

# Clone the MAC Address of a Third-Party Router to an RV320 Router

## Objective

This article explains how to configure MAC Address Clone using an RV320 series router.

## Introduction

Every device has its own unique Media Access Control (MAC) address. It is good to know your MAC address when setting up a network and troubleshooting. It is physically located on the device and contains 12 hexadecimal numbers.

When a network device is configured, it is common to utilize Dynamic Host Configuration Protocol (DHCP) for both Local Area Network (LAN) and Wide Area Network (WAN) IP addresses. DHCP manages a pool of available IP addresses, assigning them to hosts as they join the network. It is a simple way to maintain a network, as it is all done automatically, without intervention from an administrator. DHCP is also used to configure the correct subnet mask, default gateway, and Domain Name System (DNS) information on the device.

At some point, you may observe that the WAN interface of the RV320 series router is configured to obtain an IP automatically, meaning that DHCP is enabled. However, for some reason, the WAN interface is unable to get the IP from the Internet Service Provider (ISP). Most likely, the ISP has configured MAC address binding on their side for the known devices. Therefore, the ISP will not assign any DHCP IP to the unknown devices.

If rebooting the router doesn't work, and your network contains a separate, pre-configured third-party router, such as D-Link, check that router out. Can that router get a DHCP IP on the WAN interface using the same ISP link?

If it can, the RV320 series router can clone the MAC address of that third-party router. In this example, the MAC address of the WAN interface of the D-Link will be cloned. Then the RV320 series router, showing the cloned MAC address on its WAN interface, will be able to get a DHCP IP address and resume the connection.

## Applicable Devices

RV320

RV325

## Software Version

1.4.2.22

## Verification of the Basic Settings

Step 1. Log into the router to access the Graphical User Interface (GUI). For information on how to access the web-based setup page of Cisco VPN routers, click [here](#).



Step 2. Navigate to **Setup > Network**. Make sure the WAN *Connection Type* on the WAN interface is configured as **Obtain an IP automatically**.

**Note:** In this example, **WAN1** is selected.

Step 3. Note the MAC address details of the WAN interface for the known, working, third-party router.

**Note:** In this example, **D-Link** router is selected. In most cases you can find the MAC near the serial number of networking devices.

Product Page: DIR-615 Hardware Version: C1 Firmware Version: 3.10NA

**D-Link**

DIR-615 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPv6

**DEVICE INFORMATION**

All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.

**GENERAL**

Time : 4/17/2009 7:58:05 PM  
Firmware Version : 3.10NA , Fri, 17, Apr, 2009

**WAN**

Connection Type: DHCP Client Connected

Cable Status : Connected  
 Network Status : Established  
 Connection Up Time : 0 Day, 0:00:41  
**MAC Address : 00:21:91:ee:ca:b1**  
 IP Address : 172.16.100.56  
 Subnet Mask : 255.255.255.0  
 Default Gateway : 172.16.100.1  
 Primary DNS Server : 4.2.2.2  
 Secondary DNS Server : 4.2.2.3

**LAN**

MAC Address : 00:21:91:ee:ca:b0  
 IP Address : 192.168.0.1  
 Subnet Mask : 255.255.255.0  
 DHCP Server : Enabled

Helpful Hints...  
All of your WAN and LAN connection details are displayed here.  
[More...](#)

Step 4. Navigate to **System Summary**. Most likely, you will see the green *Connected* and red *Inactive* labels listed. You will also notice there is no *IP Address*, *Default Gateway*, or *DNS* listed on the *WAN1* interface.

cisco English Log Out About Help

RV320 Gigabit Dual WAN VPN Router

Getting Started Setup Wizard **System Summary** 1 Setup DHCP System Management Port Management Firewall VPN OpenVPN Certificate Management Log User Management

**Port Activity**

Port ID	1	2	3	4	Internet	DMZ/Internet	USB	USB
Interface	LAN				WAN1	WAN2	USB1	USB2
Status	Enabled	Enabled	Enabled	Connected	Connected (Inactive)	Enabled	Enabled	Enabled

**IPV4** | IPV6

	WAN1	WAN2	USB 1	USB 2
IP Address:	0.0.0.0	0.0.0.0	---	---
Default Gateway:	0.0.0.0	0.0.0.0	---	---
DNS:	0.0.0.0	0.0.0.0	---	---
Dynamic DNS:	Dyndns disabled 3322 disabled NOIP disabled	Dyndns disabled 3322 disabled NOIP disabled	Dyndns disabled 3322 disabled NOIP disabled	Dyndns disabled 3322 disabled NOIP disabled

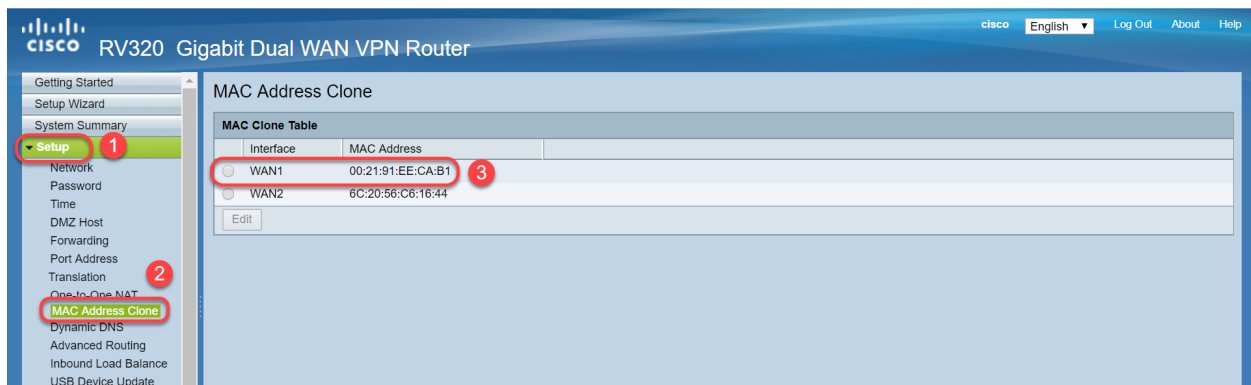
## Configuring MAC Address Clone on the RV320 Series Router

Step 1. Navigate to **Setup > MAC Address Clone**. Select the radio button for the **WAN Interface** to configure MAC Address Clone and click **Edit**.

Step 2. Edit the default MAC address value of the WAN interface with the known working router WAN MAC address value. Click **Save**.

## Verification

To verify the newly configured MAC address is reflected on the WAN1 interface of the RV320 router, select **Setup > MAC Address Clone**. Verify the MAC address.



The screenshot shows the Cisco RV320 Gigabit Dual WAN VPN Router configuration interface. The left sidebar contains a navigation menu with the following items: Getting Started, Setup Wizard, System Summary, Setup (highlighted with a red circle and the number 1), Network, Password, Time, DMZ Host, Forwarding, Port Address, Translation (highlighted with a red circle and the number 2), One-to-One NAT, MAC Address Clone (highlighted with a red circle), Dynamic DNS, Advanced Routing, Inbound Load Balance, and USB Device Update. The main content area is titled "MAC Address Clone" and contains a "MAC Clone Table" with the following data:

Interface	MAC Address
<input type="radio"/> WAN1	00:21:91:EE:CA:B1 (highlighted with a red circle and the number 3)
<input type="radio"/> WAN2	6C:20:56:C6:16:44

Below the table is an "Edit" button.

**Note:** You can also verify that the IP address on the WAN interface of the RV320 series router will be displayed. This IP will be different for different users based on the ISP link.

## Conclusion

You have now completed and confirmed a MAC Address Clone and verified that an IP address has been assigned on your RV320 series router.