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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**.

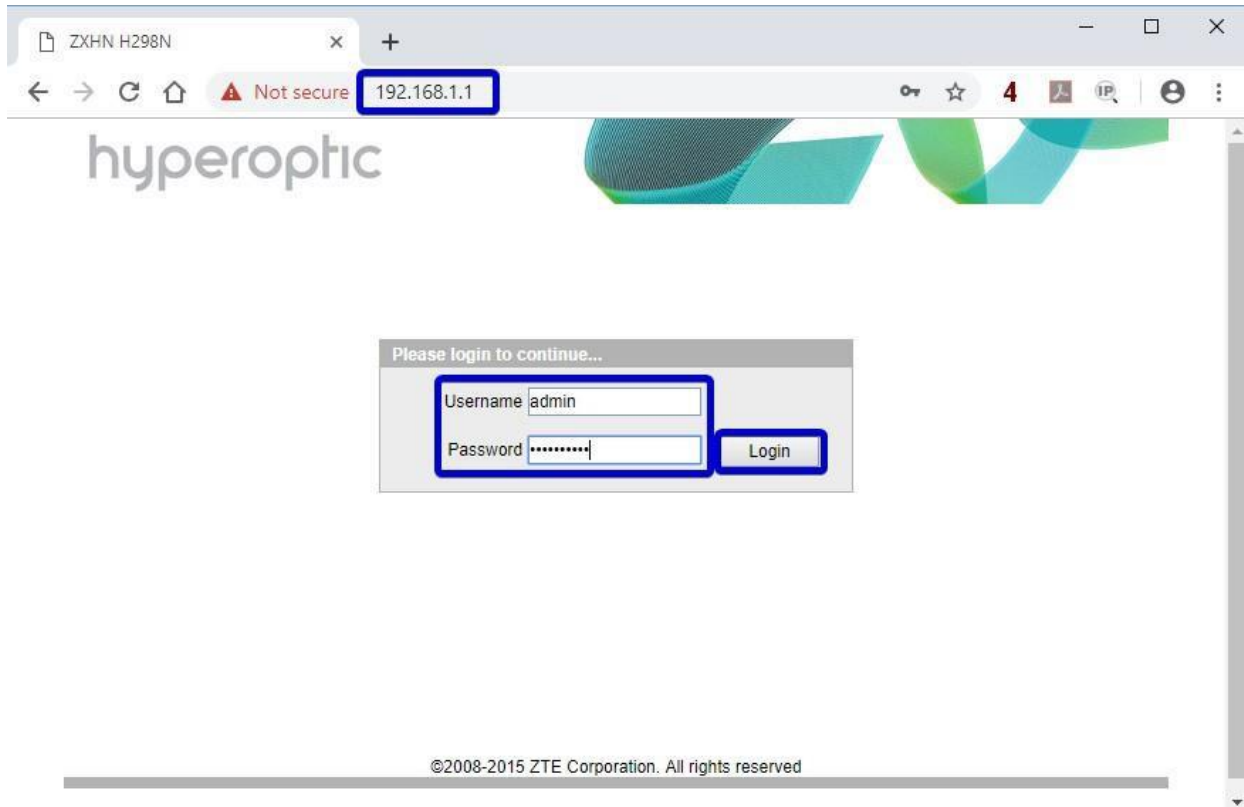
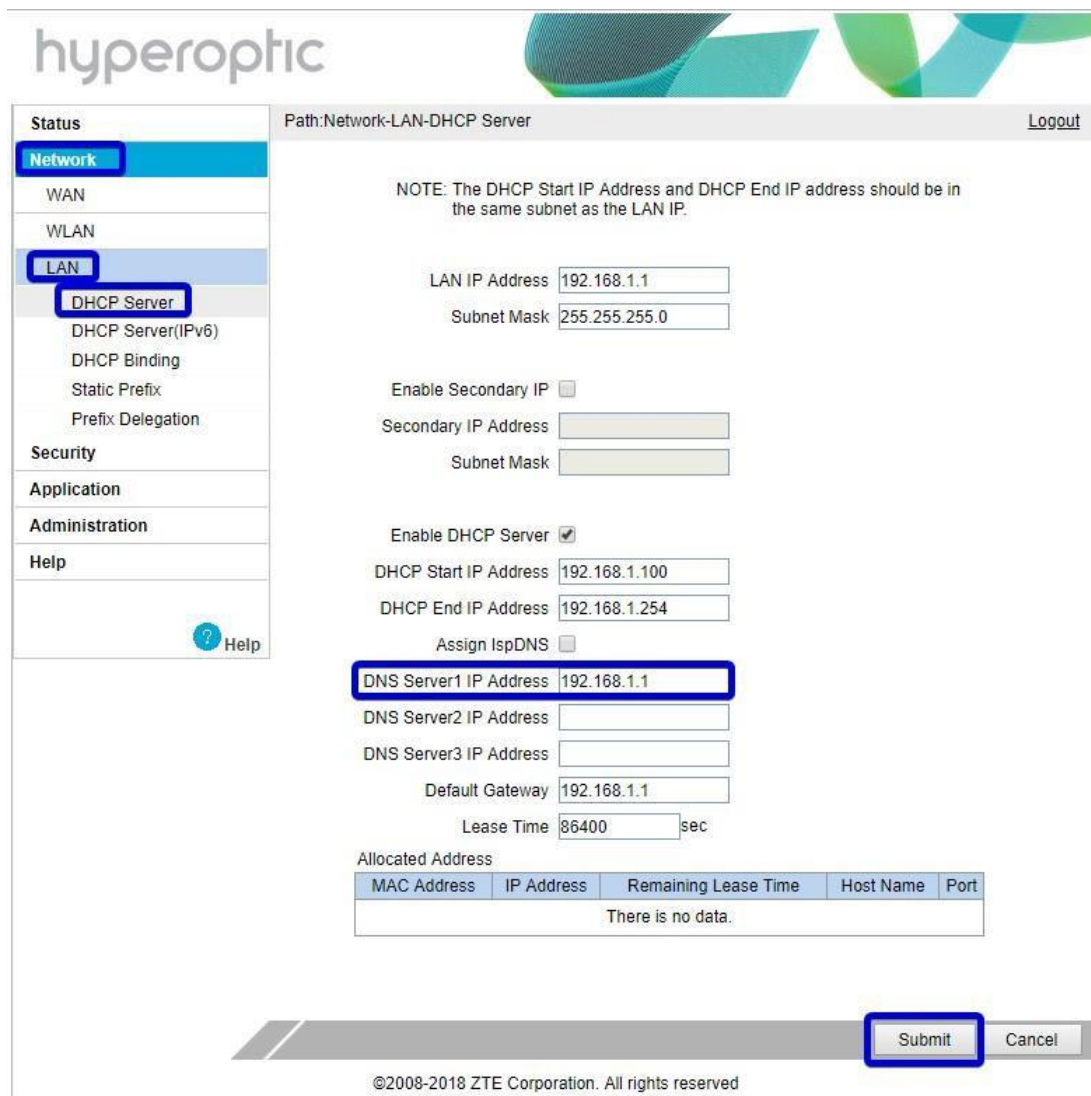


Image 1. Router H298N login screen

DNS change

To change your DNS, please log into your router (page 2) and navigate to **Network > LAN > DHCP Server**. Change **DNS Server1/2/3 IP Address** fields with some of the public DNS servers and click **Submit**. 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.



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Status

Network

WAN

WLAN

LAN

DHCP Server

DHCP Server(IPv6)

DHCP Binding

Static Prefix

Prefix Delegation

Security

Application

Administration

Help

Path: Network-LAN-DHCP Server

Logout

NOTE: The DHCP Start IP Address and DHCP End IP address should be in the same subnet as the LAN IP.

LAN IP Address 192.168.1.1

Subnet Mask 255.255.255.0

Enable Secondary IP ☐

Secondary IP Address

Subnet Mask

Enable DHCP Server ☒

DHCP Start IP Address 192.168.1.100

DHCP End IP Address 192.168.1.254

Assign IspDNS ☐

DNS Server1 IP Address 192.168.1.1

DNS Server2 IP Address

DNS Server3 IP Address

Default Gateway 192.168.1.1

Lease Time 86400 sec

Allocated Address

MAC Address	IP Address	Remaining Lease Time	Host Name	Port
There is no data.				

Submit Cancel

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Image 2. Change od DNS server for LAN network

To enable the use of an arbitrary DNS, please disable DHCPv6 server by unticking the **Enable DHCP Server** box. See Image 3.

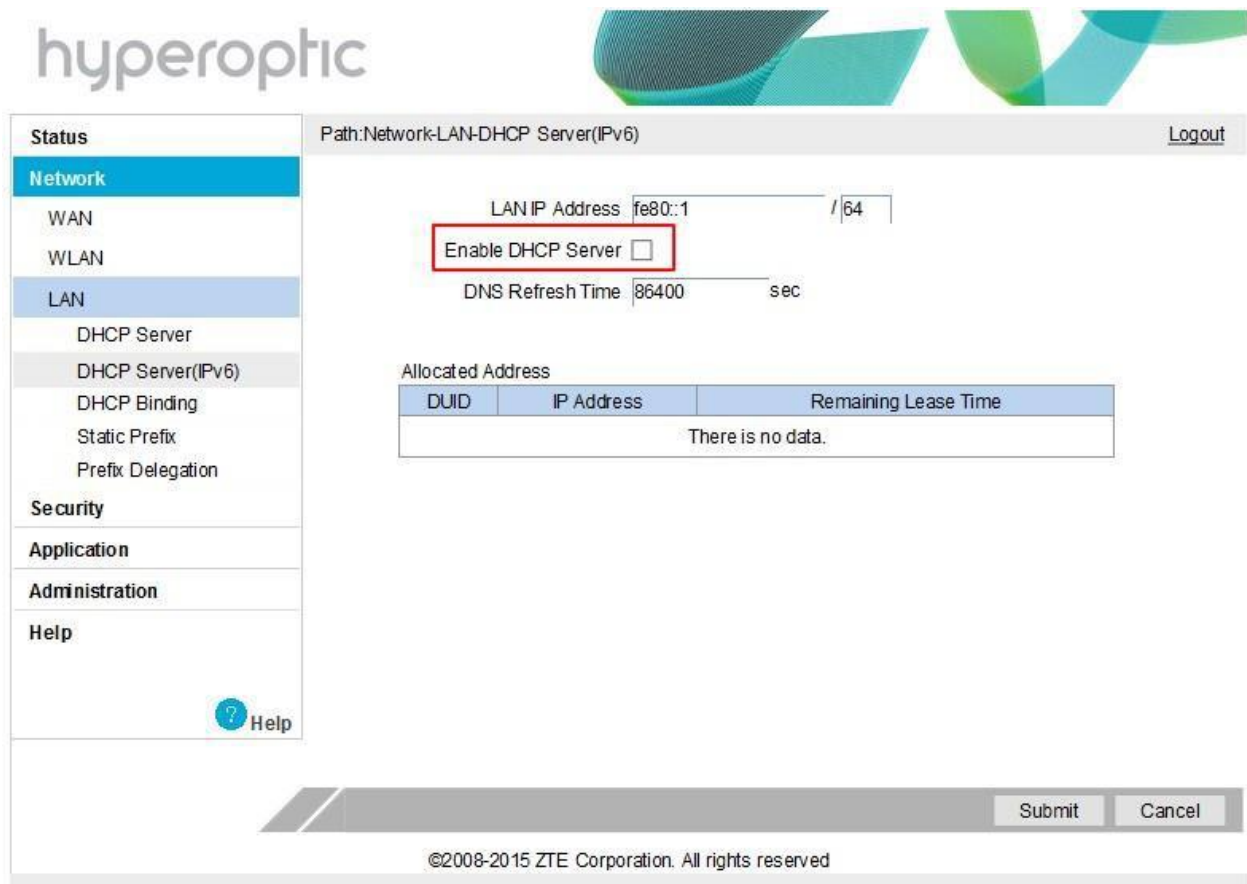


Image 3. Disabling DHCPv6 server on LAN

UPnP service

UPnP service can be used for easier and more convenient router configuration. To configure your router using UPnP desktop applications (e.g. PortMapper Windows), please log into your router (page 2) and navigate to **Application > UPnP**. Click **Enable** and choose **WAN-DHCP-Connection**. Then click **Submit**. See Image 4.

If you're not using UPnP applications, UPnP should be set to **Off** (the default UPnP setting is Off).

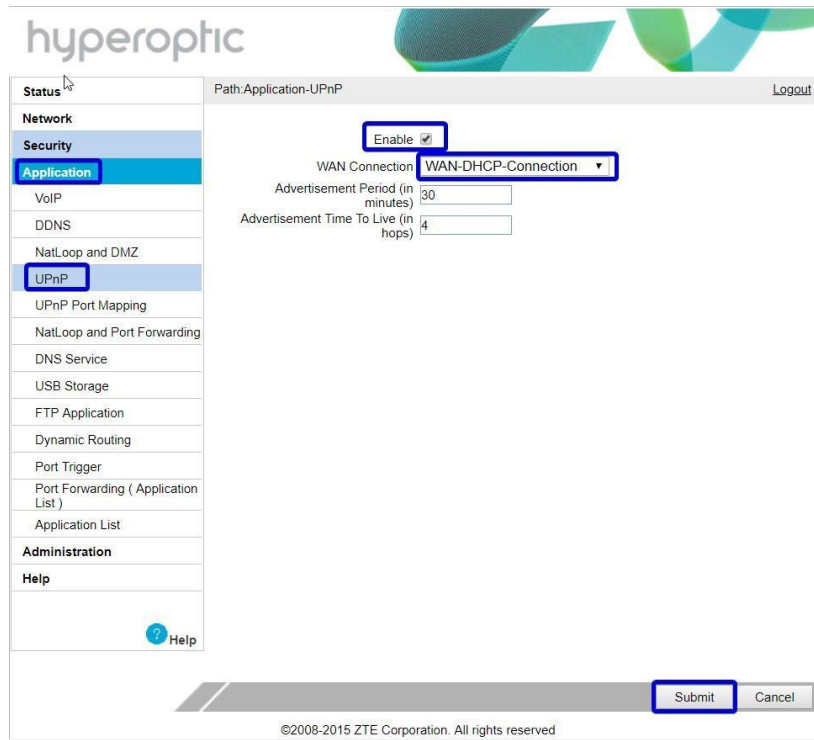


Image 4. Enabling UPnP service on a router

Please see Image 5 for the confirmation of UPnP router configuration. In this example, port mapping is configured.

Status	Path:Application-UPnP Port Mapping Logout				
Network					
Security					
Application					
VoIP					
DDNS					
NatLoop and DMZ					
UPnP					
UPnP Port Mapping					




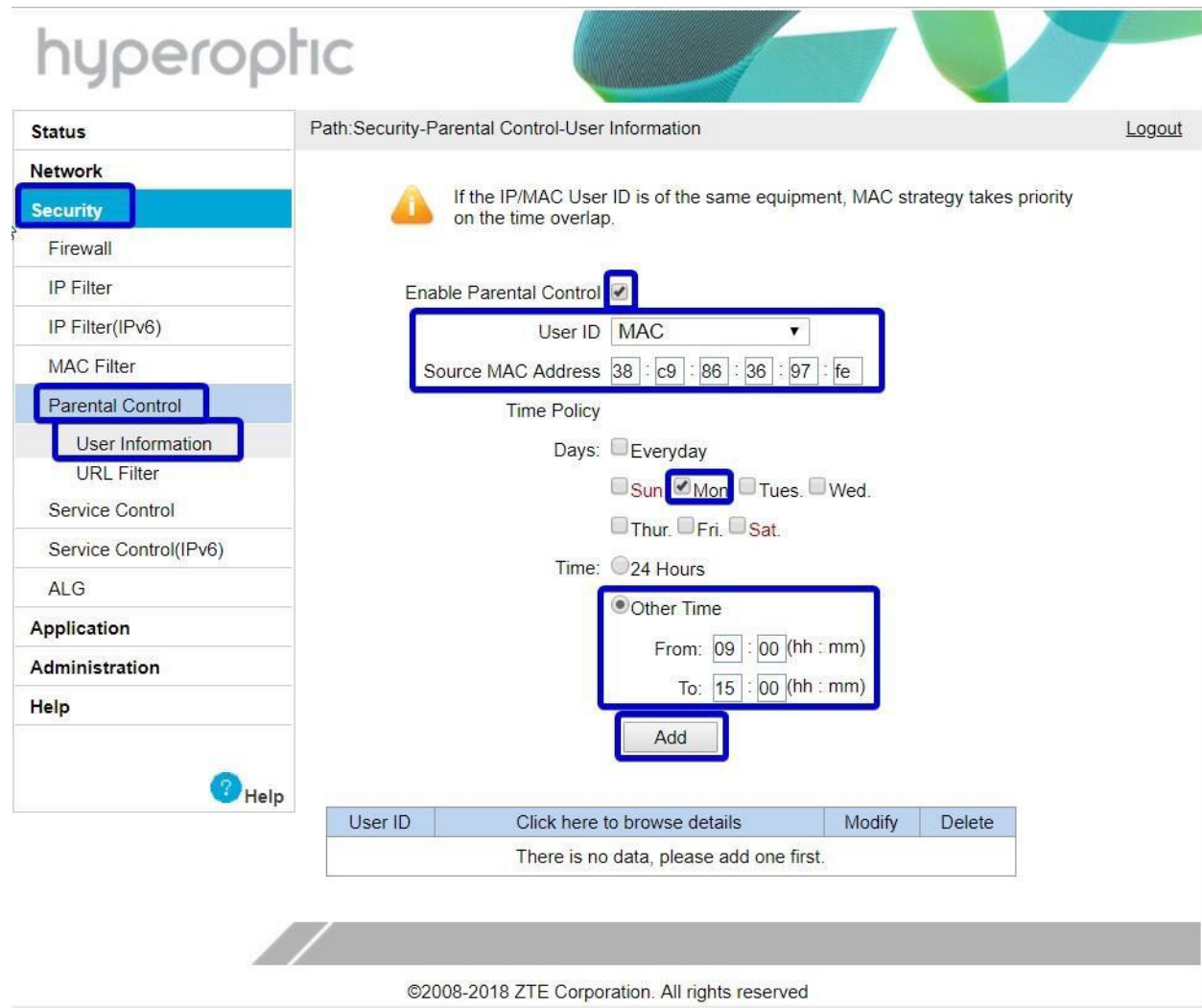
UPnP Portmap Table					
Active	Protocol	Int. Port	Ext. Port	IP Address	Delete
✓	TCP	51	51	192.168.1.101	
✓	TCP	50	50	192.168.1.101	
✓	TCP	70	8080	192.168.1.101	

Image 5. Confirmation of UPnP router configuration

Parental control

Parental control can be used to restrict access to sites. To enable parental control, please log into your router (page 2) and navigate to **Security > Parental Control > User Information**. Provide the MAC address of the LAN client (device) for which internet service should be blocked. Tick **Enable Parental Control**. Choose the day and time during which access should be restricted and click **Add**. See Image 6.



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Path: Security-Parental Control-User Information [Logout](#)

Enable Parental Control ☒

User ID: **MAC**

Source MAC Address: 38 : c9 : 86 : 36 : 97 : fe

Time Policy

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

Time: ☐ 24 Hours ☒ Other Time

From: 09 : 00 (hh : mm)

To: 15 : 00 (hh : mm)

Add

User ID	Click here to browse details	Modify	Delete
There is no data, please add one first.			

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Image 6. Defining user for which internet access should be restricted

After defining LAN client, navigate to **Security > Parental Control > URL Filter**. Tick **Enable**, list the URL you would like to block and choose mode **Discard**. Then click **Add**. See Image 7. Please note that parental control will not filter IPv6 websites.

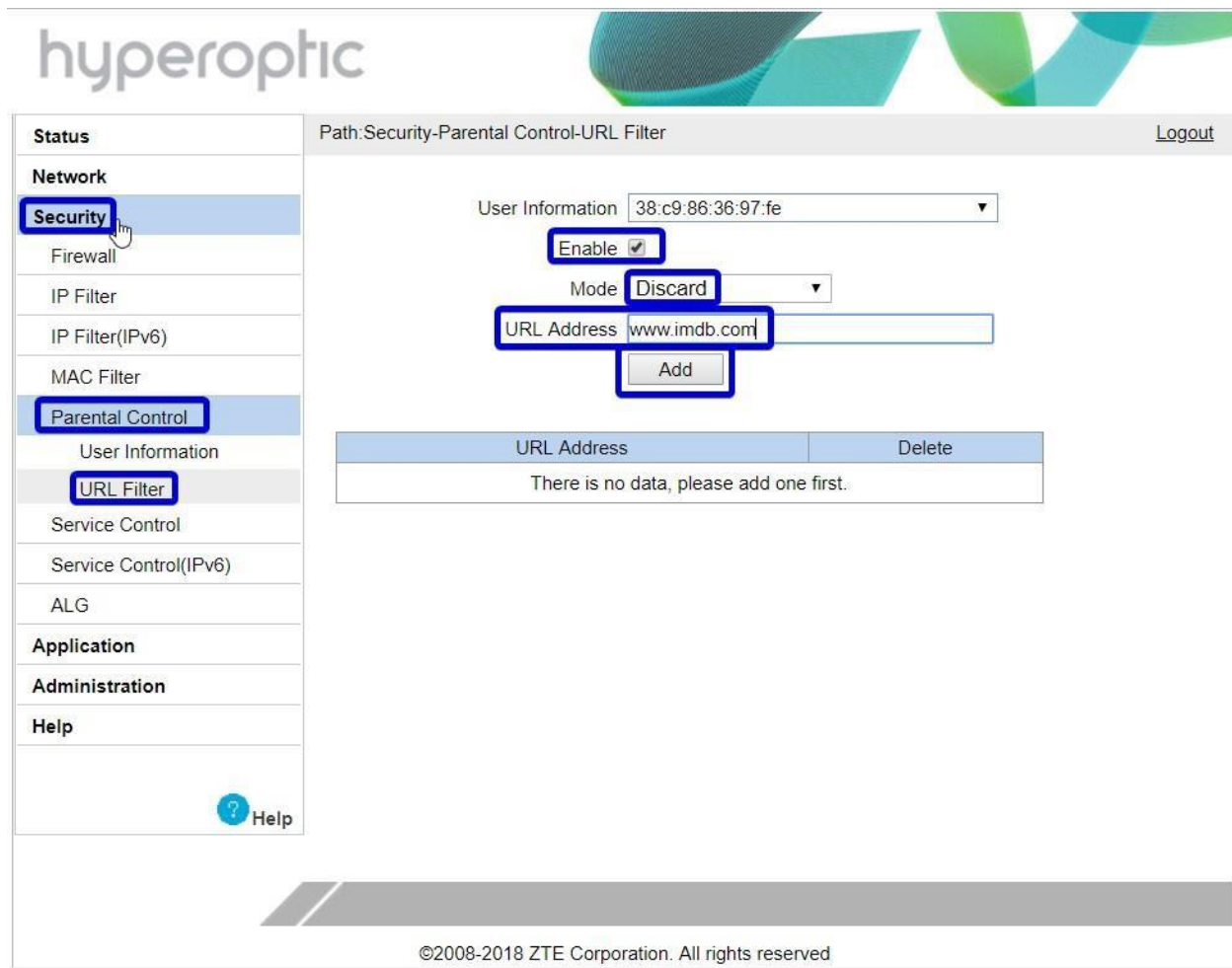
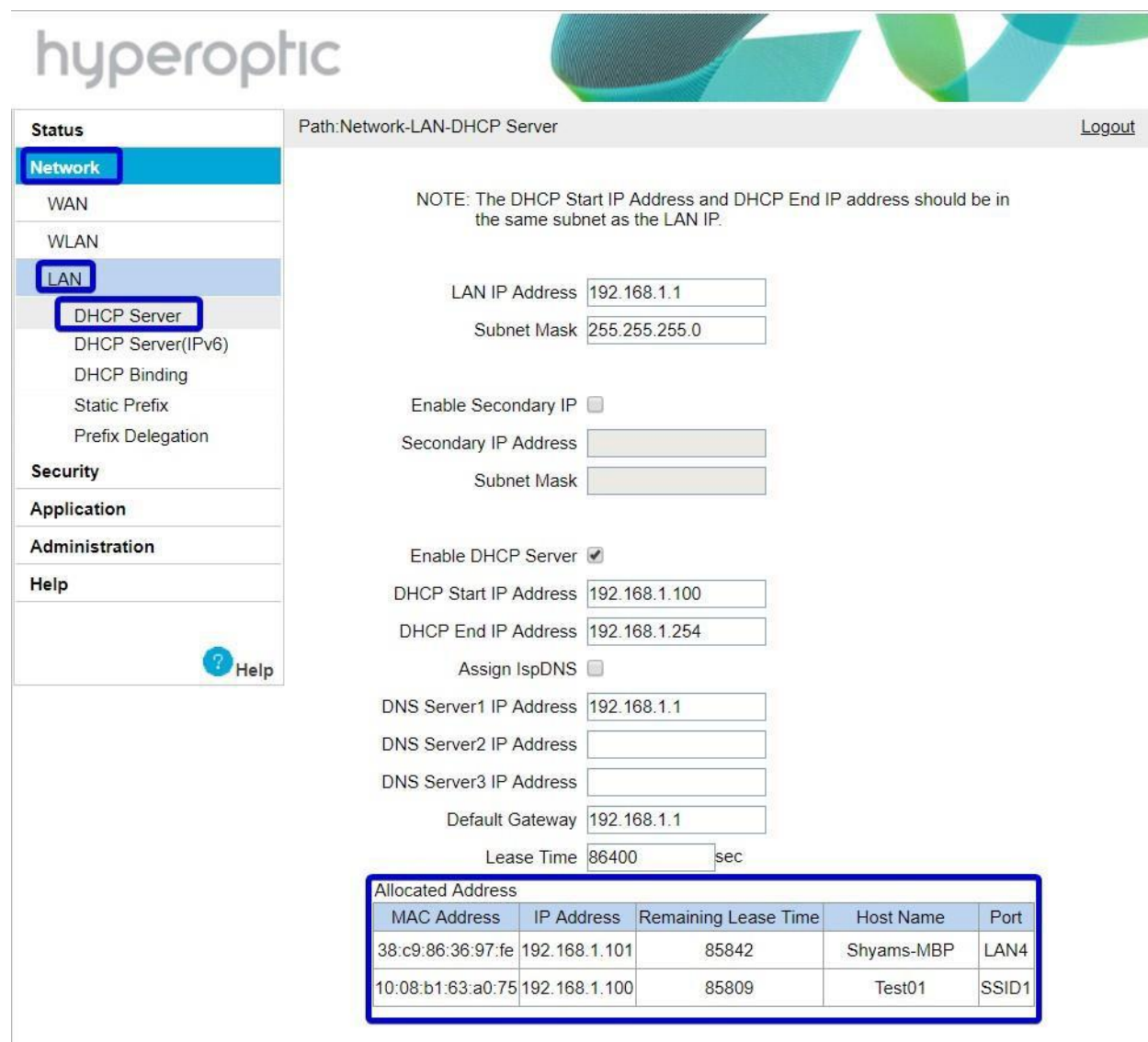


Image 7. Example of blocking access to one web site

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 **Network > LAN > DHCP Server**. See Image 8.

Here you'll be able to see all the devices that are connected to your router's LAN network.



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Path: Network-LAN-DHCP Server [Logout](#)

NOTE: The DHCP Start IP Address and DHCP End IP address should be in the same subnet as the LAN IP.

LAN IP Address

Subnet Mask

Enable Secondary IP ☐

Secondary IP Address

Subnet Mask

Enable DHCP Server ☒

DHCP Start IP Address

DHCP End IP Address

Assign IspDNS ☐

DNS Server1 IP Address

DNS Server2 IP Address

DNS Server3 IP Address

Default Gateway

Lease Time sec

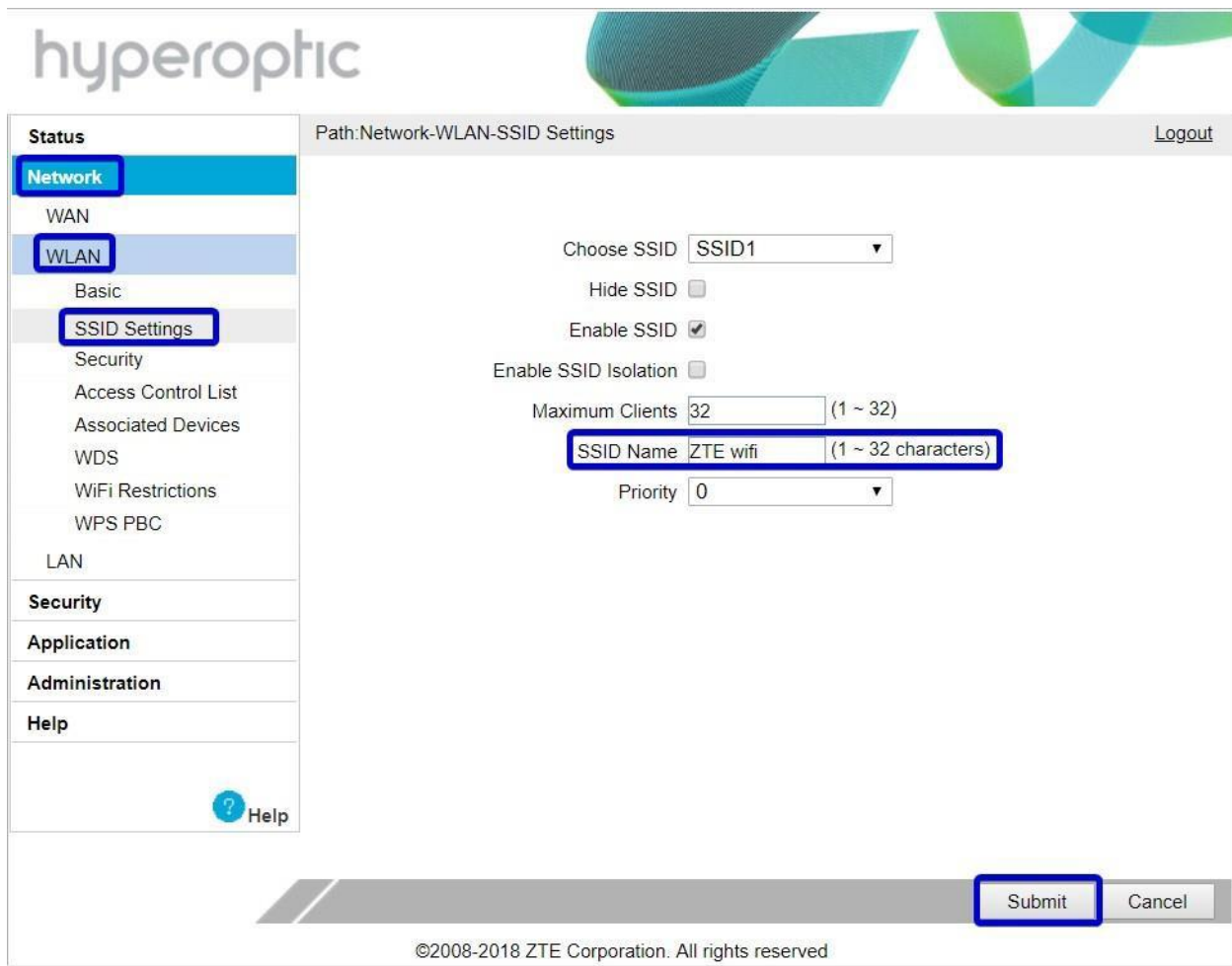
MAC Address	IP Address	Remaining Lease Time	Host Name	Port
38:c9:86:36:97:fe	192.168.1.101	85842	Shyams-MBP	LAN4
10:08:b1:63:a0:75	192.168.1.100	85809	Test01	SSID1

Image 8. List of LAN clients

Please note, if a LAN client is using a static IP and connects via cable, it won't be listed here.

Wi-Fi password and SSID change

To change your wifi password or SSID name, log into your router (see page 2) and navigate to **Network > WLAN**. To change the name of your wifi connection, click on **SSID Settings** and change the **SSID Name** field. Once changed, click **Submit**. See Image 9.



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Status

Path: Network-WLAN-SSID Settings [Logout](#)

Network

WLAN

Basic

SSID Settings

Security

Access Control List

Associated Devices

WDS

WiFi Restrictions

WPS PBC

LAN

Security

Application

Administration

Help

Choose SSID: SSID1

Hide SSID: ☐

Enable SSID: ☒

Enable SSID Isolation: ☐

Maximum Clients: 32 (1 ~ 32)

SSID Name: ZTE wifi (1 ~ 32 characters)

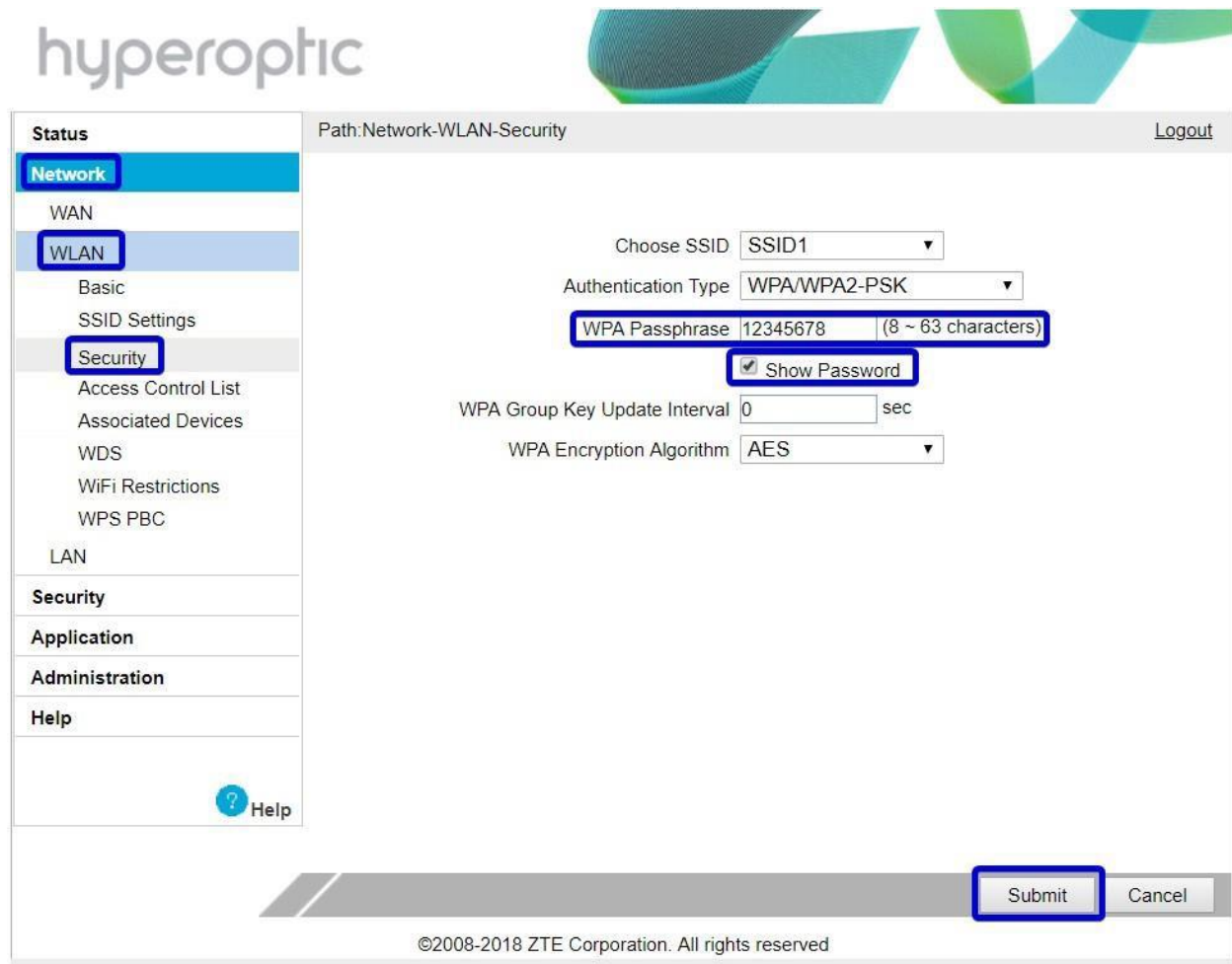
Priority: 0

Submit Cancel

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Image 9. Change of Wi-Fi network name (SSID)

To change your wifi password, navigate to **Network > WLAN > Security**. Change **WPA Passphrase** field and click **Submit**. See Image 10. Please use passwords containing upper and lower case letters and numbers, with a minimum of 12 characters in length.



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Status Path: Network-WLAN-Security Logout

Network

- WAN
- WLAN**
 - Basic
 - SSID Settings
 - Security**
 - Access Control List
 - Associated Devices
 - WDS
 - WiFi Restrictions
 - WPS PBC
- LAN

Security

Application

Administration

Help

Choose SSID SSID1

Authentication Type WPA/WPA2-PSK

WPA Passphrase 12345678 (8 ~ 63 characters)

☒ Show Password

WPA Group Key Update Interval 0 sec

WPA Encryption Algorithm AES

Submit Cancel

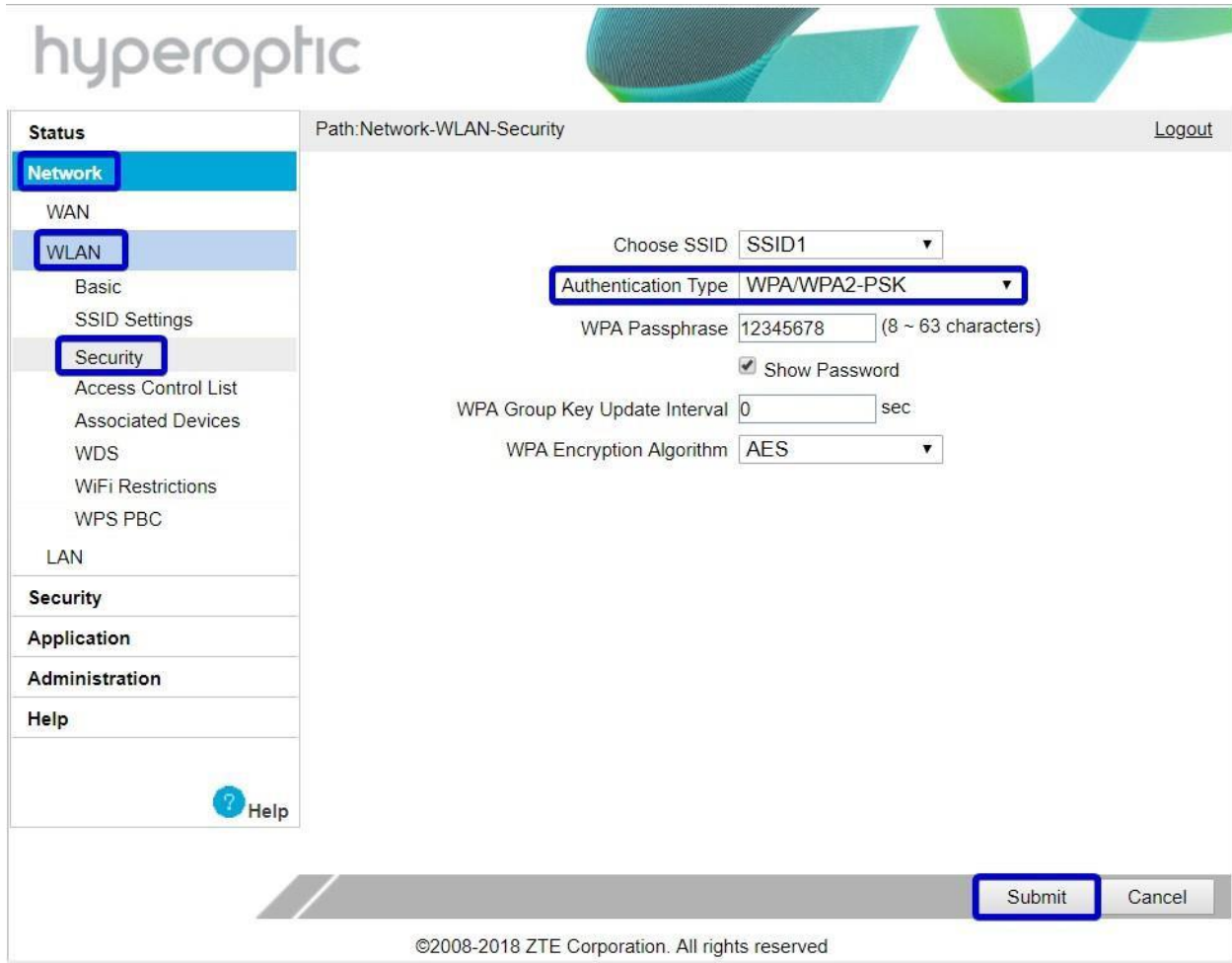
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Image 10. Change of Wi-Fi password

Wi-Fi authentication

To change your wifi authentication settings, please log into your router (page 2) and navigate to **Network > WLAN > Security**. Select **Authentication Type** from the drop-down menu and click **Submit**. See Image 11. By default, advanced encryption algorithm is used.

Please note, it's highly recommended to use only WPA2-PSK-AES.



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Status Path: Network-WLAN-Security Logout

Network

- WAN
- WLAN**
 - Basic
 - SSID Settings
 - Security**
 - Access Control List
 - Associated Devices
 - WDS
 - WiFi Restrictions
 - WPS PBC
- LAN

Security

Application

Administration

Help

Choose SSID SSID1

Authentication Type WPA/WPA2-PSK

WPA Passphrase 12345678 (8 ~ 63 characters)

☒ Show Password

WPA Group Key Update Interval 0 sec

WPA Encryption Algorithm AES

Submit Cancel

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Image 11. Authentication types of Wi-Fi connection

WPS

To connect to wifi without a password, please log into your router (see page 2) and navigate to **Network > WLAN > WPS PBC**. Press the **WPS** button on your router and on the LAN host. A connection will then be made. See Image 12.

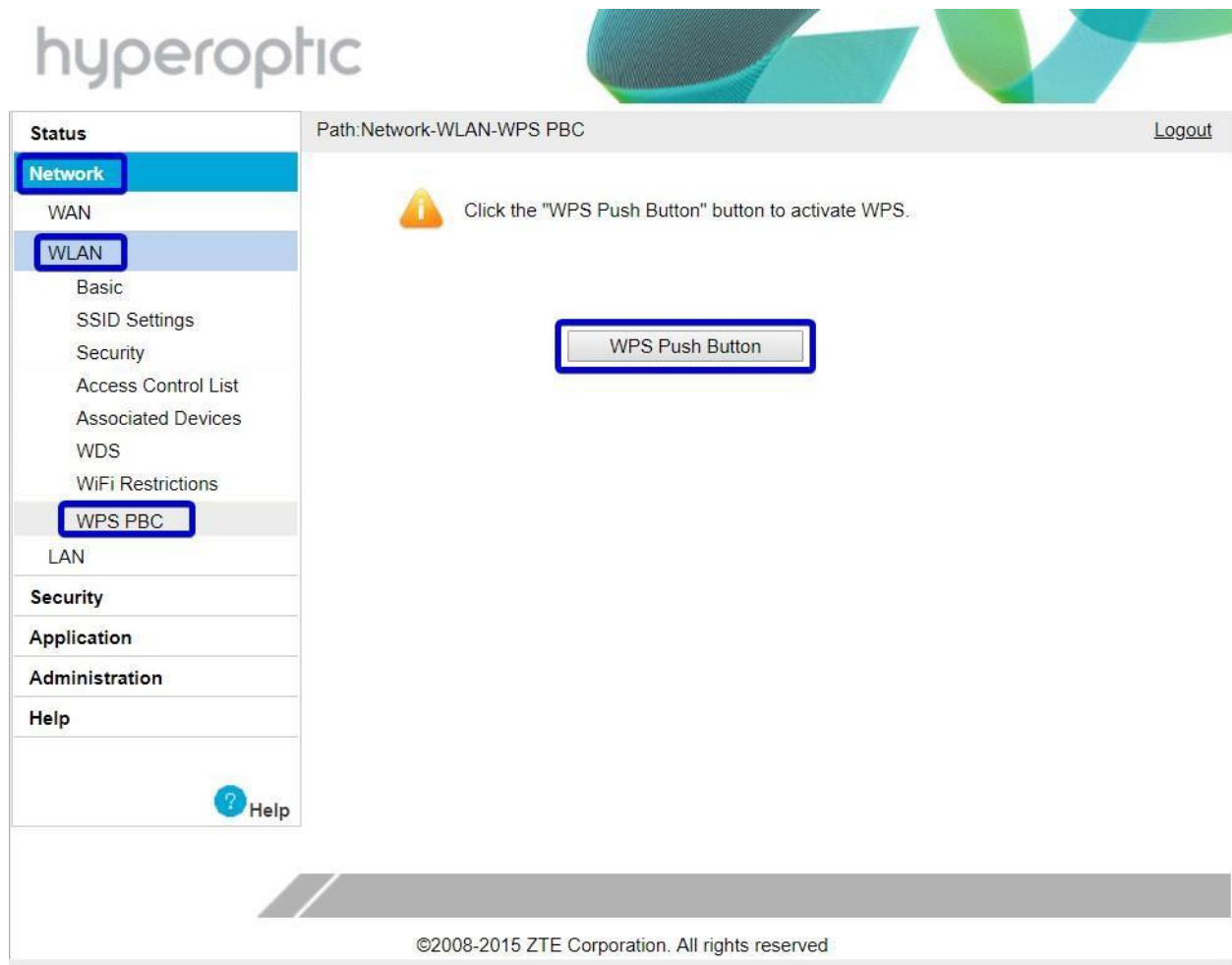


Image 12. WPS button on router

Wi-Fi associated clients

The number of wifi clients (i.e. devices connected to the router wifi) can be checked once you're logged into your router (see page 2). Navigate to **WLAN > Associated Devices**. To refresh the page, click **Refresh**. See Image 13.

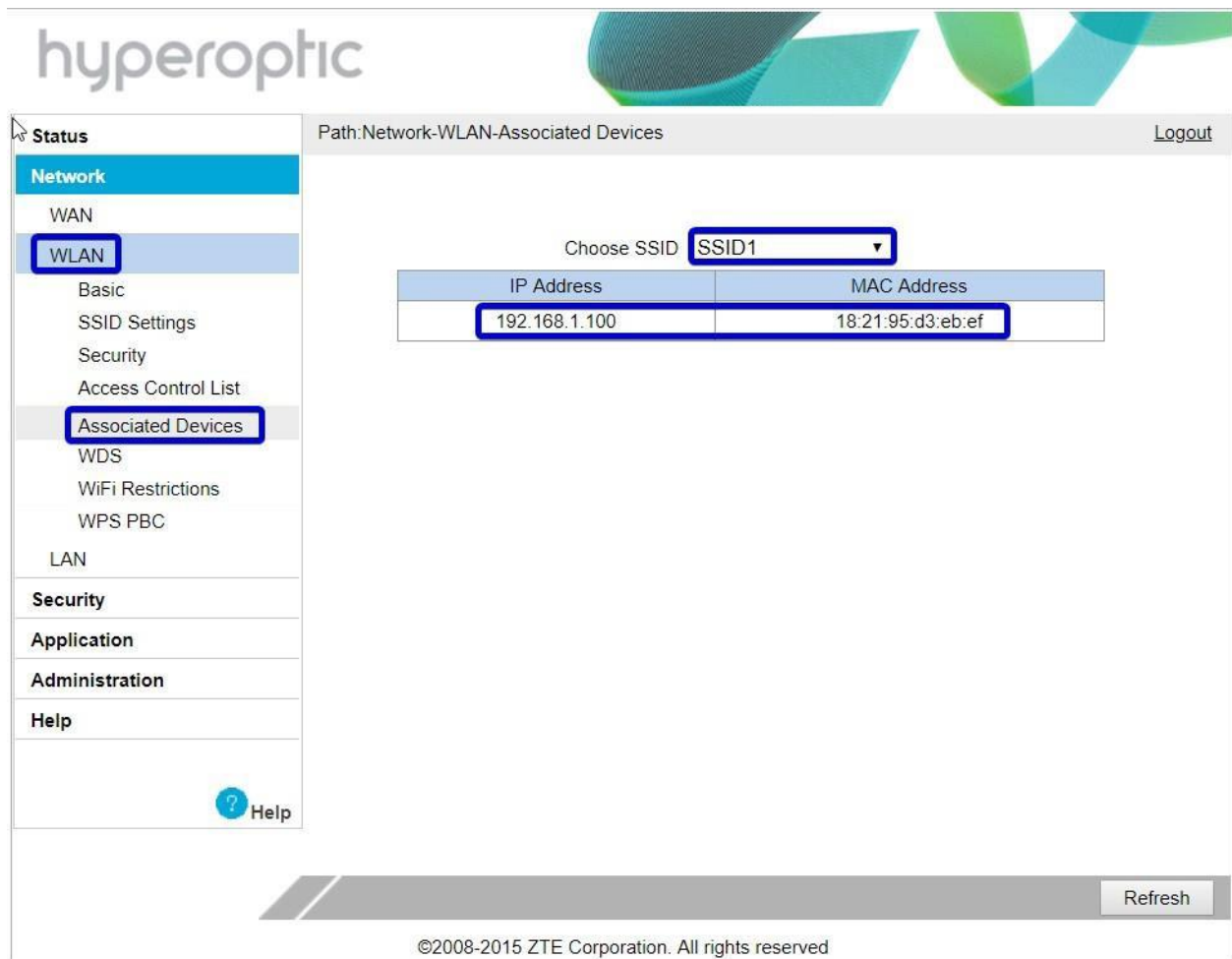
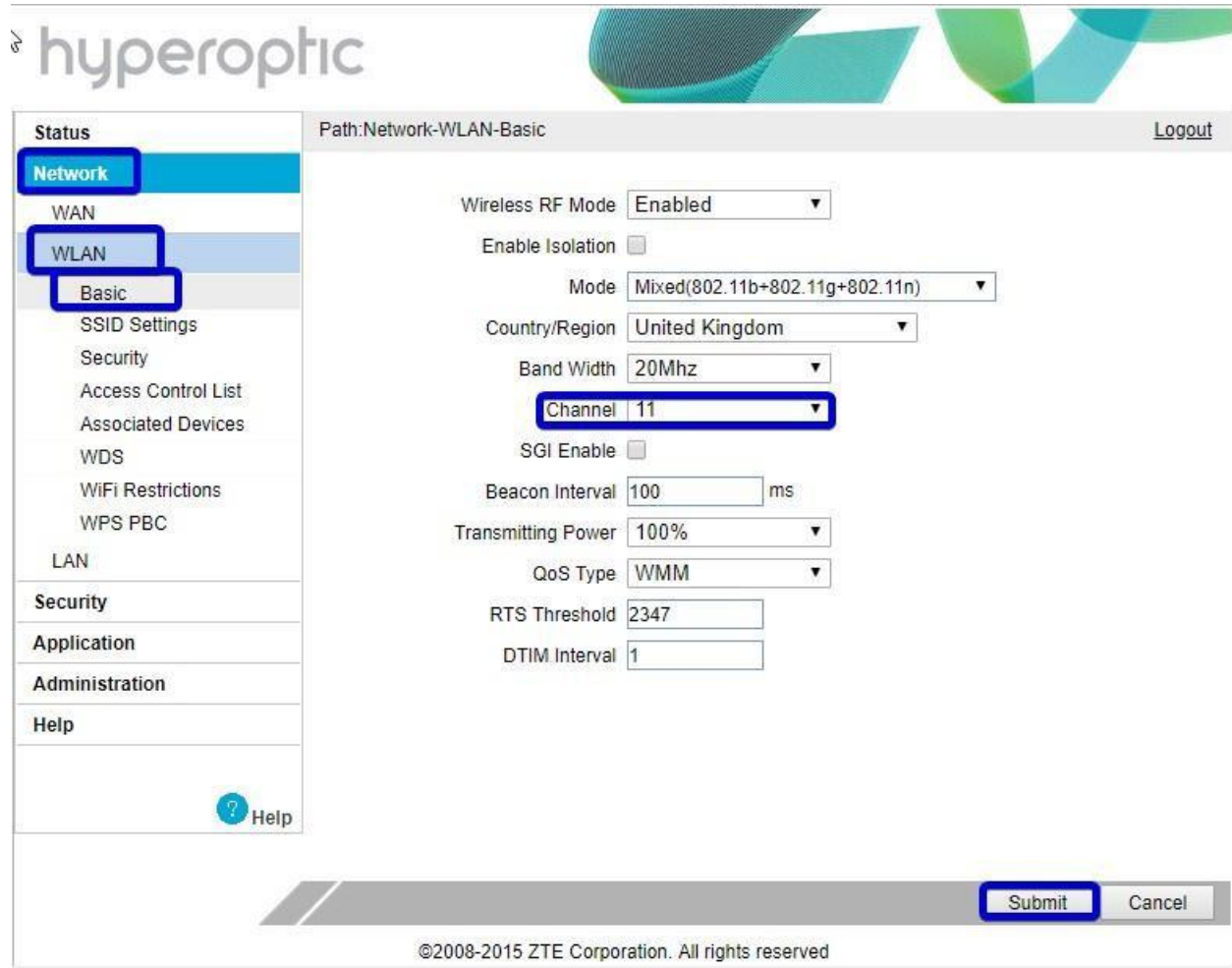


Image 13. List of WLAN clients

Wi-Fi channel change

To minimise interference, we highly recommend leaving your wifi channel selection on its default settings. If you'd like to change your channel selection, however, you can do so by logging into your router (see page 2) and navigating to **Network > WLAN > Basic**. Select your desired channel from the drop-down menu and click **Submit**. See Image 14.

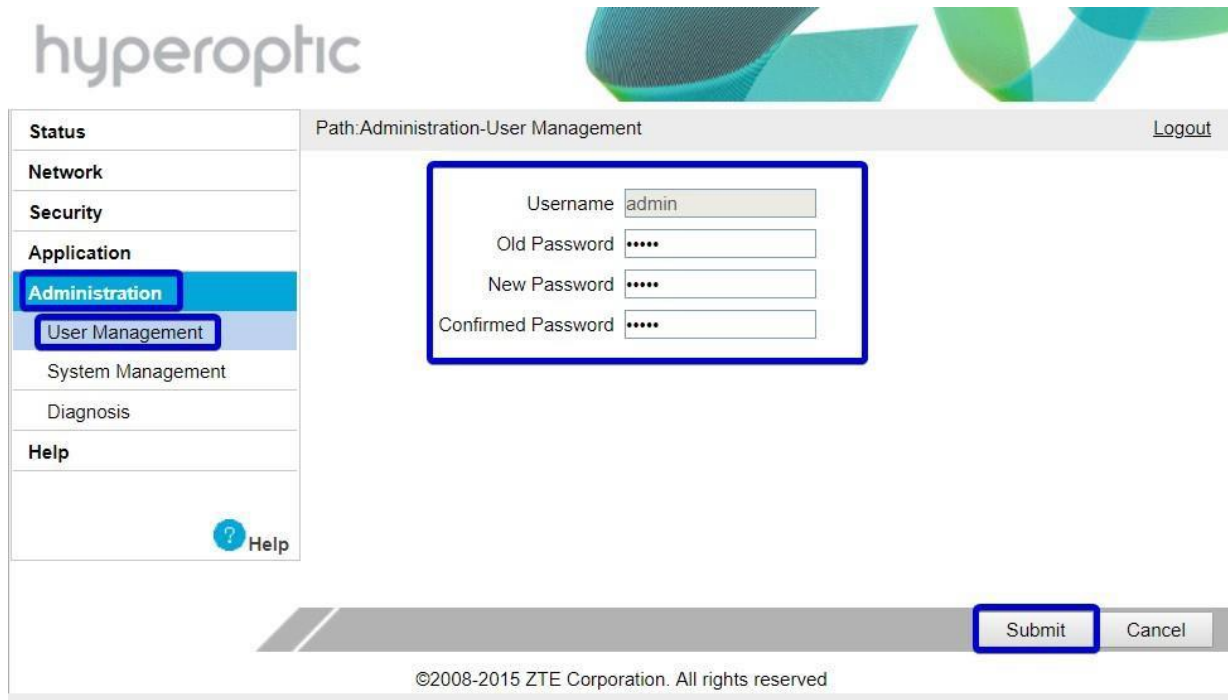


The screenshot displays the ZTE H298N router's web management interface. The left sidebar shows a navigation menu with 'Network' selected, and 'WLAN' and 'Basic' sub-menus highlighted. The main content area, titled 'Path: Network-WLAN-Basic', contains various configuration options for the wireless network. The 'Channel' dropdown menu is set to '11' and is highlighted with a red box. Other settings include 'Wireless RF Mode' (Enabled), 'Mode' (Mixed(802.11b+802.11g+802.11n)), 'Country/Region' (United Kingdom), 'Band Width' (20Mhz), 'SFI Enable' (unchecked), 'Beacon Interval' (100 ms), 'Transmitting Power' (100%), 'QoS Type' (WMM), 'RTS Threshold' (2347), and 'DTIM Interval' (1). A 'Submit' button is located at the bottom right of the configuration area, also highlighted with a red box. The footer indicates '©2008-2015 ZTE Corporation. All rights reserved'.

Image 14. Wi-Fi channel change

Change of admin credentials

To change your admin login password, log into your router (see page 2) and navigate to **Administration > User Management**. Once the new details are entered, click **Submit**. See Image 15.

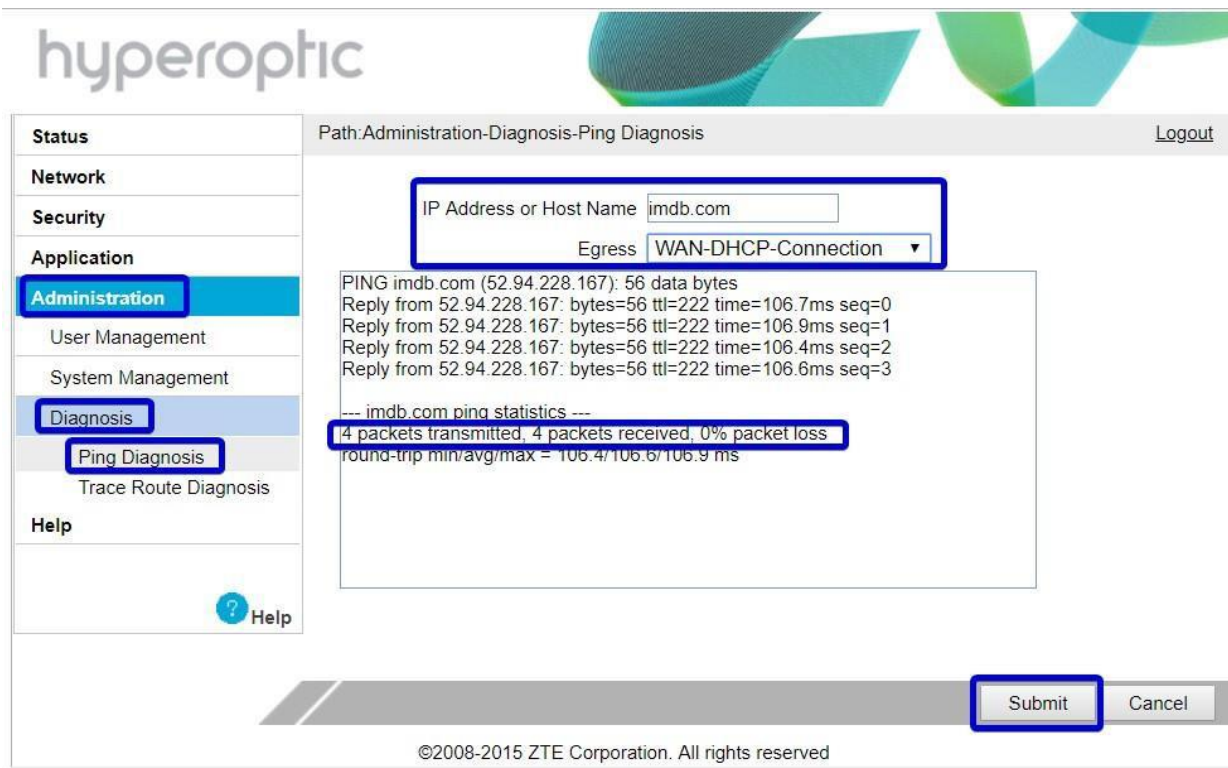


The screenshot displays the hyperoptic router's administrative web interface. On the left is a navigation menu with categories: Status, Network, Security, Application, Administration, and Help. Under 'Administration', 'User Management' is highlighted. The main content area is titled 'Path:Administration-User Management' and features a 'Logout' link. A blue-bordered box highlights the credential change form, which includes fields for 'Username' (pre-filled with 'admin'), 'Old Password', 'New Password', and 'Confirmed Password', each followed by a password mask (dots). At the bottom right of the form area are 'Submit' and 'Cancel' buttons. The footer contains the copyright notice '©2008-2015 ZTE Corporation. All rights reserved'.

Image 15. Change old admin credentials

Ping tests from router

To check your connection using ping command, log into your router (see page 2) and navigate to **Administration > Diagnosis > Ping Diagnosis**. See image 16. Once parameters are defined, press **Submit**.



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Status Path: Administration-Diagnosis-Ping Diagnosis Logout

Network

Security

Application

Administration

User Management

System Management

Diagnosis

Ping Diagnosis

Trace Route Diagnosis

Help

IP Address or Host Name

Egress

PING imdb.com (52.94.228.167): 56 data bytes
Reply from 52.94.228.167: bytes=56 ttl=222 time=106.7ms seq=0
Reply from 52.94.228.167: bytes=56 ttl=222 time=106.9ms seq=1
Reply from 52.94.228.167: bytes=56 ttl=222 time=106.4ms seq=2
Reply from 52.94.228.167: bytes=56 ttl=222 time=106.6ms seq=3

--- imdb.com ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 106.4/106.6/106.9 ms

Submit Cancel

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Image 16. Testing router status via ping command

Factory reset and reboot of router

You can reboot your router or restore it to factory settings by logging in (see page 2) and navigating to **Administration > System Management > System Management**. Then select either **Reboot** or **Restore Default**. See Image 17.

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.

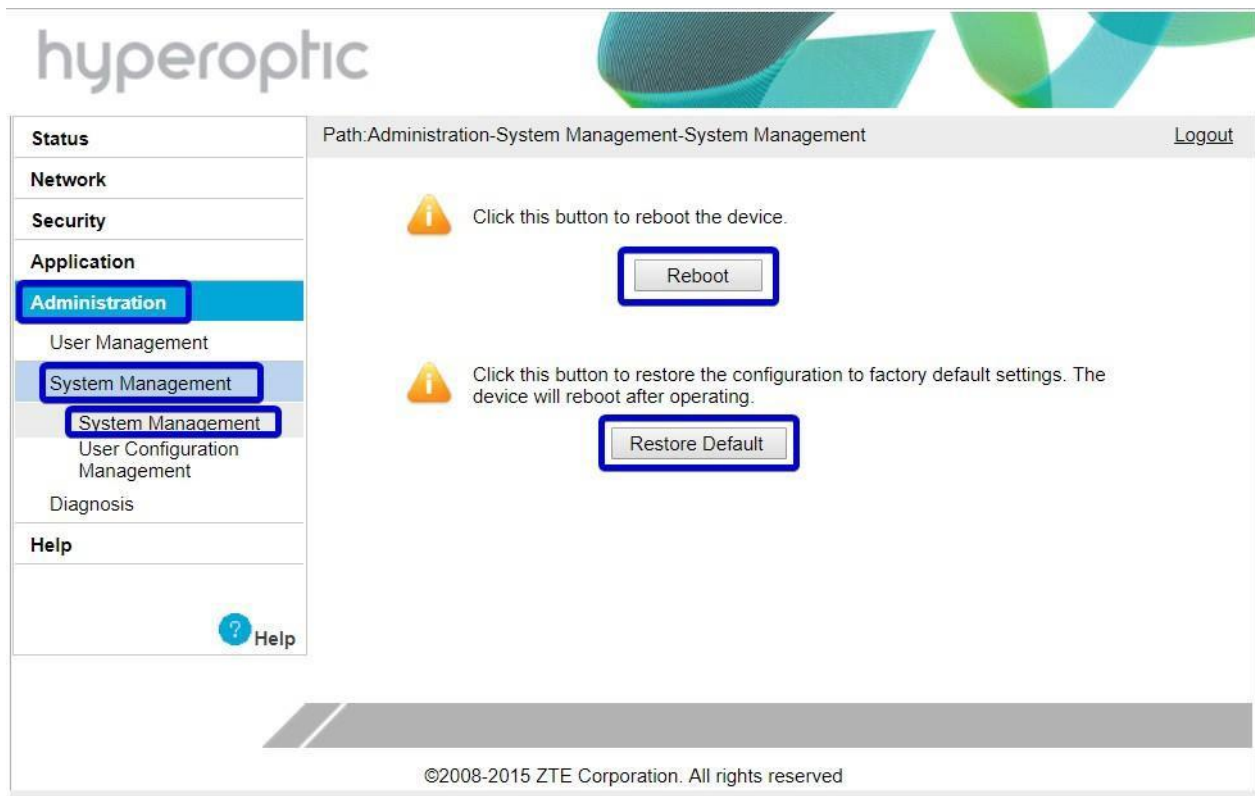
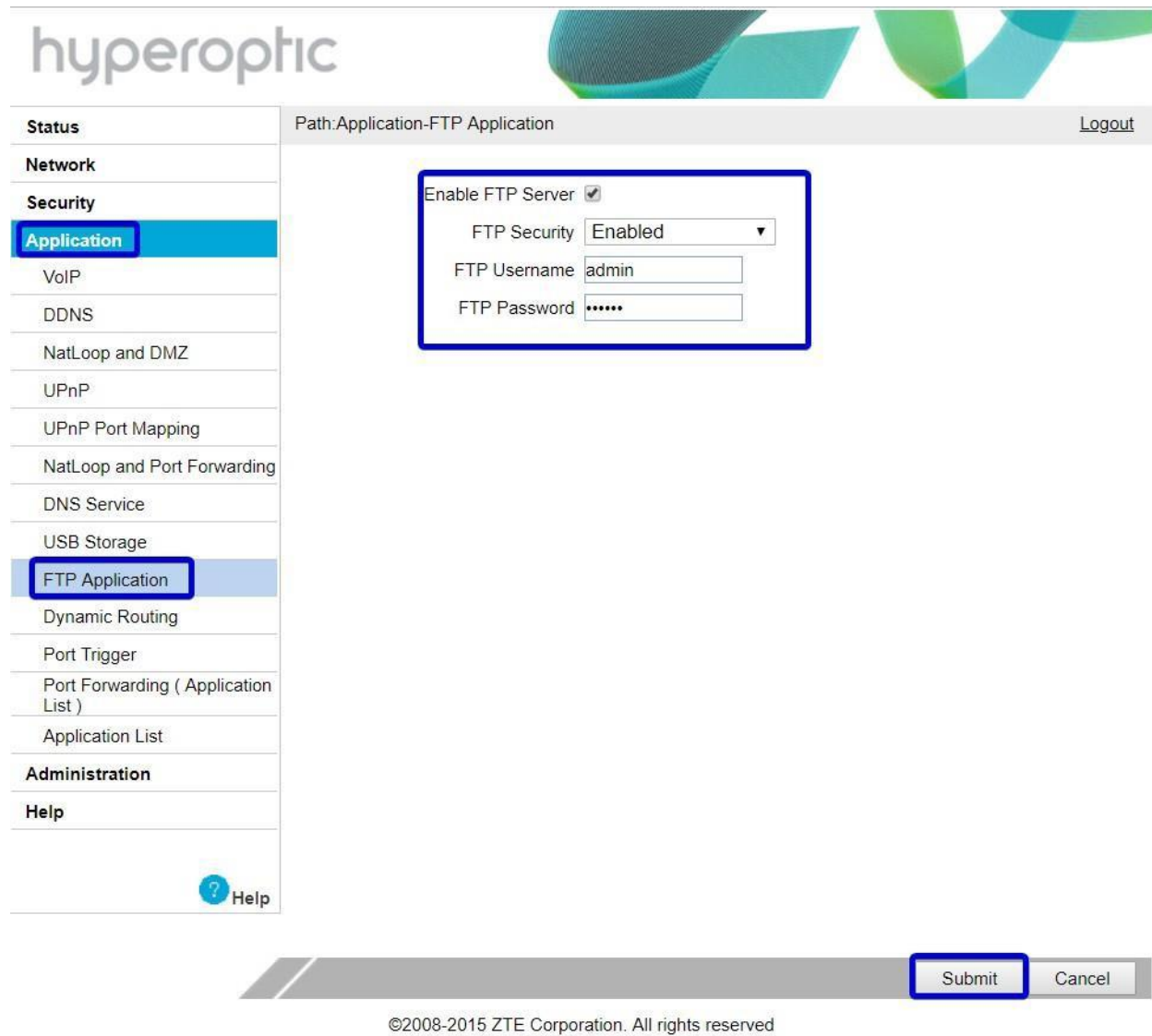


Photo 17. Reboot and factory reset buttons

USB flash access

Once USB flash drive is attached to the router, you can access it using FTP protocol. To enable FTP server, navigate to **Application > FTP Application**. Tick **Enable FTP Server**, configure **username** and **password** and click **Submit**. See image 18. The router's USB port with attached flash drive can be used as additional storage area linked with LAN network.



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Status Path: Application-FTP Application Logout

Network

Security

Application

VoIP

DDNS

NatLoop and DMZ

UPnP

UPnP Port Mapping

NatLoop and Port Forwarding

DNS Service

USB Storage

FTP Application

Dynamic Routing

Port Trigger

Port Forwarding (Application List)

Application List

Administration

Help

Enable FTP Server ☒

FTP Security Enabled

FTP Username admin

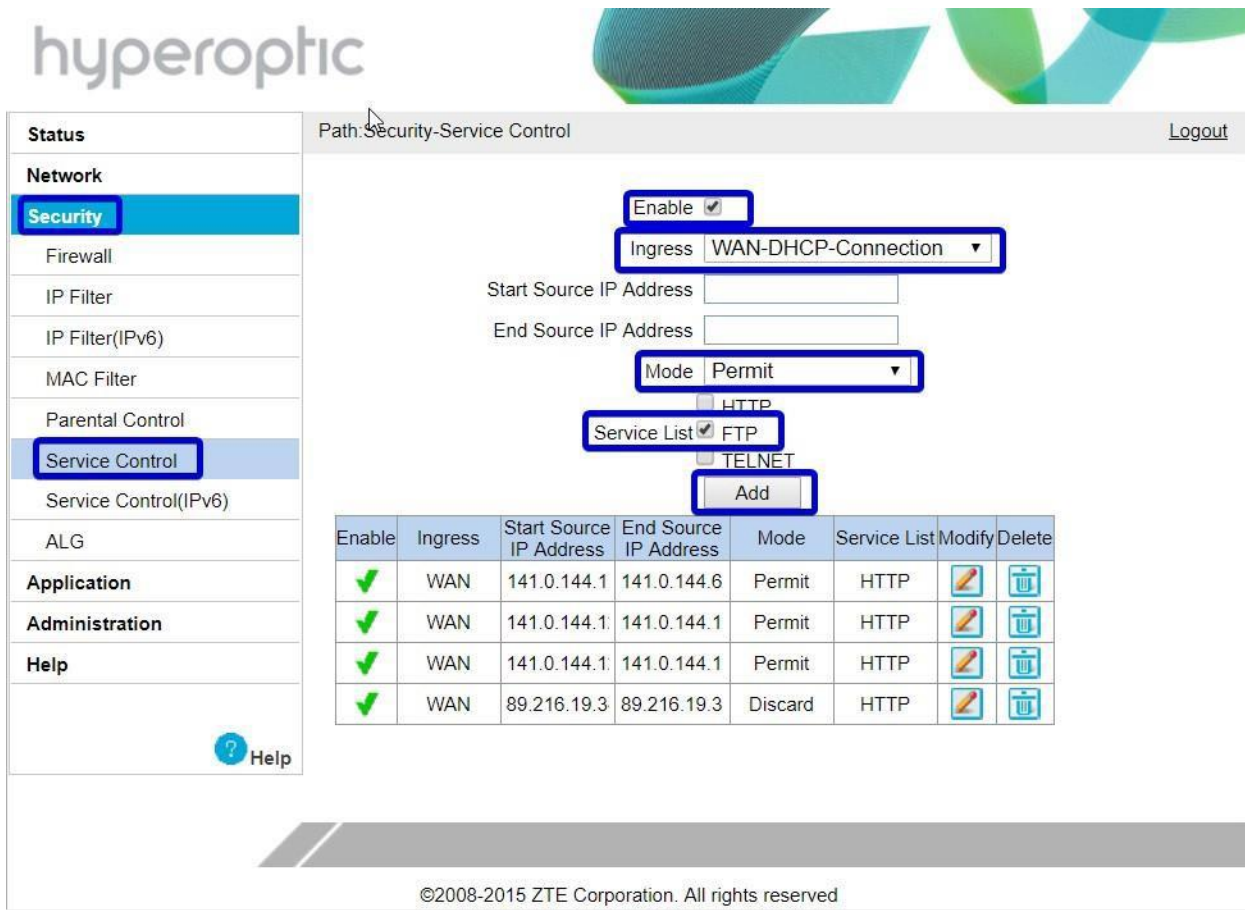
FTP Password

Submit Cancel

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Image 18. FTP server enabling on router

To enable remote access to FTP flash drive, navigate to **Security > Service Control**. Tick **Enable**, select **Ingress** connection as per image 19. If remote address is known, this can be defined in source IP fields. **Permit** FTP access and click **Add**.



Path: Security-Service Control Logout

Enable ☒

Ingress WAN-DHCP-Connection

Start Source IP Address

End Source IP Address

Mode Permit

Service List ☒ FTP ☐ TELNET

Enable	Ingress	Start Source IP Address	End Source IP Address	Mode	Service List	Modify	Delete
✓	WAN	141.0.144.1	141.0.144.6	Permit	HTTP		
✓	WAN	141.0.144.1	141.0.144.1	Permit	HTTP		
✓	WAN	141.0.144.1	141.0.144.1	Permit	HTTP		
✓	WAN	89.216.19.3	89.216.19.3	Discard	HTTP		

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Image 19. Allowing remote FTP access to USB flash drive

From local LAN station, access can be performed by typing <ftp://192.168.1.1> into the web browser. See image 19. Using web browser, it is possible only to download, but if FTP client is used (e.g. FileZilla, etc.), upload is also available. Remote access is described in image 20. Please note, **length of filename must be less than or equal to 8 characters and length of its suffix must be less than or equal to 3 characters**. So, the structure filename is like this, for example: 'xxxxxxx.xxx'.



Image 19. LAN access to USB flash drive

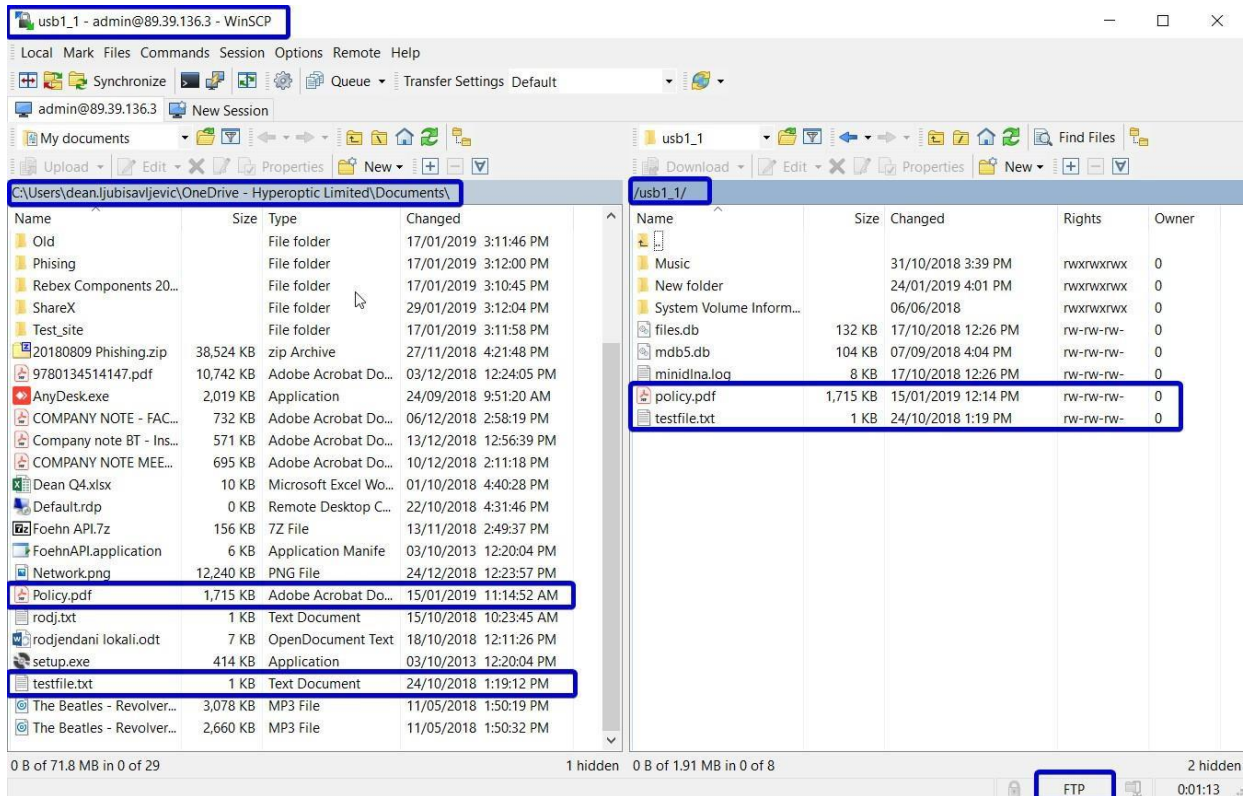
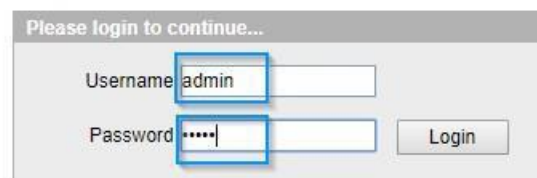


Image 20. WAN access and upload to USB flash drive

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 21). Port forwarding can be used to establish home-based FTP server, web server or similar kind of a server.

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.



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Image 21. Login screen of ZTE H298N router

Once logged in, navigate to **Applications > Application List**. Select **Click here to add an application** to make new port mapping, as illustrated in Image 22.

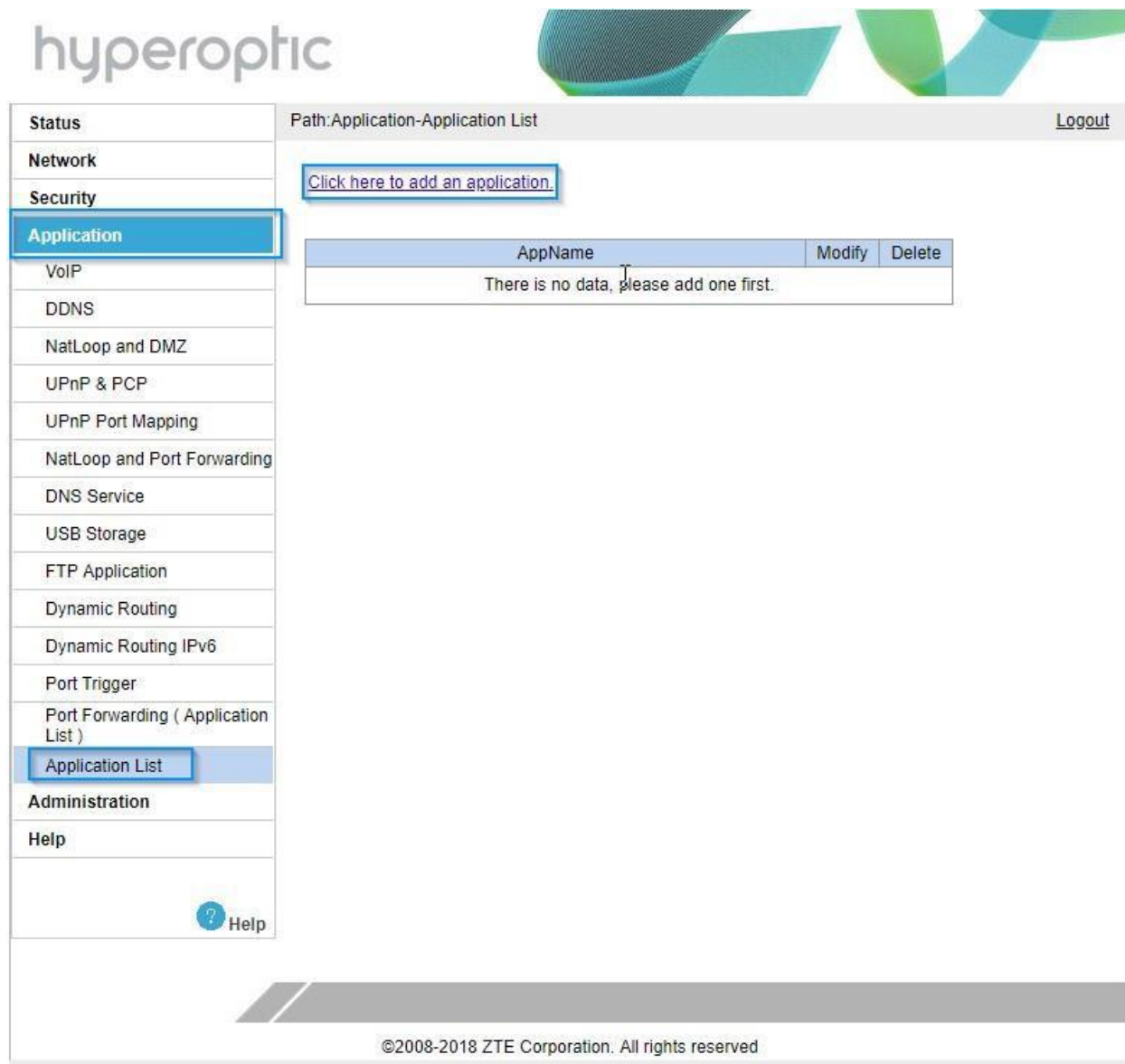
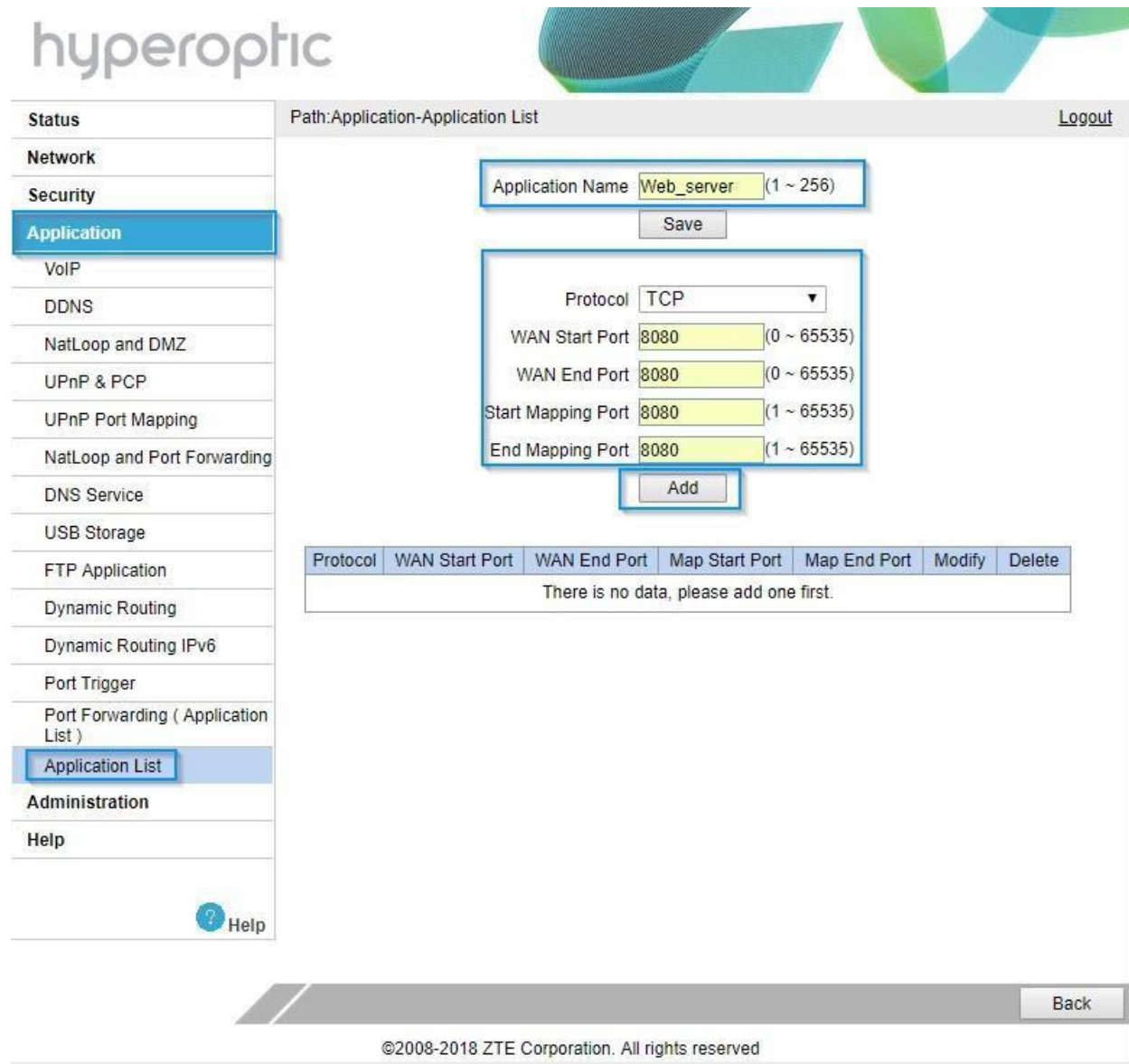


Image 22. Defining local application on router

You should then be presented with the webpage illustrated in Image 23. List any name in the **Application Name** field. In case of local web server, use **TCP Protocol**.



Path: Application-Application List [Logout](#)

Application Name (1 ~ 256)

Protocol

WAN Start Port (0 ~ 65535)

WAN End Port (0 ~ 65535)

Start Mapping Port (1 ~ 65535)

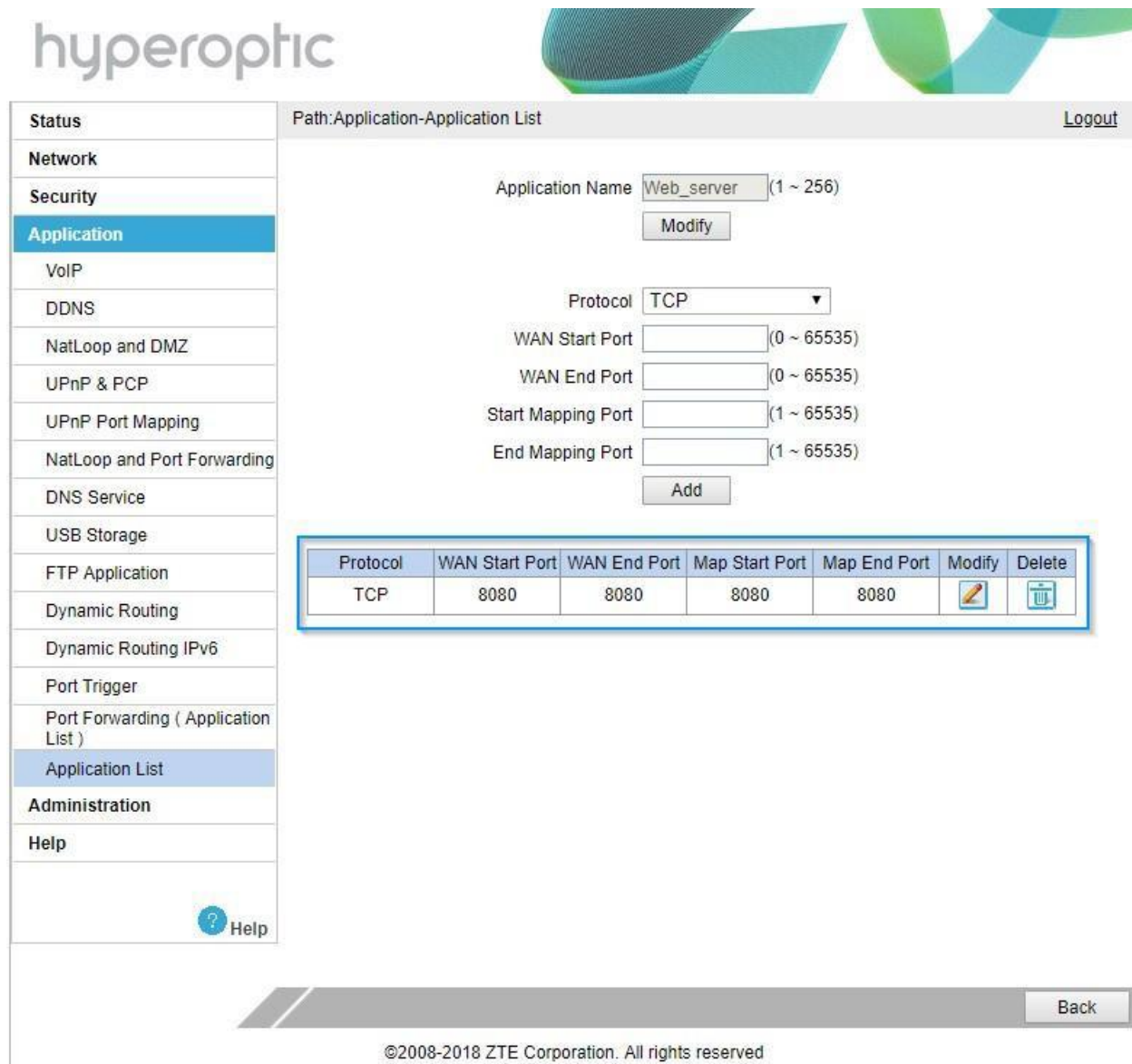
End Mapping Port (1 ~ 65535)

Protocol	WAN Start Port	WAN End Port	Map Start Port	Map End Port	Modify	Delete
There is no data, please add one first.						

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Image 23. Defining LAN application in router GUI

List the port that will be used for the local web server (in this case, the server will be listening for connections on TCP port 8080). Populate **WAN Start Port**, **WAN End Port**, **Start Mapping Port** and **End Mapping Port** with the value **8080**. Once completed, click **Add**. Confirmation should appear as illustrated in Image 24.



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Status Path: Application-Application List Logout

Network

Security

Application

VoIP

DDNS

NatLoop and DMZ

UPnP & PCP

UPnP Port Mapping

NatLoop and Port Forwarding

DNS Service

USB Storage

FTP Application

Dynamic Routing

Dynamic Routing IPv6

Port Trigger

Port Forwarding (Application List)

Application List

Administration

Help

Application Name (1 ~ 256)

Modify

Protocol



WAN Start Port (0 ~ 65535)

WAN End Port (0 ~ 65535)

Start Mapping Port (1 ~ 65535)

End Mapping Port (1 ~ 65535)

Add

Protocol	WAN Start Port	WAN End Port	Map Start Port	Map End Port	Modify	Delete
TCP	8080	8080	8080	8080		

Back

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Image 24. Confirmation of application creation

After creating the application, navigate to **Application > Port Forwarding (Application List)**. This section will link the application with the relevant LAN device's IPv4 address. Enter **LAN Host IP Address** and click **Add**. This configuration is illustrated in Image 25.

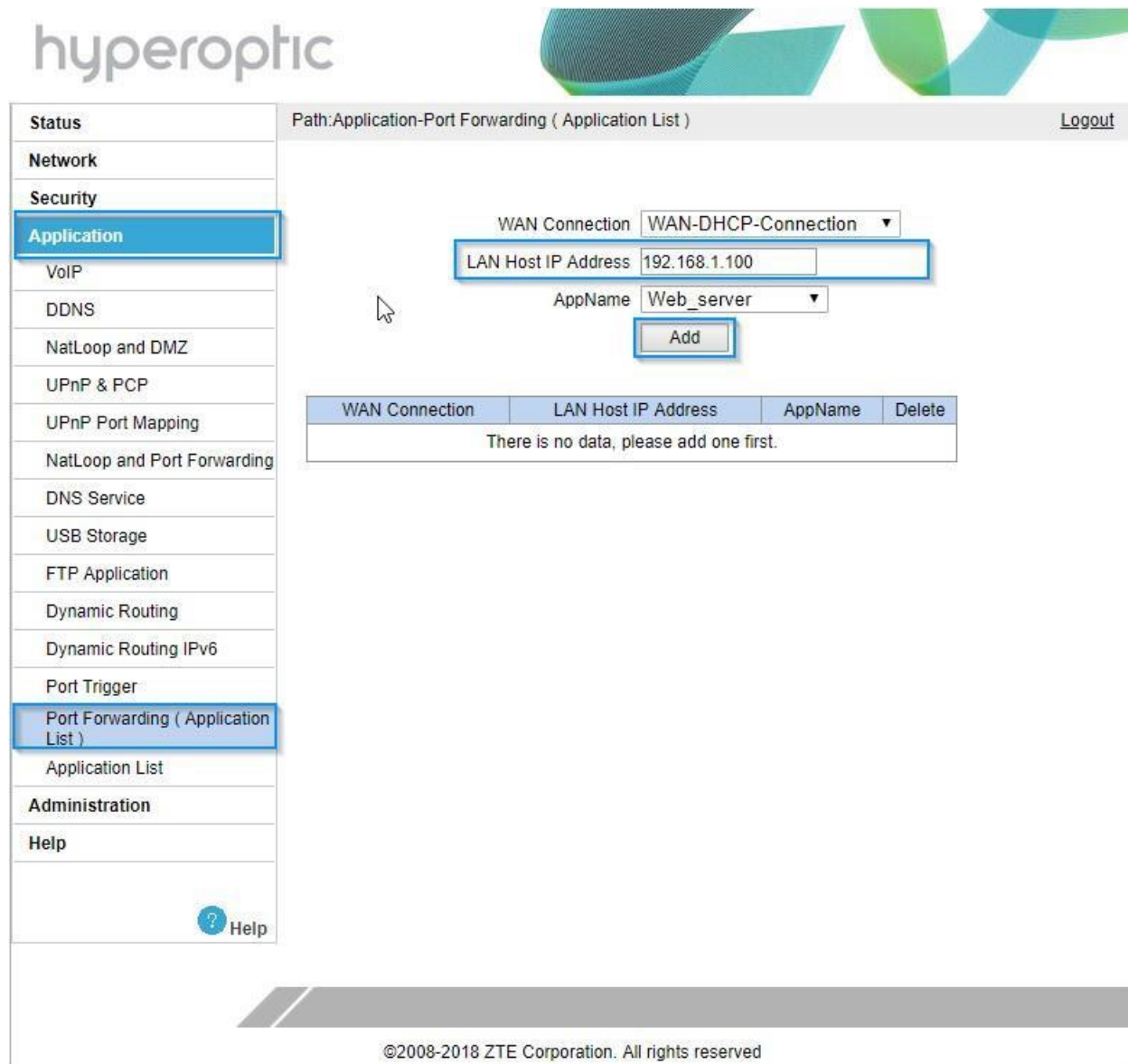


Image 25. Linking application with the LAN host

If the application is linked with the LAN device, you should see confirmation as illustrated in Image 26.

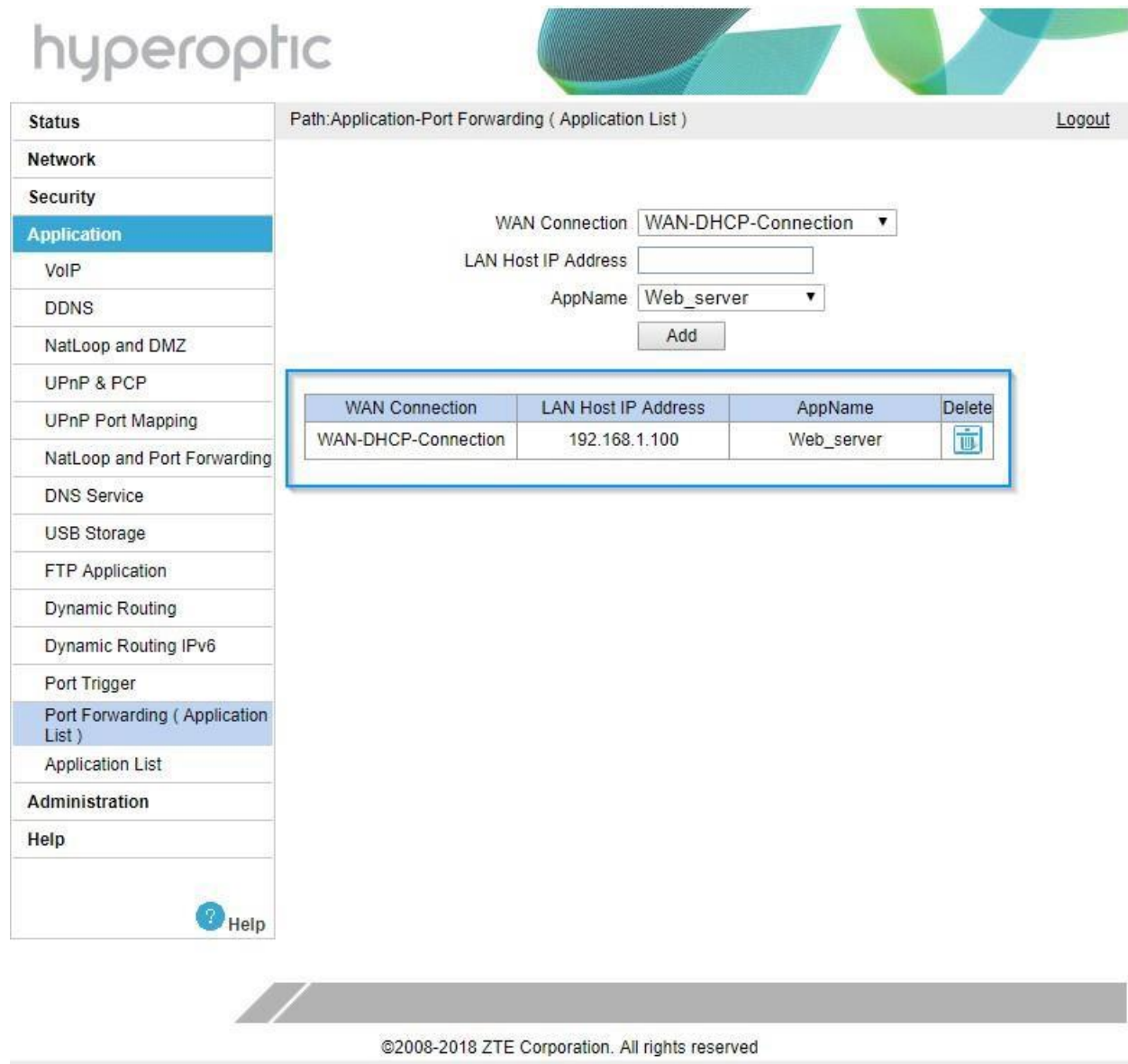


Image 26. Confirmation that port forwarding is configured

Alternatively, the router can be configured to perform port mapping (port translation) during port forwarding. To configure the router in this way, navigate to **Application > NatLoop and Port Forwarding** (see Image 27). In this example, the router will map traffic with destination port 12001 to port 8080. Inbound traffic on WAN ethernet port with destination port 21001 will be forwarded to LAN server. After all parameters are set, click **Add** to save router configuration.

Please also note that ports 80 and 443 **should never be used on WAN side**, as these ports are reserved for Hyperoptic Ltd. remote management. If you would like to use these ports on your server in a LAN, then you can use different ports on WAN side, e.g. you can use ports on WAN side 12000, 12001 and map them to LAN ports 80, 443 respectively). See image 27.

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- Status
- Network
- Security
- Application**
- VoIP
- DDNS
- NatLoop and DMZ
- UPnP & PCP
- UPnP Port Mapping
- NatLoop and Port Forwarding**
- DNS Service
- USB Storage
- FTP Application
- Dynamic Routing
- Dynamic Routing IPv6
- Port Trigger
- Port Forwarding (Application List)
- Application List
- Administration
- Help

Path: Application-NatLoop and Port Forwarding [Logout](#)

Enable ☒

Name

Protocol

Remote Host

WAN Connection

WAN Start Port

WAN End Port

Enable MAC Mapping ☐

LAN Host IP Address

LAN Host Start Port

LAN Host End Port

Enable	Name	WAN Start Port	LAN Host Start Port	WAN Connection	Remote Host	Modify	Delete
	Protocol	WAN End Port	LAN Host End Port	LAN Host Address			
There is no data, please add one first.							

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Image 27. Port forwarding with port mapping

A list of commonly used port is illustrated in Image 28. For additional information about TCP and UDP port numbers, please refer to https://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers

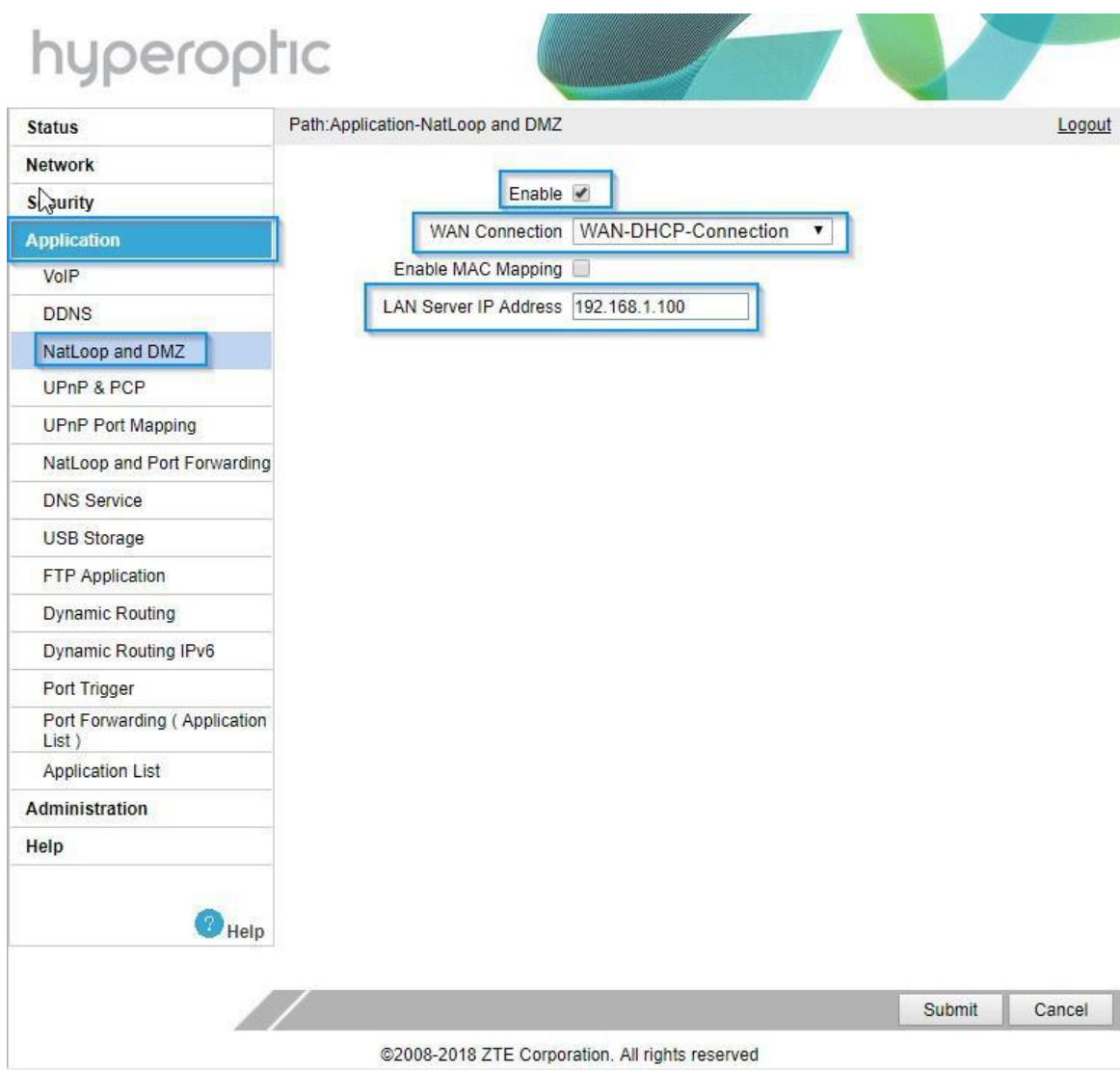
Port Number(s)	Protocol	Application
20	TCP	FTP data
21	TCP	FTP control
22	TCP	SSH
23	TCP	Telnet
25	TCP	SMTP
53	UDP, TCP	DNS
67	UDP	DHCP Server
68	UDP	DHCP Client
69	UDP	TFTP
80	TCP	HTTP (WWW)
110	TCP	POP3
161	UDP	SNMP
443	TCP	SSL
514	UDP	Syslog
16,384 – 32,767	UDP	RTP (voice, video)

Image 28. 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 **Application > NatLoop and DMZ** (see Image 29).

Click **Enable**. Select **WAN Connection** as **WAN-DHCP-Connection**. List the **LAN Server IP address**. Click **Submit**.



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Status

Network

Security

Application

VoIP

DDNS

NatLoop and DMZ

UPnP & PCP

UPnP Port Mapping

NatLoop and Port Forwarding

DNS Service

USB Storage

FTP Application

Dynamic Routing

Dynamic Routing IPv6

Port Trigger

Port Forwarding (Application List)

Application List

Administration

Help

Path: Application-NatLoop and DMZ

Logout

Enable ☒

WAN Connection WAN-DHCP-Connection

Enable MAC Mapping ☐

LAN Server IP Address 192.168.1.100

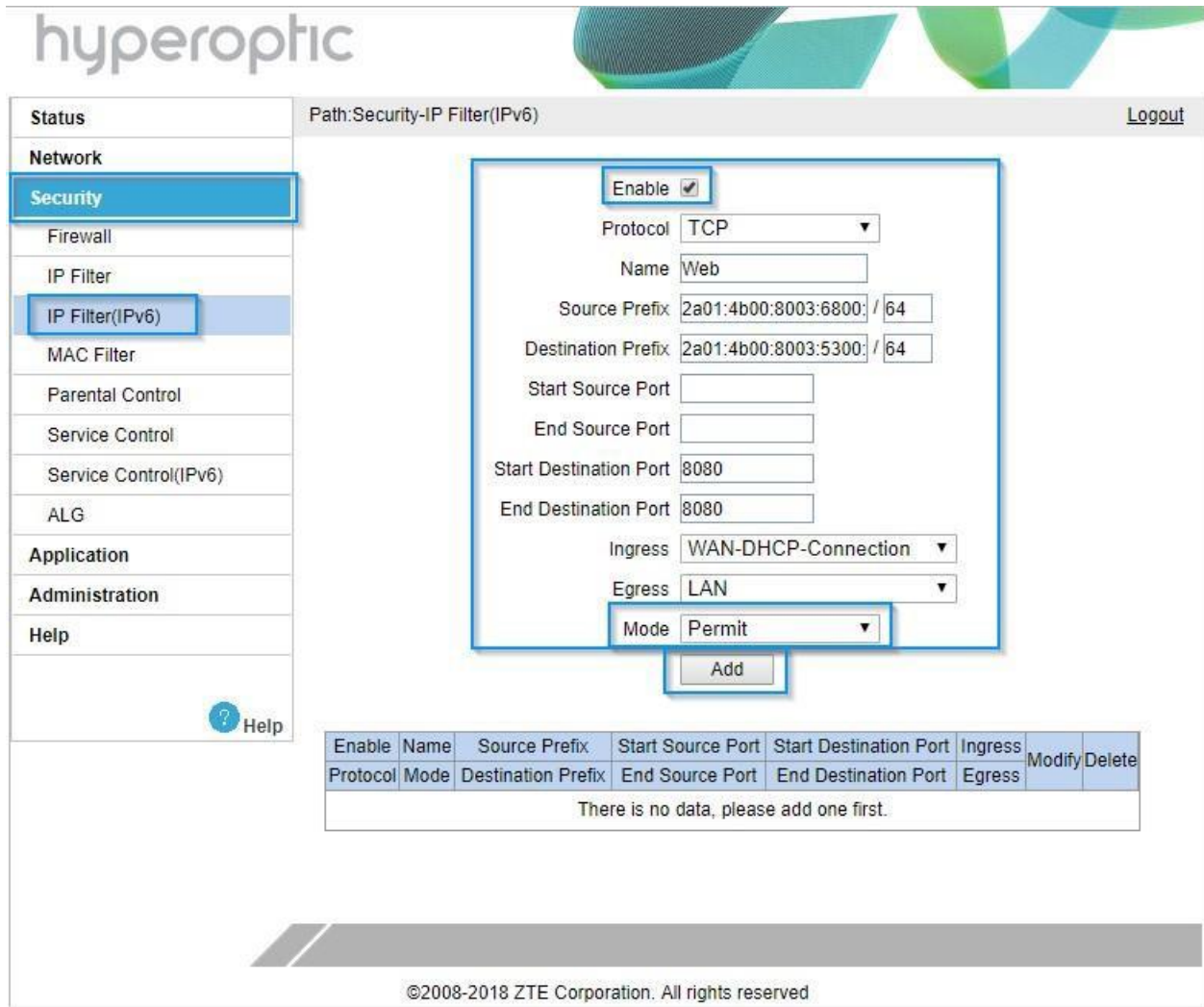
Submit Cancel

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Image 29. DMZ configuration on router

IPv6 Filter

IPv6 servers placed in LAN can be accessed from any remote IPv6 address. Access can be granted using the router's IPv6 filters. To configure a Hyperoptic router, navigate to **Security > IP Filters(IPv6)**. Image 30 illustrates an example of a local IPv6 web server.



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Status Path: Security-IP Filter(IPv6) Logout

Network

Security

Firewall

IP Filter

IP Filter(IPv6)

MAC Filter

Parental Control

Service Control

Service Control(IPv6)

ALG

Application

Administration

Help

Enable ☒

Protocol TCP

Name Web

Source Prefix 2a01:4b00:8003:6800::/64

Destination Prefix 2a01:4b00:8003:5300::/64

Start Source Port

End Source Port

Start Destination Port 8080

End Destination Port 8080

Ingress WAN-DHCP-Connection

Egress LAN

Mode Permit

Add

Enable	Name	Source Prefix	Start Source Port	Start Destination Port	Ingress	Egress	Modify	Delete

There is no data, please add one first.

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Image 30. IPv6 filter configuration

Click **Enable** to make the filter rule active.

For web servers, use **TCP** as **Protocol** type.

Use any **Name** for the filter.

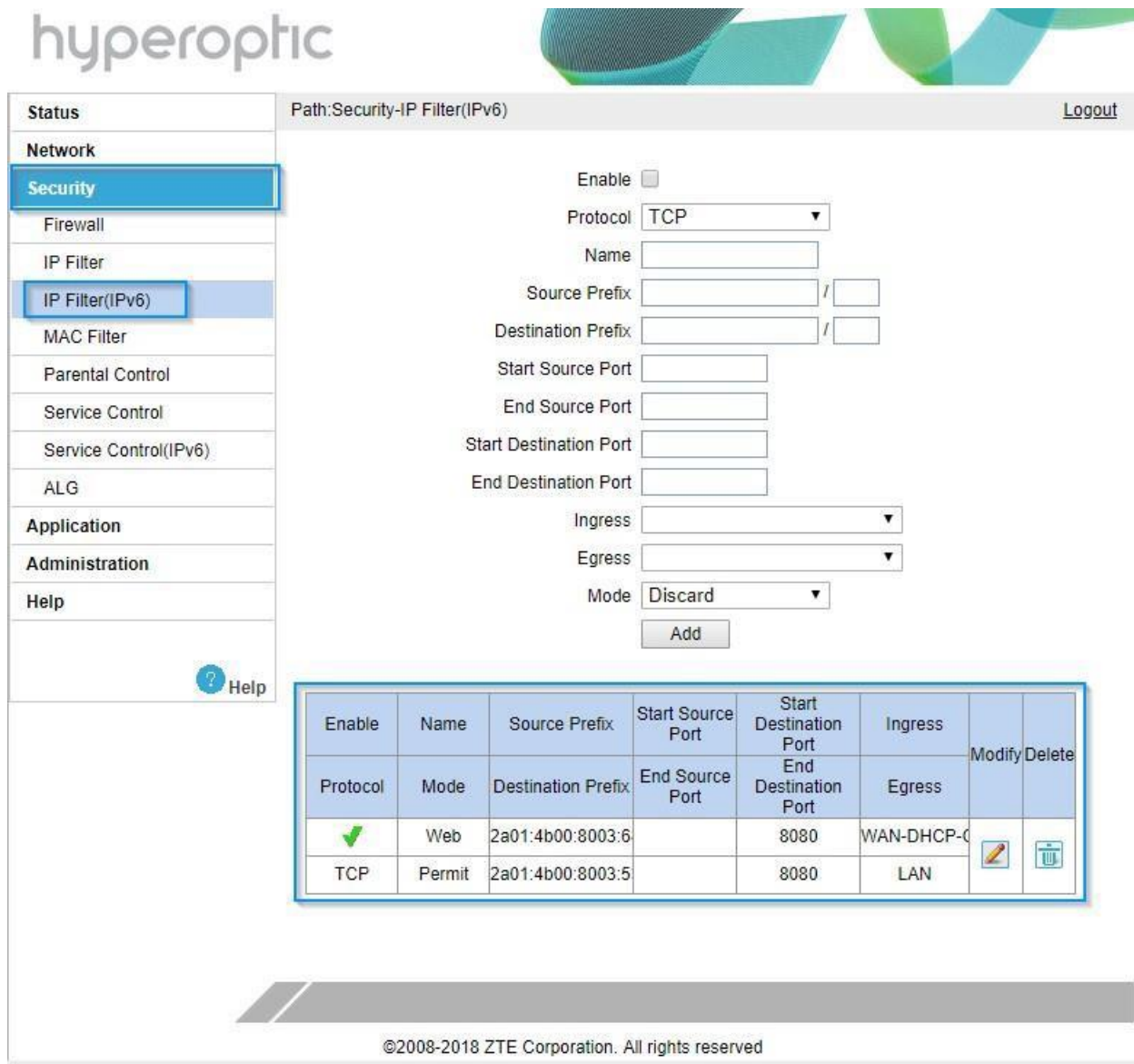
List the **Source Prefix** (IPv6 address range of remote computers) - for example, **2a01:4b00:8003:6800::** with prefix length **64**.

For **Destination Prefix**, use the address range assigned to the router. In the example illustrated in Image 30, this range is **2a01:4b00:8003:5300::** with prefix length **64**.

Start Destination port and **End destination port** define the range of ports that will be allowed to pass through local router. In this case only one port is permitted – port **8080**.

Define **Ingress** and **Egress** ports as per Image 30.

Choose **Permit** mode and click **Add** to save router configuration. Once configured, confirmation should appear as illustrated in Image 31.



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Status Path:Security-IP Filter(IPv6) Logout

Network

Security

Firewall

IP Filter

IP Filter(IPv6)

MAC Filter

Parental Control

Service Control

Service Control(IPv6)

ALG

Application

Administration

Help

Help

Enable ☒

Protocol TCP

Name

Source Prefix /

Destination Prefix /

Start Source Port

End Source Port

Start Destination Port

End Destination Port

Ingress

Egress

Mode Discard

Add

Enable	Name	Source Prefix	Start Source Port	Start Destination Port	Ingress	Modify	Delete
✓	Web	2a01:4b00:8003:6		8080	WAN-DHCP-C		
TCP	Permit	2a01:4b00:8003:5		8080	LAN		

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Image 31. Confirmation that IPv6 filter is made and Enabled

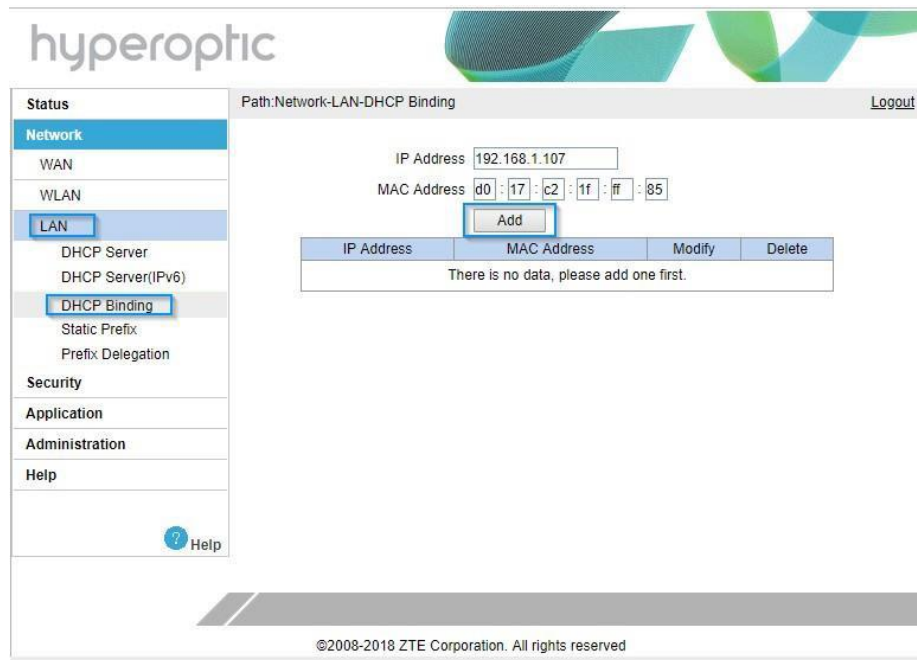
DHCP Binding

Specific LAN client can have same IPv4 address all the time. To define which LAN client will have which IPv4 address, configuration of binding must be completed. This is described in image 32. Navigate to section **Network > LAN**.



Image 32. LAN section of router configuration

Click on **LAN** segment and then click on **DHCP Binding**. This is described in image 33. List IPv4 wanted address and list MAC address of LAN client. After configuring these parameters click on **Add** to save settings.



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Status Path: Network-LAN-DHCP Binding Logout

Network

WAN

WLAN

LAN

DHCP Server

DHCP Server(IPv6)

DHCP Binding

Static Prefix

Prefix Delegation

Security

Application

Administration

Help

IP Address 192.168.1.107

MAC Address d0 : 17 : c2 : 1f : ff : 85

Add

IP Address	MAC Address	Modify	Delete
There is no data, please add one first.			

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Image 33. Configuring DHCP binding

Confirmation of configuration looks like described in Image 34.



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Status Path: Network-LAN-DHCP Binding Logout

Network

WAN

WLAN

LAN

DHCP Server

DHCP Server(IPv6)

DHCP Binding

Static Prefix

Prefix Delegation

Security

Application

Administration

Help

IP Address 192.168.1.107

MAC Address d0 : 17 : c2 : 1f : ff : 85

Add

IP Address	MAC Address	Modify	Delete
192.168.1.107	d0:17:c2:1f:ff:85		

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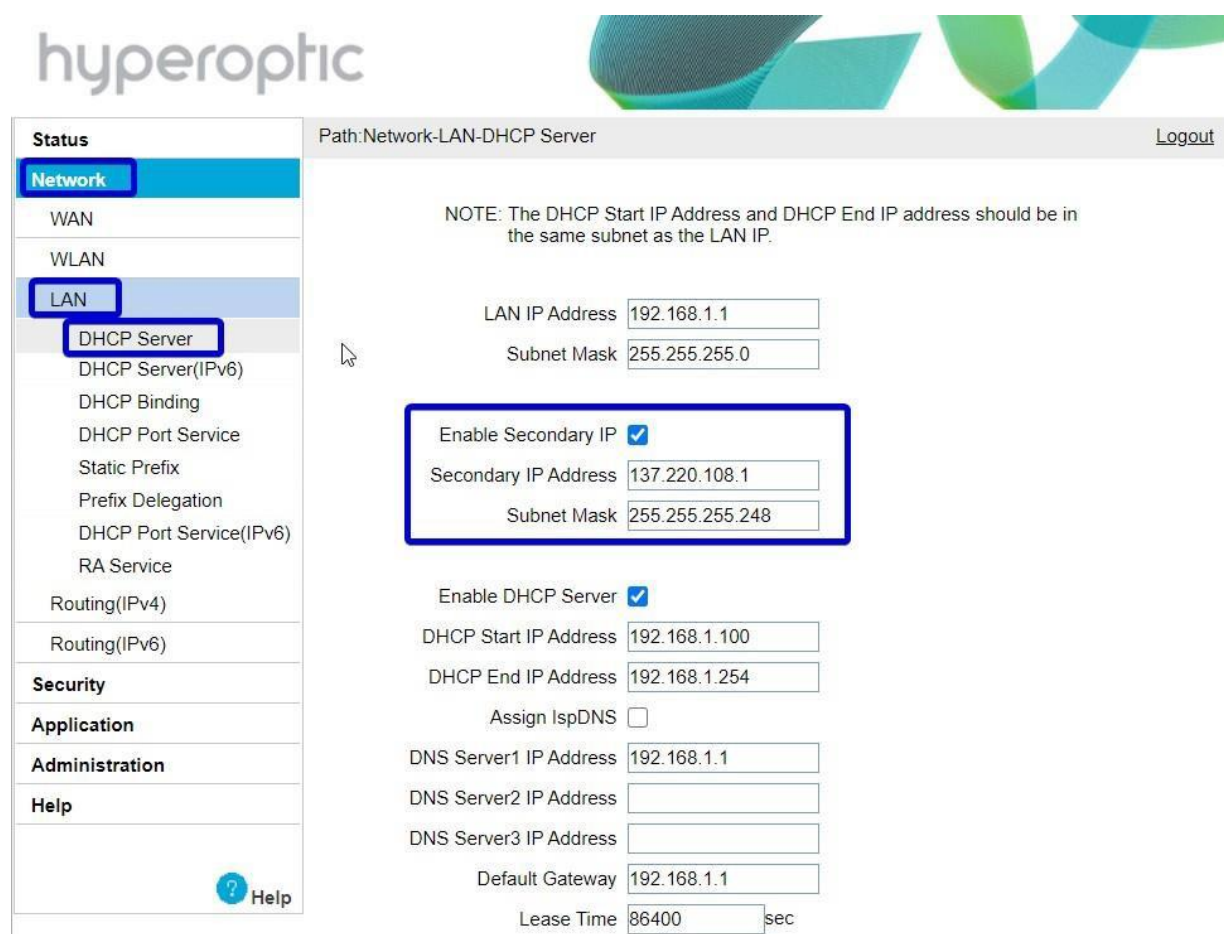
Image 34. Confirmation of DHCP binding

Public IPv4 address block in LAN network

Navigate to **Network > LAN > DHCP Server**. Image 35 describes example of public block 137.220.108.0/29. Take first address from the IPv4 block and assign it to the router – **Secondary IP Address** field. Populate **Subnet mask** field as per table 1. Click **Submit** at the bottom of the page to save settings.

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

Public IPv4 address block format	Subnet mask
x.x.x.x/32	255.255.255.255
x.x.x.x/31	255.255.255.254
x.x.x.x/30	255.255.255.252
x.x.x.x/29	255.255.255.248
x.x.x.x/28	255.255.255.240



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Status Path: Network-LAN-DHCP Server Logout

NOTE: The DHCP Start IP Address and DHCP End IP address should be in the same subnet as the LAN IP.

LAN IP Address 192.168.1.1

Subnet Mask 255.255.255.0

Enable Secondary IP ☒

Secondary IP Address 137.220.108.1

Subnet Mask 255.255.255.248

Enable DHCP Server ☒

DHCP Start IP Address 192.168.1.100

DHCP End IP Address 192.168.1.254

Assign IspDNS ☐

DNS Server1 IP Address 192.168.1.1

DNS Server2 IP Address

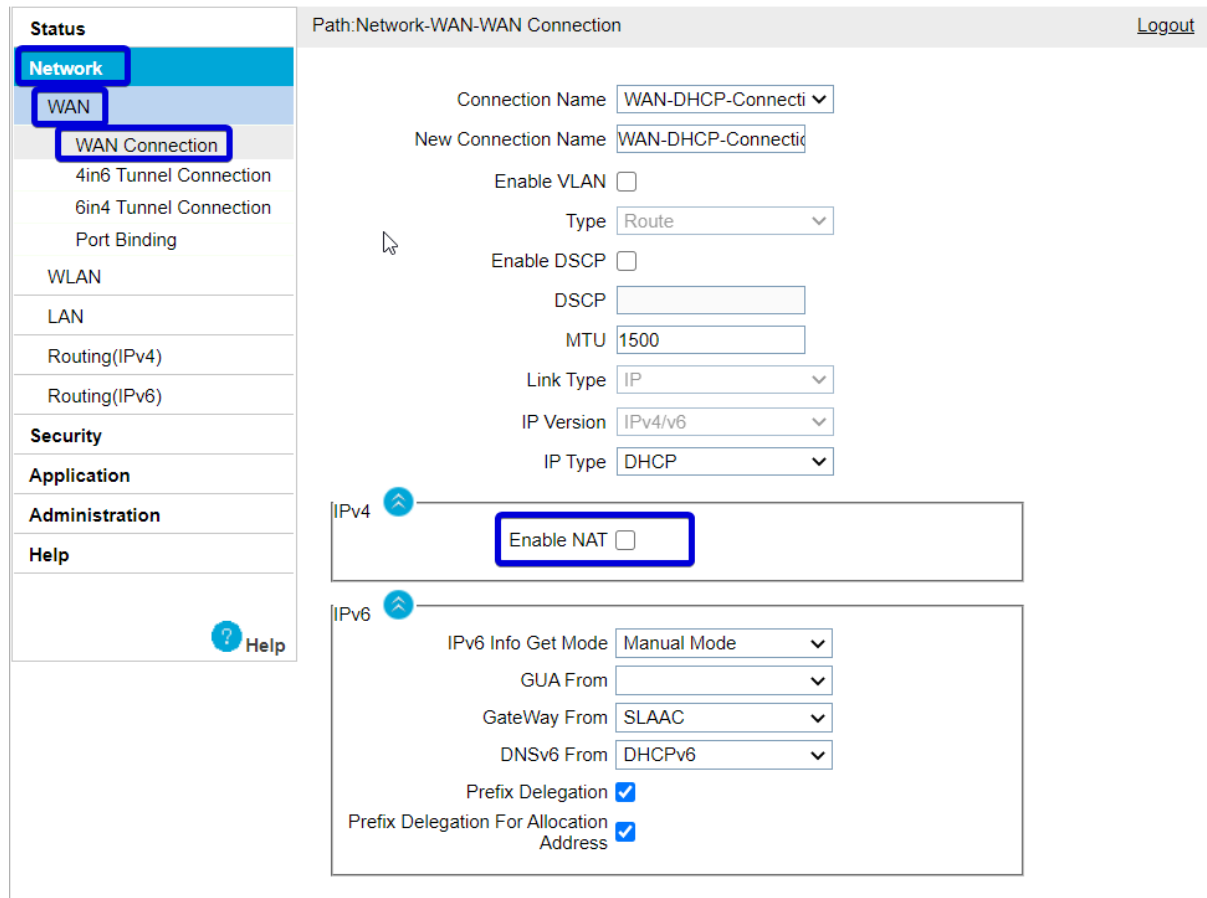
DNS Server3 IP Address

Default Gateway 192.168.1.1

Lease Time 86400 sec

Image 35. Setting secondary IP block

Navigate to **Network > WAN > WAN Connection**. Select **WAN-DHCP-Connection** from first dropdown menu. Untick **Enable NAT** option and click **Modify** at the bottom of to save settings.



Path: Network-WAN-WAN Connection [Logout](#)

Status

- Network**
- WAN
- WAN Connection
- 4in6 Tunnel Connection
- 6in4 Tunnel Connection
- Port Binding
- WLAN
- LAN
- Routing(IPv4)
- Routing(IPv6)
- Security**
- Application**
- Administration**
- Help**

Connection Name: WAN-DHCP-Connection

New Connection Name: WAN-DHCP-Connection

Enable VLAN: ☐

Type: Route

Enable DSCP: ☐

DSCP:

MTU: 1500

Link Type: IP

IP Version: IPv4/v6

IP Type: DHCP

IPv4

Enable NAT: ☐

IPv6

IPv6 Info Get Mode: Manual Mode

GUA From:

GateWay From: SLAAC

DNSv6 From: DHCPv6

Prefix Delegation: ☒

Prefix Delegation For Allocation Address: ☒

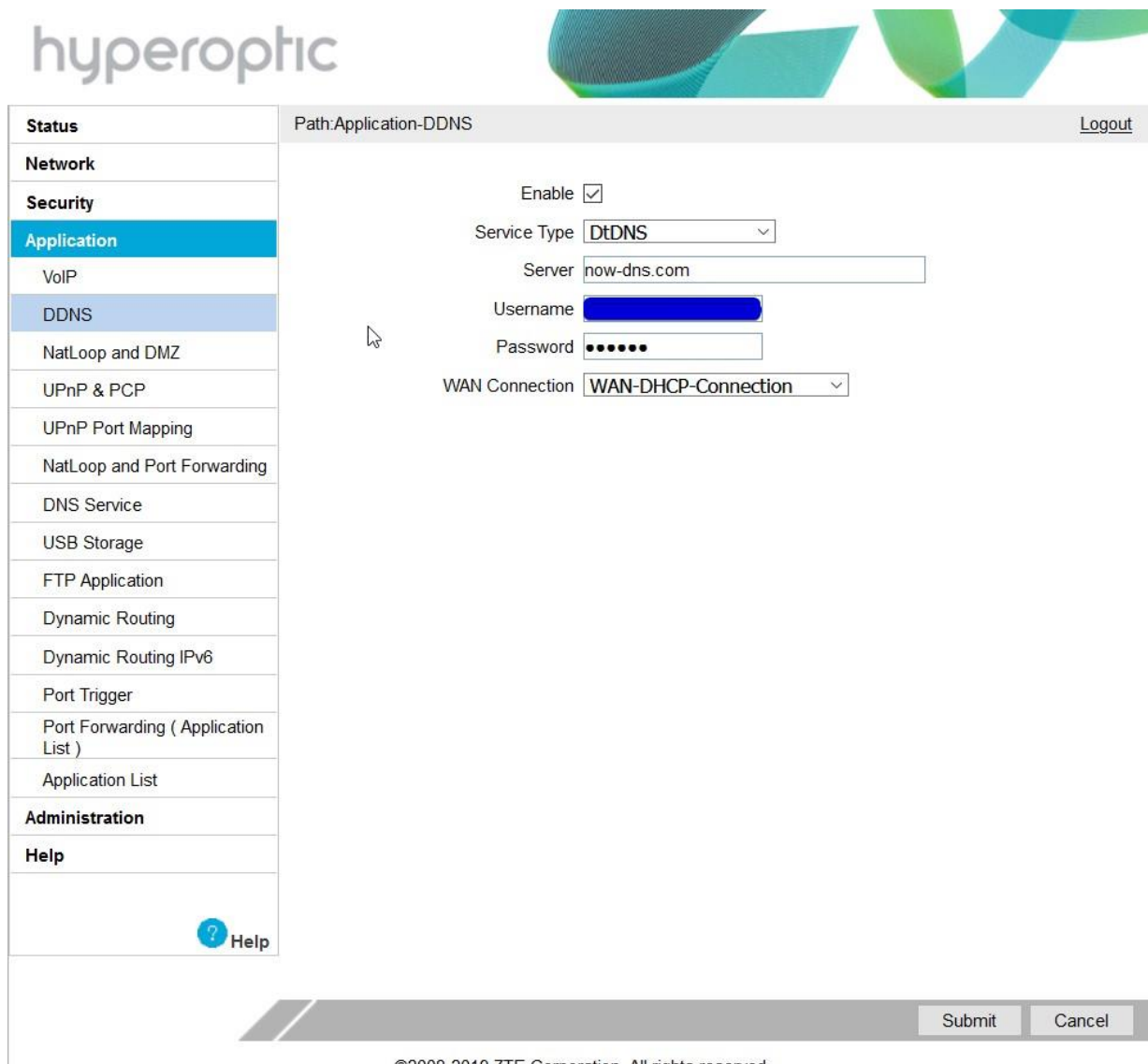
Image 36. Disabling NAT on the router

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 **Application > DDNS**.

Before setting parameters on the router, please register the FQDN with a DNS provider (e.g. <https://now-dns.com/>). Tick **Enable**, select **Service Type** from the dropdown menu, enter **Server** location, and the **Username** and **Password** which were used in registration process. For **WAN Connection**, select **WAN-DHCP-Connection**. Click **Submit** (see image 37).



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Status Path:Application-DDNS [Logout](#)

Network

Security

Application

VoIP

DDNS

NatLoop and DMZ

UPnP & PCP

UPnP Port Mapping

NatLoop and Port Forwarding

DNS Service

USB Storage

FTP Application

Dynamic Routing

Dynamic Routing IPv6

Port Trigger

Port Forwarding (Application List)

Application List

Administration

Help

Enable ☒

Service Type DtDNS

Server now-dns.com

Username [Redacted]

Password •••••

WAN Connection WAN-DHCP-Connection

[Submit](#) [Cancel](#)

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Image 37. Configuration section for DDNS

Confirmation can be seen in image 38. Router web GUI is seen after entering example FQDN of *mytest222.dtdns.org* in the web browser.

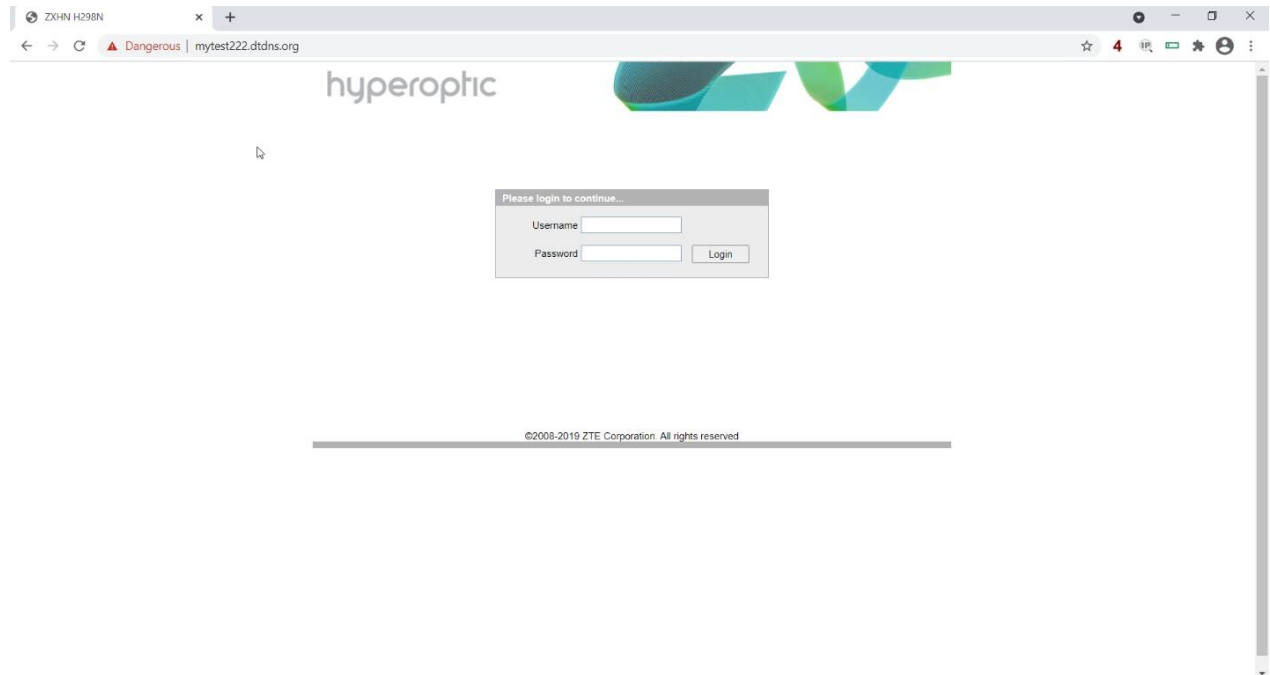


Image 38. Reaching ZTE H298N router via registered FQDN

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