# Adding Another Node to an NLB Cluster

You can add servers to an existing cluster to augment the resources available with the cluster. To add servers to a cluster, you must:

- Have administrative rights on the server(s) you are configuring. However, this pre-requisite is not applicable in case the configuration is done from a remote server.
- Refresh the NLB Manager on the server you are configuring.

In this exercise, you will add a second node to the NLB cluster you created in the previous exercises.

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:

- Add a second node to an NLB Cluster

## 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)
- **PLABSA01** (Member Server - Windows Server 2019



## Task 1 - Add a Second Server to the Cluster

After configuring the first node of the cluster, you can grow the cluster by adding more servers to the cluster. In this task, you will add **PLABSA01** as the second node to the **PLABDC01-NLB** cluster.

To add the second server to the cluster, perform the following steps:

## Step 1

Switch back to **PLABSA01.**

On the **Server Manager** window, click on **Tools** from the menu on the top, and select **Network Load Balancing Manager**.
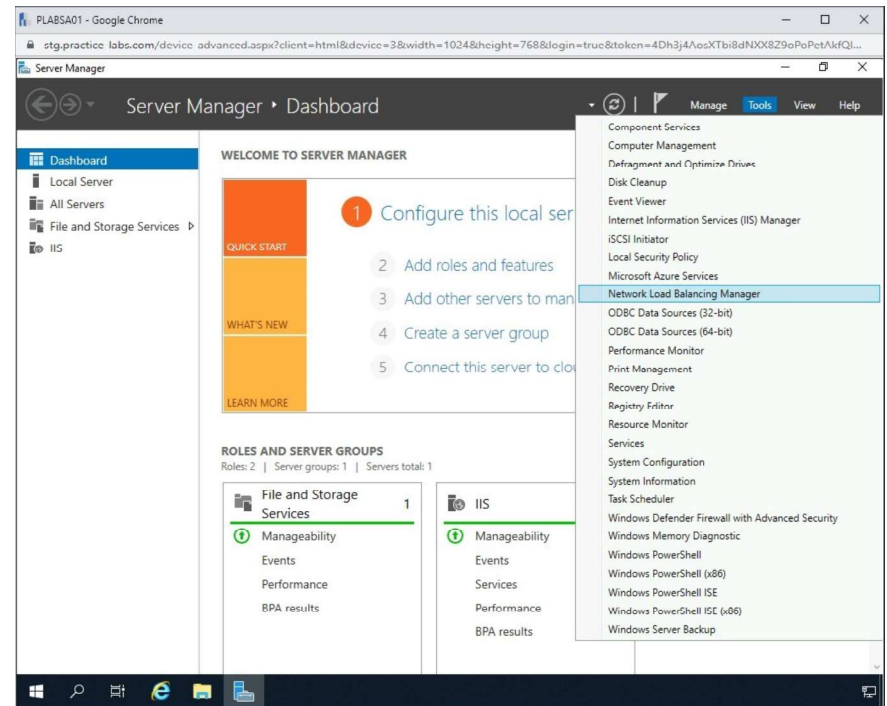


Figure 3.1 Screenshot of the PLABSA01 desktop: Tools > Network Load Balancing Manager menu-options are selected on the Server Manager console.

## Step 2

The **Network Load Balancing Manager** window is displayed.

Notice that details of the NLB Manager session are displayed in the lower pane of the window.

Right-click the **Network Load Balancing Clusters** node on the left pane, and select **Connect to existing**.
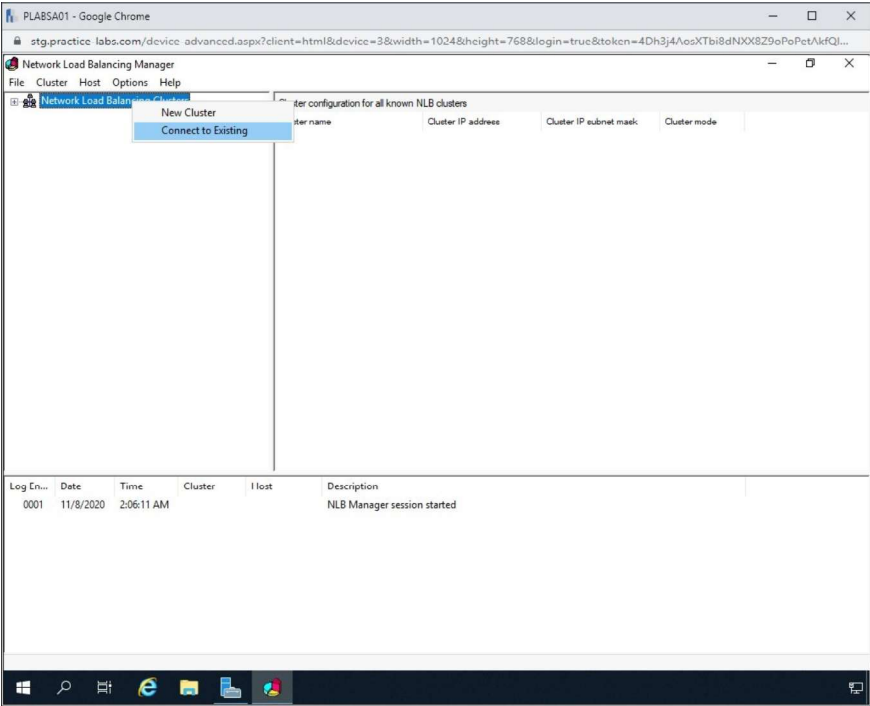


Figure 3.2 Screenshot of the PLABSA01 desktop: Context menu (that appears on right-clicking the Network Load Balancing Cluster node) > Connect to Existing menu-options are selected on the Network Load Balancing Manager console.

## Step 3

On the **Connect to Existing: Connect** dialog box, type **plabdc01.practicelabs.com** as the host to connect to.
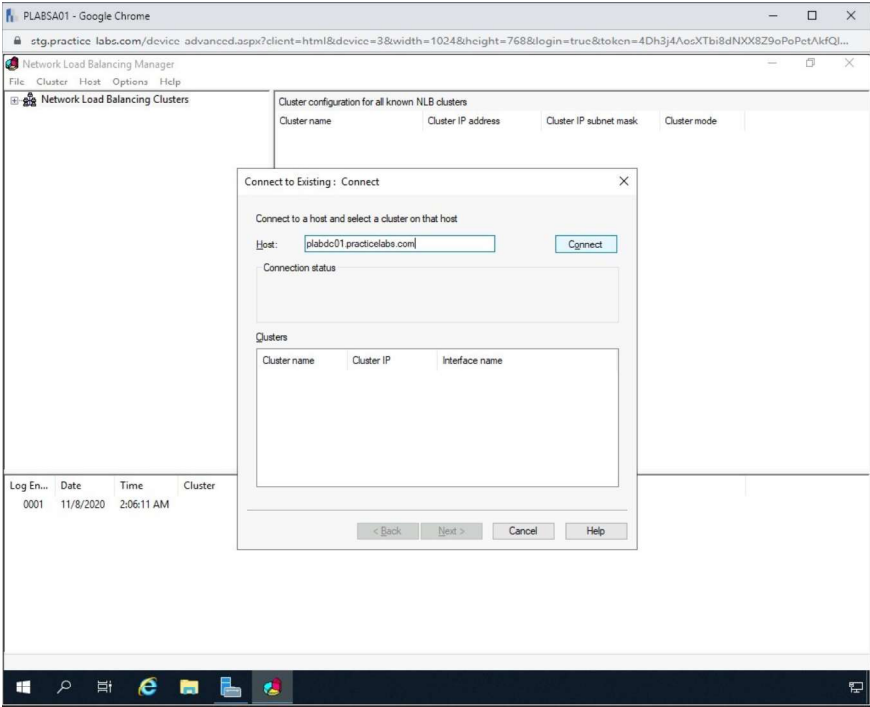
Click **Connect**.



Figure 3.3 Screenshot of the PLABSA01 desktop: Connect to Existing - Connect wizard is displayed showing the required value typed-in, and the Connect button highlighted.

## Step 4

After several seconds, notice that the display in the **Connection Status** pane changes to **Connected.**

The **Clusters** text box displays the following specifications about the cluster on the host:

**Cluster name: PLABDC01-NLB**

**Cluster IP: 192.168.0.20**

**Interface name: Ethernet**

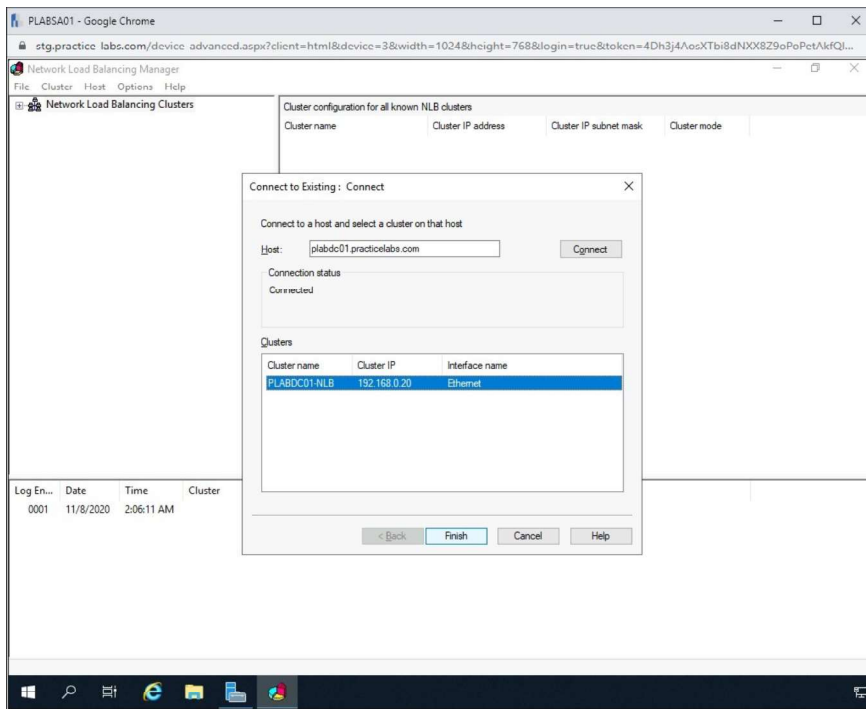Click **Finish** after this information is displayed.

Figure 3.4 Screenshot of the PLABSA01 desktop: Connect to Existing - Connect wizard is displayed listing details of the cluster on the specified host and the Finish button highlighted.
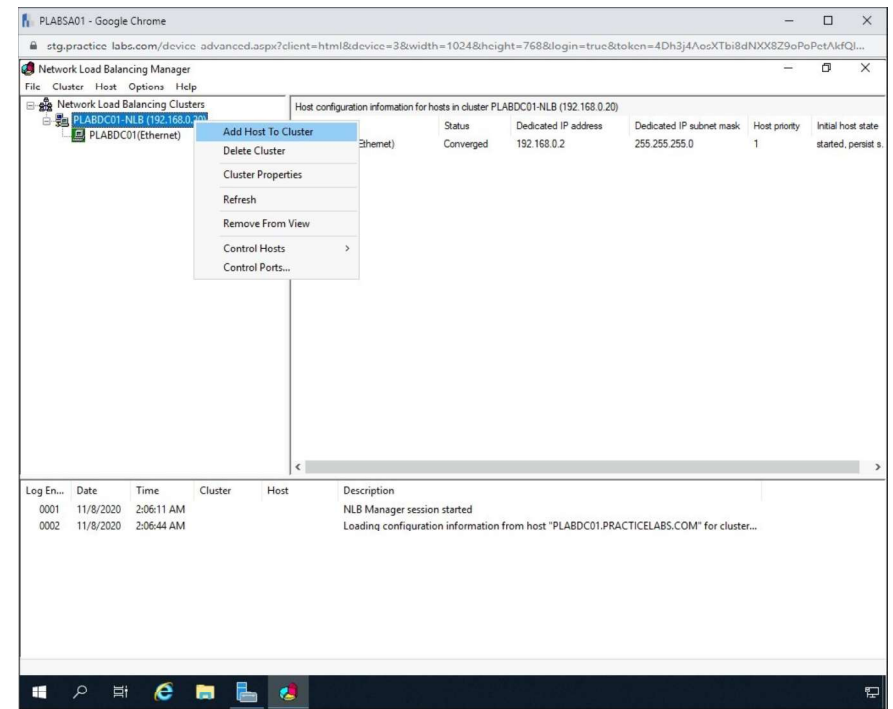


Figure 3.5 Screenshot of the PLABSA01 desktop: Context menu (that appears on right-clicking a listed cluster) > Add Host To Cluster menu-options are selected on the Network Load Balancing Manager console.

## Step 5

Back on the **Network Load Balancing Manager** window, notice that the console tree on the left pane now shows additional entries.

Right-click **PLABDC01-NLB (192.168.0.20)** and select **Add Host to Cluster**.

## Step 6

On the **Add Host to Cluster: Connect** dialog box, in the **Host** text box, type:
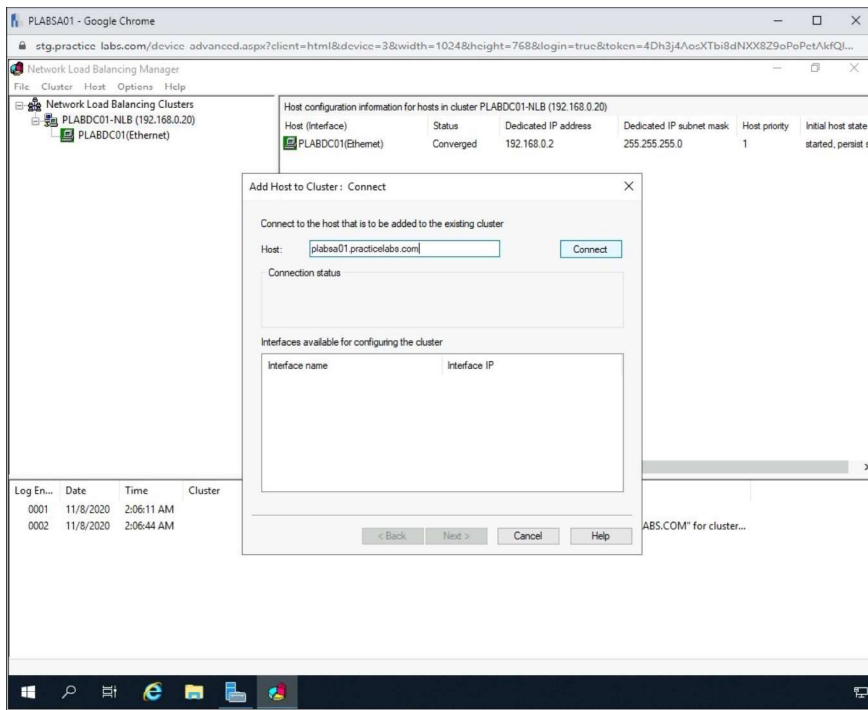
```
plabsa01.practicelabs.com
```

Click **Connect**.

Figure 3.6 Screenshot of the PLABSA01 desktop: Add Host to Cluster - Connect wizard is displayed showing the required value typed-in, and the Connect button selected.
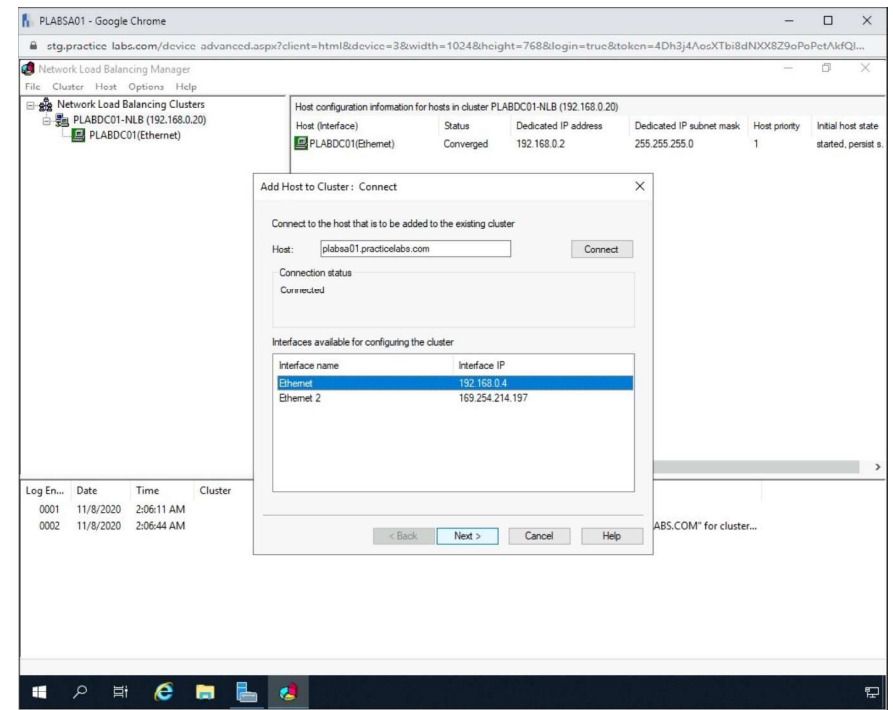


Figure 3.7 Screenshot of the PLABSA01 desktop: Add Host to Cluster - Connect wizard is displayed showing the relevant interface selected, and the Next button highlighted.

## Step 7

When prompted to select the interface available configuring the cluster, select **192.168.0.4** and click **Next**.

## Step 8

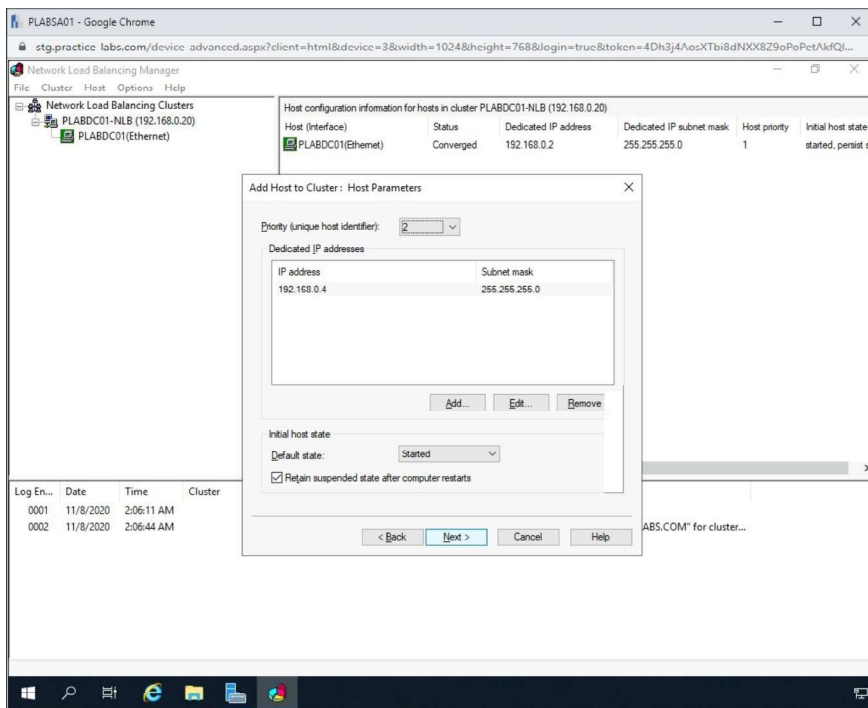On the **Add Host to Cluster: Host Parameters** dialog box, keep the default selections and click **Next**.

Figure 3.8 Screenshot of the PLABSA01 desktop: Add Host to Cluster - Host Parameters wizard is displayed showing default settings, and the Next button highlighted.
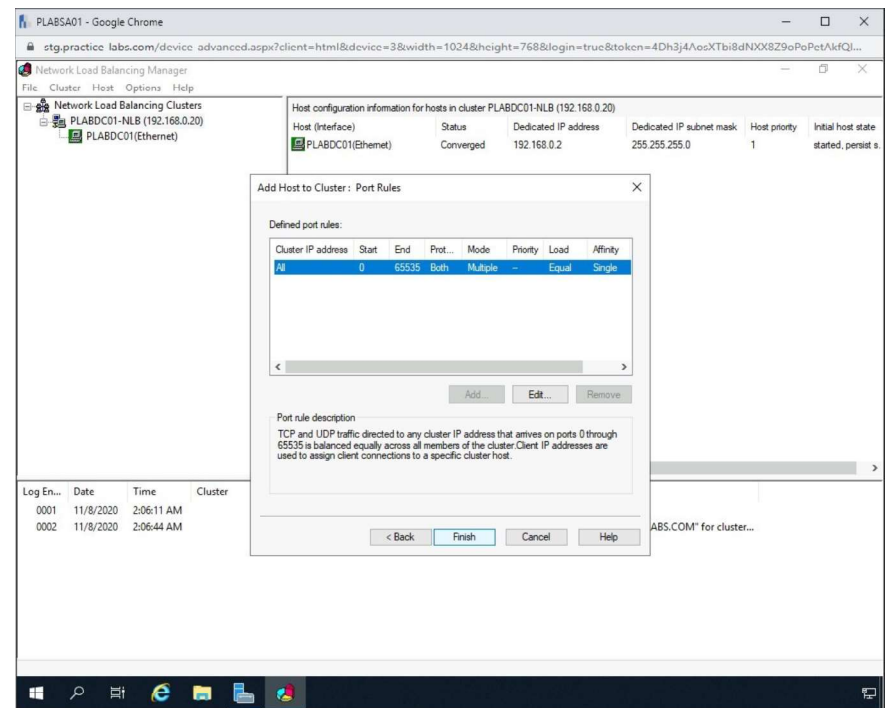


Figure 3.9 Screenshot of the PLABSA01 desktop: Add Host to Cluster - Port Rules wizard is displayed showing default settings, and the Finish button highlighted.

## Step 9

On the **Add Host to Cluster: Port Rules** dialog box, keep the default selections and click **Finish**.

> *Note: The **Network Load Balancing Manager**, may appear to have stopped responding. In addition, you may get disconnected from **PLABSA01**. If this happens, reconnect to it using the Practice Labs web application.*

## Step 10

Back on **Network Load Balancing Manager** console window, notice that **PLABSA01** is added as another node in the console tree on the left pane. This indicates that **PLABSA01** is another host added to the NLB cluster. You might have to wait for some time to see the new entry.

You now have two servers in the **PLABDC01-NLB** cluster. In the configuration information pane on the right, verify that both servers display a **Converged** status.

If either one of the servers continues to be in the "**Converging**" status for more than several minutes, close **Network Load Balancing Manager** console and reopen it to refresh.
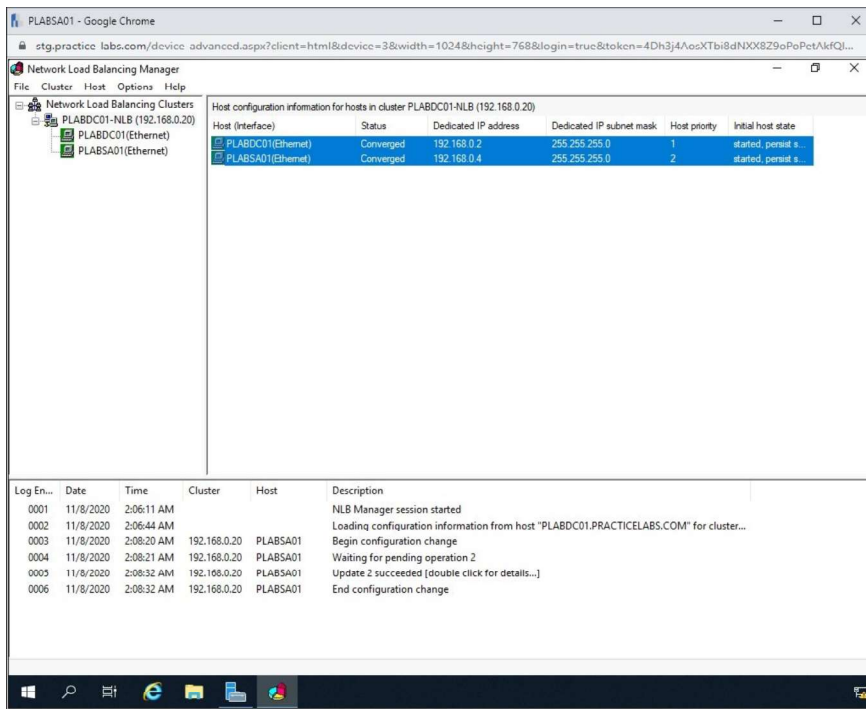
Figure 3.10 Screenshot of the PLABSA01 desktop: Network Load Balancing Manager console is displayed listing on the navigation pane at the left the newly added cluster node and showing on the details pane at the right the status of servers on the cluster.

## Step 11

Click **Network Load Balancing Clusters** - the top node in the console tree on the left pane, and verify that **Cluster mode** parameter on the right pane displays **multicast** operations mode.
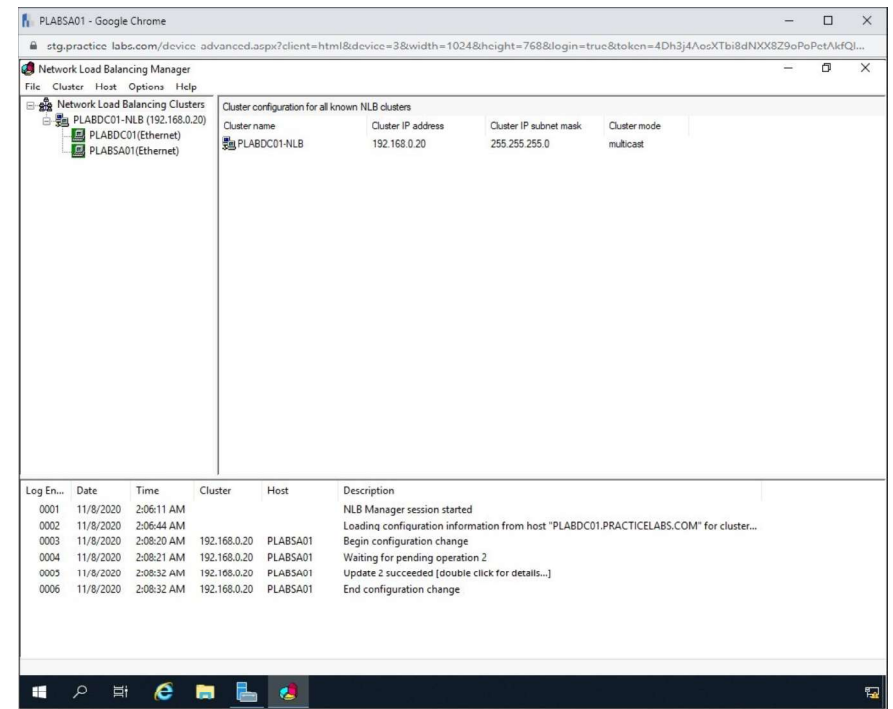


Figure 3.11 Screenshot of the PLABSA01 desktop: Network Load Balancing Manager console is displayed listing on the details pane at the right configuration details of the specified cluster.

Close all the open windows to display the desktop.

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