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## Router Login

To log into your router, open a web browser (for example, Google Chrome, Microsoft Edge, Mozilla Firefox etc.). Type **192.168.1.1** in the address bar of the browser. You should then see a login page (Image 1). In the Username field, type “admin”. In the Password field, type the password shown on the sticker on the back of your router. Once all fields are populated, press **Login**.

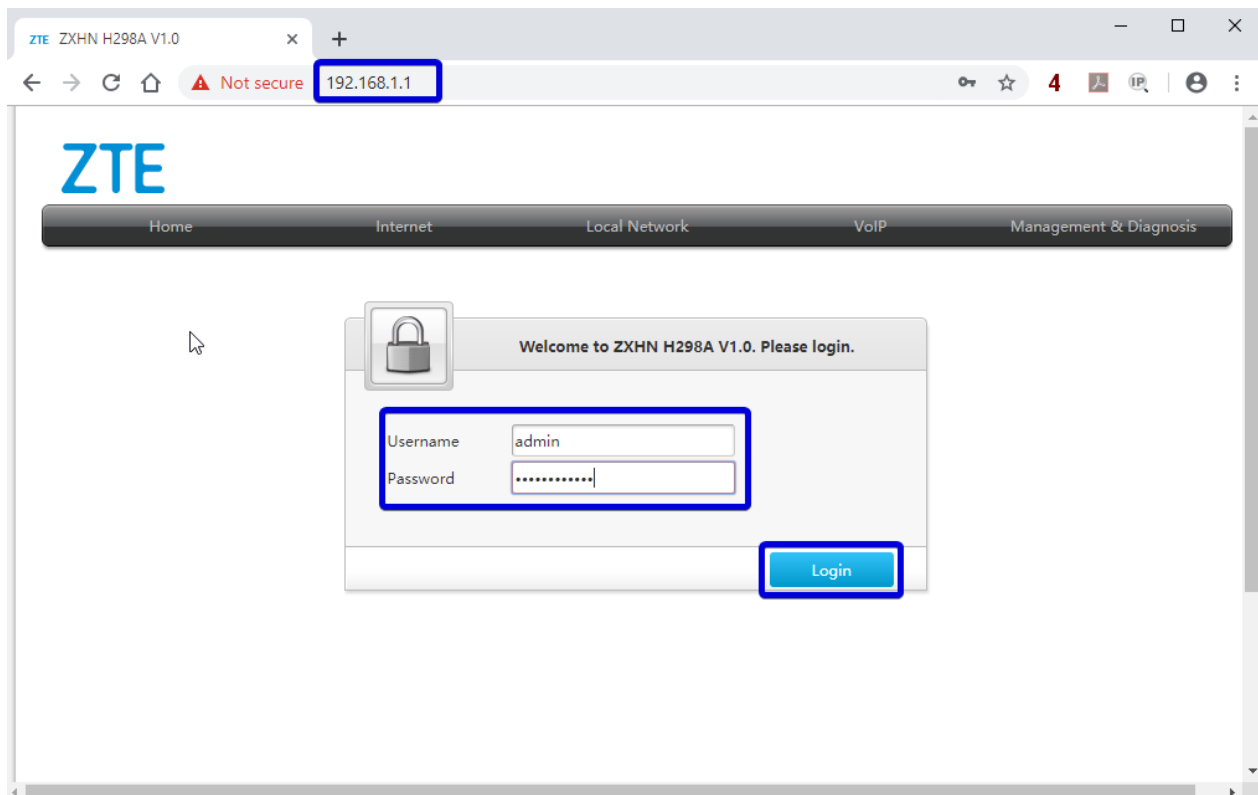


Image 1. Router H298A login screen

## Change of DNS

Your DNS properties can be changed for local LAN clients. To change, you'll need to follow these steps, and then call Hyperoptic Customer Support to complete the final step.

To change your DNS, please log into your router (page 2) and navigate to **Home > LAN Devices**. Click on **LAN Settings**. See Image 2.

By default, the router uses two Hyperoptic DNS servers which provide redundancy and address resolution. These servers communicate directly with the WAN ethernet router port and provide means for swift browsing.

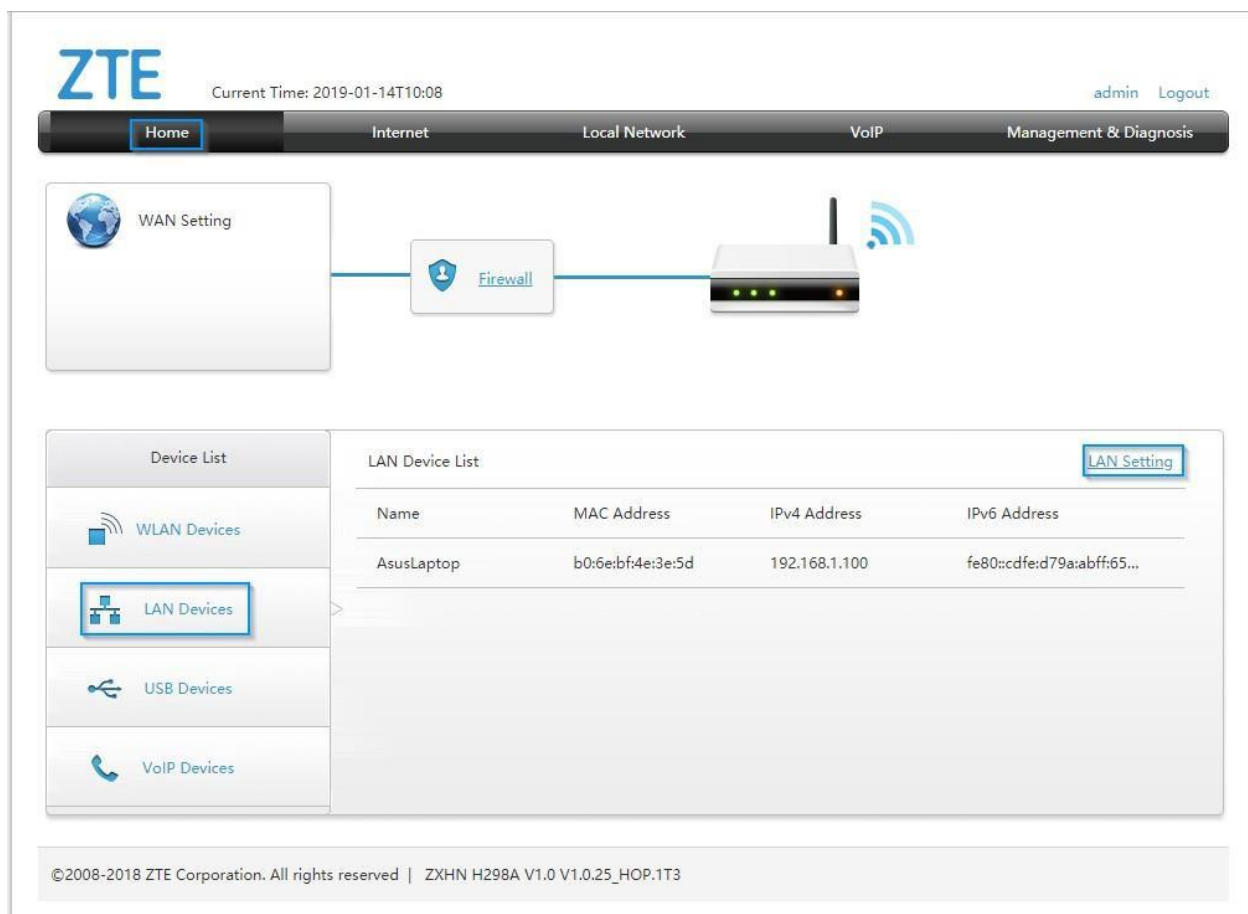
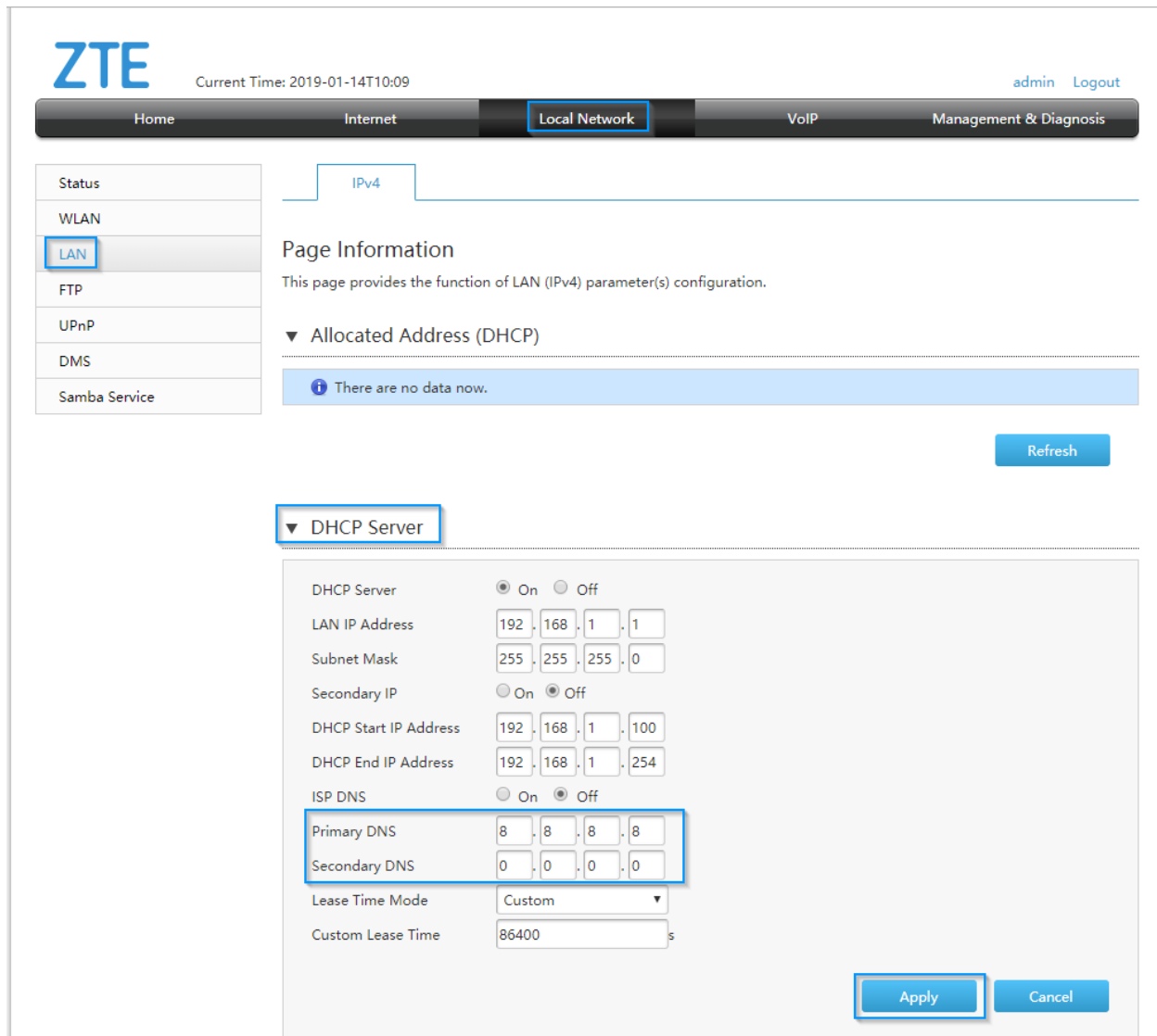


Image 2. Section of LAN Settings

Click on **DHCP Server** and edit **Primary DNS** and/or **Secondary DNS**. See Image 3, where DNS server with IPv4 address 8.8.8.8 is used. Click **Apply**.



**ZTE** Current Time: 2019-01-14T10:09 admin Logout

Home Internet **Local Network** VoIP Management & Diagnosis

Status  
WLAN  
**LAN**  
FTP  
UPnP  
DMS  
Samba Service

IPv4

### Page Information

This page provides the function of LAN (IPv4) parameter(s) configuration.

▼ Allocated Address (DHCP)

There are no data now.

Refresh

▼ DHCP Server

DHCP Server ☒ On ☐ Off

LAN IP Address 192 . 168 . 1 . 1

Subnet Mask 255 . 255 . 255 . 0

Secondary IP ☐ On ☒ Off

DHCP Start IP Address 192 . 168 . 1 . 100

DHCP End IP Address 192 . 168 . 1 . 254

ISP DNS ☐ On ☒ Off

Primary DNS 8 . 8 . 8 . 8

Secondary DNS 0 . 0 . 0 . 0

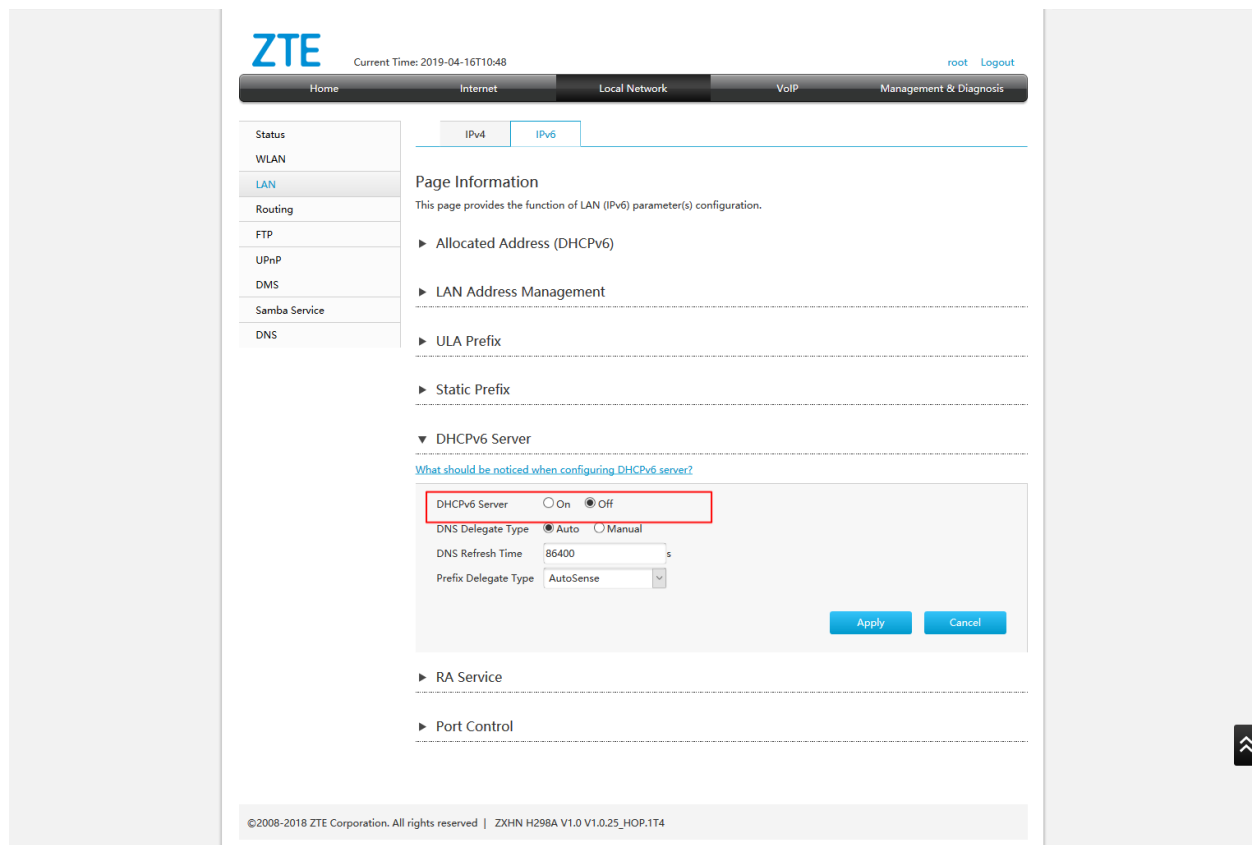
Lease Time Mode Custom

Custom Lease Time 86400 s

Apply Cancel

Image 3. DNS change section of router configuration

To complete the DNS change, please **call Customer Support** who will perform the final step for you.

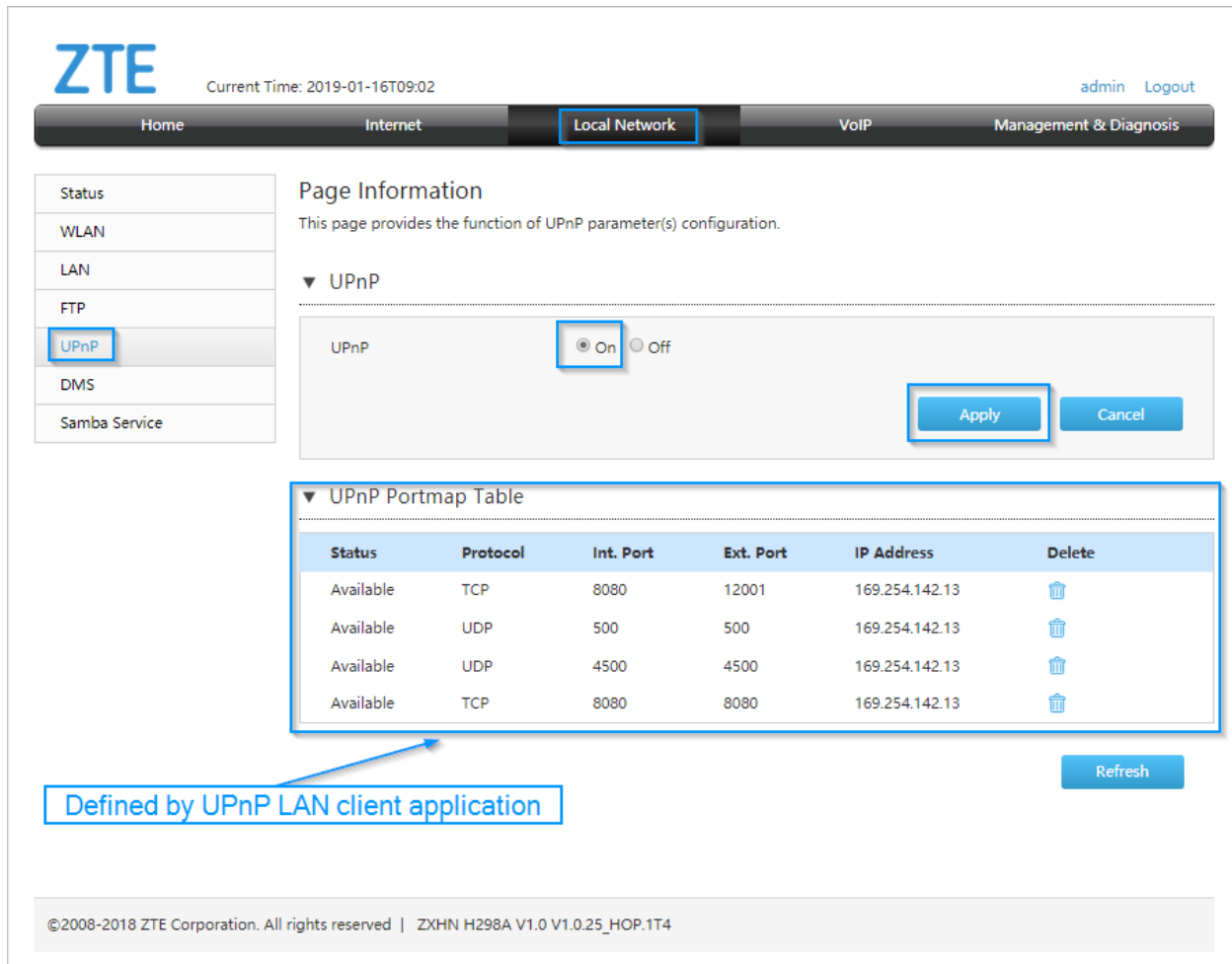


### 3.a Disabling DHCPv6 server on LAN

## UPnP router configuration

To configure your router using LAN UPnP applications, please log into your router (page 2) and navigate to **Local Network > UPnP**. Click **On** to activate UPnP service. Click **Apply**.

See Image 4, where UPnP is used to configure port forwarding. If you're not using UPnP applications, UPnP should be set to **Off** (the default UPnP setting is Off).



**ZTE** Current Time: 2019-01-16T09:02 admin Logout

Home Internet **Local Network** VoIP Management & Diagnosis

Status  
WLAN  
LAN  
FTP  
**UPnP**  
DMS  
Samba Service





**Page Information**  
This page provides the function of UPnP parameter(s) configuration.

▼ UPnP

UPnP ☒ On ☐ Off

Apply Cancel

▼ UPnP Portmap Table

Status	Protocol	Int. Port	Ext. Port	IP Address	Delete
Available	TCP	8080	12001	169.254.142.13	
Available	UDP	500	500	169.254.142.13	
Available	UDP	4500	4500	169.254.142.13	
Available	TCP	8080	8080	169.254.142.13	

Refresh

Defined by UPnP LAN client application

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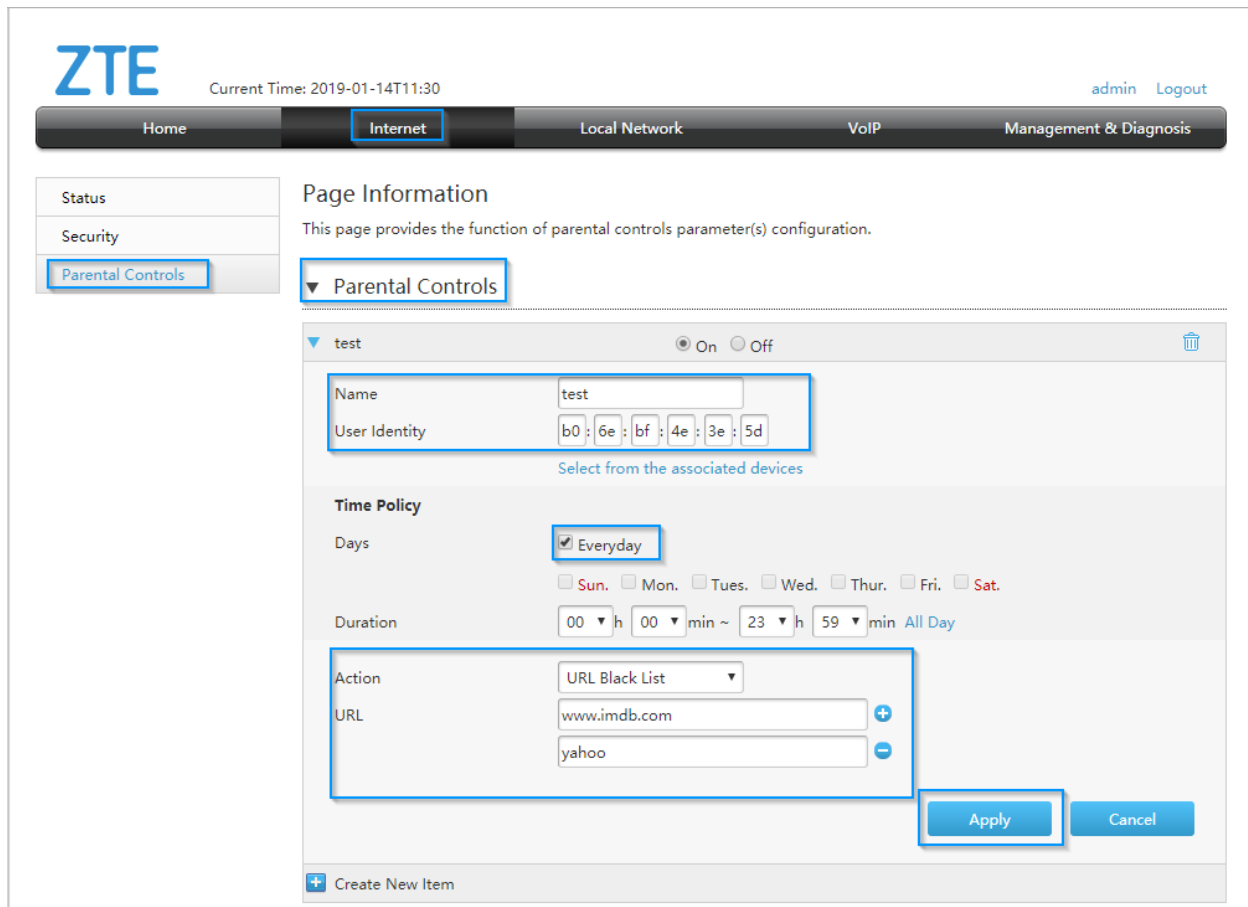
Image 4. Enabling UPnP

## Parental control

Parental control can be used to restrict access to sites. To enable parental control, please login to your router (page 2) and navigate to **Internet > Parental Controls**. Click on **Parental Controls**. Name your parental control rule and, under **User Identity**, provide the **MAC address** of the LAN client for which internet service should be blocked.

Choose the day and time during which access should be restricted and provide any keyword or URLs

you would like to block and click **Apply**. See Image 5.



**ZTE** Current Time: 2019-01-14T11:30 admin Logout

Home Internet Local Network VoIP Management & Diagnosis

Status  
Security  
Parental Controls

**Page Information**  
This page provides the function of parental controls parameter(s) configuration.

▼ Parental Controls

test On Off

Name test

User Identity b0 : 6e : bf : 4e : 3e : 5d  
Select from the associated devices

**Time Policy**

Days ☒ Everyday  
☐ Sun. ☐ Mon. ☐ Tues. ☐ Wed. ☐ Thur. ☐ Fri. ☐ Sat.

Duration 00 h 00 min ~ 23 h 59 min All Day

Action URL Black List

URL www.imdb.com +  
yahoo -

Apply Cancel

+ Create New Item

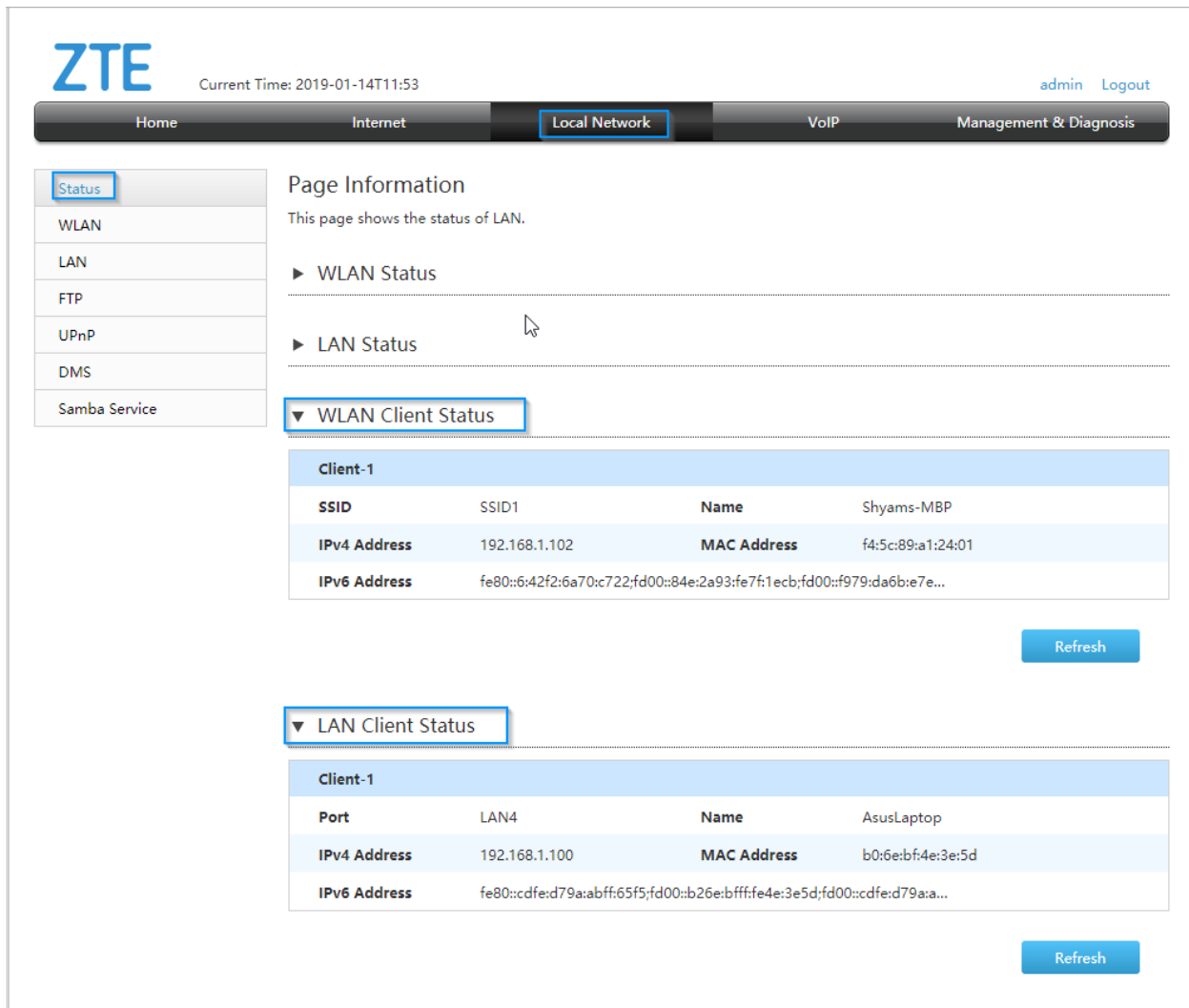
Image 5. Example of traffic blocking to Yahoo and imdb

Please note that parental control won't filter any website which contains https in the address bar (e.g. https://www.youtube.com). This means it will only filter websites with http (e.g. http://www.yahoo.com)

## LAN clients

The number of LAN (Local Area Network) clients, their MAC addresses and associated IPv4 addresses can be checked once you're logged into your router (see page 2). Navigate to **Local Network > Status > WLAN Client Status** and **LAN Client Status**. See Image 6.

Here you'll be able to see all the devices connected to your Wi-Fi and Ethernet network.



**ZTE** Current Time: 2019-01-14T11:53 admin Logout

Home Internet **Local Network** VoIP Management & Diagnosis

**Status**

- WLAN
- LAN
- FTP
- UPnP
- DMS
- Samba Service

**Page Information**  
This page shows the status of LAN.

► WLAN Status

► LAN Status

▼ **WLAN Client Status**

Client-1			
SSID	SSID1	Name	Shyams-MBP
IPv4 Address	192.168.1.102	MAC Address	f4:5c:89:a1:24:01
IPv6 Address	fe80::6:42f2:6a70:c722:fd00::84e:2a93:fe7f:1ecb:fd00::f979:da6b:e7e...		

Refresh

▼ **LAN Client Status**

Client-1			
Port	LAN4	Name	AsusLaptop
IPv4 Address	192.168.1.100	MAC Address	b0:6e:bf:4e:3e:5d
IPv6 Address	fe80::cdfc:d79a:abff:65f5:fd00::b26e:bfff:fe4e:3e5d:fd00::cdfc:d79a:a...		

Refresh

Image 6. List of WLAN and Ethernet LAN clients

When moving your mouse over IPv6 addresses, all IPv6 addresses will be shown inside a yellow/white comment box.

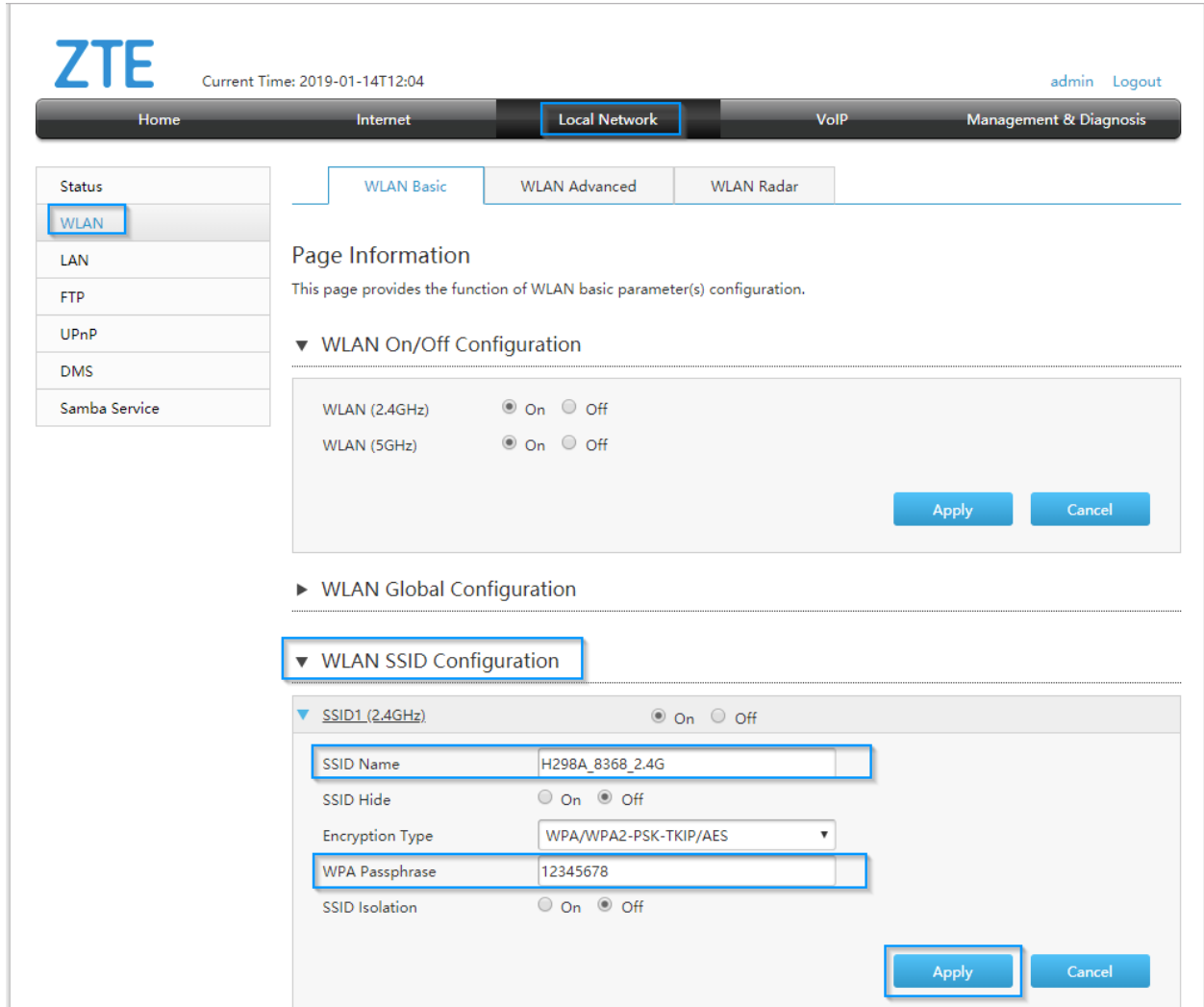
## Wi-Fi password and SSID change

To change your wifi password or SSID name, log into your router (see page 2) and navigate to **Local Network > WLAN > WLAN Basic > WLAN SSID Configuration**. See Image 7.

You can then choose the SSID name and WPA Passphrase. Please use passwords containing upper and lower-case letters and numbers, with a minimum of 12 characters in length. Once changed, click



**Apply.**



**ZTE** Current Time: 2019-01-14T12:04 admin Logout

Home Internet **Local Network** VoIP Management & Diagnosis

Status  
**WLAN**  
LAN  
FTP  
UPnP  
DMS  
Samba Service

WLAN Basic WLAN Advanced WLAN Radar

### Page Information

This page provides the function of WLAN basic parameter(s) configuration.

#### ▼ WLAN On/Off Configuration

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

Apply Cancel

#### ▶ WLAN Global Configuration

#### ▼ WLAN SSID Configuration

##### ▼ SSID1 (2.4GHz) ☒ On ☐ Off

SSID Name: H298A\_8368\_2.4G  
SSID Hide: ☐ On ☒ Off  
Encryption Type: WPA/WPA2-PSK-TKIP/AES  
WPA Passphrase: 12345678  
SSID Isolation: ☐ On ☒ Off

Apply Cancel

Image 7. Configuration of 2.4GHz Wi-Fi parameters

Please note, it's highly recommended to use only WPA2-PSK-AES for 2.4GHz and 5GHz.

Configuration of 5GHz wifi parameters is described in Image 8. Again, SSID Name and WPA Passphrase can be chosen by you. Once changed, click **Apply**.

▼ WLAN SSID Configuration

▼ SSID1 (2.4GHz) ☒ On ☐ Off

SSID Name

SSID Hide ☐ On ☒ Off

Encryption Type

WPA Passphrase

SSID Isolation ☐ On ☒ Off

▶ SSID2 (2.4GHz) ☐ On ☒ Off

▶ SSID3 (2.4GHz) ☐ On ☒ Off

▶ SSID4 (2.4GHz) ☐ On ☒ Off

▼ SSID5 (5GHz) ☒ On ☐ Off

SSID Name

SSID Hide ☐ On ☒ Off

Encryption Type

WPA Passphrase

SSID Isolation ☐ On ☒ Off

▶ SSID6 (5GHz) ☐ On ☒ Off

▶ SSID7 (5GHz) ☐ On ☒ Off

▶ SSID8 (5GHz) ☐ On ☒ Off

Image 8. Configuration of 5GHz Wi-Fi parameters

## Creating, disabling and changing settings for SSIDs

To create a new SSID, log into your router (see page 2) and navigate to **Local Network > WLAN > WLAN SSID Configuration**. Enable an SSID by clicking **On**. See Image 9.

If a newly created SSID is enabled, it'll be visible on the Home page.

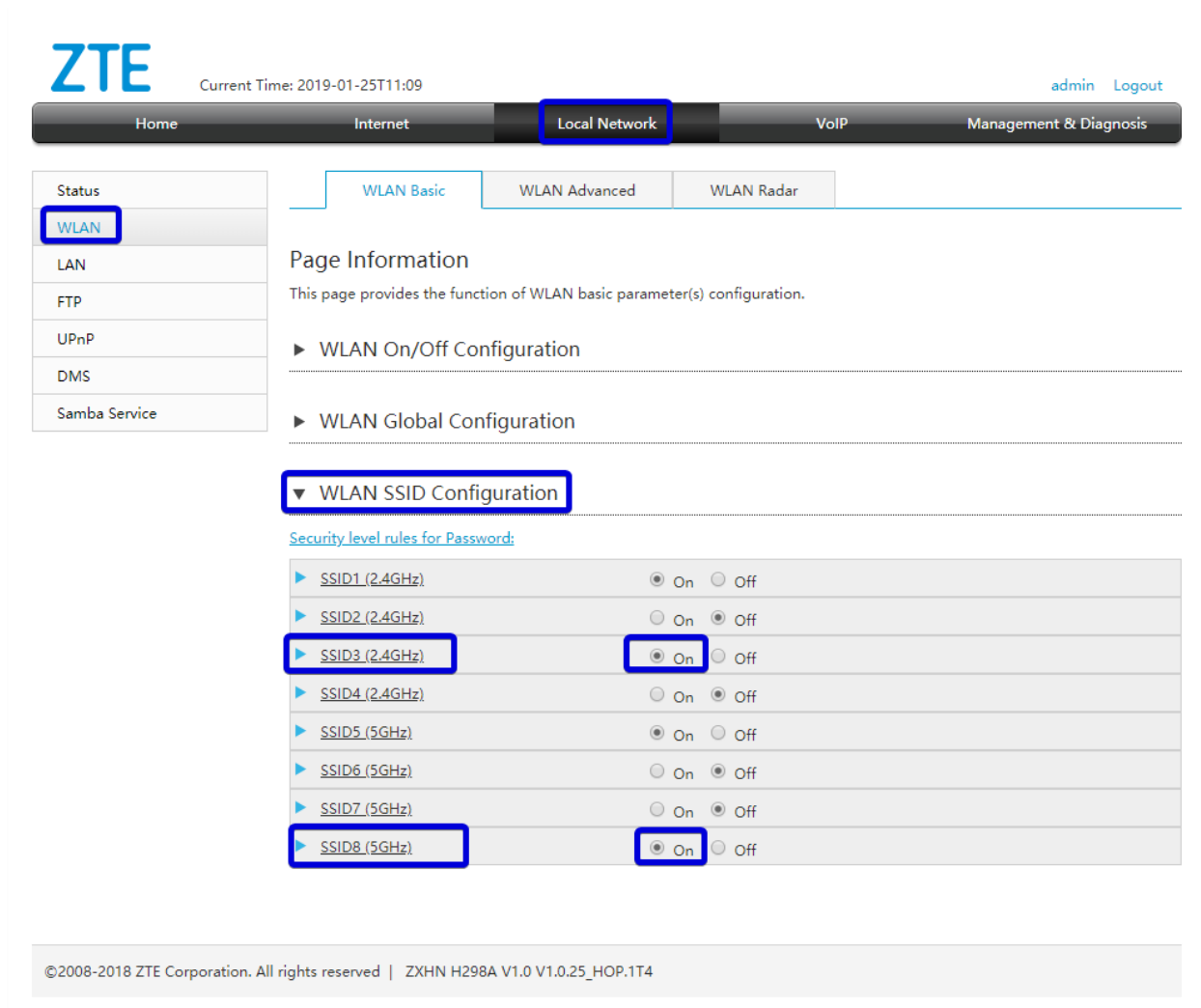


Image 9. Creating new SSID

Once new or existing SSIDs are enabled, you can expand their properties by clicking on the blue triangle. See Image 10. Type your chosen **SSID Name** and supply the **WPA Passphrase** that would be needed for access. Click **Apply**.

## ▼ WLAN SSID Configuration

[Security level rules for Password:](#)

▶ SSID1 (2.4GHz)	<input checked="" type="radio"/> On <input type="radio"/> Off
▶ SSID2 (2.4GHz)	<input type="radio"/> On <input checked="" type="radio"/> Off
▼ SSID3 (2.4GHz)	<input checked="" type="radio"/> On <input type="radio"/> Off
<div>SSID Name: H298A_2G_SSID3</div> <div>SSID Hide: <input type="radio"/> On <input checked="" type="radio"/> Off</div> <div>Encryption Type: WPA2-PSK-AES</div> <div>WPA Passphrase: 12345678</div> <div><input checked="" type="checkbox"/> show password</div> <div>SSID Isolation: <input type="radio"/> On <input checked="" type="radio"/> Off</div> <div>Apply Cancel</div>	
▶ SSID4 (2.4GHz)	<input type="radio"/> On <input checked="" type="radio"/> Off
▶ SSID5 (5GHz)	<input checked="" type="radio"/> On <input type="radio"/> Off
▶ SSID6 (5GHz)	<input type="radio"/> On <input checked="" type="radio"/> Off
▶ SSID7 (5GHz)	<input type="radio"/> On <input checked="" type="radio"/> Off
▼ SSID8 (5GHz)	<input checked="" type="radio"/> On <input type="radio"/> Off
<div>SSID Name: H298A_5G_SSID4</div> <div>SSID Hide: <input type="radio"/> On <input checked="" type="radio"/> Off</div> <div>Encryption Type: WPA2-PSK-AES</div> <div>WPA Passphrase: 87654321</div> <div><input checked="" type="checkbox"/> show password</div> <div>SSID Isolation: <input type="radio"/> On <input checked="" type="radio"/> Off</div> <div>Apply Cancel</div>	

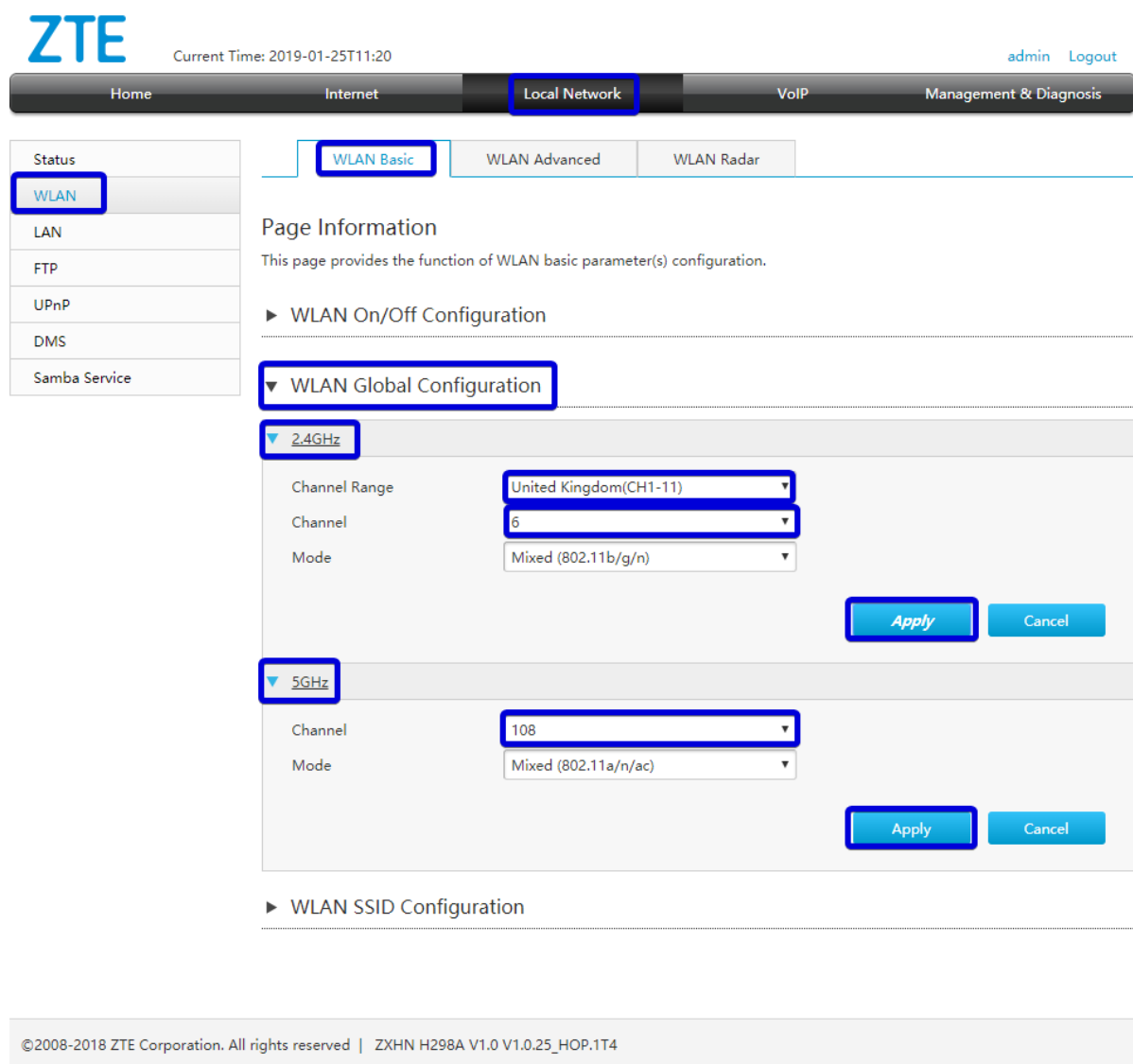
Image 10. Changing SSID Name and WPA Passphrase for new SSIDs

To disable an existing SSID, click the **Off** button associated with that SSID.

## Wi-Fi channel change

To minimise interference, we highly recommend leaving your wifi channel selection on its default settings. If you would like to change your channel selection, however, you can do so by logging into your router (see page 2) and navigating to **Local Network > WLAN > WLAN Basic > WLAN Global Configuration**.

Expand properties by clicking on the blue rectangle near the 2.4GHz and 5GHz frequency bands. For 2.4GHz, select **Channel Range of United Kingdom(CH1-11)**, select your desired channel and click **Apply**. See Image 11.



**ZTE** Current Time: 2019-01-25T11:20 admin Logout

Home Internet **Local Network** VoIP Management & Diagnosis

Status  
**WLAN**  
LAN  
FTP  
UPnP  
DMS  
Samba Service

**WLAN Basic** WLAN Advanced WLAN Radar

Page Information  
This page provides the function of WLAN basic parameter(s) configuration.

▶ WLAN On/Off Configuration

▼ **WLAN Global Configuration**

▼ **2.4GHz**

Channel Range: United Kingdom(CH1-11)  
Channel: 6  
Mode: Mixed (802.11b/g/n)

Apply Cancel

▼ **5GHz**

Channel: 108  
Mode: Mixed (802.11a/n/ac)

Apply Cancel

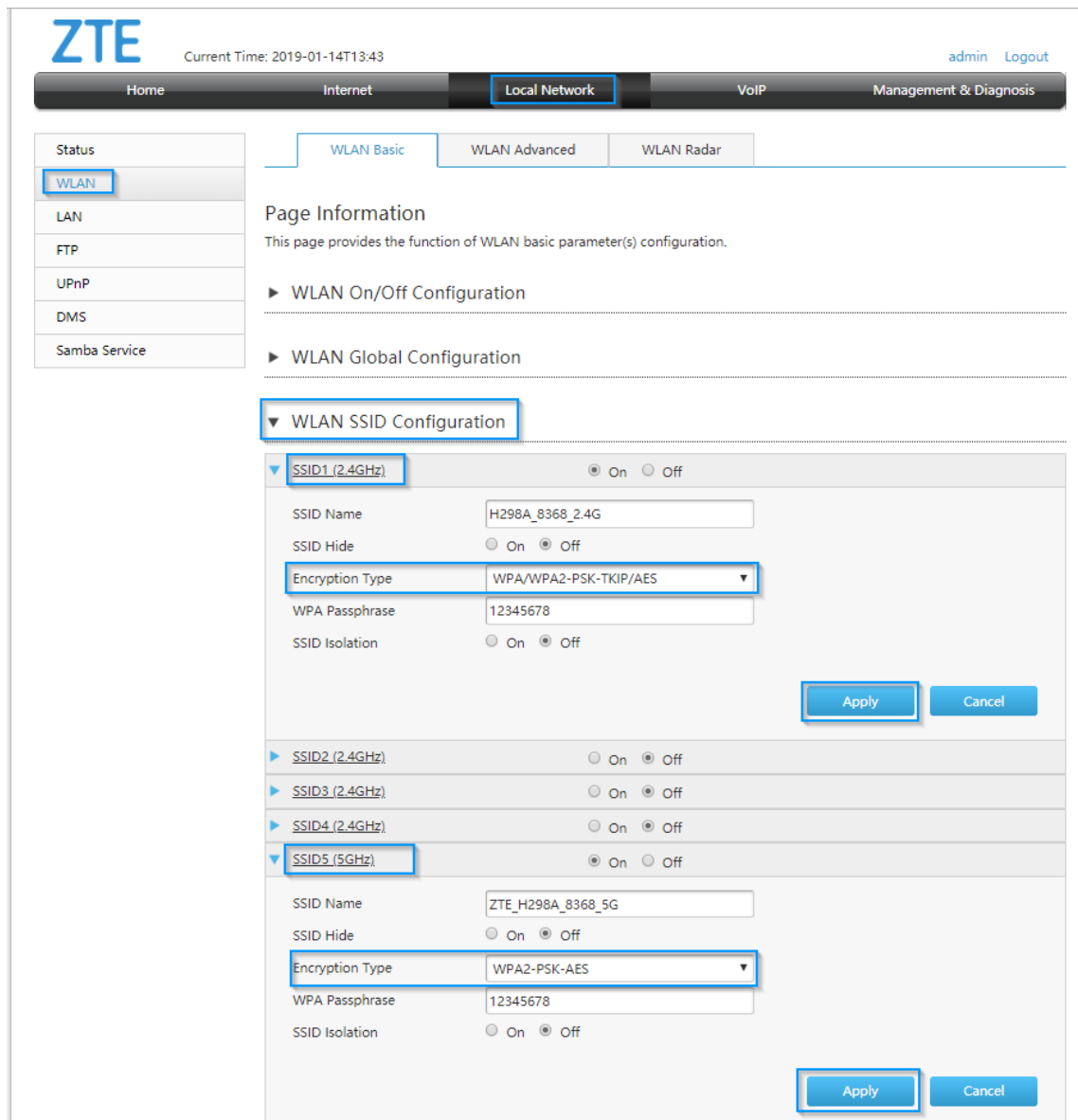
▶ WLAN SSID Configuration

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Image 11. Selecting channel for Wi-Fi

## Wi-Fi authentication

To change your wifi authentication settings, please log into your router (page 2) and navigate to **Local Network > WLAN > WLAN Basic > WLAN SSID Configuration**. Select **Encryption Type** from the drop-down menu and click **Apply**. See Image 12. By default, advanced encryption algorithm is used. Please note, it's highly recommended to use only WPA2-PSK-AES for 2.4GHz and 5GHz.



**ZTE** Current Time: 2019-01-14T13:43 admin Logout

Home Internet **Local Network** VoIP Management & Diagnosis

Status  
**WLAN**  
LAN  
FTP  
UPnP  
DMS  
Samba Service

WLAN Basic WLAN Advanced WLAN Radar

Page Information  
This page provides the function of WLAN basic parameter(s) configuration.

► WLAN On/Off Configuration

► WLAN Global Configuration

▼ **WLAN SSID Configuration**

▼ **SSID1 (2.4GHz)** ☐ On ☒ Off

SSID Name: H298A\_8368\_2.4G

SSID Hide: ☐ On ☒ Off

Encryption Type: WPA/WPA2-PSK-TKIP/AES

WPA Passphrase: 12345678

SSID Isolation: ☐ On ☒ Off

Apply Cancel

► **SSID2 (2.4GHz)** ☐ On ☒ Off

► **SSID3 (2.4GHz)** ☐ On ☒ Off

► **SSID4 (2.4GHz)** ☐ On ☒ Off

▼ **SSID5 (5GHz)** ☒ On ☐ Off

SSID Name: ZTE\_H298A\_8368\_5G

SSID Hide: ☐ On ☒ Off

Encryption Type: WPA2-PSK-AES

WPA Passphrase: 12345678

SSID Isolation: ☐ On ☒ Off

Apply Cancel

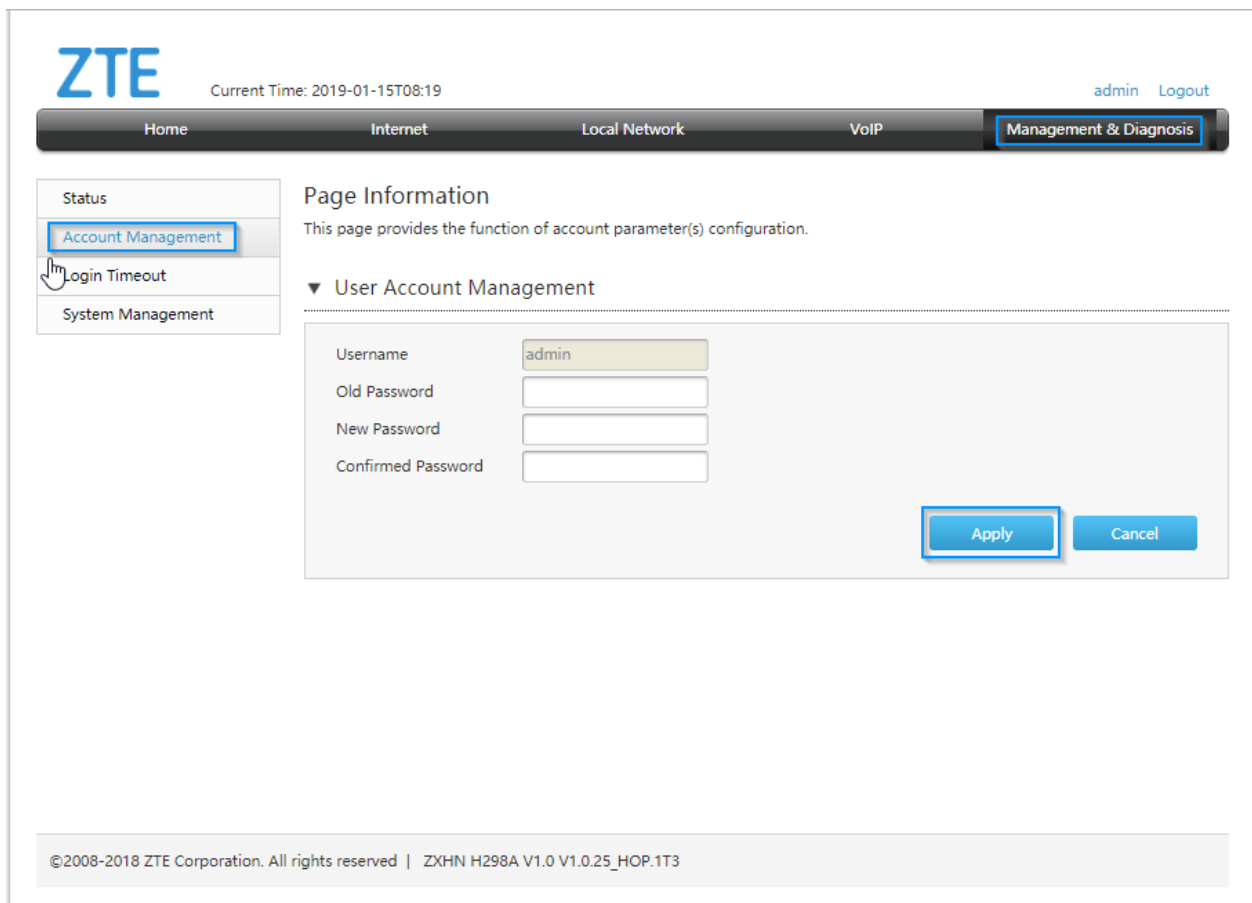
Image 12. Encryption types per SSID

## WPS connection

To connect to wifi without a password, press the **WPS** button on the router until the LED light indicates that WPS is active. Once the LED lights green, press the **WPS** button on your LAN device. After a few seconds, the connection will be made.

## Change of admin credentials

To change your admin login password, log into your router (see page 2) and navigate to **Management & Diagnostics > Account Management > User Account Management**. See Image 13. You can find the old password on the router itself. Once the new details are entered, click **Apply**.



The screenshot displays the ZTE H298A web management interface. At the top, the ZTE logo is on the left, the current time is 2019-01-15T08:19, and the user is logged in as 'admin' with a 'Logout' link. A navigation bar includes 'Home', 'Internet', 'Local Network', 'VoIP', and 'Management & Diagnosis' (which is highlighted). On the left sidebar, 'Status' is expanded, showing 'Account Management' (highlighted with a blue box and a mouse cursor), 'Login Timeout', and 'System Management'. The main content area is titled 'Page Information' and states 'This page provides the function of account parameter(s) configuration.' Below this is the 'User Account Management' section, which contains a form with four fields: 'Username' (pre-filled with 'admin'), 'Old Password', 'New Password', and 'Confirmed Password'. At the bottom right of the form are 'Apply' and 'Cancel' buttons, with 'Apply' highlighted by a blue box. The footer shows copyright information: '©2008-2018 ZTE Corporation. All rights reserved | ZXHN H298A V1.0 V1.0.25\_HOP.1T3'.

Image 13. Changing old admin password

## Reboot and Factory Reset

You can reboot your router or restore it to factory settings by logging in (see page 2) and navigating to **Management & Diagnostic > System Management > Device Management**. See Image 14.

Please note, factory reset isn't recommended as it can shorten the life of a router if used often. Also, factory reset will delete any user-made configuration, such as wifi SSID, wifi password, port forwarding rules, etc.

If you're experiencing significant issues with your connection, we recommend trying a reboot first.

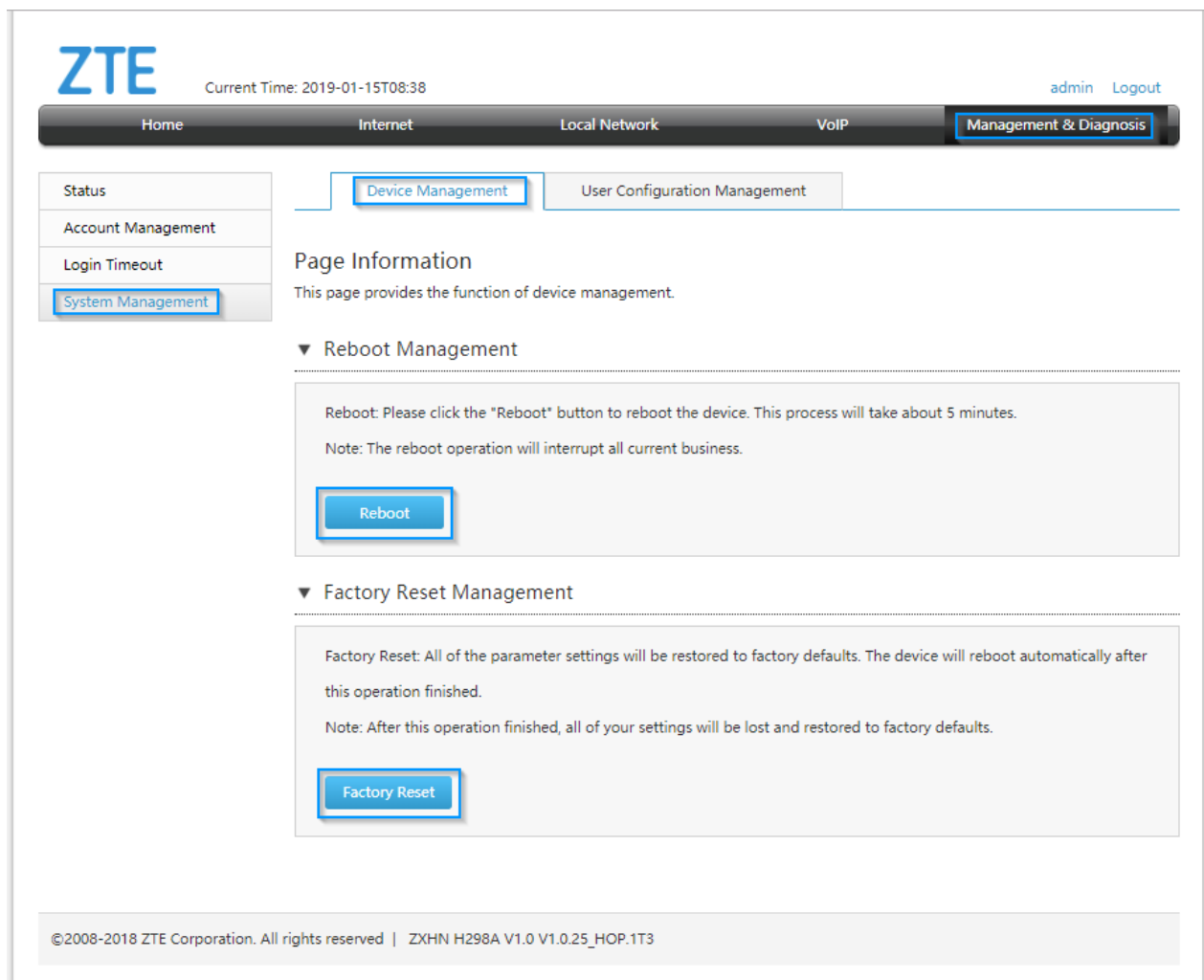
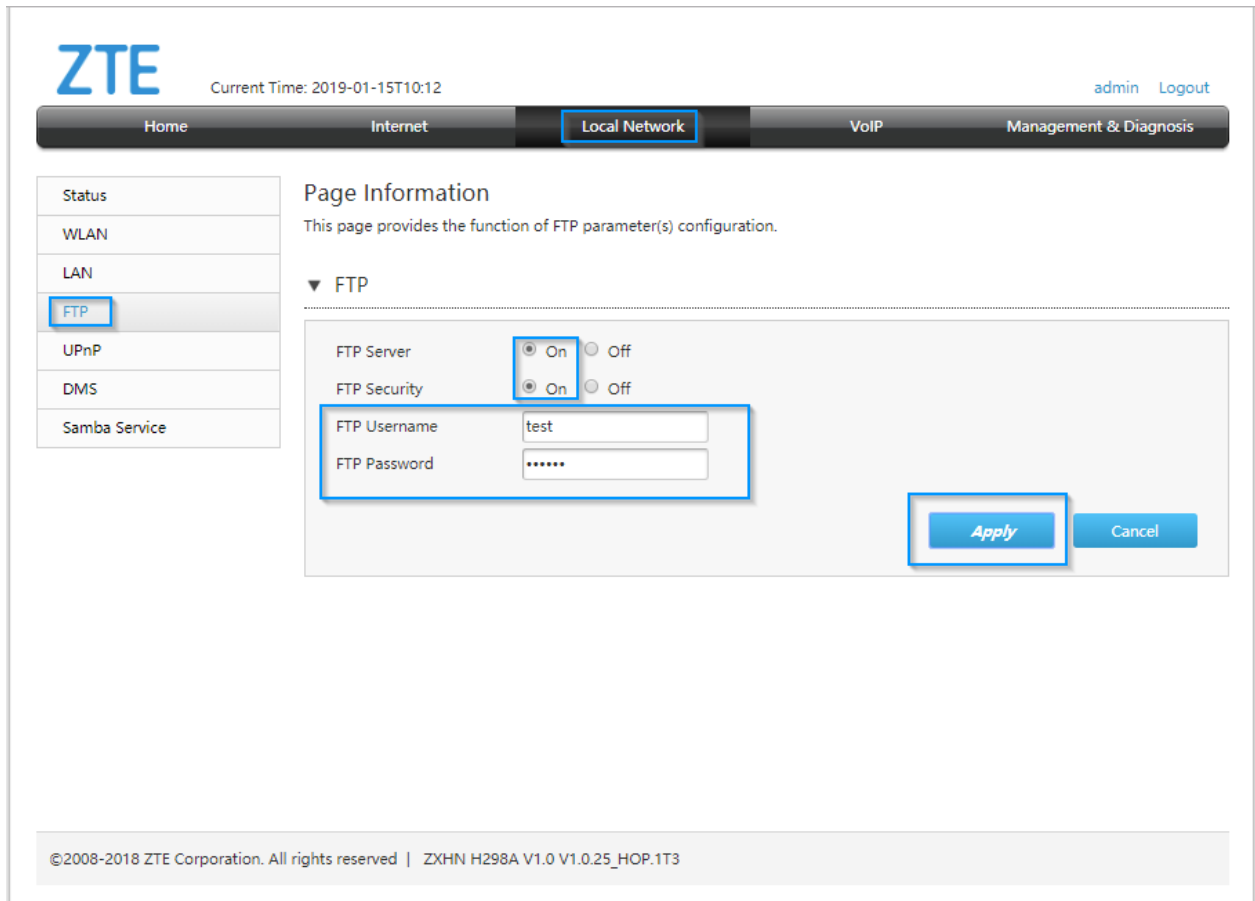


Image 14. Reboot and Factory reset buttons



## USB storage

You can access the USB storage port on your router from a LAN client. To grant access to USB flash, please log into your router (page 2) and navigate to **Local Network > FTP**. Enable FTP server and enable security (click **On** buttons). Once enabled, configure **FTP username** and **FTP password** and click **Apply**. See Image 15. Your router's USB port with attached flash drive can be used as additional storage, linked to LAN network.



The screenshot shows the ZTE H298A web interface. At the top, the ZTE logo is on the left, the current time is 2019-01-15T10:12, and 'admin' is logged in with a 'Logout' link. A navigation bar includes 'Home', 'Internet', 'Local Network' (selected), 'VoIP', and 'Management & Diagnosis'. On the left, a sidebar menu lists 'Status', 'WLAN', 'LAN', 'FTP' (selected), 'UPnP', 'DMS', and 'Samba Service'. The main content area is titled 'Page Information' and states 'This page provides the function of FTP parameter(s) configuration.' Below this, the 'FTP' section is expanded, showing 'FTP Server' and 'FTP Security' both set to 'On' (radio buttons). Below these are input fields for 'FTP Username' (containing 'test') and 'FTP Password' (masked with dots). At the bottom right of the form are 'Apply' and 'Cancel' buttons. The footer contains the copyright notice: '©2008-2018 ZTE Corporation. All rights reserved | ZXHN H298A V1.0 V1.0.25\_HOP.1T3'.

Image 15. Enabling FTP access to USB flash

From local LAN station, access can be performed by typing **ftp://192.168.1.1** in web browser. See Image 16. Using your web browser, it's only possible to download - but if FTP client is used (e.g. FileZilla), upload is also possible.



Image 16. LAN access to USB flash drive

Remote FTP access to USB flash drive requires advanced router configuration, and can be done on request.

Access to USB flash drive from LAN can be achieved via Digital Media Server feature. See Image 17. Navigate to **Local Network > DMS**. Click **On** and **Apply**. LAN applications that support DMS will enable access to USB drive (e.g. VLC player, Windows Media Player).

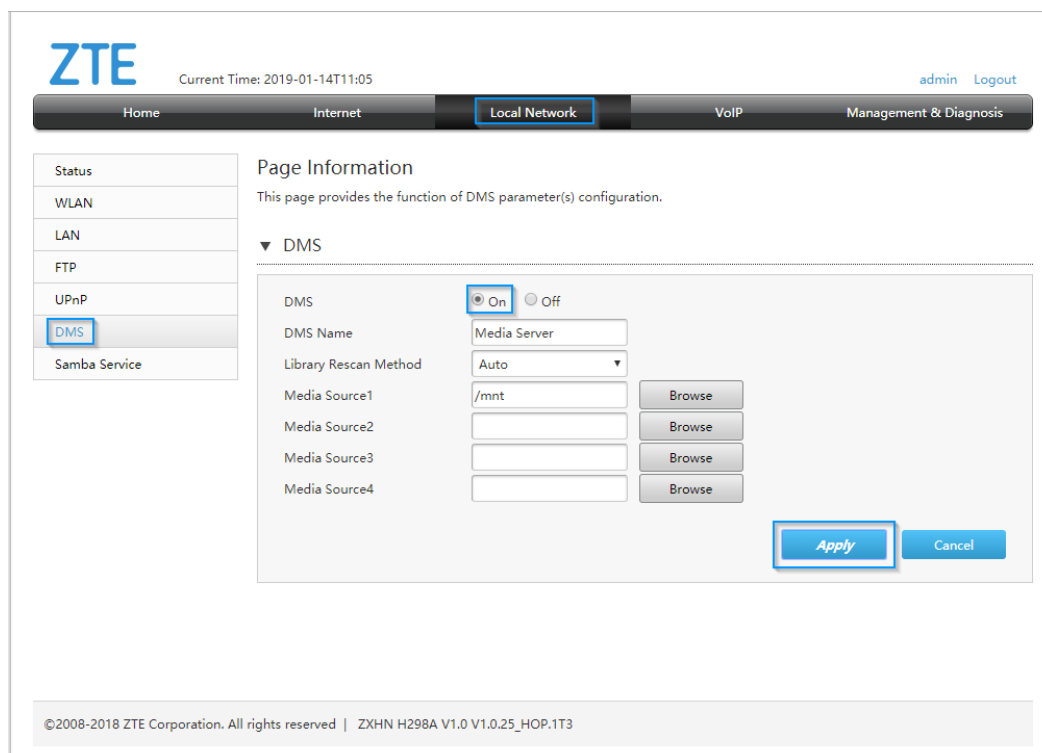


Image 17. Enabling Digital Media Server feature

You can also access USB flash drive from PC application. See Image 18.

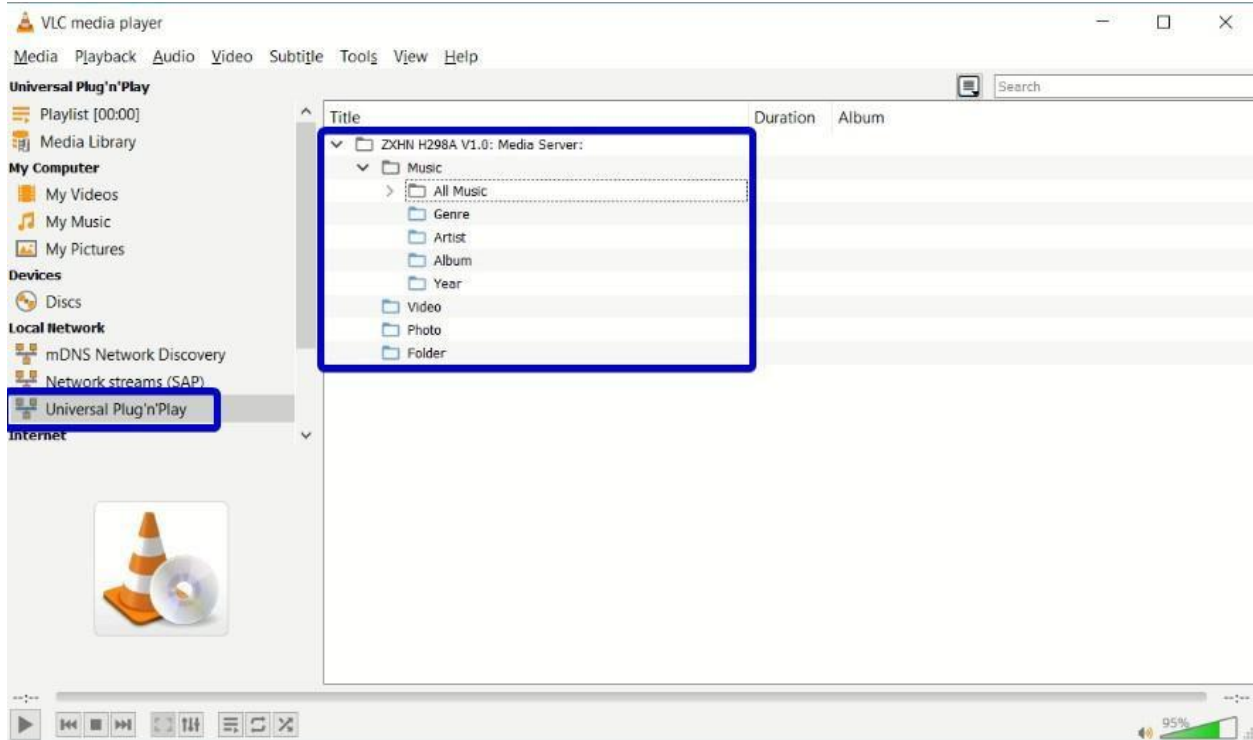


Image 18. Access to USB flash drive from PC application

## Port forwarding

Connect your personal computer to the router via an ethernet cable or Wi-Fi. Open a web browser and type **192.168.1.1** in the search line. You should then see a login page, as below (Image 19). Port forwarding can be used to establish home-based FTP server, web server or similar kind of a server.

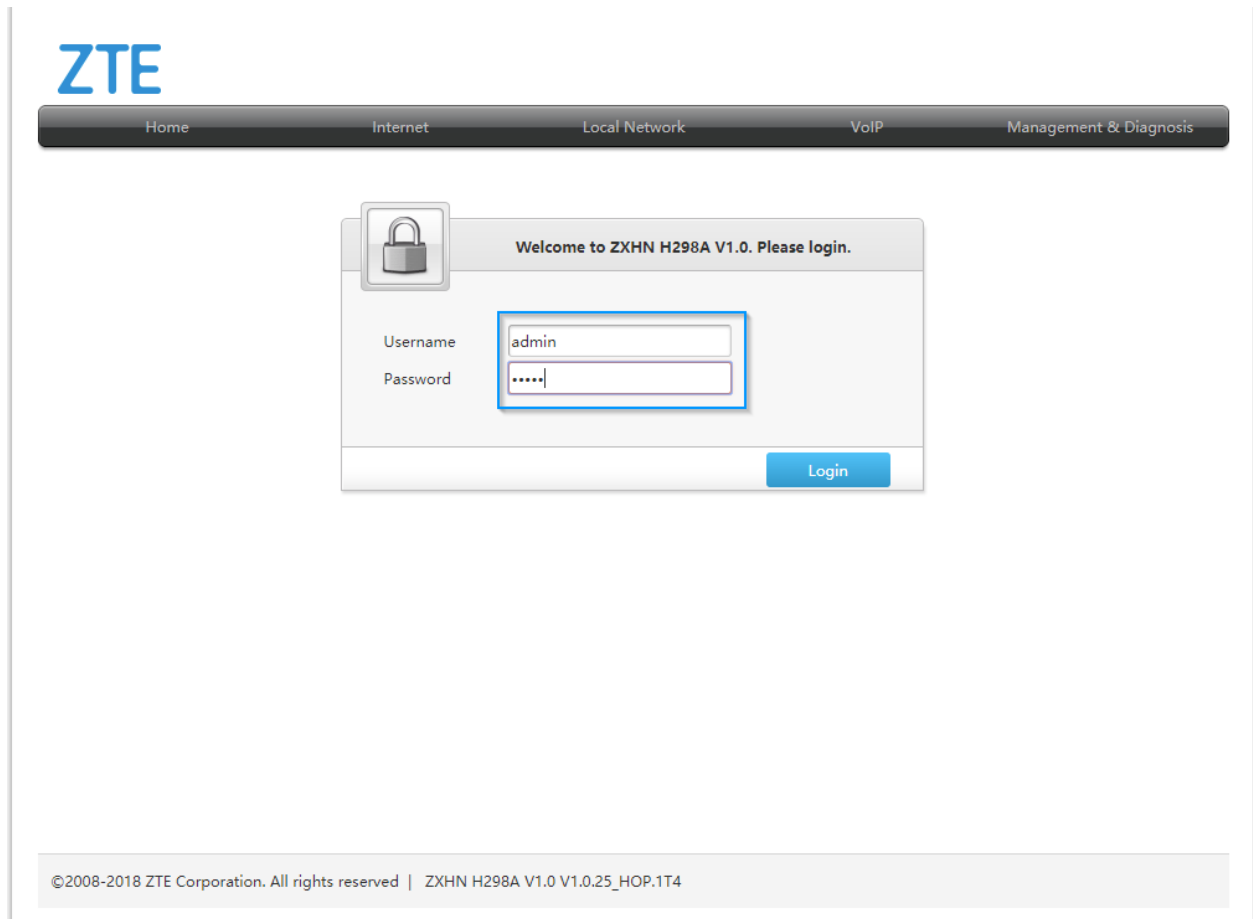


Image 19. Login page of a ZTE H298A router

In the Username field, type “**admin**”. You’ll be able to find the password associated with your router written on the back of the router itself. Once identified, type this into the Password field.

Once logged in, navigate to **Internet > Security > Port Forwarding**. See Image 20.

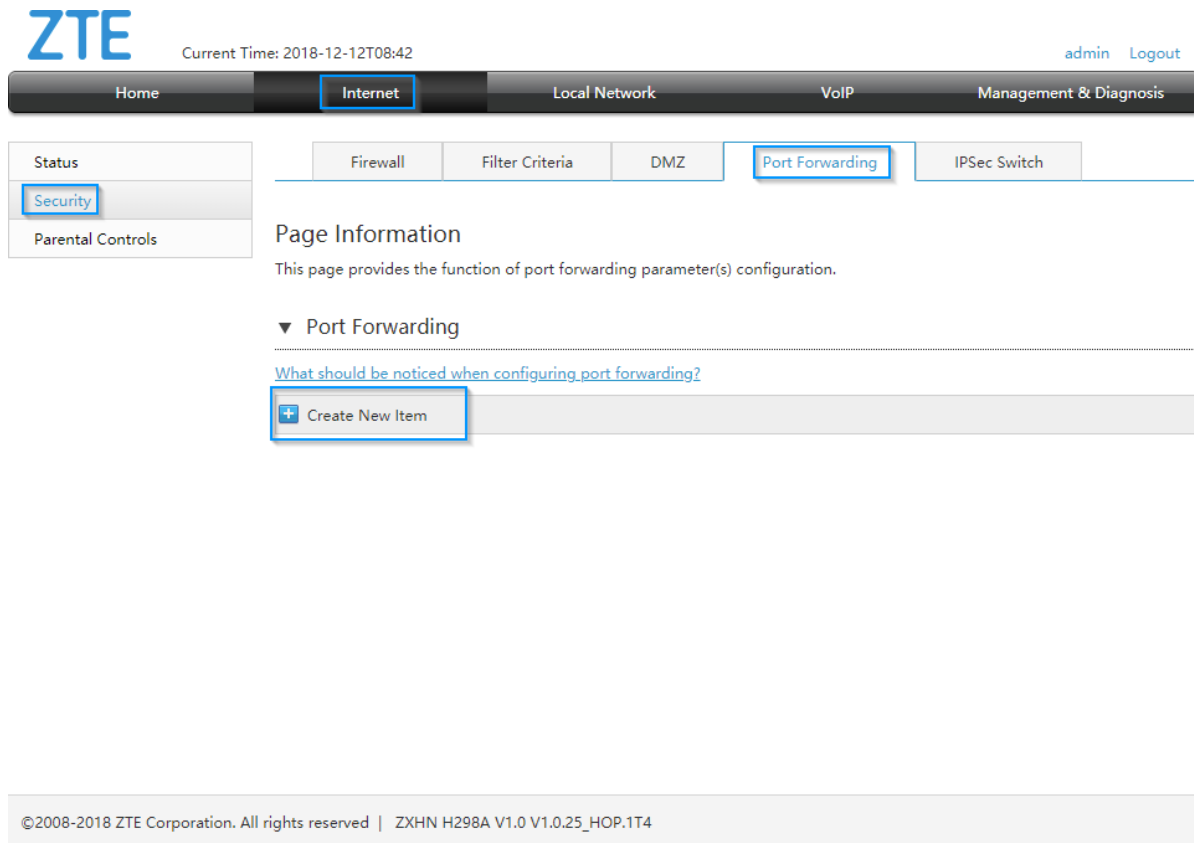


Image 20. Port forwarding section of the router configuration

Click on **Create New Item** to create a new port forwarding rule. This rule will use IPv4 addresses. The new section should appear with all relevant fields that need to be configured (see Image 21).

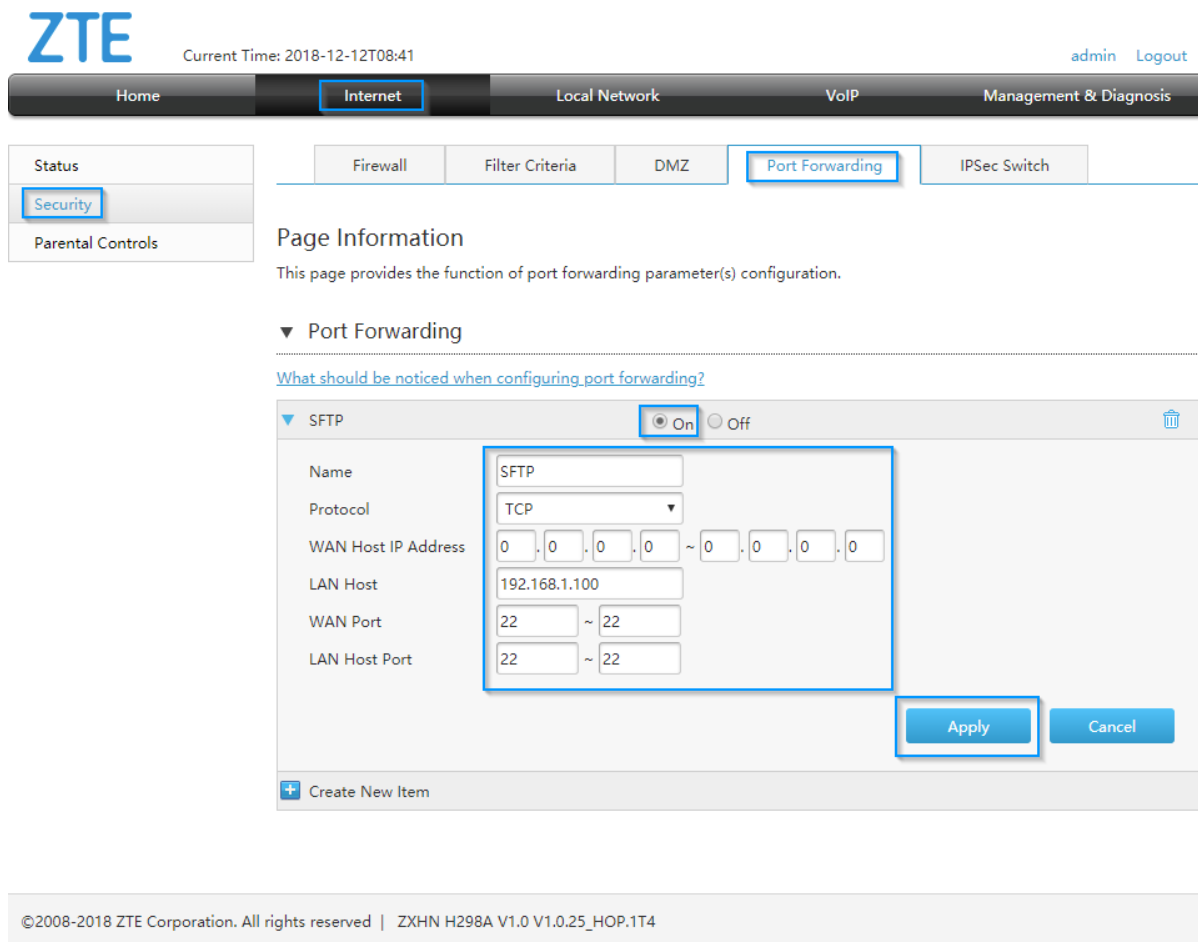
The **Name field** can be filled in with any name, which will be used to indicate which service is being served.

Select the **Protocol** type (**TCP** or **UDP**).

The **WAN Host IP address** fields can be left unpopulated if local service needs to be accessible from any location on internet (any IPv4 address). In this case, the values in all fields will be **0**.

If access is needed from a specific IPv4 address or from a range of IPv4 addresses, this section needs to be configured (e.g. 141.0.144.129 ~ 141.0.144.130). In the example illustrated in Image 21, the SFTP server is running in LAN. The SFTP server is located on the LAN client with IPv4 address **192.168.1.100**. The server will be listening for connections on TCP port 22, so TCP 22 must be listed. The list port ranges in sections **WAN port** and **LAN Host port**.

Once all the parameters are listed, click **Apply**. This will save your new router configuration.



**ZTE** Current Time: 2018-12-12T08:41 admin Logout

Home Internet Local Network VoIP Management & Diagnosis

Status Security Parental Controls

Firewall Filter Criteria DMZ Port Forwarding IPsec Switch

### Page Information

This page provides the function of port forwarding parameter(s) configuration.

▼ Port Forwarding

[What should be noticed when configuring port forwarding?](#)

▼ SFTP ☒ On ☐ Off

Name: SFTP

Protocol: TCP

WAN Host IP Address: 0 . 0 . 0 . 0 ~ 0 . 0 . 0 . 0

LAN Host: 192.168.1.100

WAN Port: 22 ~ 22

LAN Host Port: 22 ~ 22

Apply Cancel

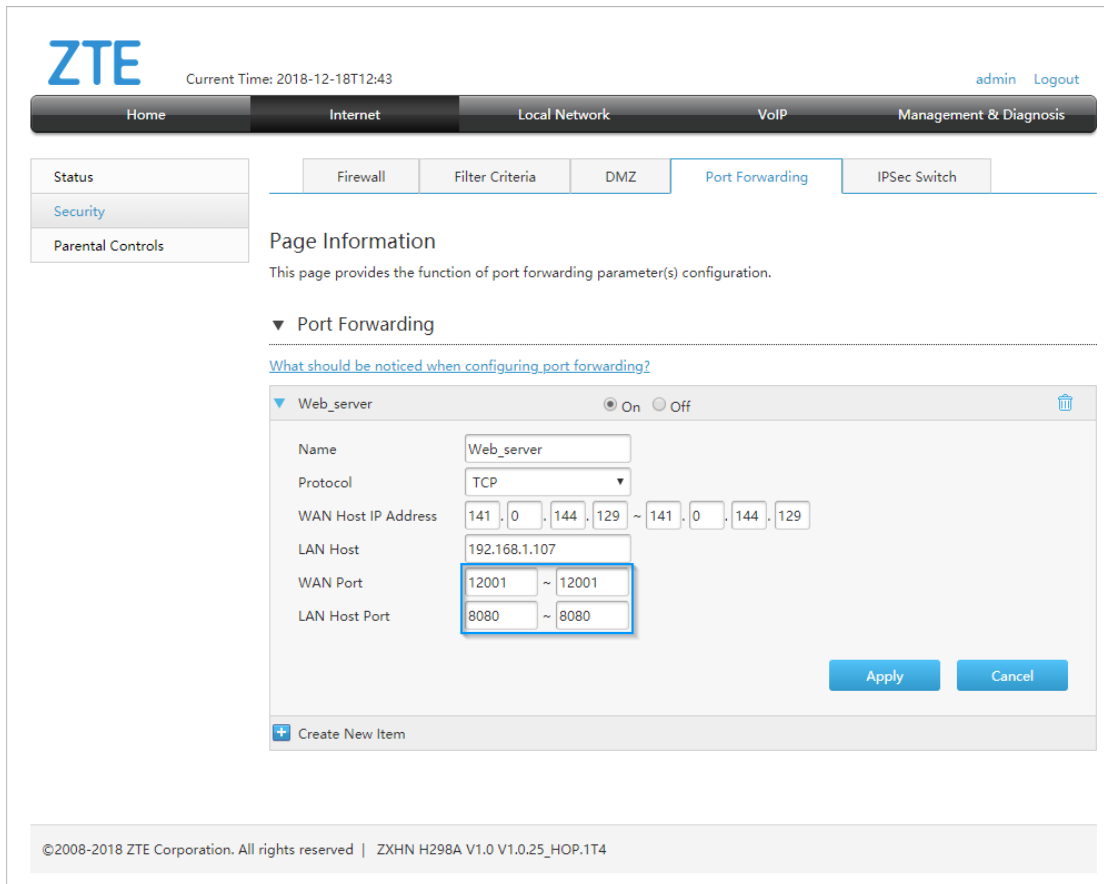
+ Create New Item

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Image 21. Defining port forwarding rule

Alternatively, port forwarding can be configured in a way that port mapping is performed. An example of this is illustrated in Image 22. In this case, WAN port 12001 traffic has been forwarded to the local web server which is listening for connections on port 8080. The router does a port translation.

Please also note that ports 80 and 443 **should never be used on WAN**, as these ports are reserved for Hyperoptic Ltd. remote management. If you'd like to use these ports on your server in a LAN, then you can use different ports on WAN as shown on Image 22 (e.g. you can use ports on WAN 12000, 12001 and map them to LAN ports 80, 443 respectively).



**ZTE** Current Time: 2018-12-18T12:43 admin Logout

Home Internet Local Network VoIP Management & Diagnosis

Status Security Parental Controls

Firewall Filter Criteria DMZ Port Forwarding IPsec Switch

### Page Information

This page provides the function of port forwarding parameter(s) configuration.

▼ Port Forwarding

[What should be noticed when configuring port forwarding?](#)

▼ Web\_server ☒ On ☐ Off

Name: Web\_server

Protocol: TCP

WAN Host IP Address: 141 . 0 . 144 . 129 ~ 141 . 0 . 144 . 129

LAN Host: 192.168.1.107

WAN Port: 12001 ~ 12001

LAN Host Port: 8080 ~ 8080

Apply Cancel

+ Create New Item

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Image 22. Example when different WAN port is serving different LAN port

A list of commonly used ports is illustrated in image 23. For additional information on TCP/UDP port numbers, please refer to [https://en.wikipedia.org/wiki/List\\_of\\_TCP\\_and\\_UDP\\_port\\_numbers](https://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers).

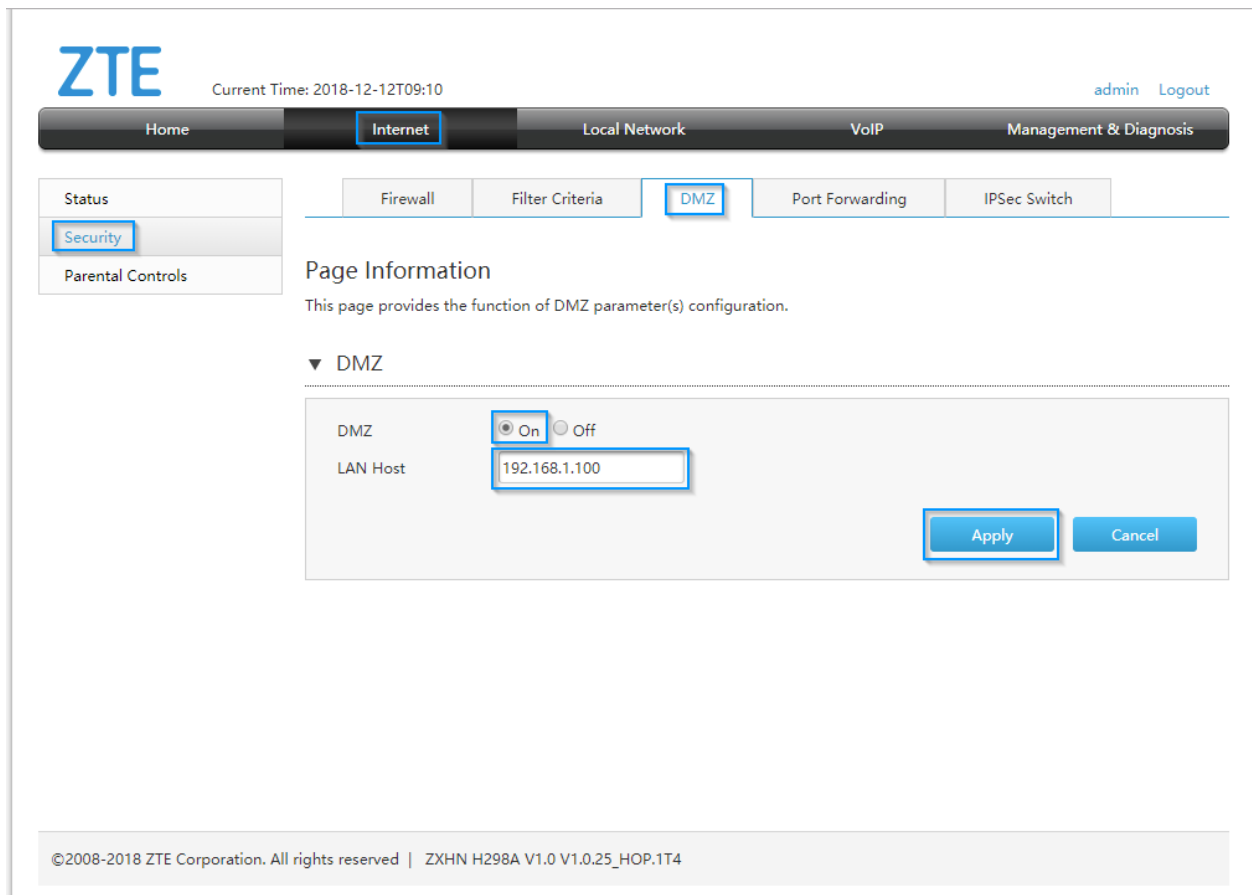
Port Number(s)	Protocol	Application
20	TCP	FTP data
21	TCP	FTP control
22	TCP	SSH
23	TCP	Telnet
25	TCP	SMTP
53	UDP, TCP	DNS
67	UDP	DHCP Server
68	UDP	DHCP Client
69	UDP	TFTP
80	TCP	HTTP (WWW)
110	TCP	POP3
161	UDP	SNMP
443	TCP	SSL
514	UDP	Syslog
16,384 – 32,767	UDP	RTP (voice, video)

Image 23. List of commonly used ports

## DMZ

Please be aware that devices placed in DMZ will not be affected by a router's firewall. Placing LAN devices in DMZ can therefore pose an IT security risk and this action should be taken with caution. If a LAN device needs to be placed in a demilitarized zone, log into your router (page 2) and go to **Internet > Security > DMZ** as seen in image 24.

Select **On** and list the IPv4 address of LAN device in the **LAN Host** field. Click **Apply**.



The screenshot displays the ZTE H298A router's web management interface. At the top, the ZTE logo is on the left, and the current time (2018-12-12T09:10) and user status (admin, Logout) are on the right. A navigation bar includes 'Home', 'Internet' (selected), 'Local Network', 'VoIP', and 'Management & Diagnosis'. Below this, a sidebar on the left shows 'Status', 'Security' (selected), and 'Parental Controls'. The main content area has tabs for 'Firewall', 'Filter Criteria', 'DMZ' (selected), 'Port Forwarding', and 'IPSec Switch'. Under the 'DMZ' tab, there is a 'Page Information' section stating: 'This page provides the function of DMZ parameter(s) configuration.' Below this, a section titled 'DMZ' contains a configuration box. Inside this box, the 'DMZ' status is set to 'On' (radio button selected) and 'Off' (radio button unselected). The 'LAN Host' field is populated with the IP address '192.168.1.100'. At the bottom right of the configuration box are 'Apply' and 'Cancel' buttons. The footer of the page reads: '©2008-2018 ZTE Corporation. All rights reserved | ZXHN H298A V1.0 V1.0.25\_HOP.1T4'.

Image 24. DMZ configuration on router



## IPv6 filters (equivalent to IPv4 port forwarding)

If IPv6 servers are available for the LAN device, access can be granted via IPv6 filters. To configure IPv6 filters, navigate to **Internet > Security > Filter Criteria > IP Filter – IPv6**. This is illustrated in Image 25.

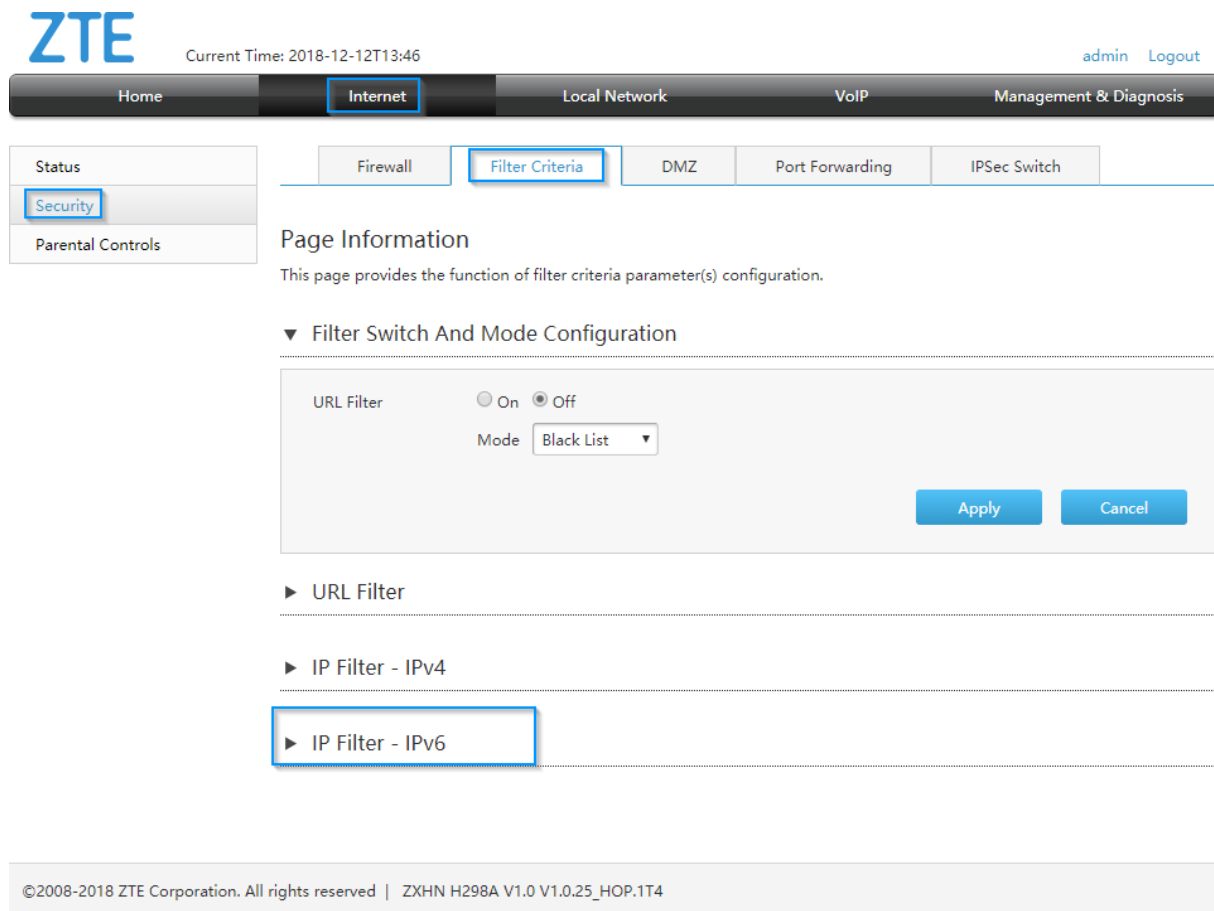


Image 25. IPv6 filters section of router configuration

Click on **IP Filter – IPv6**. You should then be presented with a page like in Image 26.

Click **On** in order to activate the IPv6 filter.

Use any **Name** for the IPv6 filter.

Click **Allow** to permit connections to the web server.

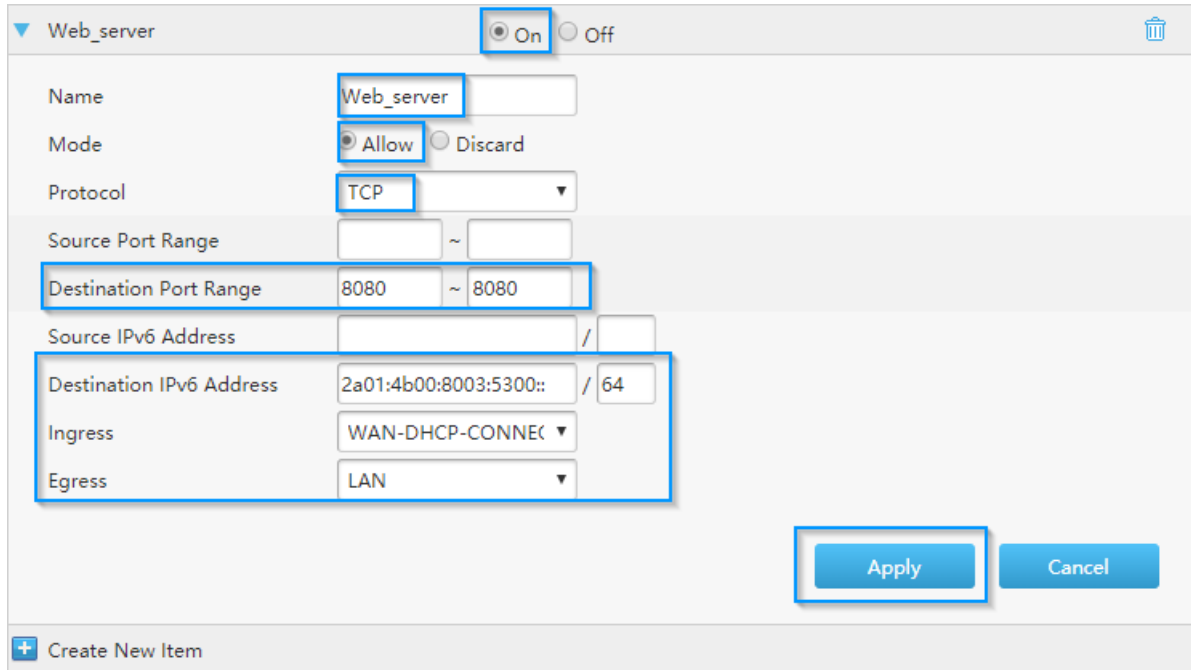
Select transport protocol – **TCP** in case of web server.

List the **Destination Port Range** which will be used for the local sever (port **8080**). Define the **Destination IPv6 Address** prefix which will be used in LAN (e.g. **2a01:4b00:8003:5300::/64**).

The **Ingress** port should be **WAN-DHCP-CONNECTION**.

The **Egress** port should be **LAN**.

If the remote address (internet side) is known, this can be configured in the **Source IPv6 Address** field.



Web\_server ☒ On ☐ Off

Name: Web\_server

Mode: ☒ Allow ☐ Discard

Protocol: TCP

Source Port Range: ~

Destination Port Range: 8080 ~ 8080

Source IPv6 Address: /

Destination IPv6 Address: 2a01:4b00:8003:5300:: / 64

Ingress: WAN-DHCP-CONNEC

Egress: LAN

Apply Cancel

+ Create New Item

Image 26. Defining IPv6 filter parameters

## DHCP Binding

Specific LAN clients can have the same IPv4 address all the time. To define which LAN client will have which IPv4 address, DHCP binding must be completed. To do this, log into your router (page 2) and go to **LAN Devices**. See Image 27.

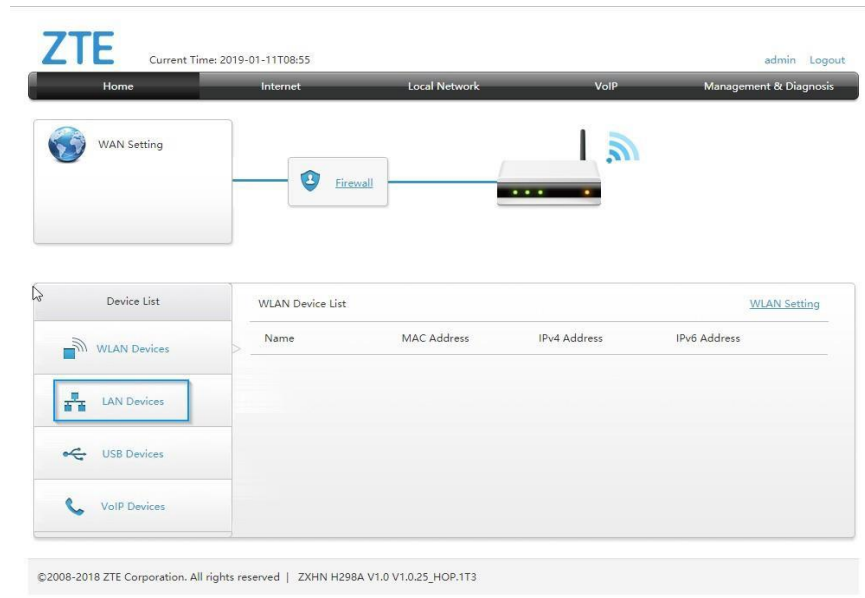


Image 27. Navigate to LAN Devices

Click on **LAN Settings** as described in photo 28. This will open another screen with **DHCP Binding** options.

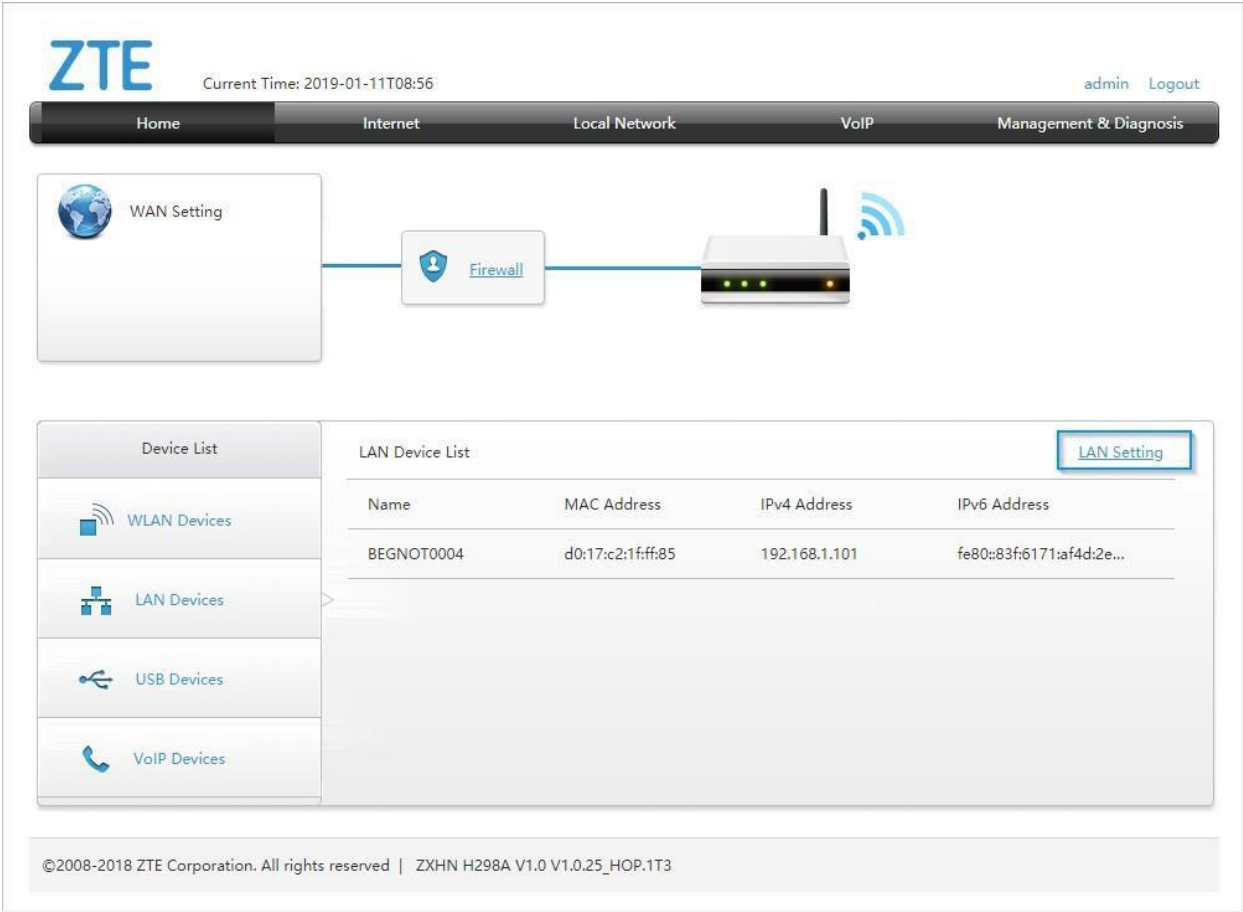


Photo 28. Navigate to section LAN Settings

After clicking on **LAN Settings**, a screen as in Image 29 should appear.

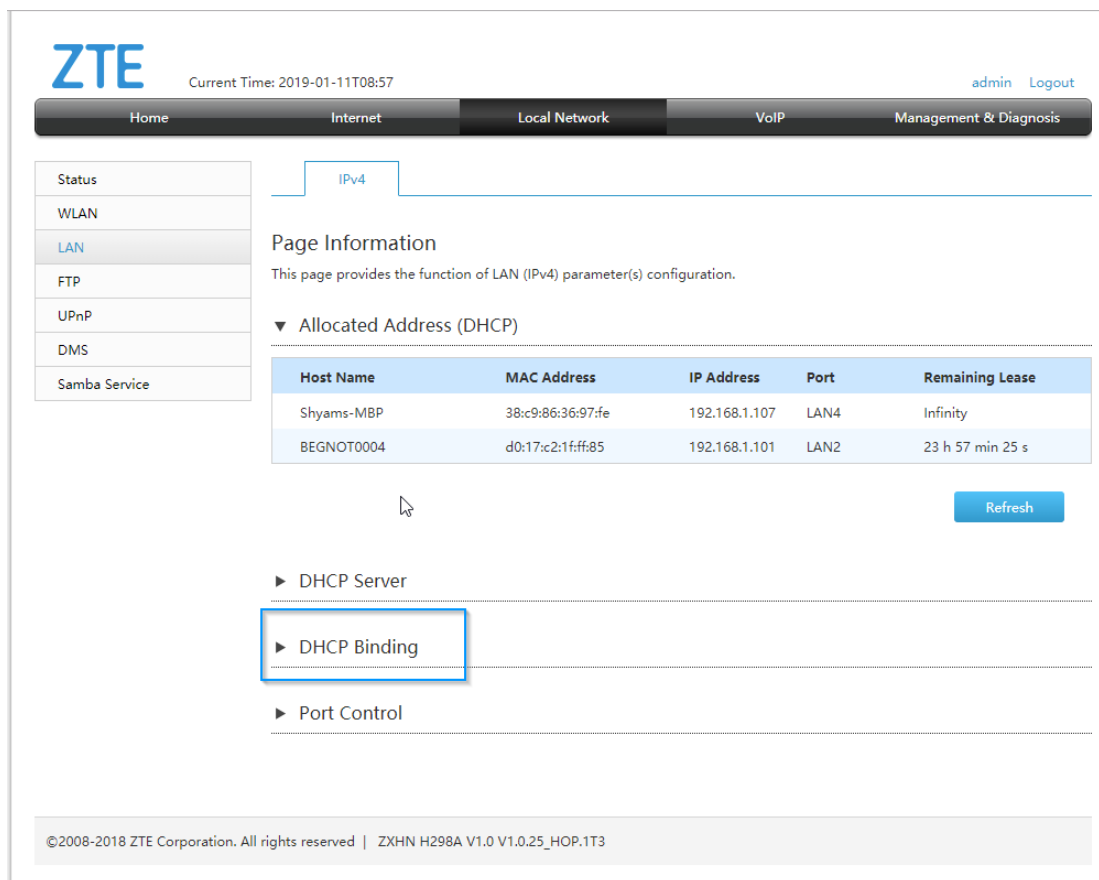


Photo 29. DHCP Binding section of router user interface

After clicking on **DHCP Binding**, define relevant parameters. **Name** can be whatever you choose. Check MAC address of the attached LAN client. Input **MAC address**. List wanted IPv4 for the LAN client. IPv4 addresses can be in range from **192.168.1.100** to **192.168.1.254**. An example can be seen in image 30.

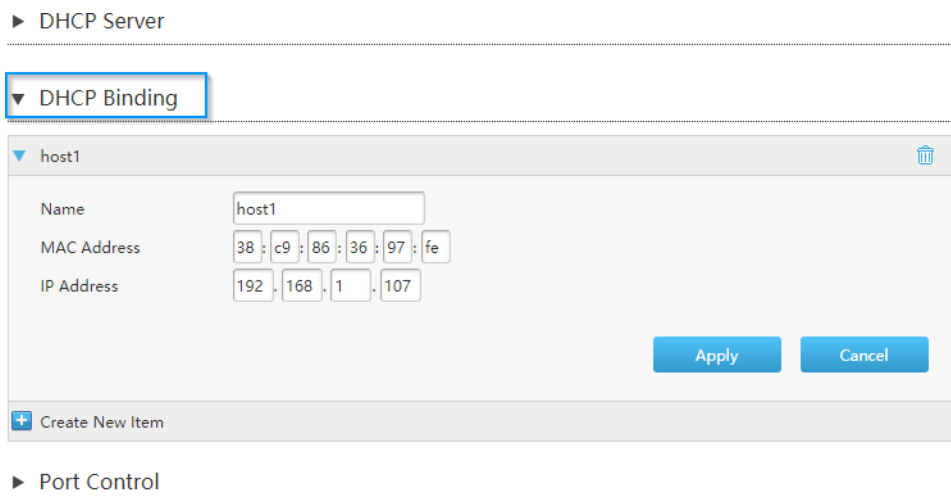


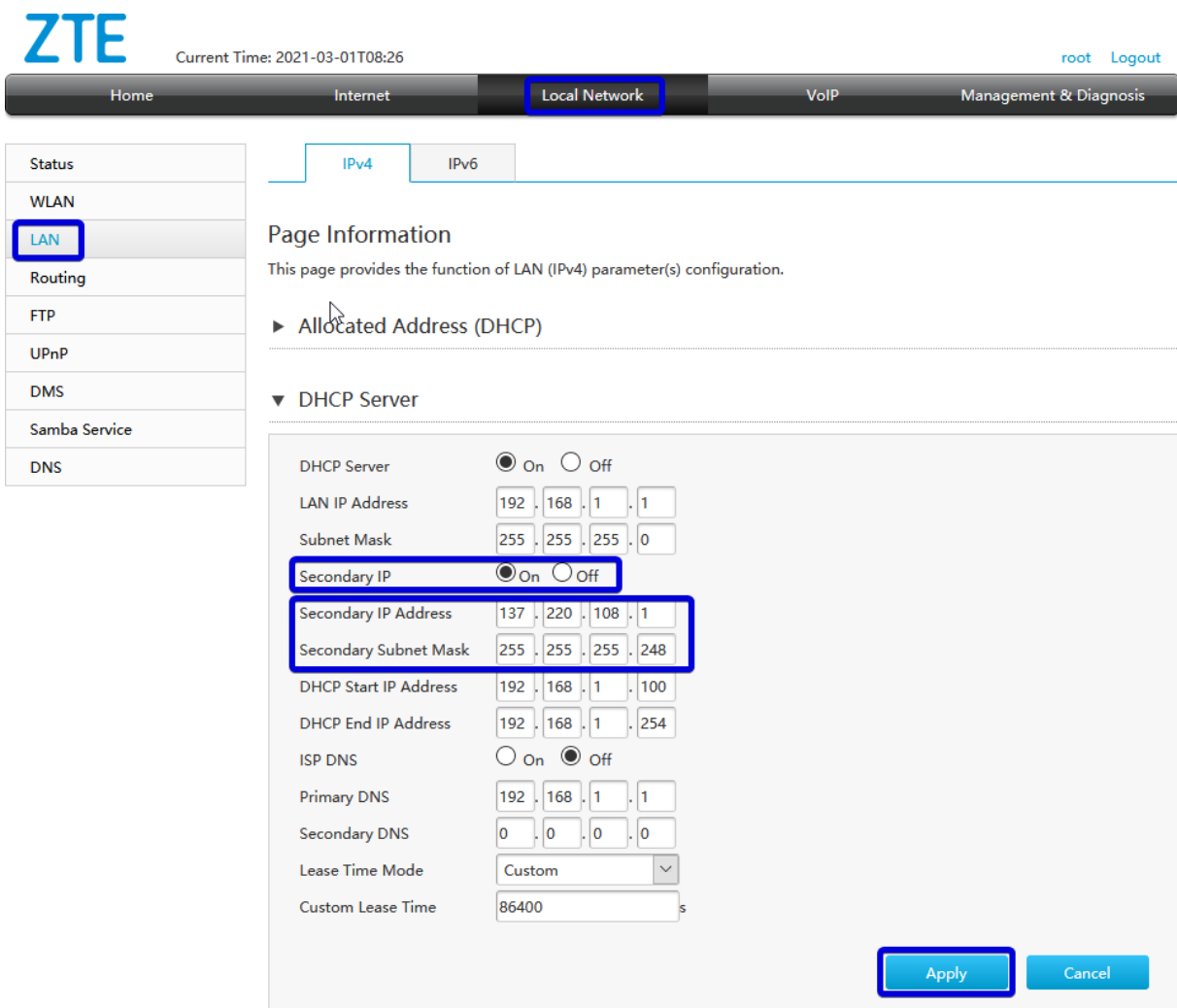
Photo 30. Linking MAC address to IPv4 LAN address

## Public IPv4 address block in LAN network

Navigate to **Local Network > LAN**. Image 31 describes an example of public block 137.220.108.0/29. Check option **On** for **Secondary IP**. Populate address that will be present on router and input subnet mask as per table 1. At the end click **Apply** to save settings. To disable NAT on the router, please get in touch with our Customer Support team.

Table 1. Subnet mask values to be used in router config

Public IPv4 address block format	Subnet mask
x.x.x.x/ <b>32</b>	255.255.255. <b>255</b>
x.x.x.x/ <b>31</b>	255.255.255. <b>254</b>
x.x.x.x/ <b>30</b>	255.255.255. <b>252</b>
x.x.x.x/ <b>29</b>	255.255.255. <b>248</b>
x.x.x.x/ <b>28</b>	255.255.255. <b>240</b>



**ZTE** Current Time: 2021-03-01T08:26 root Logout

Home Internet **Local Network** VoIP Management & Diagnosis

Status  
WLAN  
**LAN**  
Routing  
FTP  
UPnP  
DMS  
Samba Service  
DNS

**IPv4** IPv6

### Page Information

This page provides the function of LAN (IPv4) parameter(s) configuration.

► Allocated Address (DHCP)

▼ DHCP Server

DHCP Server ☒ On ☐ Off

LAN IP Address 192 . 168 . 1 . 1

Subnet Mask 255 . 255 . 255 . 0

**Secondary IP** ☒ On ☐ Off

**Secondary IP Address** 137 . 220 . 108 . 1

**Secondary Subnet Mask** 255 . 255 . 255 . 248

DHCP Start IP Address 192 . 168 . 1 . 100

DHCP End IP Address 192 . 168 . 1 . 254

ISP DNS ☐ On ☒ Off

Primary DNS 192 . 168 . 1 . 1

Secondary DNS 0 . 0 . 0 . 0

Lease Time Mode Custom

Custom Lease Time 86400 s

**Apply** Cancel

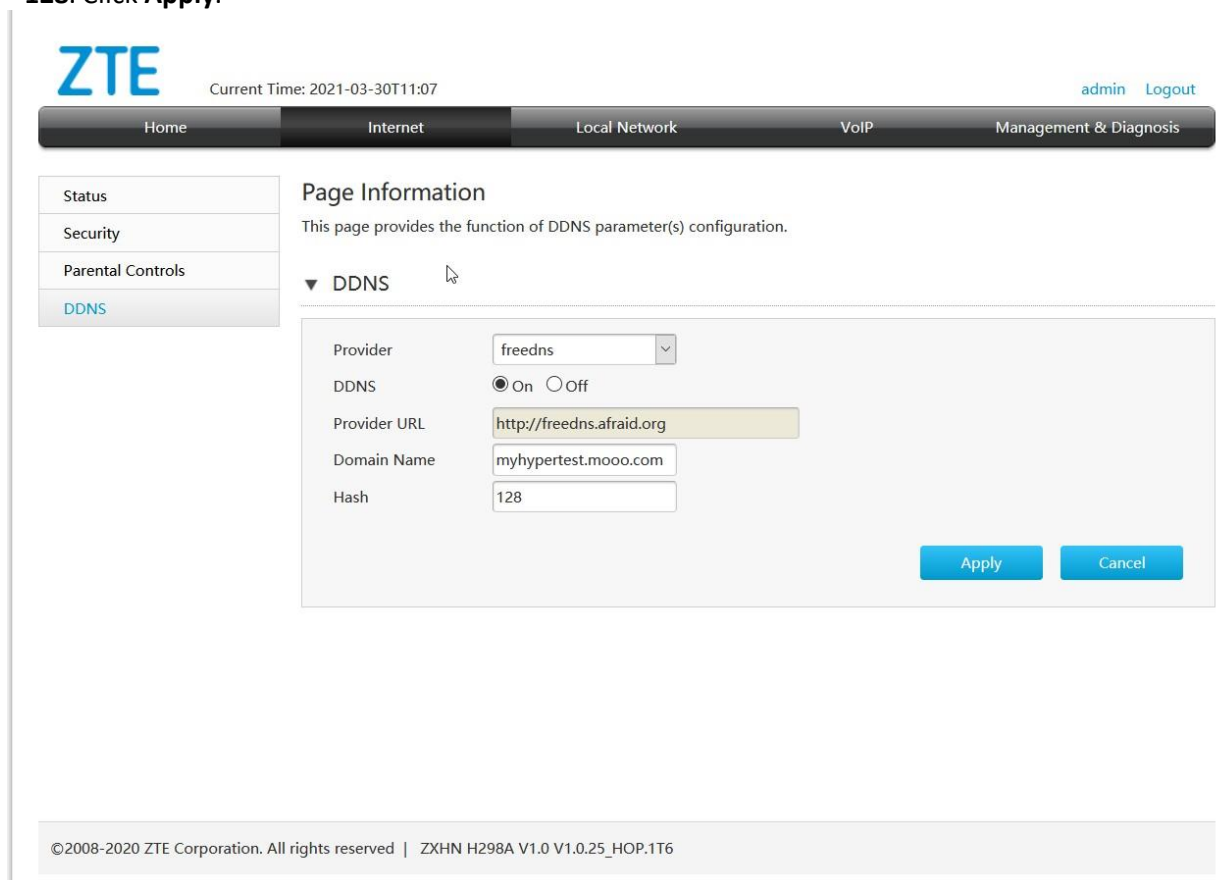
Image 31. Setting public IPv4 addresses for the LAN network

## DDNS – Dynamic DNS

You can use Dynamic DNS to associate a fully qualified domain name (FQDN) with a public IPv4 address, which is present on WAN router interface. With this feature, you can access your router via a “descriptive” name, rather than via its IPv4 address.

To access this feature, please navigate to **Internet > DDNS**.

Before setting parameters on the router, please register the FQDN with a DNS provider (e.g. <https://now-dns.com/>). After completing this step, chose the appropriate **Provider** from the dropdown menu (see image 32). Turn DDNS **On** and specify the **Domain Name** which was registered. For **Hash**, set value of **128**. Click **Apply**.



The screenshot displays the ZTE H298A router's web management interface. At the top, the ZTE logo is on the left, and the current time (2021-03-30T11:07) and user status (admin, Logout) are on the right. Below this is a navigation bar with tabs: Home, Internet (selected), Local Network, VoIP, and Management & Diagnosis. On the left side, there is a sidebar menu with links to Status, Security, Parental Controls, and DDNS (highlighted). The main content area is titled 'Page Information' and states 'This page provides the function of DDNS parameter(s) configuration.' Below this, the 'DDNS' section is expanded, showing configuration options: 'Provider' is set to 'freedns' from a dropdown; 'DDNS' is toggled 'On' (radio button selected); 'Provider URL' is 'http://freedns.afraid.org'; 'Domain Name' is 'myhypertest.moood.com'; and 'Hash' is '128'. At the bottom right of the configuration area are 'Apply' and 'Cancel' buttons. A footer at the very bottom reads '©2008-2020 ZTE Corporation. All rights reserved | ZXHN H298A V1.0 V1.0.25\_HOP.1T6'.

Image 32. Configuration page of DDNS

Confirmation can be seen in image 33. Router web GUI is seen after entering example FQDN of *myhypertest.moood.com* in the web browser.

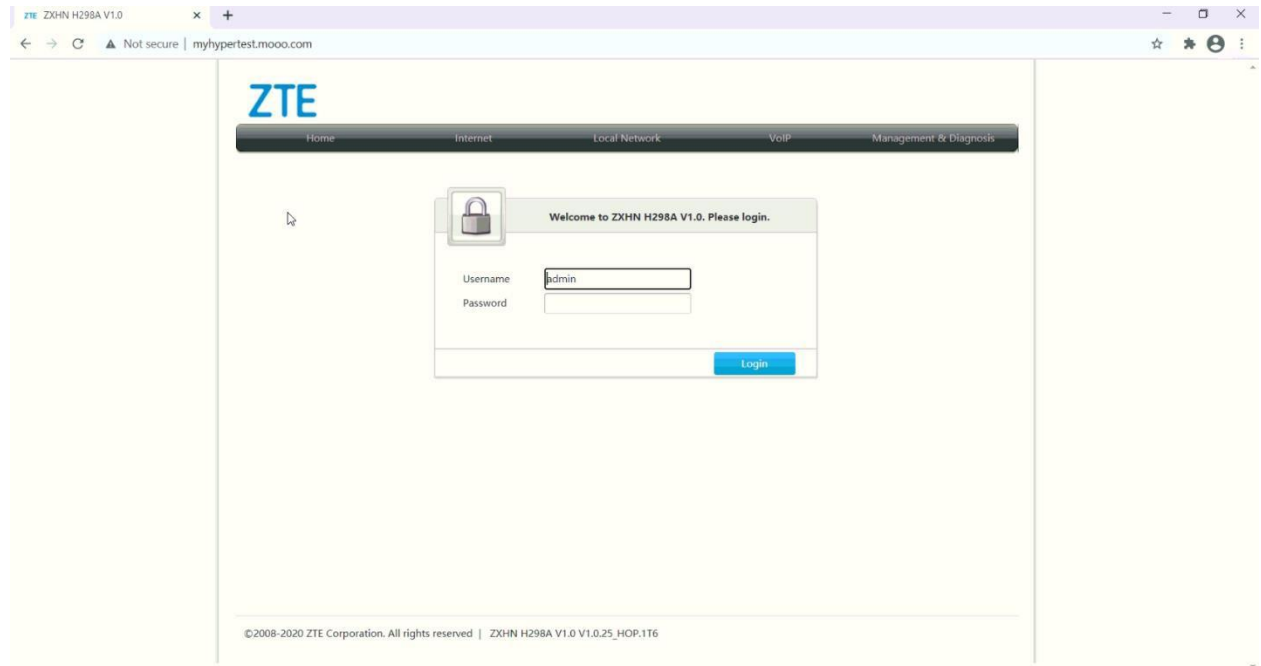


Image 33. Reaching router via FQDN.

Once this is done, please contact Customer Support to complete the process.