# Connect Clients with Class A and B Subnets to the RV016, RV042, RV042G and RV082 VPN Routers

## Objective

This document explains how to connect two clients with Class A and B subnets to the RV042, RV042G and RV082 VPN Routers. The topology used to represent the situation is as follows:



#### **Applicable Devices**

- RV016
- RV042
- RV042G
- RV082

## **Software Version**

• v4.2.2.08

## **Connect Clients in Multiple Subnets**

Step 1. Log in to the web configuration utility and choose **Setup > Network**. The *Network* page opens:

IPv4	IPv6		
LAN Settin	ng		
MAC Addr	ess : 54:75	:D0:F7:FC:38	
Device IP	Address :	192.168.1.1	
Subnet Ma	ask:	255.255.255.224	<b>~</b>
Multiple S	ubnet :	🗹 Enable	Add/Edit
Subnet 1	:	192.168.2.1/255.2	55.255.0

Step 2. Check the **Enable** check box to enable Multiple Subnets.

Step 3. Click **Add/Edit** to add or edit multiple subnets. The *Multiple Subnet Management* window appears.

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Step 4. Enter the LAN address in the **LAN IP Address** field. For example, if you want the same configuration as is shown in the objective, enter 10.0.0.1.

Step 5. Enter the Subnet Mask in the **Subnet Mask** field. For the example above, enter 255.255.252.0.

Step 6. Click Add to List to enter the fields into the list.

Step 7. (Optional) To delete a subnet, choose it from the table and click **Delete**.

Step 8. Click **Save** once you are finished to save the settings.

#### Verify the Configuration

NOTE: This Configuration is applicable only for Windows operating systems

Step 9. Type **cmd** into the search bar of the first client and choose the option to open the *Command Prompt* window.

Programs (1)	
🖭 cmd	
Documents (9)	
Music (22)	
Pictures (9)	
Files (10)	
cmd	Shut down

Step 10. Type in the command **ipconfig** and press **Enter**. Under the Ethernet Adapter Local Area Connection area, check if the IP address and subnet mask match with the routers configuration. If the IP addresses match skip to <u>Step 20</u>.



Step 11. If the IP addresses do not match, navigate to **Control Panel > Network and Internet > Network and Sharing Center**.

server where the server we wanted	
Control Panel > Network and Internet > N	Network and Sharing Center 👻 🍫 Search Control Panel
File Edit View Tools Help	
View your basic network information and	set up connections
🧶 —— 💐	See full map
Multiple netwo (This computer)	orks Internet
View your active networks	Connect or disconnect
RV082 Work network	Access type: No Internet access Connections: U Local Area Connection
Change your networking settings	
🙀 Set up a new connection or network	
Set up a wireless, broadband, dial-up, ad ho	c, or VPN connection; or set up a router or access point.
Connect to a network	
Connect or reconnect to a wireless, wired, di	ial-up, or VPN network connection.
Choose homegroup and sharing options	
Access files and printers located on other ne	twork computers, or change sharing settings.
I roubleshoot problems	
Diagnose and repair network problems, or g	et troubleshooting information.

Step 12. Locate the network supplied by the RV042/RV082. Click **Local Area Connection** to the right of the RV042/RV082 network. The *Local Area Connection Status* window appears.

Local Area Connection Sta	itus		-		23
General					
Connection					
IPv4 Connectivity:				Interne	et
IPv6 Connectivity:		I	No Intern	et acces	s
Media State:				Enable	ed
Duration:			11 days	05:21:0	)3
Speed:				1.0 Gbp	os
Details					
Activity			_	Receive	d
Bytes: 12,967,474	,397		14,765	5,837,88	32
Properties 😨 Disa	ble	Diag	nose		
				Clo	se

Step 13. Click Properties. The Local Area Connection Properties window appears.

Atheros AR815	51 PCI-E Gigabit Ethemet	Controller (NDIS &
✓	Scheduler ter Sharing for Microsoft N ocol Version 6 (TCP/IPve ocol Version 4 (TCP/IPve opology Discovery Mapp opology Discovery Respo	Vetworks () () er I/O Driver onder
Install	Uninstall	Properties
Dooonperon		a a Missaaft

Step 14. Choose Internet Protocol Version 4 (TCP/IPv4) and click Properties to open the Internet Protocol Version 4 (TCP/IPv4) Properties window.

heral	
ou can get IP settings assigned is capability. Otherwise, you ne	automatically if your network supports
r the appropriate IP settings.	
Obtain an IP address autom	natically
O Use the following IP address	s:
IP address:	10 . 0 . 1 . 1
Subnet mask:	255 . 255 . 252 . 0
Default gateway:	10.0.0.1
Obtain DNS server address	automatically
Use the following DNS serve	er addresses:
Preferred DNS server:	10.0.0.1
Alternate DNS server:	• • •
<b>_</b>	Advanced
Validate settings upon exit	AUVOILLEU

Step 15. Click the **Use the following IP address** radio button and you are now able to configure your IP address, subnet mask, and default gateway for that LAN connection.

Step 16. Enter the desired IP address of the device into the IP address field (10.0.1.1).

Step 17. Enter the corresponding subnet mask into the Subnet mask field (255.255.252.0).

Step 18. Enter the desired gateway into the *Default Gateway* field (10.0.0.1). This is address that the client will use to communicate with clients outside its subnet, and should typically be the IP Address specified in Step 4.

Step 19. Repeat Steps 6 through 15 for your additional clients.

Step 20. To verify that this setup works, send out a ping through command prompt through both of the clients. Use the command **ping** followed by any web address you want to ping to check if the network works

Microsoft Windows [Uersion 6.2.9200] (c) 2012 Microsoft Corporation. All rights reserved. C:\Windows\system32>ping www.cisco.com Pinging e144.dscb.akamaiedge.net [23.79.192.170] with 32 bytes of data: Reply from 23.79.192.170: bytes=32 time=22ms TTL=53 Reply from 23.79.192.170: bytes=32 time=26ms TTL=53 Reply from 23.79.192.170: bytes=32 time=21ms TTL=53 Reply from 23.79.192.170: bytes=32 time=23ms TTL=53 Ping statistics for 23.79.192.170: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 21ms, Maximum = 26ms, Average = 23ms C:\Windows\system32>\_