

**ZTE**

**H3140**  
**Home Gateway**  
**Maintenance Management Guide**

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**Version:V1.0**

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## **Revision History**

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# Chapter 1

# Safety Precautions

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## Note

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.
- 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.
- 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.

### Restrictions in the 5 GHz Band

According to Article 10(10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium(BE), Bulgaria(BG), the Czech Republic(CZ), Denmark(DK), Germany(DE), Estonia(EE), Ireland(IE), Greece(EL), Spain(ES), France(FR), Croatia(HR), Italy(IT), Cyprus(CY), Latvia(LV), Lithuania(LT), Luxembourg(LU), Hungary(HU), Malta(MT), Netherlands(NL), Austria(AT), Poland(PL), Portugal(PT), Romania(RO), Slovenia(SI), Slovakia(SK), Finland(FI), Sweden(SE), Turkey(TR), Norway(NO), Switzerland(CH), Iceland(IS), and Liechtenstein(LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

### RF Exposure Information

The Maximum Permissible Exposure (MPE) level is calculated based on a distance of d=20 cm between the device and the human body. To maintain compliance with the RF exposure requirement, a separation distance of 20 cm between the device and the human should be maintained.

### EU Declaration of Conformity

Hereby, ZTE Corporation declares that the radio equipment type H3140 is in compliance with Directive 2014/53/EU, The full text of the EU declaration of conformity is available at the following Internet address:

<http://support.zte.com.cn/support/cer/EU>

## 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.



### D.Lgs. 03.09.20 n.116.

Raccolta differenziata famiglia di materiale PLASTICA.

Verifica le disposizioni del tuo comune.

# Chapter 2

# Product Overview

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## 2.1 Package Check

After unpacking the H3140 product, check that the following items are complete.

Name	Quantity
H3140	1
Power adapter	1
RJ-45 Ethernet cable	1
User manual	1

---



The list is only for reference. The actual contents may vary from the list.

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If any item is found to be wrong, missing, or damaged, contact your service provider. Keep the package and all the items in good condition if you want to replace the product.

## 2.2 Product Specifications

The H3140 product is a new generation home gateway device with 802.11AX Wi-Fi (2.4GHz, 5GHz), which provides High Speed Internet, IPTV and Voice over IP services through the GE or Fiber(SFP) uplink. Those services are delivered by the gateway on your home network to the PCs, STBs, phones, gaming devices and so on via the integrated interfaces: Ethernet, Wi-Fi, phone ports.

<b>Technical Specifications</b>	
Dimension	274 mm (H) × 212 mm (W) × 35 mm (D)
Certification	CE Certification and Wi-Fi Certification
Power adapter	Input: AC 100 V – 240 V, 50 Hz/60 Hz Output: DC 12.0 V, 2.5 A
<b>Environment Requirements</b>	
Operation temperature	0 °C – 40 °C (32 °F – 104 °F)
Operation humidity	5% – 95% (non-condensing)
<b>Wi-Fi Radio Specifications</b>	
Radio Frequencies	Maximum Output Power
Wi-Fi 2.4 GHz band: (2400 – 2483.5) MHz	EIRP < 20 dBm
Wi-Fi 5 GHz band: (5150 – 5350) MHz	EIRP < 23 dBm
Wi-Fi 5 GHz band: (5470 – 5725) MHz	EIRP < 30 dBm

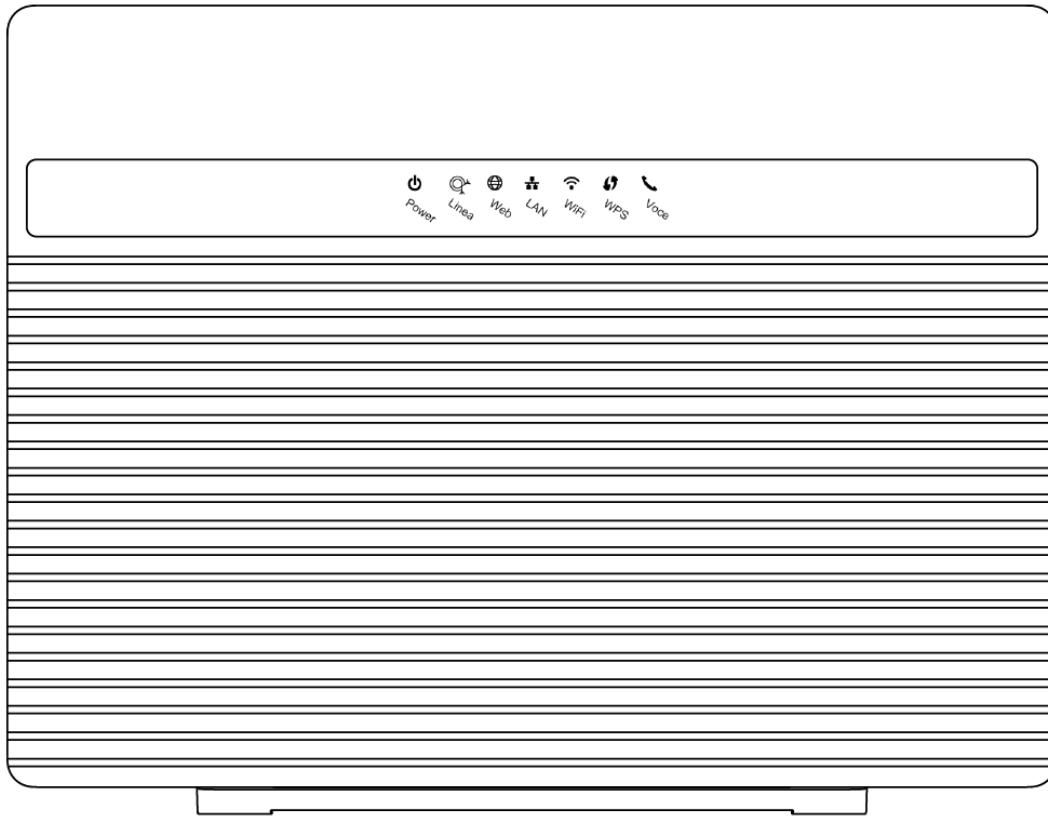
**Note**

Please use the power adapter provided by the manufacturer.

## 2.3 Hardware Description

### Front panel

Figure 2-1 shows the front panel of the H3140, and [Figure 2-2](#) shows the indicators.

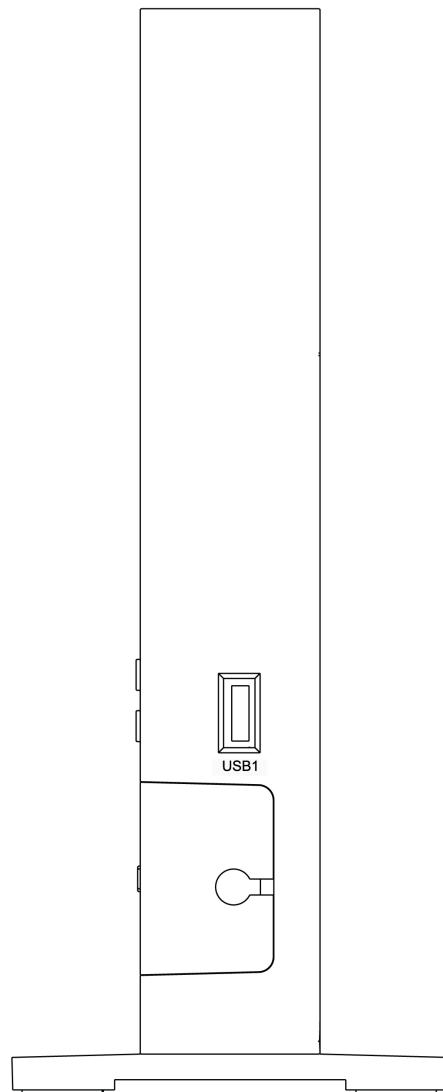
**Figure 2-1 The Front Panel****Figure 2-2 The indicators**

Indicator	Status	Description
Power	Fixed green	All services are available. At least one wireless radio is enabled.
	Fixed red	One or more subscription services are currently unavailable.
	Green flashing	Operator is configuring the modem remotely.
	Fixed orange	Bootloader in progress.
	Flashing orange	The device is upgraded remotely or locally.
	Off	The device is powered off.
Linea (LAN4/SFP)	Fixed green	Connected to the WAN device.
	Off	Not connected to the WAN device.

Indicator	Status	Description
Web	Fixed green	Internet connection succeed.
	Flashing green	Connected to the Internet, when sending / receiving data.
	Off	No internet connection.
WiFi	Fixed green	At lease one wireless interface is enabled, no wireless activity.
	Flashing green	At lease one wireless interface is enabled, wireless activity in progress.
	Off	Both 2.4G and 5G wireless interfaces are disabled.
WPS	Fixed green	Client registered correctly via WPS.
	Fast Flashing green	Process error or session overlap is detected.
	Slow flashing green	WPS registration in progress.
LAN	Fixed green	At least one active network device is connected to the Ethernet switch.
	Flashing green	At least one active network device is connected to the Ethernet switch and is in the process of sending / receiving data.
	Off	There are no active Ethernet devices connected to the Ethernet switch.
Voce	Fixed green	The VoIP telephone service is active.
	Flashing green	The VoIP telephone service is active and there are activities in progress.
	Off	The VoIP telephone service is not active or is not included in your subscription.

### Side panel

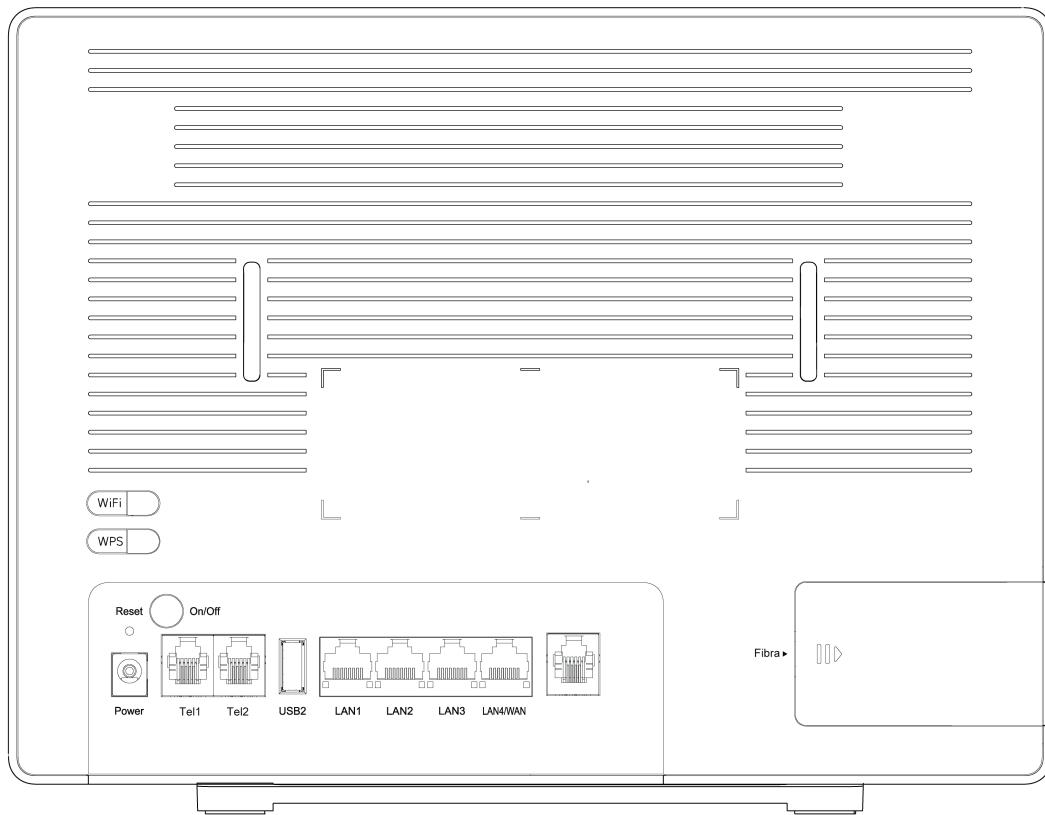
Figure 2-3 shows the interfaces on the side panel of the H3140.

**Figure 2-3 The Side Panel**

Interface	Function
USB1	USB 3.0 host port, it is used to connect to the USB storage device.

**Rear panel**

**Figure 2-4** shows the interfaces and buttons on the rear panel of the H3140.

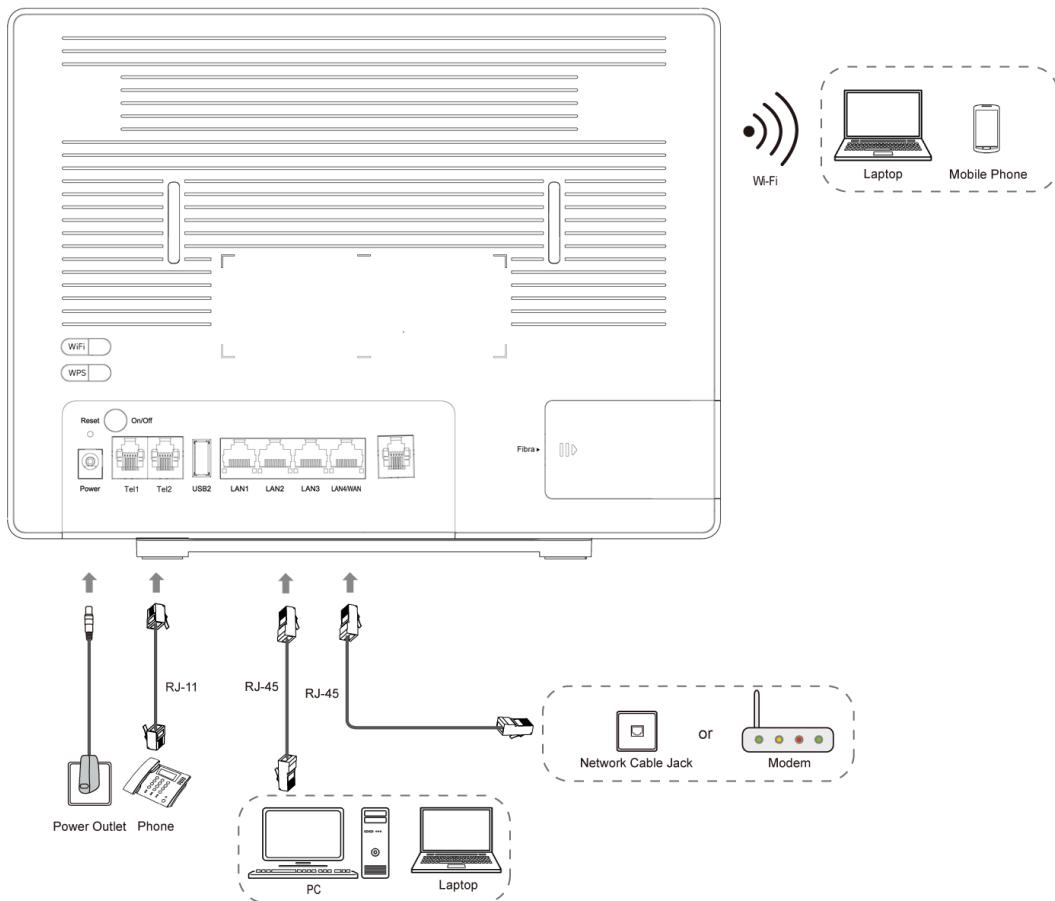
**Figure 2-4 The Rear Panel**

Interface/Button	Function
WiFi	WLAN switch , it is used to turn on / off the WLAN.
WPS	WPS Push Button.
Reset	During power ON period, hold on this button for more than 5 seconds to reset the current settings to the factory default setting, and then the system restarts automatically.
On/Off	Power switch, to power on or power off the device.
Power	Power supply port, It is connected to the power adapter.
Tel1 Tel2	RJ-11 port, it is used to connect to the analog telephone.
USB2	USB 2.0 host port, it is used to connect to USB storage device.
LAN1-LAN3	RJ-45 port, it is used to connect the modem to computer , STB or other network devices.
LAN4/WAN	RJ-45 port, it is used to connect to the uplink Ethernet access network
Fibra	Optical port, it is used to connect to the uplink PON network.

## 2.4 Hardware Connection

Figure 2-5 shows the devices that are connected to interfaces of the H3140.

**Figure 2-5 Cable Connection**



After the devices are connected to the H3140 device, press the power button. When the corresponding indicators on the front panel are On, you can enjoy various services provided by the service provider.

The factors affecting the wireless network coverage range include the location of the product, distance between the product and a wireless terminal, number of obstacles, obstacle material and density, and interference source. It is recommended that you place the product in accordance with the following principles to maximize the strength of wireless signals.

- The product should be far away from the objects affecting wireless signal propagation, for example, an object with a high reflectivity such as a metallic object or a mirror.
- The product should be far away from an electrical appliance with a strong magnetic or electric field, for example, a microwave oven, a refrigerator, a wireless router, a cordless phone, or a Bluetooth product.

- The product should be installed on the same floor as the applied area.
- Do not put other objects on the product. Try to reduce the number of obstacles between the product and a wireless terminal.
- Horizontally place the product in the middle of the applied area and do not put it in a corner.
- Do not place the product at a high position while it is placed horizontally. The recommended height is 1.2 to 1.5 meters.

# Chapter 3

# Configuration Preparation

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This manual uses the Windows operating system as an example for describing how to configure the H3140. Before configuring the H3140, 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.

## 3.1 Configure the IP Address of the Computer

### Abstract

To log in to the H3140 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 H3140 are in the same network segment.

### Context

The default maintenance IP address of the H3140 is as follows:

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

### Steps

1. Use an Ethernet cable to connect a local computer to the LAN interface of the H3140.

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 **255.255.255.0**, and default gateway to **192.168.1.1**.
4. Click **OK**.

#### Postrequisite

After setting the IP address of the computer, 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 H3140.

## 3.2 Login

#### Abstract

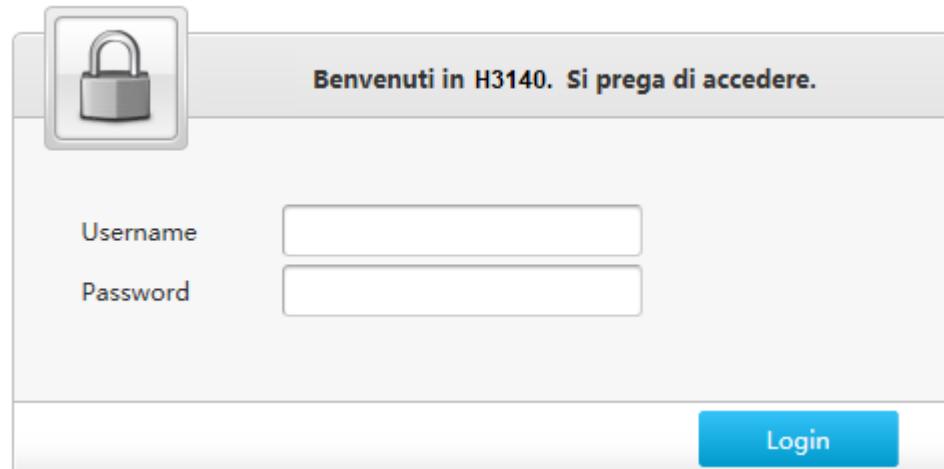
The H3140 provides a Web-based configuration and management system. You can enter a specified IP address in the address bar of Internet explorer to access the system.

#### Prerequisite

A computer is directly connected to the H3140, 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 H3140) in the address field. Press the **Enter** key. The login page is displayed, see [Figure 3-1](#).

**Figure 3-1 Login Page**

2. Enter the username and password, and click **Login**. The configuration page is displayed, see [Figure 3-2](#).

**Figure 3-2 Configuration Page**

Data e ora corrente: 01-01-1970 00:16      admin Logout Italiano | English

Home Internet Rete locale VoIP Gestione & Diagnosi

Stato WAN      Firewall

Elenco dispositivi

- Dispositivi WLAN
- Dispositivi LAN
- Dispositivi USB
- Dispositivi VoIP

Elenco dispositivi WLAN

Nome	Indirizzo MAC	Indirizzo IPv4	Indirizzo IPv6

[Lista Dispositivi WLAN](#)

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# Chapter 4

# Configure the Internet

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## 4.1 Check the Status

### 4.1.1 Check the Ethernet Status

#### Abstract

The section describes how to check the Ethernet status.

#### Steps

##### [Check Ethernet Interface Information](#)

1. On the main page of the H3140, select **Internet > Status > SFP/Ethernet > SFP/Ethernet Interface Information** to the **SFP/Ethernet Interface Information** page, see [Figure 4-1](#).

### Figure 4-1 SFP/Ethernet Interface Information

▼ Informazioni interfaccia SFP/Ethernet

Nome interfaccia	SFP
Indirizzo MAC	00:19:c6:50:71:80
Stato	Nessun collegamento
Pacchetti ricevuti/Bytes ricevuti	0/0
Pacchetti inviati/Bytes inviati	0/0
Potenza del segnale in RX	-- dBm
Potenza del segnale in TX	-- dBm
Nome interfaccia	ETHERNET
Indirizzo MAC	00:19:c6:50:71:80
Stato	Nessun collegamento
Pacchetti ricevuti/Bytes ricevuti	0/0
Pacchetti inviati/Bytes inviati	0/0

[Aggiorna](#)

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

### Check Ethernet Connection Status

3. On the main page of the H3140, select **Internet > Status > Ethernet > Ethernet Connection Information** to the **Ethernet Connection Information** page, see **Figure 4-2**.

### Figure 4-2 Ethernet Connection Information

▼ Stato connessione Ethernet

Nome connessione	INTERNET_FWA	
Tipo	DHCP	
Versione IP	IPv4	
NAT	On	
Indirizzo IP	0.0.0.0/0.0.0.0	
DNS	0.0.0.0/0.0.0.0/0.0.0.0	
Gateway IPv4	0.0.0.0	
Tempo rimanente	0 h 0 min 0 s	
Stato connessione IPv4	Connessione in corso	<a href="#">Rinnovo</a>   <a href="#">Release</a>
Durata online IPv4	0 h 0 min 0 s	
Motivo di disconnessione	Nessuno	
WAN MAC	e0:19:54:aa:e2:ae	

4. Click **Refresh** to refresh the information.

## 4.1.2 Check the 3G Status

### Abstract

The section describes how to check the mobile network and 3G connection status.

### Steps

#### Check Mobile Network

1. On the main page of the H3140, select **Internet > WAN Status > 3G > Mobile Network** to the **Mobile Network** page. The signal strength can verify the network card is plugged, see [Figure 4-3](#).

**Figure 4-3 Mobile Network**



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

#### Check 3G Connection Status

3. On the main page of the H3140, select **Internet > WAN Status > 3G > 3G Connection Status** to the **3G Connection Status** page, see [Figure 4-4](#).

**Figure 4-4 3G Connection Status**



4. Click **Refresh** to refresh the information.

## 4.2 Configure the WAN

### 4.2.1 Configure the Ethernet Connection

### Abstract

This procedure describes how to configure a broadband connection (WAN connection) on the network side of the device, so that services (including data and videos) of users can be connected to the external network through routing or bridging.

## Steps

1. On the main page of the H3140, select **Internet > WAN > SFP/Ethernet** to the **Ethernet Connection** page and then click the **Create New Item**, see [Figure 4-5](#).

**Figure 4-5 Ethernet Connection page**

The screenshot displays the 'Connessione Ethernet' configuration page. It includes fields for connection name, type (Routing selected), service list (INTERNET, TR069, VoIP, IPTV checked), MTU (1492), line type (PPP), transfer method (PPPoE), PPP settings (username and password), IP version (IPv4), NAT (On selected), VLAN (Off selected), and application buttons (Applica, Annulla). A 'Create new element' button is also visible.

[Table 4-1](#) lists the new item parameters.

**Table 4-1 Parameter Descriptions for the Ethernet**

Parameter	Description
Connection Name	Name of the connection.
Type	The connection type includes Routing and Bridge Connection. In this case, Routing is selected.
Service List	Options: INTERNET, TR069, VoIP, IPTV. 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.
MTU	Define the maximum transfer unit.

Parameter	Description
	In this case, default value is 1500.
Link Type	There are two link types: PPP and IP.
PPP Transfer Type	In this case, default value is PPPoE.
<b>PPP</b>	
Username/Password	PPPoE user name and password. They are provided by the ISP.
IP Version	The IP version includes: IPv4 and IPv6 In this case, IPv4 is selected.
<b>IPv4</b>	
IP Type	By default, it is set to DHCP. Options: <ul style="list-style-type: none"><li>● DHCP: The DHCP server automatically allocates a dynamic IP address to the device.</li><li>● Static: You need to specify a static IP address for the device.</li></ul>
IP Address	IP Address of H3140.
Subnet Mask	Subnet mask of H3140.
Gateway	It is usually the IP address of the H3140 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.
NAT	Enable or disable the NAT function.
<b>IPv6</b>	
IPv6 Info Acquire Mode	Specifies how to acquire IPv6 information for the WAN connection. It is valid only if the WAN connection supports IPv6. The options are: <ul style="list-style-type: none"><li>● Manual :You need to set the global address, gateway, and DNS acquisition modes.</li><li>● Auto :The global address, gateway, and DNS acquisition modes are automatically configured.</li></ul>
Request PD	By default, the On button is selected.
Unnumbered Mode	By default, the On button is not selected. If it is selected, Specifies how to acquire the global IPv6 address.
GUA Allowed From	Specifies how to acquire the global IPv6 address. It is valid only when the IPv6 Info Get Mode parameter is set to be Manual Mode. Options:

Parameter	Description
	<ul style="list-style-type: none"> <li>● DHCPv6: The device acquires a global address through DHCPv6. If no option is selected, it indicates that no address acquisition mode is configured.</li> <li>● PD: You need to set a static IPv6 address.</li> <li>● SLAAC: The device generates a global address in accordance with the RA packets from the upper-layer server.</li> </ul>
GUA	Mode of obtaining global address.
Gateway	It is usually the IPv6 address of the H3140 device by default.
PD	Prefix Delegation.
DNS1–DNS3	IPv6 address of the DNS server for static connections. You can set up to three IPv6 addresses for the server. These IPv6 addresses are provided by the ISP.
VLAN	Specifies whether to carry a VLAN tag in the packets sent over the WAN connection. By default, <b>On</b> button is not selected. If it is selected, a VLAN tag is carried in the packets sent over the WAN connection, and the VLAN ID must be set.
VLAN ID	Identifies a VLAN. Range: 0–4094. To ensure normal service operation, the <b>VLAN ID</b> must be the same as that set in upper-layer MDU/DSLAM configuration.



### Note

In the H3140 provisioning, configure only one Internet-WAN connection and delete other WAN connections.

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

## 4.2.2 Configure the 3G

### Abstract

A Dongle device can be connected to H3140 through a USB interface. If the Dongle has a 3G (SIM) card inserted, the H3140 can access the Internet through the Dongle device.

### Contacts

Table 4-2 lists the 3G process of configuring the WAN connection.

**Table 4-2 3G Configuration Process**

Steps	Operation	Instructions
1	Insert 3G device.	Null.

Steps	Operation	Instructions
2	Check the 3G device status.	The signal strength can verify whether the network card is plugged.
3	Create a 3G WAN connection.	Click  <a href="#">Create New Item</a> on the page, and create a new 3G connection.
4	Check the 3G connection status.	The IP address getting from carries can verify that the 3G WAN Connection based on IPv4 was completed successfully.



### Note

What to do when 3G device is not ready?

1. Check whether the dongle is plugged in.
2. If the device is already plugged in, please check whether the USB is contacted well.
3. If the device is still unrecognized, maybe it has been damaged. Please replace the device.

### Steps

1. Insert 3G device.
2. On the main page of the H3140, select **Internet > WAN > 3G > Mobile Network** to the **Mobile Network** page. The signal strength can verify the network card is plugged, see [Figure 4-6](#).

**Figure 4-6 Mobile Network**



3. Click **Refresh** to refresh the information.
4. On the main page of the H3140, select **Internet > WAN > 3G** to the **3G Connection** page.

[Table 4-3](#) lists the **New Item** parameter. After the setup is complete, you can see the page , see [Figure 4-7](#).

**Figure 4-7 New 3G Connection****Table 4-3 New 3G Connection parameters**

Parameter	Description
Connection Name	Name the 3G connection.
PDP Type	There are two PDP types: <ul style="list-style-type: none"> <li>• IP</li> <li>• PPP</li> </ul>
APN	Set the communication standard of the access network to be used. For example "3GNET".
Dial Number	Dial Number. Different communication standards have different dial numbers.
MTU	Define the maximum transfer unit.
Username/Password	The Username/Password of new 3G connection.
Authentication Type	There are three authentication types: <ul style="list-style-type: none"> <li>• Auto</li> <li>• PAP</li> <li>• CHAP</li> </ul>
Connection Mode	There are two connection modes: <ul style="list-style-type: none"> <li>• Always On</li> <li>• On Demand</li> </ul>
Auto-disconnected without traffic	Setting this parameter when <b>Connection Mode</b> is <b>On Demand</b> .
NAT Switch	Select on/off NAT switch function.

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

## 4.3 Configure the QoS

### 4.3.1 Configure the QoS Global Parameters

#### Abstract

This procedure describes how to configure the function of **QoS** switch and other global parameters configuration. Packets that match no classification rules will be processed according to the default policy showed in this page.

#### Steps

1. On the main page of the H3140, select **Internet > QoS > QoS Global Configuration** to the **QoS Global Configuration** page, see [Figure 4-8](#).

**Figure 4-8 QoS Global Configuration page**



2. Set radiobox **On** to enable QoS function.
3. Click **Apply** button to apply the changes.

### 4.3.2 Configure the QoS Classification

#### Abstract

Different tags are added to packets to facilitate the upper-layer server to identify packets and the server to schedule packets based on tags.

For example, if the DSCP label packets are preferentially passed, other label packets have a lower priority. Different packets can also be marked with different flags for channels with different priorities.

#### Steps

1. On the main page of the H3140, select **Internet > QoS > Classification** to the **Classification** page.
2. Click to create new QoS classification, see [Figure 4-9](#).

**Figure 4-9 New QoS Classification Page**

▼ Classificazione

---

[Cosa considerare quando si configura la classificazione QoS?](#)

DSCP\_40
 On  Off

Nome	<input type="text" value="DSCP_40"/>
Priorità di classificazione	<input type="text" value="1"/>
<b>Criterio di classificazione dei pacchetti</b>	
Tutte le Interfacce	<input type="radio"/> On <input checked="" type="radio"/> Off
Ingresso	<input type="text" value="LAN"/>
Indirizzo MAC sorgente	<input type="text" value="00 : 00 : 00 : 00 : 00 : 00"/> <a href="#">Selezionare tra i dispositivi associati</a>
Indirizzo MAC di destinazione	<input type="text" value="00 : 00 : 00 : 00 : 00 : 00"/> <a href="#">Selezionare tra i dispositivi associati</a>
802.1p	<input type="text" value="Indifferente"/>
VLAN ID	<input type="text"/>
Protocollo di livello 2	<input type="text" value="Indifferente"/>
IP Sorgente	<input type="text"/> / <input type="text"/>
IP di destinazione	<input type="text"/> / <input type="text"/>
DSCP	<input type="text" value="40"/>
Protocollo di livello 3	<input type="text" value="Indifferente"/>
<b>Packets Classification Result</b>	
802.1p Re-marking	<input type="text" value="5"/>
DSCP Re-marking	<input type="text" value="Nessuna modifica (-1)"/>
Priorità di coda	<input type="text" value="1"/>

**Applica**
**Annulla**

Table 4-4 lists the QoS classification Configuration parameters.

**Table 4-4 Parameter Descriptions for the QoS Classification**

Parameter	Description
On/Off	Set radiobox <b>On</b> to enable the function of classification.
Name	To create a QoS classification, enter the name of the classification.
Classification Priority	It can be modified by ISP.
<b>Packets Classification Criterion</b>	
All Interface	Set radiobox <b>On</b> to enable all Interface.

Parameter	Description
Ingress	If setting radiobox <b>Off</b> to disable all Interface, specify the data traffic direction.
Source MAC Address	Source host MAC address.
Destination MAC Address	Destination host MAC address.
802.1p	Specify the 802.1p value to modify the service priority.
VLAN ID	Identifies a VLAN. Range: 0–4094. To ensure normal service operation, the <b>VLAN ID</b> must be the same as that set in upper-layer configuration.
Level 2 Protocol	The level 2 protocol includes: Unconcerned, IPv4, IPv6, <a href="#">ARP</a> and <a href="#">PPPoE</a> .
Source IP	Source host IP address.
Destination IP	Destination host IP address.
<a href="#">DSCP</a>	DSCP value.
Level 3 Protocol	The Level 3 Protocol includes: Unconcerned, <a href="#">TCP</a> , <a href="#">UDP</a> and <a href="#">ICMP</a> .
Source Port	Source port number of the matching packets.
Destination Port	Destination port number of the matching packets.
TCP ACK	Set radiobox <b>On</b> to enable the function of TCP ACK.
<b>Packets Classification Result</b>	
802.1p Re-marking	802.1p identifier value.
DSCP Re-marking	DSCP identifier.
Queue Priority	Range:1-8.

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

## 4.4 Configure the Security

### 4.4.1 Configure the Firewall Level

#### Abstract

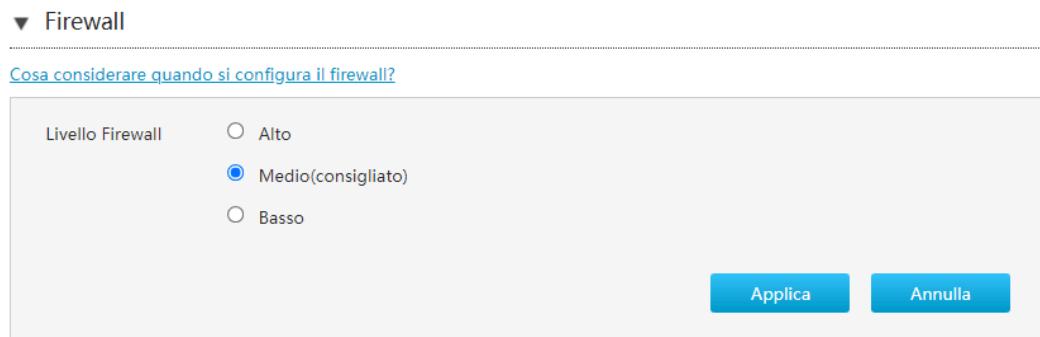
By configuring a firewall, you can improve the security performance of devices and avoid malicious access from external networks.

## Steps

### Configure the Firewall

1. On the main page of the H3140, select **Internet > Security > Firewall** to the **Firewall** page, see [Figure 4-10](#).

**Figure 4-10 Firewall Page**



2. Set the parameters. For a description of the parameters, refer to [Table 4-5](#).

**Table 4-5 Firewall Parameter Descriptions**

Parameter	Description
Enable	To enable the firewall level to be configured, select this check box.
Firewall Level	<ul style="list-style-type: none"><li>High: allows legal access from the WAN but forbids Internet devices from sending ping packets to the WAN interface of the H3140.</li><li>Middle(Recommended): allows legal access from the WAN and blocks dangerous data from the Internet.</li><li>Low: allows legal access from the WAN and allows Internet devices to send ping packets to the WAN interface of the H3140.</li></ul>

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

### Configure the Anti-Dos Attack

4. On the main page of the H3140, select **Internet > Security > Firewall** to the **Anti-DoS Attack** page, see [Figure 4-11](#).

**Figure 4-11 Anti-DoS Attack Page**

The screenshot shows a configuration page for 'Protezione attacchi DoS' (Anti-DoS). Under the 'Anti-PortScan' section, there is a note: 'La "Soglia" indica il numero massimo di connessioni TCP o UDP permesse da un host in WAN verso la CPE ogni 3 secondi.' (The 'Threshold' indicates the maximum number of TCP or UDP connections allowed from one host in WAN side to CPE itself every 3 seconds.) A checkbox labeled 'Abilitato' (Enabled) is checked, and the 'Soglia' (Threshold) is set to 100. At the bottom are 'Applica' (Apply) and 'Annulla' (Cancel) buttons.

- Set the parameters. For a description of the parameters, refer to [Table 4-6](#).

**Table 4-6 Anti-DoS Attack Parameter Descriptions**

Parameter	Description
Enable	To enable the Anti-PortScan to be configured, select this check box.
Threshold	"Threshold" means the maximum number of TCP or UDP connections from one host in WAN side to CPE itself every 3 seconds.

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

#### 4.4.2 Configure the Filter Criteria

##### Abstract

The section describes how to configure filter criteria, including MAC filter, URL filter, IP filter.

##### Steps

###### [Configure the Filter Switch and Mode Parameters](#)

- On the main page of the H3140, select **Internet > Security > Filter Criteria** to the **Filter Criteria** page.
- Click **Filter Switch and Mode Configuration** to the configuration page, see [Figure 4-12](#).

**Figure 4-12 Filter Switch and Mode Configuration Page**

▼ Configurazione filtro e modalità

Filtro URL       On  Off

Modalità      Black List

**Applica**      **Annulla**

- Configure filter switch and mode configuration parameters, see [Table 4-7](#).

**Table 4-7 Parameter Descriptions for the Filter Switch and Mode Configuration**

Parameter	Description
<a href="#">URL Filter</a>	Set radiobox <b>On</b> to enable the URL filter function.
Mode	Enable the URL filter function. There are two modes: <ul style="list-style-type: none"><li>● Black List Addresses in the <b>URL Filter</b> list are not allowed to access.</li><li>● White List Only addresses in the <b>URL Filter</b> list can be accessed.</li></ul>

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

### Configure the URL Filter

- Click **URL Filter** to open **URL Filter** page, see [Figure 4-13](#).

**Figure 4-13 URL Filter Page**

▼ Filtro URL

▼ Nuovo elemento

Nome     

URL     

**Applica**      **Annulla**

+ Creare nuovo elemento

- Table 4-8 lists the URL filter parameters.

**Table 4-8 Parameter Descriptions for the URL Filter**

Parameter	Description
Name	The name of the URL filter.
URL	The URL address.

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

### Configure the IP Filter

8. Click **IP Filter** to open the IP filter page, see [Figure 4-14](#).

**Figure 4-14 IP Filter Page**

9. [Table 4-9](#) lists the IPv4 filter parameters.

**Table 4-9 Parameter Descriptions for the IPv4 Filter**

Parameter	Description
On/Off	Set radiobox <b>On</b> to enable the function of IP filter.
Name	Name of the IP filter item. The name must be specified.
Target	Specify to discard or permit the data packages.
Rule Priority	Specify the value to modify the service priority.
IP Version	The IP version includes: Any, IPv4, IPv6.
Source IP/Destination IP	Source/Destination IP address.
Protocol	Select the protocol that needs to filter packets. By default, it is Any.
Ingress	Specify the data traffic direction. The Ingress option and egress option cannot be the same. <ul style="list-style-type: none"> <li>● If the ingress is LAN, the egress should be a WAN or 3G connection. The data traffic direction is upstream.</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>If the ingress is a WAN or 3G connection, the egress should be the LAN. The data traffic direction is downstream.</li> </ul>
Egress	<p>Specify the data traffic direction. The Ingress option and egress option cannot be the same.</p> <ul style="list-style-type: none"> <li>If the ingress is LAN, the egress should be a WAN or 3G connection. The data traffic direction is upstream.</li> <li>If the ingress is a WAN or 3G connection, the egress should be the LAN. The data traffic direction is downstream.</li> </ul>
DSCP	A DSCP is specified for the TOS byte in the IP header of each packet to indicate the priority. Range: 0–63.

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

#### 4.4.3 Configure the Local Service Control

##### Abstract

The procedure describes how to configure local service control, including local service control-IPv4 and local service control-IPv6.

##### Steps

###### Configure the Service Control-IPv4

- On the main page of the H3140, select **Internet > Security > Local Service Control** to the **Local Service Control** page.
- Click **Service Control-IPv4** to open **Service Control-IPv4** page and then click the **Create New Item**, see [Figure 4-15](#).

**Figure 4-15 Service Control-IPv4 Page**

## ▼ Controllo del servizio - IPv4

Nuovo elemento  On  Off

Nome	<input type="text"/>
Azione	<input checked="" type="radio"/> Permettere <input type="radio"/> Negare
Ingresso	WAN
Intervallo IP	0 . 0 . 0 . 0 ~ 0 . 0 . 0 . 0
Tipo servizio	<input checked="" type="checkbox"/> HTTPS

**Applica** **Annulla**

+ Creare nuovo elemento

3. Configure the service control-IPv4 parameters.

Table 4-10 lists the local service control-IPv4 parameters.

**Table 4-10 Parameter Descriptions for the Service Control-IPv4**

Parameter	Description
On/Off	Click <b>On</b> to enable the function. Click <b>Off</b> to disable the function.
Name	Name of the service control item. The name must be specified.
Target	Specify to discard or permit the data packages.
Ingress	Specify the data stream inbound direction, and this parameter must be specified. <ul style="list-style-type: none"> <li>● If the Ingress is WAN_All, all the WAN connection can access H3140.</li> <li>● If the Ingress is LAN, the LAN side can access H3140.</li> <li>● If the Ingress is a WAN or Route_3G connection, the connection selected can access H3140.</li> </ul>
IP Range	The IP 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.

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

**Configure the Service Control-IPv6**

5. Click **Service Control-IPv6** to open **Service Control-IPv6** page, see Figure 4-16.

**Figure 4-16 Service Control-IPv6 Page**

▼ Controllo del servizio - IPv6

Nuovo elemento		<input type="radio"/> On <input checked="" type="radio"/> Off	
Nome	<input type="text"/>		
Azione	<input checked="" type="radio"/> Permettere <input type="radio"/> Negare		
Ingresso	<input type="button" value="WAN"/>		
Prefisso	<input type="text"/>	/	<input type="text"/>
Tipo servizio	<input type="checkbox"/> HTTPS		
<b>Applica</b> <b>Annulla</b>			
<b>+ Creare nuovo elemento</b>			

Table 4-11 lists the Service Control-IPv6 parameters.

**Table 4-11 Parameter Descriptions for the Service Control-IPv6**

Parameter	Description
On/Off	Click <b>On</b> to enable the function. Click <b>Off</b> to disable the function.
Name	Name of the service control item. The name must be specified.
Target	Specify to discard or permit the data packages.
Ingress	Specify the data stream inbound direction, and this parameter must be specified. <ul style="list-style-type: none"> <li>● If the Ingress is WAN_All, all the WAN connection can access H3140.</li> <li>● If the Ingress is LAN, the LAN side can access H3140.</li> <li>● If the Ingress is a WAN or Route_3G connection, the connection selected can access H3140.</li> </ul>
Prefix	IPv6 address prefix.
Service Type	Type Specify the service that is permitted or denied to access.

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

#### Configure the Remote Service Port Control-IPv4

7. Click **Remote Service Port Control - IPv4** to open **Remote Service Port Control - IPv4** page, see Figure 4-17.

**Figure 4-17 Remote Service Port Control - IPv4 Page**

▼ Controllo porta servizio remoto - IPv4

HTTPS

**Aplica** **Annulla**

Table 4-12 lists the remote service port control - IPv4 parameters.

**Table 4-12 Parameter Descriptions for the Remote Service Port Control - IPv4**

Parameter	Description
HTTPS	The remote service port control of HTTPS, the default value is 443.

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

#### 4.4.4 Configure the ALG

##### Abstract

By turning on the ALG switch, H3140 can convert the private network address in the layer-4 information of the packet into a public network address, so that the external network cannot know the private network IP address, thus improving security.

##### Steps

- On the main page of the H3140, select **Internet > Security > ALG** to the **ALG** page, the page see [Figure 4-18](#).

**Figure 4-18 ALG Configuration Page**

▼ ALG

FTP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
H323 ALG	<input type="radio"/> On <input checked="" type="radio"/> Off
PPTP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
RTSP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
SIP ALG	<input type="radio"/> On <input checked="" type="radio"/> Off
TFTP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off

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**Aplica** **Annulla**

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



- Click **All On** to select all **ALG** services.
- Click **All Off** to cancel all **ALG** services.

#### 4.4.5 Configure the DMZ

##### Abstract

The **DMZ** full port mapping function is enabled through the configuration of DMZ, and the LAN host provides external services through the translation of destination address **DNAT**. By default, the system opens all ports.

##### Steps

1. On the main page of the H3140, select **Internet > Security > DMZ** to the **DMZ** page, the page see [Figure 4-19](#).

**Figure 4-19 DMZ Configuration Page**

A screenshot of a web-based configuration interface. At the top, there is a dropdown menu with '▼' and the text 'DMZ'. Below it is a form field with two radio buttons: 'On' (which is selected) and 'Off'. Underneath the radio buttons is a text input field labeled 'Host LAN' with an empty value. At the bottom right of the form are two buttons: 'Applica' (Apply) and 'Annulla' (Cancel).

[Table 4-13](#) lists the DMZ parameters.

**Table 4-13 Parameter Descriptions for the DMZ**

Parameter	Description
DMZ Switch	Enable or disable the <b>DMZ</b> host function.
LAN Host	The IP address or the MAC address of the computer at the LAN side.

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

#### 4.4.6 Configure the Port Forwarding

##### Abstract

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 H3140, select **Internet > Security > Port Forwarding** to the **Port Forwarding** page, and then click the **Create New Item**, the page see [Figure 4-20](#).

**Figure 4-20 Port Forwarding Configuration Page**

The screenshot shows a configuration interface for port forwarding. At the top, there is a dropdown menu labeled "▼ Port Forwarding". Below it, a link "Cosa considerare quando si configura il port forwarding?" is visible. The main area contains a form for creating a new rule:

- Nuovo elemento**: A section with a "Nome" field (empty), a "Protocollo" dropdown set to "TCP", and a "Indirizzo IP Host Remoto" field containing "0 . 0 . 0 . 0 ~ 0 . 0 . 0 . 0".
- Host LAN**: A field containing an empty IP address.
- Porta WAN**: A field containing an empty IP address followed by a colon and another empty field.
- Porta host LAN**: A field containing an empty IP address.

At the bottom right are "Applica" and "Annulla" buttons, and at the bottom left is a "Creare nuovo elemento" button.

2. Configure the Port Forwarding parameters.

[Table 4-14](#) lists the Port Forwarding settings parameters.

**Table 4-14 Parameter Descriptions for the Port Forwarding**

Parameter	Description
On/Off	Set radiobox <b>On</b> to enable the port forwarding function.
Name	Virtual host name, which cannot be null.
Protocol	Protocol name, including TCP, UDP, TCP AND UDP. The default protocol is TCP.

Parameter	Description
WAN Host IP Address	IP address segment of the WAN-side hosts.
LAN Host	IP address of the LAN-side host.
WAN Port	Port segment of the WAN-side hosts.
LAN Host Port	Port number of the LAN-side host. Range: 1-65535.

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

## 4.5 Configure the Parental Controls

### Abstract

By creating new parental controls rules, you can effectively control the internet access time of terminals and access websites.

### Steps

- On the main page of the H3140, select **Internet > Parental Controls** to the **Parental Controls** page and then click the **Create New Item**, see [Figure 4-21](#).

**Figure 4-21 Parental Controls**

▼ Parental Control

**Nuovo elemento**  On  Off Delete

Nome	<input type="text"/>
MAC utente	<input type="text"/> : <input type="text"/> Selezionare tra i dispositivi associati
<b>Time Policy</b>	
Giorni	<input type="checkbox"/> Ogni giorno <input type="checkbox"/> Dom. <input type="checkbox"/> Lun. <input type="checkbox"/> Mar. <input type="checkbox"/> Mer. <input type="checkbox"/> Gio. <input type="checkbox"/> Ven. <input type="checkbox"/> Sab.
Durata	00 <input type="button" value="h"/> 00 <input type="button" value="min"/> ~ 23 <input type="button" value="h"/> 59 <input type="button" value="min"/> <span style="color: blue;">Tutto il giorno (24h)</span>
Azione	<input type="button" value="Divieto di accesso a Internet"/>
<input type="button" value="Applica"/> <input type="button" value="Annulla"/>	
<span style="color: blue;">+ Create new element</span>	

- Configure the parental controls parameters.

[Table 4-15](#) lists the parental controls parameters.

**Table 4-15 Parental Controls Parameters**

Parameter	Description
On/Off	Click <b>On</b> to enable the parental controls function.

Parameter	Description
Name	The name of parental control.
User Identity	Configure the user information according to the IP address or MAC address. If the <b>All user</b> option is selected, all the users that use the H3140 device are included.
Days	Specify the days when the parent control settings are applied.
Duration	Specify the time when the parent control settings are applied.
Action	The device supports: <ul style="list-style-type: none"><li>● Ban Internet Access</li><li>● URL Black List Addresses in the <b>URL Filter</b> list are not allowed to access.</li><li>● URL White List Only addresses in the <b>URL Filter</b> list can be accessed.</li></ul>

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

## 4.6 Configure the DDNS

### Abstract

**DDNS** can establish the binding relationship between the static domain name and the dynamic IP address of the host corresponding to the domain name, and map the dynamic IP address of the user to a fixed domain name resolution service. Each time when a user connects to the network, the client program transfers the dynamic IP address of the host to the specified server through information transmission. The server provides the DNS service and implements dynamic domain name resolution.

### Steps

1. On the main page of the H3140, select **Internet > DDNS** to the **DDNS** page, see [Figure 4-22](#).

**Figure 4-22 DDNS Configuration Page**

The screenshot shows a configuration interface for DDNS. At the top, a dropdown menu is set to 'DynDNS.com'. Below it, a radio button for 'On' is selected. The 'Provider URL' field contains 'http://www.dyndns.com'. There are three empty input fields for 'Username', 'Password', and 'Nome Host'. Under 'Stato', there is a note 'Servizio non pronto'. The 'Info' section also says 'Servizio non pronto'. At the bottom right are two buttons: 'Applica' (Apply) and 'Annulla' (Cancel).

- Configure the DDNS parameters.

**Table 4-16** lists the DDNS parameters.

**Table 4-16 Parameter Descriptions for the DDNS**

Parameter	Description
Provider	Supported provider. Options: DynDNS, DtDNS, No-IP, easyDNS, freedns and TZO. If the DtDNS is selected, the <b>WAN Connection</b> should be configured.
DDNS	DDNS Switch. Click <b>On</b> to enable the DDNS function.
Provider URL	The URL of provider. <ul style="list-style-type: none"> <li>● If the DynDNS HTTP is used, the URL is <a href="http://www.dyndns.com">http://www.dyndns.com</a>.</li> <li>● If the DtDNS HTTP is used, the URL is <a href="http://www.dtdns.org">http://www.dtdns.org</a>.</li> <li>● If the No-IP HTTP is used, the URL is <a href="http://www.no-ip.com">http://www.no-ip.com</a>.</li> <li>● If the easyDNS HTTP is used, the URL is <a href="http://www.easysdns.com">http://www.easysdns.com</a>.</li> <li>● If the freedns HTTP is used, the URL is <a href="http://freedns.afraid.org">http://freedns.afraid.org</a>.</li> <li>● If the TZO HTTP is used, the URL is <a href="http://www.tzo.com">http://www.tzo.com</a>.</li> </ul>
Username	The username for accessing the DDNS server. This parameter must be the same as that configured on the DNS server.
Password	The password for accessing the DDNS server. This parameter must be the same as that configured on the DNS server.
Host name	Host name corresponding to the user.

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

## 4.7 Configure the SNTP

### Abstract

Set the H3140 clock synchronization server information and time zone information so that the user can see that the system time is consistent with the local time.

### Steps

1. On the main page of the H3140, select **Internet > SNTP** to the **SNTP** page, see [Figure 4-23](#).

**Figure 4-23 SNTP Configuration Page**

The screenshot shows the SNTP configuration page with the following settings:

- Data e ora corrente: 01-01-1970 00:24:12
- Fuso orario: (GMT+01:00) Amsterdam, Berlino, Bern
- Server NTP1: 0.europe.pool.ntp.org
- Server NTP2: 1.europe.pool.ntp.org
- Server NTP3: 2.europe.pool.ntp.org
- Server NTP4: 3.europe.pool.ntp.org
- Server NTP5: (empty)
- Intervallo Poll: 86400 s
- Regolazione automatica dell'orologio per:  On  Off
- I'ora legale: (empty)
- DSCP: (empty)

Buttons at the bottom: **Applica** and **Annulla**.

2. Configure the SNTP parameters.

[Table 4-17](#) lists the SNTP parameters.

**Table 4-17 Parameter Descriptions for the SNTP**

Parameter	Description
Time Zone	Time zone where the device is located.
NTP Server1 ~ NTP Server5	IP address of the primary/secondary/third/fourth/fifth NTP server.
Poll Interval	Interval of time synchronization. Unit: second.
Automatically Adjust Clock For Daylight	Enable or disable the automatically adjust clock for daylight function.
DSCP	To ensure the QoS of communication, <b>DSCP</b> (Differentiated Services Code Point) encodes the 8 flag bytes in the IP

Parameter	Description
	header of data packets to classify service types and distinguish service priorities. The value range of DSCP is 0~63 and each DSCP code value is mapped to a defined <b>PHB</b> (Per Hop Behavior) code.

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

## 4.8 Configure the Multicast

### 4.8.1 Configure the IGMP

#### Abstract

The **IGMP** function in the IGMP PROXY mode is to act as agent for the IGMP packets sent by the **OLT** equipment and forward them according to the information in the packets.

#### Steps

- On the main page of the H3140, select **Internet > Multicast > IGMP** to the **IGMP** page, see [Figure 4-24](#).

**Figure 4-24 IGMP Configuration Page**



- Enable the IGMP functions, see [Table 4-18](#).

**Table 4-18 Parameter Descriptions for the IGMP**

Parameter	Description
IGMP Proxy	The system serves as a proxy server to forward IGMP packets from the <b>MDU/DSLAM</b> to other devices.

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

### 4.8.2 Configure the MLD

#### Abstract

When the **MLD** proxy function is enabled on H3140, H3140 can enable the proxy downstream host to send MLD messages and maintain the group member relationship, and

forward IPv6 multicast based on the relationship. In the upstream device's view, H3140 (also called MLD proxy device) with the MLD proxy function is no longer an IPv6 PIM neighbor, but only a host.

### Steps

1. On the main page of the H3140, select **Internet > Multicast > MLD** to the **MLD** page, see [Figure 4-25](#).

**Figure 4-25 MLD Configuration Page**



2. Enable the MLD functions, see [Table 4-19](#).

**Table 4-19 Parameter Descriptions for the MLD**

Parameter	Description
Proxy MLD	The system serves as a proxy server to forward MLD packets from the MDU/DSLAM to other devices.

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

# Chapter 5

# Configure the Local Network

---

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## 5.1 Check the Local Network Status

### Abstract

The section describes how to check the status of Local Network. The relevant information of Local Network status includes **LAN Status**, **WLAN Status**, **WLAN Client Status**, **LAN Client Status** and **USB Storage Status**.

### Steps

1. On the main page of the H3140, select **Local Network > Status** to the **Local Network Status** page, see [Figure 5-1](#).

**Figure 5-1 Local Network Status Page**

Informazioni sulla pagina

Questa pagina mostra lo stato della LAN.

► Stato WLAN

► Stato LAN

► Stato LAN pubblico

► Stato client WLAN

► Stato client LAN

► Stato dispositivi USB

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

## 5.2 Configure the WLAN

### 5.2.1 Configure the Basic Parameters of the WLAN

#### Abstract

This page describes the basic functions of the WLAN, including wireless switch on/off, mode selection, channel selection, rate adjustment and transmit power adjustment.

#### Steps

##### Enable or Disable the WLAN Function

1. On the main page of the H3140, select **Local Network > WLAN > WLAN Basic** to the **WLAN Basic** page, see [Figure 5-2](#).

**Figure 5-2 WLAN On/Off Configuration**

▼ Attivazione WLAN

WLAN (2.4GHz)  On  Off  
WLAN (5GHz)  On  Off

Applica

Annulla

2. [Table 5-1](#) lists the WLAN on/off configuration parameters.

**Table 5-1 WLAN On/Off Configuration parameters**

Parameter	Description
WLAN (2.4GHz)	Click <b>On</b> to enable the 2.4 GHz wireless function. Click <b>Off</b> to disable the 2.4 GHz wireless function.
WLAN (5GHz)	Click <b>On</b> to enable the 5 GHz wireless function. Click <b>Off</b> to disable the 5 GHz wireless function.

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

#### Configure the WLAN Global Parameters

4. Click **WLAN Global Configuration** to the configuration page, see [Figure 5-3](#).

**Figure 5-3 WLAN Global Configuration Page**

▼ Configurazione globale WLAN

▼ 2.4GHz

Canale	Auto
Modalità	Wi-Fi 6 Mixed (IEEE 802.11b/g/n/ax)
Larghezza di banda	Auto
SGI	<input checked="" type="radio"/> On <input type="radio"/> Off
Beacon Interval	100 ms
Potenza di trasmissione	100%

**Applica** **Annulla**

► 5GHz

5. [Table 5-2](#) lists the WLAN global configuration parameters.

**Table 5-2 Parameter Descriptions for WLAN Global Configuration**

Parameter	Description
Channel	Channel of the wireless network. A proper channel can be selected in accordance with the country code. Options: Auto, 1 - 13, default: 13. Specifies the channel used for communication between the AP and the wireless site, depending on the local circumstance.
Mode	Options: <ul style="list-style-type: none"><li>● IEEE 802.11b Only</li><li>● IEEE 802.11g Only</li><li>● Wi-Fi 4 (IEEE 802.11n Only)</li><li>● Mixed (IEEE 802.11b/g)</li><li>● Wi-Fi 4 Mixed (IEEE 802.11g/n)</li><li>● Wi-Fi 4 Mixed (IEEE 802.11b/g/n)</li><li>● Wi-Fi 6 Mixed (IEEE 802.11b/g/n/ax)</li></ul>

Parameter	Description
Band Width	Radio frequency bandwidth, including Auto, 20 Mhz and 40 Mhz. Default: Auto.
SGI	Enable or disable <b>SGI</b> function.
Beacon Interval	Interval for transmitting beacon frames, default: 100 ms. Beacon frames are used for communicating with other AP devices or network control devices to announce the WLAN presence.
Transmitting Power	Level of radio signal transmitting power. A larger value indicates wider coverage and the larger the value, the stronger the radio signal. Options: <ul style="list-style-type: none"><li>● 100%</li><li>● 80%</li><li>● 60%</li><li>● 40%</li><li>● 20%</li></ul>

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



#### Note

WLAN global configuration (5 GHz) refers to WLAN global configuration (2.4 GHz).

### Configure the Private WLAN SSID Configuration

7. Click **Private WLAN SSID Configuration** to the configuration page, see [Figure 5-4](#).

[Figure 5-4 Private WLAN SSID Configuration Page](#)

▼ Configurazione WLAN privata

[Come configurare gli Access Point Wi-Fi privati "Wi-Fi 2.4GHz" e "Wi-Fi 5GHz" separatamente?](#)

▼ Wi-Fi 2.4GHz&5GHz

Abilitazione Wi-Fi	<input checked="" type="checkbox"/> 2.4GHz <input checked="" type="checkbox"/> 5GHz
Nome SSID	<input type="text" value="SSID1"/>
Nascondi SSID	<input type="radio"/> Si <input checked="" type="radio"/> No
Tipo crittografia	<input type="button" value="WPA2-PSK-AES"/>
Passphrase WPA	<input type="text" value="....."/> <input type="checkbox"/> mostra password
Massimo numero di client	<input type="text" value="64"/>
<input type="button" value="Applica"/> <input type="button" value="Annulla"/>	

8. [Table 5-3](#) lists the private WLAN SSID configuration parameters.

**Table 5-3 Parameter Descriptions for the Private WLAN SSID Configuration**

Parameter	Description
SSID Name	The name of SSID.
SSID Hide	Set radiobox <b>On</b> to hide the SSID information to prevent illegal users.
Encryption Type	Select Encryption Type.
<b>WPA</b> Passphrase	Password to connect to the wireless network. The value range is 8 - 63.
Maximum Clients	Maximum number of users that can access the SSID. The value range is 1 - 64.

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

**Note**

Guest WLAN SSID Configuration refers to Private WLAN SSID Configuration.

## 5.2.2 Configure the Advanced Parameters of the WLAN

### Abstract

**WLAN Advanced** provides the parameters of WLAN Advanced configuration features.

### Steps

#### Access Control-Mode Settings

1. On the main page of the H3140, select **Local Network > WLAN > WLAN Advanced** to the **WLAN Advanced** page.
2. Click **Access Control-Mode Configuration** the configuration page, see [Figure 5-5](#).

**Figure 5-5 Access Control-Mode Configuration Page**

▼ Controllo accesso-Modalità di Configurazione

- |                    |  |                                  |                                  |
|--------------------|--|----------------------------------|----------------------------------|
| Wi-Fi 2.4GHz&5GHz  | <input checked="" type="radio"/> Nessun filtro | <input type="radio"/> Black List | <input type="radio"/> White List |
| Wi-Fi-Guest 2.4GHz | <input checked="" type="radio"/> Nessun filtro | <input type="radio"/> Black List | <input type="radio"/> White List |
| Wi-Fi-Guest 5GHz   | <input checked="" type="radio"/> Nessun filtro | <input type="radio"/> Black List | <input type="radio"/> White List |

**Applica**

**Annulla**

3. Configure the access control-mode configuration parameters.

[Table 5-4](#) lists the access control-mode configuration parameters.

**Table 5-4 Access Control-Mode configuration parameters**

Parameter	Description
No Filter	No filter is to be applied (the default).
Black 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.

### Access Control-Rule Configuration

5. Click **Access Control-Rule Configuration** to the configuration page, see [Figure 5-6](#).

**Figure 5-6 Access Control-Rule Settings**

▼ Controllo accesso-Configurazione Regola

[Cosa considerare quando si configurano le regole per controllare gli accessi?](#)

The screenshot shows a configuration dialog for a new access control rule. At the top, there's a header 'Nuovo elemento' (New element). Below it, there are three main input fields: 'Nome' (Name) with a placeholder box, 'Indirizzo MAC' (MAC Address) with a field containing a colon-separated MAC address and a dropdown menu for selecting associated devices, and 'SSID' (Network Name) with a dropdown menu set to 'Wi-Fi 2.4GHz&5GHz'. At the bottom right are two buttons: 'Applica' (Apply) and 'Annulla' (Cancel). At the very bottom left is a link 'Creare nuovo elemento' (Create new element).

6. Configure the access control-rule configuration parameters. [Table 5-5](#) lists the access control-rule configuration parameters.

**Table 5-5 Access Control-Rule Configuration parameters**

Parameter	Description
Name	The name of access control item.
MAC Address	The <a href="#">MAC</a> address of the wireless device. We suggest to set the MAC addresses in access control list using a wireline connected device. Modifying the list using a wireless device may cause unexpected disconnection of the device used.
SSID	SSID name corresponding to the wireless network that the rule is applied to. The default value is Wi-Fi 2.4GHz&5GHz.

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

### 5.2.3 Configure the BSS Steering

#### Abstract

Easy Mesh is the latest wireless network standard launched by the Wi-Fi alliance. It enables the MESH products produced by different manufacturers to interwork with each other.

Band Steering is a feature that encourages dual-band capable wireless clients to connect to the faster 5GHz Wi-Fi, and leave the 2.4GHz Wi-Fi less-crowded for those clients who support 2.4GHz only, therefore to improve Wi-Fi performance for all the clients.

#### Steps

1. On the main page of the H3140, select **Local Network > WLAN > BSS Steering** to the **BSS Steering** page, see [Figure 5-7](#).

**Figure 5-7 BSS Steering**

▼ Configurazione Band Steering & Easy Mesh

Easy Mesh	<input type="radio"/> On <input checked="" type="radio"/> Off
Band Steering	<input checked="" type="radio"/> On <input type="radio"/> Off
<input type="button" value="Applica"/> <input type="button" value="Annulla"/>	

2. Enable the functions, see [Table 5-6](#).

**Table 5-6 Parameter Descriptions for the BSS Steering**

Parameter	Description
Easy Mesh	H3140 support the Easy Mesh standard or not.
Band Steering	H3140 support the Band Steering or not.

3. Click **On** to enable the function and click **Apply** to refresh the information.

### 5.2.4 Configure the Wi-Fi Scheduler

#### Abstract

The section describes how to configure Wi-Fi scheduler function.

#### Steps

1. On the main page of the H3140, select **Local Network > WLAN > Wi-Fi Scheduler** to the **Wi-Fi Scheduler** page, see [Figure 5-8](#).

**Figure 5-8 Wi-Fi Scheduler**

▼ Wi-Fi Scheduler

**Time Policy**

Wi-Fi Scheduler	<input type="radio"/> On <input checked="" type="radio"/> Off
Giorni	<input checked="" type="checkbox"/> Ogni giorno <input type="checkbox"/> Dom. <input type="checkbox"/> Lun. <input type="checkbox"/> Mar. <input type="checkbox"/> Merc. <input type="checkbox"/> Gio. <input type="checkbox"/> Ven. <input type="checkbox"/> Sab.
Durata	00 <input type="button" value="▼"/> h 00 <input type="button" value="▼"/> min ~ 06 <input type="button" value="▼"/> h 00 <input type="button" value="▼"/> min <b>Tutto il giorno (24h)</b>
Azione	<input type="button" value="Wi-Fi Radio Off"/>

- Configure the Wi-Fi scheduler parameters.

Table 5-7 lists the Wi-Fi scheduler parameters.

**Table 5-7 Wi-Fi Scheduler Parameters**

Parameter	Description
Wi-Fi Scheduler	Enable or disable the Wi-Fi scheduler function.
Days	Specify the days when the Wi-Fi scheduler settings are applied.
Duration	Specify the time when the Wi-Fi scheduler settings are applied.
Action	The device supports: <ul style="list-style-type: none"> <li>Wi-Fi Radio Off</li> <li>Wi-Fi Radio On</li> </ul>

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

## 5.3 Configure the LAN

### 5.3.1 Configure the LAN(IPv4)

#### Abstract

The section describes how to configure LAN(IPv4).

The relevant information of Internet status includes **Allocated Address(DHCP)**, **DHCP Server** and **DHCP Binding**.

#### Steps

##### [Configure Allocated Address\(DHCP\)](#)

- On the main page of the H3140, select **Local Network > LAN > IPv4** to the **IPv4** page.

2. Click **Allocated Address(DHCP)** to the configuration, see [Figure 5-9](#).

**Figure 5-9 Allocated Address(DHCP) Page**

▼ Indirizzo assegnato (DHCP)

Nome Host	Indirizzo MAC	Indirizzo IP	Porta	Tempo rimanente
A23329747	dc:4a:3e:45:d0:dd	192.168.1.3	LAN3	23h 52min 37s

[Aggiorna](#)

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

[Configure DHCP Server](#)

4. Click **DHCP Server** to the configuration, see [Figure 5-10](#).

**Figure 5-10 DHCP Server(IPv4) Page**

▼ Server DHCP

[Cosa tenere in considerazione nel caso in cui venga modificato uno dei parametri del server DHCP:](#)

<p>Server DHCP</p> <p><input checked="" type="radio"/> On <input type="radio"/> Off</p> <p>Indirizzo IP LAN      <input type="text" value="192.168.1.1"/></p> <p>Subnet Mask      <input type="text" value="255.255.255.0"/></p> <p>Indirizzo IP inizio DHCP      <input type="text" value="192.168.1.1"/></p> <p>Indirizzo IP fine DHCP      <input type="text" value="192.168.1.254"/></p> <p>ISP DNS      <input type="radio"/> On <input checked="" type="radio"/> Off</p> <p>DNS primario      <input type="text" value="0.0.0.0"/></p> <p>DNS secondario      <input type="text" value="0.0.0.0"/></p> <p>Modalità Lease Time      <input type="text" value="Client"/> ▾</p> <p>Lease Time personalizzato      <input type="text" value="86400"/> s</p> <p>DHCP Server-Guest SSID 2.4G</p> <p><input checked="" type="radio"/> On <input type="radio"/> Off</p> <p>Indirizzo IP LAN      <input type="text" value="192.168.168.1"/></p> <p>Subnet Mask      <input type="text" value="255.255.255.128"/></p> <p>Indirizzo IP inizio DHCP      <input type="text" value="192.168.168.1"/></p> <p>Indirizzo IP fine DHCP      <input type="text" value="192.168.168.126"/></p> <p>DHCP Server-Guest SSID 5G</p> <p><input checked="" type="radio"/> On <input type="radio"/> Off</p> <p>Indirizzo IP LAN      <input type="text" value="192.168.168.129"/></p> <p>Subnet Mask      <input type="text" value="255.255.255.128"/></p> <p>Indirizzo IP inizio DHCP      <input type="text" value="192.168.168.129"/></p> <p>Indirizzo IP fine DHCP      <input type="text" value="192.168.168.254"/></p>	<p><a href="#">Applica</a></p> <p><a href="#">Annulla</a></p>
---	---

- Configure the DHCP server parameters.

[Table 5-8](#) lists the DHCP server parameters.

**Table 5-8 Parameter Descriptions for the DHCP Server**

Parameter	Description
DHCP Server	Select <b>On</b> to let the device work as a DHCP server and assign IP addresses to open the client PCs or wireless devices.
LAN IP Address	The IPv4 address of LAN.
Subnet Mask	Subnet mask of the device.
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.
ISP DNS	Select the <b>On</b> check box to let the Assign IspDNS work.
Primary DNS	IP address of the DNS server, provided by ISP.
Secondary DNS	IP address 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 address assigned by the DHCP server. After the lease time expires, the private IP address will be available for assigning to other network devices.

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

### Configure DHCP Binding

- Click **DHCP Binding** to the configuration, see [Figure 5-11](#).

**Figure 5-11 DHCP Binding Page**

▼ Indirizzi IP statici

Nuovo elemento	
Nome	<input type="text"/>
Indirizzo IP	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>
Indirizzo MAC	<input type="text"/> : <input type="text"/>
Selezionare tra i dispositivi associati	
<input type="button" value="Applica"/> <input type="button" value="Annulla"/> <input type="button" value="Creare nuovo elemento"/>	

- Configure the DHCP Binding parameters.

[Table 5-9](#) lists the DHCP binding parameters.

**Table 5-9 Parameter Descriptions for the DHCP Binding**

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

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

### 5.3.2 Configure the LAN(IPv6)

#### Abstract

The section describes how to configure LAN(IPv6).

The relevant information of Internet status includes **Allocated Address(DHC Pv6)**, **LAN Address Management**, **Static Prefix**, **DHC Pv6 Server**, **RA Service**.

#### Prerequisite

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

#### Steps

##### Configure Allocated Address(DHC Pv6)

- On the main page of the H3140, select **Local Network > LAN > IPv6 to the IPv6** page.
- Click **Allocated Address (DHC Pv6)** to the configuration page, see [Figure 5-12](#).

**Figure 5-12 Allocated Address(DHC Pv6) Page**

▼ Indirizzo assegnato (DHC Pv6)

Al momento, non sono presenti dati.

Aggiorna

- Click **Refresh** to refresh the information.

##### Configure LAN Address Management

- Click **LAN Address Management** to the configuration page, see [Figure 5-13](#).

**Figure 5-13 LAN Address Management Page**

▼ Gestione indirizzo LAN

Indirizzo IPv6 LAN	<input type="text"/>
<input type="button" value="Applica"/> <input type="button" value="Annulla"/>	

- Configure the LAN address parameters. [Table 5-10](#) lists the LAN address parameters.

**Table 5-10 Parameter Descriptions for the LAN Address**

Parameter	Description
LAN IPv6 Address	The IPv6 address of LAN.

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

### Configure Static Prefix

- Click **Static Prefix** to the configuration page, see [Figure 5-14](#).

**Figure 5-14 Static Prefix Page**

▼ Prefisso statico

<b>Nuovo elemento</b> <span style="float: right;">Delete</span>	
Nome	<input type="text"/>
Prefisso	<input type="text"/> / <input type="text" value="64"/>
<input type="button" value="Applica"/> <input type="button" value="Annulla"/>	
<input type="button" value="+ Creare nuovo elemento"/>	

- Configure the static prefix parameters. [Table 5-11](#) lists the static prefix parameters.

**Table 5-11 Parameter Descriptions for the Static Prefix**

Parameter	Description
Name	The name of the prefix.
Prefix	IPv6 address and prefix length. Only a GUA prefix is supported. Prefix length: 64.

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

### Configure DHCPv6 Server

- Click **DHCPv6 Server** to the configuration page, see [Figure 5-15](#).

**Figure 5-15 DHCPv6 Server Page**

▼ Server DHCPv6

Cosa tenere in considerazione quando si configura un server DHCPv6?

Server DHCPv6	<input type="radio"/> On <input checked="" type="radio"/> Off
Tipologia di DNS	<input checked="" type="radio"/> Auto <input type="radio"/> Manuale
delegato:	
Tempo di aggiornamento DNS	86400 s
Prefix Delegate Type	Auto
<b>Applica</b> <b>Annulla</b>	

11. Configure the DHCPv6 server parameters.

Table 5-12 lists the DHCPv6 server parameters.

**Table 5-12 Parameter Descriptions for the DHCPv6 Server**

Parameter	Description
DHCPv6 Server	Select <b>On</b> to let the device work as a DHCP server and assign IP addresses to the client PCs or wireless devices.
DNS Delegate Type	<ul style="list-style-type: none"> <li>● Auto: One DNS selected automatically from all the available DNS will be delegated.</li> <li>● Manual: One or more DNSs selected manually from all the DNSs configured before will be delegated.</li> </ul>
DNS Refresh Time	<p>The time during which the client PCs use the IP addresses assigned by the DHCP server.</p> <p>After the lease time expires, the private IP address will be available for assigning to other network devices.</p>
Prefix Delegate Type	<ul style="list-style-type: none"> <li>● Auto: One prefix selected automatically from all the available prefixes will be delegated.</li> <li>● Manual: One or more prefixes selected manually from all the static prefixes configured before will be delegated.</li> <li>● Disabled: No prefix will be delegated.</li> </ul>

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

### Configure RA Service

13. Click **RA Service** to the configuration page, see Figure 5-16.

**Figure 5-16 RA Service Page**

▼ Servizio RA

Cosa si dovrebbe notare quando si configura il servizio RA?

Servizio RA	<input checked="" type="radio"/> On <input type="radio"/> Off
Specificare MTU	<input type="radio"/> On <input checked="" type="radio"/> Off
Preferenza	Medio
Intervallo minimo retry	200 s
Intervallo massimo retry	600 s
M	<input type="radio"/> On <input checked="" type="radio"/> Off
O	<input checked="" type="radio"/> On <input type="radio"/> Off
Prefix Delegate Type	Auto

**Applica** **Annulla**

14. Configure the **RA** service parameters. **Table 5-13** lists the RA service parameters.

**Table 5-13 Parameter Descriptions for the RA Service**

Parameter	Description
RA Service	Enable or disable the RA service function.
Specify MTU	If <b>On</b> button is selected, enter the MTU value.
MTU	Define the maximum transfer unit.
Preference	By default, the preference is Middle.
Min Retry Interval	The minimum time allowed between sending unsolicited multi-cast Router Advertisements from the interface. (The value must not be greater than $0.75 \times (\text{Maximum Retry Interval})$ ).
Max Retry Interval	maximum time allowed between sending unsolicited multicast Router Advertisements from the interface.
M	Managed flag. Select this check box to enable the connected devices to obtain the IPv6 address through DHCP IPv6.
O	Other configure flag. Select this check box to enable the connected devices to obtain DNS address through DHCP IPv6.
Prefix Delegate Type	<ul style="list-style-type: none"> <li>● AutoSense: All the available prefixes will be delegated.</li> <li>● Manual: One or more prefixes selected manually from all the static prefixes configured before will be delegated.</li> </ul>

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

### 5.3.3 Configure the eDNS0

#### Abstract

eDNS0 (extension Mechanisms for DNS Version 0) is an extension of DNS on the basis of RFC 1035. eDNS0 Allows the DNS requester to publicize the size of its UDP packets and make it easier to transmit packets larger than 512 bytes.

#### Steps

1. On the main page of the H3140, select **Local Network > LAN > eDNS0** to the **eDNS0** page, see [Figure 5-17](#)

**Figure 5-17 eDNS0 Page**



2. Click **On** to enable the eDNS0 function and click **Apply** button to apply the changes.

## 5.4 Configure the Route

### 5.4.1 Configure the Routing (IPv4)

#### Abstract

The section describes how to configure routing (IPv4), which 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 routing (IPv4), make sure that the IPv4 WAN connection is created.

#### Steps

##### [Configure Routing Table](#)

1. On the main page of the H3140, select **Local Network > Routing > IPv4** to the **Routing(IPv4)** page.
2. Click **Routing Table** to the configuration page, see [Figure 5-18](#).

**Figure 5-18 Routing Table Page**

▼ Tabella di Routing

Indirizzo Rete	Subnet Mask	Gateway	Interfaccia
192.168.1.0	255.255.255.0	0.0.0.0	LAN
192.168.168.0	255.255.255.128	0.0.0.0	LAN
192.168.168.128	255.255.255.128	0.0.0.0	LAN

[Aggiorna](#)

- Click **Refresh** to refresh the information.

### Configure Static Routing

- Click **Static Routing** to the configuration page and then click the **Create New Item**, see [Figure 5-19](#).

**Figure 5-19 Static Routing Page**

▼ Routing statico

[cosa tenere in considerazione per procedere alla configurazione di una rotta statica?](#)

▼ Nuovo elemento Delete

Nome	<input type="text"/>
Uscita	<input type="button" value="Si prega di selezionar"/>
Indirizzo Rete	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>
Subnet Mask	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>
Gateway	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>

[Applica](#) [Annulla](#)

[+ Creare nuovo elemento](#)

- Configure the static routing parameters. [Table 5-14](#) lists the static routing parameters.

**Table 5-14 Parameter Descriptions for the Static Routing**

Parameter	Description
Name	The name of static routing entry.
Egress	WAN connection for static routing.
Network Address	IPv4 address of the destination network.
Subnet Mask	Subnet mask of the destination network.
Gateway	The next-hop IPv4 address to the destination network.

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

### Configure Policy Routing

7. Click **Policy Routing** to the configuration page and then click the **Create New Item**, see [Figure 5-20](#).

**Figure 5-20 Policy Routing Page**

▼ Politica di Routing

The screenshot shows a configuration interface for policy routing. At the top, there's a header 'Nuovo elemento' with a trash icon. Below it is a form with the following fields:

- Nome: A text input field.
- Uscita: A dropdown menu showing 'Si prega di selezionare'.
- Indirizzo IP di origine: Four input fields for IP address segments.
- Maschera di origine: Four input fields for subnet mask segments.
- Indirizzo IP di destinazione: Four input fields for destination IP address segments.
- Mask di destinazione: Four input fields for destination subnet mask segments.
- Protocollo: A dropdown menu showing 'Qualsiasi'.
- Indirizzo MAC sorgente: Six input fields for source MAC address segments.

Below the form is a link 'Selezionare tra i dispositivi associati'. At the bottom are two buttons: 'Applica' (Apply) and 'Annulla' (Cancel). At the very bottom left is a button '+ Creare nuovo elemento'.

8. Configure the policy routing parameters. [Table 5-15](#) lists the policy routing parameters.

**Table 5-15 Parameter Descriptions for the Policy Routing**

Parameter	Description
Name	The name of Policy routing entry.
Egress	WAN connection for policy routing
Source IP Address	Source IPv4 address of the matching packets.
Source Mask	Source mask of the matching packets.
Destination IP Address	Destination IPv4 address of the matching packets.
Destination Mask	Destination mask of the matching packets.
Protocol	Matching IPv4 protocol. The ANY option means any IPv4 protocol.
Source Port	Source port number of the matching packets.
Destination Port	Destination port number of the matching packets.
Source MAC Address	MAC address of the source device that sends the matching packets.

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

## 5.4.2 Configure the Routing (IPv6)

### Abstract

The section describes how to configure Routing (IPv6).

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

### Prerequisite

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

### Steps

#### Configure Routing Table

1. On the main page of the H3140, select **Local Network > Routing > IPv6** to the **Routing (IPv6)** page.
2. Click **Routing Table** to the configuration page, see [Figure 5-21](#).

[Figure 5-21 Routing Table Page](#)

▼ Tabella di Routing

Prefisso	Gateway	Interfaccia
fe80::219:c6ff:fe50:7180/128	::	LAN
fe80::/64	::	LAN

Aggiorna

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

#### Configure Static Routing

4. Click **Static Routing** to the configuration page and then click the **Create New Item**, see [Figure 5-22](#).

**Figure 5-22 Static Routing (IPv6) Page**

▼ Routing statico

[Cosa considerare quando si configura l'instradamento statico?](#)

Nuovo elemento

Nome	<input type="text"/>
Uscita	<input type="text"/> Si prega di selezionar
Prefisso	<input type="text"/> / <input type="text"/>
Gateway	<input type="text"/>

Applica      Annulla

[+ Creare nuovo elemento](#)

- Configure the static routing parameters. [Table 5-16](#) lists the static routing parameters.

**Table 5-16 Parameter Descriptions for the Static Routing**

Parameter	Description
Name	The name of static routing entry.
Egress	WAN connection for static routing.
Prefix	IPv6 address and prefix length. The value range is 0-128.
Gateway	The next-hop IP address to the destination network.

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

### Configure Policy Routing

- Click **Policy Routing** to the configuration page and then click the **Create New Item**, see [Figure 5-23](#).

**Figure 5-23 Policy Routing (IPv6) Page**

## ▼ Politica di Routing

**Nuovo elemento**

Nome	<input type="text"/>	
Uscita	<input type="text"/> Si prega di selezionar	
Indirizzo IP di origine	<input type="text"/> / <input type="text" value="128"/>	
Indirizzo IP di destinazione	<input type="text"/> / <input type="text" value="128"/>	
Protocollo	<input type="text"/> Qualsiasi	
Indirizzo MAC sorgente	<input type="text"/> : <input type="text"/>	
<a href="#">Selezionare tra i dispositivi associati</a>		
<b>Applica</b> <b>Annulla</b>		
<a href="#">+ Creare nuovo elemento</a>		

- Configure the policy routing parameters. [Table 5-17](#) lists the policy routing parameters.

**Table 5-17 Parameter Descriptions for the Policy Routing**

Parameter	Description
Name	The name of Policy routing entry.
Egress	WAN connection for policy routing
Source IP Address	Source IPv6 address of the matching packets.
Destination IP Address	Destination IPv6 address of the matching packets.
Protocol	Matching IPv6 protocol. The ANY option means any IPv6 protocol.
Source Port	Source port number of the matching packets.
Destination Port	Destination port number of the matching packets.
Source MAC Address	MAC address of the source device that sends the matching packets.

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

## 5.5 Configure the FTP Server Feature

### Abstract

This procedure describes how to enable the [FTP](#) feature of the H3140 by configuring FTP parameters, including the username and password.

### Steps

1. In the left navigation tree, click **Local Network > FTP**. The FTP Application page is displayed, see [Figure 5-24](#).

[Figure 5-24 FTP Page](#)

The screenshot shows the 'FTP' configuration page. Under the 'Server' section, the 'On' radio button is selected. The 'Username' field contains 'admin' and the 'Password' field contains masked text. At the bottom are 'Applica' and 'Annulla' buttons.

2. Set the parameters. For a description of the parameters, refer to [Table 5-18](#).

[Table 5-18 FTP Server Parameter Descriptions](#)

Parameter	Description
Server	Enable or disable the FTP server feature .
FTP Username/FTP Password	Username and password used to connect to the FTP server.Valid only if FTP security control is enabled.

3. Click **On** to enable the FTP server feature, and click **Apply** button to apply the changes.

## 5.6 Configure the UPnP

### Abstract

The [UPnP](#) function is used to support zero configuration, invisible networking, and automatic discovery of vendor device types. After the UPnP function is configured, a device can dynamically join a network to obtain its IP address, report its functions, and learn about the functions of other devices.

### Steps

#### [Enable or Disable the UPnP Function](#)

1. On the main page of the H3140, select **Local Network > UPnP** to the **UPnP**, see [Figure 5-25](#).

**Figure 5-25 UPnP Page**



[Table 5-19](#) lists the UPnP parameters.

**Table 5-19 Parameter Descriptions for the UPnP**

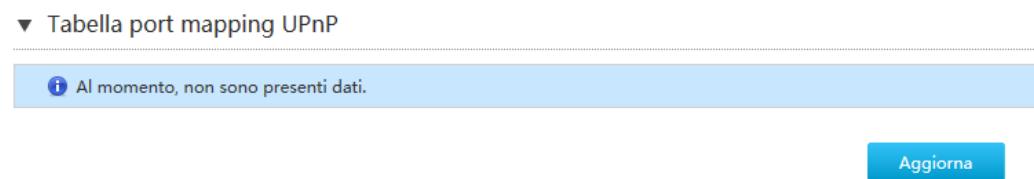
Parameter	Description
UPnP	Enable or disable the UPnP function.

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

#### **Check the UPnP Portmap Table**

3. Click **UPnP Portmap Table** to the information page, see [Figure 5-26](#).

**Figure 5-26 UPnP Portmap Table Page**



4. Click **Refresh** button to refresh the information.

## **5.7 Configure the DMS**

### **Abstract**

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

DMS is a multimedia server defined in [DLNA](#) protocol, which uses [UPnP](#) protocol to search and categorize the local media files or photos, and provide [VOD](#) services for the DMP.

If the DMS function is enabled on the H3140 device, any client that supports UPnP function can use the specified DMP (for example, Windows Media Player) to watch the media files or photos stored in the USB storage device.

The version of the Windows media player used for DMS function must be 11 or later, or the OS must be vista or Win 7. To enable the DMP function in OS of earlier version, special tools, such as Intel(R) Tool for UPnP(TM) Technology or Twonky Media Manager must be installed.

## Steps

1. In the left navigation tree, click **Local Network > DMS** to the **DMS** page, see [Figure 5-27](#).

**Figure 5-27 DMS page**

DMS

DMS	<input type="radio"/> On <input checked="" type="radio"/> Off	
Nome DMS	Modem H3140	
Sorgente multimediale1	/mnt	Navigazione
Sorgente multimediale2		Navigazione
Sorgente multimediale3		Navigazione
Sorgente multimediale4		Navigazione

**Applica**    **Annulla**

2. Enable the DMS function, and specify the path storing the media files. For a description of the parameters, refer to [Table 5-20](#).

**Table 5-20 Parameter Descriptions for the DMS**

Parameter	Description
DMS	Enable or disable the DMS function.
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.
Media Source1–Media Source4	By default, the media source is <i>/mnt</i> , that is the root directory of the USB device. You can change the root directory to other directory of the USB storage device.



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.

## 5.8 Configure the DNS

### Abstract

The section describes how to configure **DNS**.

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

### Steps

#### Configure the Domain Name

1. On the main page of the H3140, select **Local Network > DNS** to the **Domain Name** page, see [Figure 5-28](#).

**Figure 5-28 Domain Name Page**

▼ Nome Dominio

Nome Dominio	home
--------------	------

Applica      Annulla

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

#### Configure the Host Name

4. Click **Host name** to the page and then click the **Create New Item**, see [Figure 5-29](#).

**Figure 5-29 Host Name Page**

▼ Nome Host

▶ A23329747
▼ Nuovo elemento

Nome Host

Indirizzo IP

Applica      Annulla

+ Creare nuovo elemento

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.

# Chapter 6

# Configure the VoIP

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## 6.1 Check the Status of VoIP

### Abstract

This procedure describes how to check shows the relevant information of **VoIP** status.

### Steps

1. On the main page of the H3140, select **VoIP > Status**. The **VoIP Status** page is displayed, see [Figure 6-1](#).

**Figure 6-1 VoIP Status Page**

▼ Stato VoIP		
ID Telefono	Numero di telefono	Stato
Telefono1		Non registrato
Telefono2		Non registrato
<a href="#">Aggiorna</a>		

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

## 6.2 Configure the SIP Accounts

### Abstract

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

### Steps

1. On the main page of the H3140, select **VoIP > Basic**. The **SIP Account-1** page is displayed, see [Figure 6-2](#).

**Figure 6-2 SIP Account-1 Page**

The screenshot shows a configuration interface for a SIP account. At the top, there is a link "Come ottenere le informazioni di autenticazione VoIP?". Below it, there are four input fields: "Abilitazione" (Enable) with radio buttons "On" (selected) and "Off", and three text fields for "Account SIP", "Username", and "Password" (containing "\*\*\*\*\*"). At the bottom right are two buttons: "Applica" (Apply) and "Annulla" (Cancel).

2. Set the parameters. For a description of the parameters, refer to [Table 6-1](#).

**Table 6-1 Parameter Descriptions for the SIP Account-1**

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

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



### Note

SIP Account-2 configuration refers to SIP Account-1 configuration.

## 6.3 Configure the Advanced Parameters of VoIP

### Abstract

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

### Steps

#### Configure the Advanced Parameters

1. On the main page of the H3140, select **VoIP > Advanced**. The **Advanced Parameters** page is displayed, see [Figure 6-3](#).

**Figure 6-3 Advanced Parameters Page**

▼ Parametri avanzati

DTMF	RFC2833
Jitter Buffer	Adattivo
Minimo	20 ms
Massimo	200 ms

**Applica**    **Annulla**

2. Set the advanced parameters. For a description of the parameters, refer to [Table 6-2](#).

**Table 6-2 Advanced Parameter Descriptions for the VoIP Service**

Parameter	Description
DTMF	DTMF mode. Options: <ul style="list-style-type: none"><li>● <b>RFC2833:</b> DTMF digits are carried by RTP streams.</li><li>● <b>DTMF in Voice:</b> DTMF digits are not processed.</li><li>● <b>SIP Info:</b> SIP protocol information.</li></ul>
Jitter Buffer	The variation in packet delay is called jitter. Jitter buffer refers to intentional delay of packets. Options: <ul style="list-style-type: none"><li>● <b>Fixed:</b> A fixed buffer time must be specified.</li><li>● <b>Adaptive:</b> A jitter range must be specified.</li></ul>
Min Value	Minimum value of the jitter range, default: 20 ms.
Max Value	Maximum value of the jitter range, default: 200 ms.

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

#### Configure the Echo Cancellation

- On the main page of the H3140, select **VoIP > Advanced > Echo Cancellation**. The **Echo Cancellation** page is displayed, see [Figure 6-4](#).

**Figure 6-4 Echo Cancellation Page**

The screenshot shows a configuration interface for 'Echo Cancellation'. At the top, there is a dropdown menu labeled 'Linea-1'. Below it, the 'Echo Cancellation' setting is shown with a radio button labeled 'On' selected. At the bottom right are two buttons: 'Applica' (Apply) and 'Annulla' (Cancel).

- Set the advanced parameters. For a description of the parameters, refer to [Table 6-3](#).

**Table 6-3 Parameter Descriptions of the Echo Cancellation**

Parameter	Description
Echo Cancellation	Enable or disable the function. By default, this function is enabled.

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

### Configure the Special Parameters

- On the main page of the H3140, select **VoIP > Advanced > Special Parameters**. The **Special Parameters** page is displayed, see [Figure 6-5](#).

**Figure 6-5 Special Parameters Page**

The screenshot shows a configuration interface for 'Special Parameters'. It includes fields for 'SIP DSCP Marking' (set to 40), 'RTP DSCP Marking' (set to 40), 'UPDATE' (radio button set to 'Off'), and 'INVITE Expires' (set to 1800). At the bottom right are 'Applica' and 'Annulla' buttons.

- Set the advanced parameters. For a description of the parameters, refer to [Table 6-4](#).

**Table 6-4 Parameter Descriptions of the Special Parameters**

Parameter	Description
SIP DSCP Marking	DSCP value of SIP packets, the value range is 0–63.
RTP DSCP Marking	DSCP value of RTP packets, the value range is 0–63.

Parameter	Description
UPDATE	The UPDATE message is a mechanism for SIP extension. It updates the media stream status when a call is not established.

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

## 6.4 Configure the SIP Protocol

### Abstract

This procedure describes how to configure the SIP Protocol, include the proxy port, proxy server and registrar server,

### Steps

1. On the main page of the H3140, select **VoIP > SIP Protocol**. The **SIP Protocol** page is displayed, see [Figure 6-6](#).

**Figure 6-6 SIP Protocol Page**

▼ Protocollo SIP

Abilitazione	<input checked="" type="radio"/> On <input type="radio"/> Off
Porta locale	5060
Server Proxy primario	
Outbound Proxy Server Primario	0.0.0.0
Porta Proxy primaria	5060
Server Proxy secondario	0.0.0.0
Outbound Proxy Server Secondario	0.0.0.0
Porta Proxy secondaria	5060
Primary Registrar Server	
Secondary Registrar Server	0.0.0.0
User Agent Domain	
Register Expires	600000 s
Deregistrarsi al reboot	<input type="radio"/> On <input checked="" type="radio"/> Off
Link Test	<input type="radio"/> On <input checked="" type="radio"/> Off
Link Test Interval	20 s
PRACK	<input checked="" type="radio"/> On <input type="radio"/> Off
<b>Applica</b> <b>Annulla</b>	

2. Set the parameters. For a description of the parameters, refer to [Table 6-5](#).

**Table 6-5 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.
Primary Registrar Server	IP address of the active SIP registrar server that the ISP provides, which must be the same as that configured on the registrar server.
Secondary Registrar Server	IP address of the standby SIP registrar server that the ISP provides, which must be the same as that configured on the registrar server.
Register Expires	Registered lifecycle, unit: seconds, default: 3600.
Unregister On Reboot	Whether to deregister VoIP terminals after the server is restarted. By default, this function is enabled.
Link Test	Click <b>On</b> to enable the function. By default, this function is disabled.
Link Test Interval	Interval of link tests, default: 20 seconds.
PRACK	PRACK is a mechanism for ensuring the reliable transmission of temporary messages (101-199) in SIP messages. When this function is enabled, a temporary response to the 101-199 message can be made and the message can be transmitted reliably.

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

## 6.5 Configure the Media

### Abstract

This procedure describes how to configure the media codec type.

## Steps

1. On the main page of the H3140, select **VoIP > Media**. The **Phone-1** page is displayed, see [Figure 6-7](#).

**Figure 6-7 Media Page**

▼ Telefono-1

<input checked="" type="checkbox"/> G722	<input type="checkbox"/> VAD	<input type="radio"/> 1 Priorità Codec
<input checked="" type="checkbox"/> G711A	<input type="checkbox"/> VAD	<input type="radio"/> 3 Priorità Codec
<input checked="" type="checkbox"/> G729	<input type="checkbox"/> VAD	<input type="radio"/> 2 Priorità Codec

**Applica**    **Annulla**

2. Set the parameters. For a description of the parameters, refer to [Table 6-6](#).

**Table 6-6 Media Parameter Descriptions**

Parameter	Description
Codec Selection	Select a codec, which must be the same as that configured in the SS system.
Codec Priority	You can modify priority through this parameter. A lower number indicates a higher priority.

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

## 6.6 Configure the Fax

### Abstract

The H3140 supports the T30 protocol , T38 protocol and V152 protocol fax feature. By default, the T38 protocol is used.

## Steps

1. On the main page of the H3140, select **VoIP > Fax**. The **Fax** page is displayed, see [Figure 6-8](#).

**Figure 6-8 Fax Page**

▼ FAX

Protocollo T38	<input checked="" type="radio"/> On	<input type="radio"/> Off
----------------	-------------------------------------	---------------------------

**Applica**    **Annulla**

- Set the parameters. For a description of the parameters, refer to [Table 6-7](#).

**Table 6-7 Parameter Descriptions for the Fax**

Parameter	Description
T38 Protocol	Whether to enable the T38 protocol.

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

## 6.7 Configure the Digit Map

### Abstract

A digital map defines dialing rules that must be followed when you dial a number.

### Steps

- On the main page of the H3140, select **VoIP > Voice Ports Mapping**. The **Voice Ports Mapping** page is displayed, see [Figure 6-9](#).

**Figure 6-9 Voice Ports Mapping Page**

The screenshot shows the 'Voice Ports Mapping' configuration page. It includes sections for 'In entrata' (Incoming) and 'In uscita' (Outgoing). Under 'In entrata', 'Telefono1' is mapped to both FXS1 and FXS2. 'Telefono2' is also mapped to both FXS1 and FXS2. Under 'In uscita', 'FXS1' maps to 'Telefono1' and 'Telefono2'. 'FXS2' also maps to 'Telefono1' and 'Telefono2'. At the bottom are 'Applica' (Apply) and 'Annulla' (Cancel) buttons.

- Set the parameters. For a description of the parameters, refer to [Table 6-8](#).

**Table 6-8 Parameter Descriptions for the Digit Map**

Parameter	Description
Incoming	H3140 is called by other devices.
Outgoing	Other devices is called by H3140.

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

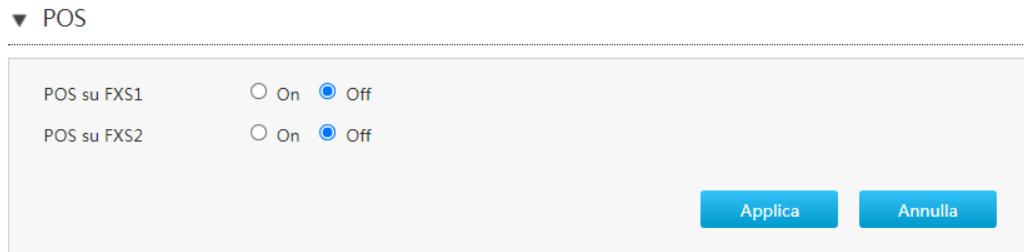
## 6.8 Configure the POS

### Abstract

The H3140 supports the access of POS machines.

**Steps**

1. On the main page of the H3140, select **VoIP > POS**. The **POS** page is displayed, see [Figure 6-10](#).

**Figure 6-10 POS Page**

2. Set the parameters. For a description of the parameters, refer to [Table 6-9](#).

**Table 6-9 Parameter Descriptions for the POS**

Parameter	Description
POS on FXS1/POS on FXS2	If the switch is selected, the outgoing/incoming call codec of the interface is negotiated as G711a, which is used to support the access to POS machine on this interface. If this switch is not selected, the outgoing/incoming calls on the interface are negotiated in accordance with the media configuration mode on the voice page.

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

# Chapter 7

# Configure the Management and Diagnosis

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## 7.1 Check the Device Status

### Abstract

The relevant information of device status is shown as below.

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > Status** to the **Status** page, see [Figure 7-1](#).

**Figure 7-1 Device Status Page**

## ▼ Informazioni sul dispositivo

Tipo dispositivo	H3140
Numero di serie del dispositivo	
Versione Hardware	V10.1.0
Versione Software	V10.1.0P2_OF
Versione di boot	V1.0.0
Telegestione	inattivo

**Aggiorna**

- Click **Refresh** to refresh the information.

## 7.2 Configure the Account Management

### Abstract

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

### Steps

- On the main page of the H3140, select **Management&Diagnosis > Account Management** to the **Admin Account Management** page, see [Figure 7-2](#).

**Figure 7-2 Admin Account Management Page**

## ▼ Gestione account Admin

Username	<input type="text" value="admin"/>
Vecchia password	<input type="password"/>
Nuova Password	<input type="password"/>
Conferma Password	<input type="password"/>
<input type="button" value="Applica"/> <input type="button" value="Annulla"/>	

- Configure the administrator account management parameters.

[Table 7-1](#) lists the administrator account management parameters.

**Table 7-1 Parameter Descriptions for the Administrator Account Management**

Parameter	Description
Username	The user name for the administrator privilege. The default user name of the administrator privilege is <i>Admin</i> , which cannot be modified.

Parameter	Description
Old Password	The default password for the Administrator is Admin.
New Password	Specify the new password.
Confirmed Password	Confirm the new password.

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

## 7.3 Configure the Login Timeout

### Abstract

This procedure introduces how to configure the login timeout.

### Steps

- On the main page of the H3140, select **Management&Diagnosis > Idle Timeout** to the **Idle Timeout** page, see [Figure 7-3](#).

**Figure 7-3 Idle Timeout Configuration Page**

▼ Timeout di inattività

A screenshot of a configuration interface for the idle timeout. It shows a dropdown menu set to "Timeout" with a value of "5 min". Below the input field are two buttons: "Applica" (Apply) and "Annulla" (Cancel).

- Specify the time in the **Timeout** text box, rang: 1-30 min.
- Click **Apply** button to apply the changes.

## 7.4 Configure the System Management

### 7.4.1 Configure the Device Management

### Abstract

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

### Steps

- On the main page of the H3140, select **Management&Diagnosis > System Management > Device Management** to the **Device Management** page, see [Figure 7-4](#).

### Figure 7-4 Device Management Page

#### Informazioni sulla pagina

Questa pagina permette la gestione del dispositivo.

#### ▼ Gestione riavvio

Riavvio: Fare clic sul pulsante "Riavvio" per riavviare il dispositivo. Questo processo richiederà circa 5 minuti.

Nota: L'operazione di riavvio interromperà tutte le attività correnti.

**Riavvio**

#### ▼ Gestione ripristino delle impostazioni di fabbrica

Ripristino delle impostazioni di fabbrica: Tutte le impostazioni dei parametri verranno ripristinate ai valori predefiniti di fabbrica. Il dispositivo si riavrà automaticamente al termine di questa operazione.

Nota: Al termine di questa operazione, tutte le impostazioni andranno perse e ripristinate ai valori predefiniti di fabbrica.

**Ripristino delle impostazioni di fabbrica**

2. On this page, you can perform the following operations:

- Click **Reboot** to reboot the H3140 device.
- Click **Factory Reset** to restore the factory default settings.

## 7.4.2 Upgrade Software

### Abstract

This procedure introduces how to upgrade Software.

### Prerequisite

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

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > System Management > Software Upgrade** to the **Software Upgrade** page, see [Figure 7-5](#).

**Figure 7-5 Software Upgrading Page**

## ▼ Aggiornamento software

The screenshot shows a software upgrade interface. At the top, there is a note: "Il dispositivo si riavvierà dopo l'aggiornamento." Below this, there is a field labeled "Selezionare un file di versione del software:" with a "Browse" button next to it. At the bottom is a blue "Aggiornamento" button.

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.

### 7.4.3 Configure the User Configuration Management

**Abstract**

This procedure describes how to back up or restore your user configuration file. The backup operation is used for routine maintenance, and the restoration operation is used for troubleshooting.

**Steps**

1. In the left navigation tree, click **Administration > System Management > User Configuration Management**. The **User Configuration Management** page is displayed, see [Figure 7-6](#).

**Figure 7-6 User Configuration Management Page**

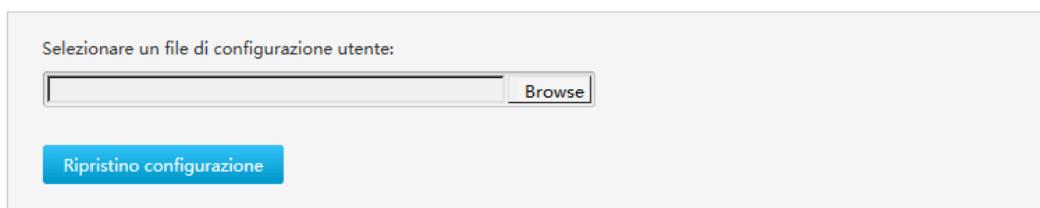
## ▼ Backup configurazione utente



Backup configurazione

## ▼ Ripristino configurazione utente

Selezionare un file di configurazione utente:

Ripristino configurazione

2. Backing up your user configuration file
  - a. Click **Backup Configuration**. The **File Download** dialog box is displayed.
  - b. Click **Save** and select a storage path.
3. Restoring your backup user configuration file
  - a. Click **Browse** to select a backup file to be restored.
  - b. Click **Restore Configuration**.

**Note**

After the restoration operation is completed, the device is automatically restarted, causing temporary service interruption, so perform this operation with care.

## 7.5 Configure the Mirror function

**Abstract**

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 H3140, select **Management&Diagnosis > Mirror Configuration** to the **Mirror Configuration** page, see [Figure 7-7](#).

**Figure 7-7 Mirror Configuration Page**

The screenshot shows a configuration page for a mirror rule. At the top, there is a title 'Configurazione Mirror' with a downward arrow. Below it, there are three fields: 'Mirror' (radio buttons for On and Off, with Off selected), 'Sorgente' (dropdown menu showing 'WAN'), and 'Destinazione' (dropdown menu showing 'Si prega di selezionar...'). At the bottom right are two buttons: 'Applica' (Apply) and 'Annulla' (Cancel).

2. Configure the mirror configuration parameters.

Table 7-2 lists the user mirror configuration parameters.

**Table 7-2 Parameter Descriptions for the Mirror Configuration**

Parameter	Description
Mirror	Enable or disable the mirror function.
Source	Network-side WAN interface.
Destination	User-side LAN interface.

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

## 7.6 Configure the TR069 function

### Abstract

The section describes how to configure the TR069. TR069 provides the parameters of the TR069 configuration features.

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

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > TR-069** to the **TR-069** page.
2. Click **Basic Configuration** to the TR069 basic configuration page, see [Figure 7-8](#).

**Figure 7-8 Basic Configuration Page**

▼ Configurazione base

ACS URL	<input type="text" value="https://acs.local"/>
Username	<input type="text" value="usr0p3nf1b3r"/>
Password	<input type="password" value="*****"/>
Connection Request URL	<input type="text" value="http://0.0.0.0"/>
Connection Request Username	<input type="text"/>
Connection Request Password	<input type="password" value="*****"/>
Periodic Inform	<input type="radio"/> On <input checked="" type="radio"/> Off
Autenticazione ACS	<input type="radio"/> On <input checked="" type="radio"/> Off
Certificato CA ACS	<input type="button" value="Auto"/>

**Applica** **Annulla**

- Configure the TR069 basic configuration parameters. [Table 7-3](#) lists the TR069 Basic Configuration parameters.

**Table 7-3 Parameter Descriptions for the TR069 Basic Configuration**

Parameter	Description
ACS URL	The URL of the automatic configuration server that manages the device.
Username/Pass-word	User name and password for the H3140 to log in to the automatic configuration server.
Connection Re-quest URL	Connection request URL, which is automatically generated by the system.
Connection Re-quest Username/ Connection Re-quest Password	User name and password for the TR069 connection authentication that the automatic configuration server provides when it logs in to the H3140 device.
Periodic Inform	Enable the periodic inform function.
Periodic Inform In-terval	Periodic inform interval of the device (unit: second).
Authenticating ACS	Enable the TR069 authenticating ACS.
ACS CA Certificate Chain	<ul style="list-style-type: none"> <li>● Auto: Automatically select the first chain certificate authentication or the second chain certificate authentication</li> <li>● Chain1: The first chain certificate authentication</li> <li>● Chain2: The second chain certificate authentication</li> </ul>

#### Certificate Management

- Click **Certificate Management** to the certificate management page, see [Figure 7-9](#).

**Figure 7-9 Certificate Management Page**

▼ Gestione certificati

The screenshot shows a user interface for managing certificates. At the top, there is a note: "Il certificato caricato avrà effetto solo dopo il riavvio del dispositivo." Below this, a section titled "Certificato interattivo ACS" contains a dropdown menu labeled "Chain1" with a downward arrow icon. A sub-section "Selezionare un certificato CA ACS:" includes a text input field and a "Browse" button. At the bottom of the panel is a blue "Importa Certificato" button.

2. Select a ACS CA certificate chain.
3. Click **Browse** to select an ACS CA certificate, and click **Import Certificate..**

## 7.7 Manage the Log

### Abstract

This procedure introduces how to manage the log.

### Steps

#### Manage the Log Level

1. On the main page of the H3140, select **Management&Diagnosis > Log Management** to the **Log Management** page.
2. Click **Log Level Management** to the log level management page, see [Figure 7-10](#).

**Figure 7-10 Log Level Management Page**

▼ Gestione Livello Log

The screenshot shows a configuration dialog for log levels. It has a "Livello Log" label and a dropdown menu set to "Informativa". At the bottom right are two buttons: "Applica" (Apply) and "Annulla" (Cancel).

3. Configure the log management parameters.

[Table 7-4](#) lists the Log Management parameters.

**Table 7-4 Parameter Descriptions for the Log Level Management**

Parameter	Description
Log Level	Options (ranked from low to high): <ul style="list-style-type: none"> <li>● Debug</li> <li>● Informational</li> <li>● Notice</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>● Warning</li> <li>● Error</li> <li>● Critical</li> <li>● Alert</li> <li>● Emergency</li> </ul> <p>The system stores only the logs of the selected level and above levels.</p>

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

#### Enable or Disable the System Log Function

- Click **System Log Management** to the system log management page, see [Figure 7-11](#).

**Figure 7-11 System Log Management Page**

▼ Gestione dei log di sistema

Salvare log  On  Off

**Applica** **Annulla**

Output Log

```
Manufacturer:ZTE;
ProductClass:H388X;
IP:192.168.1.1;
HWVer:V10.0.0;
SWVer:AGZHP_1.0.2;

P0000-00-02T20:33:39 [Warning] Thread:[upnptask] Pid:482 Pcb:[upnp_app] Event:0x2703 RunTicks:24677874
ScheCounts:6
P0000-00-02T20:35:09 [Warning] Thread:[upnptask] Pid:482 Pcb:[upnp_app] Event:0x2703 RunTicks:24686874
ScheCounts:6
P0000-00-02T20:36:39 [Warning] Thread:[upnptask] Pid:482 Pcb:[upnp_app] Event:0x2703 RunTicks:24695874
```

**Aggiorna** **Scaricare log**

- Configure the system log management parameters.

[Table 7-5](#) lists the system log management parameters.

**Table 7-5 Parameter Descriptions for the System Log Management**

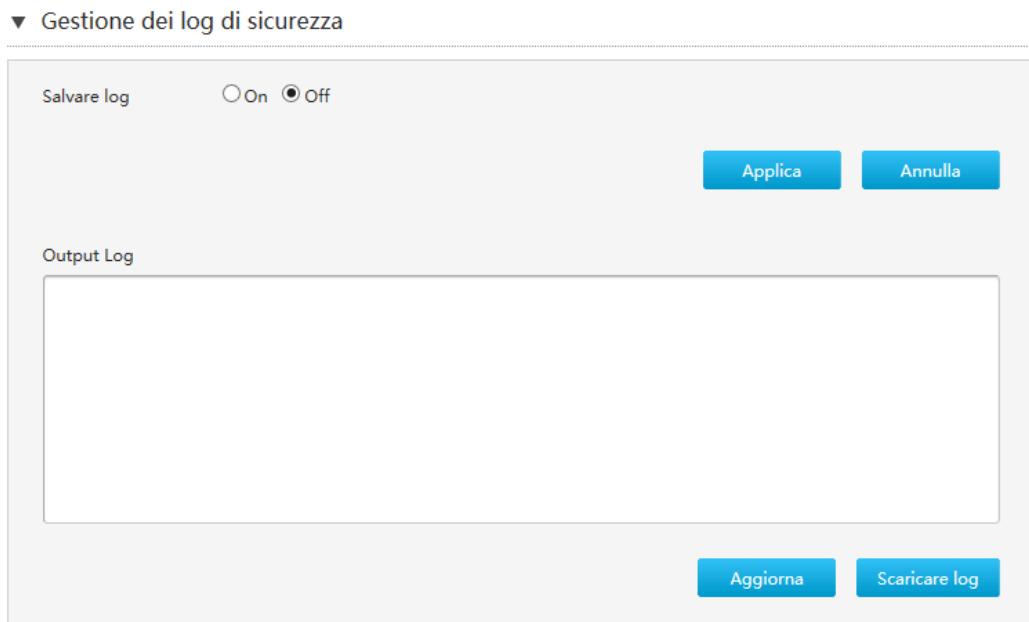
Parameter	Description
Save Log	Enable or disable the system log function.

- Click **Apply** button to apply the changes.
- (Optional) Click **Refresh** button to get the latest information.
- (Optional) Click **Clear** to clear the logs.
- (Optional) Click **Download Log** to download the log file from the log server.

#### Manage the Security Log

11. Click **Security Log Management** to the security log management page, see [Figure 7-12](#).

**Figure 7-12 Security Log Management Page**



12. Configure the security log management parameters.

[Table 7-6](#) lists the security log management parameters.

**Table 7-6 Parameter Descriptions for the security Log Management**

Parameter	Description
Save Log	Enable or disable the security log function.

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

14. (Optional) Click **Refresh** button to get the latest information.

15. (Optional) Click **Download Log** to download the log file from the log server.

#### **Manage the Remote Log**

16. Click **Remote Log Management** to the remote log management page, see [Figure 7-13](#).

**Figure 7-13 Remote Log Management Page**



17. Configure the remote log management parameters.

Table 7-7 lists the remote log management parameters.

**Table 7-7 Parameter Descriptions for the Remote Log Management**

Parameter	Description
Remote Log	Enable or disable the remote log function.

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

## 7.8 Network Diagnosis

### Abstract

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

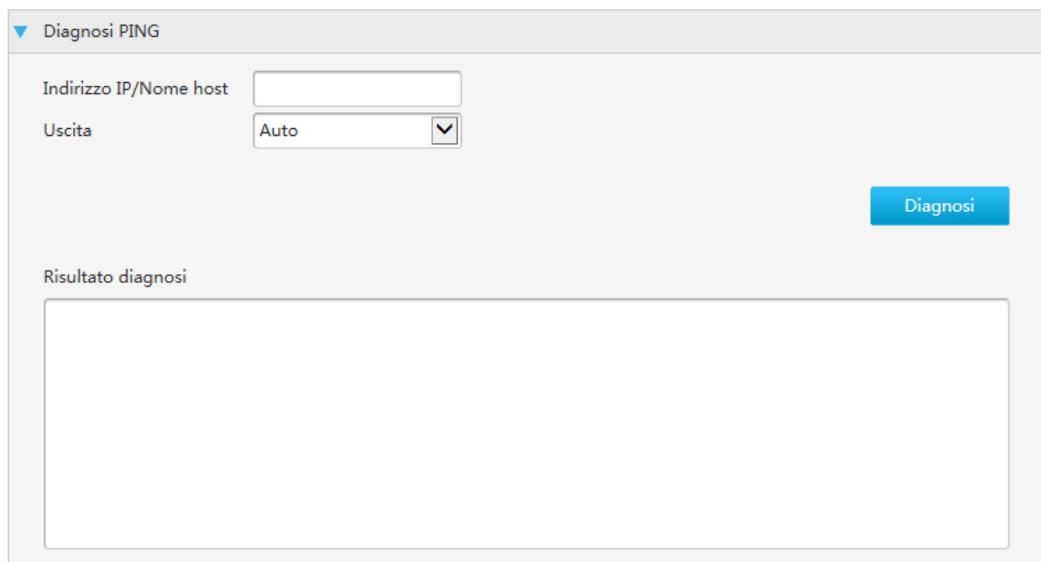
The relevant information includes ping diagnosis and trace route diagnosis.

### Steps

#### Ping Diagnosis

1. On the main page of the H3140, select **Management&Diagnosis > Diagnosis** to the **Diagnosis** page.
2. Click to open **Ping Diagnosis** page, see Figure 7-14.

**Figure 7-14 Ping Diagnosis Page**



3. Set the parameters. For a description of the parameters, refer to Table 7-8.

**Table 7-8 Ping Diagnosis Parameter Descriptions**

Parameter	Description
IP Address or Host Name	Destination IP address or host name.
Egress	Data direction. If you want to detect the connection with an external address, select a WAN connection.

4. Click **Diagnosis** to diagnose the connection. The system pings the specified address. The system performs ping operations for four times by default, and the operation results are displayed in the bottom box.

### Trace Route Diagnosis

1. Click to open **Trace Route Diagnosis** page, see [Figure 7-15](#).

**Figure 7-15 Trace Route Diagnosis Page**

2. Set the parameters. For the description of the parameters, refer to [Table 7-9](#).

**Table 7-9 Parameter Descriptions for Trace Route Diagnosis**

Parameter	Description
IP Address /Host Name	Destination IP address or host name for the Trace Route operation.
Egress	To detect the connection with an external address, select a WAN connection.
Maximum Hops	Maximum number of hops that the Trace Route packets require for arriving at the destination, default: 30.

Parameter	Description
Wait Time	Time allowed for receiving a response in ms. If no response is received during this period, an asterisk is displayed. If multiple asterisks are displayed, it indicates that the corresponding node fails.
Protocol	Options: <a href="#">UDP</a> and <a href="#">ICMP</a> .



### Notice

- Please don't refresh this page while diagnosing, otherwise the diagnosis result may be displayed unproperly.
- If a new diagnosis is triggered when the current diagnosis is still running, the device will only respond to the new diagnosis, and the current diagnostic result will not be saved.

## 7.9 Check the ARP Table

### Abstract

The relevant information of [ARP](#) table is shown as below.

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > ARP Table** to the **ARP Table** page, see [Figure 7-16](#).

**Figure 7-16 ARP Table Page**

▼ Tabella ARP

Indirizzo IP	Indirizzo MAC	Stato	Interfaccia
192.168.1.3	DC:4A:3E:45:D0:DD	Disponibile	LAN

Aggiorna

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

## 7.10 Check the MAC Table

### Abstract

The section describes how to check the MAC table.

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > MAC Table** to the **MAC Table** page, see [Figure 7-17](#).

**Figure 7-17 MAC Table Page**

The screenshot shows a table titled "Tabella MAC" (MAC Table). The columns are labeled "Interfaccia" (Interface), "VLAN ID", "Indirizzo MAC" (MAC Address), and "Tempo di attività" (Activity Time). There is one row of data: Interface LAN3, VLAN ID 0, MAC Address DC:4A:3E:45:D0:DD, and Activity Time 299.97. A blue "Aggiorna" (Refresh) button is located at the bottom right of the table.

Interfaccia	VLAN ID	Indirizzo MAC	Tempo di attività
LAN3	0	DC:4A:3E:45:D0:DD	299.97

Aggiorna

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

## 7.11 Configure the IPv6 Switch

### Abstract

This procedure describes how to enable or disable IPv6 support for the H3140.

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > IPv6 Switch** to the **IPv6 Switch** page, see [Figure 7-18](#).

**Figure 7-18 IPv6 Switch Page**

The screenshot shows the "Abilitazione IPv6" (IPv6 Function) section. It includes a note about changes taking effect after a reboot, a radio button for "On" (selected), and a "Stato IPv6" (IPv6 Status) field set to "On". At the bottom are "Applica" (Apply) and "Annulla" (Cancel) buttons.

1. La modifica dell'abilitazione IPv6 avrà effetto solo dopo il riavvio del dispositivo.  
2. Prima di modificare l'abilitazione IPv6, assicurarsi che tutti i parametri di configurazione relativi alle applicazioni correlate siano impostati correttamente.

Abilitazione IPv6  On  Off  
Stato IPv6 On

Applica Annulla

2. To disable IPv6 support, set IPv6 Function to Off, and click **Apply**.



The configuration takes effective after the device is restarted.

## 7.12 Configure the Ethernet WAN

### Abstract

This page will help you convert LAN to WAN interface.

### Steps

1. On the main page of the H3140, select **Management&Diagnosis > Ethernet WAN** to the **Ethernet WAN** page, see [Figure 7-19](#).

**Figure 7-19 Ethernet WAN Page**



2. Set radiobox **On**, the device will reboot and LAN will work as WAN interface.
3. Click **Apply** button to apply the changes.

# Chapter 8

# Troubleshooting

---

## **The Power indicator on the front panel is off after the power button is pressed.**

The power adapter is not correctly connected to the device. Be sure to use the power adapter supplied with the device.

## **The Linea indicator on the front panel is off after the device is powered on.**

- The WAN link is not established.
- The device is not registered.
- Please contact the service provider for help.

## **The LAN indicator on the front panel is off after the device is powered on.**

- The corresponding LAN link is not established.
- The Ethernet cable is not correctly connected to the LAN interface.
- The network device connected to the LAN interface is not powered on.

## **The Voice indicator on the front panel is off after the device is powered on.**

The telephone function is abnormal. Please contact the service provider for help.