COMPUTER SYSTEMS SERVICING GRADE 11

Module 9

"Setting-up Router"
(Quick Setup)

Computer Systems Servicing NCII – Grade 11
Quarter 4 – Module 9: Setting-up Router (Quick Setup)
First Edition, 2020

Published by the Department of Education Division of Pasig City

Printed in the Philippines by Department of Education – Schools Division of Pasig City
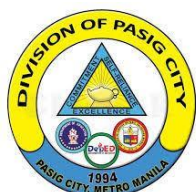
COMPUTER SYSTEMS SERVICING NCII

11

Quarter 4

Self-Learning Module 9

Setting-up Router (Quick Setup)

Introductory Message

For the facilitator:

Welcome to the **Computer Systems Servicing G11** module on 3Rs Environmental Policies. This module was collaboratively designed, developed and reviewed by educators from Schools Division Office of Pasig City headed by its Officer-In-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin in partnership with the Local Government of Pasig through its mayor, Honorable Vico Sotto.

The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) while overcoming their personal, social, and economic constraints in schooling.

This learning material hopes to engage the learners into guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs namely: Communication, Collaboration, Creativity, Critical Thinking and Character while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:

Notes to the Teacher
This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.
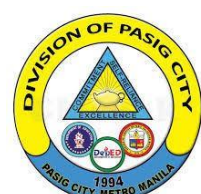
For the learner:

Welcome to Computer Systems Servicing NCII. The hand is one of the most symbolized part of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:

Expectation - These are what you will be able to know after completing the lessons in the module

Pre-test - This will measure your prior knowledge and the concepts to be mastered throughout the lesson.

Recap - This section will measure what learnings and skills that you understand from the previous lesson.

Lesson- This section will discuss the topic for this module.

Activities - This is a set of activities you will perform.

Wrap Up- This section summarizes the concepts and applications of the lessons.

Valuing-this part will check the integration of values in the learning competency.

Post-test - This will measure how much you have learned from the entire   module. Ito po ang parts ng module

🎯 EXPECTATIONS

After completing this lesson, you should be able to:
1. understand the functions of Router;
2. identify the procedures setting-up basic parameters of Router;
3. appreciate the importance of learning Quick Setup of router.

☑ PRETEST

Directions: Read the following statement carefully. Write **T** if the statement is correct and **F** for the wrong statement.

1. Router configurations can be done in wired and wireless mode.
2. Most Router Manufacturers use **192.168. 0.1** or **192.168. 1.1** as the default LAN IP address.
3. A browser can be used to configure router.
4. If the router cannot be accessed using the default setting, you may reset it by pressing the reset button to restore its default setup.
5. Running Quick Setup can help you configure router easily.
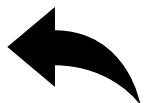
◀ RECAP

Directions: Read the following statement carefully. Write **T** if the statement is correct and **F** for the wrong statement.

1. A **modem** is a device that connects your home, usually through a coax cable connection, to your Internet service provider (ISP).
2. You need to Connect a laptop or tablet to one of the LAN ports on the router by connecting a network cable from your computer's network port to a LAN port on the router to configure the network.
3. Typing **ipconfig** in command prompt can determine the default gateway of the network.
4. The IP Address in the default gateway shall be used to configure the modem using any browser.
5. Don't forget to secure your router by changing the admin password from blank to a secure password you'll remember.

LESSON

Setting-up Router
(Quick Setup)

Routers use packets to guide and direct network data, which can include files, communications, and basic transmissions including web interactions. This module covers procedures on how to access routers and perform basic configurations through running QUICK SETUP.

The following are the steps to perform basic router configurations though running QUCK SETUP. **Note:** The router used in this demonstration is TP-Link, but the procedures may also be applicable to other brands.

1. Connect your device to the router. You can do configuration wired or in wireless mode.

2. Open any browser and type the default LAN IP Address. Most Router Manufacturers use **192.168. 0.1** or **192.168. 1.1** as the default LAN IP address. You can also use the default access domain name ex: tplinkwifi.net for TP-Link routers.
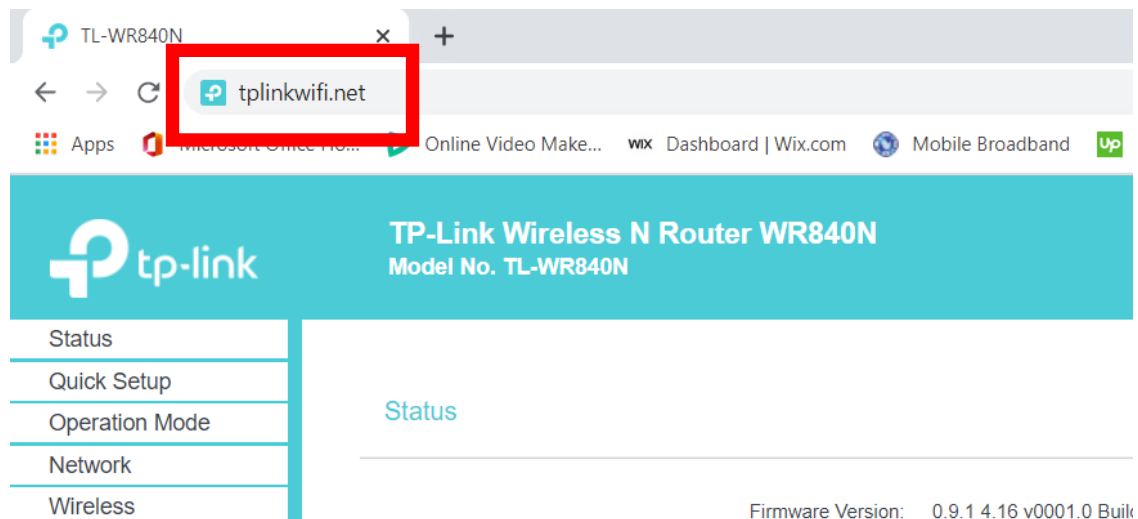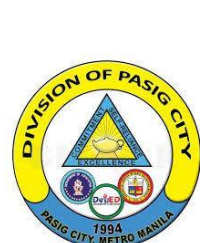
Figure 1: Typing default IP/Access in browser.

NOTE 1: Default settings of router can be seen on the device itself.
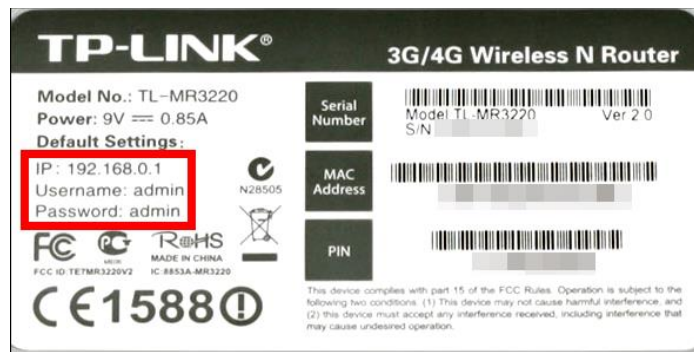

Figure 2: Sample default setting of router.

NOTE 2: If the router cannot be accessed using the default setting, you may reset it by pressing the reset button to restore its default setup.
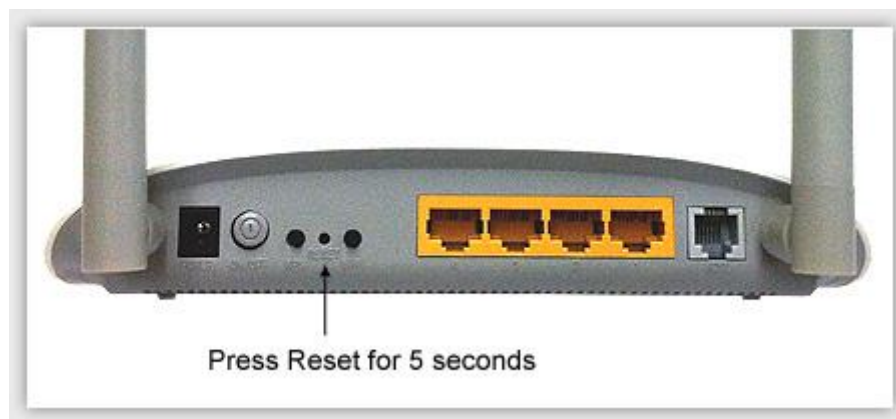

Figure 2a: Reset button

3. Enter the default username & password.

Figure 3: Log-in form

Once you successfully entered the username and password, the firmware of the router will open.
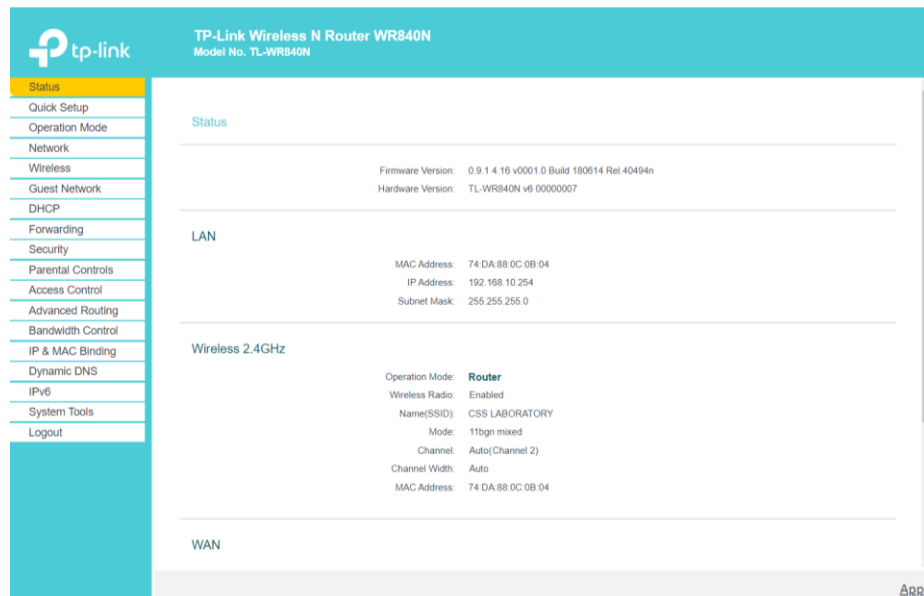

Figure 4: Status Page

The **Status Page** displays the Router's current status and configuration.

4. On the left menu, choose **Quick Setup.** Running this can set the basic parameters to get a connection to the internet. Even if you are not familiar with configurations, you can still finish the settings easily.
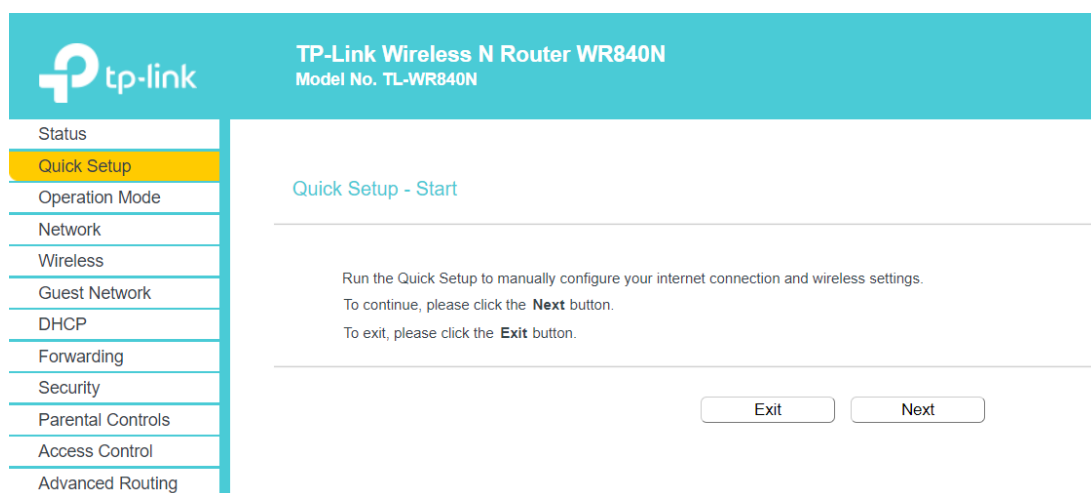

Figure 5: Quick Setup: Window 1.

Click Next to proceed.

5. Choose the **Operation Mode.** TP-Link router can be set into mode as follow: Wireless Router, WISP, Access & Range Extender.

  ➢ **Wireless Router (Default):** In this mode, the device enables multiple users to share the Internet connection via Ethernet port. The LAN devices share the same IP from ISP through Wireless port. While connecting to Internet, the Ethernet port works as a WAN port.

  ➢ **WISP:** In this mode, the device enables multiple users to share Internet connection from WISP. The LAN port devices share the same IP from WISP through Wireless port. While connecting to WISP, the Wireless port works as a WAN port. The Ethernet port acts as a LAN port.

  ➢ **Access Point:** In this mode, this device can be connected to a wired network and transform the wired access into wireless that multiple devices can share together, especially for a home, office or hotel where only wired network is available.

  ➢ **Range Extender:** In this mode, this device can copy and reinforce the existing wireless signal to extend the coverage of the signal, especially for a large space to eliminate signal-blind corners.
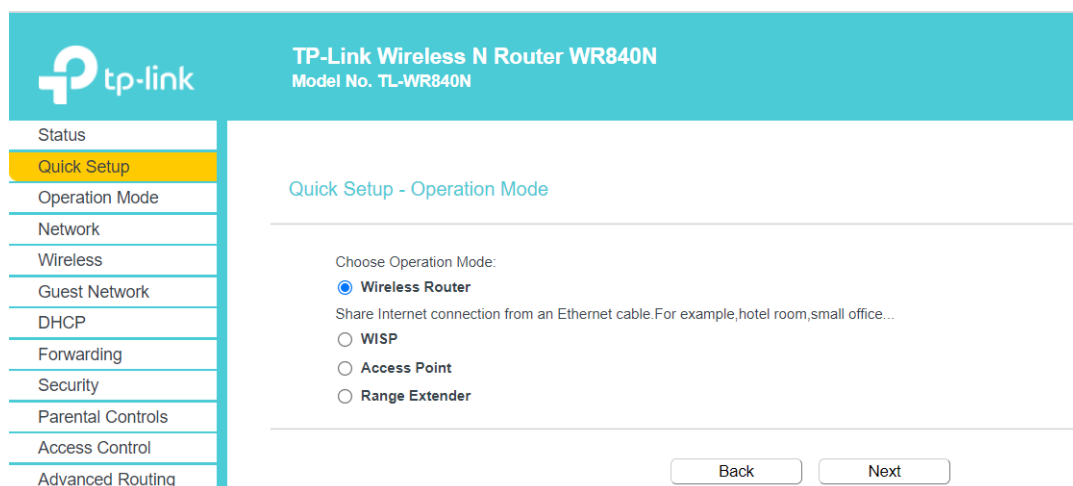

Figure 6: Operation Mode.

In this part, we will choose Wireless Router as operation mode of our device. Then click next to proceed.

6. Choose the WAN Type Connection.

➢ **Auto Detect** - If you do not know the connection type your ISP provides, use this option to allow the Quick Setup to search your Internet connection for servers and protocols and determine your ISP configuration.

➢ **Dynamic IP** - When the Router connects to a DHCP server, or the ISP supplies you with DHCP connection, please choose this type. The Router will get the IP address automatically from the DHCP server or the ISP if you choose the Dynamic IP type.

➢ **Static IP** - Your ISP provide you specified IP parameters.

➢ **PPPoE/Russia PPPoE** - If you have applied ADSL to realize Dial-up service, you should choose this type. Under this condition, you should fill in both the User Name and Password that the ISP supplied.

➢ **L2TP/Russia L2TP** - In this type, you should fill in the username, password and IP address/Domain name of VPN Server.

➢ **PPTP/Russia PPTP** - In this type, you should fill in the username, password and IP address/Domain name of VPN Server.
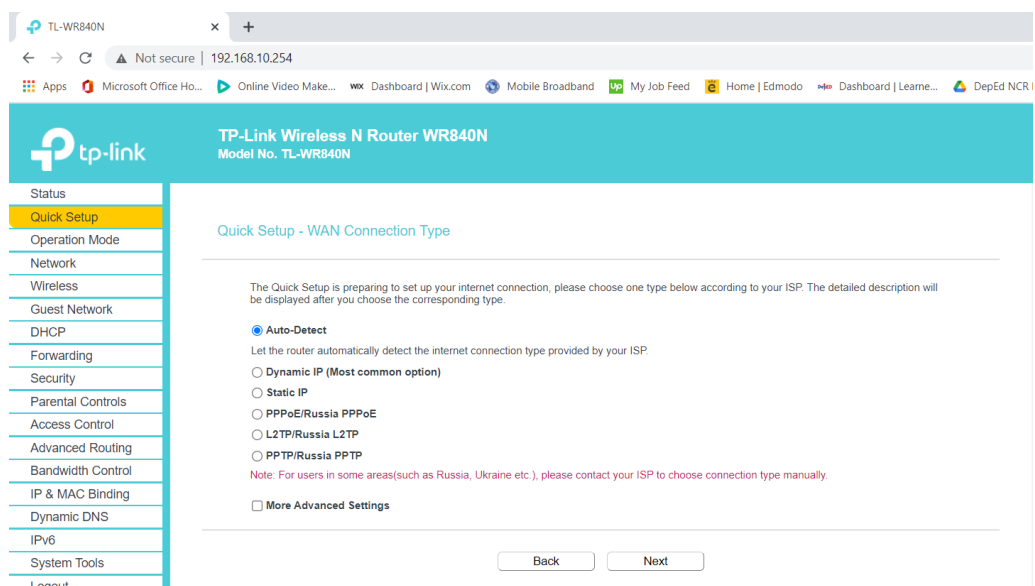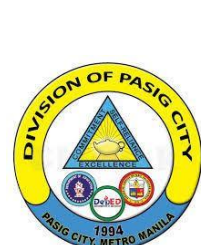

Figure 7: WAN Connection Type

Choose to **Auto Detect** then click next.

7. Cloning MAC Address.

Figure 8: MAC Clone

  Most Cable ISPs (Internet Service Provider) register the unique MAC Address from the wired connection on your MAIN COMPUTER - the last computer used to be connected with the Cable Modem and had Internet connection. If you add a router to the network, your ISP may not recognize the MAC address of the router and not allow it to connect. However, TP-Link router can "clone" or replicate the registered MAC address of the MAIN COMPUTER. Then your ISP can release the Internet connection to the router and all the computers.

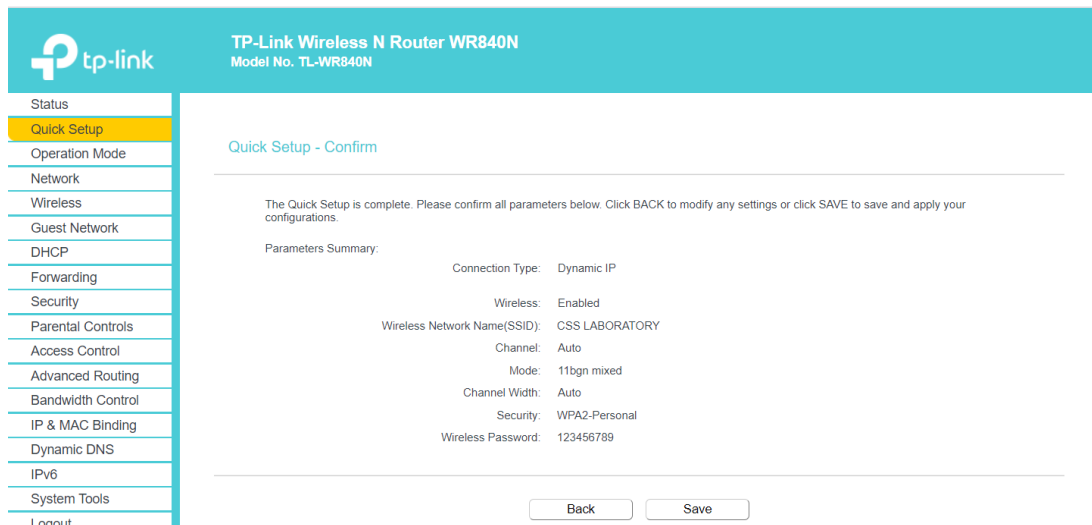8. Setting Wireless Network. In this part, you'll be providing Network Name (SSID) & Security for your wireless network.

Figure 9: Wireless Setup
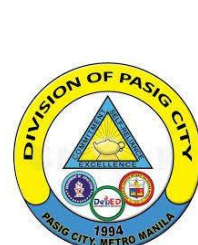
9. The last step is to review and confirm your setup. In this part, you will confirm all parameters. Click the Save button to save all the parameters, or the Back button to return to the previous page.

Figure 10: Confirming Setup

Once you finish the configuration, the router will restart to take effect of the changes you made. In case you want to change again some of the settings you made, simply repeat the process of running Quick Setup.
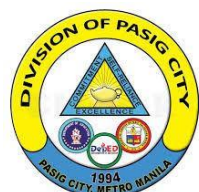
▶️ ACTIVITIES

Activity # 1:

Directions: Using the diagram, enumerate the procedures configuring basic parameter of router through running Quick Setup.

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6

Step 7

Step 8

Step 9

WRAP–UP

DIRECTION: Complete the following sentences base on what you've learn.

1. A network router is use to _____
_____
_____
_____.

2. What are the parameters that should be configured in running Quick Setp?
_____
_____
_____
_____.

VALUING

DIRECTION: Read the following questions carefully. State your answer in two to three sentences each number on the space provided.

1. What do you think are the importance of learning the procedures in running Quick Setup?
_____
_____
_____
_____
_____
_____.

2. Why is it important to secure your wireless network?
_____
_____
_____
_____
_____
_____.

POST TEST

Directions: Read the following statement carefully. Write **T** if the statement is correct and **F** for the wrong statement.

1. Router configurations can be done in wired and wireless mode.
2. Most Router Manufacturers use **192.168. 0.1** or **192.168. 1.1** as the default LAN IP address.
3. A browser can be used to configure router.
4. If the router cannot be accessed using the default setting, you may reset it by pressing the reset button to restore its default setup.
5. Running Quick Setup can help you configure router easily.

KEY TO CORRECTION