

UTEPO

**CP5-450
User Manual**

CONTENT

Introduction.....	3
1. Terms of Use.....	3
Overview.....	3
Device Management.....	3
1. Interface Instruction.....	4
2. LED Indicator Instruction.....	4
3. Pairing Configuration.....	5
(1) Point-to-point Pairing.....	5
(2) Point-to-multipoint Pairing.....	5
(3) Radio Channel Comparison Table.....	5
WEB Management.....	5
Status.....	6
1. Overview.....	6
WLAN.....	7
1. Bridge Settings.....	7
(1) Bridge Access Point.....	8
(2) Bridge Client.....	8
2. Advanced Settings.....	9
3. WiFi Settings.....	10
Network.....	10
1. Network.....	10
(1) Bridge Mode.....	11
(2) Route Mode.....	12
2. Cloud Management.....	15
System.....	16
1. System.....	16
2. Change Password.....	16
3. Backup / Flash Firmware.....	17
4. Reboot.....	18
Setup Wizard.....	18

Introduction

Thank you for choosing our product! This user manual is designed to guide you through installation, management and maintenance of product.

1. Terms of Use

The “equipment”, “device” and “product” refer to the bridge if there is no other special instructions. The configuration information, such as IP address, mentioned in the user manual is just for reference, please configure the value according to practical application. Please note that the product pictures showed in the manual are for reference, we would update both hardware and software from time to time.

Overview

The product is suitable for various environment, like the elevator, power high-voltage lines, wharf and expressway etc.

Feature:

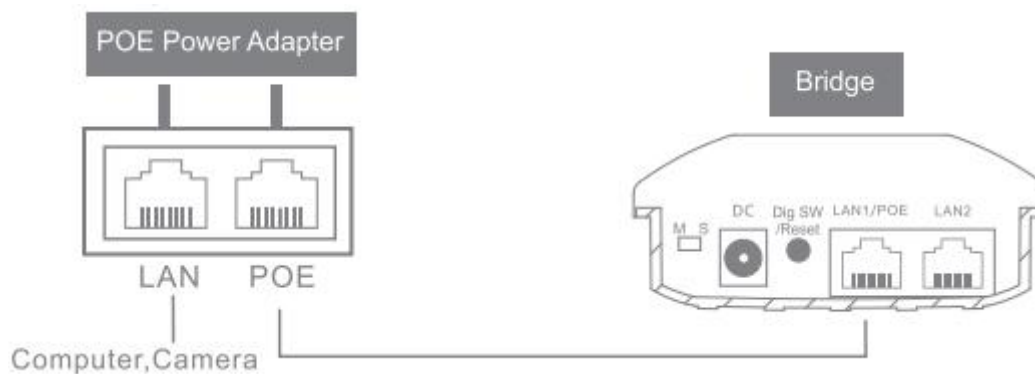
Provide 2*10/100Mbps RJ45 ports.

Support cloud remote management.

Support launching function of radio signal.

Device Management

The user manual is for use with several models, the configuration steps are same.



1. Interface Instruction

DIP Switch: Bridge Access Point, Bridge Client




DC: Power input port, DC12V/1A.

Digital Switch / Reset: Channel 1 would be added by short pressing (the matching configuration time is about 5s), reset to factory defaults by pressing in 15s.

LAN1/POE Port: PoE port for handling all user traffic and powering the device. The port is used as the LAN port under bridge mode, and as WAN port under gateway mode.

LAN2 Port: For handling all user traffic, could connect with PC, cameras and switches.

2. LED Indicator Instruction

<p>SIG1、SIG2、SIG3、SIG4</p>	<p>Signal Indicator: Bridge Access Point: Output Power Indicator < 17dBm (SIG1 ON) 17~19dBm (SIG1-SIG2 ON), 20~22dBm (SIG1-SIG3 ON), > 23dBm (SIG1-SIG4 ON).</p> <p>Bridge Client: Signal Strength Indicator Failure Connection: Flowing Successful Connection: 0~-65dBm (SIG1-SIG4 ON), -66~-75dBm (SIG1-SIG3 ON), -76~-85dBm (SIG1-SIG2 ON), ≤ -86dBm (SIG1 ON).</p>
<p>LAN1</p>	<p>Connected and data is under transmission (Flicker) Disconnection (OFF)</p>
<p>LAN2</p>	<p>Connected and data is under transmission (Flicker) Disconnection (OFF)</p>
	<p>The device is under normal operation (Flicker)</p>
	<p>Power ON (ON) Power OFF (OFF)</p>
	<p>Digital Switch / Reset: Channel 1 would be added by short pressing (Value Circulation: 0-9-A-F)</p>

3. Pairing Configuration

(1) Point-to-point Pairing

- ① Configure one to bridge access point, and the other one to bridge client.
- ② Short pressing the “Digital Switch / Reset”, Channel 1 would be added by short pressing (Value Circulation: 0-9-A-F).
- ③ Set the same channel value for both two devices, then finished the pairing.

(2) Point-to-multipoint Pairing

- ① Configure one to bridge access point, and the another to bridge client.
- ② Short pressing the “Digital Switch / Reset”, Channel 1 would be added by short pressing (Value Circulation: 0-9-A-F).
- ③ Set the same channel value for both two devices, then finished the pairing.
- ④ The max number of Client for 1 AP is 8.

(3) Radio Channel Comparison Table

Value	0	1	2	3	4	5	6	7	8	9	A	b	C	d	E	F
Channel No.	1	2	3	4	5	6	7	8	9	10	11	28	32	36	40	44

Note: Please connect the device with the standard power cable in the package. The device supports powered by PoE, which is convenient for wiring deployment.

WEB Management

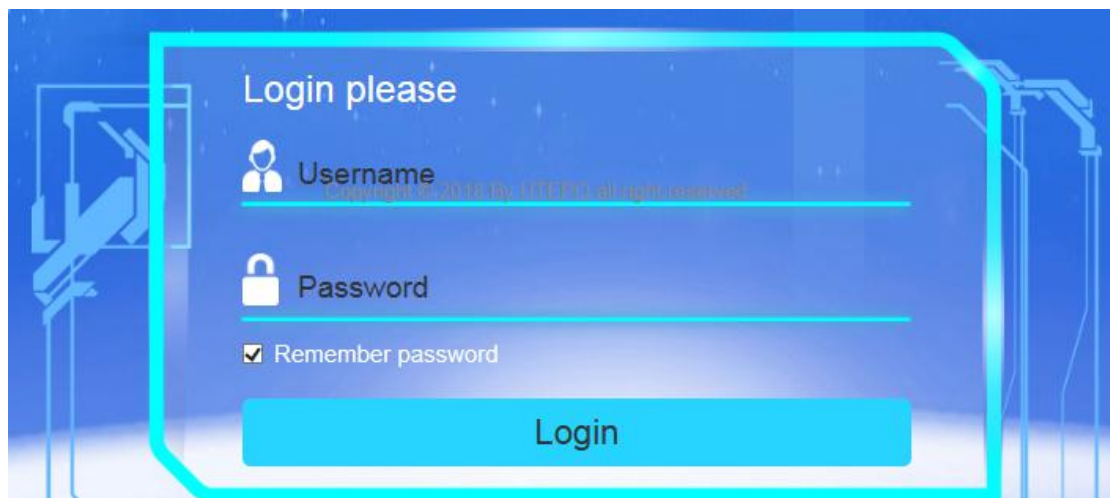
Login Steps for WEB Management:

1. Please connect the PC to the LAN port of the device.
2. Set static IP address as 169.254.254.253/16 to the PC
3. Open the browser and input the IP address 169.254.254.254 to enter the login UI.
4. Enter the bridge device list, which shows the bridges under same LAN. Click corresponding address to login the device.

Bridge Device List						[Global / 中文]
ID	MAC	IP address	Wireless mode	Status	Operate	
1	18:40:a4:cf:a1:72	169.254.254.57	Server Mode	Online	Login	

UTEPO

5. Input the user name and password to login (Default user name/ password: utepo/ utepo)



Status

It contains two parts, overview and routing list.

1. Overview

The page is including the status of system, bridge and interface, shown as below:

System Status

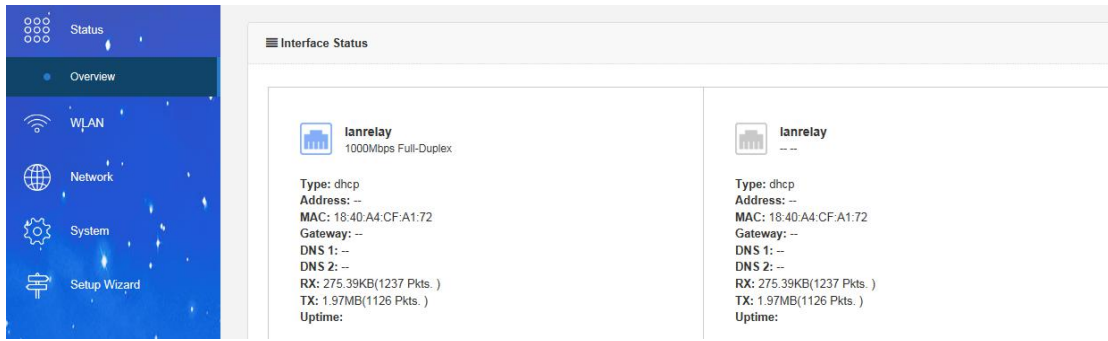
Mode	Bridge Mode	CPU	11 / 100
Model / Version	CP5-900 / V1.0-201812101206	Memory	29724 KB / 62316 KB
Local Time	2019-01-03 19:16:54		
Uptime	6m 40s		

Bridge Status

Wireless Mode	Server Mode	Channel	36
Bridge SSID	brap_0x0_36	Bandwidth	80 MHz
TX power	100%		

MAC | IP address | RX rate | TX rate | Distance | Signal

No data available in table



Note: the information of system status and interface traffic status would be updated in every 5 seconds.

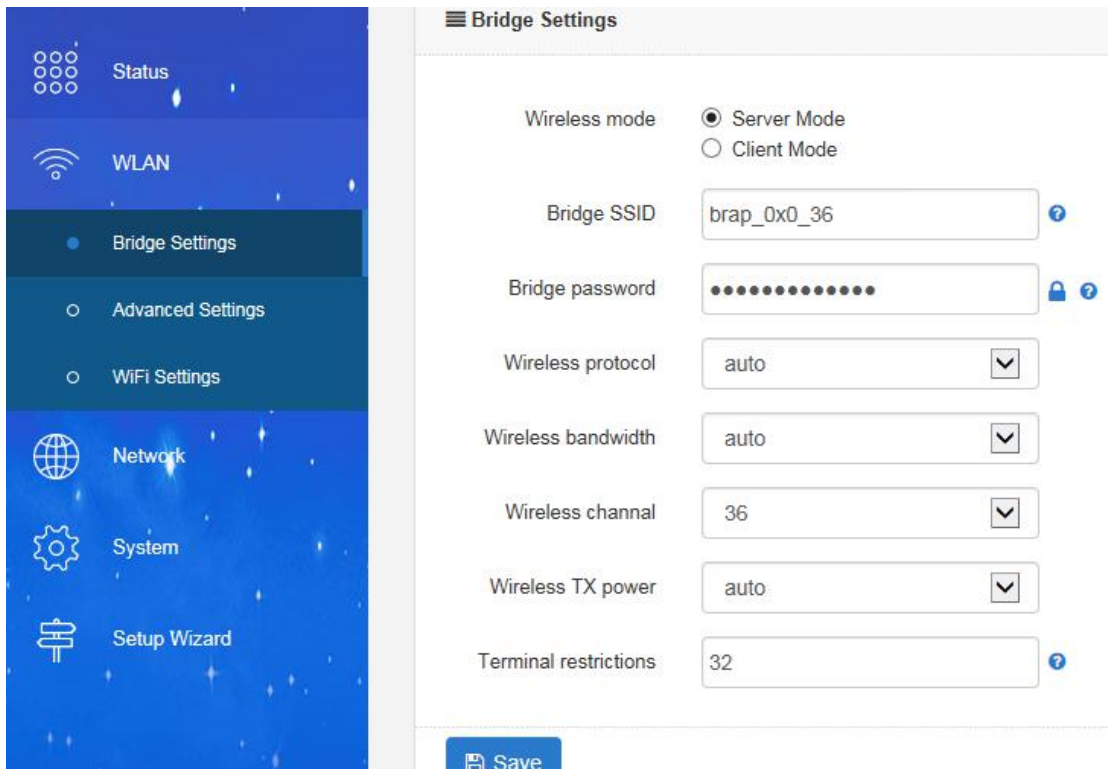
- ①CPU: Showing the current occupied CPU.
- ②Memory: Showing the current occupied memory.

WLAN

It contains three parts, bridge settings, advanced settings & WiFi settings.

1. Bridge Settings

User can set the wireless mode to bridge access point or bridge client from this page.



(1) Bridge Access Point

- ① Bridge SSID: name of bridge SSID.
- ② Bridge Password: Need to enter the same password to ensure the pairing.
- ③ Wireless Protocol
- ④ Wireless Bandwidth: 20MHz, 40MHz
- ⑤ Wireless Channel
- ⑥ Wireless TX Power
- ⑦ Terminal Restrictions: Client Access Numbers. (Range: 1-8)

Bridge Settings

Wireless mode Server Mode Client Mode

Bridge SSID [Scan SSID](#)

Encryption

Bridge password

MAC address Lock

Wireless TX power

[Save](#)

(2) Bridge Client

- ① Bridge SSID: Name of Bridged SSID, support manual filling or click “scanning bridged network” to choose the SSID.

Show entries Search

ID	SSID	MAC	Encryption	Signal	Choose
1	UTEPO	48:bd:3d:5f:ab:e0	WPA-PSK	-25dBm	<input checked="" type="checkbox"/>
2	UTEPO	48:bd:3d:5f:cf:80	WPA-PSK	-25dBm	<input type="checkbox"/>
3	UTEPO	48:bd:3d:5f:d4:40	WPA-PSK	-45dBm	<input type="checkbox"/>
4	UTEPO	48:bd:3d:5f:bd:c0	WPA-PSK	-48dBm	<input type="checkbox"/>
5	UTEPO	48:bd:3d:5f:89:c0	WPA-PSK	-50dBm	<input type="checkbox"/>
6	UTEPO	48:bd:3d:5f:82:c0	WPA-PSK	-63dBm	<input type="checkbox"/>
7	UTEPO	48:bd:3d:5f:98:20	WPA-PSK	-71dBm	<input type="checkbox"/>

- ②Encryption: Encryption type of Bridged SSID (N/A, WPA2-PSK, WPA-PSK).
- ③Bridge Password: Password of bridged device.
- ④MAC: Used to bridge locked MAC address devices when the same bridge SSID configuration exists.
- ⑤Wireless TX Power.

2. Advanced Settings

The default configuration for this page is as below:

①RTS/CTS Threshold: When the packet length exceeds the set threshold, the device sends an RTS signal to the destination site for negotiation to prevent signal conflicts. Note: Definition of input numbers: -1 (off) or 0-2347.

②Beacon Interval: Time interval of sending radio package. It is used to search for

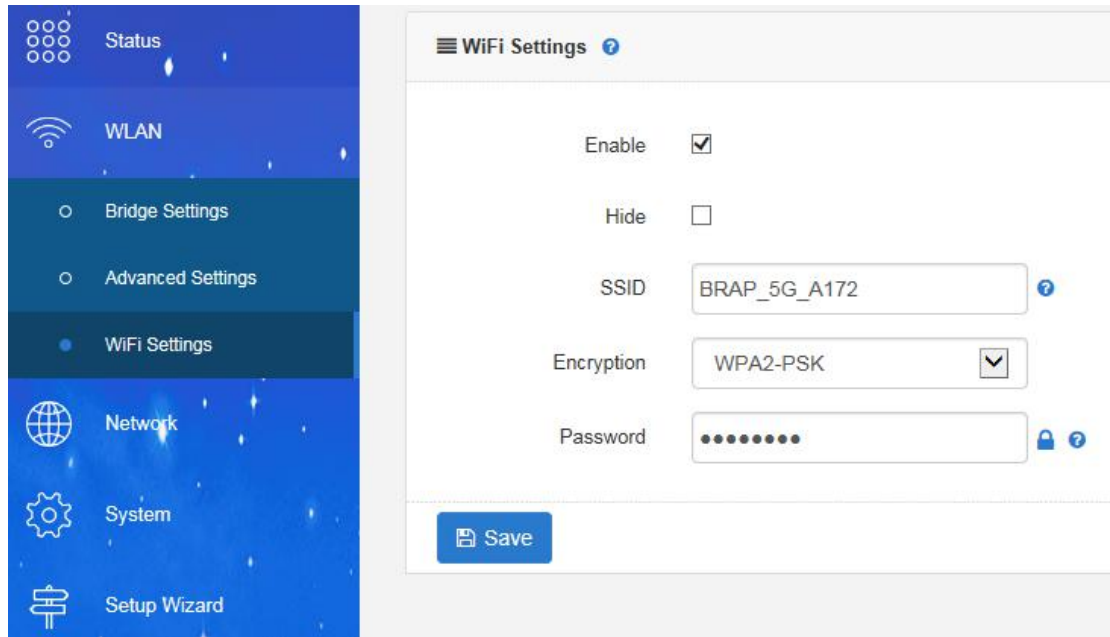
UTEPO

wireless of client. Input number range: 15-65535.

③Slice Threshold: When the length of the packet exceeds the slice threshold, it will be automatically divided into multiple packets. Too many packets will cause network performance degradation. It is suggested that the slice threshold should not be set too low. Note: Definition of input numbers: -1 (off) or 256-2346.

3. WiFi Settings

WiFi Configuration of the bridge itself.



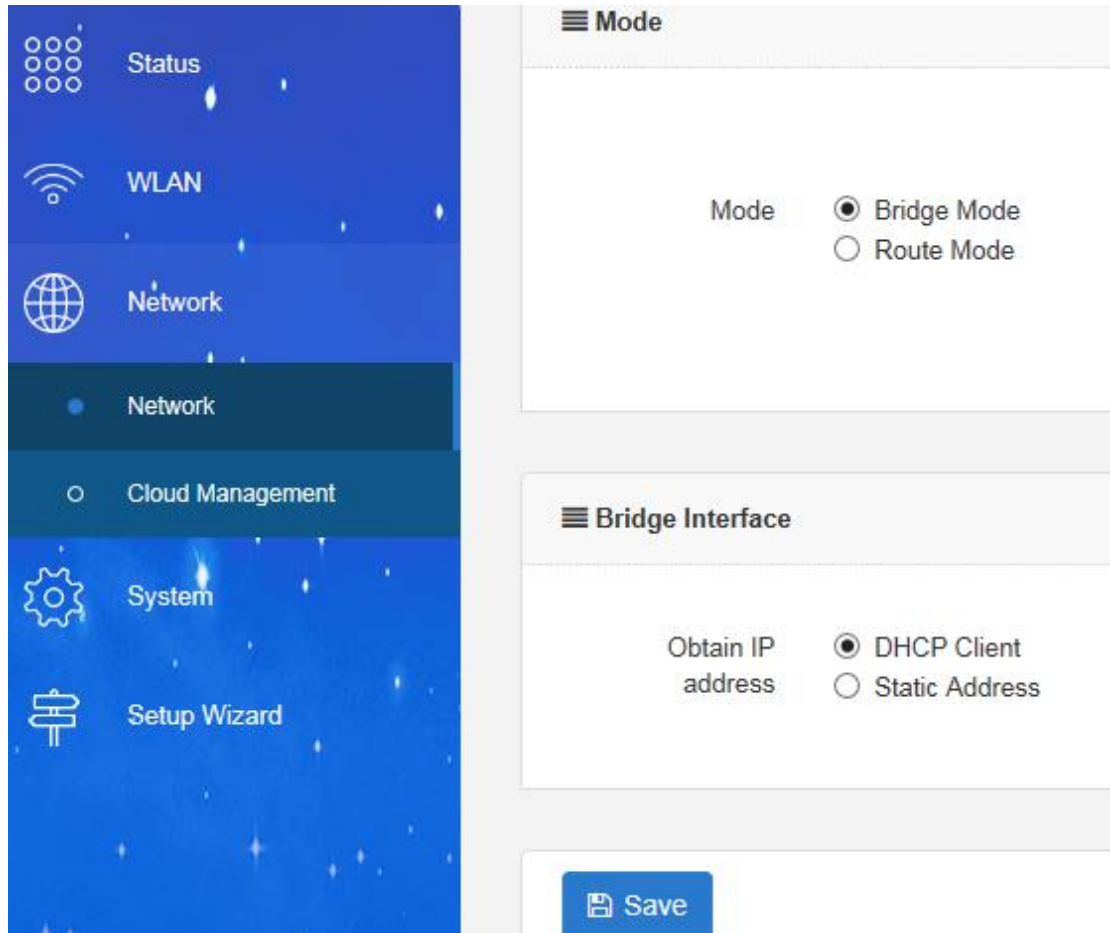
- ①Enable: Enable/ Disable WiFi.
- ②Hide: Hide/ Show WiFi. If hide the WiFi, then you can not search for it.
- ③SSID: WiFi Name of the bridge.
- ④Encryption: Encryption type of WiFi Password. (N/A, WPA2-PSK, WPA-PSK)
- ⑤Password: Password of WiFi.

Network

It contains two parts, network & cloud management.

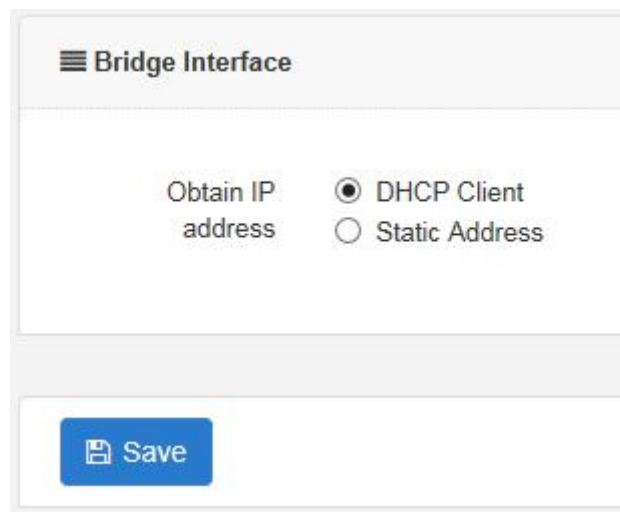
1. Network

Configuration for network in this page.



(1) Bridge Mode

Under the mode, the device works as a wireless HUB, achieving the communication between wireless devices, wireless and wire devices, or wireless and WAN network. There are two types of the access network, Obtain IP address and static IP address.



Bridge Interface

Obtain IP address DHCP Client Static Address

IP address

Netmask ?

Gateway

DNS1

DNS2

①Obtain IP address: Under the mode, it automatically gets the IP address assigned by the superior gateway.

②Static IP Address: Under the mode, you need to set the information manually, including IPv4 address, netmask, Gateway, DNS.

(2) Route Mode

Under the mode, the device works as a wireless router. Configuration information shown as below:

Network

Mode Bridge Mode Route Mode

LAN

General Settings

IP address:

Netmask:

DHCP Settings

Enable DHCP:

First IP address:

Last IP address:

Leasetime: hours

DNS1:

DNS2:

WAN

Access type: DHCP Client PPPoE
 Static Address

Metric:

MAC address:

MTU:

①IP address and Netmask: The default IP address of LAN port is 172.16.0.1/16. Please modify the IP address of the LAN port in the basic configuration list if needed, and access the device with the new IP address.

②Enable DHCP: Enable / Disable DHCP. The default address range is from 172.16.0.100 to 172.16.8.99, total 2048 addresses.

③First IP address: The start IP address of DHCP.

④Last IP address: The end IP address of the DHCP.

⑤Leasetime: The lease of DHCP

⑥DHCP Client: Under the mode, it automatically gets the IP address assigned by the superior router.

⑦PPPoE: Dial-up access, under this mode, you need to input the user name and password provided by broadband providers.

Access type DHCP Client PPPoE
 Static Address

Username ?

Password ?

Metric ?

MAC address

MTU ?

⑧Static Address: Under the mode, you need to set the information manually, including IPv4 address, netmask, Gateway, DNS.

Access type	<input type="radio"/> DHCP Client	<input type="radio"/> PPPoE
	<input checked="" type="radio"/> Static Address	
IP address	<input type="text"/>	
Netmask	<input type="text"/>	
Gateway	<input type="text"/>	
DNS1	<input type="text"/>	
DNS2	<input type="text"/>	
Metric	<input type="text"/>	?
MAC address	<input type="text" value="18:40:a4:cf:a1:72"/>	
MTU	<input type="text" value="1500"/>	?

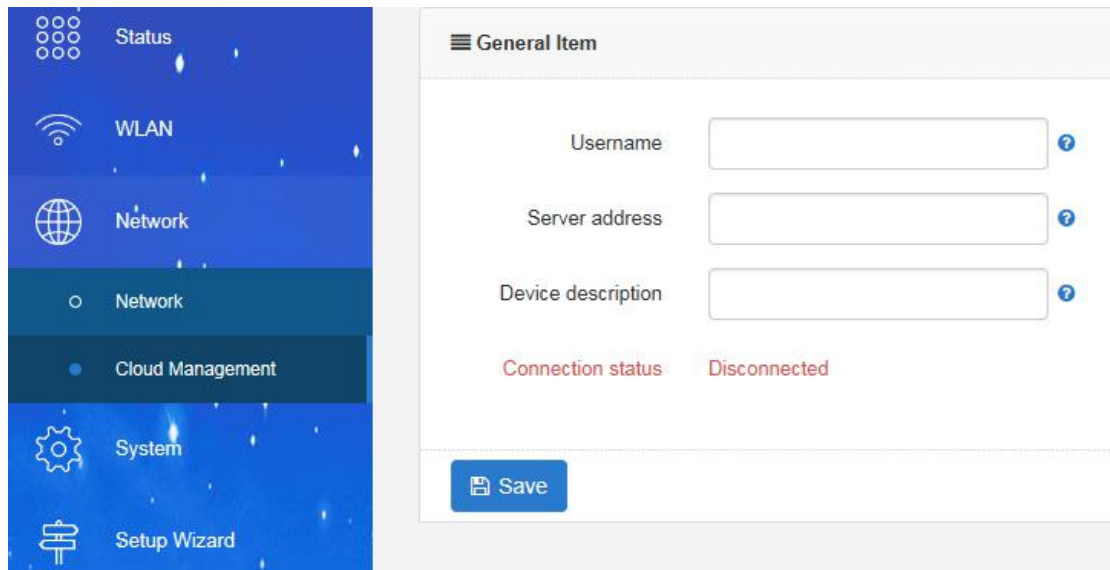
⑨Gateway Hop: It needs to set the different hops for WANs, the smaller hop value is , the higher priority is.

⑩MAC address & MTU: You can manually modify the MAC address and MTU of the WAN

Note: Under the bridge client, there is only Bridge Mode in network of the bridge.

2. Cloud Management

It can add the device to cloud, which is convenient for remote access and management.

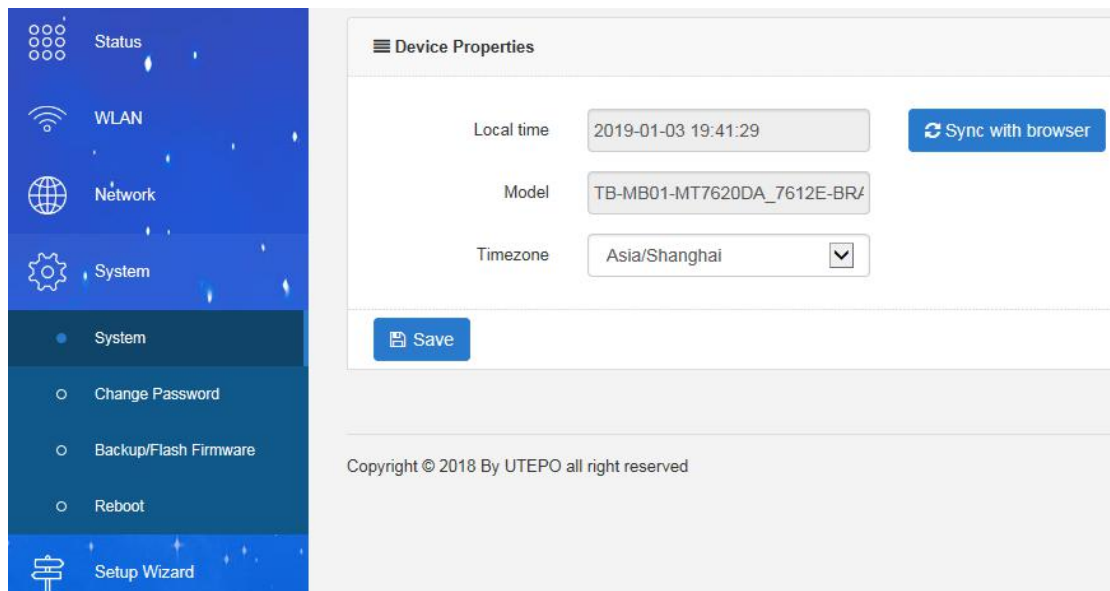


System

It contains four parts, system, change password, backup/ flash firmware & reboot.

1. System

Basic information can be set in this page, including local time, model & time zone.







2. Change Password


Change the login password of web management.


Change Password

Change Password

Old password  

New password  

Confirm password 



 Save

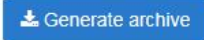

Note: it is recommended to change the router login password for network security.

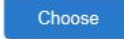


3. Backup / Flash Firmware

Factory reset, download back up, restore backup and flash firmware.

Backup / Restore

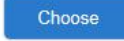


Factory reset  

Download backup  

Restore backup  No file  

Local Upgrade

Keep settings

Firmware image  No file  

- ① Factory reset: reset the device to factory default settings.
- ② Download backup: Download backup of current configuration
- ③ Restore backup: Restore the backup to cover current configuration.

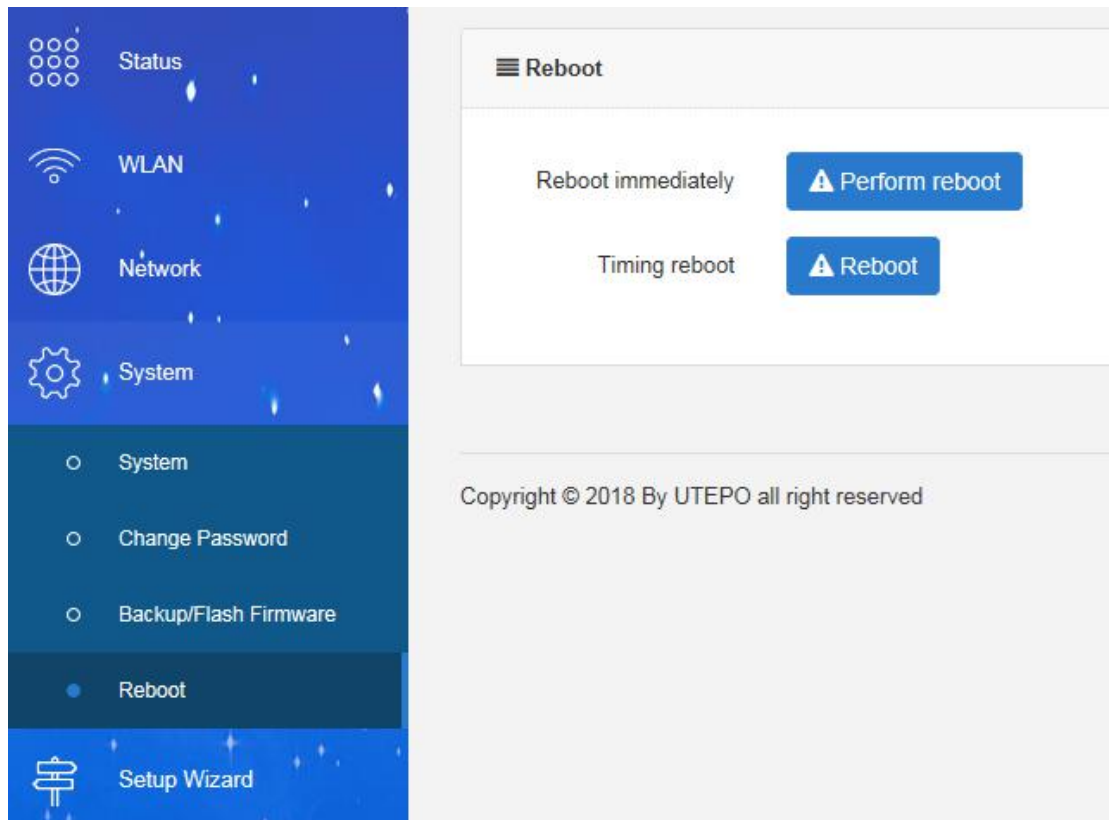
UTEPO

④Flash firmware: Click “Select” to upload the firmware to upgrade. When Click “Keep settings”, the system would keep the all current settings, otherwise it will reset to factory default.

⑤Cloud Upgrade: Online upgrade when there is a new version on the cloud server.

4. Reboot

It includes reboot immediately and timing reboot. There are three types in timing reboot, according to day, week and month.



①Perform reboot: Click for reboot immediately

②Reboot: Set the timing for reboot according to demand.

Setup Wizard

The setup wizard facilitates the simple operation of the user on the device. It will automatically pop up when users login for the first time. After that, if you want to conduct it, you need to manually click "setup wizard".

Setup Wizard

If you are not familiar with the network technology or the product, you can use this wizard to easily complete the basic network parameters for the Internet. If you are an expert, you can also exit the wizard and go to the left menu item to select the settings you want to modify.

To continue setting up the wizard, click 'Next'.

To exit the setup wizard, click 'Exit Wizard'

Exit Wizard

Next

①After clicking “next”, there are two wireless modes showing up, server mode & client mode. You can select one according to your demand, then click “next”.

WLAN

Wireless mode Server Mode Client Mode

Bridge SSID

brap_0x0_36



Bridge password

••••••••••



Exit Wizard

Previous

Next

UTEPO

WLAN

Wireless mode Server Mode Client Mode

Bridge SSID



Scan SSID

Encryption

Unencrypted



Bridge password



Exit Wizard

Previous

Next

②There are two modes in network mode. You can select one according to your demand, and finish the configuration then click “finish”.

Network

Mode Bridge Mode

Obtain IP address DHCP Client Static Address

Exit Wizard

Previous

Finish

a. DHCP Client: It automatically gets the IP address assigned by the superior router.

Network

Mode Bridge Mode

Obtain IP address DHCP Client Static Address

IP address

Netmask [?](#)

Gateway

DNS1

DNS2

[Exit Wizard](#) [Previous](#) [Finish](#)

b. Static Address: Under the mode, you need to set the information manually, including IPv4 address, netmask, Gateway, DNS.

Network

Mode Bridge Mode Route Mode

Access type DHCP Client PPPoE
 Static Address

[Exit Wizard](#) [Previous](#) [Finish](#)

a. DHCP Client: It automatically gets the IP address assigned by the superior gateway.

Network

Mode Bridge Mode Route Mode

Access type DHCP Client PPPoE
 Static Address

Account ?

Password ?

[Exit Wizard](#) [Previous](#) [Finish](#)

b. PPPoE: Dial-up access, under this mode, you need to enter the user name and password provided by broadband providers.

Network

Mode Bridge Mode Route Mode

Access type DHCP Client PPPoE
 Static Address

IP address

Netmask

Gateway

DNS1

DNS2

[Exit Wizard](#) [Previous](#) [Finish](#)

c. Static Address: Under the mode, you need to set the information manually, including IPv4 address, netmask, Gateway, DNS.

UTEPO

③After the configuration of wireless mode, click “next” to enter the network configuration. Select one configuration to finish, then succeed to access the network.

Network

Mode Bridge Mode

Obtain IP address DHCP Client Static Address

[Exit Wizard](#) [Previous](#) [Finish](#)

a. DHCP Client: It automatically gets the IP address assigned by the superior router.

Network

Mode Bridge Mode

Obtain IP address DHCP Client Static Address

IP address

Netmask [?](#)

Gateway

DNS1

DNS2

[Exit Wizard](#) [Previous](#) [Finish](#)

b. Static Address: Under the mode, you need to set the information manually, including IPv4 address, netmask, Gateway, DNS.