

Configuring Port 445 for SMB

Server Message Block (SMB) is a file and print sharing protocol that allows applications on a computer to read and write to files and to request services from servers in a computer network. When using the SMB protocol, an application (or the user of an application) can access folders, files, printers and other resources at a remote server. SMB uses TCP port 445 by default.

To better understand this technology, also refer to your course material or use your preferred search engine to research this topic in detail.

Learning Outcomes

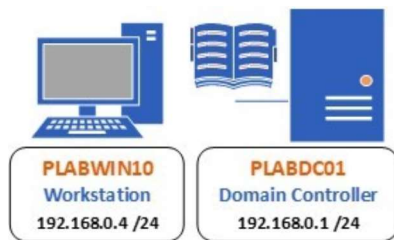
After completing this exercise, you will be able to:

- Configure port 445 for SMB

Your Devices

You will be using the following devices in this lab.

- **PLABDCo1** (Domain Controller - Windows Server 2016)
- **PLABWIN10** (Workstation - Windows 10)



Task 1 - Share a Folder from PLABDCo1

In this task, you will share a folder using SMB on a Windows Server 2016 device.

To share a folder using SMB on the **PLABDCo1** device, perform the following steps:

Step 1

On the **PLABDCo1**, minimize the **Server Manager** if it is still open, then click the **File Explorer** on the taskbar.

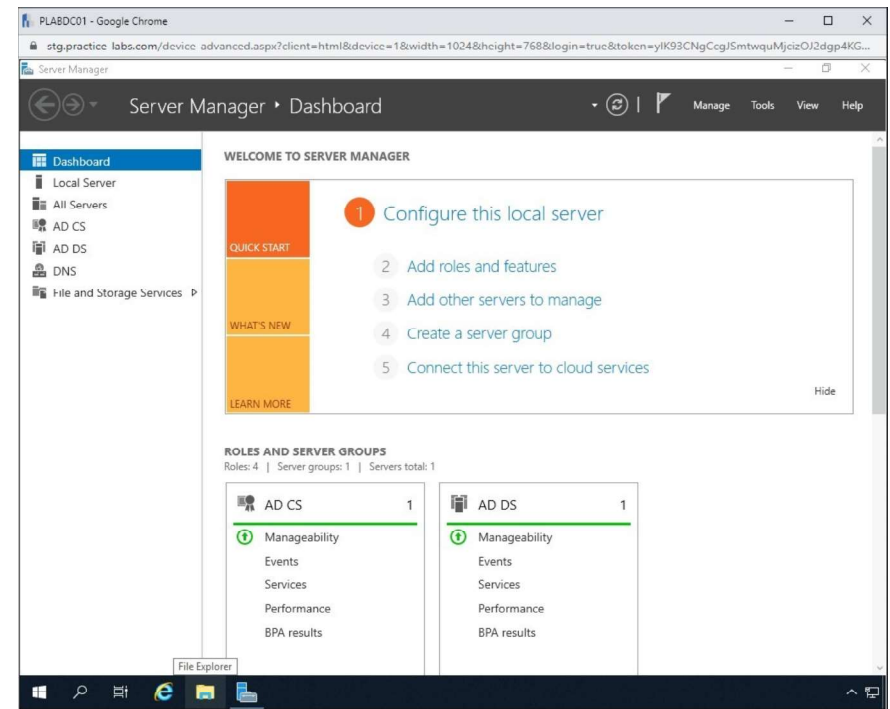


Figure 4.1 Screenshot of the PLABDCo1 desktop: File Explorer icon on the taskbar is highlighted on the PLABDCo1 Windows desktop.

Step 2

Navigate to the **Local Disk C** and create a folder called **CompanyData**.

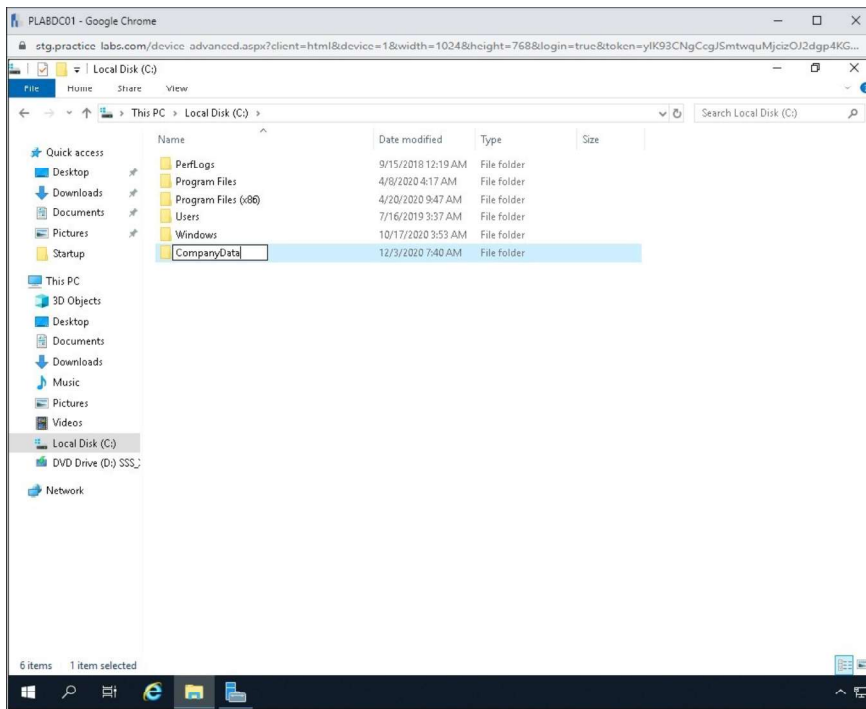


Figure 4.2 Screenshot of the PLABDC01 desktop: Local Disk (C drive) window is displayed listing the newly created folder.

Step 3

Right-click **CompanyData** and select **Properties**.

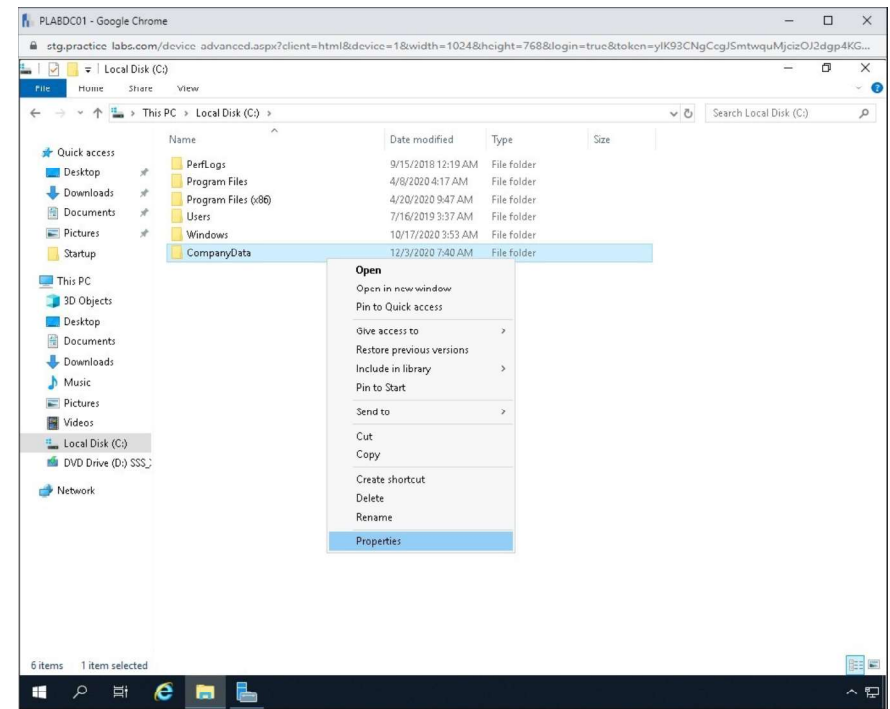


Figure 4.3 Screenshot of the PLABDC01 desktop: Context menu (that appears on right-clicking a folder) > Properties menu-options are displayed on the Local Disk (C drive) window.

Step 4

The **CompanyData Properties** dialog box appears.

On the **Sharing** tab of the dialog box, click the **Advanced Sharing** button on the **Advanced Sharing** panel.

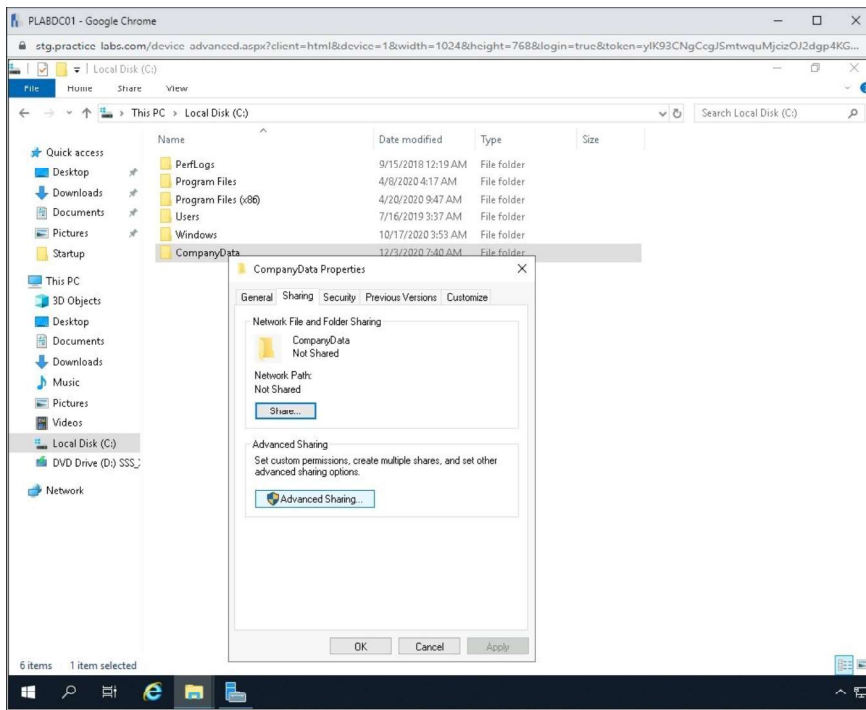


Figure 4.4 Screenshot of the PLABDC01 desktop: Sharing tab on the CompanyData Properties dialog box is displayed showing the Advanced Sharing button highlighted.

Step 5

On the **Advanced Sharing** dialog box, check the **Share this folder** checkbox.

Notice that **CompanyData** appears as the name of the folder to share.

Keep the other default values and click **Permissions**.

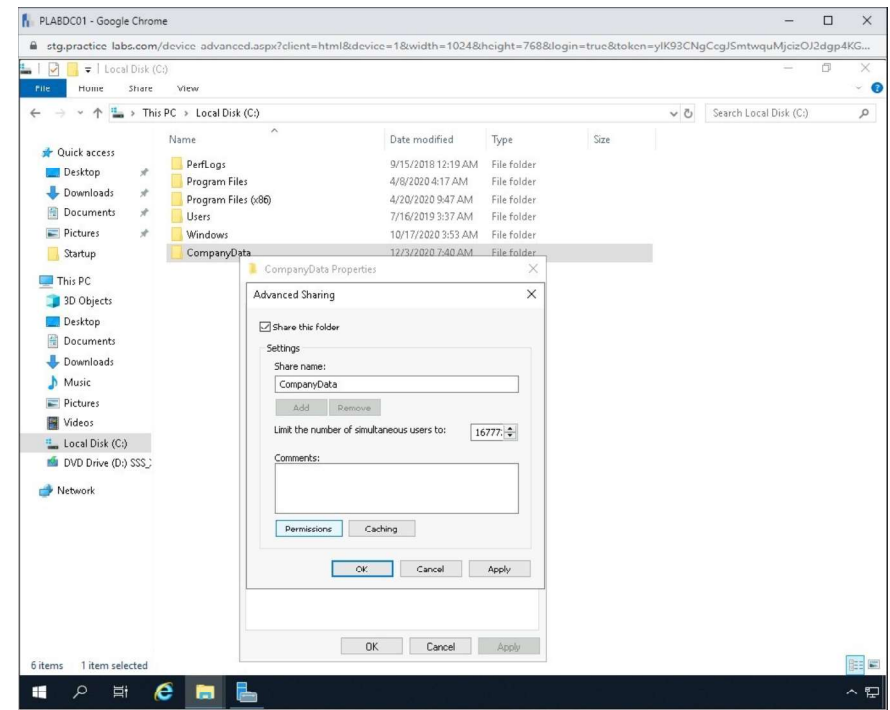


Figure 4.5 Screenshot of the PLABDC01 desktop: Advanced Sharing dialog box is displayed showing the required settings performed and the Permissions button highlighted.

Step 6

On the **Permissions for CompanyData** dialog box, review the default settings. Keep these settings and click **OK**.

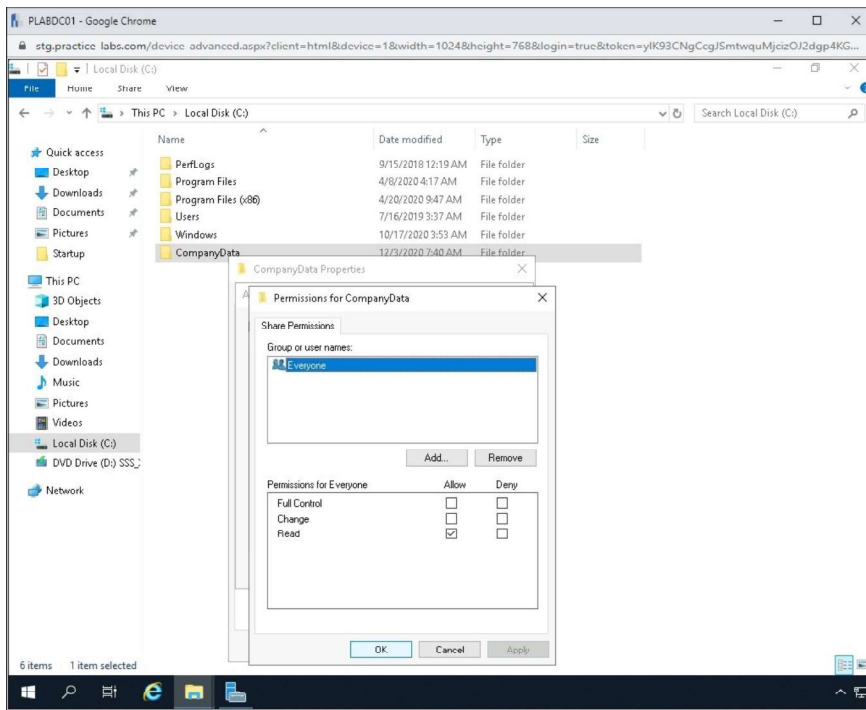


Figure 4.6 Screenshot of the PLABDC01 desktop: Permissions for CompanyData dialog box is displayed showing default settings, and the OK button highlighted.

Step 7

On the **Advanced Sharing** dialog box, click **OK** to save the changes.

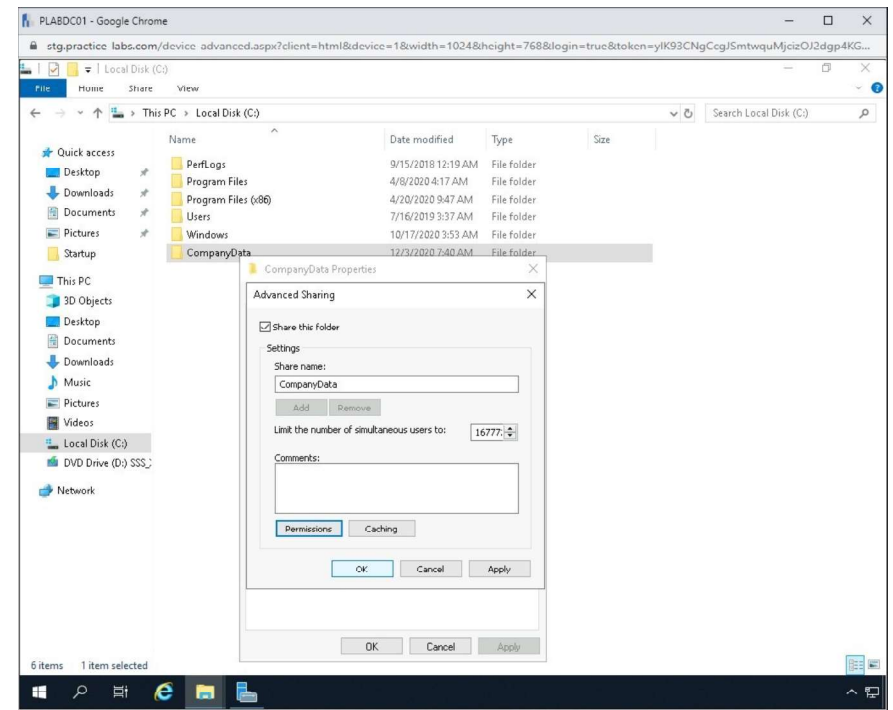


Figure 4.7 Screenshot of the PLABDC01 desktop: Advanced Sharing dialog box is displayed showing the OK button highlighted.

Step 8

On the **CompanyData Properties** dialog box, notice that the sharing status of the **CompanyData** folder is now changed to **Shared**.

Close the dialog box.

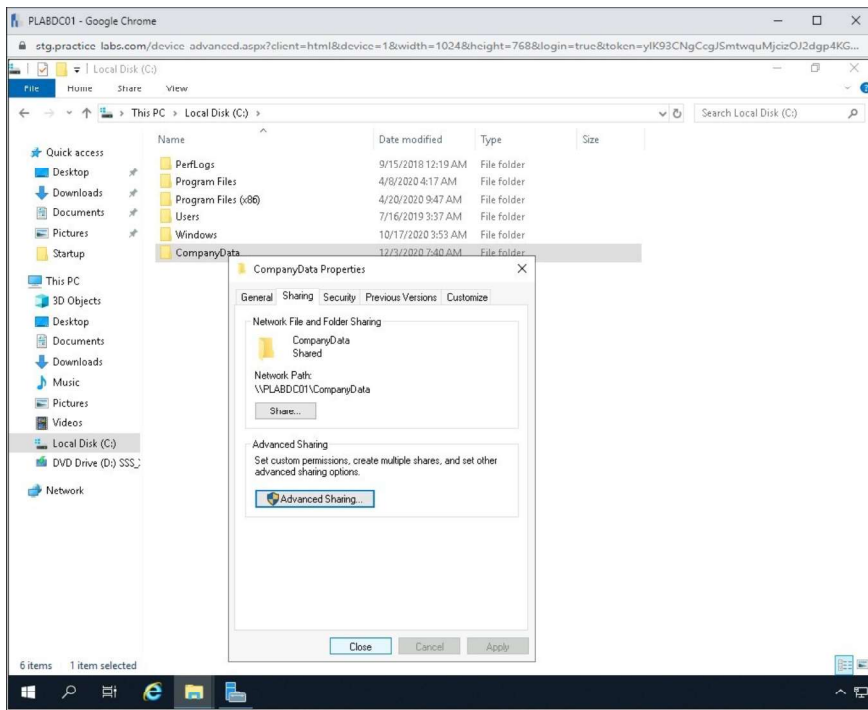


Figure 4.8 Screenshot of the PLABDC01 desktop: Sharing tab on the CompanyData Properties dialog box is displayed showing the updated sharing status of the folder and the Close button highlighted.

Task 2 - Authenticate the SMB Share

In this task, you will authenticate your connection to the SMB share.

To authenticate an SMB share, perform the following steps:

Step 1

Connect to the **PLABWIN10** device. Launch the **File Explorer** from the taskbar.

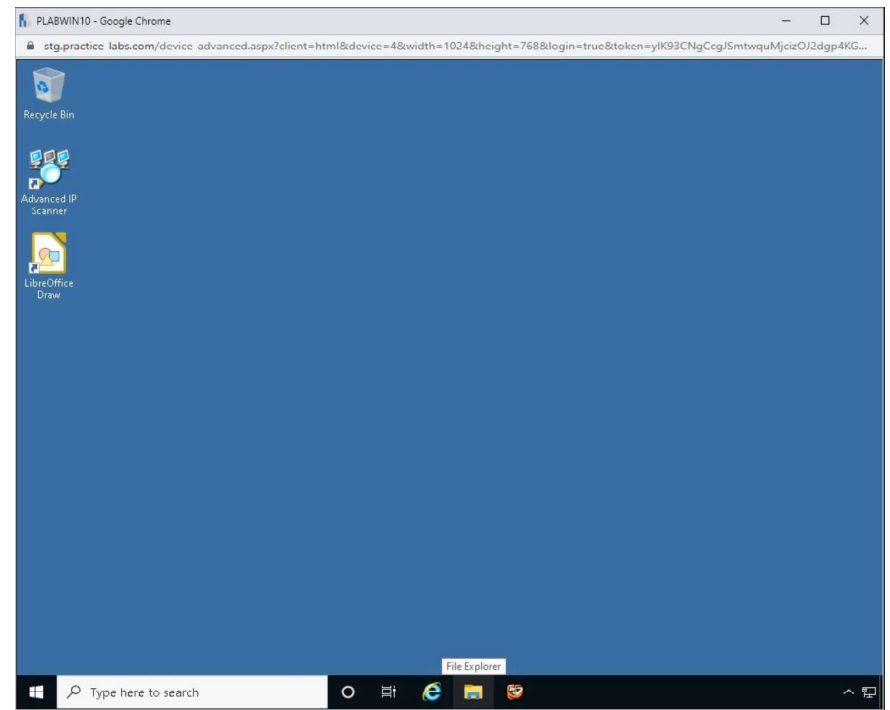


Figure 4.9 Screenshot of the PLABWIN10 desktop: File Explorer icon on the taskbar is highlighted on the PLABWIN10 Windows desktop.

Step 2

Right-click on **This PC** and choose **Map Network Drive...**

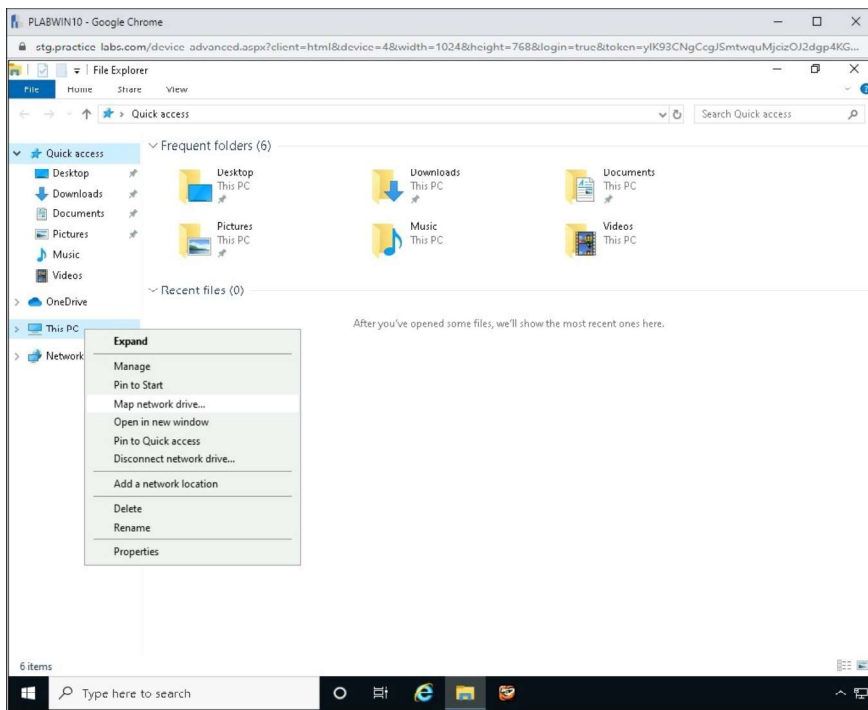


Figure 4.10 Screenshot of the PLABWIN10 desktop: Context menu (that appears on right-clicking This Computer option) > Map network drive menu-options are displayed in the Explorer Window.

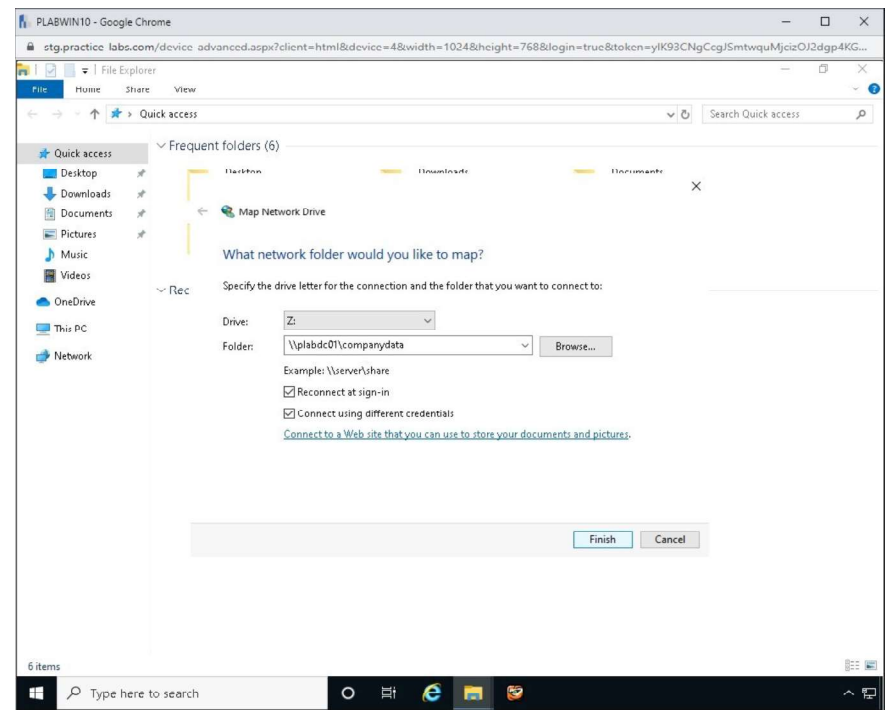


Figure 4.11 Screenshot of the PLABWIN10 desktop: Map Network Drive dialog box is displayed showing the required settings performed, and the Finish button highlighted.

Step 3

In the Folder box, type:

\\plabdc01\companydata

Keep the default selection of **Z:** as the drive letter and of **Reconnect at sign-in**. In addition, check **Connect using different credentials** and click **Finish**.

Notice that the folder name is not case sensitive.

Step 4

The **Windows Security** dialog box is displayed. Use the following credentials:

User name: Administrator

Password: **Passw0rd**

Click **OK**.

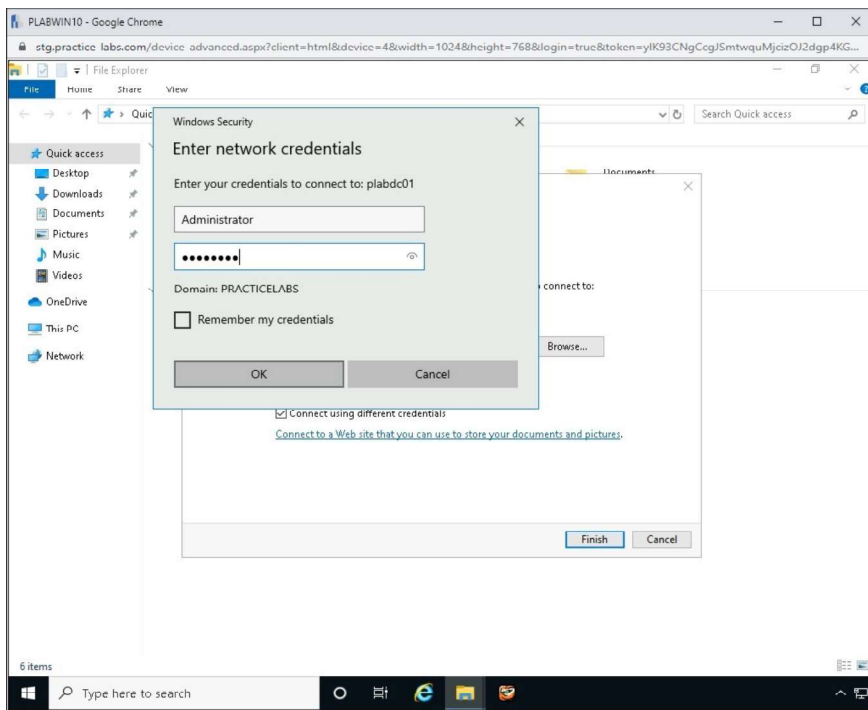


Figure 4.12 Screenshot of the PLABWIN10 desktop: Windows Security dialog box is displayed showing the relevant login credentials typed-in, and the OK button highlighted

Step 5

The **companydata (\\plabdc01)(Z:)** window appears.

SMB is now setup and functioning on the device, and it uses authentication to add security. SMB uses port 445 by default.

Close the **companydata (\\plabdc01)(Z:)** window.

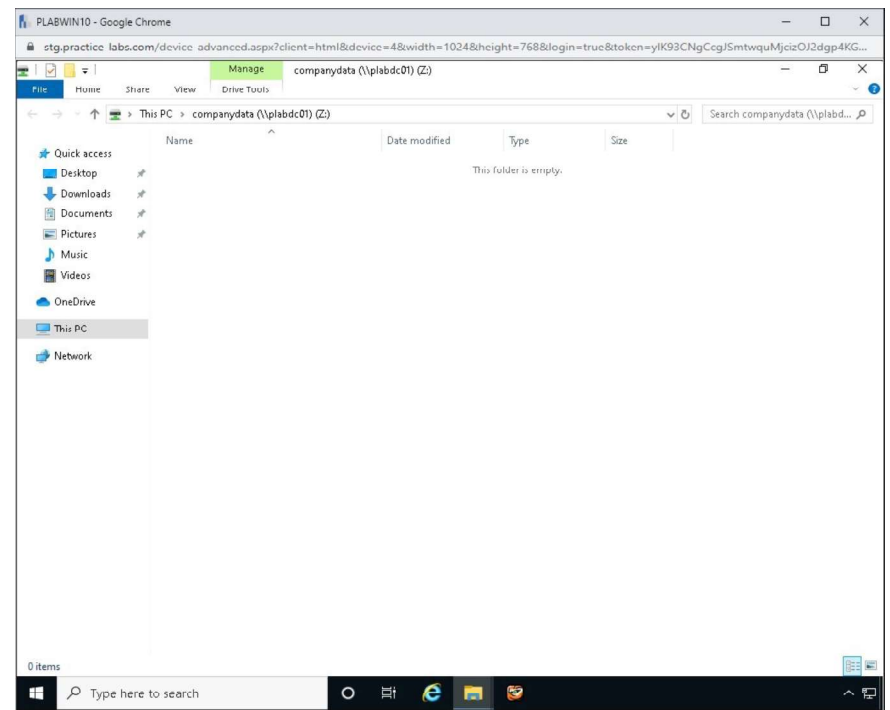


Figure 4.13 Screenshot of the PLABWIN10 desktop: companydata (\\plabdc01)(Z drive) window is displayed on the PLABWIN10 Windows desktop.

Step 6

Notice that a new **Network Location** item has appeared under the **This PC** selection in the **File Explorer**. The folder that you created in the **PLABDC01** device is being perceived by the **PLABWIN10** device as a network drive with the drive letter **Z:** Any files placed in this drive will appear in the folder on **PLABDC01**.

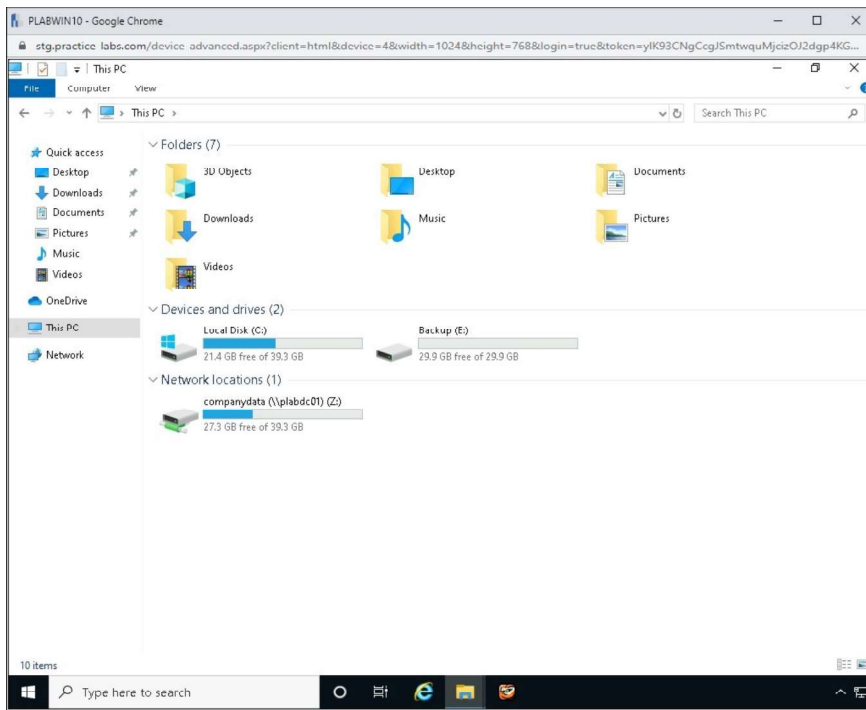


Figure 4.14 Screenshot of the PLABWIN10 desktop: Explorer window is displayed on the PLABWIN10 Windows desktop.

Close the **File Explorer** window.

Leave the devices you have powered on in their current state and proceed to the next exercise.