roubleshooting Guide of DDNS function on TP-Link Wi-Fi Router, LTE Gateway Router or Deco Router

Troubleshooting

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This Article Applies to: -

DDNS, most commonly known as Dynamic DNS, is an automatic method of refreshing a name server. It can dynamically update DNS records without the need for human interaction. It is extremely useful for updating IP address records when the public IP address changes.

If you have any problem using the DDNS function on TP-Link Wi-Fi Router/LTE Gateway Router or Deco Router(we will just call it Router in this article), before troubleshooting, please refer to the following tips to confirm if it is really DDNS issue.

Tip 1. Will the DDNS domain name always be bound to my Router WAN IP address?

Please note that the DDNS domain name is bound to the real public IP address, if your router's WAN IP address is a private address or CGNAT address, the IP address bound to the DDNS will be different from your Router WAN IP address.

In that case, the remote access to the router or local server will not work even after you configure port forwarding on the Router, because it means there is another one or more NATs in the front of your router, you will need to open related ports on the front NAT products as well.

Note: For LTE Gateway Routers working on 3G/4G Router mode, it uses SIM card to get internet access, if the WAN IP is not public IP address, it means the front NAT is on your ISP side, so you are unable to open related ports on front NAT product, please contact your ISP to see if they could assign you a public IP address directly.

Tip 2. Methods to tell whether it is a public IP address or not

1) Private IPv4 addresses have the following class configurations:

Class A IP addresses: **from 10.0.0.0 to 10.255.255.255**

Class B IP addresses: **from 172.16.0.0 to 172.31.255.255**

Class C IP addresses: **from 192.168.0.0 to 192.168.255.255**

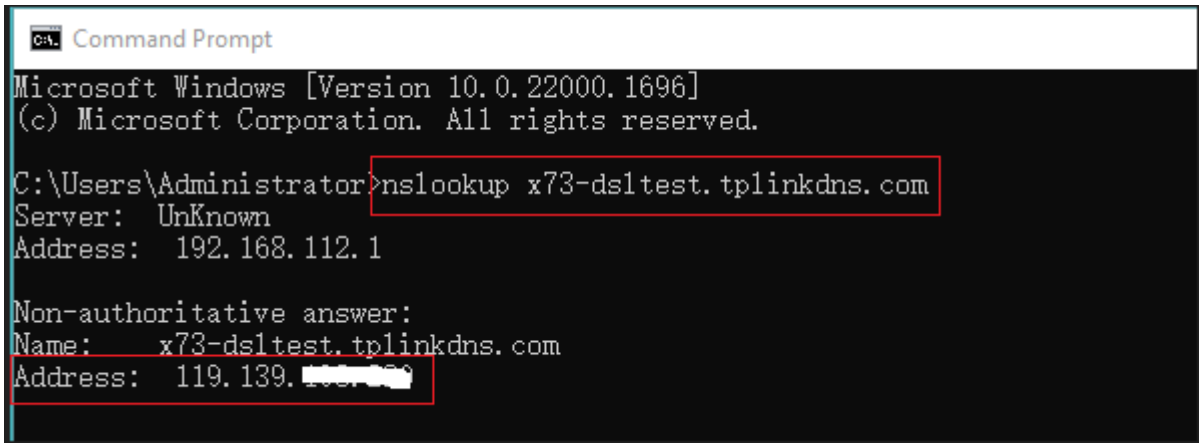
2) Apart from the private IP addresses in the above 3 classes, there is another range of IP addresses, which looks like public IP address, but Carrier Grade NAT (CGNAT) address. They are **from 100.64.0.0 to 100.127.255.255, which are usually not real public IP address either.**

3) Or you could also google your public IP address on a client device connected to the Router, then compare it with the Router WAN IP address. If they are the same, it means the Router WAN IP is a real public IP address, if not, it means it is private IP address or the CGNAT address.

Tip 3. How to tell whether my DDNS is working or not

Via nslookup command

For example, if your DDNS domain name is xxxxx.tplinkdns.com, then you could input “nslookup xxxxx.tplinkdns.com”, and then press enter to check if the correct IP address can be resolved, if so, it means the DDNS is working now.

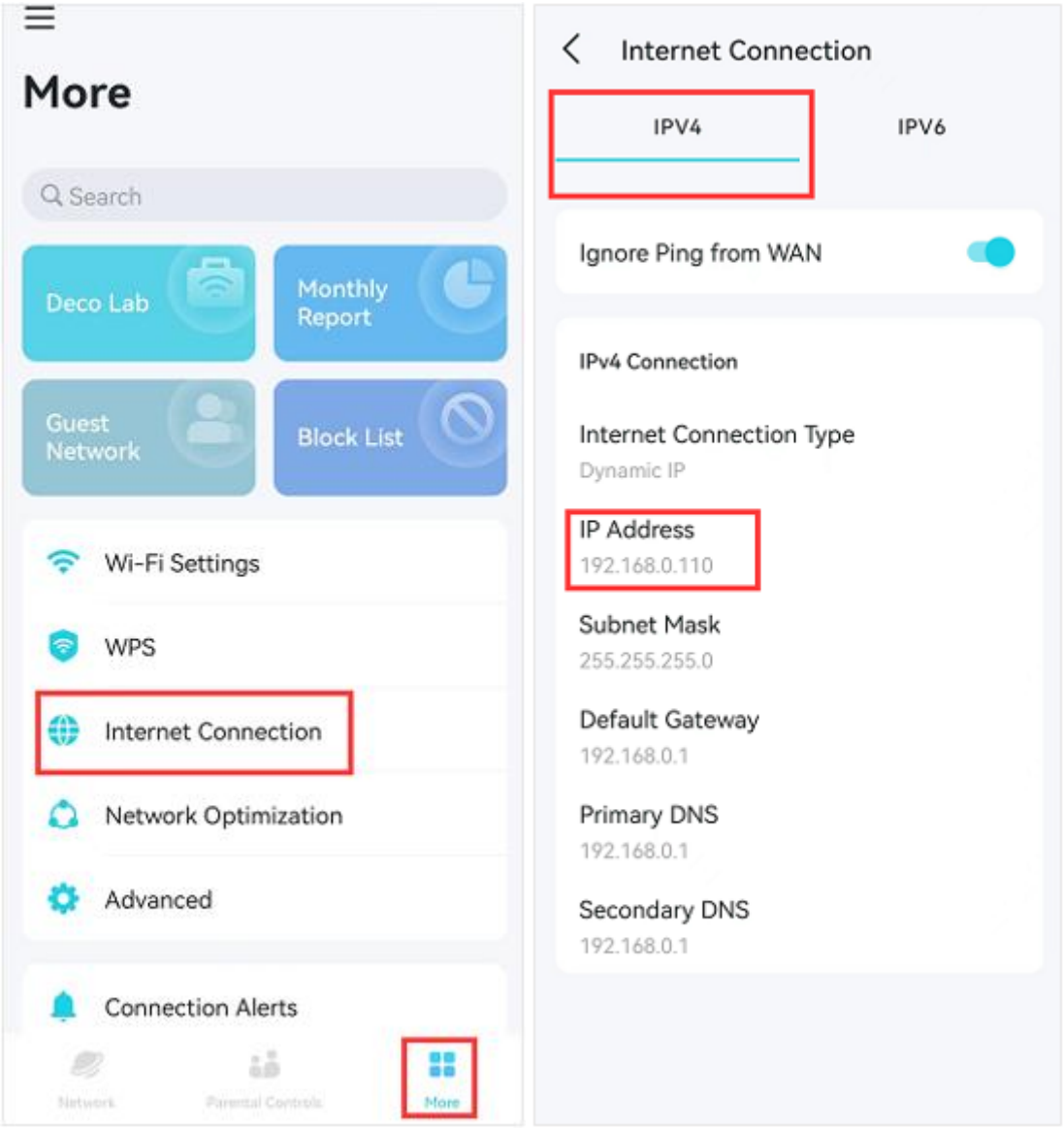


Note: correct IP address is your public IP address, it might be different from your Router WAN IP address, which depends on whether your Router WAN IP is a public IP or not.

Troubleshooting steps if you are unable to access the local server remotely via the DDNS domain name

Step 1. Check if your Router WAN IP address is public IP address or not.

For example, you could check Deco router WAN IP address via Deco App: More->Internet Connection->IPv4



Step 2. Check if the port forwarding rules are configured correctly on the Router for a local server.

Note: If you are trying to access the router web interface remotely instead of local servers, you should check if remote web management is configured correctly on the Router.

Step 3. Check if the DDNS is bound to the correct IP address via nslookup command mentioned in Tip 3 above.

Step 4. Check if you could access the local server via the current public IP address instead of the DDNS, which could confirm whether port forwarding really works or not.

If it cannot be accessed remotely via a public IP address either, please troubleshoot the port forwarding feature first: Why port forwarding feature is not working on my Wi-Fi router or Deco

Step 5. Contact TP-Link Technical Support and provide us with the following details:

1) Detailed network topology and whether your TP-Link Router WAN IP is a public IP address

2) Screenshots of port forwarding rules and the DDNS settings page

3) Are you able to access the local servers remotely via a public IP address?

Related FAQs

- How to Setup DDNS(DynDNS) on Wireless Router
- How to set up TP-Link DDNS on TP-Link Wireless Dual Band 4G LTE Router (new logo)
- How to use DDNS features on a Deco router