers of the device. It is dangerous to do so when the device is powered ON.
- Do not directly stare at the optical interface to prevent any eye injuries.
- Power off and stop using the device under the conditions such as, abnormal sound, smoke, and strange smell. Contact the service provider for maintenance if the device is faulty.

Environment Requirements

- Ensure proper ventilation to the device. Place the device away from direct sunlight.
- Keep the device ventilated and dry. Never spill any liquid on the device.
- Do not place any object on the device to prevent any deformation or damage to the device.
- Do not place the device near any source of heat or water.
- Keep the device away from any household appliances with strong magnetic or electric fields, such as microwave oven and refrigerator.

Cleaning Requirements

- Before cleaning, power off the device, and unplug all the cables connected to the device, such as power cable, optical fiber, and Ethernet cable.
- Do not use any liquid or spray to clean the device. Use a soft dry cloth.

Environment Protection

- Do not dispose the device or battery improperly.
- Observe the local regulations about the equipment disposal or treatment.

Environmental Information

The equipment you purchased has required the extraction and use of natural resources for its production. It may contain substances that are hazardous to people's health and to the environment. To avoid putting such substances into our environment and to reduce pressure on our natural resources, we ask that you reuse or recycle your end-of-life equipment by using an accredited electronics take-back system.

The symbols below indicate that this product should be reused or recycled and not simply discarded. Please locate and use an appropriate reuse and recycling site.

If you need more information on collection, reuse and recycling systems, contact your local or regional waste administration. You may also contact your equipment provider for more information on the environmental performances of these products.



Chapter 1 Product Overview

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1.1 Interfaces and Buttons

The product is targeted to pvovide 24-hours continuous triple-play services, including VOIP. Figure 1-1 shows the interfaces and buttons on the back panel of the ZXHN H267N device.

Figure 1-1 The Back Panel



Table 1-1 describes the interfaces and buttons on the back panel and side panel of the ZXHN H267N device.

Table 1-1 Interfaces and Buttons

Interface/Button	Description		
ON/OFF	Power switch		
Power	12 V DC power connector		
Dhana 1/Dhana 0	RJ-11 telephone interface, connected to the telephone with RJ-11		
Phone 1/Phone 2	telephone cable.		
LAN1/LAN2/LAN3	RJ-45 FE Ethernet interface		
LAN4/WAN	RJ-45 GE Ethernet interface, WAN interface is optional.		
DSL	RJ-11 DSL interface		
	Reset button		
Reset	When the power is on, use a needle to press the button for over 2		
	seconds to restore the default settings.		
	WLAN button		
VVLAIN	Enable/disable the WLAN function.		

Interface/Button	Description
	WPS button
WPS	Enable/disable the Wi-Fi protection. When the Wi-Fi protection is
	enabled, users can access the network automatically.
USB	USB 2.0 interface

• The USB interface is on a side of the ZXHN H267N.

1.2 Indicator

Figure 1-2 shows the indicators on the front panel of the ZXHN H267N unit.

Figure 1-2 The Front Panel



Table 1-2 describes the indicators on the front panel of the ZXHN H267N unit.

Table 1-2 Descriptions of Indicators

LED Indicator	Status	Description	
Power	Solid green	The ZXHN H267N is powered ON.	
	OFF	The ZXHN H267N is powered OFF.	
DSL	Solid green	DSL synchronization is normal and the link connection is normal.	
	Fast Flashing	Now in the handshaking process to establish the link connection.	
	Slowly Flashing	Physical link exists, however carrier wave has not been detected.	
	OFF	Link has not been established.	
Internet	Solid green	The connection is established and a correct IP address is obtained.	
	Flashing	Currently in data transmission.	
	OFF	Internet connection is not established, or the ZXHN H267N is switched off.	

LED Indicator	Status	Description	
WLAN	Solid green	The WLAN RF switch is on.	
	Flashing green	Currently in data transmission. Flashing frequency indicates WiFi network traffic.	
	Solid red	WPS access is successful. This solid-on light will be automatically off after 5 minutes.	
	Fast flashing red	The WPS accessing of the WLAN terminal is faulty.	
	Slowly flashing red	WLAN terminal is in WPS accessing process.	
	OFF	The WLAN RF switch is off.	
LAN1 ~ LAN4	Solid green	LAN connection has been established.	
	Flashing	Data transmission is in processing. The indicator flashes according to the LAN traffic.	
	OFF	LAN connection has not been established.	
Phone1 ~ Phone2	Solid green	The ZXHN H267N has registered on the VoIP network.	
	Flashing	Indicates when the associated telephone is off-hook.	
	OFF	The ZXHN H267N has not been registered on the VOIP network.	
USB	Solid green	The USB device is connected.	
	Flashing	Currently in data transmission.	
	OFF	No USB device.	

1.3 Cable Connection

Figure 1-3 shows the devices that are connected to interfaces of the ZXHN H267N device.





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Chapter 2 Configuration Preparation

This manual uses the Windows operating system as an example for describing how to configure the ZXHN H267N. Before configuring the ZXHN H267N, you need to perform the following operations:

- Ensure that a crossover or straight-through Ethernet cable connects a computer to the device.
- Ensure that the TCP/IP configuration on the computer is correct.
- Stop any firewall or other security software operating on the computer.
- Disable the proxy setting of Internet Explorer.

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2.1 Configure TCP/IP

To log in to the ZXHN H267N on a computer, you need to set the IP address of the computer to ensure that the IP address of the computer and the maintenance IP address of the ZXHN H267N are in the same network segment.

Context

The default maintenance IP address of the ZXHN H267N is as follows:

- IP address: 192.168.1.1
- Subnet mask: 255.255.255.0
- Default gateway: 192.168.1.1

Steps

- Use an ethernet cable to connect a local computer to the LAN interface of the ZXHN H267N.
- 2. On the local computer, double-click **Local Area Connection** and click **Properties**. The **Local Area Connection Properties** dialog box is displayed.
- 3. Double-click Internet Protocol (TCP/IP). The Internet Protocol (TCP/IP) Properties dialog box is displayed. Set the IP address to 192.168.1.200, subnet mask to 255.255.0, and default gateway to 192.168.1.1.
- 4. Click OK.
 - End of Steps -

Follow-Up Action

After the IP address of the computer is set, you can run the **Ping** command to ping the IP address 192.168.1.1. If the ping operation is successful, it indicates that the TCP/IP configuration is correct and the computer is properly connected to the ZXHN H267N.

2.2 Login

The ZXHN H267N provides a Web-based configuration and management system. You can enter a specified IP address in the address bar of Internet explorer to access the system.

Prerequisite

A computer is directly connected to the ZXHN H267N, and their IP addresses are in the same network segment.

Steps

1. Open Internet explorer, and enter http://192.168.1.1 (default maintenance IP address of the ZXHN H267N) in the address field. Press the **Enter** key. The login page is displayed, see Figure 2-1.

Figure 2-1 Login Page

	Welcome to ZXHN H267N. Please login.			
Username				
Password				
	Login			

2. Enter your username and password (the default username and password of the administrator are admin) and click **Login**. The configuration page is displayed, see Figure 2-2.

Figure 2-2 Configuration Page

ZTE中兴 Current Time:			admin Logout	中文 I English	ZXHN H267N
Home	Internet Local	Network	VoIP	Managemer	it & Diagnosis
WAIN Setting	Eirewall		•		
🛜 WLAN Setting	LAN Setting	K USB		VoIP Setting	1
	Name: A10101767 IP Address: 192.168.1.2		1	Phone: Status: Unreg	istered
			1	Phone: Status: Unreg	istered

- End of Steps -

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Chapter 3 Configure the Internet

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3.1 Check the Device Status

The section describes the status of Internet. The relevant information of Internet status is shown as below.

Steps

 On the main page of the ZXHN H267N, select Internet > Status > Ethernet to go to the Ethernet page.

The page is shown in Figure 3-1.

Home	Internet	Local Network	VoIP	Management & Diagnosis		
	Ethernet E	OSL 4in6 Tunnel	6in4 Tunnel			
	Dana Information					
	Page Information	Page Information				
ty	The relevant information of	Internet status (ethernet uplin	<) is shown as below.			
	Ethernet Interface	Information				
linding	WAN	WAN				
nic Routing	MAC Address	00:19:c6:50:	9d:0c			
ast	Status	NoLink				
	Packets Received/Bytes R	teceived 11301/7165	92			
	Packets Sent/Bytes Sent	1189/90502				
	▼ Ethernet Connecti	on Status		Refresh		
	Connection Name	rer				
	Туре	PPPoE				
	IP Version	IPv4				
	NAT Switch	On				

Figure 3-1 Internet Status

- 2. (Option) on the main page of the ZXHN H267N, select **Internet > Status > DSL**, the relevant information is shown.
- 3. (Option) on the main page of the ZXHN H267N, select **Internet > Status > 4in6 Tunnel**, the relevant information is shown.
- 4. (Option) on the main page of the ZXHN H267N, select **Internet > Status > 6in4 Tunnel**, the relevant information is shown.
- 5. Click **Refresh** to refresh the information.
 - End of Steps -

3.2 Configure the WAN

3.2.1 Configure the WAN Connection

This procedure describes how to configure a broadband connection (WAN connection) on the network side, so that user services (including the data, voice, and video services) can be connected to the external network.

The ZXHN H267N supports Route-based and Bridge-based WAN connections.

- Route-based connection
- Bridge-based connection

Prerequisite

Before configuring Ethernet, make sure that the radio button ON (Management & Diagnosis > ETH Uplink Management) is set and Apply button is pressed.

Steps

 On the main page of the ZXHN H267N, select Internet > WAN > Ethernet to go to the Ethernet page, as shown in Figure 3-2.

Figure 3-2 Ethernet Configuring page

Home		Internet		Local Network	VoIP	Management & Diagnosis	
Status		Ethernet	DSL	4in6 Tunnel	6in4 Tunnel		
WAN							
QoS	Pa	age Informati	on				
Security	Th	This page provides the parameters of Ethernet connection configuration function.				l.	
DDNS							
SNTP	•	The Creation & Configuration of Ethernet Connection					
Port Binding		Create New Item					
Dynamic Routing							
Multicast							

- 2. Click The Creation & Configuration of Ethernet Connection.
- 3. Click **Create New Item** to go to the page of creating new Ethernet connection.

Route-based connection

4. Set the parameter **Type** to be **Route**. The **Route-based connection** page is displayed, seeFigure 3-3.

Figure 3-3 Route Page

▼ The Creation & Configuration of Ethernet Connection

▼ <u>rer</u>		
Connection Name	rer	
Туре	Route	~
Service List	INTERNET	~
MTU	1492	
Link Type	РРР	~
PPP Transfer Type	PPPoE	~
PPP		
Username	a@adsl	
Password	•••••	
IP Version	IPv4	*
VLAN Switch	⊙ On ○ Off	
VLAN ID	300	

Table 3-1 lists the New Item parameters.

Parameter	Description					
Connection Name	To create a WAN connection, select Create WAN Connection . To query or modify an existing WAN connection, select the corresponding WAN connection.					
Туре	The connection type includes route and bridge connection. In this case, route is selected.					
Service List	Options: INTERNET, TR069, INTERNET_TR069_, VoIP, INTERNET_VoIP, VoIP_TR069, INTERNET_VoIP_TR069, and OTHER. This parameter must be consistent with service configuration. For example, if INTERNET is selected, it indicates that the WAN connection supports the Internet access service only. If TR069 is selected, it indicates that the WAN connection supports remote management. If VoIP is selected, it indicates that the WAN connection supports the voice service.					
MTU	Maximum Transfer Unit (MTU) of the WAN connection. Range: 128–1492, default: 1492.					
Link Type	There are two link types: PPP IP					
PPP TransType	The default value is PPPoE.					
PPP						
Username	Username of the PPPoE account. The username must be the same as that set on the peer server for authentication.					
Password	Password of the PPPoE account. The Password must be the same as that set on the peer server for authentication.					
IP Version	 IP version that the device supports. Normally, it is set to IPv4/IPv6. IPv4: The device supports IPv4 addresses only. IPv6: The device supports IPv6 addresses only. IPv4/IPv6: The device supports both IPv4 and IPv6 addresses. 					
IPv6						
IPv6 Info Get Mode	 Specifies how to acquire IPv6 information for the WAN connection. It is valid only if the WAN connection supports IPv6. Manual Mode: You need to set the global address, gateway, and DNS acquisition modes. Auto Mode: The global address, gateway, and DNS acquisition modes are automatically configured. IPv6CP Extension Mode: The IPv6CP extension mode is used. 					

Table 3-1 Parameter Descriptions for the Route Mode

Parameter	Description
GUA From	 Specifies how to acquire the global IPv6 address. It is valid only if the IPv6 Info Get Mode parameter is set to Manual Mode. Options: SLAAC: The device generates a global address in accordance with the RA packets from the upper-layer server. Static: You need to set a static IPv6 address. DHCPv6: The device acquires a global address through DHCPv6.
IPv6	Specifies the static IPv6 address and prefix length for the WAN connection. It is valid only if the GUA From parameter is set to Static .
DNSv6 From	 Specifies how to acquire the IPv6 DNS address. It is valid only if the IPv6 Info Get Mode parameter is set to Manual Mode. Options: SLAAC: The device generates a DNS address in accordance with the RA packets from the upper-layer server. Static: You need to set static DNS addresses. A maximum of three DNS server addresses can be configured. If DNS Server 1 fails to process the domain name resolution request, the request is sent to DNS Server 2. If DNS Server 2 fails, the request is sent to DNS Server 3. DHCPv6: The device acquires a DNS address through DHCPv6. If no option is selected, it indicates that no DNS is configured.
DNS1/DNS2/D- NS3	IP address of the DNS server for static connections. You can set up to three IP addresses for the server. These IP addresses are provided by the ISP.
Prefix Delegation From	Valid only if the IPv6 Info Get Mode parameter is set to Auto Mode or Manual Mode . If the prefix delegation function is enabled, the system requests a prefix from the upper-layer server for allocating global addresses to devices on the LAN side.
GUA From Prefix	Valid only if the prefix delegation feature is enabled. If it is selected, the system generates global addresses in accordance with the retrieved prefix.
VLAN Switch	Valid only if the VLAN switch feature is enabled.
VLAN ID	If theVLAN function is enabled, VLAN ID is needed to be configured. Range: 1–4094. To ensure normal service operation, the VLAN ID must be the same as that set in upper-layer OLT configuration.

Bridge-based connection

5. Set the parameter **Type** to be **Bridge connection**. The **Bridge-based connection** page is displayed, seeFigure 3-4.

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Figure 3-4 Bridge Page

▼ The Creation & Configuration of Ethernet Connection

Vew Item		
Connection Name		
Туре	Bridge Connection	*
Service List	INTERNET	*
VLAN Switch	⊙ On Off	
VLAN ID		
Create New Item		

Table 3-2 lists the New Item parameters.

Parameter	Description
Connection Name	To create a WAN connection, select Create WAN Connection . To query or modify an existing WAN connection, select the corresponding WAN connection.
Туре	The connection type includes Route and Bridge Connection. In this case, Bridge is selected.
Service List	INTERNET is selected. It indicates that the WAN connection supports the Internet access service only.
VLAN Switch	Valid only if the VLAN switch feature is enabled.
VLAN ID	If theVLAN function is enabled, VLAN ID is needed to be configured. Range: 1–4094. To ensure normal service operation, the VLAN ID must be the same as that set in upper-layer OLT configuration.

Table 3-2 Parameter Descriptions for the Bridge Mode

6. Click **Apply**.



Modify a WAN connection.

Select an existing WAN connection from the **Connection Name** list and modify the parameters. After the parameters are set as required, click **Apply**.

• Delete a WAN connection.

Select an existing WAN connection from the Connection Name list and click

• WAN connection modification and deletion may cause service failure. Perform the modification and deletion operations with care.

- End of Steps -

3.2.2 Configure the DSL

This procedure describes how to configure the DSL on the network side, so that user services can be connected to the external network.

The ZXHN H267N supports Route-based and Bridge-based WAN connections.

- Route-based connection
- Bridge-based connection

Steps

 On the main page of the ZXHN H267N, select Internet > WAN > DSL to go to the DSL page, as shown in Figure 3-5.

Figure 3-5 DSL Configuring page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status	Ethernet	DSL 4in6 Tunnel	6in4 Tunnel	
WAN	Page Information			
QoS	Fage Information			
Security	This page provides the par-	ameters of DSL connection cor	figuration function.	
DDNS		(
SNTP	▼ The Creation & C	onfiguration of DSL Co	nnection	
Port Binding	What should be noticed wh	en configuring DSL connection	2	
Dynamic Routing	► <u>PTM</u>			×
Multicast	► <u>ATM</u>			×
	▶ <u>d</u>			×
	Create New Item			

DSL Modulation Parameters

Creation and Configuration of DSL Connection

- 2. Click The Creation & Configuration of DSL Connection.
- 3. Click Create New Item to go to the page of creating new DSL connection.

Route-based connection

4. Set the parameter **Type** to be **Route**. The **Route-based connection** page is displayed, seeFigure 3-7.

ZTE

Vew Item		
Connection Name		
xDSL Transfer Mode	PTM	~
Туре	Route	*
Service List	INTERNET	~
MTU	1492	
Link Type	РРР	~
PPP Transfer Type	PPPoE	~
PPP		
Username		
Password	•••••	
IP Version	IPv4	~
VLAN Switch	🔿 On 💿 Off	
Create New Item		

Table 3-3 lists the New Item parameters.

Table 3-3	Parameter	Descriptions	for	the	DSL
-----------	------------------	---------------------	-----	-----	-----

Parameter	Description
Connection Name	Name of the connection.
xDSL Transfer Mode	There are two xDSL transfer modes:
	• ATM
	• PTM
	In the case of IPv4_PPPoE, select PTM.
VPI/VCI	If xDSL Transfer ModeEnter is selected to be ATM,
	the VPI/VCI values provided by the ISP needs to be
	configured.
	VPI Range: 0 - 255.
	VCI Range: 0 - 65535.
Service Type	If xDSL Transfer ModeEnter is selected to be ATM,
	Service Type needs to be configured.
	ATM QoS used to limit the transmission of uplink traffic.
	The options are: CBR, RT-VBR, nRT-VBR, and UBR.

Figure 3-6 Route Page

Parameter	Description
Service List	Options: INTERNET, TR069, INTERNET_TR069_, VoIP, INTERNET_VoIP, VoIP_TR069, INTERNET_VoIP_TR069, and OTHER. This parameter must be consistent with service configuration. For example, if INTERNET is selected, it indicates that the WAN connection supports the Internet access service only. If TR069 is selected, it indicates that the WAN connection supports remote management. If VoIP is selected, it indicates that the WAN connection supports the voice service.
PCR	If Service Type is selected to be CBR , RT-VBR or nRT-VBR , PCR needs to be configured.
SCR	Sustainable Cell Rate. If Service Type is selected to be RT-VBR or nRT-VBR , SCR needs to be configured.
MBS	Maximum Burst Size. If Service Type is selected to be RT-VBR or nRT-VBR , MBS needs to be configured.
Туре	The connection type includes Route and Bridge Connection. In this case, Route is selected.
Encapsulation Type	The encapsulation type includes LLC and VCMUX.
MTU	Define the maximum transfer unit. In this case, default value is 1492.
Link Type	There are two link types: PPP IP
PPP Transfer Type	In this case, default value is PPPoE. If xDSL Transfer ModeEnter is selected to be ATM, PPP Transfer Type includes PPPoE and PPPoA.
PPP	
Username/Password	PPPoE/PPPoA user name and password. They are provided by the ISP.
IP Version	The IP version includes: IPv4 IPv6 IPv4/v6 In this case, IPv4 is selected.

Parameter	Description
IP Туре	Select the IP type when Link Type is IP. If IP Type is congfigured to be static, the parameters (IP Address/Subnet Mask/Gateway/DNS1–DNS3) need to be configured.
IP Address	IP Address of ZXHN H267N.
Subnet Mask	Subnet mask of ZXHN H267N.
Gateway	It is usually the IP address of the ZXHN H267N by default.
DNS1-DNS3	IP address of the DNS server for static connections. You can set up to three IP addresses for the server. These IP addresses are provided by the ISP.
IPv6	
IPv6 Info Get Mode	The options are:Manual ModeAuto Mode
GUA From	Mode of obtaining global address, including SLAAC , Static and DHCPv6 .
GateWay From	Mode for obtaining gateway. The options are: SLAAC and Static.
DNSv6 From	Mode for obtaining DNS. The options are: • SLAAC • Static • DHCPv6
Prefix Delegation From	Valid only if the IPv6 Info Get Mode parameter is set to Auto Mode or Manual Mode. If the prefix delegation function is enabled, the system requests a prefix from the upper-layer server for allocating global addresses to devices on the LAN side.
GUA From Prefix	Valid only if the prefix delegation feature is enabled. If it is selected, the system generates global addresses in accordance with the retrieved prefix.
VLAN Switch	Enable or disable theVLAN function.
VLAN ID	If theVLAN function is enabled, VLAN ID is needed to be configured. Range: 1–4094. To ensure normal service operation, the VLAN ID must be the same as that set in upper-layer OLT configuration.

5. Set the parameter **Type** to be **Bridge connection**. The **Bridge-based connection** page is displayed, seeFigure 3-7.

Figure 3-7 Bridge Page

▼ The Creation & Configuration of DSL Connection

What s	should	be n	oticed	when	configuring	DSL	connection?

▶ <u>r1</u>		
▼ <u>New Item</u>		
Connection Name		
xDSL Transfer Mode	PTM	*
Туре	Bridge Connection	*
Service List	INTERNET	*
VLAN Switch	⊙ On O Off	
VLAN ID		
Create New Item		

Table 3-4 lists the New Item parameters.

Table 3-4 Parameter Descriptions for the Bridge-based connection

Parameter	Description			
Connection Name	Name the connection.			
xDSL Transfer Mode	There are two xDSL transfer modes:			
	• ATM			
	• PTM			
	In the case of IPv4_PPPoE, select PTM.			
ATM Parameters				
VPI/VCI	If xDSL Transfer ModeEnter is selected to be ATM,			
	the VPI/VCI values provided by the ISP needs to be			
	configured.			
	VPI Range: 0 - 255.			
	VCI Range: 0 - 65535.			
Service Type	If xDSL Transfer ModeEnter is selected to be ATM,			
	Service Type needs to be configured.			
	ATM QoS used to limit the transmission of uplink traffic.			
	The options are: CBR, RT-VBR, nRT-VBR, and UBR.			
PCR	If Service Type is selected to be CBR,RT-VBR or			
	nRT-VBR, PCR needs to be configured.			

Parameter	Description
SCR	Sustainable Cell Rate. If Service Type is selected to be RT-VBR or nRT-VBR , SCR needs to be configured.
MBS	Maximum Burst Size. If Service Type is selected to be RT-VBR or nRT-VBR , MBS needs to be configured.
Туре	The connection type includes Route and Bridge Connection. In this case, Bridige is selected.
Service List	Default:INTERNET.
VLAN Switch	Enable or disable theVLAN function.
VLAN ID	If theVLAN function is enabled, VLAN ID is needed to be configured. Range: 1–4094. To ensure normal service operation, the VLAN ID must be the same as that set in upper-layer OLT configuration.

6. Click Apply.

DSL Modulation Parameters

7. Click **DSL Modulation Parameters** to go to the page of **DSL Modulation Parameters**, as shown in Figure 3-8.

Modulation Type Selection		
☑ ADSL_G.dmt (G.992.1)	ADSL_G.lite (G.992.2)	ADSL_G.dmt.bis (G.992.3)
ADSL_re-adsl (Annex L)	✓ ADSL_2plus (G.992.5)	ADSL_ANSI_T1.413 (ANSI T1.413
ADSL_G.dmt.bis_AnnexM(G.992.3)	ADSL_2plus_AnnexM(G.992.5)	
VDSL2 (G.993.2)		
☑ Profile8a	Profile8b	Profile8c
✓ Profile8d	Profile12a	Profile12b
✓ Profile17a	Profile30a	
All On All Off		
Capability		
Bitswap	SRA SRA	G.INP
US0Enable	Vectoring	□ sos

8. Configure DSL Modulation Parameters.

Select the DSL modulation types and click Apply button to apply the changes.



• When you select the Bitswap check box, the system can adjust the modulation bit of an interfered channel to the bit of other channels.

- End of Steps -

3.2.3 Configure the 4in6 Tunnel Connection

This page provides the parameters of 4in6 Tunnel configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > WAN > 4in6 Tunnel to go to the 4in6 Tunnel page, as shown in Figure 3-9.

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status	Ethernet	DSL 4in6 Tunnel	6in4 Tunnel	
WAN	Page Information			
QoS	rage information			
Security	This page provides the pa	arameters of 4in6 Tunnel config	uration features.	
DDNS				
SNTP	▼ 4in6 lunnel			
Port Binding	What should be noticed w	hen configuring 4in6 tunnel?		
Dynamic Routing	▼ <u>New Item</u>			×
Multicast	Tunnel Name			
	Tunnel Type	DS-Lite 🗸		
	WAN Connection	Please select 🗸		
	Interface IPv4 Address	192.0.0.		
	Manual AFTR	O on ⊙ Off		
				Apply Cancel
	Create New Item			

Figure 3-9 4in6 Tunnel Connection page

2. Click Create New Item to create new 4in6 Tunnel.

Table 3-5 lists the New 4in6 Tunnel parameters.

Table 3-5 Parameter Descriptions for the 4in6 Tunnel

Parameter	Description
Tunnel Name	Name of the new 4in6 Tunnel.
Tunnel Type	4in6 tunnel type.
WAN Connection	Select the WAN connection.
Interface IPv4 Address	Set this parameter if Tunnel Type is set to DS-Lite . Interface address on the DS-Lite tunnel. The range defined by RFC is from 192.0.02 to 192.0.06 .
Manual AFTR	Select On/Off Manual AFTR function.
AFTR	Setting this parameter when Manual AFTR in On.

- 3. Click Apply.
 - End of Steps -

3.2.4 Configure the 6in4 Tunnel Connection

This page provides the parameters of 6in4 Tunnel configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > WAN > 6in4 Tunnel to go to the 6in4 Tunnel page, as shown in Figure 3-10.

Home	Internet	Local Network VoIP		Management &	& Diagnosis					
Status	Ethernet D	SL 4in6 Tunnel	6in4 Tunnel							
WAN	D. I. C. III									
QoS	Page Information									
Security	This page provides the para	This page provides the parameters of 6in4 Tunnel configuration features.								
DDNS										
SNTP	▼ 6in4 Tunnel									
Port Binding	What should be noticed whe	n configuring 6in4 tunnel?								
Dynamic Routing	Vew Item				×					
Multicast	Tunnel Name]							
	WAN Connection	Please select 💌								
	MTU	1380								
	6in4 Tunnel Type	Manual Tunnel 🗠								
	Tunnel Remote Address]							
				Apply	Cancel					
	Create New Item									

Figure 3-10 6in4 Tunnel Connection page

2. Click Create New Item to create new 6in4 Tunnel.

Table 3-6 lists the New 6in4 Tunnel parameters.

Table 3-6 Parameter Descriptions for the 6in4 Tunnel

Parameter	Description		
Tunnel Name	Name of the new 6in4 Tunnel.		
WAN Connection	Select the WAN connection.		
MTU	Define the maximum transfer unit.		
6in4 Tunnel Type	There are two 6in4 Tunnel types:Manual Tunnel6rd		
6in4 Tunnel Configuration	There are two 6in4 Tunnel configuration types:StaticAuto		
6rd Prefix	Setting this parameter when 6in4 Tunnel Configuration is Static.		
IPv4 Mask Length	Setting this parameter when 6in4 Tunnel Configuration is Static.		
6rd Border Relay Address	Setting this parameter when 6in4 Tunnel Configuration is Static .		
Tunnel Remote Address	Setting this parameter when 6in4 Tunnel Type is Manual Tunnel .		

- 3. Click Apply.
 - End of Steps -

3.3 Configure the QoS

3.3.1 Configure the QoS Global Parameters

The section describes how to configure QoS global parameters.

Steps

1. On the main page of the ZXHN H267N, select Internet > QoS > QoS Global Configuration to go to the QoS Global Configuration page.

The page is shown in Figure 3-11.

Figure 3-11 QoS Global Configuration page

Home	Internet	Local Network		VoIP	Management & Diagnosis
Status	 QoS Global Configurati 	on	Classification	Congestion Manageme	nt Traffic Policing
WAN					
QoS	Page Information				
Security	This page provides the relevant	parameter	s of global switch ar	nd each sub-function switch.	
DDNS	O.C. Clabel Confirm				
SNTP	♥ Qos Global Configur	ation			
Port Binding	Enable QoS	⊙ On	Ooff		
Dynamic Routing		~	0 "		
Multicast	Enable Traffic Policing	On	Ooff		
	Enable Queue Management	⊙ On	Ooff		
	Enable DSCP Re-marking	Oon	⊙ off		
	Enable 802.1p Re-marking	Oon	⊙ Off		
	All On All Off				Apply Cancel

2. Specify the parameters, and then click **Apply**.



- Click **All On** to select all QoS Global configuration.
- Click All Off to cancel all QoS Global configuration.

- End of Steps -

3.3.2 Configure the QoS Classification

This page provides the parameters of QoS Classification configuration features.

Steps

- 1. On the main page of the ZXHN H267N, select **Internet > QoS > Classification** to go to the **Classification** page.
- 2. Click Create New Item to create new QoS Classification, the page as shown in Figure 3-12.

Figure 3-12 New QoS Classification Page

▼ <u>New Item</u>	Oon ⊙Off	×
Packets Classification Criterion		
Ingress	Unconcerned	
Egress	Unconcerned	
Source MAC Address	00 : 00 : 00 : 00 : 00 : 00	
802.1p	Unconcerned	
L2Protocol	Unconcerned	
IP Version	IPv4	
Source IP Address	0,0,0,0~0,0,0,0,0	
Destination IP Address	0,0,0,0,0,0,0,0,0	
TOS		
IP Precedence	Unconcerned	
L3Protocol	Unconcerned	
DSCP		
Packets Classification Result		
802.1p Re-marking		
DSCP Re-marking		
Traffic Police Rule Index		
Traffic Class		
	Apply Cano	
<u>Create New Item</u>		

Table 3-7 lists the QoS Classification Configuration parameters.

Table 3-7 Parameter Descriptions for the QoS Classification

Parameter	Description
On/Off	Enable/disable the function of Classification.

Parameter	Description		
Ingress	 Specify the data traffic direction. The Ingress option and Egress option cannot be the same. If the Ingress is LAN, the Egress should be a WAN or 3G connection. The data traffic direction is upstream. If the Ingress is a WAN or 3G connection, the Egress should be the LAN. The data traffic direction is downstream. 		
Egress	 Specify the data traffic direction. The Ingress option and Egress option cannot be the same. If the Egress is LAN, the Ingress should be a WAN connection. The data traffic direction is downstream. If the Egress is a WAN connection, the Ingress should be the LAN. The data traffic direction is upstream. 		
Source MAC Address	Source host MAC address.		
802.1p	Specify the 802.1p value to modify the service priority.		
L2Protocol	The L2Protocol includes: • IPv4 • IPv6 • ARP • PPPoE		
IP Version	The IP version includes: • IPv4 • IPv6		
Source IPv6 Address	Source host IPv6 address.		
Destination IPv6 Address	Destination host IPv6 address.		
Source IP Address	Source host IP address.		
Destination IP Address	Destination host IP address.		
Traffic Class Check	Range: 1~1024.		
TOS	Range: 0~255.		
IP Precedence	Range: 0~7.		
L3Protocol	The L3Protocol includes: • TCP • UDP • ICMP		
DSCP	DSCP value.		
802.1p Re-marking	802.1p identifier value.		
DSCP Re-marking	DSCP identifier.		
Traffic Police Rule Index	Select traffic police rule index.		

Parameter	Description		
Traffic Class	Range: 1~1024.		
Flow Lable Range: 0~1048575.			
Destination Port Destination port number of the matching packets.			

3. Click **Apply** button to apply the changes.

```
- End of Steps -
```

3.3.3 Configure the QoS Congestion Management

This page provides the parameters of QoS Congestion Management configuration features.

Steps

1. On the main page of the ZXHN H267N, select Internet > QoS > Congestion Management to go to the Congestion Management page, as shown in Figure 3-13.

Home	Internet	Local Network	VoIP M	anagement & Diagnosis	
Status	QoS Global Configu	uration Classification	Congestion Management	Traffic Policing	
WAN QoS Security DDNS	Page Information QoS congestion manageme packets.	nt settings: configure congestion	n management queue parameters to r	nanage congestion on	
SNTP	▼ Congestion Management				
Port Binding	What should be noticed who	an configuring OoC consection r	nonocoment?		
Dynamic Routing	what should be noticed whe	en conliguring Qos congestion r	nanagemente		
Multicast	Interface WAN_ADSL	*			
	Queue WAN ADSL S Priority Algorithm Traffic Classes	2 Oon 1 V SP V	⊙ off	Apply Cancel	
	Queue WAN ADSL, S	P O On	⊙ off	×	

Figure 3-13 Congestion Management Page

Table 3-8 lists the QoS congestion management parameters.

Table 3-8 Parameter Descriptions for the QoS Congestion Management

Parameter	Description
Interface	The Interface including WAN_ADSL, LAN1, LAN2, LAN3 and LAN4.
Queue Switch	On: enable the function of queue.
	Off: disable the function of queue.

Parameter	Description	
Priority	Queue priority. Range: 1 ~ 8.	
Algorithm	Queue algorithm. SP DWRR 	
Weight	The weight for the DWRR algorithm.	
Traffic Classes	Categorization mechanism.	

- 2. Click **Apply** button to apply the changes.
 - End of Steps -

3.3.4 Configure the QoS Traffic Policing

This page provides the parameters of QoS Traffic Policing configuration features.

Steps

1. On the main page of the ZXHN H267N, select **Internet > QoS > Traffic Policing** to go to the **Traffic Policing** page, as shown in Figure 3-14.

Home	Internet	Local Network	VoIP	Management & Diagnosis	
Status	QoS Global Config	uration Classification	Congestion Manageme	ent Traffic Policing	
WAN	Dage Information				
QoS	Page mornation	Page Information This page provides the parameters of QoS traffic policing configuration features.			
Security	This page provides the par				
DDNS	T (() D)				
SNTP	Iraffic Policing				
Port Binding	▼ <u>New Item</u>	Oon	⊙off	×	
Dynamic Routing	MeterType	SimpleTokenBucket			
Multicast	CommittedRate		bps		
	CommittedBurstSize		byte		
	ConformingAction	Null	, ,		
	NonConformingAction	Null			
	Ŭ				
				Apply Cancel	
	E Create New Item				

Figure 3-14 Traffic Policing page

Table 3-9 lists the QoS Traffic Policing parameters.
Parameter	Description	
MeterType	The meter type includes: • Simple Token Bucket • Simple Rate Three Color • Two Rate Three Color	
CommittedRate	Guaranteed rate.	
CommittedBurstSize	Buffer size for QoS.	
ConformingAction	The conforming action includes: Null Drop DSCPMark 802.1pMark DSCPMark&802.1pMark	
NonConformingAction	 The non conforming action includes: Null Drop DSCPMark 802.1pMark DSCPMark&802.1pMark 	
ExcessBurstSize	Excess burst size.	
PartialConformingAction	 The partial conforming action includes: Null Drop DSCPMark 802.1pMark DSCPMark&802.1pMark 	
DSCP	QoS classification criterion. A DSCP is specified for the TOS byte in the IP header of each packet to indicate the priority. Range: 0–63.	
802.1p	If VLAN is enabled, you can modify service priority through this parameter. Range: 0–7. A higher number indicates a higher priority.	
PeakRate	Peak rate.	
PeakBurstSize	Peak burst size.	

Table 3-9 Parameter Descriptions for the QoS Traffic Policing

- 2. Click **Apply** button to apply the changes.
 - End of Steps -

ZTE

3.4 Configure the Security

3.4.1 Configure the Firewall Level

Figure 3-15 Firewall Page

The section describes how to configure firewall level.

Steps

 On the main page of the ZXHN H267N, select Internet > Security > Firewall to go to the Firewall page, the page as shown in Figure 3-15.

Local Network Management & Diagnosi Internet Filter Criteria Local Service Control ALG DMZ Port Forwar • Firewall Status WAN **Page Information** OoS This page provides the relevant parameters of firewall configuration function. Security DDNS Firewall SNTP What should be noticed when configuring the firewall level? Port Binding Dynamic Routing Firewall Level O High Multicast Middle (Recommended) O Low Anti-Hacking

2. Set the parameters. For a description of the parameters, refer to .

Table 3-10 Firewall Parameter Descriptions

Parameter	Description		
Anti-Hacking	To enable anti-hacking protection and prevent device shutdown due to Internet attacks, select this check box. This feature can prevent ping flood, ping to death, and SYN flood attacks.		
Firewall Level	 High: allows legal access from the WAN but forbids Internet devices from sending ping packets to the WAN interface of the ZXHN H267N. Middle: allows legal access from the WAN and blocks dangerous data from the Internet. Low: allows legal access from the WAN and allows Internet devices to send ping packets to the WAN interface of the ZXHN H267N. 		

- 3. Click Apply button to apply the changes.
 - End of Steps -

3.4.2 Configure the Filter Criteria

The section describes how to configure filter criteria.

Steps

1. On the main page of the ZXHN H267N, select **Internet > Security > Filter Criteria** to go to the **Filter Criteria** page.

Filter Switch & Mode Configuration

2. Click Filter Switch & Mode Configuration.

Figure 3-16 Filter Switch & Mode Configuration Page

Home	Internet	Local N	etwork	VoIP	Management	t & Diagnosis
Status	Firewall	Filter Criteria	Local Service Control	ALG	DMZ	Port Forwar 🕨
WAN	Page Informativ	22				
QoS	Fage Informatio	511				
Security	This page provides the	e relevant parameters	of filter criteria configuration	function.		
DDNS						
SNTP	▼ Filter Switch 8	x Mode Configur	ation			
Port Binding	MAC Filter	Switch O On 💿	off			
Dynamic Routing		Mode Black List	*			
Multicast						
	URL Filter	Switch O On 💿	off			
		Mode Black List	*			
					Apply	Cancel

- ► MAC Filter
- 3. Configure Filter Switch & Mode configuration parameters.

Table 3-11 lists the Filter Switch & Mode configuration parameters.

Table 3-11 Parameter Descriptions for the Switch & Mode Filter

Parameter	Description
MAC Filter	Enable the MAC filter function.There are two modes:Black ListWhite List
URL Filter	Enable the URL filter function.There are two modes:Black ListWhite List

MAC Filter

4. Click MAC Filter to open MAC Filter page, as shown in Figure 3-17.

Figure 3-17 MAC Filter

New Item		3
Name		
Туре	Bridge	
Protocol	Any	
Source MAC		
Destination MAC		

5. Table 3-12 lists the MAC Filter parameters.

Table 3-12 Parameter Descriptions for the MAC Filter

Parameter	Description
Name	The name of the MAC Filter.
Туре	The type can be Bridge, Route, or Bridge and Route.
Protocol	The protocol that the MAC filter rule will be applied to.
Source MAC/Destination MAC	MAC address that needs to be filtered. Both options cannot be null at the same time.

6. Click **Apply** button to apply the changes.

URL Filter

7. Click ► URL Filter to open **URL Filter** page, as shown in Figure 3-18.

Figure 3-18 URL Filter Page

▼ URL Filter		
▼ <u>New Item</u>		×
Name URL		
	Apply	Cancel
<u>Create New Item</u>		

- 8. Configure the URL Filter parameters.
- 9. Click **Apply** button to apply the changes.

IP Filter

10. Click Filter to open IP Filter page, as shown in Figure 3-19.

 New Item 	0	On Off	
Name Mode	● Allow ○ Discard		
Protocol	ТСР		
Source Port Range	~		
Destination Port Range	~		
Source IP Range	0.0.0.0	~ 0 . 0 . 0 . 0	
Destination IP Range	0.0.0.0	~ 0 . 0 . 0 . 0	
Ingress	Any 💌		
Egress	Any 💌		
			Apply Cancel
Create New Item			Apply

Figure 3-19 IP Filter Page

▼ IP Filter

11. Table 3-13 lists the IP Filter parameters.

Parameter	Description
Name	Name of the IP filter item. The name must be specified.
Mode	Specify to discard or permit the data packages.
Protocol	Select the protocol that needs to filter packets. By default, it is TCP .
Source Port Range/Destination Port Range	Source/Destination source Port.
Source IP Range/Destination IP Range	Source/Destination destination IP address.
Ingress	 Specify the data traffic direction. The Ingress option and Egress option cannot be the same. If the Ingress is LAN, the Egress should be a WAN connection. The data traffic direction is upstream. If the Ingress is a WAN connection, the Egress should be the LAN. The data traffic direction is downstream.

Table 3-13 Parameter Descriptions for the IP Filter

Parameter	Description
Egress	 Specify the data traffic direction. The Ingress option and Egress option cannot be the same. If the Ingress is LAN, the Egress should be a WAN or 3G connection. The data traffic direction is upstream. If the Ingress is a WAN or 3G connection, the Egress should be the LAN. The data traffic direction is downstream.
	downstream.

12. Click **Apply** button to apply the changes.

Figure 3-20 Local Service Control Page

- End of Steps -

3.4.3 Configure the Local Service Control

The section describes how to configure local service control.

Steps

 On the main page of the ZXHN H267N, select Internet > Security > Local Service Control to go to the Local Service Control page, as shown in Figure 3-20.

Home	Internet	Local N	etwork	VoIP	Managemer	it & Diagnosis
Status	 Firewall 	Filter Criteria	Local Service Control	ALG	DMZ	Port Forwar 🕨
WAN	Daga Informati	o.p.				
QoS	Page mornau	on				
Security	This page provides the	e relevant parameters	of local service control conf	iguration function		
DDNS						
SNTP	▼ Service Contr	01 - 1274				
Port Binding	Vew Item		Oon ⊙Off			×
Dynamic Routing	Name					
Multicast	Mode	⊙ Allow ○ Dis	card			
	Ingress	WAN_All	*			
	IP Address Range	0.0.0	. 0 ~ 0 . 0 . 0	. 0		
	Service Type		TP SSH TELNET			
					Apply	Cancel
	Create New Item					
	 Service Control 	ol - IPv6				
	 Remote Servio 	ce Port Control -	IPv4			

Local Service Control-IPv4

2. Configuring Local Service Control-IPv4 parameters.

Table 3-14 lists the Local Service Control-IPv4 parameters.

3-26

Parameter	Description
Name	Name of the Service Control item. The name must be specified.
Mode	The mode includes the following:AllowDiscard
Ingress	 Specify the data stream inbound direction, and this parameter must be specified. If the Ingress is LAN, the data flow is upstream. If the Ingress is a WAN or 3G connection, the data flow is downstream.
IP Address Range	TheIP address segment that needs to be filtered. When the IP segment is null, it refers to all the IP addresses.
Service Type	Specify the service that is permitted or denied to access.

 Table 3-14 Parameter Descriptions for the Service Control-IPv4

Service Control-IPv6

Click Service Control-IPv6 to open Service Control-IPv6 page, as shown in Figure 3-21.

Figure 3-21 Service Control-IPv6 Page

Service	Control	- IPv6
SCIVICC	Control	11 10

New Item	Oon ⊙off	×
Name		
Mode	● Allow ○ Discard	
Ingress	WAN_All	
Prefix		
Service Type		
		Apply Cancel

Table 3-15 lists the Service Control-IPv6 parameters.

Table 3-15 Parameter Descriptions for the Service Control-IPv6

Parameter	Description
Name	Name of the Service Control item.
	The name must be specified.
Mode	The mode includes the following: Allow and Discard.

Parameter	Description
Ingress	 Specify the data stream inbound direction, and this parameter must be specified. If the Ingress is LAN, the data flow is upstream. If the Ingress is a WAN connection, the data flow is downstream.
Prefix	IPv6 address prefix.
Service Type	Type Specify the service that is permitted or denied to access.

4. Click **Apply** button to apply the changes.

Remote Service Port Control-IPv4

5. Click **Remote Service Port Control-IPv4** to open **Remote Service Port Control-IPv4** page, as shown in Figure 3-22.

Figure 3-22 Remote Service Port Control-IPv4 Page

▼ Remote Service Port Control - IPv4

HTTPS	443	
TELNET	23	
SSH	22	
FTP	21	
HTTP	80	

Table 3-16 lists the Remote Service Port Control-IPv4 parameters.

Table 3-16 Parameter Descriptions for the Remote Service Port Control-IPv4

Parameter	Description
HTTP	The remote service port control of HTTP.
FTP	The remote service port control of FTP.
SSH	The remote service port control of SSH.
TELNET	The remote service port control of TELNET.
HTTPS	The remote service port control of HTTPs.

- 6. Click **Apply** button to apply the changes.
 - End of Steps -

3.4.4 Configure the ALG

The section describes how to configure ALG. **ALG** provides the relevant parameters of security configuration function.

Steps

 On the main page of the ZXHN H267N, select Internet > Security > ALG to go to the ALG page, the page as shown in Figure 3-23.

Figure 3-23 ALG Configuration Page

Home	Internet	Local N	letwork	VoIP	Management & D	viagnosis
Status	 Firewall 	Filter Criteria	Local Service Control	ALG	DMZ P	ort Forwar 🕨
WAN	De se Informatio					
QoS	Page Informatio	n				
Security	This page provides the	parameters of the A	LG configuration features.			
DDNS						
SNTP	▼ ALG					
Port Binding	FTP ALG	⊙ On O Off				
Dynamic Routing	H323 ALG	⊙On OOff				
Multicast	PPTP ALG	⊙On OOff				
	RTSP ALG	⊙On OOff				
	SIP ALG	⊙On OOff				
	TFTP ALG	⊙On OOff				
	All On All Off				Apply	Cancel

- 2. Select the ALG services.
- 3. Click **Apply** button to apply the changes.

NOTE Note:

- Click All On to select all ALG services.
- Click All Off to cancel all ALG services.
- End of Steps -

3.4.5 Configure the DMZ

The section describes how to configure DMZ. **DMZ** provides the parameters of DMZ configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > Security > DMZ to go to the DMZ page, the page as shown in Figure 3-24.

Status Image: Firewall Filter Criteria Local Service Control ALG DMZ Port Formation QoS Page Information This page provides the parameters of DMZ configuration features. This page provides the parameters of DMZ configuration features. Image: DMZ DDNS Image: DMZ Image: DMZ Image: DMZ Port Binding Image: DMZ switch Image: On Imag	Home	Internet	Local N	Local Network		Management & Diagnosis	
WAN Page Information QoS This page provides the parameters of DMZ configuration features. DDNS ▼ DMZ Port Binding DMZ switch Dynamic Routing MAC Connection Multicast On ③ Off	Status	 Firewall 	Filter Criteria	Local Service Control	ALG	DMZ	Port Forwar
QoS Page Information Security This page provides the parameters of DMZ configuration features. DDNS Image: DMZ SNTP Image: DMZ Port Binding DMZ switch Dynamic Routing On ⊙ Off Multicast MAC Mapping	WAN	Page Informat	ion				
Security This page provides the parameters of DMZ configuration features. DDNS ▼ SNTP ▼ Port Binding DMZ switch Dynamic Routing On ③ Off Multicast MAC Mapping O n ③ Off Host IP	QoS	Fage Informat	ION				
DDNS sNTP Port Binding DMZ Switch Dynamic Routing On ⊙ Off Multicast MAC Mapping More MAC Mapping	Security	This page provides the	e parameters of DMZ	configuration features.			
SNTP ✓ DMZ Port Binding Dynamic Routing Multicast MAC Mapping O n Image: On Image: On	DDNS						
Port Binding DMZ switch O n Image: Off Dynamic Routing WAN Connection None Image: One off Multicast MAC Mapping O n Image: Off Host IP Image: One off Image: One off	SNTP	▼ DMZ					
Dynamic Routing WAN Connection None Multicast MAC Mapping O on ③ off Host IP Image: Constant State Sta	Port Binding	DMZ Switch	Oon ⊙Off				
Multicast MAC Mapping O on O off	Dynamic Routing	WAN Connection	None	~			
Host IP	Multicast	MAC Mapping	Oon ⊙off				
		Host IP	· · · · · ·				

Figure 3-24 DMZ Configuration Page

Table 3-17 lists the DMZ parameters.

Table 3-17 Parameter Descriptions for the DMZ

Parameter	Description
DMZ Switch	Enable the DMZ host function.
WAN Connection	WAN connection type.
MAC Mapping	Enable the MAC mapping function.
Host IP	The IP address of the computer or wireless devices at the LAN side.
MAC Address	The MAC address of the computer or wireless devices at the LAN side.

2. Click Apply button to apply the changes.

- End of Steps -

3.4.6 Configure the Port Forwarding

This procedure introduces how to configure Port Forwarding so that a computer from the external network can access the LAN-side server through the WAN connection. Port Forwarding provides the parameters of Port Forwarding configuration features.

If you have local servers for different services and you want to make them publicly accessible, you need to specify the port forwarding policy. With NAT applied, it translates the internal IP addresses of these servers to a single IP address that is unique on the Internet.

To the Internet users, all virtual servers on your LAN have the same IP Address. This IP Address is allocated by your ISP. This address should be static, rather than dynamic, to make it easier for Internet users to connect to your servers. However, you can use dynamic DNS feature to allow users to connect to your virtual servers by using a URL, instead of an IP address.

Steps

1. On the main page of the ZXHN H267N, select Internet > Security > Port Forwarding to go to the Port Forwarding page, the page as shown in Figure 3-25.

Home	Inter	rnet	Local N	Network	_	VoIP N	vlanagement & Diagnosis		
Status	◀ eria	Local Serv	ice Control	ALG	DMZ	Port Forwarding	Port Trigger		
WAN	De se te (
QoS	Page Int	ormation							
Security	This page p	This page provides the parameters of port forwarding configuration features.							
DDNS									
SNTP	▼ Port F	orwarding							
Port Binding	What should	be noticed wh	en configuring p	ort forwarding	2				
Dynamic Routing	Vew It	em		💿 On	Ooff		×		
Vulticast	Name Protocol WAN Com WAN Host MAC Map LAN Host WAN Port LAN Host	nection t IP Range ping IP Range Port Range	TCP rer 0 0 0 on ● off	· · · · · · ·	. 0 . 0	. 0			
							Apply Cancel		
	Create	New Item							

Figure 3-25 Port Forwarding Configuration Page

2. Configure the Port Forwarding parameters.

Table 3-18 lists the Port Forwarding settings parameters.

Table 3-18 Parameter Descriptions for the Port Forwarding

Parameter	Description
Name	Virtual host name, which cannot be null.
Protocol	Protocol name, including TCP, UDP, as well as TCP AND UDP. The default protocol is TCP.
WAN Connection	WAN connection that is used to access the virtual host.
WAN Host IP Range	IP address segment of the WAN-side hosts.
MAC Mapping	Enable the MAC mapping function and map the MAC addresses of the LAN-side hosts to a single MAC address.
LAN Host IP	IP address of the LAN-side host.
LAN Host MAC Address	The MAC address of LAN-side host.
WAN Port Range	Port segment of the WAN-side hosts.
LAN Host Port Range	Port number range of the LAN-side host. Range: 1~ 65535.

- 3. Click **Apply** button to apply the changes.
 - End of Steps -

3.4.7 Configure the Port Trigger

The section describes how to configure Port Trigger. **Port Trigger** provides the parameters of Port Trigger configuration features.

When one port is configured to be the triggering port, if one application uses that triggering port to setup a connection to the outside, the ZXHN H267N device will forward the outside connection to the internal forwarding port.

The port triggering is used to protect the ports. The system will not open these ports unless these ports are triggered.

Steps

1. On the main page of the ZXHN H267N, select **Internet > Security > Port Trigger** to go to the **Port Trigger** page, the page as shown in Figure 3-26.

Home	Internet	Internet Local Network		VoIP Man		anagement & Diagnosis				
Status	■ eria	Local Service Control	ALG	DMZ	Port Forwarding	Port Trigger				
WAN	Dago Infor	mation								
QoS	Page mor	Page Information								
Security	This page prov	This page provides the parameters of port trigger configuration features.								
DDNS	- Dort Tria	aor								
SNTP	▼ Port mg	lger								
Port Binding	▼ <u>New Item</u>		Or	Ooff		×				
Dynamic Routing	Name									
Multicast	Trigger IP Ad	dress 0.0.0	0.0							
	Service Type	ТСР	~							
	Trigger Port									
	Connect Type	ТСР	~							
	WAN Port Ra	nge ~								
	TimeOut	1200	s							
						Cancel				
	Create Ne	w Item								

Figure 3-26 Port Trigger Configuration Page

2. Configure the Port Trigger parameters.

Table 3-19 lists the Port Trigger parameters.

Table 3-19 Parameter Descriptions for the Port Trigger

Parameter	Description
Name	The name of Port Trigger.
Trigger IP Address	IP address of the computer in the LAN side.

3-32

Parameter	Description
Service Type	The service type of the application, including TCP, UDP, and TCP AND UDP. The default service type is TCP.
Trigger Port	The port that the application uses.
Connect Type	The connection type that is used to connect the outside, including TCP, UDP, and TCP AND UDP. The default service type is TCP.
WAN Port Range	 Specify the port range of the device protocol that the triggering port maps, that is, the layer-4 port number of the packets. Once the device accesses the triggering port, the service between the start port and end port will be enabled. The WAN Start Port and WAN End Port must be specified and meet the following conditions. The end port number is larger than the start port number. The difference between the end port number and the start port number is less than nine.
Timeout	The time when no traffic occurs.

- 3. Click **Apply** button to apply the changes.
 - End of Steps -

3.5 Configure the DDNS

The section describes how to configure DDNS. **DDNS** provides the parameters of DDNS configuration function.

Steps

 On the main page of the ZXHN H267N, select Internet > DDNS to go to the DDNS page, the page as shown in Figure 3-27.

DDNS		
DDNS Switch	On ⊙Off	
Provider	dyndns	~
Provider URL	http://www.dyndns.com	m
Username		
Password	•••••	
Host Name		

Figure 3-27 DDNS Configuration Page

2. Configure the DDNS parameters.

Table 3-20 lists the DDNS parameters.

Parameter	Description
DDNS switch	Enable or disable the DDNS function.
Provider	Supported provider. Options: dyndns and DtDNS. If the DtDNS is selected, the WAN Connection should be configured.
Provider URL	The URL of provider. If the dyndns HTTP is used, the URL is http://www.dyndns .com. If the DtDNS HTTP is used, the URL is http://www.dyndns .com.
Username	DDNS server user name.
Password	DDNS server password.
Host name	Host name corresponding to the user.
WAN Connection	WAN connection on which the DDNS feature is enabled.

Table 3-20 Parameter Descriptions for the DDNS

3. Click **Apply** button to apply the changes.

- End of Steps -

3.6 Configure the SNTP

The section describes how to configure SNTP. **SNTP** provides the parameters of SNTP configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > SNTP to go to the SNTP page, the page as shown in Figure 3-28.

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
WAN				
QoS	Page Information			
Security	This page provides the parameters	of SNTP configuration features.		
DDNS				
SNTP	▼ SNTP			
Port Binding	Current Date and Time	1970-01-01T01:20:42		
Dynamic Routing	Time Zone	(GMT+08:00) Beijing, Chongqing	, Hong Kong, Urumqi	~
Multicast	Primary NTP Server Address	192.168.1.5]	
	Secondary NTP Server Address	10.41.132.9		
	Poll Interval	3600	s	
	DSCP			
			(Apply Cancel

Figure 3-28 SNTP Configuration Page

2. Configure the SNTP parameters.

Table 3-21 lists the SNTP parameters.

Table 3-21 Parameter Descriptions for the SNTP

Parameter	Description
Time Zone	Time zone.
Primary NTP Server Address	IP address or domain name of the active NTP server.
Secondary NTP Server Address	IP address or domain name of the standby NTP server.
Poll Interval	Interval of time synchronization. Unit: second.
DSCP	Range: 0–63.
Enable Daylight Saving Time	Enable the Daylight Saving Time.

3. Click **Apply** button to apply the changes.

- End of Steps -

3.7 Configure the Port Binding

The section describes how to configure Port Binding. **Port Binding** provides the parameters of Port Binding configuration features.

3-35

Steps

 On the main page of the ZXHN H267N, select Internet > Port Binding to go to the Port Binding page, the page as shown in Figure 3-29.

Figure 3-29 Port Binding Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis			
Status							
WAN	Page Information						
QoS	Page mornation	Page Information This page provides the parameters of port binding configuration features.					
Security	This page provides the par						
DDNS	D (D' /'						
SNTP	Port Binding						
Port Binding	▼ <u>PTM</u>						
Dynamic Routing							
Multicast							
	SSID1 S	SSID2 SSID3	SSID4				
	All On All Off			Apply Cancel			
	► <u>ATM</u>						

2. Select the WAN connection, and select the LAN port or SSID that you want to bind.

NOTE Note:

- Click **All On** to select all Port Binding types.
- Click All Off to cancel all Port Binding types.
- 3. Click **Apply** button to apply the changes.

- End of Steps -

3.8 Configure the Dynamic Routing

The section describes how to configure Dynamic Routing. **Dynamic Routing** provides the parameters of RIP configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > Dynamic Routing to go to the Dynamic Routing page.

The page is shown in Figure 3-30.

Home	Internet	Local Network	VoIP	Managemen	t & Diagnosis		
Status							
WAN	Dense Information	_					
QoS	Page Information	Page Information This page provides the parameters of dynamic routing configuration features.					
Security	This page provides the p						
DDNS							
SNTP	▼ RIP						
Port Binding	Enable RIP	Oon ⊙Off					
Dynamic Routing	RIP Version						
Multicast	Authentication Type	None					
				Apply	Cancel		

Figure 3-30 Dynamic Routing Configuration Page

NOTE Note:

The RIP configuration options vary with the RIP Version value.

RIP

2. Configure the RIP parameters.

Table 3-22 lists the RIP parameters.

Table 3-22 Parameter Descriptions for the RIP

Parameter	Description
Enable RIP	To enable RIP.
RIP Version	Range: RIP v1, RIP v2, RIP v1 Compatible.
Authentication Type	The type includes None, Simple text, and MD5. By default, it is None .
Authentication Key	Range: 1–16 characters

- 3. Click **Apply** button to apply the changes.
 - End of Steps -

3.9 Configure the Mulitcast

3.9.1 Configure the IGMP

The section describes how to configure IGMP. **IGMP** provides the parameters of IGMP configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > Multicast > IGMP to go to the IGMP page.

The page is shown in Figure 3-31.

Figure 3-31 IGMP Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status	IGMP ML	D		
WAN	Deve Information			
QoS	Page Information			
Security	This page provides the para	ameters of IGMP configuration features		
DDNS				
SNTP	▼ IGMP Mode			
Port Binding	IGMP Proxy	⊙on ⊙Off		
Dynamic Routing	IGMP Snooping	⊙on ○Off		
Multicast				
	All On All Off			Apply Cancel
	► IGMP WAN Conn	ection		

2. Enable the IGMP functions.

NOTE Note:

- Click All On to select all IGMP functions.
- Click All Off to cancel all IGMP functions.
- 3. Click Apply button to apply the changes.

IGMP WAN Connection

 Click IGMP WAN Connection to open IGMP WAN Connection page, as shown in Figure 3-32.

Figure 3-32 IGMP WAN Connection Page

▼ IGMP WAN Con	nection	 		
Vew Item				×
WAN Connection	Please select 💌	ĺ	Apply	Cancel
• Create New Item				

5. Configuring **WAN Connection**.

6. Click Apply button to apply the changes.

- End of Steps -

3.9.2 Configure the MLD

The section describes how to configure MLD. **MLD** provides the parameters of MLD configuration features.

Steps

 On the main page of the ZXHN H267N, select Internet > Multicast > MLD to go to the MLD page.

The page is shown in Figure 3-33.

Figure 3-33 MLD Configuration Page

Home	Internet	Local	Network	VoIP	Management & Diagnosis	
Status	IGMP	MLD				
WAN						
QoS	Page Informatio	n				
Security	This page provides the	This page provides the parameters of MLD configuration features.				
DDNS						
SNTP	 MLD Mode 					
Port Binding	MLD Proxy	Oon ⊙Off				
Dynamic Routing	MLD Snooping	⊙On ○Off				
Multicast						
	All On All Off				Apply Cancel	

MLD Mode

2. Enable the MLD Mode.

NOTE Note:

- Click All On to select all MLD functions.
- Click All Off to cancel all MLD functions.
- 3. Click **Apply** button to apply the changes.

WAN Connection

 Click MLD WAN Connection to open MLD WAN Connection page, as shown in Figure 3-34.

Figure 3-34 MLD WAN Conr	nection Page		
MLD WAN Connection			
WAN Connection	O Manual	Apply	Cancol
		Арріу	Cancer

- 5. Configuring WAN Connection.
- 6. Click **Apply** button to apply the changes.

- End of Steps -

Chapter 4 Configure the Local Network

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4.1 Check the Local Network Status

The section describes the status of Local Network. The relevant information of Local Network status is shown as below.

Steps

1. On the main page of the ZXHN H267N, select Local Network > Status to go to the Local Network Status page.

The page is shown in Figure 4-1.

Home	Internet	Local Network	VoIP	Management & Diagnosis				
tatus								
VLAN	Page Information	Page Information						
AN	Fage mornation							
oute	This page shows the statu	s of LAN.						
ТР								
IPnP	 LAN Status 							
MS	LAN1							
NS	MAC Address	00:19:c6:50:9d:0c	Status	Up				
	IPv4 Address	192.168.1.1	Bytes Received/Bytes Sent	615621 / 2775469				
	IPv6 Address	fe80::1						
	LAN2							
	MAC Address	00:19:c6:50:9d:0c	Status	NoLink				
	IPv4 Address	192.168.1.1	Bytes Received/Bytes Sent	0 / 0				
	IPv6 Address	fe80::1						

Figure 4-1 Local Network Status Page

2. The relevant information of Local Network status includes LAN Status, WLAN Status, WLAN Client Status, LAN Client Status and USB Storage Status.

- End of Steps -

4.2 Configure the WLAN

4.2.1 Configure the Basic Parameters of the WLAN

The section describes how to configure WLAN Basic Settings. **WLAN Basic Settings** provides the parameters of WLAN Basic Settings configuration features.

Steps

 On the main page of the ZXHN H267N, select Local Network > WLAN > WLAN Basic to go to the WLAN Basic page.

WLAN Global Configuration

2. Click WLAN Global.

The page is shown in Figure 4-2.

Figure 4-2 WLAN Global Configuration Page

Home	Internet	Local Network		VoIP	Management & Diagnosis		
Status	WLAN Basic	WLAN Advanced	WMM	WPS			
WLAN	De sus Information						
LAN	Page Information						
Route	This page provides the bas	This page provides the basic parameters of WLAN configuration features.					
FTP							
UPnP	 WLAN Global Con 	nfiguration					
DMS	Wireless RF Mode						
DNS	Channel	Auto	~				
	Mode	Mixed (802.11b	/ɑ/n) 🗸				
	SSID Isolation	○ On ⊙ Off					
	Country/Region	China	~				
	Band Width	20MHz	~				
	SGI	On Off	-				
	Beacon Interval	100		ms			
	Transmitting Power	100%	~				
	QoS Type	WMM	~				
	RTS Threshold	2347					
	DTIM Interval	1					
					Apply Cancel		

3. Configure the WLAN Global Configuration parameters.

Table 4-1 lists the WLAN global Configuration parameters.

Parameter	Description
Wireless RF Mode	Select On to enable the wireless RF function.
Channel	The default is Auto .
Mode	Select the wireless RF transmission mode.
SSID Isolation	Select On , so that the wireless clients with the different SSIDs can not access each other.
Country/Region	Select the country or region.
Beacon Interval	Time interval for the wireless device to broadcast the SSID information. Keep the default value.
Transmitting Power	Select the transmitting power as required.
QoS Type	There are twoQoS types: Disable WMM
RTS Threshold	Specify the request to send threshold for a packet. When a packet exceeds this value, the device sends the RTS value to the destination point for negotiation. The default is 2347.
DTIM Interval	Range: 1 – 5. Default: 1.
Fragment Threshold	Default: 2346.

Table 4-1 Parameter Descriptions for the WLAN Global Configuration

4. Click **Apply** button to apply the changes.

WLAN SSID Settings

5. Click WLAN Global Prameter.

The page is shown in Figure 4-3.

Figure 4-3 WLAN SSID Settings Page

WLAN SSID Settings

VLAN SSID-1	⊙ On ○ Off
SSID Name	ZTE509D0C
SSID Hide	○ Yes ④ No
Encryption Type	WPA2-PSK-AES
WPA Passphrase	eEA79p4F
Enable SSID Isolation	
Maximum Clients	32
	Apply Cancel
WLAN SSID-2	○ on ④ Off
WLAN SSID-3	○ on ④ Off
WLAN SSID-4	○ on ④ Off

6. Configure the WLAN SSID setting parameters.

Table 4-2 lists the WLAN SSID setting parameters.

Table 4-2 Parameter Descriptions for the WLAN SSID setting

Parameter	Description
SSID Name	The name of SSID.
SSID Hide	Hide the SSID information to prevent illegal users.
Encryption Type	Select Encryption Type.
WPA Passphrase	Range: 8 ~ 63 characters
Enable SSID Isolation	Enable SSID isolation. The wireless clients with the same SSID can not access each other.
Maximum Clients	Range: 1 - 32

NOTE Note:

The WLAN Basic Settings configuration options vary with the Encryption type value.

- 7. Click **Apply** button to apply the changes.
 - End of Steps -

4.2.2 Configure the Advanced Parameters of the WLAN

The section describes how to configure WLAN Advanced. **WLAN Advanced** provides the parameters of WLAN Advanced configuration features.

Steps

 On the main page of the ZXHN H267N, select Local Network > WLAN > WLAN Advanced to go to the WLAN Advanced page.

Access Control-Mode Settings

2. Click Access Control-Mode Settings.

The page is shown in Figure 4-4.

Figure 4-4 Access Control-Mode Settings Page

Home	Internet	Local Network	Vo	DIP	Management & Diagnosis
Status	WLAN Basic	WLAN Advanced	WMM N	NPS	
WLAN	Page Information				
LAN	Fage Information				
Route	This page provides the adv	vanced parameters of WI	LAN configuration featur	es.	
FTP					
UPnP	 Access Control-M 	lode Settings			
DMS	WLAN SSID-1	● No Filter ○ Black	k List 🔘 White List		
DNS	WLAN SSID-2	⊙ No Filter 🔿 Blac	k List 🔘 White List		
	WLAN SSID-3	⊙ No Filter	k List 🔘 White List		
	WLAN SSID-4	⊙ No Filter ○ Black	k List 🔘 White List		
					Apply Cancel

3. Configure the WLAN Global Configuration parameters.

Table 4-3 lists the Acess Control-Rule setting parameters.

Table 4-3 Access Control-Mode parameters

Parameter	Description
No Filter	No filter is to be applied (the default).
Back List	Deny LAN users to access specific address.
White List	Allow LAN users to access specific address.

4. Click **Apply** button to apply the changes.

Acess Control-Rule Settings

5. Click Acess Control-Rule Settings.

The page is shown in Figure 4-5.

 Access Control- 	Rule Settings		
▼ <u>New Item</u>			×
Name Choose SSID MAC Address	SSID1		
		Apply	Cancel
• Create New Item			

6. Configure the Access Control-Rule Configuration parameters.

Table 4-3 lists the Access Control-Rule parameters.

Table 4-4 Access Control-Rule parameters

Parameter	Description
Name	The name of Acess Control Item.
Choose SSID	Choose the SSID to configure the ACL.
MAC Address	The MAC address of the wireless device.

7. Click **Apply** button to apply the changes.

- End of Steps -

4.2.3 Configure the WMM

The section describes how to configure WMM. The WMM support the BE_AC/BK_AC/VI_AC/VO_AC control types.

Steps

 On the main page of the ZXHN H267N, select Local Network > WLAN > WMM to go to the WMM page, as shown in Figure 4-6.

Home	Internet	Local Network		VoIP	Management & Diagnosis
Status	WLAN Basic	WLAN Advanced	WMM	WPS	
WLAN	Page Informat	tion			
Route	This page provides t	he parameters of WMM configu	ration features.		
FTP					
UPnP	VVIVIVI				
DMS	▼ <u>BE AC</u>				
DNS	AC	BE_AC			
	AIFSN	3			
	ECWMin	4			
	ECWMax	6			
	ТХОР	0			
	Qlength	256			
	SRL	7			
	LRL	4			
					Apply Cancel

Figure 4-6 WMM Configuration Page

Table 4-5 lists the WMM parameters.

Table 4-5 Parameter Descriptions for the WMM

Parameter	Description
AC	Access Category.
AIFSN	Arbitration Inter Frame Space Number.
ECWMin/ECWMax	Exponent of Contention Window.
ТХОР	Transmission Opportunity.
Qlength	The queue size valule.
SRL	A short retry counter.
LRL	A long retry counter.

2. Click **Apply** button to apply the changes.

- End of Steps -

4.2.4 Configure the WPS

This page provides the parameters of WPS configuration features.

Steps

 On the main page of the ZXHN H267N, select Local Network > WLAN > WPS to go to the WPS page, as shown in Figure 4-7.

Home	Internet	Local Network		VoIP	Management & Diagnosis
Status	WLAN Basic	WLAN Advanced	WMM	WPS	
WLAN	Dage Information				
LAN	Page Information	1			
Route	This page provides the p	arameters of WPS configurat	ion features.		
FTP					
UPnP	▼ WPS				
DMS	What should be noticed	when configuring WPS?			
DNS	Choose SSID	SSID1	~		
	WPS Mode	PBC (Push Button Connec	ting) 🔽		
					Apply

Figure 4-7 WPS Configuration Page

Table 4-6 lists the WPS parameters.

Table 4-6 Parameter Descriptions for the WPS

Parameter	Description
SSID	Default SSID1.
WPS Mode	 WPS Mode that the device supports. Normally, it is set to PCB. PCB(Push Button Connecting) Disabled

2. Click **Apply** button to apply the changes.

- End of Steps -

4.3 Configure the LAN

4.3.1 Configure the LAN(IPv4)

The section describes how to configure LAN(IPv4).

The relevant information of Internet status includes Allocated Address, DHCP Server, DHCP Binding and Port Control-DHCP.

Steps

 On the main page of the ZXHN H267N, select Local Network > LAN > IPv4 to go to the IPv4 page.

Allocated address

2. Click Allocated Address.

Allocated address page is displayed, see Figure 4-8.

Interne Local Network Management & Diagnosis IPv6 Status IPv4 WLAN Page Information LAN This page provides the parameters of LAN configuration features. Route FTP Allocated Address UPnP DMS 🕕 There is no data now DNS

Figure 4-8 Allocated Address(IPv4) Page

3. Click **Refresh** to refresh the informations.

DHCP server

4. Click DHCP Server.

DHCP server page is displayed, see Figure 4-9.

Figure 4-9 DHCP Server(IPv4) Page

DHCP Server	
DHCP Server	⊙ On ○ Off
LAN IP Address	192.168.1.1
Subnet Mask	255 . 255 . 255 . 0
DHCP Start IP Address	192.168.1.2
DHCP End IP Address	192 . 168 . 1 . 254
Gateway	192.168.1.1
Assign IspDNS	
Primary DNS	192 . 168 . 1 . 1
Secondary DNS	0.0.0.0
Lease Time Mode	Custom
Custom Lease Time	86400 s

5. Configure the DHCP server parameters.

Table 4-7 lists the DHCP server parameters.

Table 4-7 Parameter Descriptions for the DHCP Server

Parameter	Description
DHCP Server	Select On to let the device work as a DHCP server and assign IP addresses to the client PCs or wireless devices.
LAN IP Address	The IP address of LAN.
Subnet Mask	Subnet mask of the device.

Parameter	Description
DHCP Start IP Address	The start IP address of the DHCP address pool.
DHCP End IP Address	The end IP address of the DHCP address pool.
Gateway	It is usually the IP address of the ZXHN H267N device by default.
Assign IspDNS	Select On to let the Assign IspDNS work.
Primary DNS	IP addresses of the DNS server1, provided by the ISP.
Secondary DNS	IP addresses of the DNS server2, provided by the ISP.
Lease Time Mode	The mode of Lease Time.
Custom Lease Time	The time during which the client PCs use the IP addresses assigned by the DHCP server. After the lease time expires, the private IP address will be available for assigning to other network devices.

6. Click **Apply** button to apply the changes.

Port Control-DHCP

7. Click Port Control-DHCP.

The page is shown in Figure 4-10.

Figure 4-10 Port Control-DHCP(IPv4) Page

▼ Port Control-DHC	CP
--------------------	----

LAN1	💿 On	O off			
LAN2	💿 On	O off			
LAN3	💿 On	O off			
LAN4	💿 On	O off			
SSID1	💿 On	O off			
SSID2	💿 On	O off			
SSID3	💿 On	O off			
SSID4	💿 On	○ off			
All On All Off				Apply	Cancel

8. Select the LAN interface or SSID on which you want to disable the DHCP function.

NOTE Note:

- Click All On to select all IPv4 DHCP Service-Port Control types.
- Click All Off to cancel all IPv4 DHCP Service-Port Control types.

DHCP binding

9. Click DHCP Binding.

The page is shown in Figure 4-11.

Figure 4-11 DHCP Binding Page

DHCP Binding

<u>New Item</u>		×
Name MAC Address IP Address		
	Apply	Cancel
Create New Item		

10. Configure the DHCP Binding parameters.

Table 4-8 lists the DHCP Binding parameters.

Table 4-8 Parameter Descriptions for the DHCP Binding

Parameter	Description
Name	The name of the DHCP Binding.
MAC Address	The MAC address of the DHCP Binding.
IP Address	IP address of the DHCP Binding.

- 11. Click **Apply** button to apply the changes.
 - End of Steps -

4.3.2 Configure the LAN(IPv6)

The section describes how to configure LAN Management-IPv6.

The relevant information of Internet status includes Allocated Address, DHCP Server, Prefix Management, Port Control-DHCPv6&RA and RA Service.

Prerequisite

Before configuring the prefix delegation, make sure that the prefix delegation is enabled for the specified IPv6 WAN connection.

Steps

 On the main page of the ZXHN H267N, select Local Network > LAN > IPv6 to go to the IPv6 page.

Allocated address

2. Click Allocated Address.

Allocated address page is displayed, see Figure 4-12.

Figure 4-12 Allocated Address(IPv6) Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status	IPv4 IPv6			
WLAN				
LAN	Page Information			
Route	This page provides the parar	neters of LAN configuration fea	tures (IPv6 version).	
FTP				
UPnP				
DMS	There is no data now.			
DNS				Potroch

3. Click **Refresh** to refresh the informations.

Allocated address

4. Click Prefix Management.

Prefix management page is displayed, see Figure 4-13.

Figure 4-13 Prefix Management(IPv6) Page

Prefix Management

🕕 There is no data now.

DHCP server

5. Click **DHCP Server**.

DHCP server page is displayed, see Figure 4-14.

AN IPv6 Address	fe80::1	/ 64	
JHCP Server			
ONS Refresh Time	86400	s	

6. Configure the DHCP server parameters.

Figure 4-14 DHCP Server(IPv6) Page

Table 4-9 lists the Static Routing parameters.

Parameter	Description
LAN IPv6 Address	The address of LAN.
DHCP Server	Select On to let the device work as a DHCP server and assign IP addresses to the client PCs or wireless devices.
DNS Refresh Time	The time during which the client PCs use the IP addresses assigned by the DHCP server. After the lease time expires, the private IP address will be available for assigning to other network devices.

Table 4-9 Parameter Descriptions for the DHCP Server

7. Click **Apply** button to apply the changes.

Port Control-DHCPv6&RA.

8. Click Port Control-DHCPv6&RA.

The page is shown in Figure 4-15.

Figure 4-15 Port Control-DHCPv6&RA(IPv6) Page

▼ Port Control-DHCPv6 & RA

LAN1	DHCPv6	RA			
LAN2	DHCPv6	RA			
LAN3	DHCPv6	RA			
LAN4	DHCPv6	RA			
SSID1	DHCPv6	RA			
SSID2	DHCPv6	RA			
SSID3	DHCPv6	RA			_
SSID4	DHCPv6	RA			\$
<u>All On</u> <u>All Off</u>				Apply	Cancel

4-13

9. Select the LAN interface or SSID on which you want to disable or enable the DHCP and RA function.

 Click All Off to cancel all IPv6 DHCP Service-Port Control types. 					
RA	service.				
10.	Click RA Service	e.			
	The page is sho	wn in Figure 4-16.			
	Figure 4-16 RA ▼ RA Service	Service Page			
	What should be noticed	when configuring RA service?			
	1. Min Retry Interval: T interface. (The value m 2. Max Retry Interval: T interface.	ne minimum time allowed between sending unsolicited multicast Router Ad ist be no greater than 0.75 * (Max Retry Interval)) he maximum time allowed between sending unsolicited multicast Router Ar	vertisements from the dvertisements from the		
	1. Min Retry Interval: T interface. (The value m 2. Max Retry Interval: T interface.	ne minimum time allowed between sending unsolicited multicast Router Ad ist be no greater than 0.75 * (Max Retry Interval)) he maximum time allowed between sending unsolicited multicast Router A	vertisements from the dvertisements from the <u>Close</u>		
	1. Min Retry Interval: T interface. (The value m 2. Max Retry Interval: T interface. Min Retry Interval	ne minimum time allowed between sending unsolicited multicast Router Ad ast be no greater than 0.75 * (Max Retry Interval)) he maximum time allowed between sending unsolicited multicast Router Ad 198s	vertisements from the dvertisements from the <u>Close</u>		
	1. Min Retry Interval: T interface. (The value m 2. Max Retry Interval: T interface. Min Retry Interval Max Retry Interval	e minimum time allowed between sending unsolicited multicast Router Ad ist be no greater than 0.75 * (Max Retry Interval)) he maximum time allowed between sending unsolicited multicast Router Ad 198 s 600 s	vertisements from the dvertisements from the <u>Close</u>		
	1. Min Retry Interval: T interface. (The value m 2. Max Retry Interval: T interface. Min Retry Interval Max Retry Interval M	e minimum time allowed between sending unsolicited multicast Router Ad ast be no greater than 0.75 * (Max Retry Interval)) he maximum time allowed between sending unsolicited multicast Router Ad 198 s 600 s ○ On ● Off	vertisements from the dvertisements from the <u>Close</u>		
	1. Min Retry Interval: T interface. (The value m 2. Max Retry Interval: T interface. Min Retry Interval Max Retry Interval M O	e minimum time allowed between sending unsolicited multicast Router Ad ast be no greater than 0.75 * (Max Retry Interval)) he maximum time allowed between sending unsolicited multicast Router Ad 198 s 600 s 0 on • Off • On • Off	vertisements from the dvertisements from the <u>Close</u>		

Table 4-10 Parameter Descriptions for the RA Service

Parameter	Description
Min Retry Interva	Minimum retry interva.
Max Retry Interva	Maximum retry interva.
Μ	Managed flag. Select this check box to enable the connected devices to obtain the IPv6 address through DHCP IPv6.
0	Other configure flag. Select this check box to enable the connected devices to obtain DNS address through DHCP IPv6.

12. Click Apply button to apply the changes.

- End of Steps -

4.4 Configure the Route

4.4.1 Configure the Route(IPv4)

The section describes how to configure route(IPv4). **Route(IPv4)** provides the parameters of route(IPv4) configuration features.

The relevant information of Internet status includes **Routing Table**, **Static Routing** and **Policy Routing**.

Prerequisite

Before configuring Route(IPv4), make sure that the IPv4 WAN connection is created.

Steps

 On the main page of the ZXHN H267N, select Local Network > Route > IPv4 to go to the Route(IPv4) page.

Routing table

2. Click Routing Table.

The page is shown in Figure 4-17.

Figure 4-17 Routing Table(IPv4) Page

Home	Internet	Local Network	VoIP	Management & Diagnosis		
Status	IPv4 IPv6	5				
WLAN	Page Information This page provides the routing management features of the device.					
LAN						
Route						
FTP						
UPnP	 Routing Table 	Routing Table				
DMS	Network Address	Subnet Mask	Gateway	Interface		
DNS	192.168.1.0	255.255.255.0	0.0.0.0	LAN		
	► Static Routing			Refresh		

► Policy Routing

3. Click **Refresh** to refresh the informations.

Static routing

4. Click Static Routing.

The page is shown in Figure 4-18.

4-15

Figure 4-18 Static Routing(IPv4) Page

Static Routing

What should be noticed when configuring static routing?

User manually configures the routing information.

1. If network address and subnet mask are both 0.0.0.0, this configuration will be a default routing, which is effective for any destination address.

 If WAN interfaces and gateway are both configured, please ensure that the gateway can be reached through the WAN interface.
 Close

<u>New Item</u>			
Entry Name			
· ·			
WAN Interface	rer		*
Network Address			
Subnet Mask		1.	
Gateway		1.	
Create New Item			

5. Configure the Static Routing parameters.

Table 4-11 lists the Static Routing parameters.

Table 4-11 Parameter Descriptions for the Static Routing

Parameter	Description
Entry Name	The name of static routing entry.
WAN Interface	WAN connection for static routing.
Network Address	IP address of the destination network.
Subnet Mask	Subnet mask of the destination network.
Gateway	The next-hop IP address to the destination network.

6. Click **Apply** button to apply the changes.

Policy routing

7. Click Policy Routing.

The page is shown in Figure 4-19.

ZTE
 New Item 		
Entry Name		
WAN Interface	3g_pppoe	
Source IP		
Source Mask		
Destination IP		
Destination Mask		
Protocol	Any	
Source MAC		
		Apply Cano

Figure 4-19 Policy Routing(IPv4) Page

8. Configure the Policy Routing parameters.

Table 4-12 lists the Policy Routing parameters.

Table 4-12 Parameter Descriptions for the Policy Routing(IPv4)

Parameter	Description
Entry Name	The name of Policy routing entry.
WAN Interface	WAN connection for policy routing
Source IP	Source IP address.
Source Mask	Source mask of the network segment.
Destination IP	Destination IP address.
Destination Mask	Destination mask of the network segment.
Protocol	The protocol includes the following:
	• TCP
	• UDP
	• ICMP
	• ANY
Source Port	Source port number.
Destination Port	Destination port number.
Source MAC	Source MAC address.

NOTE Note:

The Policy Routing configuration options vary with the Protocol value.

- 9. Click Apply button to apply the changes.
 - End of Steps -

4.4.2 Configure the Route(IPv6)

The section describes how to configure Route-IPv6.

The relevant information of Internet status includes **Routing Table**, **Static Routing**, and **Policy Routing**.

Prerequisite

Before configuring Route(IPv6), make sure that the IPv6 WAN connection is created.

Steps

 On the main page of the ZXHN H267N, select Local Network > Route > IPv6 to go to the Route(IPv6) page.

Routing table.

2. Click Routing Table.

The page is shown in Figure 4-20.

Figure 4-20 Routing Table(IPv6) Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status WLAN LAN	IPv4 IPv6 Page Information This page provides the routin	g management features (IPV6	version) of the device.	
Route FTP	 Routing Table 	g managonon rocarco (i ro		
DMS	Prefix	Gateway	Interface	
DNS	1680:: /64		LAN	Refresh
	► Static Routing			
	 Policy Routing 			

3. Click **Refresh** to refresh the informations.

Static routing.

4. Click Static Routing.

The page is shown in Figure 4-21.

Figure 4-21 Static Routing(IPv6) Page

▼ Static Routing				
▼ <u>New Item</u>				×
Entry Name				
WAN Interface	d	~		
Prefix		/		
Gateway				
			Apply	Cancel
Create New Item				

5. Configure the Static Routing parameters.

Table 4-13 lists the Static Routing parameters.

Table 4-13 Parameter Descriptions for the Static Routing(IPv6)

Parameter	Description
Entry Name	The name of static routing entry.
WAN Interface	WAN connection for static routing.
Prefix	IPv6 address and prefix length, range: 0–128.
Gateway	The next-hop IP address to the destination network.

6. Click **Apply** button to apply the changes.

Policy routing

7. Click Policy Routing.

The page is shown in Figure 4-22.

Figure 4-22 Policy Routing(IPv6) Page

▼	Policy	Routing
---	--------	---------

Vew Item				×
Entry Name				
WAN Interface	d 💌			
Source IP		/ 128		
Destination IP		/ 128		
Protocol	Any 🖌			
Source MAC				
			Apply	Cancel
Ereate New Item				

8. Configure the Policy Routing parameters.

Table 4-14 lists the Policy Routing parameters.

Table 4-14 Parameter Descriptions for the Policy Routing(IPv6)

Parameter	Description	
Entry Name	The name of Policy routing entry.	
WAN Interface	WAN connection for policy routing	
Source IP	Source IP address.	
Destination IP	Destination IP address.	
Protocol	 TCP UDP ANY 	
Source MAC	Source MAC address.	

NOTE

Note:

The Policy Routing configuration options vary with the Protocol value.

9. Click Apply button to apply the changes.

- End of Steps -

4.5 Configure the FTP

The section describes how to configure FTP.

 On the main page of the ZXHN H267N, select Local Network > FTP to go to the FTP page.

The page is shown in Figure 4-23.

Figure 4-23 FTP Page

Home	Internet	Local Network	VoIP	Management & Diagnosis	
Status WLAN	Page Information				
LAN	Fage Information	Page Information			
Route	This page provides the pa	rameters of FTP configuration featu	res.		
FTP	- ETD				
UPnP	• 11F				
DMS	Enable FTP Server	On ☉ Off			
DNS	FTP Security	● On Off			
	FTP Username	admin			
	FTP Password	•••••			
				Apply Cancel	

2. Set the parameters. For a description of the parameters, refer to Table 4-15.

Table 4-15 Parameter Descriptions for the FTP

Parameter	Description
Enable FTP Server	Specifies whether to enable the FTP server.
FTP Security	Specifies whether to enable the FTP Sercurity.
FTP Username/ FTP Password	Username/Password of the FTP Server

- 3. Click Apply button to apply the changes.
 - End of Steps -

4.6 Configure the UPnP

This page provides the parameters of UPnP configuration features.

Steps

 On the main page of the ZXHN H267N, select Local Network > UPnP to go to the UPnP page.

The page is shown in Figure 4-24.

Home	Internet	Local Network	VoIP	Management & Diagnos
Status				
VLAN	Daga Information			
AN	Page mornation	Page Information		
loute	This page provides the paramet	ers of UPnP configuration feat	ures.	
ТР				
JPnP	▼ UPnP			
DMS	Enable	Oon ⊙off		
ONS				
	IPv4			
	IPv4 WAN Connection	Any 💙		
	Advertisement Period	30 1	nin	
	Advertisement Time To Live	4	nop(s)	
	IPv6			
	IPv6 WAN Connection	Any		

Table 4-16 lists the UPnP parameters.

Table 4-16 Parameter Descriptions for the UPnP

Parameter	Description
IPv4 WAN Connection	IPv4 WAN connection for UPnP.
Advertisement Period	Time period that the UPnP device sends an announcement packet. If the UPnP device does not send any announcement packets during this period, it indicates that the device is invalid. By default, the period is 30 minutes.
Advertisement Time To Live	The time to live for the advertisement. The advertisement will be abandoned after it has been transferred for the specified times by the routers. The default value is 4.
IPv6 WAN Connection	IPv6 WAN connection for UPnP.

2. Click **Apply** button to apply the changes.

- End of Steps -

4.7 Configure the DMS

The section describes how to configure DMS.

Prerequisite

The USB device is connected to the ZXHN H267N device.

 On the main page of the ZXHN H267N, select Local Network > DMS to go to the DMS page.

The page is shown in Figure 4-25.

Figure 4-25 DMS Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
WLAN	Dage Information			
LAN	Page mornation			
Route	This page provides the para	meters of DMS configuration f	features.	
FTP	- DMS			
UPnP				
DMS	DMS Switch	○ On ⊙ Off		
DNS	DMS Name	Media Server		
	Library Rescan Method	Auto 💌		
	Media Source1	/mnt	Browse	
	Media Source2		Browse	
	Media Source3		Browse	
	Media Source4		Browse	
				Apply Cancel

2. Set the parameters. For a description of the parameters, refer to Table 4-17.

Table 4-17 Parameter Descriptions for the DMS

Parameter	Description	
DMS Switch	Specifies whether to enable the DMS.	
DMS Name	To create a DMS, enter the name of the DMS.	
Library Rescan Method	 Library rescan method that the device supports. Normally, it is set to Auto. Disabled Auto Customized 	
Media Source1– Media Source4	By default, the media source is /mnt, that is the root directory of the USB device. You can change the root directory to other directory of the USB storage device.	

- 3. Click Apply button to apply the changes.
 - End of Steps -

4.8 Configure the DNS

The section describes how to configure DNS.

The relevant information of Internet status includes Domain name, Host Name and DNS.

 On the main page of the ZXHN H267N, select Local Network > DNS to go to the DNS page.

The page is shown in Figure 4-26.

Figure 4-26 DNS Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
WLAN	Page Information			
LAN	rage mornation			
Route	This page provides the para	ameters of DNS configuration fea	tures.	
FTP				
UPnP	Domain Name			
DMS	Domain Name			
DNS				Apply Cancel
	 Host Name 			
	► DNS			

Domain name

- 2. Type the **Domain name**.
- 3. Click **Apply** button to apply the changes.

Host Name

4. Click Host name.

The page is shown in Figure 4-27.

Figure 4-27 Host Name Page

▼ Host Name			
▼ <u>New Item</u>			×
Host Name IP Address			
		Apply	Cancel
• Create New Item			

- 5. Type the host name in the **Host Name** text box and the **IP Address** in the **IP** Address text box.
- 6. Click **Apply** button to apply the changes.

DNS Configuration

7. Click DNS .

The page is shown in Figure 4-28.

Figure 4-28 DNS Page

▼ DNS		 	
IDud DNIC Comunit			
IPV4 DINS Server1	0.0.0.0		
IPv4 DNS Server2	0.0.0.0		
IPv6 DNS Server1			
IPv6 DNS Server2			
		Apply	Cancel

- 8. Type the IP address of the DNS server assigned by the ISP.
- 9. Click **Apply** button to apply the changes.
 - End of Steps -

This page intentionally left blank.

Chapter 5 Configure the VoIP

Table of Contents

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Configure the Fax	5-5

5.1 Check the Status of VoIP

This procedure shows the relevant information of VoIP status.

Steps

1. Select **VoIP > Status**. The **Status** page is displayed, see Figure 5-1.

Home	Interne	ət Loc	al Network	VoIP	Management & Diagnosis
Status					
Basic	Dama Infa				
Advanced	Page Info	rmation			
SIP Protocol	The relevant in	The relevant information of VoIP status is shown as below.			
Media					
FAX	▼ Registe	red Status			
		PhoneID	Number	Stat	tus
	2	Phone1		Unr	egistered
	1	Phone2		Unr	egistered
					Pofroch

Figure 5-1 VoIP Status Page

- 2. Click Refresh to refresh the information.
 - End of Steps -

5.2 Configure the SIP Accounts

This procedure describes how to configure basic parameters of the VoIP service, including sip account, authorization username, password.

Figure 5-2 SIP Accounts Page

Steps

 Select Application > VoIP > SIP Accounts. The SIP Accounts page is displayed, see Figure 5-2.

Local Ne VoIF Management & Diagnos Status Basic **Page Information** Advanced This page provides VoIP basic parameters configuration features. SIP Protocol Media SIP Account-1 FAX How to get VoIP authentication information? SIP Account Authorization Username Password

2. Set the parameters. For a description of the parameters, refer to .

Table 5-1 Parameter Descriptions for the SIP Accounts

Parameter	Description
SIP Account	Registered name of a SIP subscriber. Normally, it is the phone number of the subscriber.
Password	Password for VoIP service authentication by the SS system, which must be the same as that configured in the SS system.
Authorization Username	Username for authentication by the SS system, which must be the same as that configured in the SS system.

3. Click Apply.

```
– End of Steps –
```

5.3 Configure the Advanced Parameters of VoIP

This procedure describes how to configure advanced parameters of the VoIP service, including echo cancellation, jitter buffer, and DTMF.

Steps

1. Select VoIP > Advanced. The Advanced page is displayed, see Figure 5-3.

Home	Internet	Local Network	VoIP	Managemer	it & Diagnosis
Status Basic Advanced SIP Protocol	Page Information	JP advanced parameters	configuration features.		
Media					
FAX	 Advanced Param 	neters			
	DTMF Jitter Buffer Min Value Max Value	RFC2833 Adaptive 20 200	ms ms	Арріу	Cancel
	▼ Echo Cancellatio	n			
	▼ <u>Line1</u>				
	Echo Cancellation	⊙ On ○ Off		Apply	Cancel

Figure 5-3 Advanced Parameters Page

2. Set the advanced parameters. For a description of the parameters, refer to Table 5-2.

Table 5-2 Advanced Parameter Descriptions for the VoIP Service

Parameter	Description
	DTMF mode. Options:
DTME	• RFC2833 : DTMF digits are carried by RTP streams.
DTMF	• DTMF in Voice : DTMF digits are not processed.
	• SIP Info:SIP protocol information.
Jitter Buffer	 The variation in packet delay is called jitter. Jitter buffer refers to intentional delay of packets. Options: Fixed: A fixed buffer time must be specified. Adaptive: A jitter range must be specified.
Min Value	Minimum value of the jitter range, default: 20 ms.
Max Value	Maximum value of the jitter range, default: 200 ms.
Echo Cancellation	Whether to disable the echo cancellation feature.

- 3. Click Apply.
 - End of Steps -

5.4 Configure the SIP Protocol

This procedure describes how to configure the SIP Protocol.

1. Select VoIP > SIP Protocol. The SIP Protocol page is displayed, see Figure 5-4.

Internet Lo	al Network	VoIP	Management & Diagnosis
Page Information This page provides the SIP protocol cor	figuration features.		
SIP Protocol			
Local Port Primary Proxy Server Primary Outbound Proxy Server Primary Proxy Port Secondary Proxy Server Secondary Outbound Proxy Server Secondary Proxy Port Register Expires Unregister On Reboot Enable Link Test Link Test Interval	5060 0.0.0.0 0.0.0.0 5060 0.0.0.0 5060 0.0.0.0 5060 3600 0 On © Off On © Off 20	5	
	Page Information This page provides the SIP protocol content ▼ SIP Protocol Local Port Primary Proxy Server Primary Outbound Proxy Server Primary Proxy Port Secondary Proxy Server Secondary Proxy Port Secondary Proxy Port Register Expires Unregister On Reboot Enable Link Test Link Test Interval	Page Information This page provides the SIP protocol configuration features. ✓ SIP Protocol Local Port \$060 Primary Proxy Server 0.0.0.0 Primary Outbound Proxy Server 0.0.0.0 Primary Proxy Port \$060 Secondary Proxy Server 0.0.0.0 Secondary Proxy Port \$060 Secondary Proxy Port \$060 Secondary Proxy Port \$060 Secondary Cutbound Proxy Server 0.0.0.0 Unregister On Reboot O on ● Off Enable Link Test O on ● Off Link Test Interval 20	Page Information This page provides the SIP protocol configuration features. ✓ SIP Protocol Local Port 5060 Primary Proxy Server 0.0.0.0 Primary Outbound Proxy Server 0.0.0.0 Primary Proxy Port 5060 Secondary Proxy Server 0.0.0.0 Secondary Proxy Server 0.0.0.0 Secondary Proxy Port 5060 Secondary Proxy Port 5060 Register Expires 3600 s Unregister On Reboot On © Off Enable Link Test On © Off Link Test Interval 20 s

Figure 5-4 SIP Protocol Page

2. Set the parameters. For a description of the parameters, refer to 。

Table 5-3 Parameter Descriptions for the SIP Protocol

Parameter	Description
Local Port	Local port that the SIP protocol uses, default: 5060.
Primary Proxy Server	IP address of the active SIP proxy server that the ISP provides, which must be the same as that configured on the SIP server.
Primary Outbound Proxy Server	IP address of the active outbound proxy server that the ISP provides, which must be the same as that configured on the SIP server.
Primary Proxy Port	Port number that the ISP provides for communication between the active server and VoIP terminals, which must be the same as that configured on the SIP server, default: 5060.
Secondary Proxy Server	IP address of the standby SIP proxy server that the ISP provides, which must be the same as that configured on the SIP server.
Secondary Outbound Proxy Server	IP address of the standby outbound proxy server that the ISP provides, which must be the same as that configured on the SIP server.
Secondary Proxy Port	Port number that the ISP provides for communication between the standby server and VoIP terminals, which must be the same as that configured on the SIP server, default: 5060.

Parameter	Description
Register Expires	Registered lifecycle, unit: seconds, default: 3600.
Unregister On Reboot	Whether to deregister VoIP terminals after the server is restarted.
Enable Link Test	Whether to enable link tests.
Link Test Interval	Interval of link tests, default: 20 seconds.

- 3. Click Apply.
 - End of Steps -

5.5 Configure the Media

This procedure describes how to configure the media codec type.

Steps

1. Select Application > VolP > Media. The Media page is displayed, see Figure 5-5.

Figure 5-5 Media Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Basic				
Advanced	Page Information			
SIP Protocol	This page provides the m	edia parameters configuration feat	ures.	
Media	Dhawa1			
FAX	Phone1			
	☑ G722 □ VAD	1 Codec Priority		
	G711U VAD	2 Codec Priority		
	G711A VAD	3 Codec Priority		
	☑ G729	4 Codec Priority		
	☑ G726	5 Codec Priority		
	☑ G723	6 Codec Priority		
				Apply Cancel

- 2. Select a codec.
- 3. Click Apply.
 - End of Steps -

5.6 Configure the Fax

The ZXHN H267N supports the T30 and T38-based fax feature. By default, the T38 protocol is used.

1. Select **VoIP > Fax**. The **Fax** page is displayed, see Figure 5-6.

Figure 5-6 Fax Page

Home	Internet	Local Network	VoIP	Management & Diagnosis		
Status						
Basic	De se Information					
Advanced	Page information	Page Information				
SIP Protocol	This page provides the FAX configuration features.					
Media	FAV					
FAX						
	Enable T38 Protocol	⊙ On ○ Off				

2. Set the parameters. For a description of the parameters, refer to Table 5-4.

Table 5-4 Parameter Descriptions for the Fax

Parameter	Description
Enable T38 Protocol	Whether to enable the T38 protocol.
	If this check box is not selected, the T30 protocol is used.

- 3. Click Apply.
 - End of Steps -

Chapter 6 Configure the Management and Diagnosis

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6.1 Check the Device Status

The relevant information of device status is shown as below.

Steps

1. On the main page of the ZXHN H267N, select **Management & Diagnosis > Status** to go to the **Status** page.

The page is shown in Figure 6-1.

Figure 6-1 Device Status Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Account Management	Deve Information			
Login Timeout	Page Information			
System Management	The basic information of the	device is shown as below.		
Mirror Configuration				
TR-069	Device Status			
Log Management	Device Type	ZXHN H267N V1.	0	
Diagnosis	Device Serial No.	ZTEEG8FD5C0000	4	
ARP Table	HW Version	V1.0		
MAC Table	SW Version	V1.0.0T3		
ETH Uplink Management	BOOT Version	V1.0.0		
IPv6 Switch				Pofrash

- 2. Click **Refresh** to refresh the information.
 - End of Steps -

6.2 Configure the Account Management

This procedure introduces how to manage the user accounts and rights.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > Account Management to go to the Account Management page.

The page is shown in Figure 6-2.

Figure 6-2 Account Management Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Account Management	Daga Information			
Login Timeout	Page Information	I		
System Management	The page provides the ac	count management features.		
Mirror Configuration				
TR-069	▼ Telecomadmin /	Account Management		
Log Management	Username	admin		
Diagnosis	Old Password			
ARP Table	New Password			
MAC Table	Confirmed Password			
ETH Uplink Management				
IPv6 Switch				Apply Cancel

Admin Account Management

Telecomadmin Account Management

2. Confgure the Telecomadmin Account Management parameters.

Table 6-1 lists the Telecomadmin Account Management parameters.

Parameter	Description
Username	The user name for the administrator privilege. The default user name of the administrator privilege is admin, which cannot be modified.
Old Password	The default passwords for the Administrator is admin.
New Password	Specify the new password.
Confirmed Password	Confirm the new password.

Table 6-1 Parameter Descriptions for the Telecomadmin Account Management

Admin Account Management

3. Click Admin Account Managenent to open Admin Account Managenent page, as shown in Figure 6-3.

Figure 6-3 Admin Account Management Page

Admin Account Management

Username	usemame
New Password	
Confirmed Password	

4. Configure the Admin Account Management parameters.

Table 6-2 lists the Admin Account Management parameters.

Table 6-2 Parameter Descriptions for the Admin Account Management

Parameter	Description
Username	The user name for the user privilege. The default user name of the user privilege is username, which can be modifed.
New Password	Specify the new password.
Confirmed Password	Confirm the new password.

- 5. Click Apply button to apply the changes.
 - End of Steps -

6.3 Configure the Login Timeout

This procedure introduces how to configure the login timeout.

 On the main page of the ZXHN H267N, select Management & Diagnosis > Login Timeout to go to the Login Timeout page.

The page is shown in Figure 6-4.

Figure 6-4 Login Timeout Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Account Management	Page Information			
Login Timeout	Page Information			
System Management	This page provides login t	imeout settings.		
Mirror Configuration				
TR-069	 Login Timeout 			
Log Management	Timeout 5	min		
Diagnosis				
ARP Table				Apply Cancel
MAC Table				
ETH Uplink Management				
IPv6 Switch				

- 2. Specify the time in the Timeout text box.
- 3. Click Apply button to apply the changes.
 - End of Steps -

6.4 Configure the System Management

6.4.1 Configure the Device Management

This procedure introduces how to reboot the device or restore the factory default settings.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > System Management > Device Management to go to the Device Management page.

The page is shown in Figure 6-5.

Local Network Management & Diagno Device Managemen Firmware Upgrade User Config Management Status Account Management **Page Information** Login Timeout The page provides the device management features. System Management Mirror Configuration Reboot Management TR-069 Log Management Reboot: Click the "Reboot" button will reboot the device. It will take about 5 minutes. Diagnosis Note: The reboot operation will interrupt all current business. ARP Table MAC Table ETH Uplink Management IPv6 Switch Reset Management

Figure 6-5 Device Management Page

- 2. On this page, you can perform the following operations:
 - Click **Reboot** to reboot the ZXHN H267N device.
 - Click Restore the default to restore the factory default settings.
 - End of Steps -

6.4.2 Upgrade Firmware

This procedure introduces how to upgrade Firmware.

Prerequisite

Before upgrading software, make sure that the upgrade file is ready.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > System Management > Firmware Upgrade to go to the Firmware Upgrade page.

The page is shown in Figure 6-6.

Management & Diagnosis Local Network User Config Management Status Device Management Firmware Upgrade Account Management **Page Information** Login Timeout The page provides the upgrade features of firmware file. System Management Mirror Configuration Firmware Upgrade TR-069 Log Management The device will reboot after upgrading. Diagnosis Please select a new firmware image ARP Table Browse MAC Table ETH Uplink Management IPv6 Switch

Figure 6-6 Firmware Upgrading Page

- 2. Click Browse to select the upgrade version file.
- 3. Click Upgrade.



The system prompts the upgrade progress. During the upgrade process, do not cut off the power supply. Otherwise, the device may be damaged.

Generally, the software is upgraded by the ZTE CORPORATION engineers. If the user wants to upgrade the Firmware, contact the local office of ZTE CORPORATION to obtain the latest Firmware version.

- End of Steps -

6.4.3 Manage the User Configuration

This procedure introduces how to import or export the user configuration file.

User configuration refers to the customized configuration based on the factory defaults. The user can configure the device settings based on his own requirements, and the configuration can be backed up.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > System Management > User Config Management to go to the User Config Management page.

The page is shown in Figure 6-7.

Figure 6-7 User Configuration Management Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status	Device Management	Firmware Upgrade	User Config Manageme	ent
Account Management	Page Information			
Login Timeout	Fage mormation			
System Management	The page provides the backup	and restore features of user cor	nfiguration file.	
Mirror Configuration				
TR-069	User Configuration	васкир		
Log Management	Backup Configuration			
Diagnosis				
ARP Table	Liser Configuration	Restore		
MAC Table				
ETH Uplink Management				
IPv6 Switch				

- 2. On this page, you can perform the following operations:
 - Click **Backup Configuration** to export the user configuration file.

Click Browse to select the user configuration file, and then click Restore Configuration to restore the device to the user configuration.

NOTE Note:

After the user configuration file is imported, the system will restart.

- End of Steps -

6.5 Configure the Mirror

This procedure introduces how to perform the mirror configuration.

If the mirror configuration is performed, the packets at the WAN side will be copied to the specified LAN interface, and it can be used for the network analysis and troubleshooting.

Steps

1. On the main page of the ZXHN H267N, select **Management & Diagnosis > Mirror Configuration** to go to the **Mirror Configuration** page.

The page is shown in Figure 6-8.

Figure 6-8 Mirror Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Account Management	Page Information			
Login Timeout	Page Information			
System Management	The page provides the m	irror configuration features.		
Mirror Configuration				
TR-069	 Mirror Configur 	ation		
Log Management	<u>New Item</u>			×
Diagnosis	Name			
ARP Table	Source	WAN All		
MAC Table	Destination	LAN1		
ETH Uplink Management				
IPv6 Switch				Apply Cancel
	Create New Item			

2. Configure the mirror parameters.

Table 6-3 lists the Mirror Configuration parameters.

Table 6-3 Parameter Descriptions for the Mirror Configuration

Parameter	Description
Name	The name of the Mirror Configuration.

Parameter	Description	
Source	Network-side WAN interface.	
Destination	User-side LAN interface.	

- 3. Click Apply button to apply the changes.
 - End of Steps -

6.6 Configure the TR-069

The section describes how to configure the TR-069. **TR-069** provides the parameters of the TR-069 configuration features.

The relevant TR-069 includes Basic Configuration and Certificate Management.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > TR-069 to go to the TR-069 page.

The page is shown in Figure 6-9.

Figure 6-9 TR-069 Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Account Management	Page Information			
Login Timeout	rage information			
System Management	This page provides the TR-069 ma	nagement configuration features.		
Mirror Configuration				
TR-069	Basic Configuration			
Log Management	ACS URL	http://0.0.0.0:9090/digest/tr069		
Diagnosis	Username	hgw		
ARP Table	Password	•••••		
MAC Table	Connection Request URL	http://0.0.0.0:58000		
ETH Uplink Management	Connection Request Username	ACS		
IPv6 Switch	Connection Request Password	•••••		
	Periodic Inform	⊙on Ooff		
	Periodic Inform Interval	43200 s		
	Authenticating ACS	O on ⊙ Off		
	ACS CA Certificate Chain	Auto 💌		
				Apply Cancel

Basic Configuration

2. Configure the basic TR-069 parameters.

Table 6-4 lists the TR-069 basic parameters.

Parameter	Description
ACS URL	The URL of the automatic configuration server that manages the device.
Username/Password	User name and password for the ZXHN H267N device to log in to the automatic configuration server.
Connection Request URL	Connection request URL, which is automatically generated by the system.
Connection Request User- name/Connection Request Pass- word	User name and password for the TR-069 connection authentication that the automatic configuration server provides when it logs in to the ZXHN H267N device.
Periodic Inform	Enable the periodic inform function.
Periodic Inform Interval	Periodic inform interval of the device (unit: second).
Authenticating ACS	Enable the TR-069 authenticating ACS.
ACS CA Certificate Chain	 Auto: Automatically select the first chain certifcate authentication or the second chain certificate authentication Chain1: The first chain certifcate authentication Chain2: The second chain certifcate authentication

Table 6-4 Parameter Descriptions for the TR-069

3. Click **Apply** button to apply the changes.

Certificate Management

4. Click **Certificate Management** to open **Certificate Management** page, as shown in Figure 6-10.

Figure 6-10 Certificate Management

Certificate Management



5. Click **Browse** to select the certificate file.

NOTE Note:

The CA certificate is provided by the ISP to the terminal user. It is imported from the local.

6. Click Import Certificate.

- End of Steps -

6.7 Manage the Log

This procedure introduces how to manage the log.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > Log Management to go to the Log Management page.

The page is shown in Figure 6-11.

Status Account Management Login Timeout System Management Mirror Configuration TR-069 Log Management Diagnosis ARP Table MAC Table ETH uplink Management IPv6 Switch Output	Home	Internet	Local Network	VoIP	Management & Diagno	osis
System Management Mirror Configuration TR-069 Log Management Diagnosis ARP Table MAC Table ETH Uplink Management IPv6 Switch Output	Status Account Management Login Timeout	Page Information	on			
TR-069 S S S Log Management Save Log On Off Diagnosis Remote Log On Off ARP Table Apply Cance ETH Uplink Management Output	System Management Mirror Configuration	This page provides the	e log management configuration featur	res.		
ARP Table MAC Table ETH Uplink Management IPv6 Switch Output	TR-069 Log Management Diagnosis	Save Log Remote Log	Oon ⊚off Oon ⊚off			
IPv6 Switch Output Output	ARP Table MAC Table ETH Uplink Management				Apply Cano	cel
	IPv6 Switch	Output				

Figure 6-11 Log Management Page

2. Configure the log management parameters.

Table 6-5 lists the Log Management parameters.

Table 6-5 Parameter Descriptions for the Log Management

Parameter	Description	
Save Log	Select this option to save logs.	
Remote Log	Select this option, and the device regularly sends the log to the log	
	server.	

- 3. Click Apply button to apply the changes.
- 4. (Optional) Click Cancel button to exit without saving.
- 5. (Optional) Click Clear to clear the logs.
- 6. (Optional) Click Download Log File to download the log file from the log server.

- End of Steps -

6.8 Diagnosis

The section describes how to diagnosis. **Diagnosis** provides the parameters of the Diagnosis configuration features.

The relevant information includes **Ping Diagnosis**, **Trace Route Diagnosis**, **PPPoE Diagnosis** and **DSL Line Diagnosis**.

1. On the main page of the ZXHN H267N, select **Management & Diagnosis > Diagnosis** to go to the **Diagnosis** page.

The page is shown in Figure 6-12.

Figure 6-12 Diagnosis Configuration Page

Home	Internet	Local Network	VoIP	Management & Diagnosis
Status				
Account Management	Deve Information			
Login Timeout	Page Information			
System Management	This page provides the rel	evant parameters of diagnosis con	figuration features.	
Mirror Configuration				
TR-069	▼ Diagnosis			
Log Management	What should be noticed w	hen making diagnosis?		
Diagnosis	Ping Diagnosis			
ARP Table	Trace Route Diagnos	is		
MAC Table	PPPoE Diagnosis			
ETH Uplink Management	DSL Line Diagnosis			
IPv6 Switch				

Ping Diagnosis

2. Click **Ping Diagnosis** to open **Ping Diagnosis** page, as shown in Figure 6-13.

Ping Diagnosis			
IP Address/Host Name			
Egress	~		
			Diagnosis
Diagnosis Result			

Figure 6-13 Ping Diagnosis Page

- 3. Type the host IP address or host name in the IP Address/Host Name text box, select the WAN/LAN connection from the Egress drop-down list.
- 4. Click **Diagnosis** to diagnose the connection, and the system will display the following diagnosis results.

Trace Route Diagnosis

5. Click Trace Route Diagnosis.

The page is shown in Figure 6-14.

Figure	6-14	Trace	Route	Diagnosis	Page
---------------	------	-------	-------	-----------	------

▼ Trace Route Diagnosis		
IP Address/Host Name		
WAN Connection	~	
Maximum Hops	30	
Wait Time	5000	ms
Protocol	UDP 💌	
Diana da Dara k		Diagnosis

- 6. Type the IP address or host name in the IP Address/Host Name text box, select one WAN connection, specify the Maximum Hops, Wait time, and Protocol.
- 7. After the configuration, click **Diagnosis**.

PPPoE Diagnosis

8. Click **PPPoE Diagnosis**.

The page is shown in Figure 6-15.

Figure 6-15 PPPoE Diagnosis Page

<u>PPPoE Diagnosis</u>				
Ourrent WAN connection may be dropped down during diagnosing.				
PPPoE Connection rer	✓			
	Diagnosis			
Check PPPoE server connectivity	Fail			
Check PPPoE server session	Fail			
Check authentication with PPPoE server	Fail			
Validate WAN assigned IP address	Fail			
Validate WAN assigned DNS IP address	Fail			
Validate WAN default gateway address	Fail			

9. Select one **PPPoE connection**.



10. Click **Diagnosis** to check the **PPPoE** link.

DSL Line Diagnosis

11. Click **DSL Line Diagnosis**.

The page is shown in Figure 6-16.

Figure 6-16 DSL Line Diagnosis Page

▼ DSL Line Diagnosis				
This test can be used to check whether your Modem is properly connected to the Network. This test may take a few seconds to complete.				
Test Type	F4 seg	×		
VPI/VCI	1/32	×		
Diagnosis Result		Diagnosis		

- 12. Select the **Test Type** and **VPI/VCI**.
- 13. Click **Diagnosis** to diagnose the connection.
 - End of Steps -

6.9 Check the ARP Table

The relevant information of ARP table is shown as below.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > ARP Table to go to the ARP Table page, as shown in Figure 6-17.

Home	Internet	Local Network	VoIP	Management & Diag
us ount Management in Timeout tem Management ror Configuration	Page Information The relevant information of ARP Table	f ARP table is shown as below.		
g Management	IP Address	MAC Address	Status	Interface
gnosis	192.168.1.2	00:1e:90:3f:5c:39	Available	LAN
P Table				_
C Table				Ref
H Uplink Management				
6 Switch				

Figure 6-17 ARP Table Page

2. Click **Refresh** button to refresh information.

```
- End of Steps -
```

6.10 Check the MAC Table

The relevant information of MAC table is shown as below.

Steps

1. On the main page of the ZXHN H267N, select **Management & Diagnosis > MAC Table** to go to the **MAC Table** page, as shown in Figure 6-18.

Figure 6-18 MAC Table Page

Home	Intern	et Local Ne	etwork	VoIP	Management & Diagnosi
Status					
Account Management					
Login Timeout	Page Information The relevant information of MAC table is shown as below.				
System Management					
Mirror Configuration					
TR-069	▼ MAC Table				
Log Management	Port	MAC Address	Active Time(s)		
Diagnosis	LAN1	00:1e:90:3f:5c:39	299.91		
ARP Table					
MAC Table					Refres
ETH Uplink Management					
IPv6 Switch					

- 2. Click Refresh button to refresh information.
 - End of Steps -

6.11 Configure the ETH Uplink Management

This page will help you convert LAN to WAN interface.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > ETH Uplink Management to go to the ETH Uplink Management page, as shown in Figure 6-19.

Figure 6-19 ETH Uplink Management Page

Home	Internet	Local Network	VoIP	Management & Diagnosis			
Status							
Account Management							
Login Timeout	Page Informati	Page Information					
System Management	This page will help you convert LAN4 to WAN interface. Once radiobox "on" is set and "apply" button is pressed, the device will reboot and LAN4 will work as LAN interface.						
Mirror Configuration							
TR-069	ETH Uplink Man	agement					
Log Management							
Diagnosis	ETH Uplink	⊙ On O Off					
ARP Table	Management			Apply Cancel			
MAC Table				Cancer			
ETH Uplink Management							
IPv6 Switch							

- 2. Once radio button**On** is set and **Apply** button is pressed, the device will reboot and will work as WAN interface. Otherwise, when **Off** is applied, the device will work as LAN interface.
- 3. Click **Apply** button to apply the changes.
 - End of Steps -

6.12 Configure the IPv6 Switch

This page provides IPv6 switch function.

Steps

 On the main page of the ZXHN H267N, select Management & Diagnosis > IPv6 Switch to go to the IPv6 Switch page, as shown in Figure 6-20.



Figure 6-20 IPv6 Switch Page

- 2. Select enable IPv6 Switch function.
- 3. Click Apply button to apply the changes.
 - End of Steps -

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