

Cascade (Connect) a Cisco Small Business Router to a VoIP Router

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Contents

Introduction **How do I connect my Linksys router to a Linksys VOIP router? Related Information**

Introduction

This article is one in a series to assist in the setup, troubleshooting, and maintenance of Cisco Small Business products (formerly Linksys Business Series).

Cascading (Connecting) a Linksys Router to a Linksys VOIP Router

Q. How do I connect my Linksys router to a Linksys VOIP router?

A.

Note: Before you connect a Linksys router to a Linksys VOIP router, make sure both have different IP addresses. This is mandatory because if both routers have the same IP address, you will experience IP address conflicts. If both routers have the same IP address, you need to change the IP address of the Linksys router to prevent any conflict.

There are two ways to cascade a Linksys router to a Linksys VOIP router:

1. Connecting one of the Ethernet ports of the Linksys router to one of the Ethernet ports of the Linksys VOIP router.
2. Connecting one of the Ethernet ports of the Linksys VOIP router to the Internet port of the Linksys router.

By connecting the Linksys router's Ethernet port to the Linksys VOIP router's Ethernet port, the computers connected to both routers will be on the same LAN IP segment. This will allow sharing of network resources within the network. For instructions, click? here .

By connecting the Linksys router's Internet port to the Linksys VOIP router's Ethernet port, it will be easier to identify which router the computers are connected to since they will have different LAN IP segments. For instructions, click? here .

Note: Before configuring the Linksys router, make sure that it is not connected to the Linksys router, where the broadband modem is connected. Then follow these instructions:

Cascading a Linksys Router to a Linksys VOIP Router (LAN-LAN)

To cascade a Linksys router to a Linksys VOIP router, you need to perform two steps:

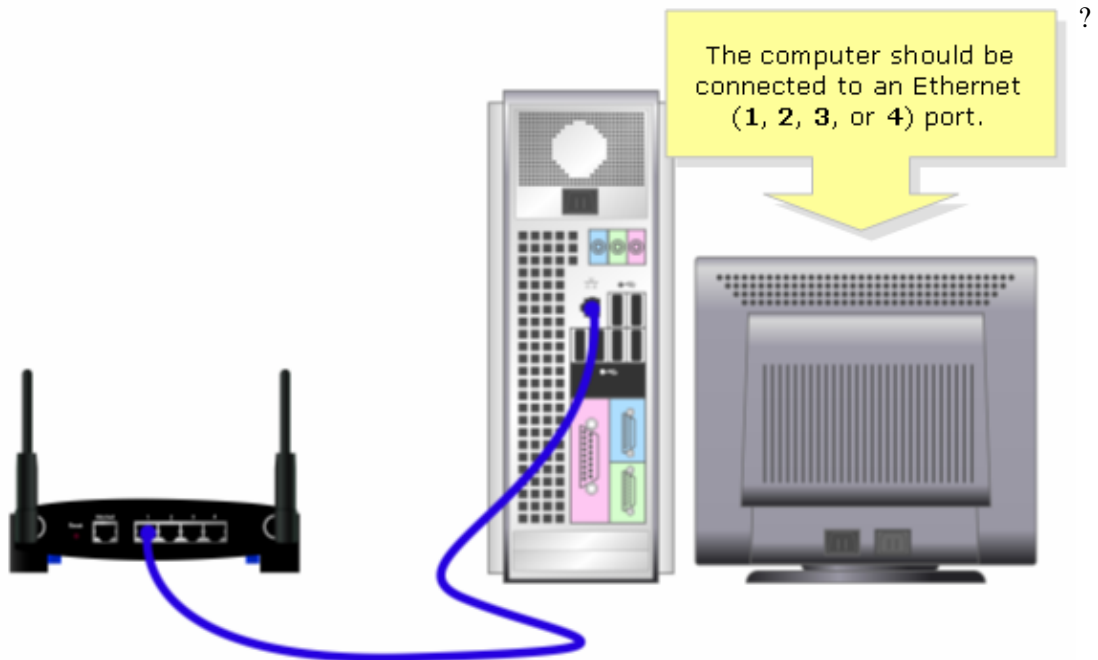
1. Connecting a Computer to the Linksys Router
2. Configuring the Linksys Router with LAN-to-LAN Connection??

Connecting a Computer to the Linksys Router

Note: This article assumes that you already have the Linksys VOIP router working.

Step 1:

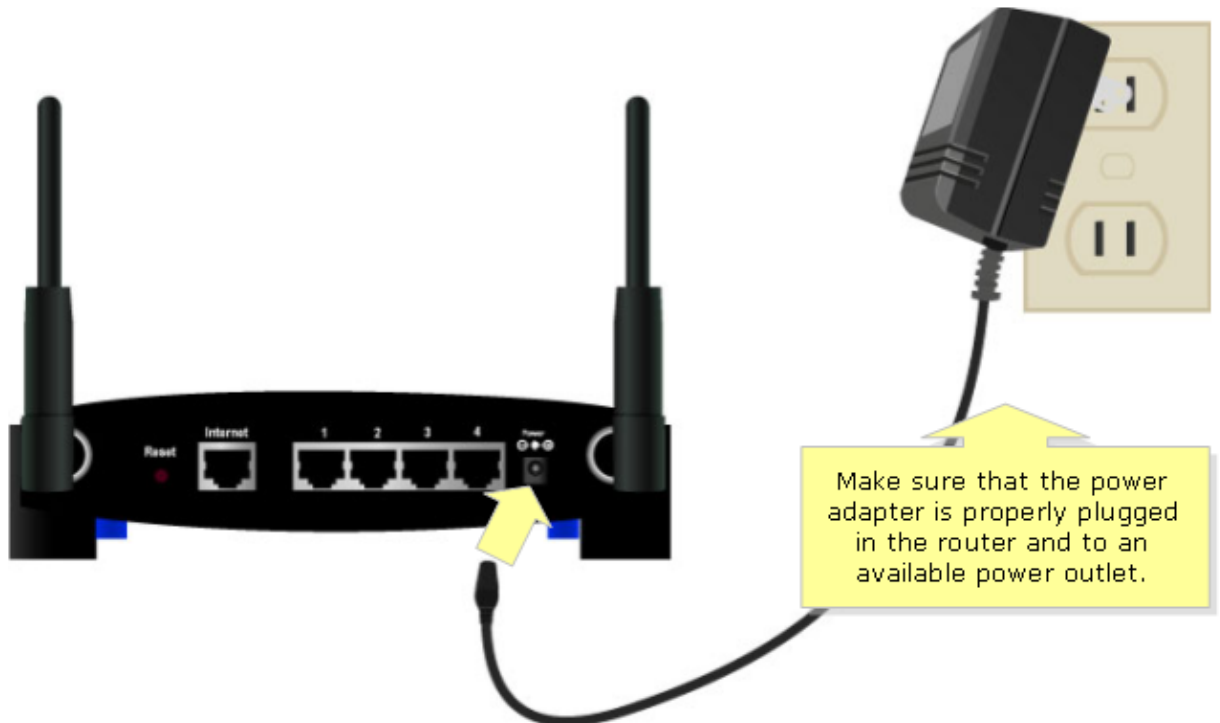
Shutdown the computer and plug it to any of the numbered ports at the back of the Linksys router.



Note: The router's image may vary depending on the model and version number.

Step 2:

Plug the supplied power adapter in the Linksys router.



After connecting a PC to the router, configure the Linksys router for LAN-to-LAN connection. For instructions, refer to the steps below.

Configuring the Linksys Router with LAN-to-LAN Connection

Step 1:

Access the router's web-based setup page. For instructions, click? here .

Step 2:

When the router's web-based setup page appears, look for **Local IP Address** and change it to "192.168.15.2" so both routers will be on the same IP segment.

The screenshot shows the Linksys web-based setup page. The top navigation bar includes "Setup", "Wireless", "Security", "Access Restrictions", "Applications & Gaming", and "Administrative". The "Setup" section is active, with sub-tabs for "Basic Setup", "DDNS", "MAC Address Clone", and "Advanced Routing". The "Internet Setup" section is expanded, showing "Internet Connection Type" set to "Automatic Configuration - DHCP". Below this, there are fields for "Router Name", "Host Name", "Domain Name", "MTU" (set to "Auto"), and "Size" (set to "1500"). The "Network Setup" section is also expanded, showing "Router IP" settings. The "Local IP Address" field is set to "192.168.15.2", and the "Subnet Mask" is set to "255.255.255.0". A yellow callout box with a white arrow points to the "Local IP Address" field, containing the text "Change Local IP Address to '192.168.15.2'".

Step 3:

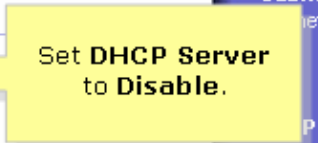
Look for **Network Access Server Settings (DHCP)** and set **DHCP Server** to **Disable**.

Network Setup

Router IP

Local IP Address : 192 . 168 . 15 . 2
Subnet Mask : 255 . 255 . 255 . 0

Network Address Server Settings (DHCP)

DHCP Server : Enable Disable 

Starting IP Address : 192.168.15.100
Maximum Number of DHCP Users : 50
Client Lease Time : 0 minutes (0 means one day)

Static DNS 1: 4 . 2 . 4 . 4
Static DNS 2: 0 . 0 . 0 . 0
Static DNS 3: 0 . 0 . 0 . 0
WINS : 0 . 0 . 0 . 0

Time Setting

Time Zone : (GMT-08:00) Pacific Time (USA & Canada)
 Automatically adjust clock for daylight saving changes

Save Settings Cancel Changes

Step 4:

Click .

Step 5:

Click **Advanced Routing** and change **Operating Mode** to **Router**.

Setup

Setup

Wireless

Security

Access
Restrictions

Applications
& Gaming

Administ

Basic Setup

DDNS

MAC Address Clone

Advanced Routing

Advanced Routing

Operating Mode

Dynamic Routing

Static Routing

Router

Change **Advanced Routing** to **Router**.

Click **Advanced Routing**

RIP: Disabled

Select set number: 10

Delete This Entry

Enter Route Name:

Destination LAN IP: 0 . 0 . 0 . 0

Subnet Mask: 0 . 0 . 0 . 0

Default Gateway: 0 . 0 . 0 . 0

Interface: LAN & Wireless

Show Routing Table

Step 6:

Click? .

Step 7:

Connect a standard Ethernet network cable to one of the numbered Ethernet ports on the Linksys VOIP router, where the broadband modem is connected. Then, connect the other end of the Ethernet cable to the Ethernet port of the Linksys router that you have just configured.

Connect the Linksys VOIP router to one of the Ethernet ports (1, 2, or 3) of the second Linksys router.



Linksys VOIP Router
(the one connected to the modem)

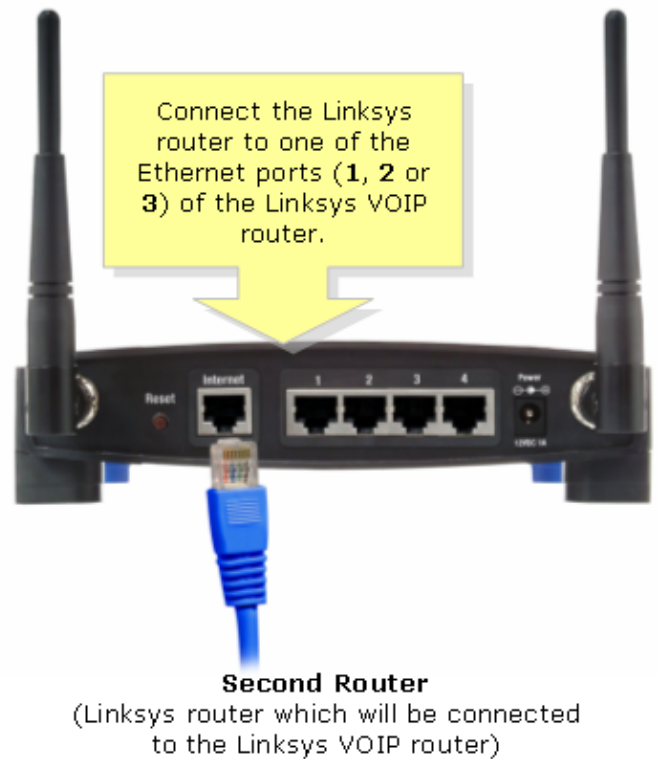
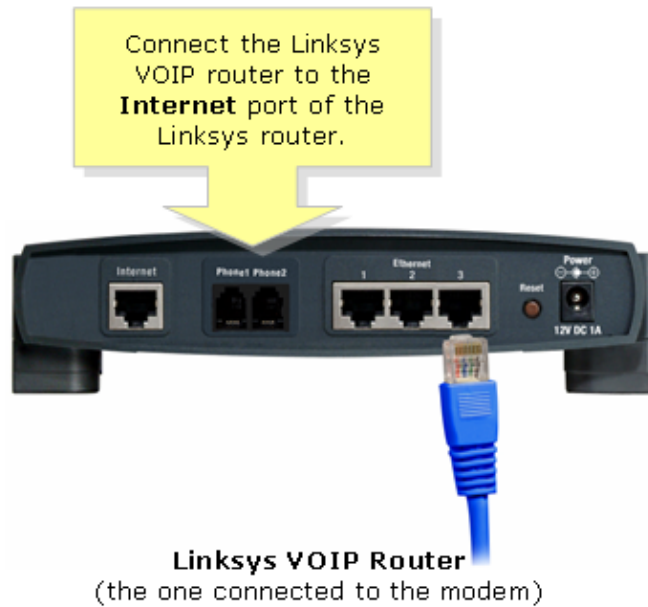
Connect the second router to one of the Ethernet ports (1, 2 or 3) of the Linksys VOIP router.



Second Router
(Linksys router which will be connected to the Linksys VOIP router)

Cascading a Linksys Router to a Linksys VOIP Router with Internet-to-LAN Connection

Connect a standard Ethernet network cable to one of the numbered Ethernet ports on the Linksys VOIP router, where the broadband modem is connected. Then connect the other end of the Ethernet cable to the Internet port of the Linksys router that you have just configured.



Note: There are no further configurations needed if the **Internet** port of the Linksys router will be connected to one of the **Ethernet** ports of the Linksys VOIP router.

If both router's have the same **Local IP Address**, change the Linksys router's IP address to another IP segment. For instructions, click? [here](#) .

Related Information

- **Technical Support & Documentation – Cisco Systems**