



InRouter 600

APPLICATION GUIDE FOR DDNS USAGE

Version: V1.0 Date: 2019.03

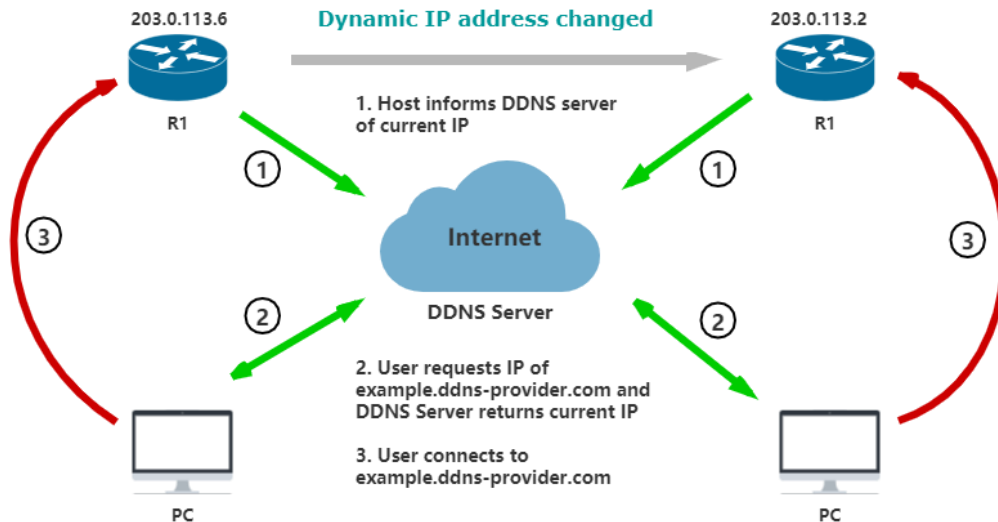
InHand Networks
Global Leader in Industrial IoT

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1. Abstract

This application guide shows how to configure IR600 using DDNS.



As the above figure shows, the IP address of the router R1 is dynamic. When we want to access R1, we must know its current IP address. However, that is not realistic to get the IP address at any time and it is not easy to remember. DDNS can map the user's dynamic IP address to a fixed domain name resolution service. It catches every changed IP address of the user and makes a connection with its domain name. Therefore, other users can access R1 through the domain name.

2. Basic Configuration

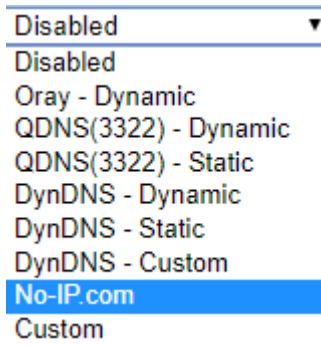
2.1 Click **Network** → **DDNS**

DDNS	
Dynamic DNS ==> WAN	
Current Address	10.5.11.28
Service Type	Disabled
Dynamic DNS ==> Dialup	
Current Address	10.210.16.224
Service Type	Disabled
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

2.2 Choose the Interface, here we use **WAN** to do the test

There are two choices of the interface. You can use either only one or both.

2.3 Select **Service Type**



The default value is Disabled. Please choose your DDNS provider. Here **No-IP.com** is used for the test.


2.4 Click the corresponding **URL**

Dynamic DNS ==> WAN		DDNS
Current Address	10.5.11.28	
Service Type	No-IP.com	
URL	http://www.no-ip.com/	
Username	<input type="text"/>	
Password	<input type="password"/>	
Hostname	<input type="text"/>	
Wildcard	<input type="checkbox"/>	
MX	<input type="text"/>	
Backup MX	<input type="checkbox"/>	
Force Update	<input checked="" type="checkbox"/>	
Last Update	2020-01-02 17:34:59	
Last Response	2020-01-02 17:34:59 IP address is current. No update required.	

2.5 Name your DDNS, chose the DDNS type and click **Sign up**



2.6 Create your account

Create Your No-IP Account 

* Indicates required fields

wangyue@inhand.com.cn *

.....*

inhandtest .ddns.net

Create my hostname later

Minimum of 6 characters.
Strongest

Choose a hostname for your account.
You can change your hostname or add more later.

If you have chosen an Enhanced domain, but wish to sign up for a No-IP Free account, please choose the ddns.net domain option.

2.7 Click **Free Sign Up**

Terms of Service and Privacy Policy *

I agree to the [Terms of Service](#) and [Privacy Policy](#). I also agree that I will only create one free account.

Email Opt-In

Send me newsletters & special offers

Get Enhanced Free Sign Up

If you need more advanced functions, you can click **Get Enhanced** and pay for it.

Then the following webpage will show up.

Thank you for creating a No-IP free Dynamic DNS account!

In order to start using your account, you will need to activate your account via email. Simply click the link in the email to get started. Once you have activated your account, you will be able to add/edit hostnames and finish configuring your account.

2.8 Confirm your account

After signing up, you will receive an email.



Confirm Your No-IP Account

Thanks for creating a No-IP account. We are happy you found us. To confirm your account, please click the button below.

[Confirm Account](#)

Need help? Open a [Support Ticket](#) now.

Thank you for choosing No-IP! We hope that you enjoy our rock solid services that we have been offering since 1999 to millions of users.

Click **Confirm Account**. Then you will see the following webpage.



Your account is now active!

Find the services that best fit your needs and get started.

2.9 Fill in your DDNS information

Go back to the IR600 webpage. Fill in your account information and your **Hostname**.

DDNS

Dynamic DNS ==> WAN

Current Address: **10.5.11.28**

Service Type: **No-IP.com**

URL: **http://www.no-ip.com/**

Username: **wangyue@inhand.com.cn**

Password: *********

Hostname: **inhandtest.ddns.net**

Wildcard:

MX:

Backup MX:

Force Update:

Last Update: 2020-01-02 17:34:59

Last Response: 2020-01-02 17:34:59 IP address is current. No update required.

2.10 Click **Apply**

3. DDNS + Port Mapping

Usually, routers have a firewall. The user from an external Internet can only access the router instead of the internal server. With the port mapping, the internal server can be accessed with a specific port and LAN address.

For example, we want to access to the device with LAN address: 192.168.2.62 and port 5040.

3.1 Click **System** → **Admin Access**

Please check if the Service Port here is same with the port you want to use.

Admin Access

Management

Enable	Service Type	Service Port	Local access	Remote access	Allowed addresses from WAN (Optional)	Description
<input checked="" type="checkbox"/>	HTTP	80	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

As the figure shows, if you want to use port 80, please change this Service Port to other port. Then don't forget to click **Apply**.

3.2 Click **Firewall** → **Port Mapping**

Fill in the blocks as following figure shows and click **Add**

Port Mapping

Enable	Proto	Source	Service Port	Internal Address	Internal Port	Log	External Interface(Optional)	External Address(Optional)	Description
<input checked="" type="checkbox"/>	TCP	0.0.0.0/0	5040	192.168.2.62	5040	No			
<input checked="" type="checkbox"/>	TCP	0.0.0.0/0	8080		8080	<input type="checkbox"/>			

Add

Apply **Cancel**

3.3 Click **Apply**

4. Test and Verify

Press **Windows + R** to open **Run** box. Type **cmd** and then click **OK**. Then the **cmd** block will show up.

4.1 Test DDNS

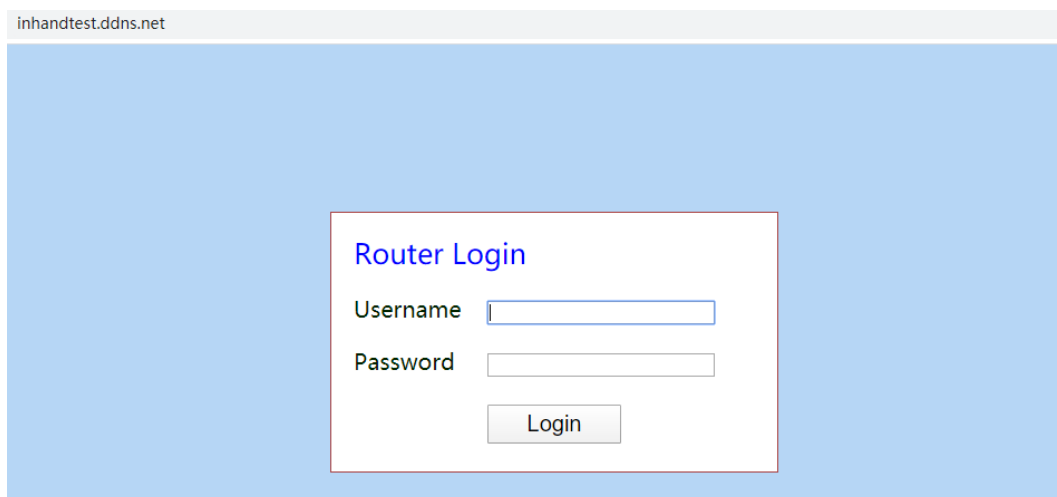
Type command **nslookup** with your host name and press **Enter**. As the following figure shows, it accesses your own DDNS successfully.

```
C:\WINDOWS\system32>nslookup inhandtest.ddns.net
Server: Router.inhand-router.com
Address: 192.168.20.1

Non-authoritative answer:
Name: inhandtest.ddns.net.inhand-router.com
Address: 223.87.179.156

C:\WINDOWS\system32>
```

And with your own DDNS, it can access to the router as well.



4.2 Test port mapping

Type command **telnet** with your LAN address and port, then press **Enter**. After a while, a blank cmd block will show up. Your LAN address will show on the top left of the block as well.



Tips: Sometimes the port you choose is not open. If the port test is not successful, please check if it is an open port first. Type **netstat -na** in the cmd block and press **Enter**. The **Local Address** shows IP address and the number of the open port.

```
C:\WINDOWS\system32>netstat -na

Active Connections

Proto Local Address          Foreign Address        State
TCP   0.0.0.0:135             0.0.0.0:0              LISTENING
TCP   0.0.0.0:445             0.0.0.0:0              LISTENING
TCP   0.0.0.0:4301           0.0.0.0:0              LISTENING
TCP   0.0.0.0:5040           0.0.0.0:0              LISTENING
TCP   0.0.0.0:5357           0.0.0.0:0              LISTENING
TCP   0.0.0.0:49664          0.0.0.0:0              LISTENING
TCP   0.0.0.0:49665          0.0.0.0:0              LISTENING
TCP   0.0.0.0:49666          0.0.0.0:0              LISTENING
TCP   0.0.0.0:49667          0.0.0.0:0              LISTENING
TCP   0.0.0.0:49668          0.0.0.0:0              LISTENING
TCP   0.0.0.0:49670          0.0.0.0:0              LISTENING
TCP   0.0.0.0:52260          0.0.0.0:0              LISTENING
TCP   127.0.0.1:49875        0.0.0.0:0              LISTENING
TCP   192.168.2.62:139       0.0.0.0:0              LISTENING
TCP   192.168.2.62:5040     192.168.2.62:52833    CLOSE_WAIT
TCP   192.168.2.62:52793    120.204.17.22:443     ESTABLISHED
TCP   192.168.2.62:52804    121.51.130.102:443    ESTABLISHED
TCP   192.168.2.62:52807    40.119.211.203:443    ESTABLISHED
TCP   192.168.2.62:52809    52.242.211.89:443     ESTABLISHED
TCP   192.168.2.62:52814    183.220.151.35:443    ESTABLISHED
TCP   192.168.2.62:52821    121.51.166.110:993    ESTABLISHED
TCP   192.168.2.62:52822    121.51.166.110:993    ESTABLISHED
TCP   192.168.2.62:52833    192.168.2.62:5040     FIN_WAIT_2
TCP   192.168.2.62:52857    117.177.223.176:80    CLOSE_WAIT
```

Contact Us

Add: 3900 Jermantown Rd., Suite 150, Fairfax, VA 22030 USA

E-mail: support@inhandnetworks.com

T: +1 (703) 348-2988

URL: www.inhandnetworks.com



InHand Website