Using pathping

Pathping is a Windows-based TCP/IP diagnostic tool that provides information about the network path, network delays and dropped packets from the source to the destination network. This tool combines the functionality of tracert and ping commands to verify connectivity between devices.

To get a better understanding of this technology, please refer to your course material or use your preferred search engine to research this topic in more detail.

Learning Outcomes

After completing this exercise, you will be able to:

- Test Host Reachability Using Pathping

Your Devices

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

- **PLABWIN10** (Workstation)

Task 1 - Test Host Reachability Using Pathping

To use pathping tool, perform the following steps:

Step 1

Connect to **PLABWIN10** device.

On the command prompt window, type:

```
pathping 192.168.0.2
```

Press **Enter**.

This command traces the route and computes the network statistics from source to destination network.

Note: You can issue the cls command to clear the screen for ease of working.

After a few seconds, you get the information about network route taken and statistics on the network latency and packet loss.

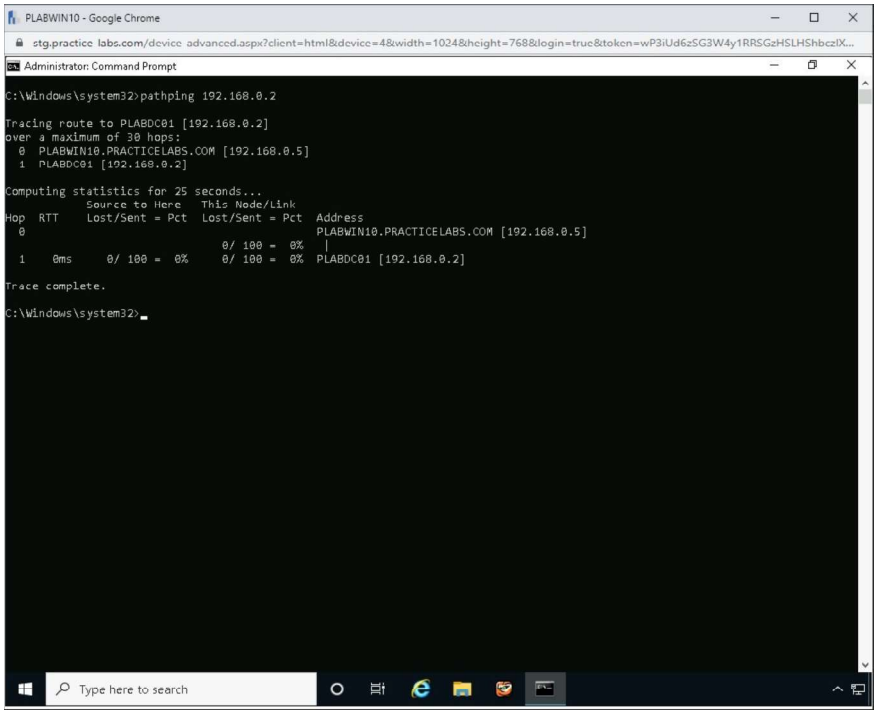

Figure 2.1 Screenshot of the PLABWIN10 desktop: Administrator Command Prompt window is displayed listing system response to the pathping command.

Step 2

To send a pathping using a target host's fully qualified domain name, type:

```
pathping plabdc01.practicelabs.com
```

Press **Enter**.

As in the earlier step, you get information about the network path taken and statistics of the network latency and packet loss.

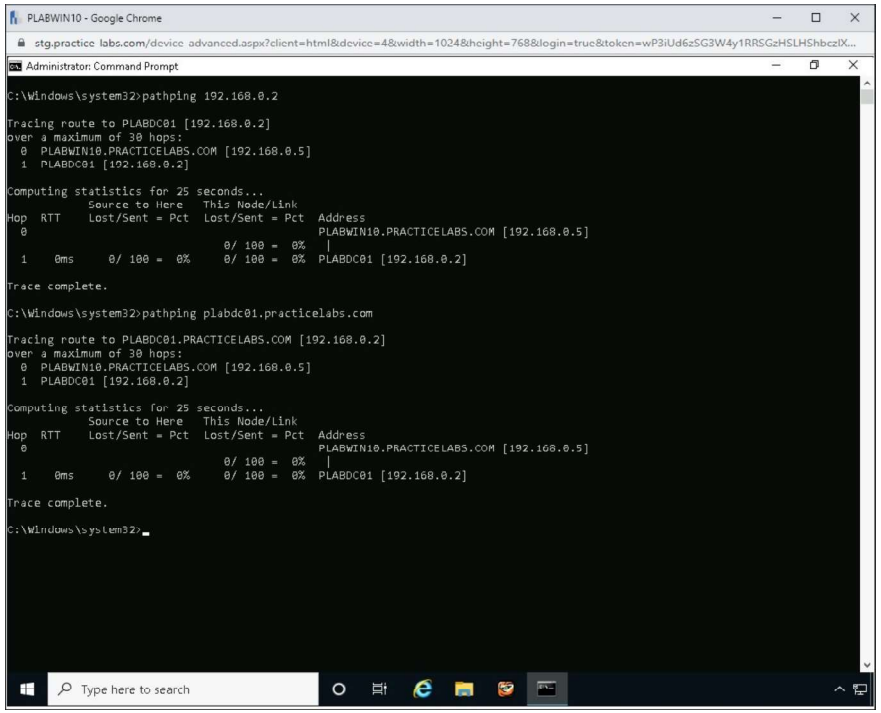

Figure 2.2 Screenshot of the PLABWIN10 desktop: Administrator Command Prompt window is displayed listing system response to the pathping command.

Step 3

To test the route to a remote web site like google's DNS server at **8.8.8.8**, type:

```
pathping 8.8.8.8
```

Press **Enter**.

> ***Note**: The Practice Labs devices are running behind a firewall and will be unable to trace such routes. You can attempt this on your personal computer as well and compare results.*

Wait while **PLABWIN10** attempts to find the route starting from its IP address **192.168.0.5**, then on to **192.168.0.250** which is the default gateway being used by the **PLABWIN10** device.

Initially, pathping will report that destination host is unreachable because of network security policies on the corporate network and the target network the attempt to trace route from the source to destination network will fail.

On the **Computing statistics** section, notice the network information collected. The packet went back to the sending node and was unable to reach its destination.

Keep the command prompt window open for the next activity.

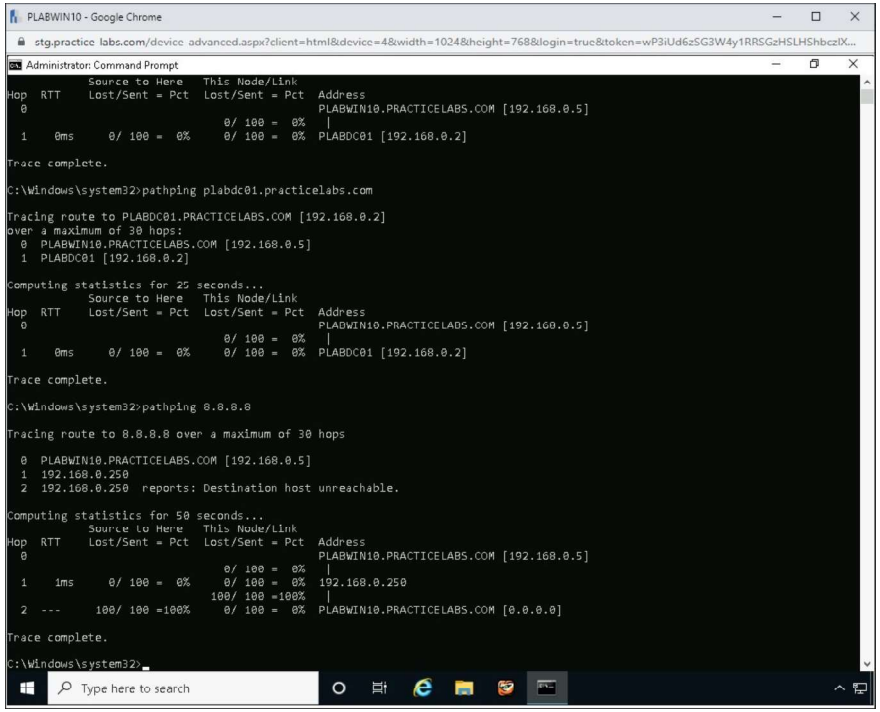

Figure 2.3 Screenshot of the PLABWIN10 desktop: Administrator Command Prompt window is displayed showing system-response to the command pathpinging the google website.

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