Configuring an NLB Cluster

A virtual cluster is a virtual combination of the resources of more than one computer on the network. The augmented resources offer better reliability and scalability compared to limited features of a single server. In this exercise, you will configure the first node on the NLB cluster you created in the previous exercise.

Please refer to your course material or use your favorite search engine to research for more information about this topic.
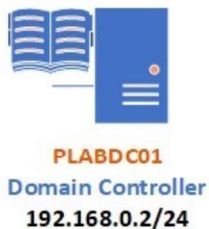
Learning Outcomes

After completing this exercise, you will be able to:

- Configure the first NLB Cluster node

Your Devices

You will be using the following devices in this lab. Please make sure these are powered on before proceeding.

- **PLABDC01** (Domain Controller - Windows Server 2019)

PLABDC01
Domain Controller
192.168.0.2/24

Task 1 - Create the First NLB Cluster Node

You begin creating a cluster by configuring the first cluster node. In this task, you will create and configure the first NLB cluster node on the **PLABDC01** server.

To create the first NLB cluster node, perform the following steps:

Step 1

Connect to the **PLABDC01** device. Ensure that Windows PowerShell window is displayed.

Type the following command:

```
New-NlbCluster -InterfaceName Ethernet -OperationMode
Multicast -ClusterPrimaryIP 192.168.0.20 -ClusterName
PLABDC01-NLB
```

Press **Enter**.

Please wait while the system creates the NLB cluster.

> **Note**: If you get disconnected from **PLABDC01**, or the server becomes unresponsive simply reconnect to the device using *Practice Labs* web application. This can happen while you're setting up NLB service.
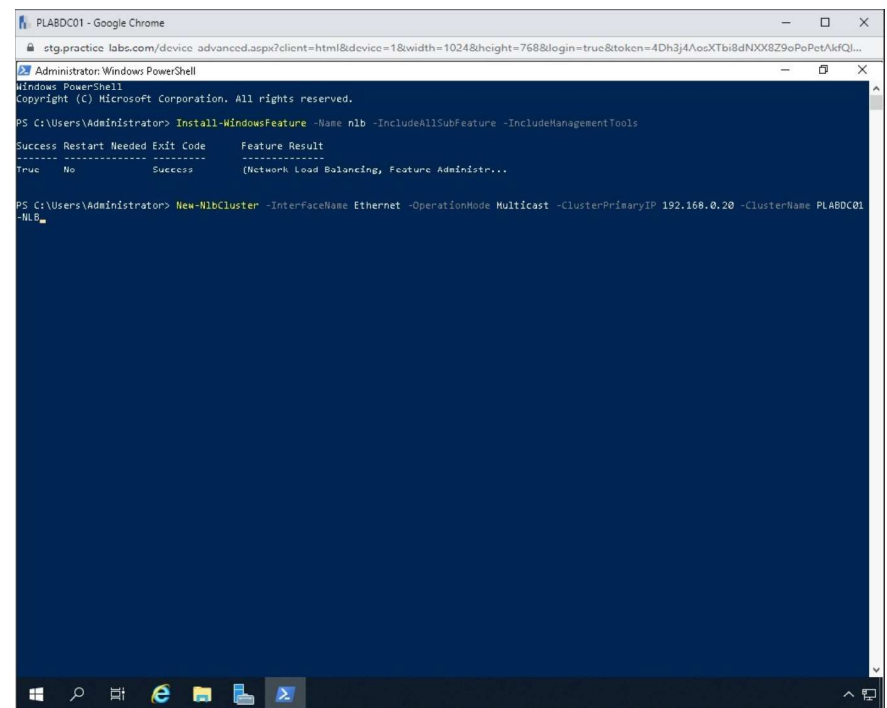

Figure 2.1 Screenshot of the PLABDC01 desktop: Administrator Windows

PowerShell window is displayed showing the command to create an nlb cluster typed in.

Step 2

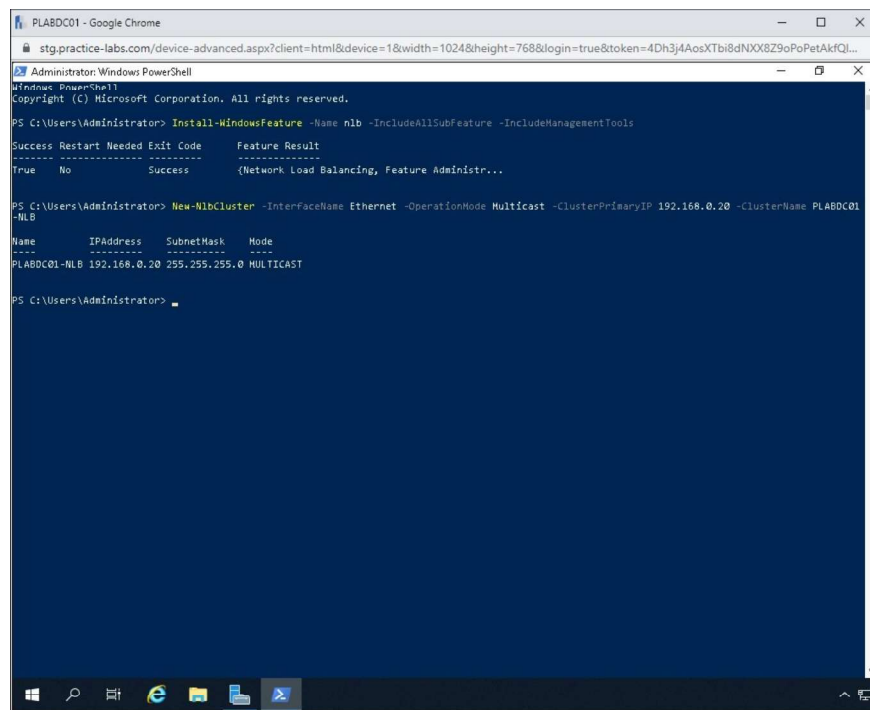This command creates the **NLB** cluster node with the following specifications:

Name: PLABDC01-NLB

IP Address: 192.168.0.20

Subnet Mask: 255.255.255.0

Mode: MULTICAST

Minimize the **Windows PowerShell** window.

Figure 2.2 Screenshot of the PLABDC01 desktop: Administrator Windows PowerShell window is displayed showing details of the nlb cluster created.

Task 2 - Create DNS Record for the Cluster

After creating the initial cluster node, configure the DNS server on the network to provide a **hostname** to the **IP address** mapping that points to **PLABDC01-NLB**.

To configure DNS for the new cluster node, perform the following steps:

Step 1

On the **PLABDC01** device, maximize the **Server Manager** window, click **Tools** from the menu on the top, and select **DNS.**
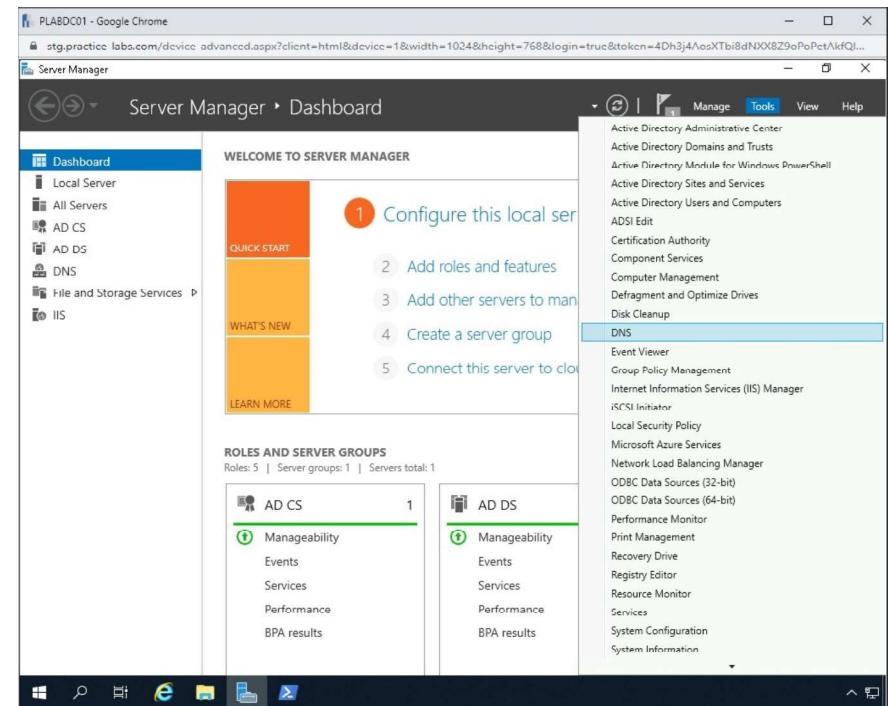

Figure 2.3 Screenshot of the PLABDC01 desktop: Tools > DNS menu-options are selected on the Server Manager console.

Step 2

On the **DNS Manager**, access the **DNS** console tree on the left pane.

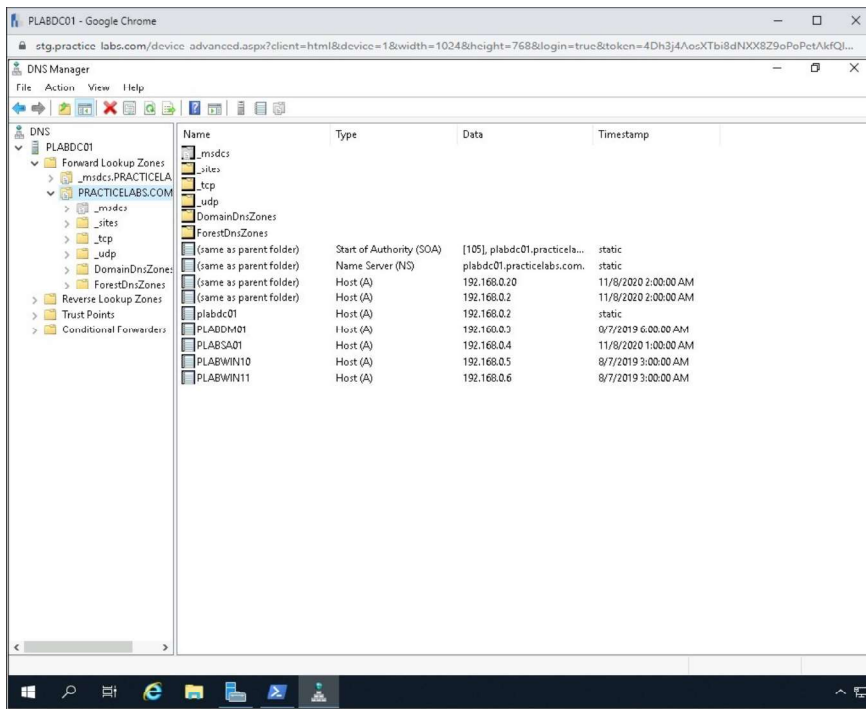Expand **PLABDC01**, then expand **Forward Lookup Zones**, and then expand **PRACTICELABS.COM.**

Figure 2.4 Screenshot of the PLABDC01 desktop: DNS Manager console is displayed showing the required node-path selected on the navigation pane at the left.
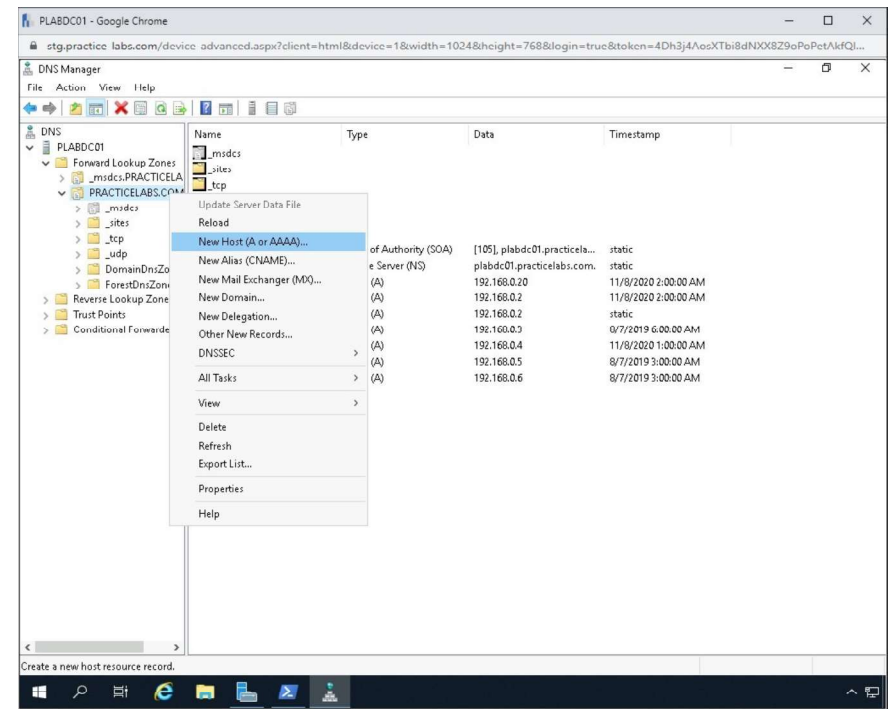

Figure 2.5 Screenshot of the PLABDC01 desktop: Context menu (that appears on right-clicking the domain name-node) > New Host (A or AAAA) menu-options are displayed on the DNS Manager console.

Step 3

Right-click **PRACTICELABS.COM** and select **New Host (A or AAAA)**.

Step 4

On the **New Host** dialog box, specify the following:

Name: PLABDC01-NLB

IP address: 192.168.0.20

Ensure that the **Create associated pointer (PTR) record** checkbox is unchecked.
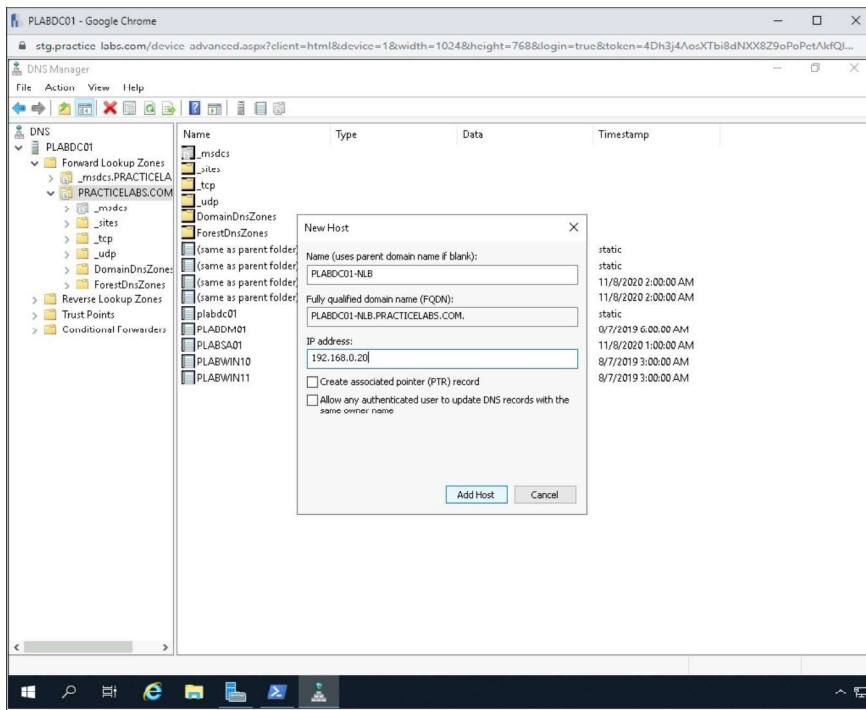
Click **Add Host**.

Figure 2.6 Screenshot of the PLABDC01 desktop: New Host dialog box is displayed showing the required settings performed, and the Add Host button selected
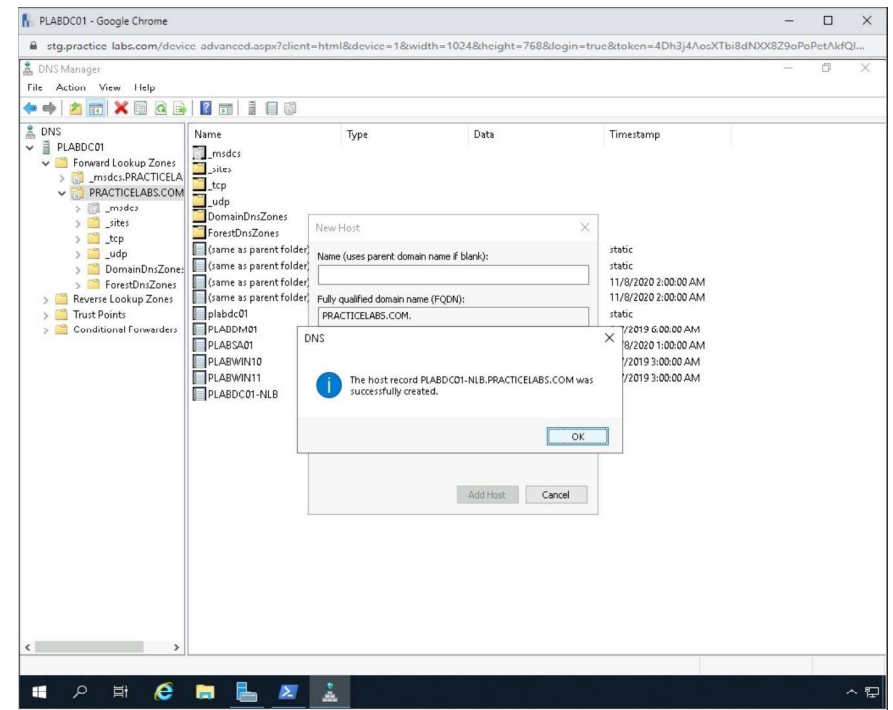

Figure 2.7 Screenshot of the PLABDC01 desktop: DNS dialog box is displayed confirming the successful creation of the FQDN for cluster node and the OK button highlighted.

Step 5

DNS dialog box appears confirming the successful creation of the FQDN for the cluster node. Click **OK** to close the dialog box.

Step 6

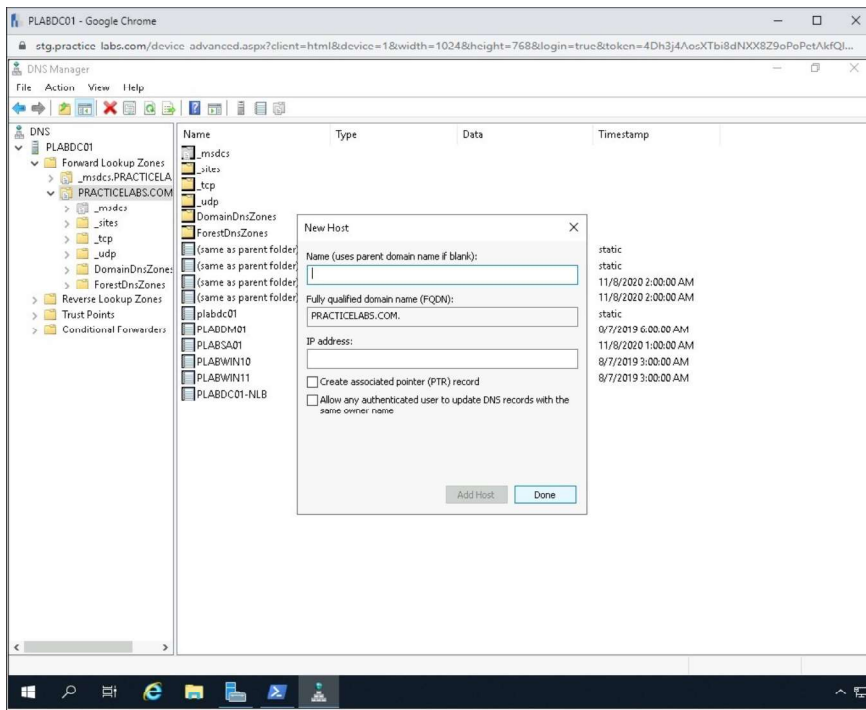You are navigated back to the **New Host** dialog box.

Figure 2.8 Screenshot of the PLABDC01 desktop: Done button on the New Host dialog box is selected.

Click **Done** to close the dialog box.

Exit all the open windows to display the desktop.

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