

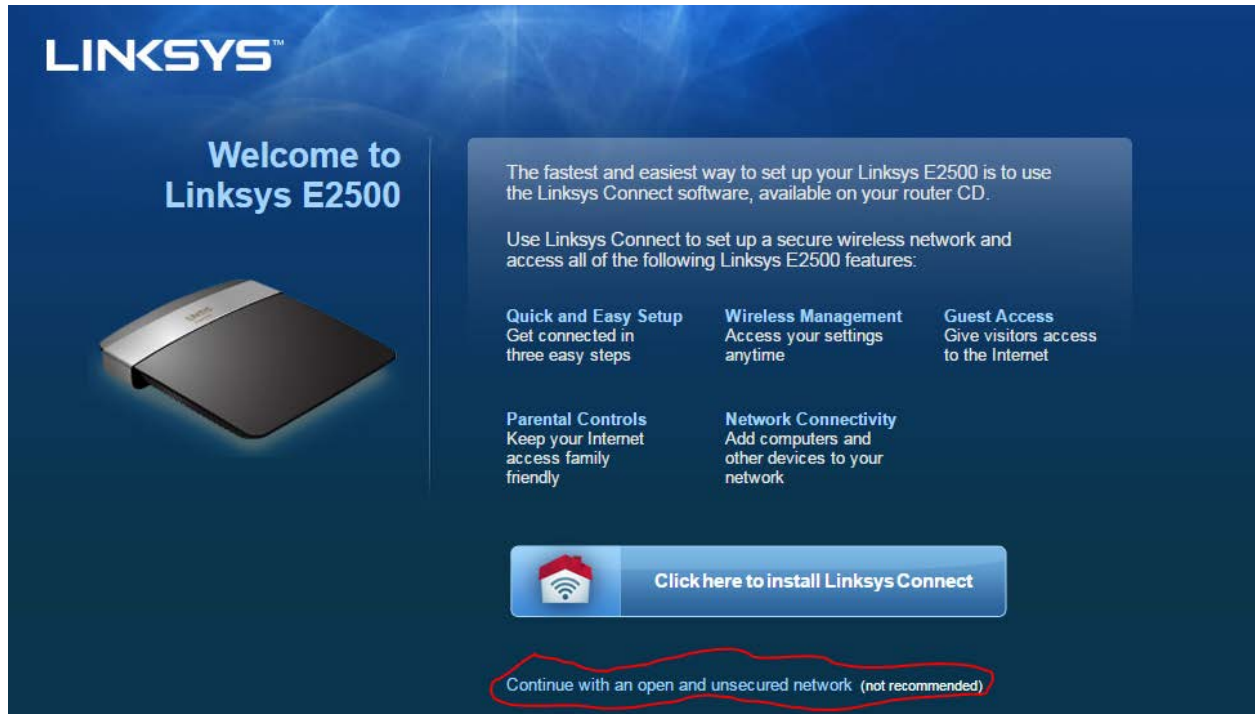
## Configure “Router 1”

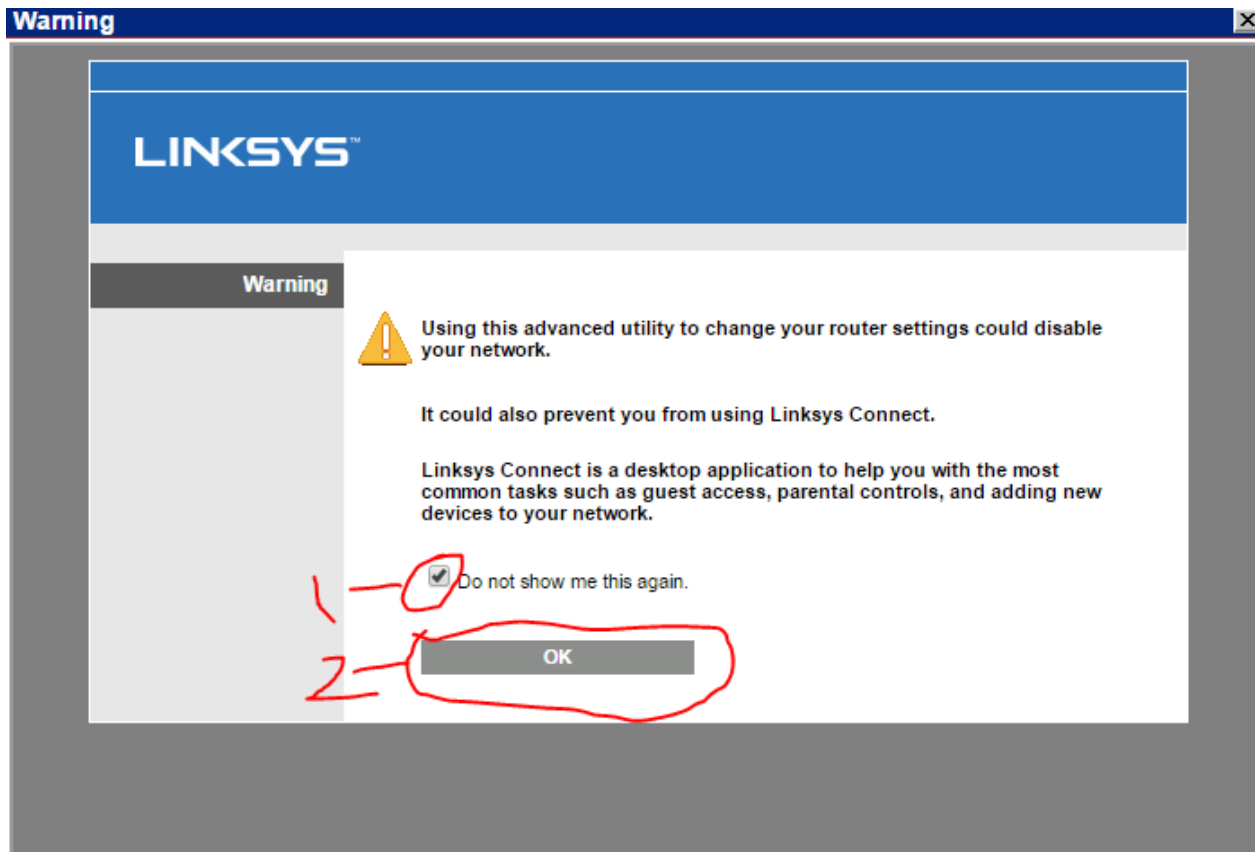
### Reset to Factory Default

1. Reset the router to factory defaults.

### Connect to the router’s management interface:

1. Type 192.168.1.1 in your browser’s address bar.

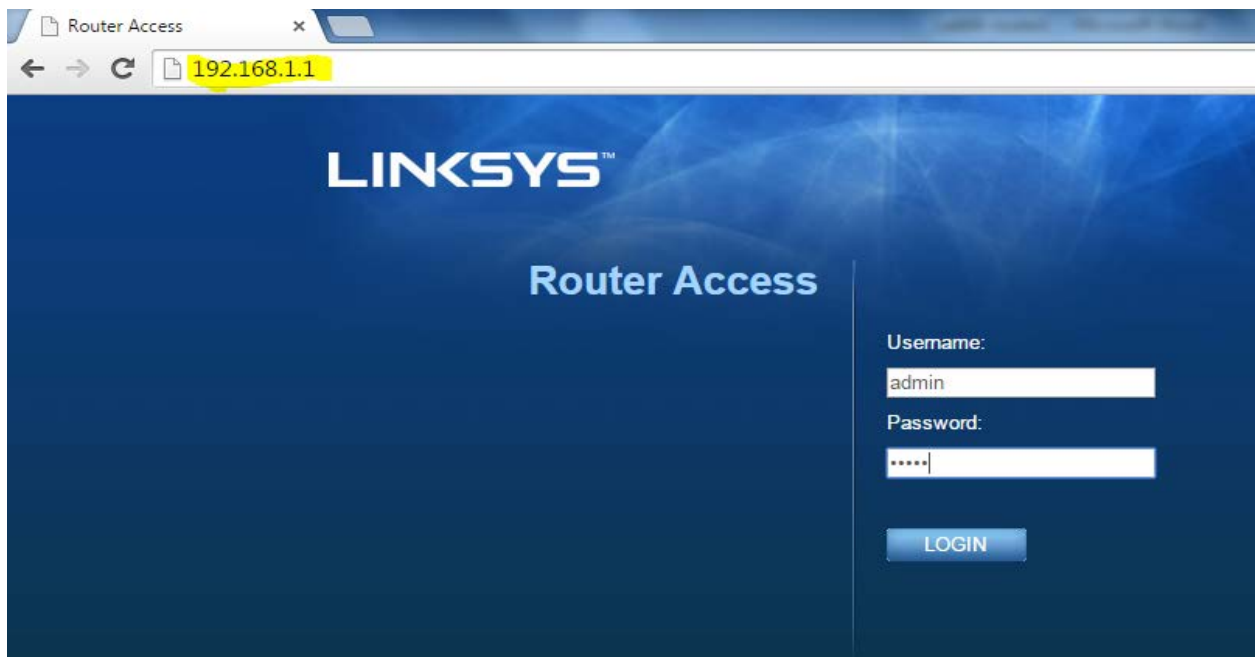




### Login to the router's management interface:

Username: admin

Password: admin



## Configure Router IP Addresses

The screenshot shows a router configuration interface with several tabs and sections. Handwritten red annotations are present:

- 1**: Points to the **Setup** tab in the top navigation bar.
- 2**: Points to the **Static IP** dropdown menu.
- 3**: A bracket grouping the Internet IP Address, Subnet Mask, Default Gateway, and DNS 1 fields.
- 4**: A bracket grouping the IP Address and Subnet Mask fields in the lower section.
- 5**: Points to the **Save Settings** button at the bottom.

**Static IP Configuration:**

Field	Value
Internet IP Address:	10 . 10 . 10 . 1
Subnet Mask:	255 . 255 . 255 . 0
Default Gateway:	10 . 10 . 10 . 10
DNS 1:	10 . 10 . 10 . 10
DNS 2 (Optional):	0 . 0 . 0 . 0
DNS 3 (Optional):	0 . 0 . 0 . 0

**Other Fields:**

- Host Name:
- Domain Name:
- MTU:  Size:
- IP Address: 192 . 168 . 254 . 254
- Subnet Mask: 255.255.255.0
- Router Name: Linksys21042

**Buttons:**

- Reboot
- Save Settings
- Cancel Changes

**Your settings have been successfully saved.  
A system reboot is in progress and may take up to 60 seconds.**

Continue

**Wait for the router to reboot**, and then **reconnect** to the router's new IP address **@192.168.254.254**

**Be patient** as it may take a minute or two before you are able to reconnect to the router.

## Disable NAT

LINKSYS™ Firmware Version: 3.0.00

Linksys E2500 E2500

Setup

Setup | Wireless | Security | Storage | Access Policy | Applications & Gaming | Administration | Status

Basic Setup | VLAN Setup | IPv6 Setup | DDNS | MAC Address Clone | **Advanced Routing**

Advanced Routing

NAT

Dynamic Routing (RIP)

Static Routing

☐ Enabled ☒ **Disabled** 2

☐ Enabled ☒ Disabled

Route Entries: 1 ( ) Delete This Entry

Enter Route Name:

Destination LAN IP: 0 . 0 . 0 . 0

Subnet Mask: 0 . 0 . 0 . 0

Gateway: 0 . 0 . 0 . 0

Interface: LAN & Wireless

Show Routing Table

Help...

3 Save Settings Cancel Changes

The page at 192.168.1.1 says:

Guest Access will not be available if NAT is disabled.  
Proceed with saving your changes?

OK Cancel

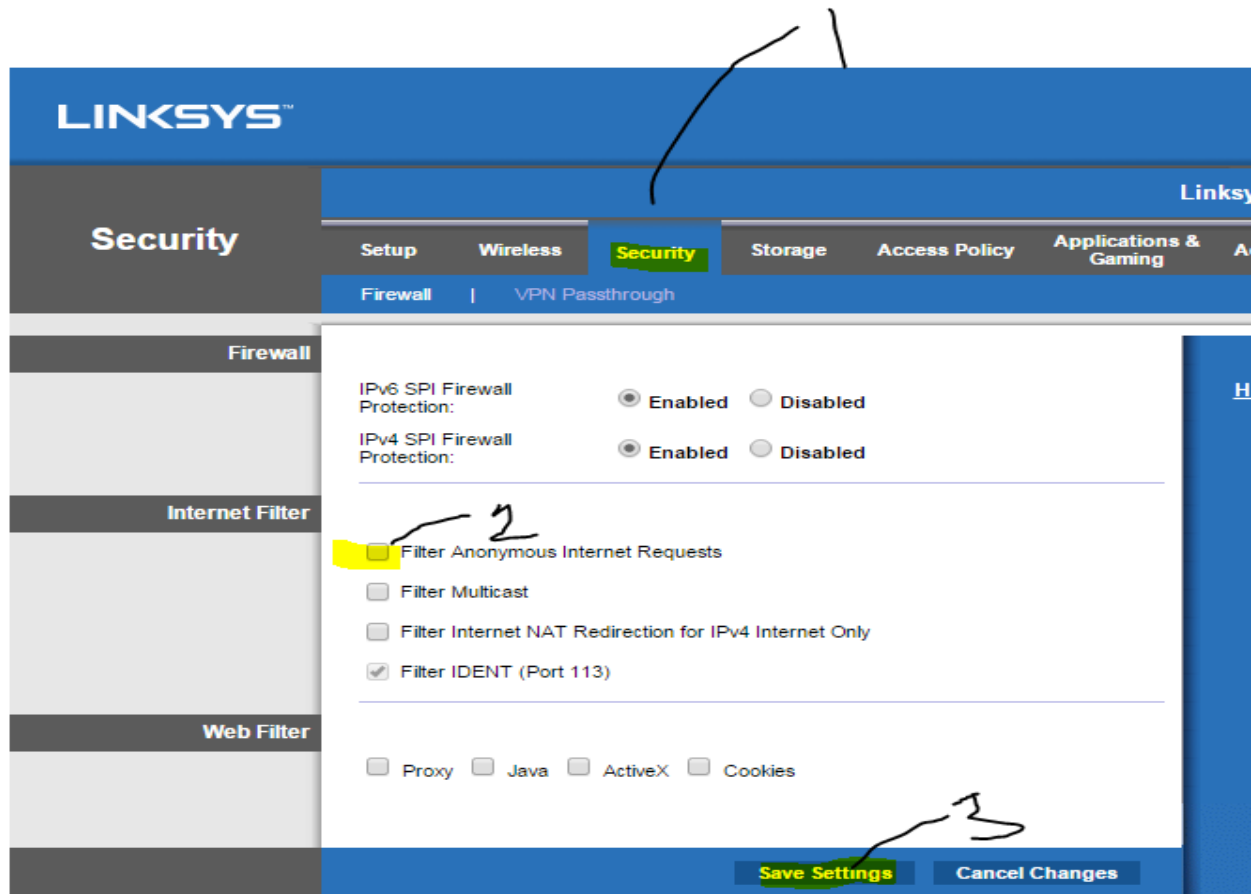
**Your settings have been successfully saved.  
A system reboot is in progress and may take up to 60 seconds.**

Continue

**Wait for the router to reboot,** and then **reconnect** to the router's new IP address **@192.168.254.254**

**Be patient** as it may take a minute or two before you are able to reconnect to the router.

## Allow anonymous internet request



**Your settings have been successfully saved.**

**Continue**

## Routing Table Entry (2 marks)

From your router's "Advanced Routing" configuration page (shown below), add a routing entry that will allow you to communicate with devices on "Network segment 2". REMEMBER THIS IS THE ROUTING ENTRY THAT WILL ENABLE YOU TO SEND PACKETS TO YOUR PARTNER'S NETWORK!

Create a static route with the following values:

1. In field 1 enter an appropriate value. For example, LAN SEGMENT 2 or Joe's Network
2. In field 2 enter the network id address of the network you wish to send packet's to. Look at your topology diagram to determine the value to enter.
3. In field 3 enter the network id's subnet mask. Look at your topology diagram to determine the value to enter.
4. In field 4 enter the next hop router IP address. Look at your topology diagram for the value to enter.
5. In field 5 enter the outgoing interface for sending packets to this network. Select the appropriate interface.
6. Click the "Save Setting" and then click continue to return to the "Advanced Routing" configuration page.
7. Click the "Show Routing Table" button to display your router's routing table.
8. Ensure that the new entry exists and contains the correct values!
9. Take a screen capture of your router's routing table, highlight the entry you just created and save as **sc1-routingtable**.

The screenshot shows the 'Advanced Routing' configuration page. At the top, there are two sections, each with 'Enabled' and 'Disabled' radio buttons. Below these is the 'Route Entries' section, which includes a dropdown menu showing '1 ( )' and a 'Delete This Entry' button. The 'Enter Route Name:' field is highlighted in yellow. The 'Destination LAN IP:' field is highlighted in yellow. The 'Subnet Mask:' field is highlighted in yellow. The 'Gateway:' field is highlighted in yellow. The 'Interface:' dropdown menu is highlighted in yellow. A 'Show Routing Table' button is located below the 'Interface:' field. At the bottom of the page, there are two buttons: 'Save Settings' (highlighted in green) and 'Cancel Changes'. Handwritten red numbers 1 through 6 are on the left side of the screenshot, with lines pointing to the following elements: 1 points to the 'Route Entries' dropdown, 2 points to the 'Enter Route Name:' field, 3 points to the 'Destination LAN IP:' field, 4 points to the 'Subnet Mask:' field, 5 points to the 'Gateway:' field, and 6 points to the 'Interface:' dropdown menu.



## Network Connectivity Tests

1. Local Connectivity Tests
  - a. ping 192.168.254.254
  - b. ping 10.10.10.1
2. Wait for your partner to complete her/his router configuration before performing remote connectivity tests.
3. Remote Connectivity Tests
  - a. ping 10.10.10.2
  - b. ping 172.16.254.254
4. NOTE: You cannot proceed until both local and remote connectivity tests have succeeded.
5. Record the following on your topology diagram:
  - a. your laptop's IP and MAC addresses
  - b. your router's (LAN) MAC address on your network topology diagram
  - c. your partner's laptop IP and MAC addresses
  - d. your partner's router (LAN) MAC address

Return to the Task1 step 8 of the "Lab07 – InLab Activities" document.