

Yes, this scenario is possible. At least one (1) of the routers of the tunnel must have a connection where a static IP address is used. Also, make sure that the router that has been assigned a dynamic IP address also has an account and a registered domain name with a dynamic DNS (DDNS) service with a provider like www.dyndns.org or www.tzo.com.

NOTE: These settings have been tested using RV0xx firmware versions 1.2.3 and above.

Router A: Using a dynamic IP address Internet connection with an active DDNS domain name.

Router B: Using a static IP address Internet connection.

Router A Configuration (Dynamic IP Address using a Dynamic DNS Service):

The screenshot displays the configuration interface for Router A, divided into two sections: Local Group Setup and Remote Group Setup.

Local Group Setup:

- Local Security Gateway Type: Dynamic IP + Domain Name(FQDN) Authentication
- Domain Name: linksys.dyndns.org
- Local Security Group Type: Subnet
- IP address: 192 . 168 . 2 . 0
- Subnet Mask: 255 . 255 . 255 . 0

Remote Group Setup:

- Remote Security Gateway Type: IP Only
- IP address: 68 . 5 . x . x
- Remote Security Group Type: Subnet
- IP address: 192 . 168 . 1 . 0
- Subnet Mask: 255 . 255 . 255 . 0

1. The default setting for **Local Security Gateway Type** is "IP Only". Change it to the "Dynamic IP + Domain Name(FQDN) Authentication" option as shown in the example above.
2. **Local Group Setup** settings: Enter the full domain name address as registered with your DDNS service provider in the **Domain Name** field. The **Local Security Group Type** is configured to "Subnet" in the example above, but it can be adjusted to suit your preferences.
3. **Remote Group Setup** settings: The **Remote Security Gateway Type** and **Remote Security Group Type** options are set to the typical settings. Enter the static IP address of the Remote Gateway (i.e., Router B's assigned static Internet IP address) in the **IP Address** section. For the Remote Security Group, you can enter the IP address of a single computer, an entire subnet, or an IP range of computers on the remote end of the tunnel that will be participating in the VPN tunnel. Use the settings above as a reference. In the example, **Subnet** is used as the **Remote Security Group Type**.

Advanced -

Advanced

- Aggressive Mode
- Compress (Support IP Payload Compression Protocol(IPComp))
- Keep-Alive
- AH Hash Algorithm MD5
- NetBIOS broadcast

- The **Aggressive Mode** option will need to be manually checked on in the Advanced section on Router A (the router using a dynamic IP address). This router will be the **only** router of the tunnel that will show the “Connect” button on the **Summary** page.

Router B Configuration (Static IP Address):

Local Group Setup

Local Security Gateway Type IP Only

IP address 68 . 5 . x . x

Local Security Group Type Subnet

IP address 192 . 168 . 1 . 0

Subnet Mask 255 . 255 . 255 . 0

Remote Group Setup

Remote Security Gateway Type Dynamic IP + Domain Name(FQDN) Authentication

Domain Name linksys.dyndns.org

Remote Security Group Type Subnet

IP address 192 . 168 . 2 . 0

Subnet Mask 255 . 255 . 255 . 0

- On this side of the VPN tunnel, the settings are simply the **reverse** of Router A’s settings.

Advanced -

Advanced

- Aggressive Mode
- Compress (Support IP Payload Compression Protocol(IPComp))
- Keep-Alive
- AH Hash Algorithm MD5
- NetBIOS broadcast

- When **Remote Security Gateway Type** is configured to the “Dynamic IP + Domain Name(FQDN) Authentication” option, the **Aggressive Mode** option is automatically

checked and grayed out to prevent changes. This router will *NOT* show a “Connect” button on the **Summary** page.

Router A: Summary Page (Connect button):

No.	Name	Status	Phase2 Enc/Auth/Grp	Local Group	Remote Group	Remote Gateway	Tunnel Test	Config.
1	vpn01	Resolving Hostname...	DES/MD5/1	192.168.2.0 255.255.255.0	192.168.1.0 255.255.255.0	88.5. . .	Connect	Edit

1 Tunnel(s) Enabled 1 Tunnel(s) Defined

1. The router that is using the dynamic IP address Internet connection (in this scenario, Router A) will be the only router of the tunnel that will show the **Connect** button since it is the only side that knows the Remote Gateway’s IP address to initiate a connection.

```
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<10ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

2. To connect the tunnel, you can go to a command prompt and ping a remote private IP address and check for replies. In this example, a ping is sent from a computer behind Router A to an address behind Router B (C:\>ping 192.168.1.1). A ping test like this can also be used to test the tunnel link and check for connectivity.
NOTE: You can also use the **Connect** button to initiate the connection and create the VPN.