CG102BS

ZIGBEE BASE STATION

USER MANUAL

CG102BS

ZigBee Base Station

VERSION 1.0

9 MAY 2013

CityGrow Systems

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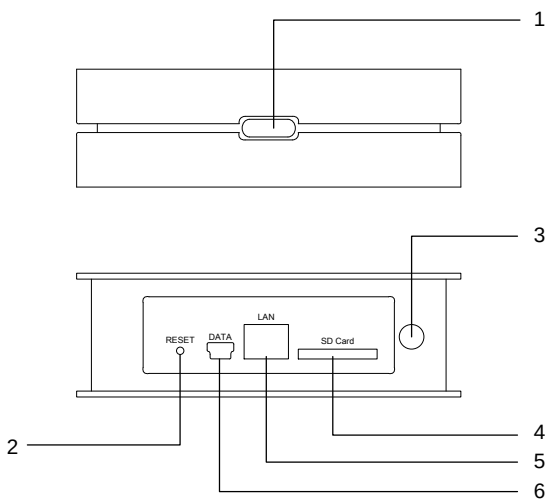
1 Introduction

The current document provides you with the information of installation and configuration information of the CG102BS.

2 Getting Started



1. Status LED
2. Reset Button
3. DC Socket
4. SD Card (CANNOT REMOVE)
5. Ethernet RJ-45 port
6. Connection port to computer

*********** WARNING **********

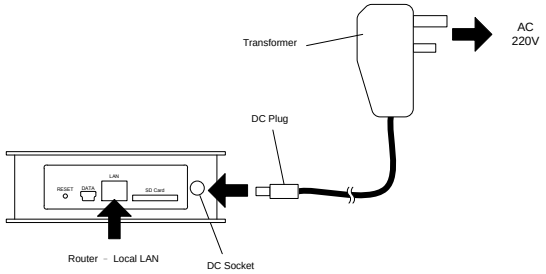
Please ensure the original SD card is always inserted to the CG102BS.

DO NOT eject or replace the original SD card.

*********** WARNING **********

3 Power-up the CG102BS

- Connect the local LAN from your WiFi router to the CG102BS.
- Insert the DC Plug to the DC socket of the CG102BS.
- Plug the transformer to the AC220V socket.



***************NOTE ***************

Please ensure the CG102BS is connecting to the network with WiFi router or access point for the iPad/iPhone/Android Apps to communicate with the CG102BS.

*************** NOTE **************

*************** NOTE **************

If the status LED is not blinking or is in red color, please check the connection between the CG102BS and your network.

*************** NOTE **************

4 Device List Upload

The list of your Citygrow Home Automation devices should be uploaded to the CG102BS before the CG102BS can be operating with your home system. Details of uploading the device list to the CG102BS, please refer to the user manual of the HomeNET Planner Software. You can download HomeNET Planner Software from www.citygrowsys.com.

5 Device Control

Please download the HomeNET App for your mobile device:

- iPad/iPhone
  - https://itunes.apple.com/us/artist/citygrow-energy-systems-ltd/id490603381
- Android
  - https://play.google.com/store/apps/developer?id=Citygrow+Energy+Systems+Ltd.

After download the HomeNET App, run the App and the CG102BS will be automatically found by your HomeNET App.

********** *NOTE* **********

Please ensure the CG102BS is powered ON, and is connecting to the network with WiFi router or WiFi access point which the iPad/iPhone/Android mobile device is joined.

********** *NOTE* **********

You can perform the device control according to the HomeNET App instructions.

6 Remote Access

You are able to access your Citygrow Home Automation through the Internet remotely by using the HomeNET App in your mobile device. The minimum requirements for the remote access of the system are:

1. Your Internet Service Provider (ISP) should provide a real IP address to your router. (Details please contact your ISP)
2. Your WiFi router should support "Port Forwarding" function. (Details please refer to your WiFi router user manual)
3. Your WiFi router should support Dynamic DNS (DDNS) client function. (Details please refer to your WiFi router user manual)

Following are the general procedures to enable the remote access of your home automation system:

1. Apply a DDNS service if you do not have.
   Please refer to your router user manual to find the DDNS service provider, which your router is able to support.

2. Configure the account information of your DDNS service to your router and enable the service.
   Please refer to your router user manual for the configuration.

3. Reserve a fixed IP Address on your router for the CG102BS.
   Please refer to your router user manual for the address reservation.

4. Forward the incoming port to the IP address of your CG102BS in your router. (External Port: 10004, Internal Port: 10004)
   Please refer to your router user manual for the Port Forwarding.

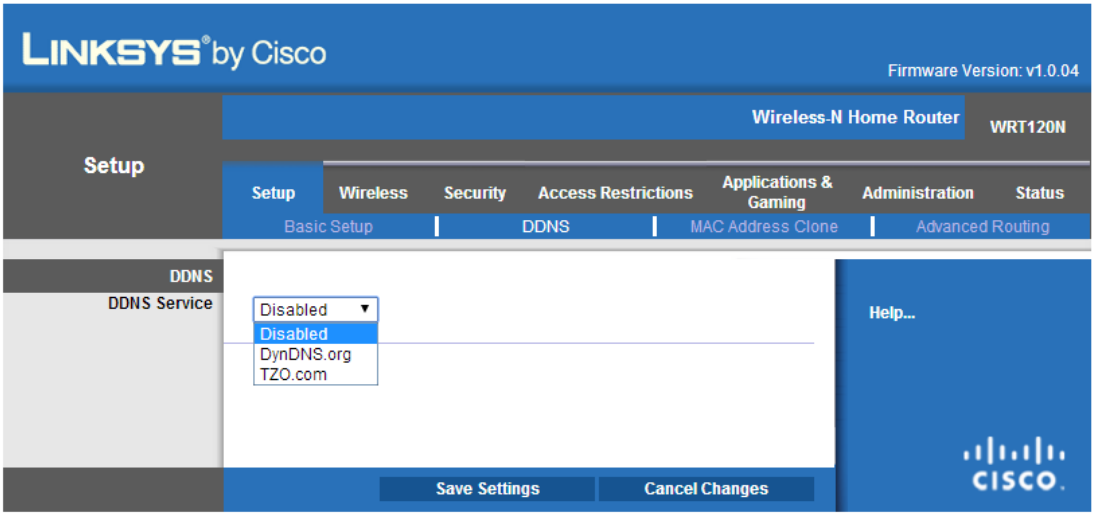
5. Enable the Internet Access option in your HomeNET App and configure the domain name (from your DDNS provider) to the HomeNET App.

6.1 Configuration Example (Linksys Router)

This section shows the example of the remote access configuration with the Linksys router (Model No.: WRT120N).

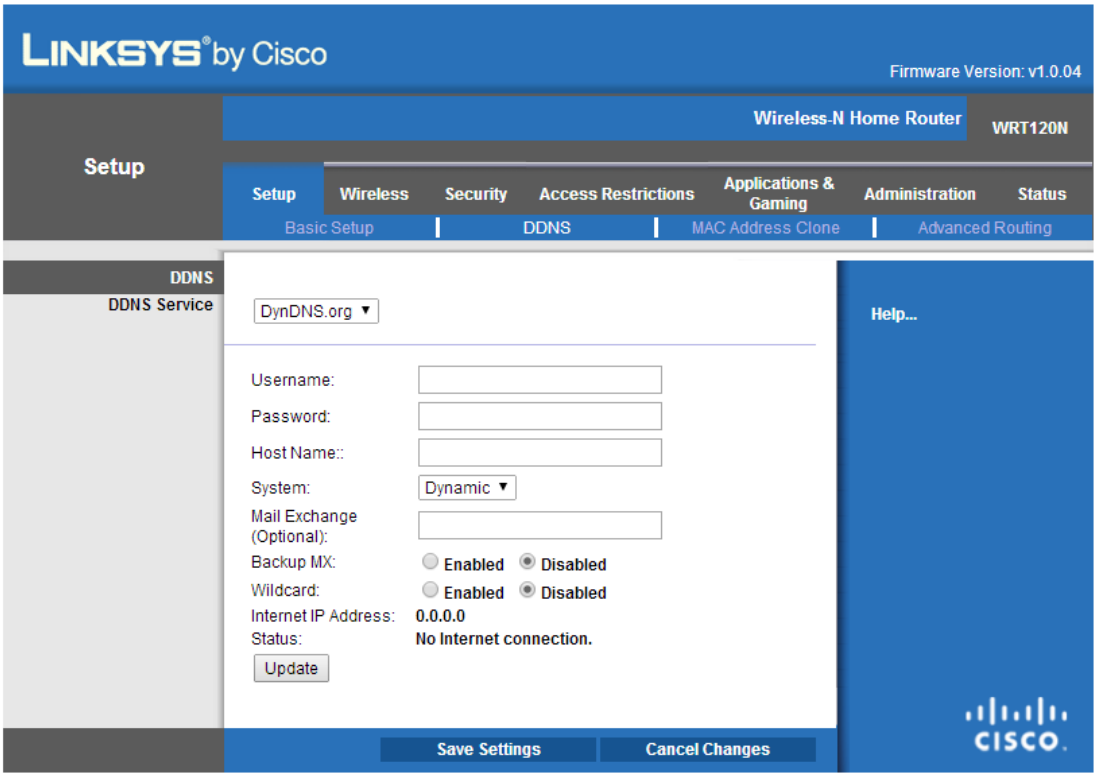
6.1.1 Apply DDNS

The WRT120N Linksys router supports DynDNS.org and TZO.com DDNS service, details of the DDNS service please contact the Linksys router manufacturer.



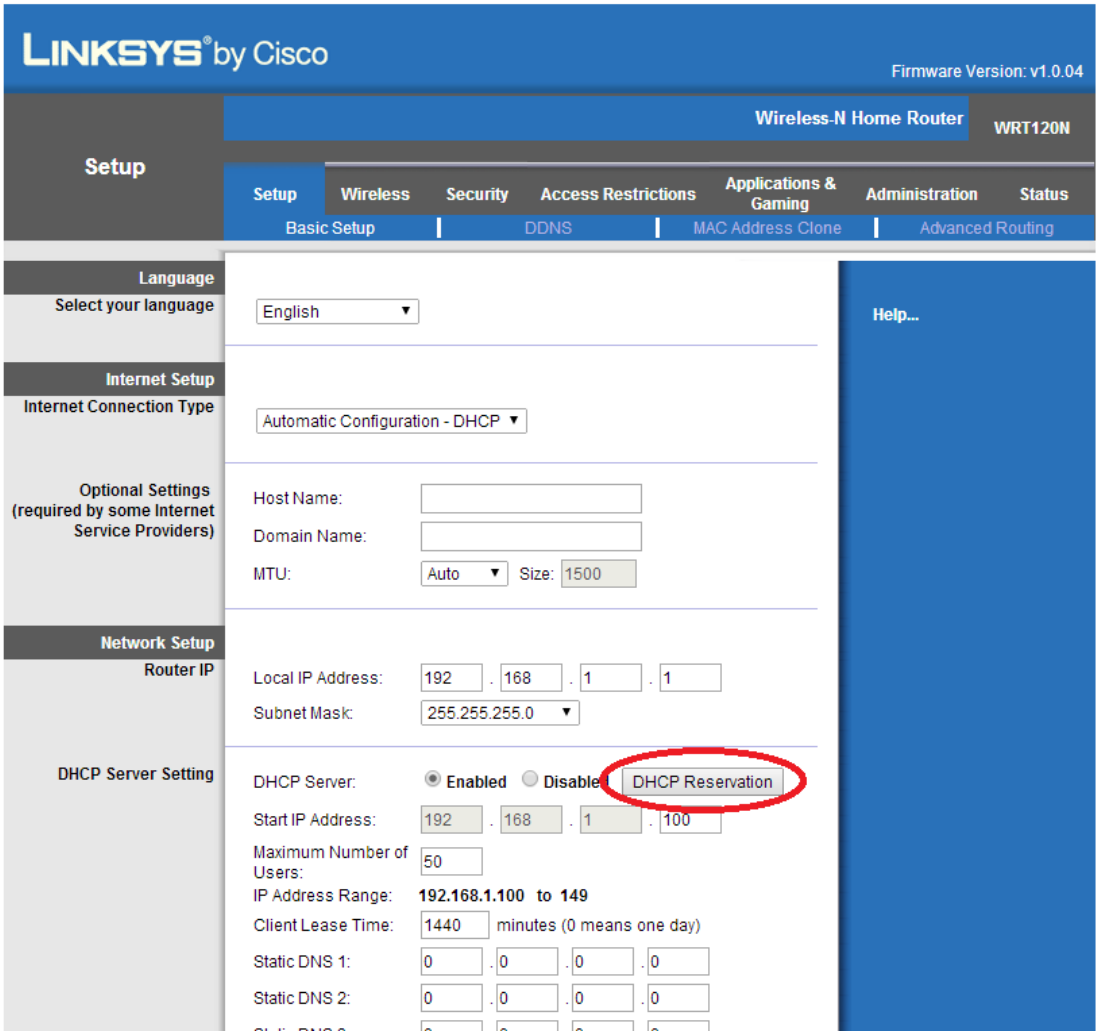
6.1.2 Configure DDNS to router

After you have applied the DDNS service, your will get the account information which including username, password, host name, etc. Please enter the account information to the DDNS configuration web page of your router to enable the DDNS service.

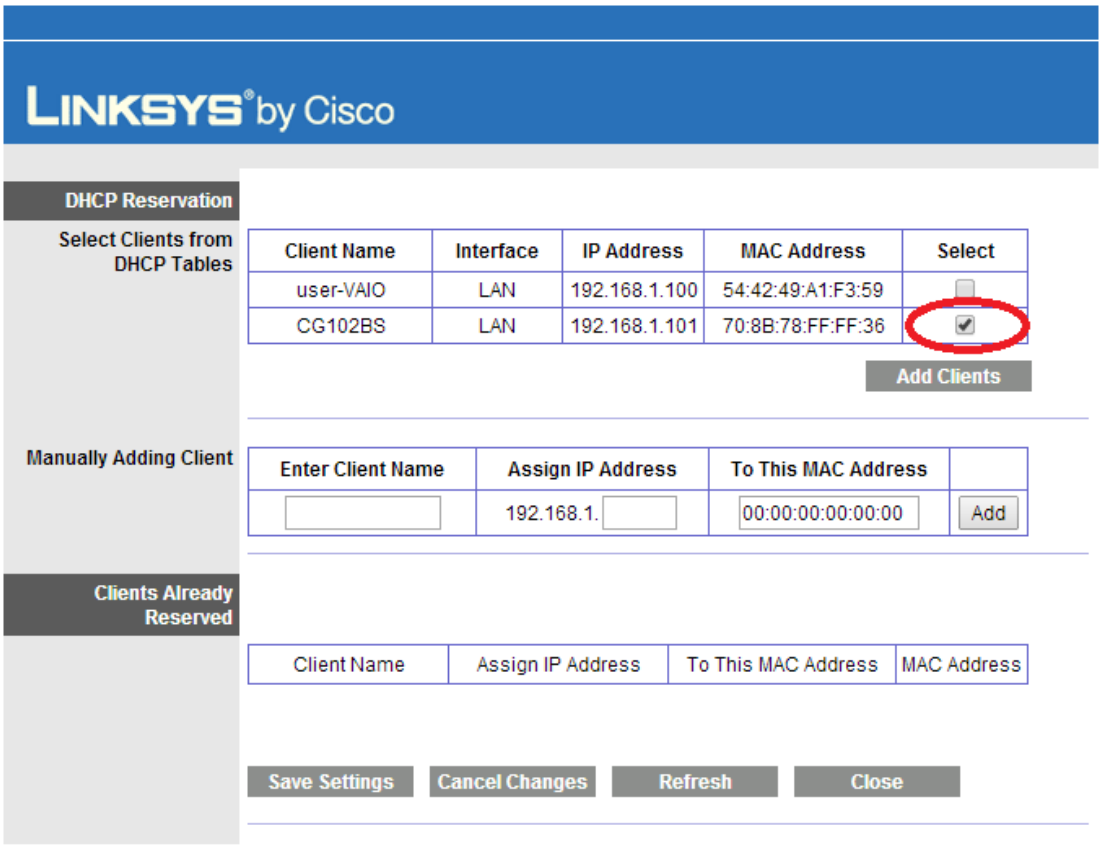


6.1.3 Reserve fixed IP Address for CG102BS

Power-up the CG102BS according to the section 3 of current document, and then open the admin web page of the Linksys router. From the web page of the Linksys router, find the DHCP Reservation option.



In the DHCP Reservation page, enable the DHCP Reservation for the CG102BS and save the setting. You may find the IP address reserved for the CG102BS in this example is 192.168.1.101, and such IP address will be used in the next step "Port Forwarding".

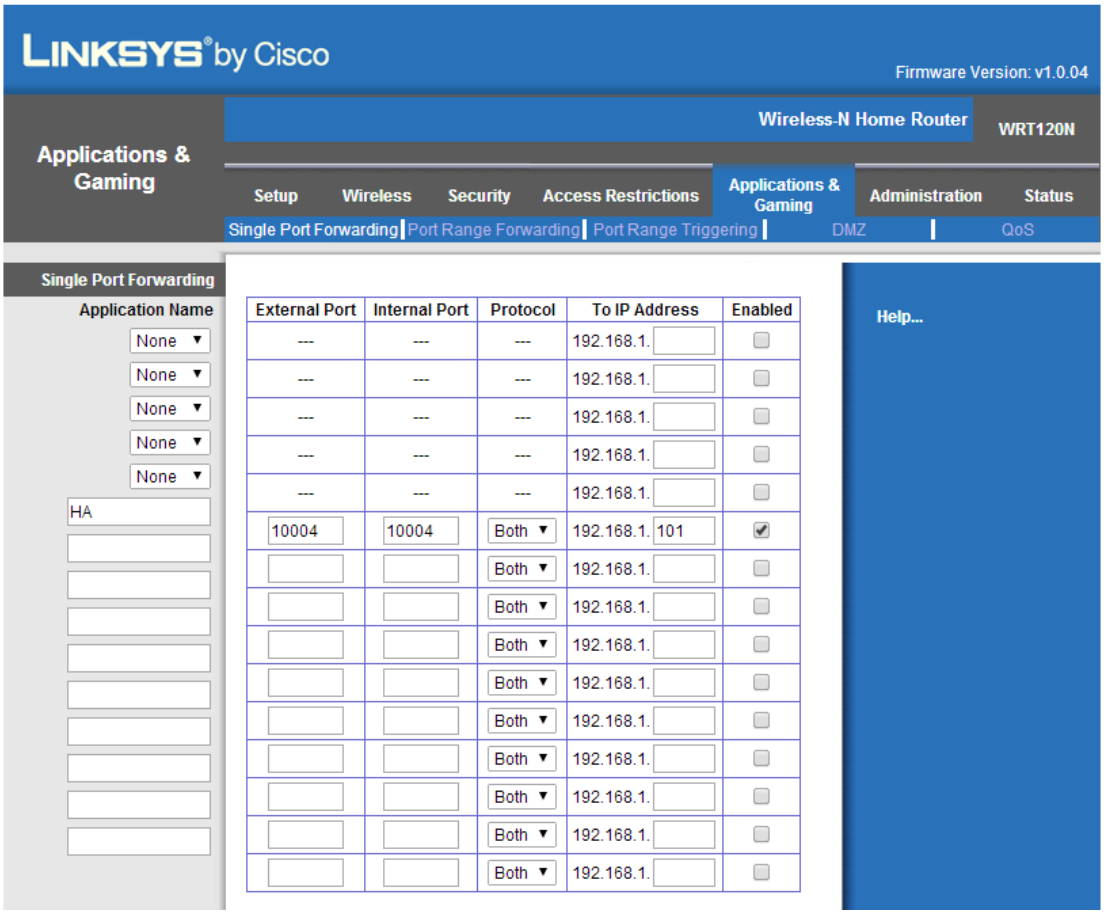


6.1.4 Port Forwarding

Open the Port Forwarding configuration page of the Linksys router from "Applications & Gaming" → "Single Port Forwarding". Add a new port forwarding configuration in the page, which the setting should be:

Application Name: HA
External Port: 10004
Internal Port: 10004
Protocol: Both (TCP & UDP)
To IP Address: 192.168.1.101 (Reserved IP address of the CG102BS)
Enable: enabled

Then save the setting to the router.

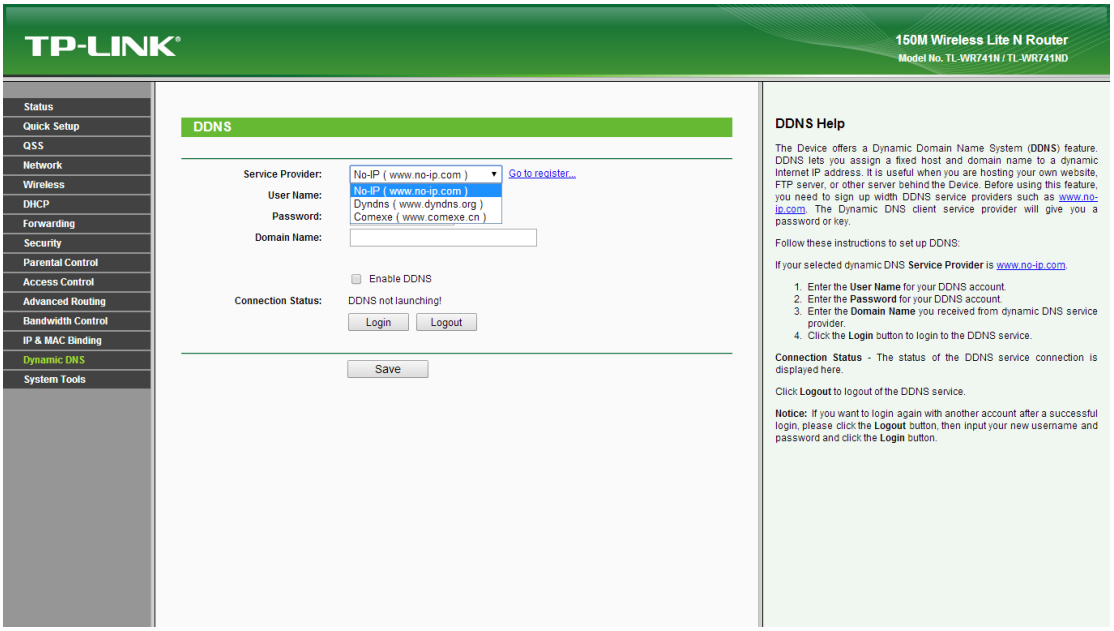


6.2 Configuration Example (TP-Link Router)

This section shows the example of the remote access configuration with the TP-Link router (Model No.: TL-WR741ND).

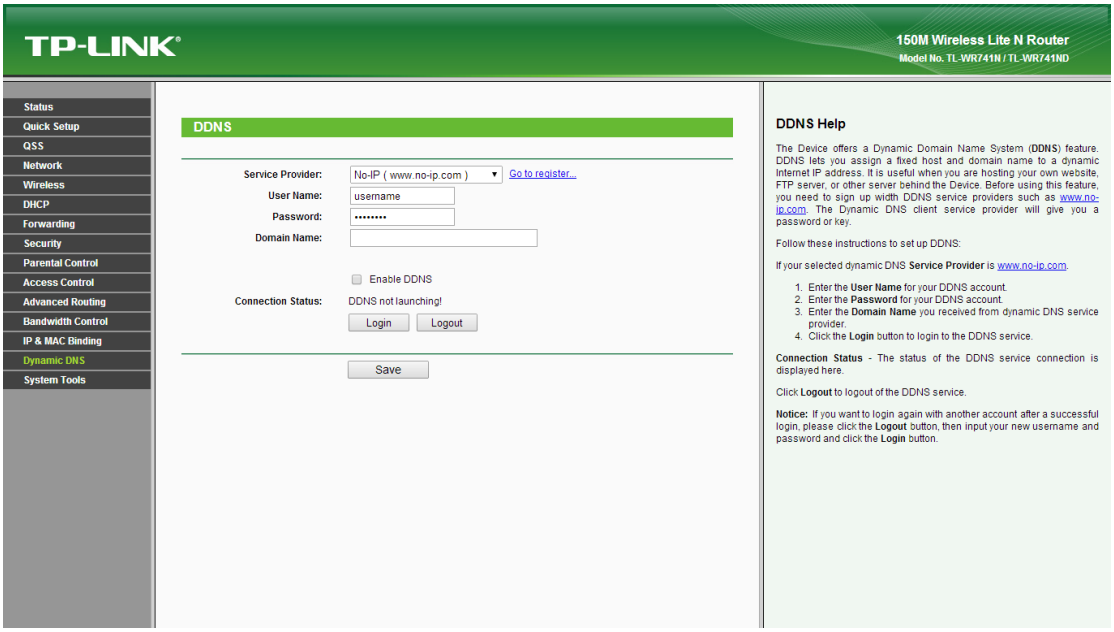
6.2.1 Apply DDNS

The TL-WR741ND TP-Link router supports No-IP, Dyndns and Comexe DDNS service, details of the DDNS service please contact the TP-Link router manufacturer.



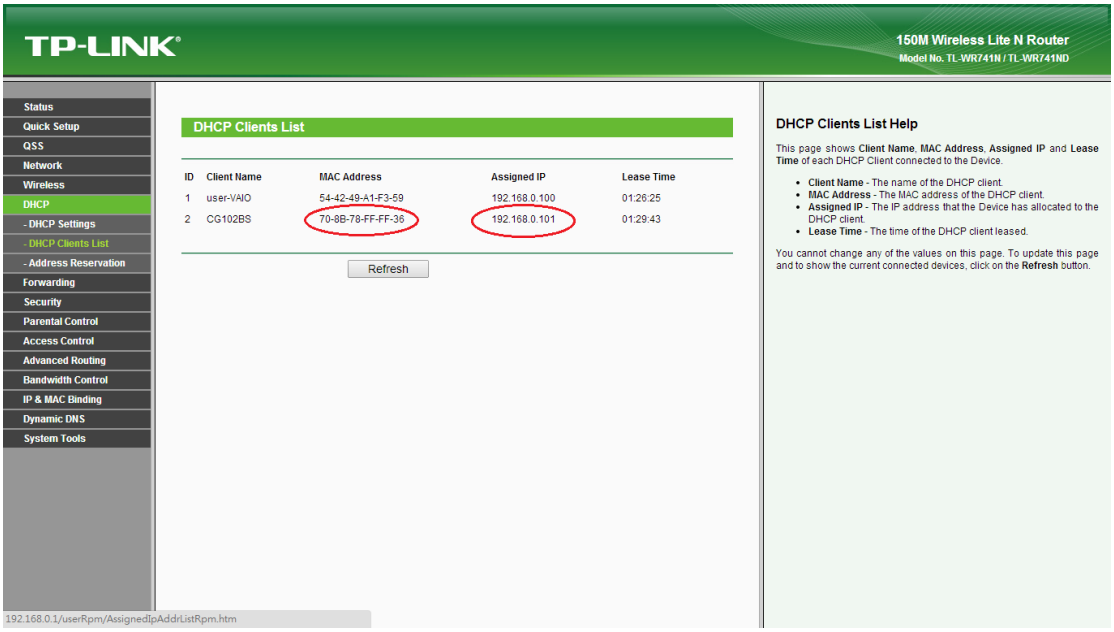
6.2.2 Configure DDNS to router

After you have applied the DDNS service, your will get the account information which including username, password, host name, etc. Please enter the account information to the DDNS configuration web page of your router to enable the DDNS service.

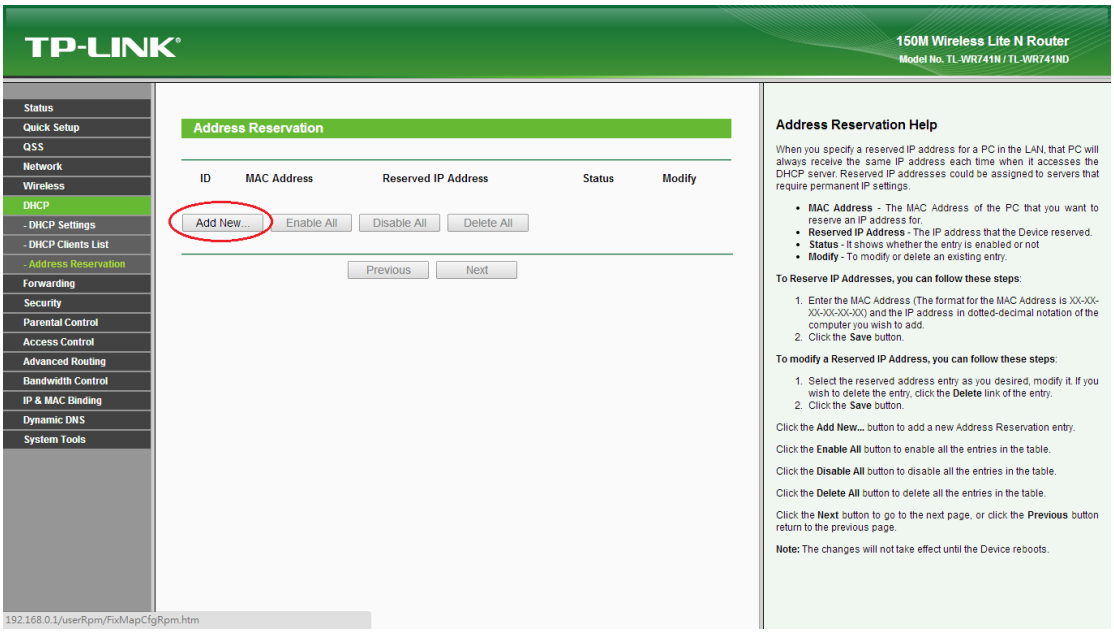


6.2.3 Reserve fixed IP Address for CG102BS

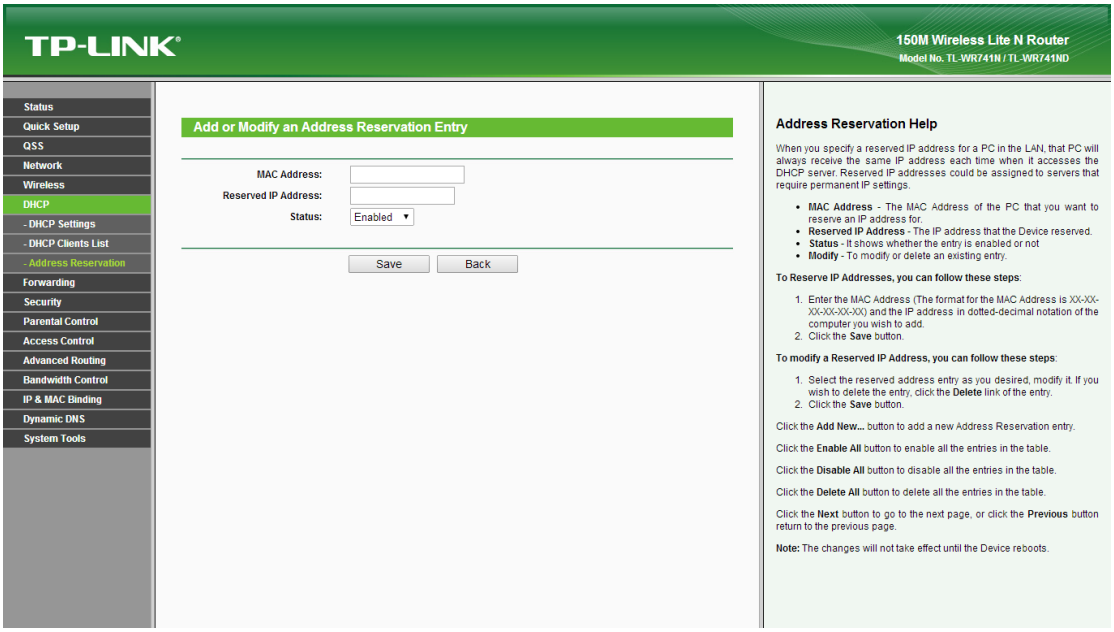
Power-up the CG102BS according to the section 3 of current document, and then open the admin web page of the TP-Link router. From the "DHCP Client List" web page of the TP-Link router, find the "MAC address" and "Assigned IP" of the CG102BS.



Go to the "Address Reservation" page and click the "Add New" button.

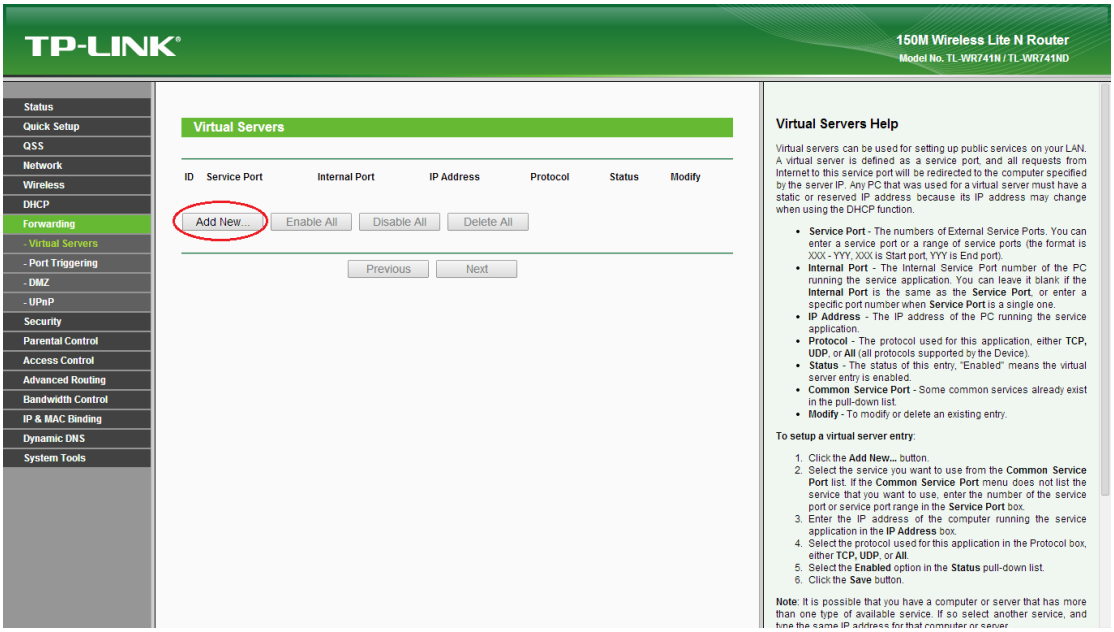


Enter the "MAC Address" of the CG102BS and enter the desired IP address in the "Reserved IP Address" field. The desired IP address could be the "Assigned IP" in the "DHCP Client List" web page.



6.2.4 Port Forwarding

Open the Port Forwarding configuration page of the TP-Link router and click the "Add New" button.



Add a new port forwarding configuration in the page, which the setting should be:

Service Port: 10004

Internal Port: 10004

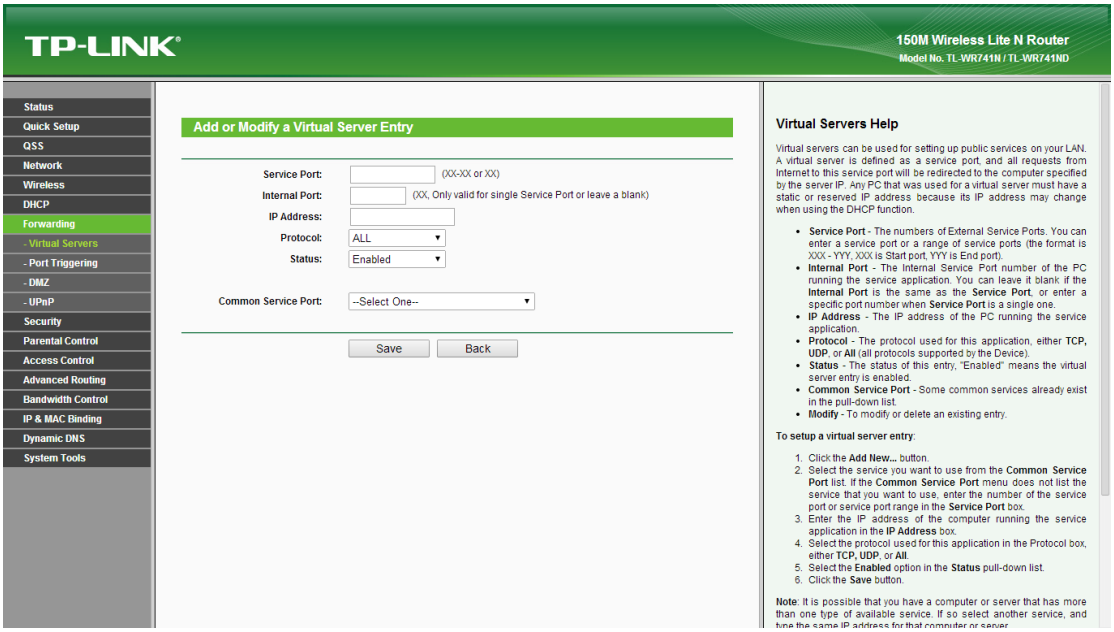
IP Address: 192.168.0.101 (Reserved IP address of the CG102BS)

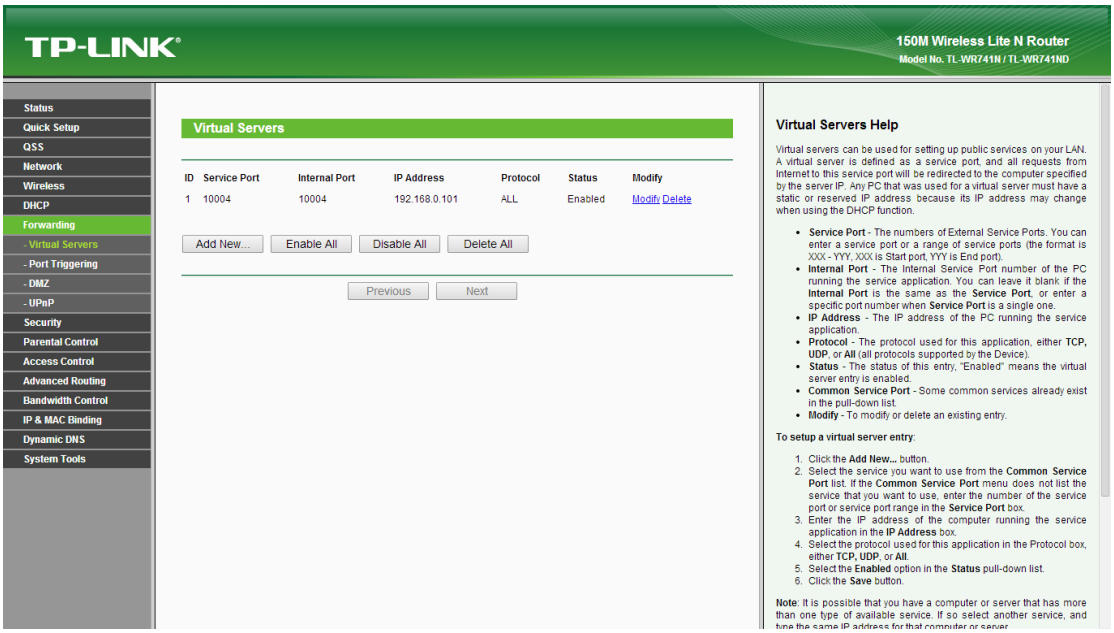
Protocol: ALL (TCP & UDP)

Status: enabled

Common Service Port: --Select One—(Do not need to change)

Then save the setting to the router.



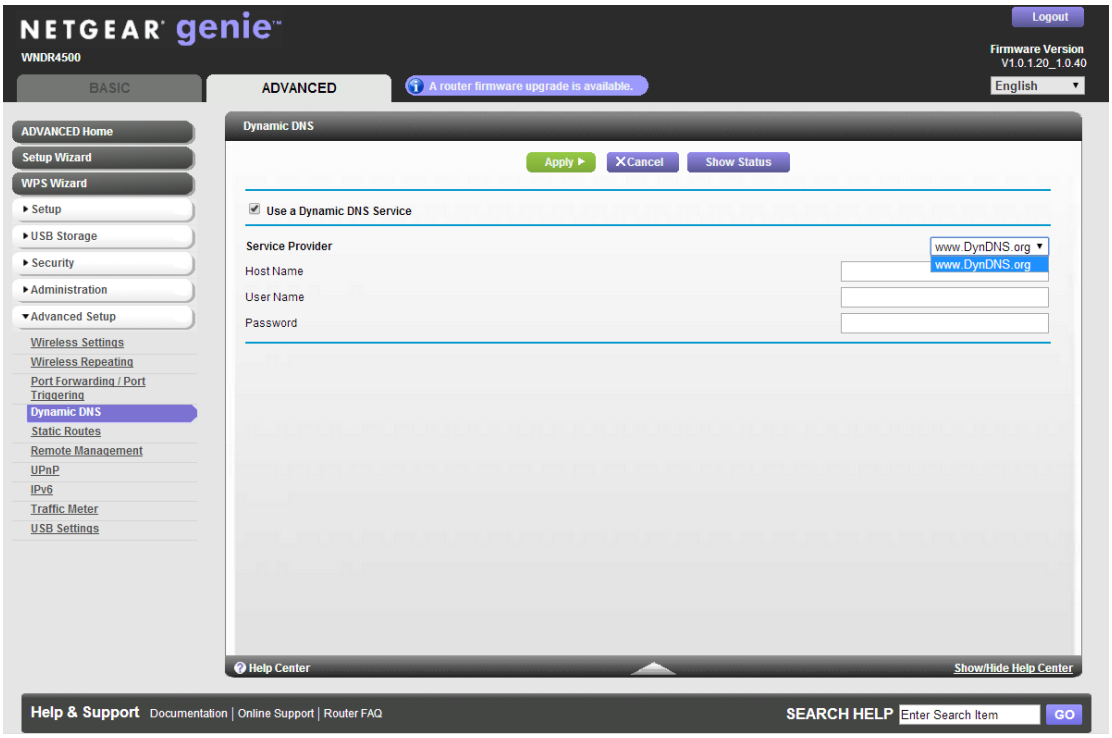


6.3 Configuration Example (NETGEAR Router)

This section shows the example of the remote access configuration with the NETGEAR router (Model No. WNDR4500).

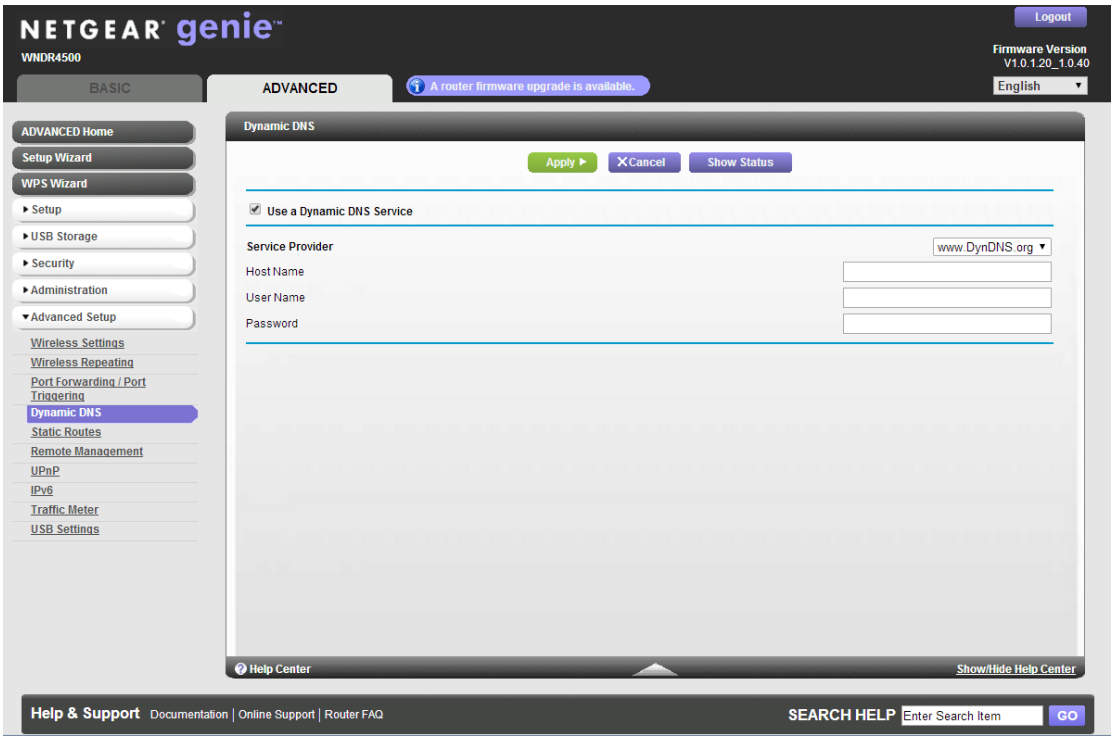
6.3.1 Apply DDNS

The TL-WR741ND TP-Link router supports DynDNS service, details of the DDNS service please contact the NETGEAR router manufacturer.



6.3.2 Configure DDNS to router

After you have applied the DDNS service, your will get the account information which including username, password, host name, etc. Please enter the account information to the DDNS configuration web page of your router to enable the DDNS service.

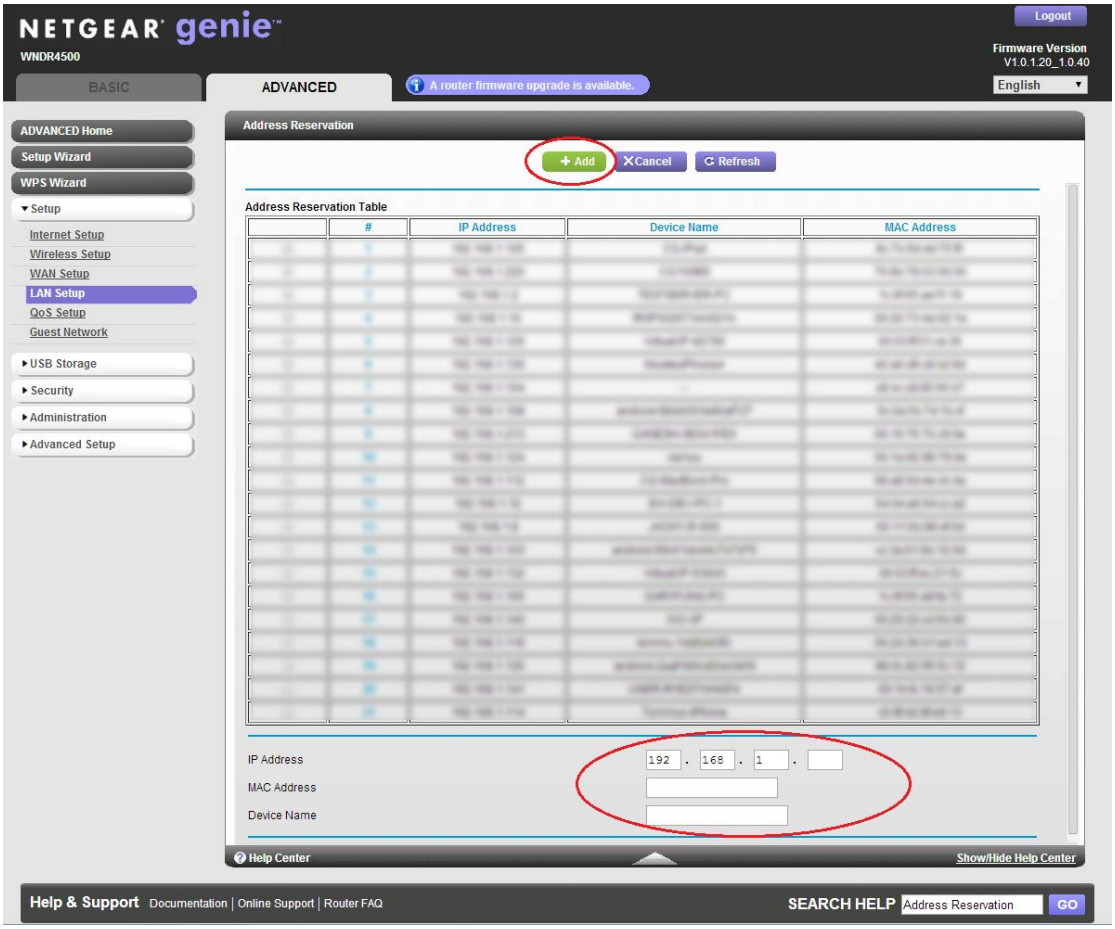


6.3.3 Reserve fixed IP Address for CG102BS

Power-up the CG102BS according to the section 3 of current document, and then open the admin web page of the NETGEAR router. From the "Attached Devices" web page of the NETGEAR router, find the "IP Address" and "MAC address" of the CG102BS.

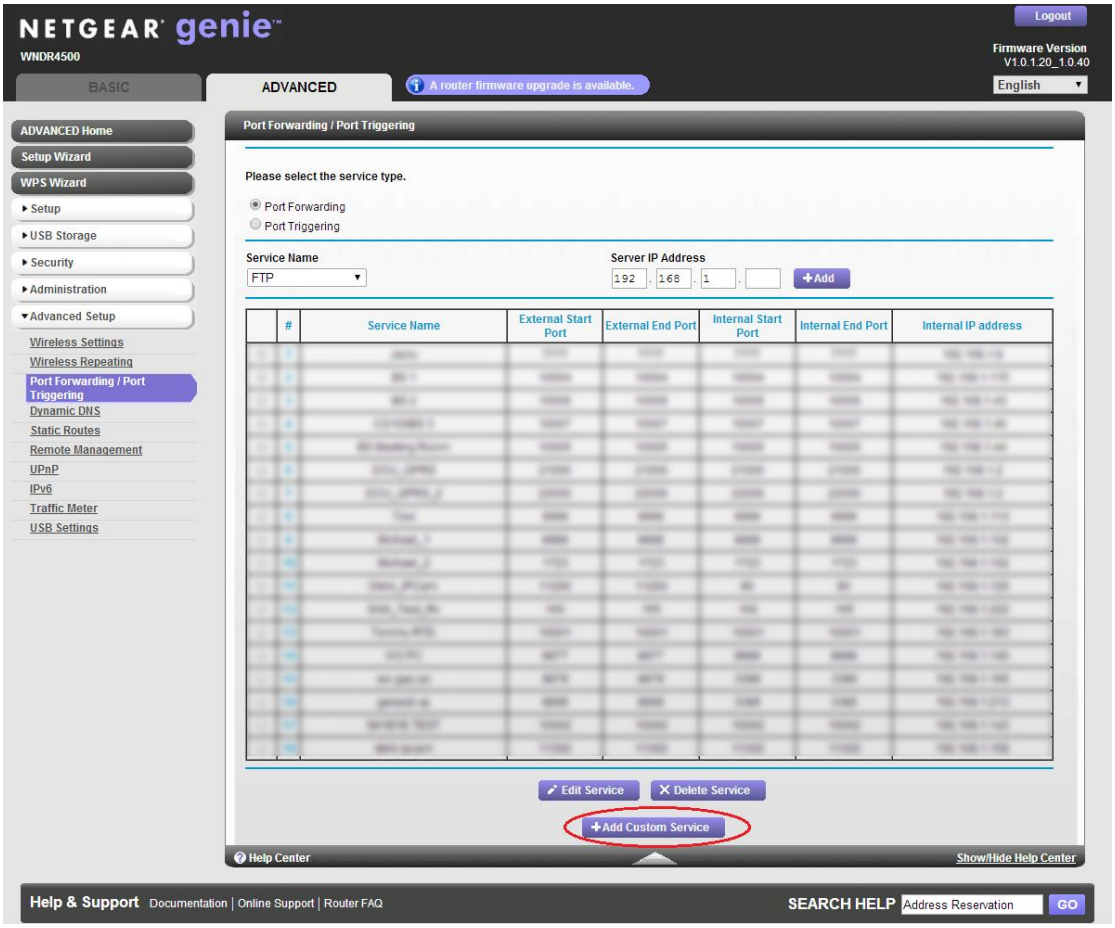
Go to the "LAN Setup" page and click the "Add" button to add a new address reservation setting.

Enter the desired IP address in the "IP Address" field, the "MAC Address" of the CG102BS in the "MAC Address" field and the name of this address reservation setting. The desired IP address could be the "IP Address" in the "Attached Devices" web page.



6.3.4 Port Forwarding

Open the Port Forwarding configuration page of the NETGEAR router and click the "Add Custom Service" button.



Add a new port forwarding configuration in the page, which the setting should be:

Service Name: Home Automation

Service Type: TCP/UDP

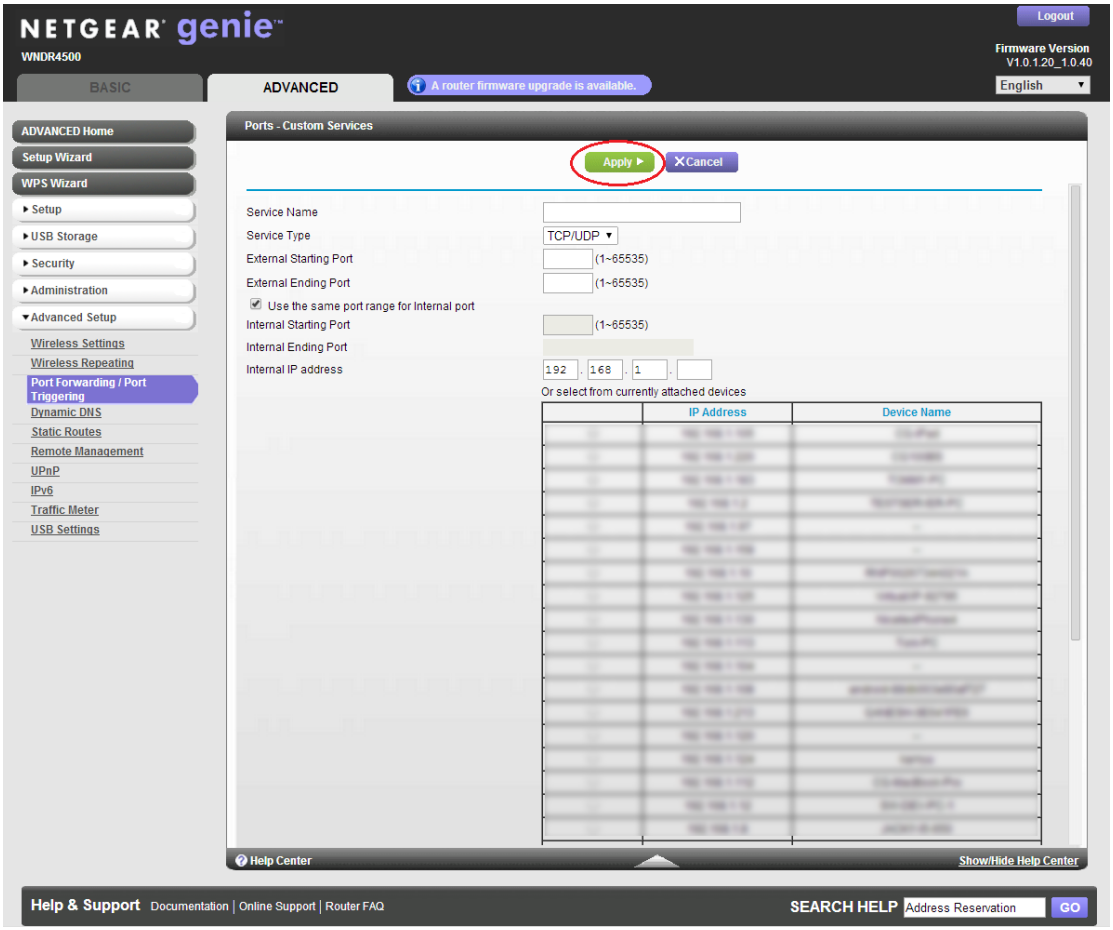
External Starting Port: 10004

External Ending Port: 10004

Use the same port range for Internet port: Selected

Internal IP Address: 192.168.1.220 (Reserved IP address of the CG102BS)

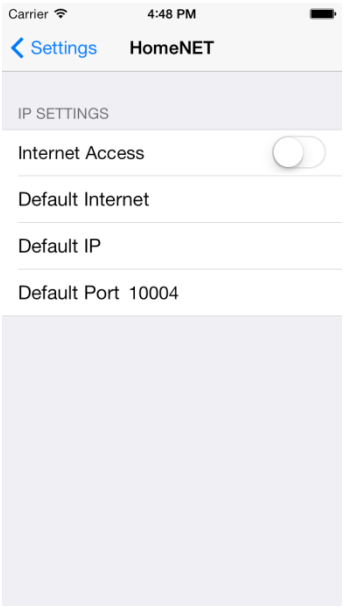
Then "Apply" the setting to the router.



6.4 HomeNET App

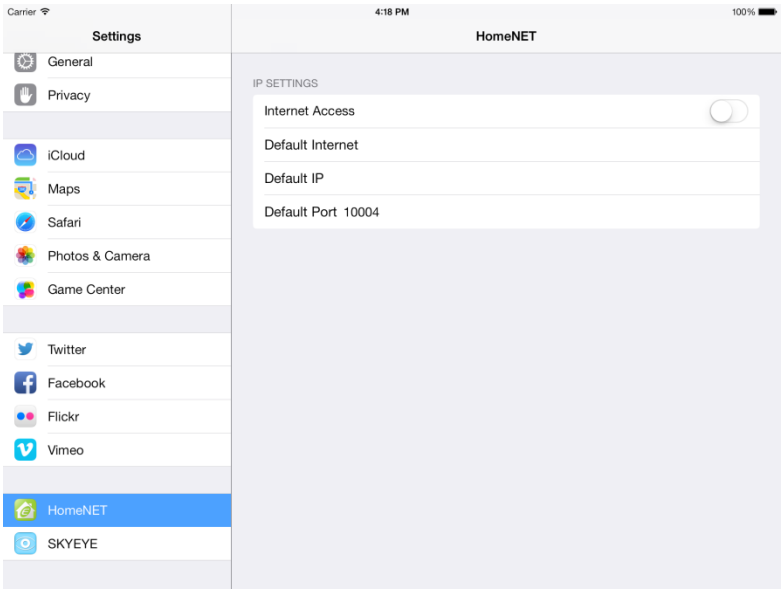
iPhone

- Open the “Setting” of your iPhone and find the “HomeNET” setting page.
- Switch on the “Internet Access” option
- Input your host name (from your DDNS service provider) into the “Default Internet” field.
- Input “10004” into the “Default Port” field.



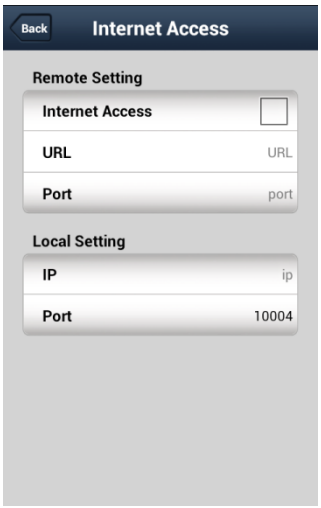
iPad

- Open the “Setting” of your iPad and find the “HomeNET” setting page.
- Switch on the “Internet Access” option
- Input your host name (from your DDNS service provider) into the “Default Internet” field.
- Input “10004” into the “Default Port” field.



Android

- Open the “Setting” page of the “HomeNET”.
- Enable the “Internet Access” option in “Remote Setting”.
- Input your host name (from your DDNS service provider) into the “URL” field.
- Input “10004” into the “Port” field.



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