

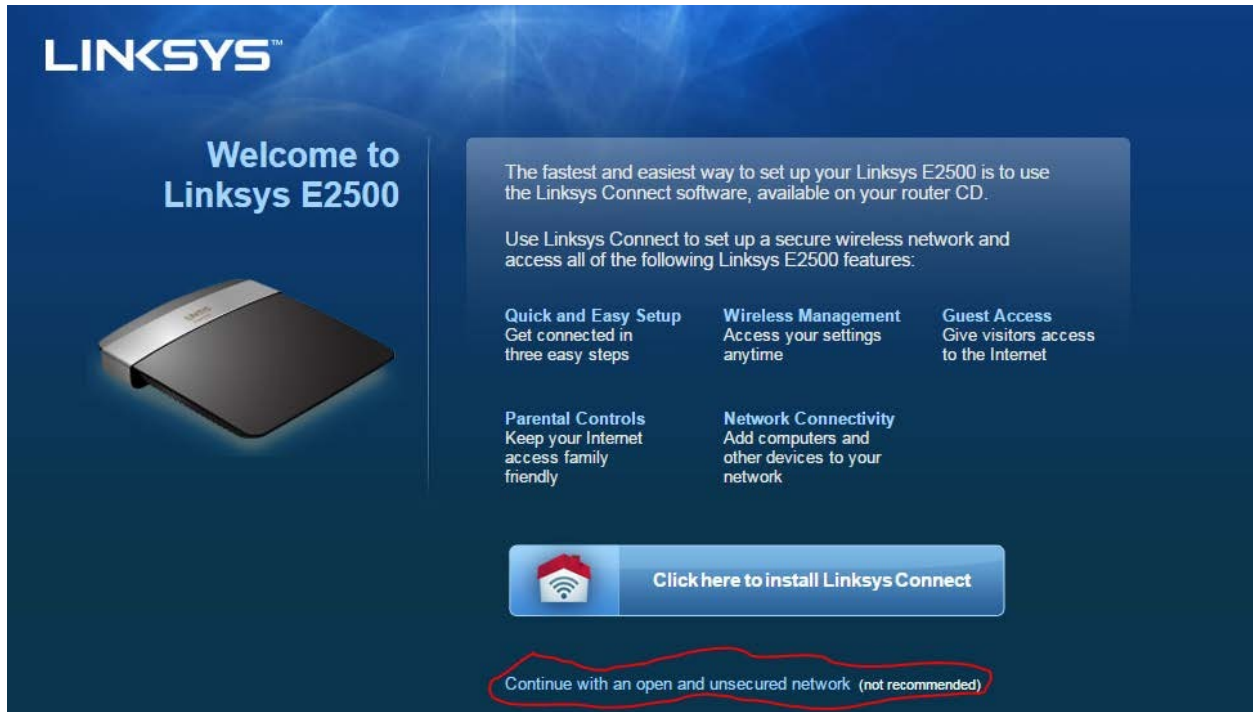
Configure “Router 1”

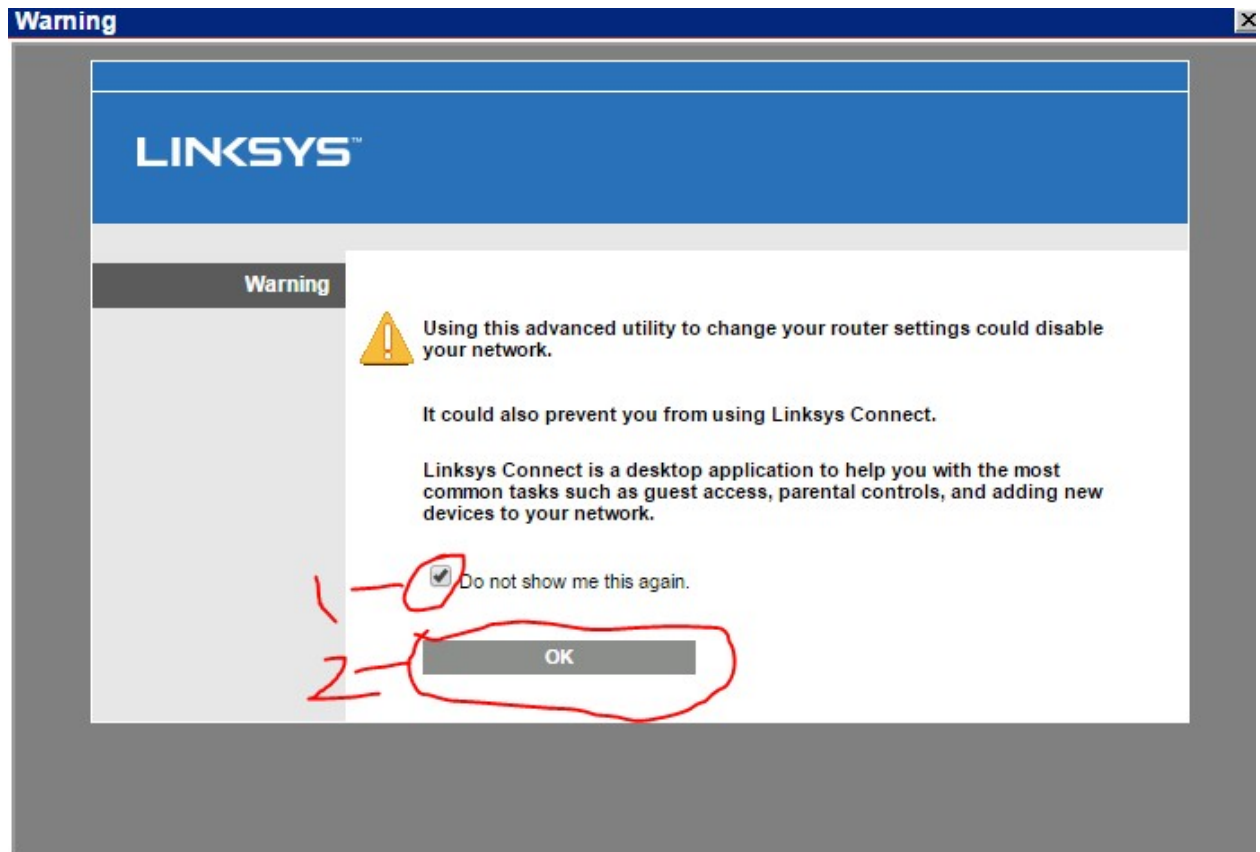
Reset to Factory Default

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's configuration interface. At the top, a navigation bar includes 'Setup' (highlighted with a red '1'), 'Wireless', 'Security', 'Storage', 'Access Policy', and 'Applications & Gaming'. Below this, a sub-menu bar shows 'Basic Setup' (selected), 'VLAN Setup', 'IPv6 Setup', 'DDNS', and 'MAC Address Clone'. The main content area has a language dropdown set to 'English'. A red '2' points to a 'Static IP' dropdown menu. Below it, the 'Internet IP Address' section contains four input fields with values 10, 10, 10, and 1, which are highlighted in yellow. A red '3' is next to these fields. The 'Subnet Mask' fields contain 255, 255, 255, and 0. The 'Default Gateway' fields contain 10, 10, 10, and 10. The 'DNS 1' field contains 10, 10, 10, and 10. The 'DNS 2 (Optional)' and 'DNS 3 (Optional)' fields contain 0, 0, 0, and 0. Below these are fields for 'Host Name', 'Domain Name', and 'MTU' (set to 'Auto') with a 'Size' of 1500. The 'IP Address' section at the bottom has four input fields with values 192, 168, 254, and 254, which are highlighted in yellow. A red '4' is next to these fields. The 'Subnet Mask' is set to 255.255.255.0. The 'Router Name' is 'Linksys21042'. At the bottom left is a 'Reboot' button. At the bottom right are 'Save Settings' (highlighted with a red '5') and 'Cancel Changes' buttons.

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

Basic Setup | VLAN Setup | IPv6 Setup | DDNS | MAC Address Clone

English ▼

Static IP ▼

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

Host Name:

Domain Name:

MTU: Auto ▼ Size: 1500

IP Address: 192 . 168 . 254 . 254

Subnet Mask: 255.255.255.0 ▼

Router Name: Linksys21042

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

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

Advanced Routing

NAT

Dynamic Routing (RIP)

Static Routing

Enabled ☒ Disabled

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

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

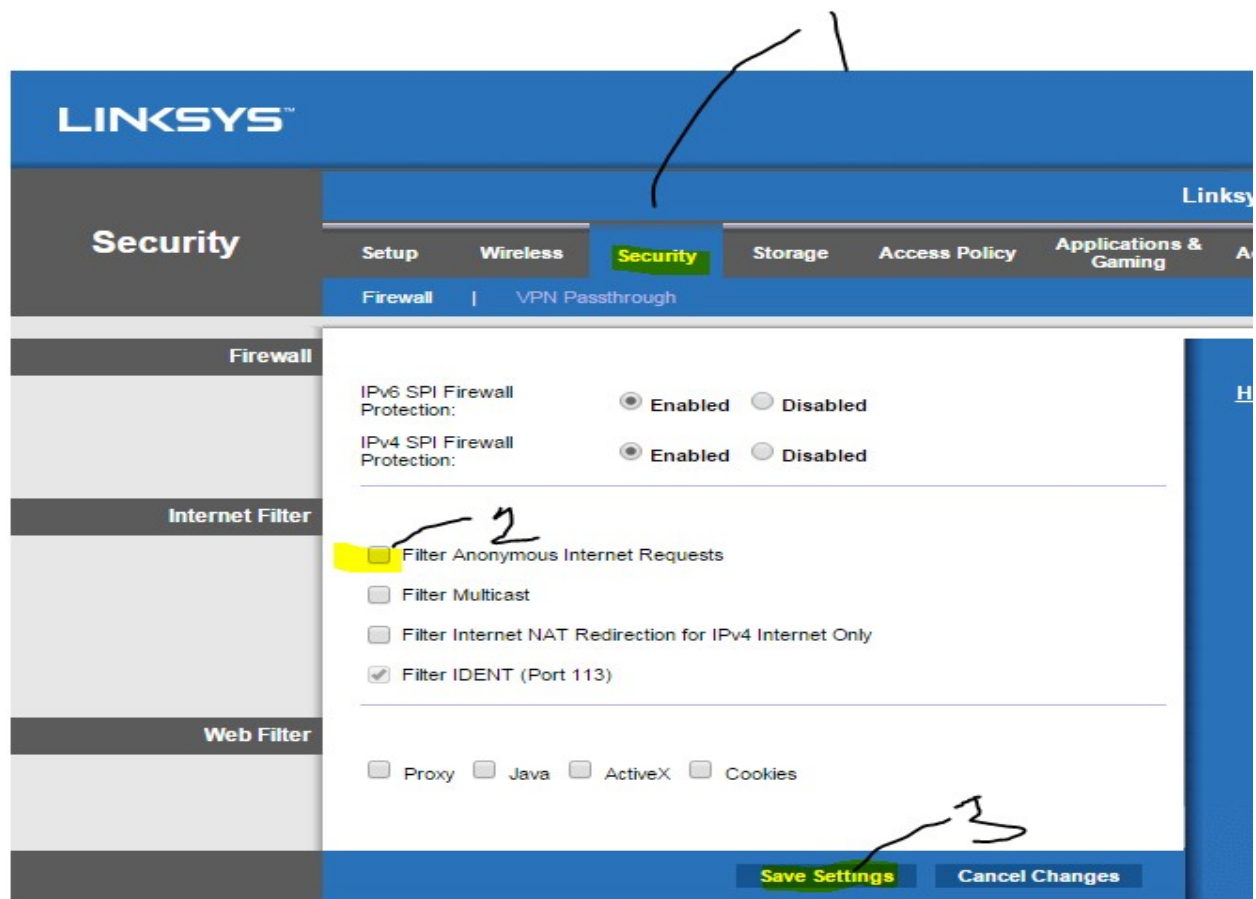
**Your settings have been successfully saved.
A system reboot is in progress and may take up to 60 seconds.**

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 **router1_routing_table.png**

The screenshot shows the 'Advanced Routing' configuration page. At the top, there are two radio button groups, both with 'Enabled' selected. Below these is a 'Route Entries' section with a dropdown menu showing '1 ()' and a 'Delete This Entry' button. The form contains the following fields and controls:

- Enter Route Name:** A text input field with a red arrow pointing to it labeled '1'.
- Destination LAN IP:** A dotted IP address input field with a red arrow pointing to it labeled '2'.
- Subnet Mask:** A dotted subnet mask input field with a red arrow pointing to it labeled '3'.
- Gateway:** A dotted IP address input field with a red arrow pointing to it labeled '4'.
- Interface:** A dropdown menu with a red arrow pointing to it labeled '5'.
- Show Routing Table:** A button with a red arrow pointing to it labeled '6'.
- Save Settings:** A green button at the bottom right.
- Cancel Changes:** A blue button at the bottom right.

Handwritten red numbers 1 through 6 are on the left side of the image, with arrows pointing to the corresponding fields or buttons in the configuration page.

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 "Lab7 – InLab Activities" document.