CompTIA Linux+

Access the Linux System

Introduction

Welcome to the **Access the Linux System** Practice Lab. In this module you will be provided with the instructions and devices needed to develop your hands-on skills.

Accessibility
Linux System
CentOS
PuTTY

Learning Outcomes

In this module, you will complete the following exercise:

- Exercise 1 - Access the Linux system

After completing this lab, you will be able to:

- Configure Network on CentOS
- Connect With CentOS Using PuTTY
- Connect to Windows from CentOS

Exam Objectives

The following exam objectives are covered in this lab:

- **LPI:** 110.1 Perform security administration tasks
- **LPI:** 106.2 Graphical Desktops
- **CompTIA:** 4.3 Given a scenario, analyze and troubleshoot user issues.

Note: *Our main focus is to cover the practical, hands-on aspects of the exam objectives. We recommend referring to course material or a search engine to research theoretical topics in more detail.*

Lab Duration

It will take approximately **1 hour** to complete this lab.

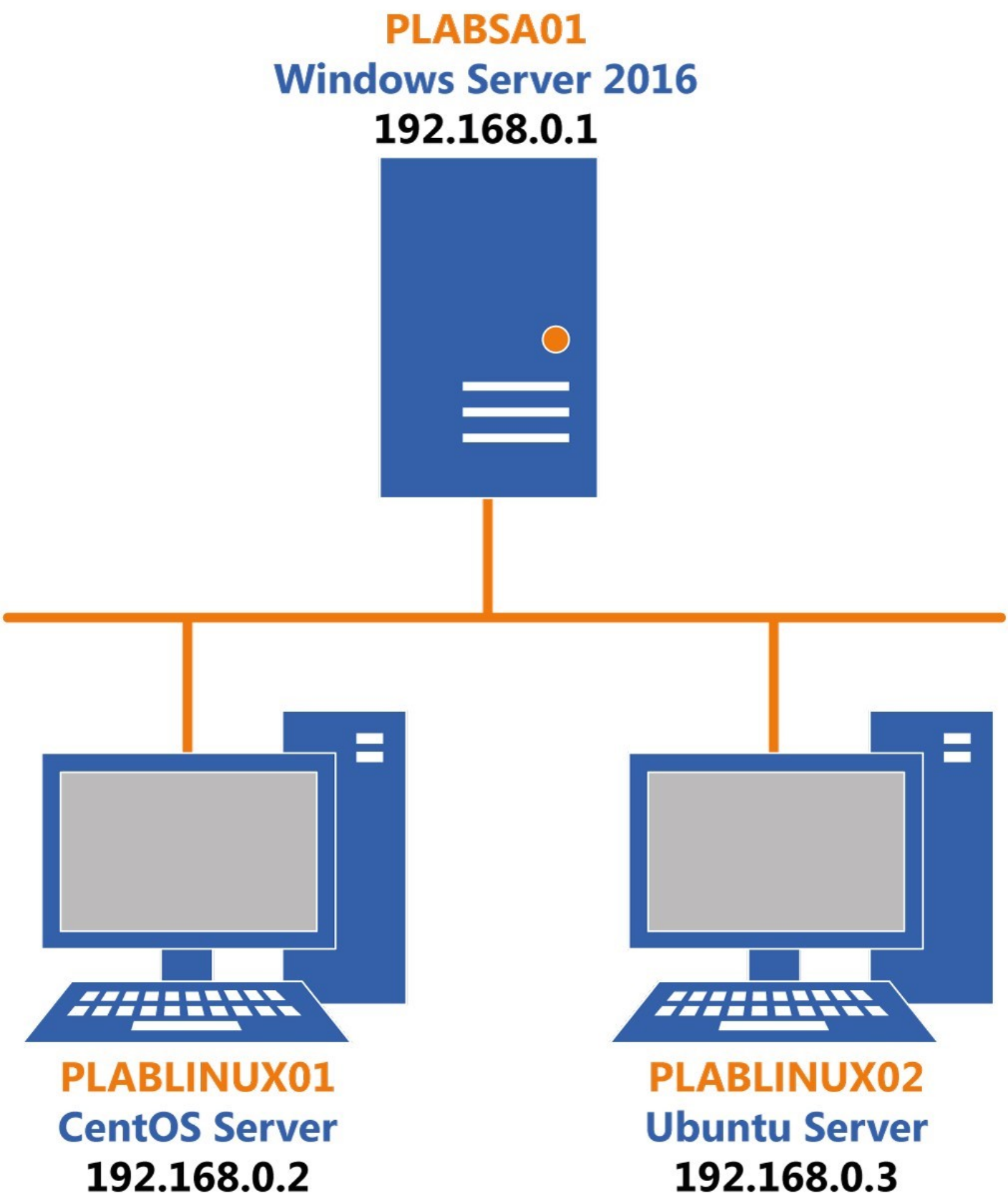
Help and Support

For more information on using Practice Labs, please see our **Help and Support** page. You can also raise a technical support ticket from this page.

Click Next to view the Lab topology used in this module.

Lab Topology

During your session, you will have access to the following lab configuration.



Depending on the exercises you may or may not use all of the devices, but they are shown here in the layout to get an overall understanding of the topology of the lab.

- **PLABSA01** (Windows Server 2016)
- **PLABLINUX01** (CentOS Server)
- **PLABLINUX02** (Ubuntu Server)

Click Next to proceed to the first exercise.

Exercise 1 - Access the Linux System

A Linux system, just like any other operating system, can either be used in person or remotely. You can access the Linux system remotely or use the Linux system to access another system, such as Windows.

In this exercise, you will learn to access a Linux system using different methods.

Learning Outcomes

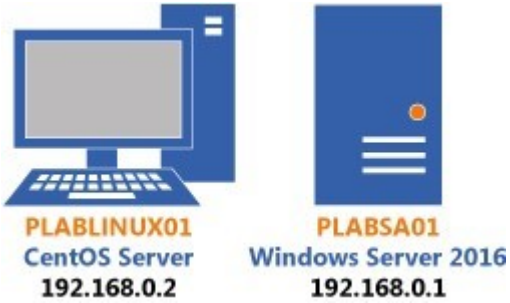
After completing this exercise, you will be able to:

- Log into a Linux System
- Configure Network on CentOS
- Connect With CentOS Using PuTTY
- Connect to Windows from CentOS

Your Devices

You will be using the following devices in this lab. Please power these on now.

- **PLABSA01** (Windows Server 2016)
- **PLABLINUX01** (CentOS Server)



Task 1 - Configure Network on CentOS

For a client to communicate on the network, it needs to have an IP address. If the client exists on the IPv4 network, then the client must have an IPv4 address. On the IPv6 network, the client must have IPv6 address.

In this task, you will configure an IP address on the client. To do this, perform the following steps:

Step 1

Connect to **PLABLINUX01**.

Click **Applications**, select **System Tools**, and then select **Settings**.

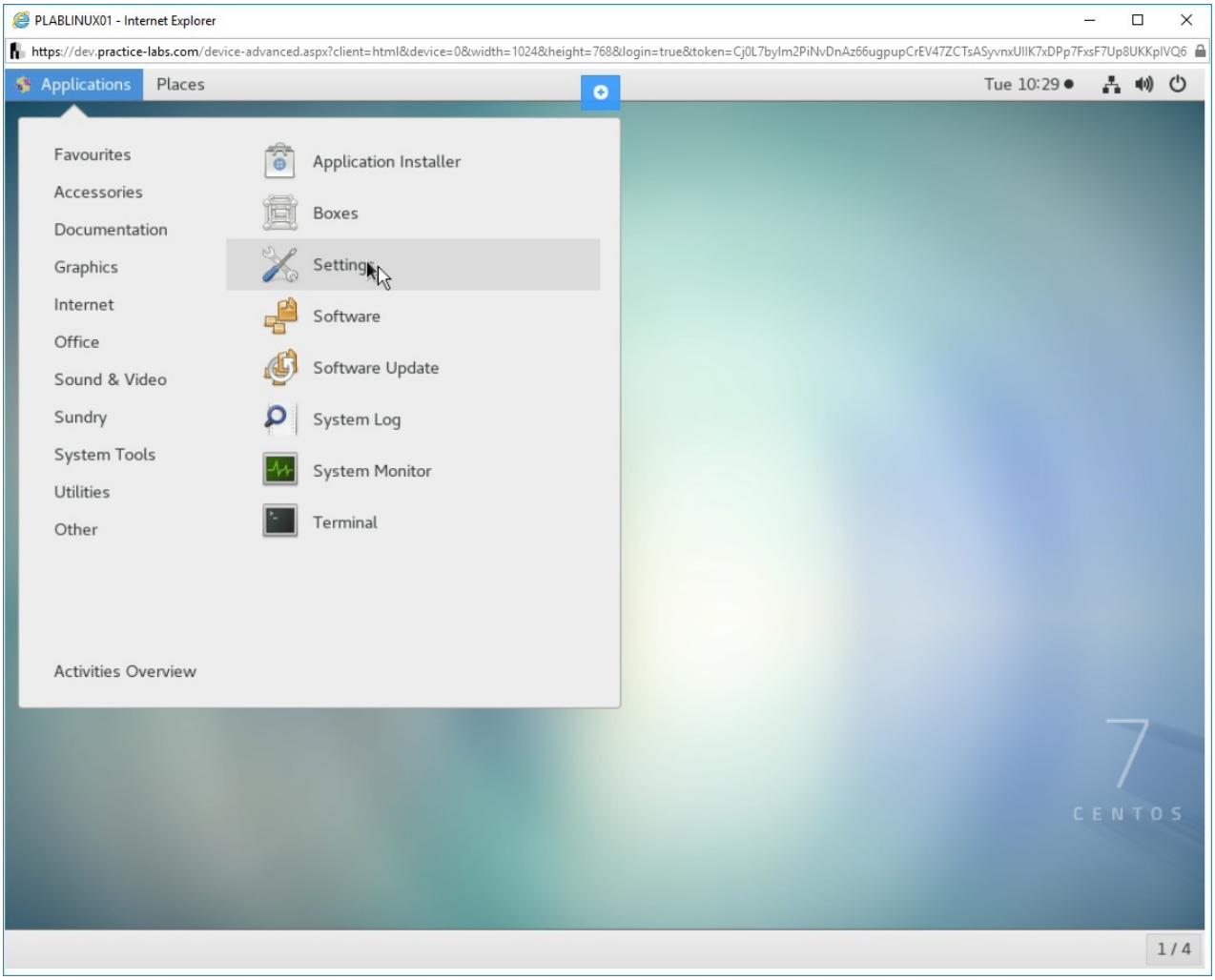


Figure 1.1 Screenshot of PLABLINUX01: Selecting the Settings option from the Applications > System Tools menu.

> ***Note:*** *Settings can also be accessed by clicking any of the* ***3 icons*** *in the top right of the* ***toolbar****, then selecting the* ***Settings*** *option in the bottom left of the pop-up window.*

Step 2

From the **Settings** window, click **Network** in the left pane and then click the gear icon next to **ON** in the **Wired** section.

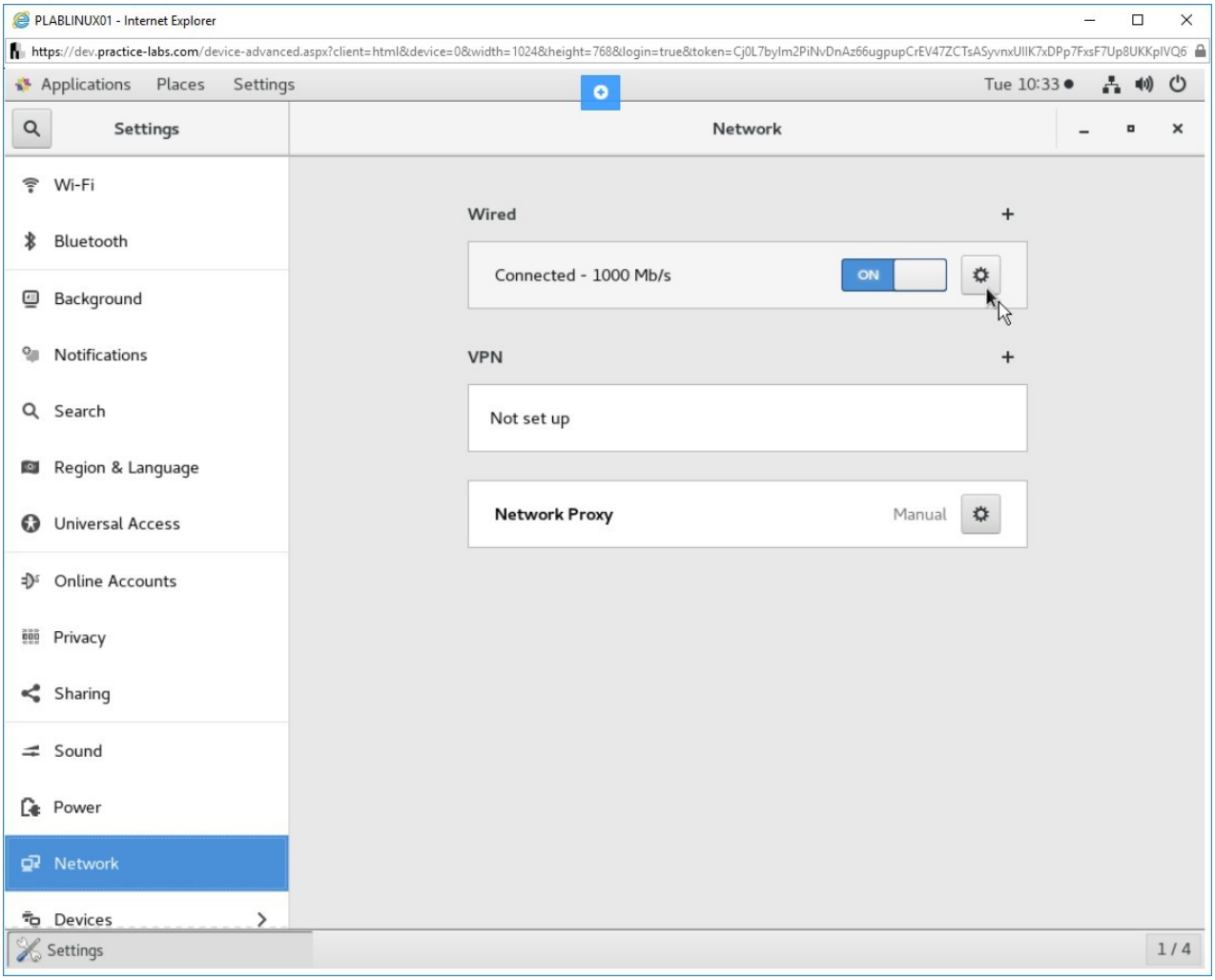


Figure 1.2 Screenshot of PLABLINUX01: Clicking the button to invoke the Wired dialog box.

Step 3

In the **Wired** dialog box, click the **IPv4** tab.

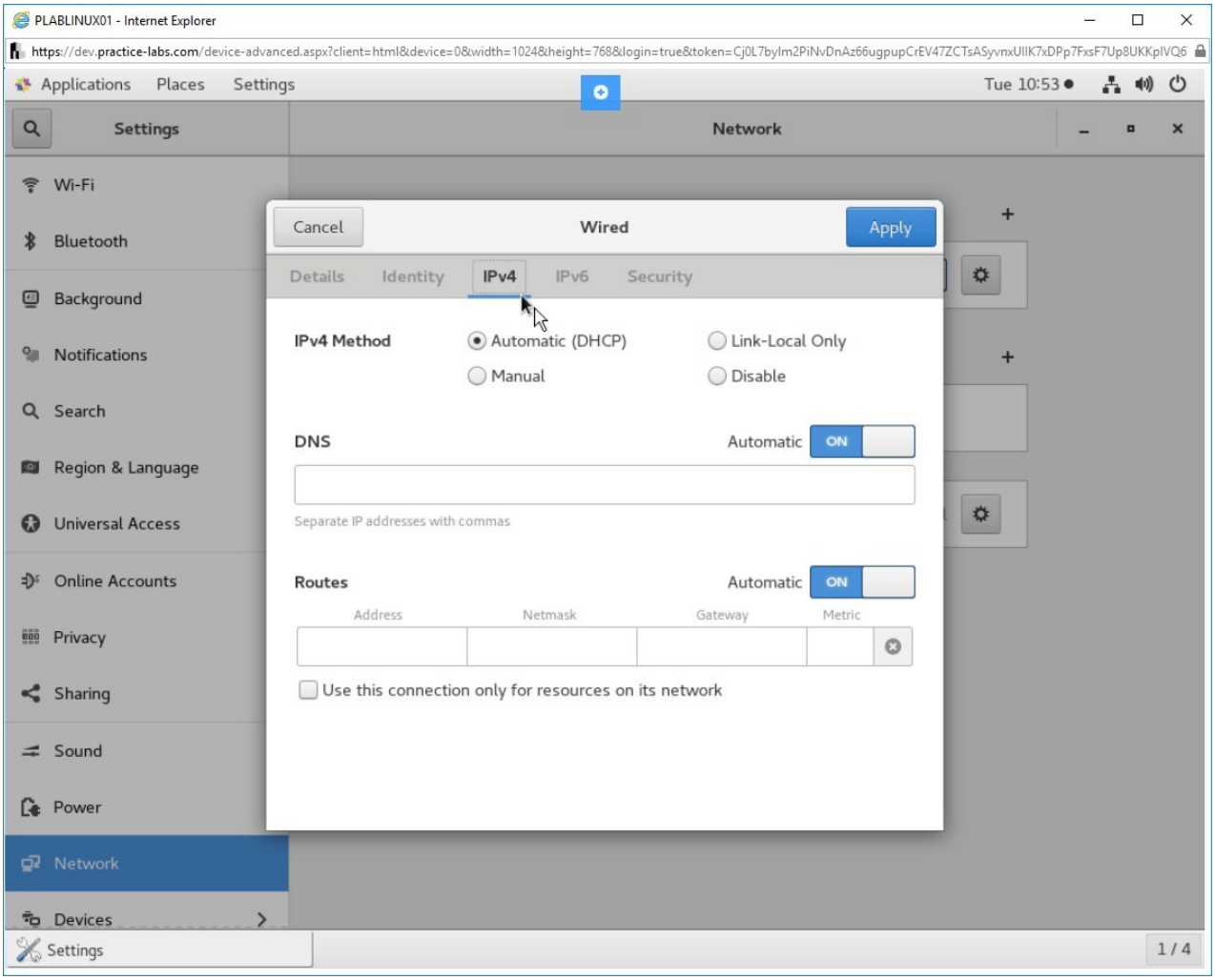


Figure 1.3 Screenshot of PLABLINUX01: Selecting the IPv4 tab in the Wired dialog box.

Step 4

Select **Manual** and ensure that the following details are entered:

Address:

```
192.168.0.2
```

Netmask:

```
255.255.255.0
```

Gateway:

```
192.168.0.250
```

Click **Apply**.

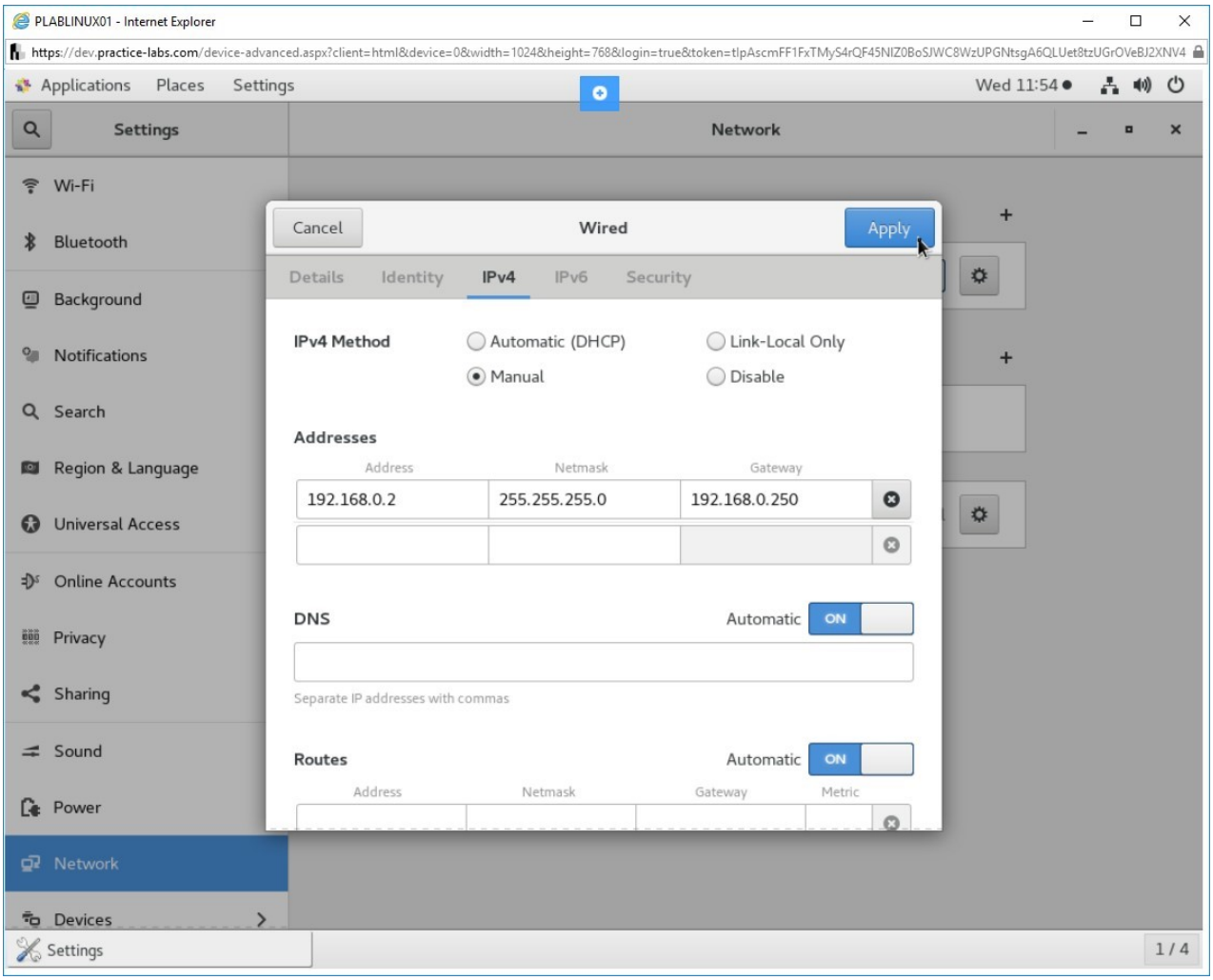


Figure 1.4 Screenshot of PLABLINUX01: Entering the network information and then clicking the Apply button.

Step 5

The **Wired** dialog box is closed automatically. Close the **Settings** window.

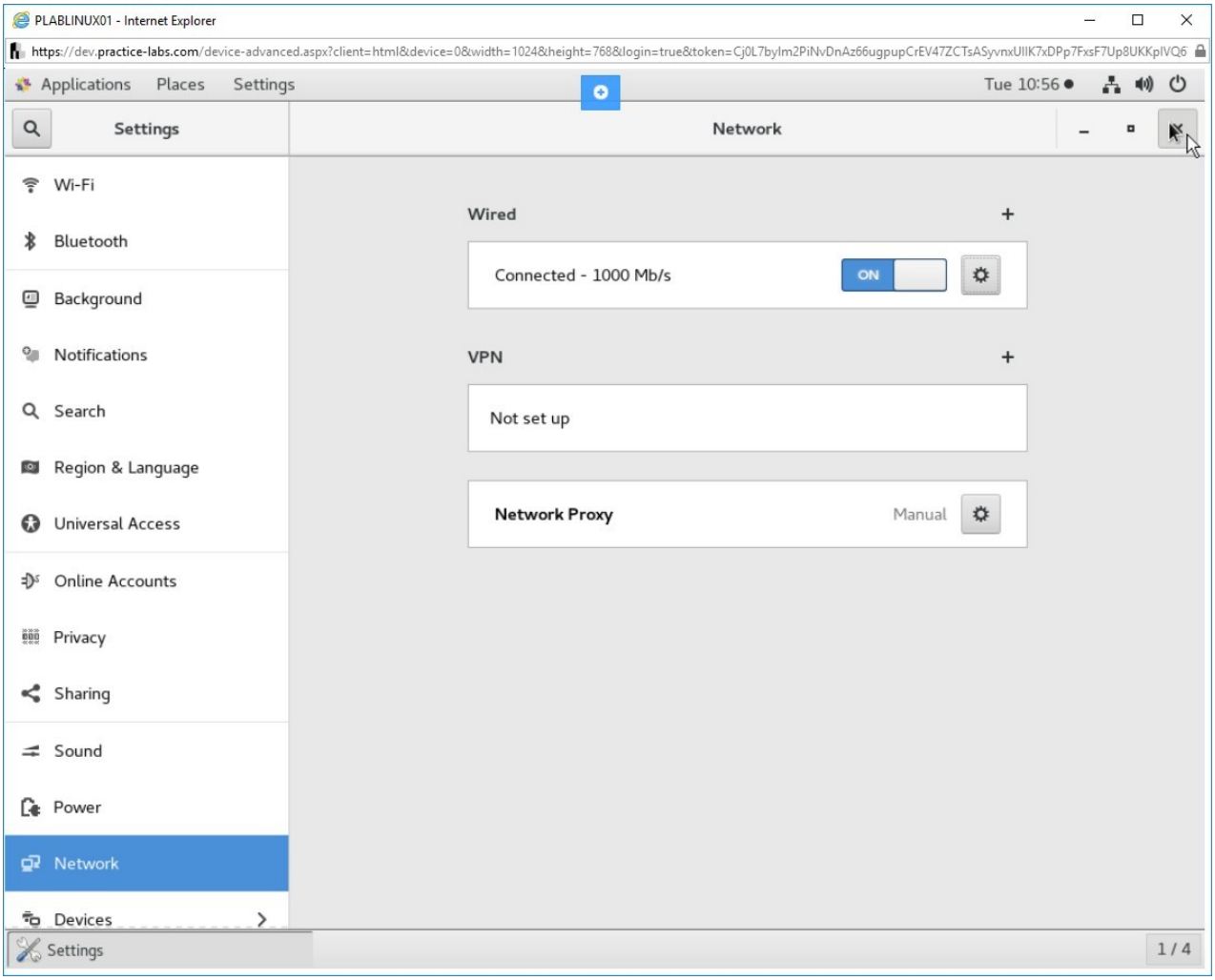


Figure 1.5 Screenshot of PLABLINUX01: Displaying the Settings window.

Task 2 - Connect With CentOS Using PuTTY

To perform any operations on a system, you need to log into the system. In this task, you will log into a CentOS Linux system on the lab.

To log into a Linux system, perform the following steps:

Step 1

Ensure that the required devices are powered on. Connect to **PLABSA01**.

The **Server Manager** window is displayed automatically. You can close the **Server Manager** window.

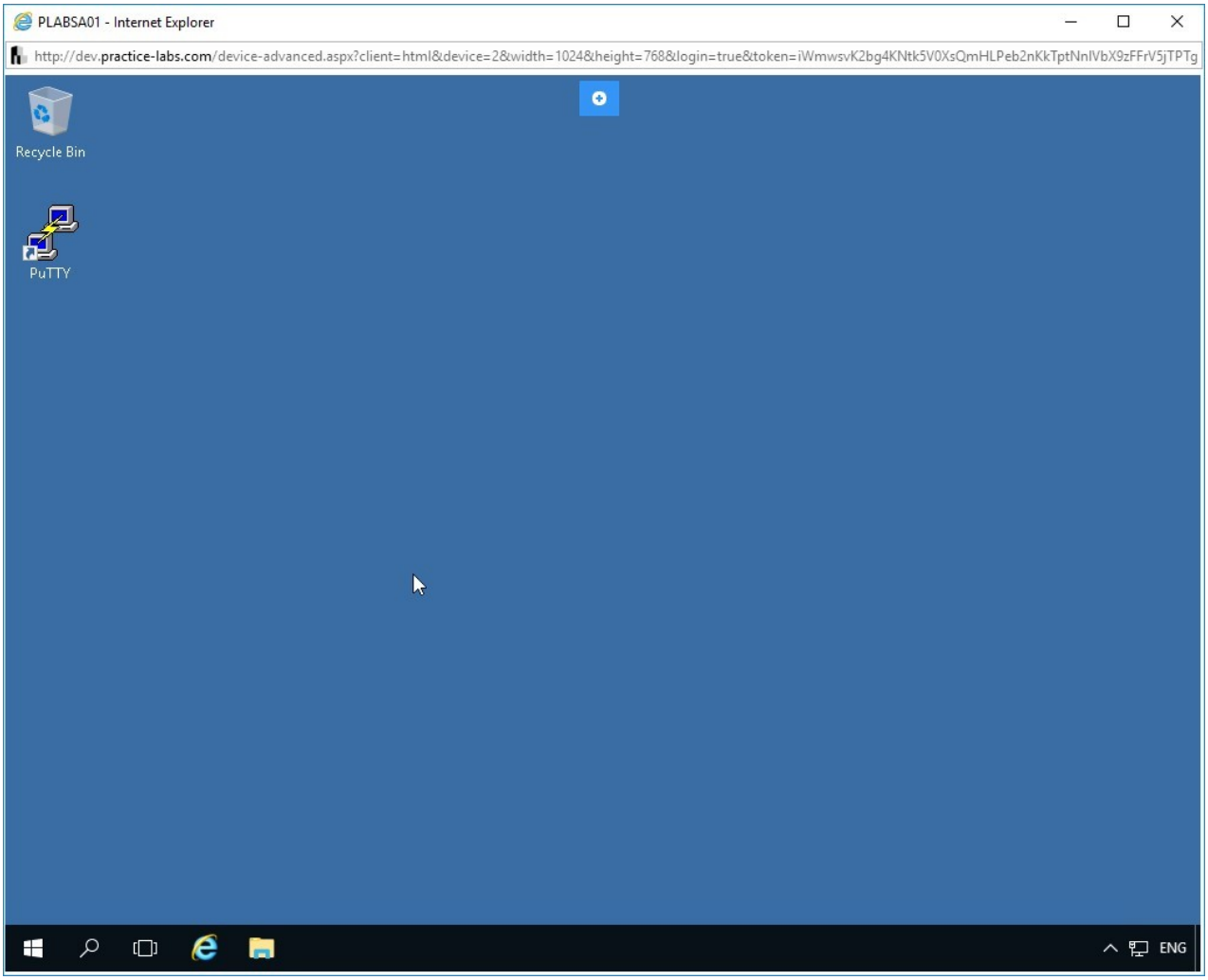


Figure 1.6 Screenshot of PLABSA01: Displaying the PLABSA01 desktop.

Step 2

On the desktop, double-click the **Putty** icon to launch PuTTY.

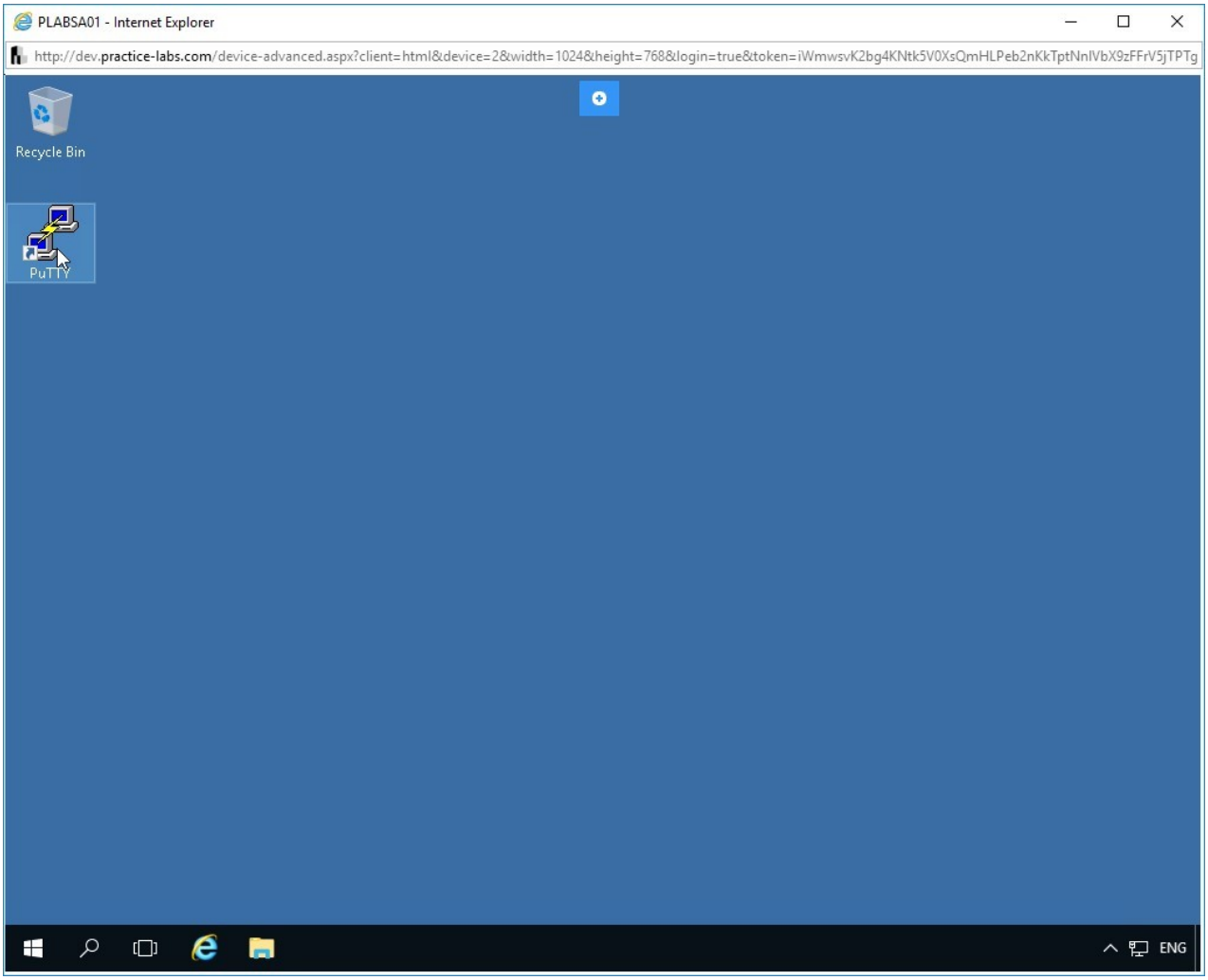


Figure 1.7 Screenshot of PLABSA01: Double-clicking the PuTTY icon.

Step 3

On the **PuTTY Configuration** dialog box, In the Host Name (or IP address) text box, type the following:

```
192.168.0.2
```

Ensure **SSH** is selected as the **Connection** type.

Click **Open**.

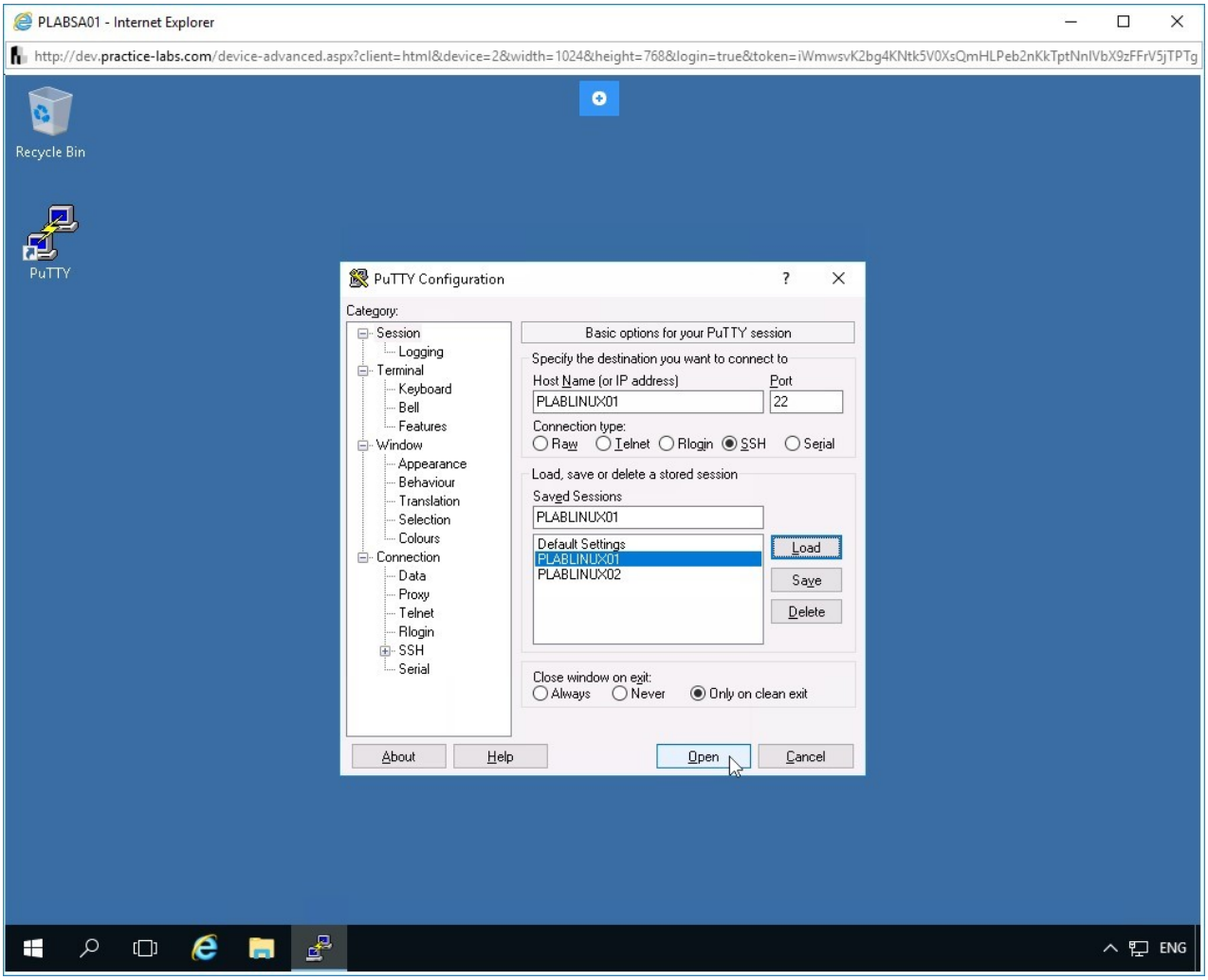


Figure 1.8 Screenshot of PLABSA01: Loading the PLABLINUX01 configuration.

Step 4

Notice that the SSH session window launches. Along with this window, the **PuTTY Security Alert** dialog box is displayed. Click **Yes**.

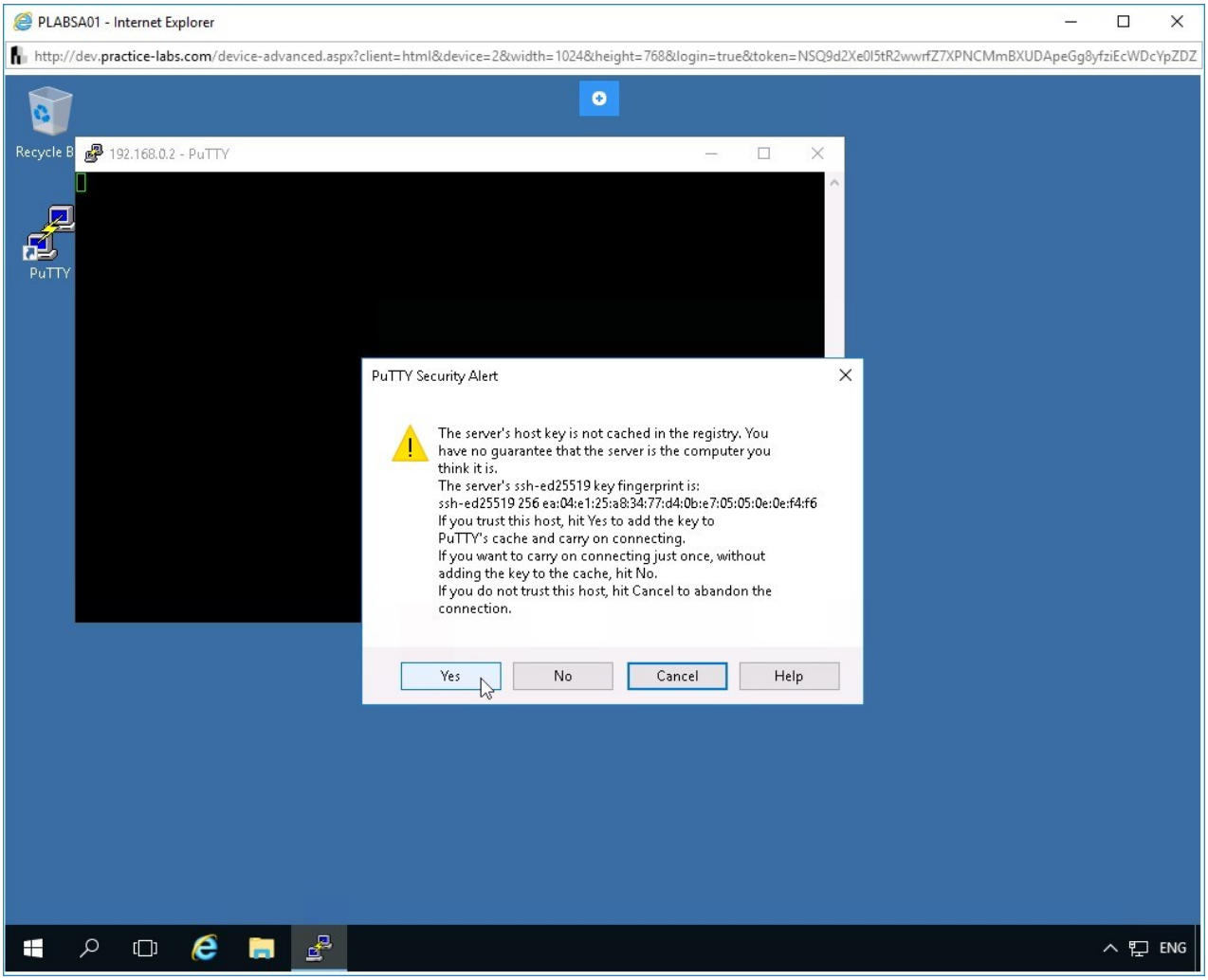


Figure 1.9 Screenshot of PLABSA01: Loading the PLABLINUX01 configuration.

The **login as:** prompt is displayed.

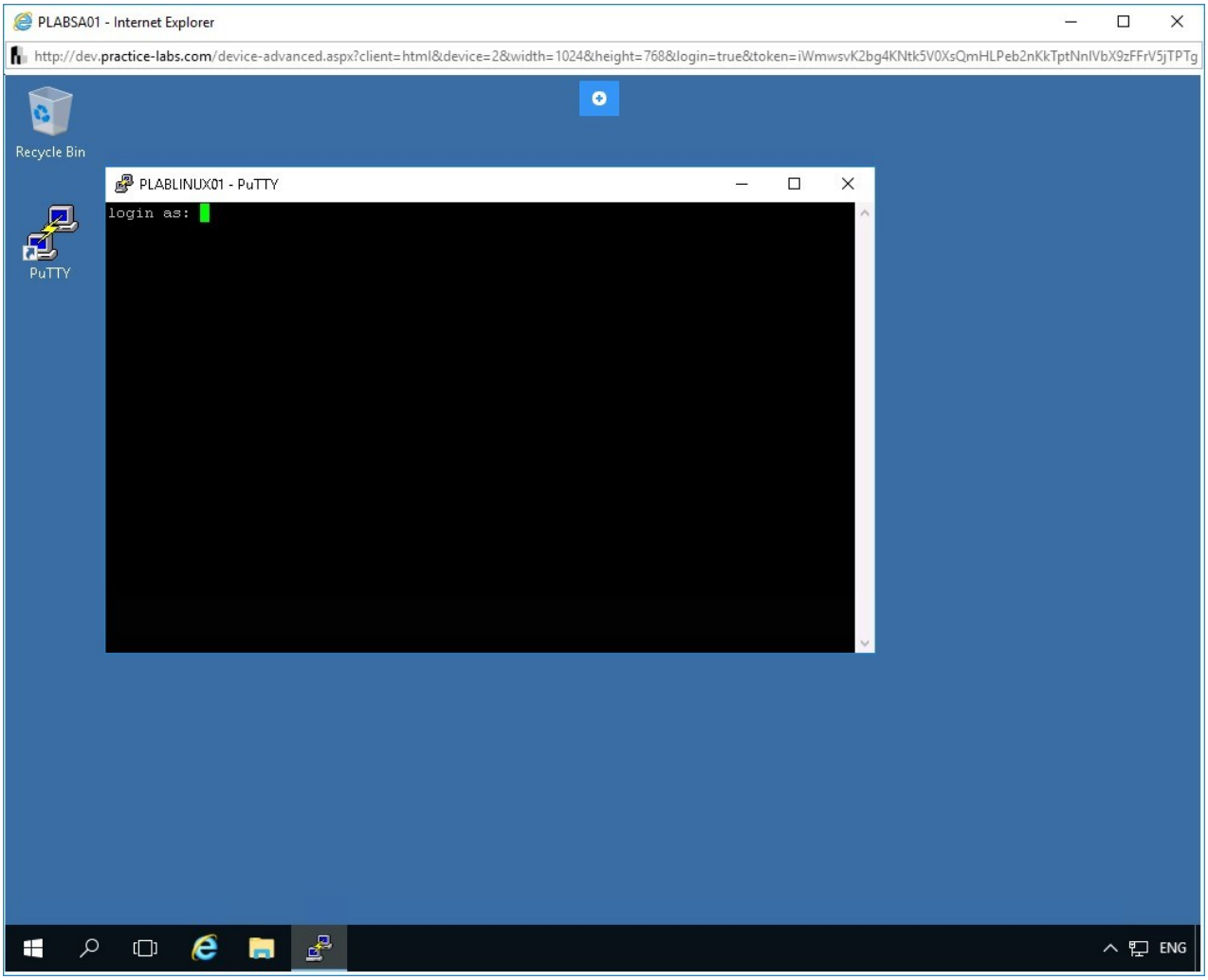


Figure 1.10 Screenshot of PLABSA01: Displaying the SSH session window.

Step 5

On the login screen, enter **root** as the login ID.

Press **Enter**.

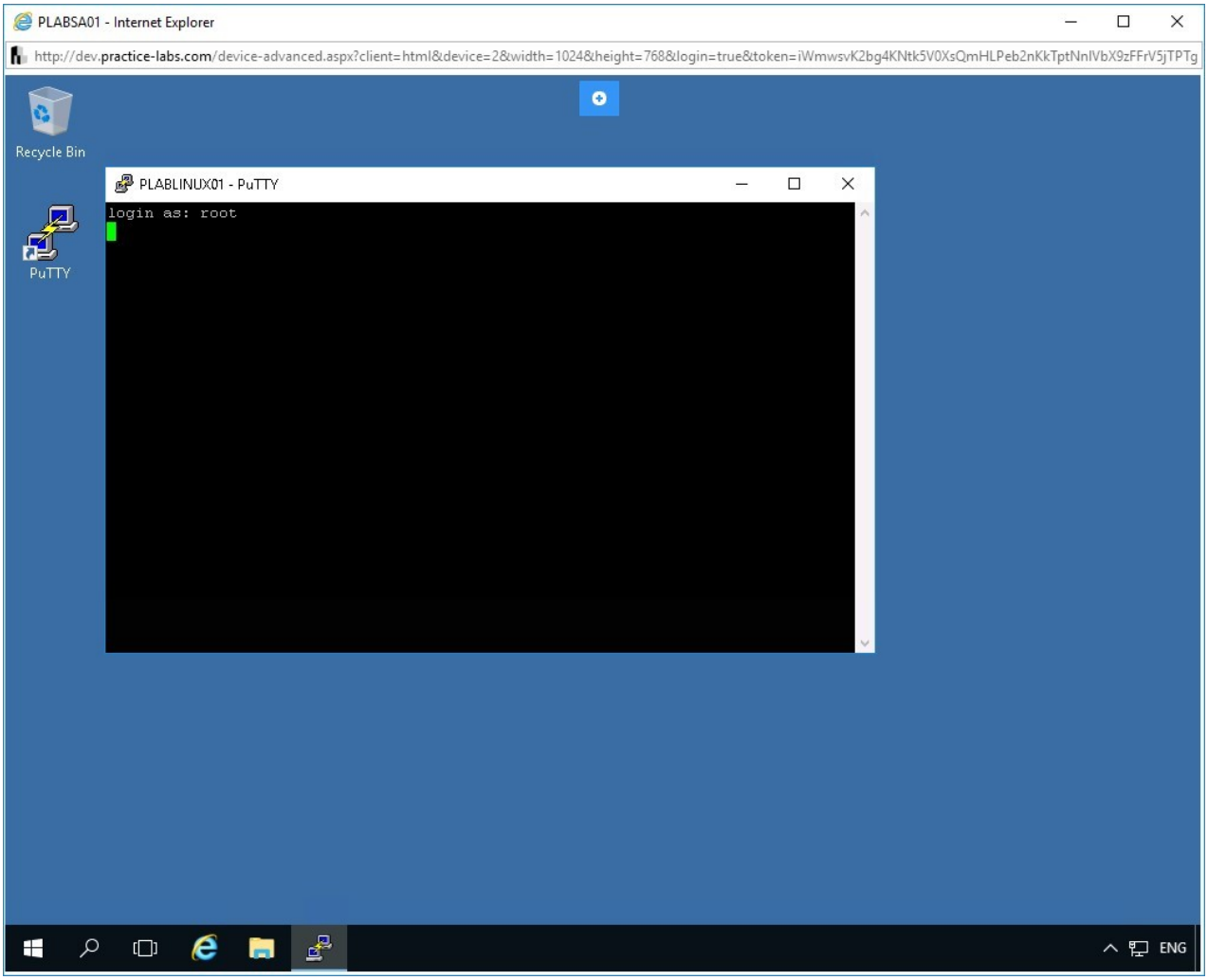


Figure 1.11 Screenshot of PLABSA01: Entering root login ID at the login prompt.

Step 6

Wait for a couple of seconds to let the **root@PLABLINUX01** password prompt appear.

On the prompt, enter `Passw0rd`.

Press **Enter**.

> ***Note:*** *Unlike Windows, the username is case-sensitive on Linux systems. Also, the password field does not show any characters, so input the password above and press enter.*

You have successfully logged into the **PLABLINUX01** system.

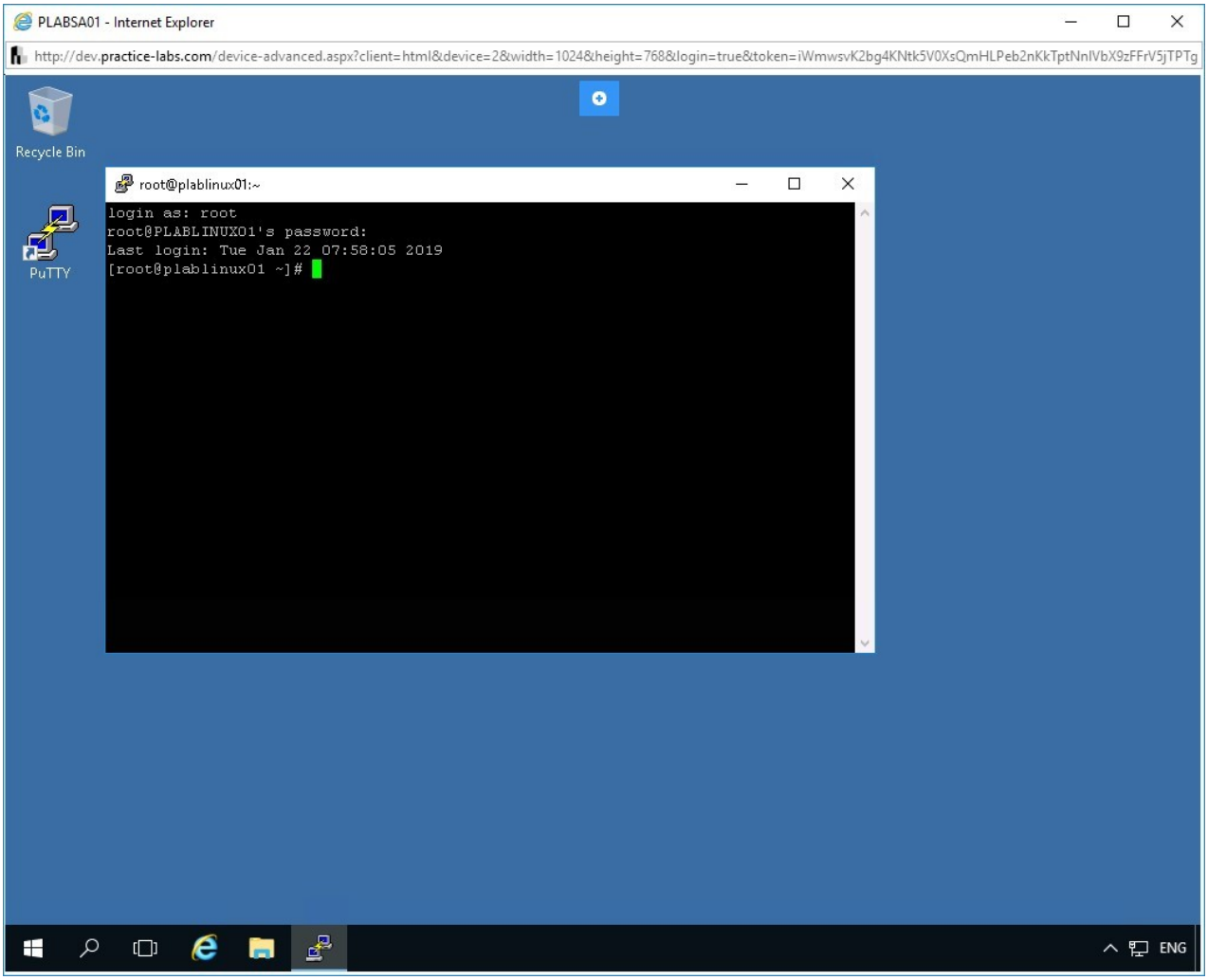


Figure 1.12 Screenshot of PLABSA01: Entering and re-entering the password.

Task 3 - Connect to Windows from CentOS

RDP, Remote Desktop Protocol, is mainly used to connect a Windows system. Mostly, Windows systems use this protocol. However, you can configure a CentOS system to connect to Windows using RDP. In this task, you will use freerdp package that will help to connect with the Windows system using a remote session.

In this task, you will learn to connect to Windows from CentOS. To do this, perform the following steps:

Step 1

Ensure you are connected to **PLABLINUX01**. On the desktop, right-click and select **Open Terminal**.

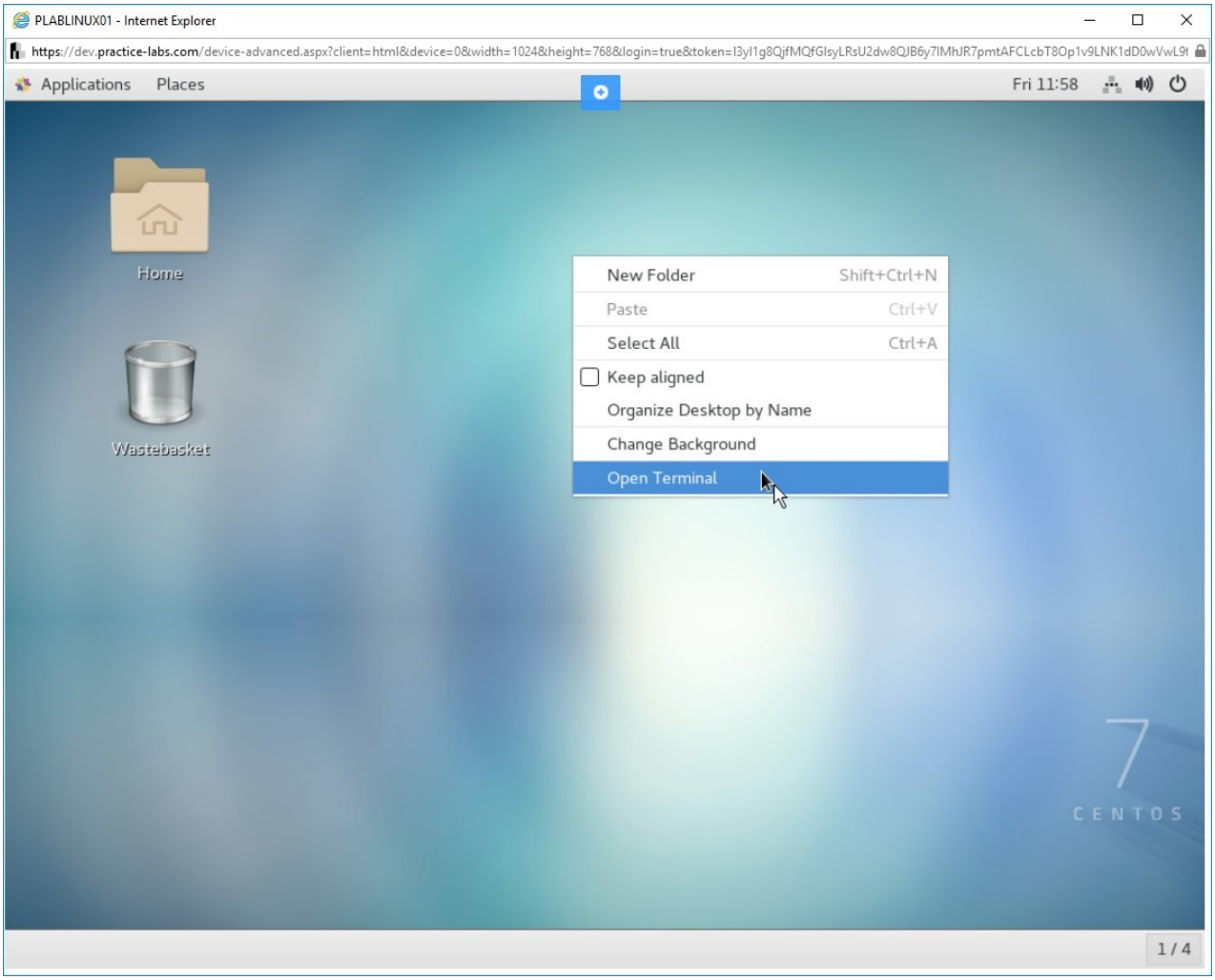


Figure 1.13 Screenshot of PLABLINUX01: Selecting the Open Terminal option from the context menu.

Step 2

The terminal prompt window is displayed. Type the following command:

```
su -
```

Press **Enter**.

At the **Password** prompt, type the following password:

`Passw0rd`

Press **Enter**.

Step 3

Clear the screen by entering the following command:

```
clear
```

Before installing freerdp, you need to install the Desktop related components. Type the following command:

```
yum install "@X Window System" xorg-x11-xauth xorg-x11-
fonts-* xorg-x11-utils -y
```

Press **Enter**. Notice that when you add **-y**, the installation does not require any confirmation.

Step 4

When the installation is complete, you will see the **Complete!** message.

Step 5

Clear the screen by entering the following command:

```
clear
```

After installing the **Desktop** components, you need to install freerdp now. Type the following command:

```
yum install freerdp -y
```

Press **Enter**.

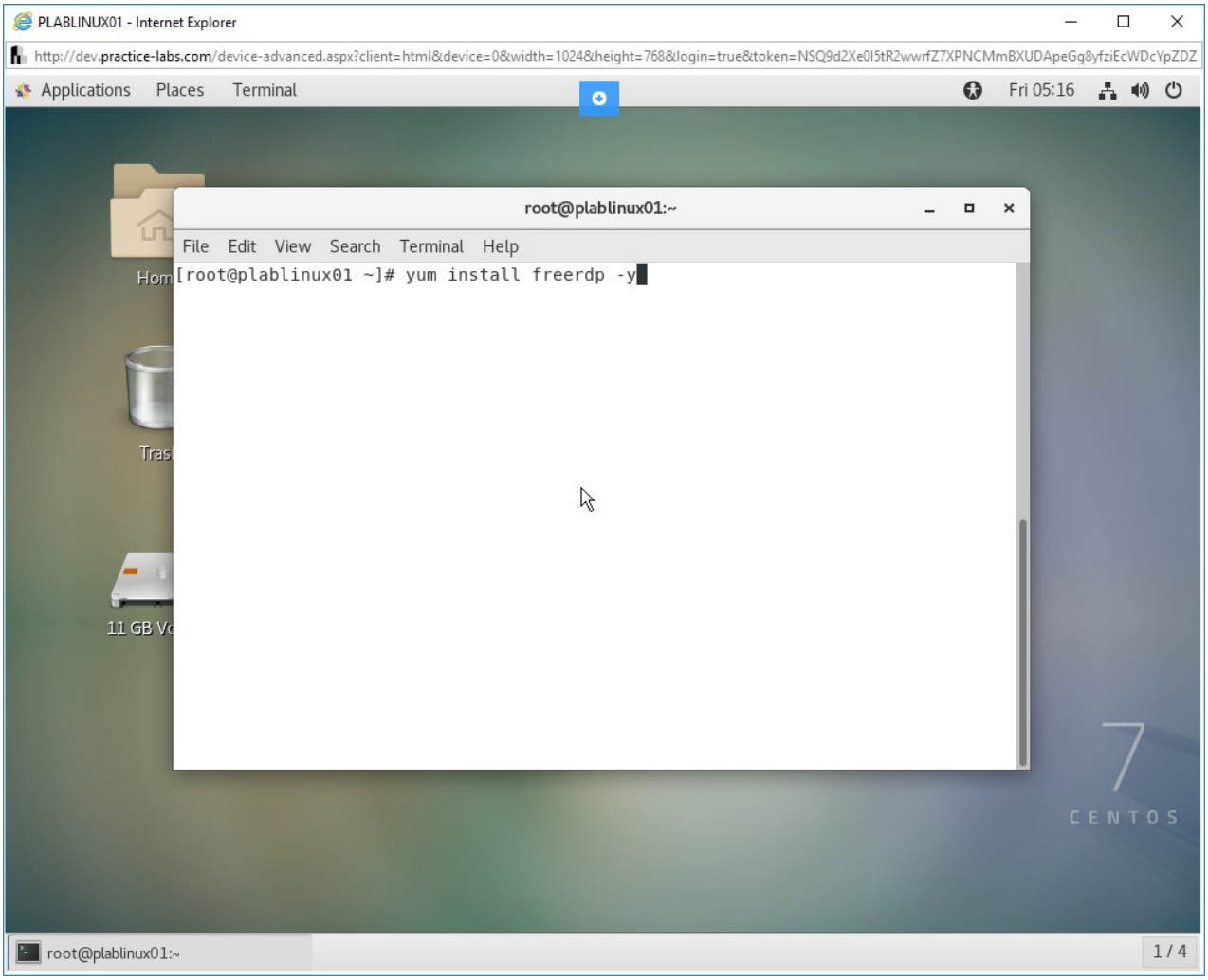


Figure 1.17 Screenshot of PLABLINUX01: Installing the freerdp.

Step 6

When the installation is complete, you will see the **Complete!** message.

Step 7

Clear the screen by entering the following command:

```
clear
```

You need to connect to the Windows system. Type the following command:

```
xfreerdp -g 800x600 -u administrator 192.168.0.1
```

Press **Enter**.

Step 8

You are prompted with a certificate name mismatch warning. Type the following command:

```
Y
```

Press **Enter**. You are then prompted for the password. Type the following password:

`Passw0rd`

Press **Enter**.

Step 9

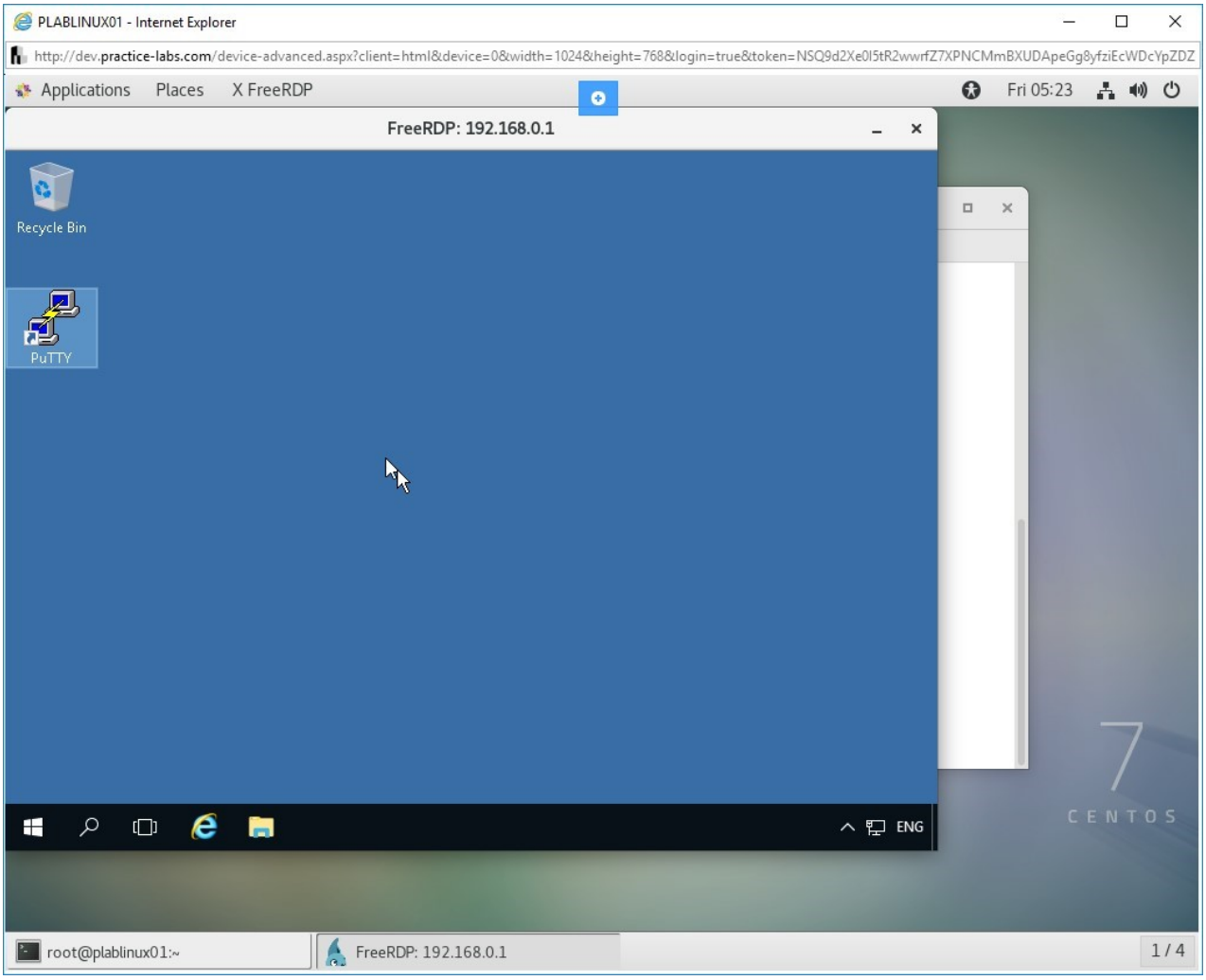


Figure 1.21 Screenshot of PLABLINUX01: Showing successful connectivity to Windows.

Keep all devices in their current state and proceed to the next exercise.

Review

Well done, you have completed the **Access the Linux System** Practice Lab.

Summary

You completed the following exercise:

- Exercise 1 - Access the Linux system

You should now be able to:

- Configure Network on CentOS
- Connect With CentOS Using PuTTY
- Connect to Windows from CentOS

Feedback

Shutdown all virtual machines used in this lab. Alternatively, you can log out of the lab platform.