

Critical Thinking Assignment 4: Labs Lessons 10 and 14

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IT315-2: Introduction to Networks

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Critical Thinking Assignment 4: Labs Lessons 10 and 14

This documentation is part of the Critical Thinking 3 Assignment from ITS315: Introduction to Networks at Colorado State University Global.

The Assignment Direction:

Module #4: uCertify Lab Simulations

For this assignment, you will complete multiple lab simulations. Activities include analyzing network paths, checking connectivity between devices, diagnosing network problems and troubleshooting issues. You will take a screenshot upon completion of each lab and include the screenshots in the submitted assignment.

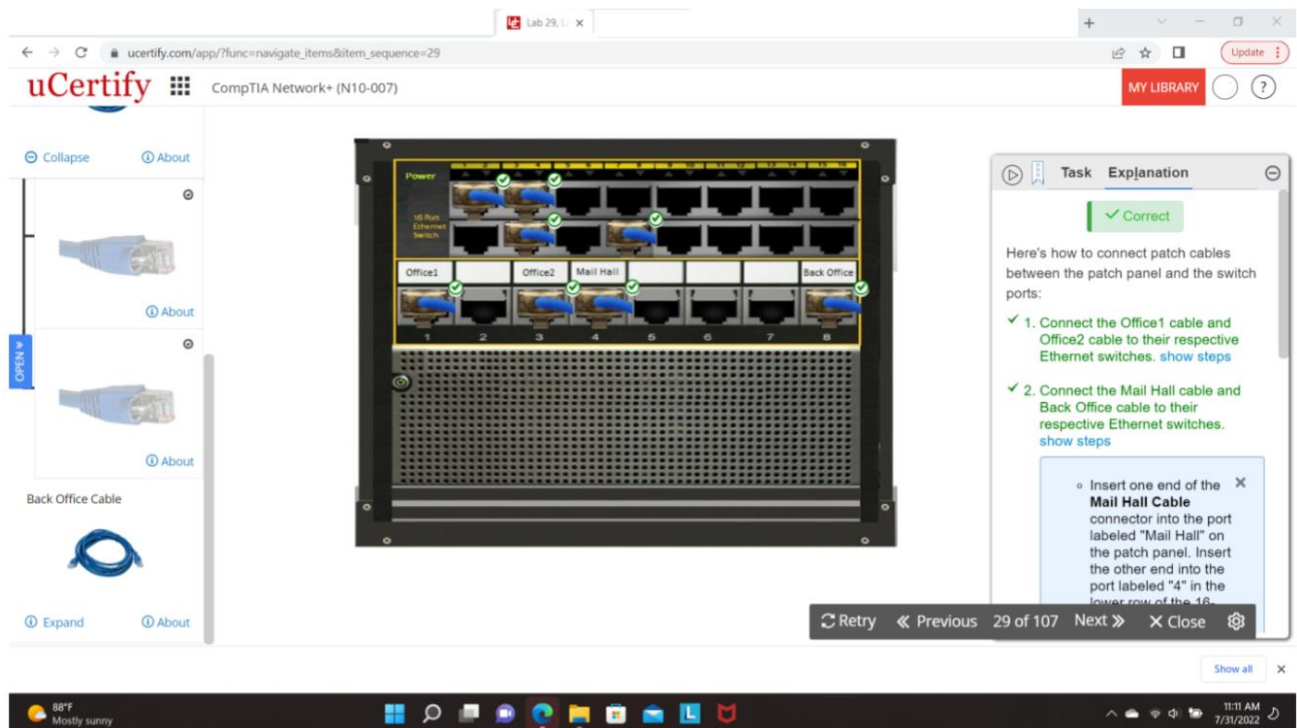
Access uCertify and login, go to Labs, and complete the tasks in the following lab simulations:

- 10.1.3 Analyzing network paths with traceroute
- 10.1.7 Checking IP connectivity between two network devices
- 14.1.1 Troubleshooting a network
- 14.1.2 Diagnosing a network problem
- 14.5.1 Diagnosing networking issues

After completing the task, click Submit >> Evaluate >> Record my answer to record your answer. Take a screenshot of each of the labs and paste the screenshot into a Word document. The document should have a title page that includes your name, date, school name, section, course name, and instructor name.

Submit the assignment in Canvas.

Please ensure your screenshot includes your name, date, and timestamp as shown in the image below.



Screenshots

Figure 1

10.1.3 Analyzing network paths with traceroute

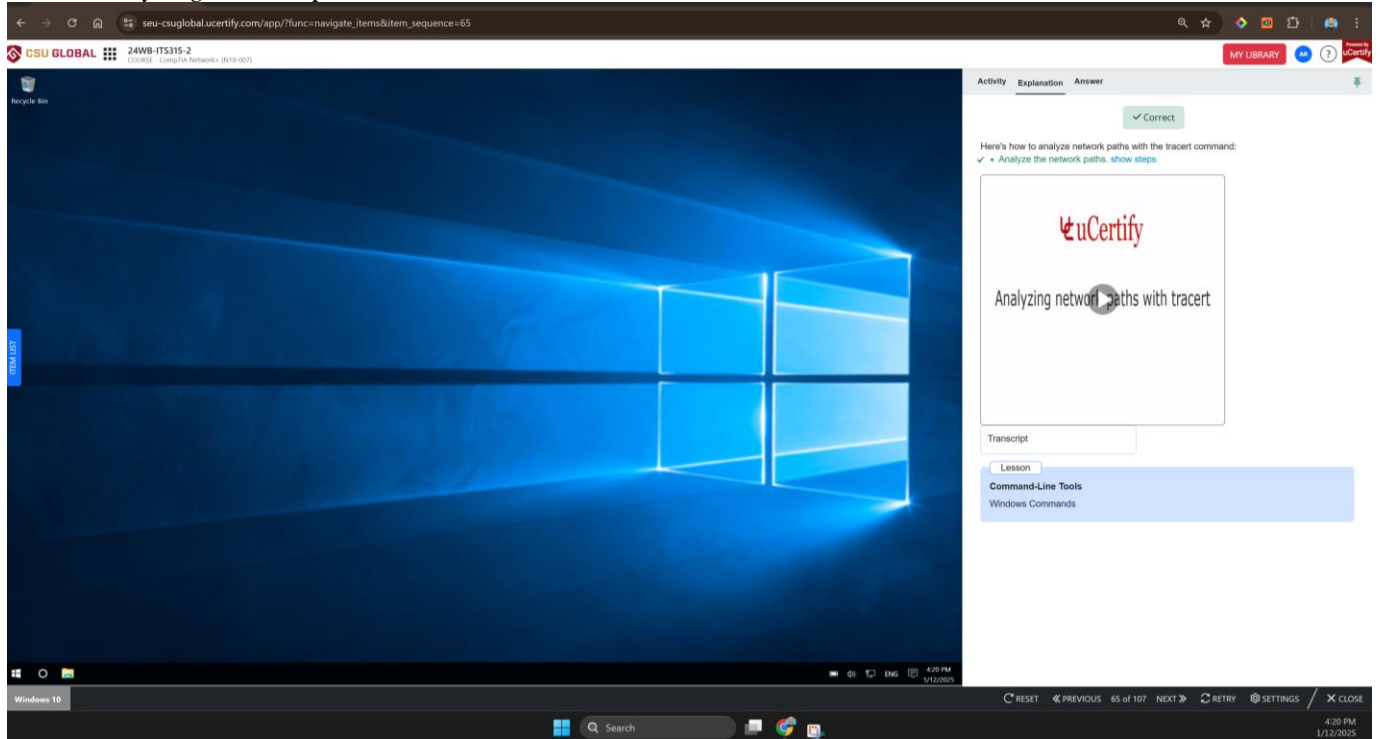


Figure 2

10.1.7 Checking IP connectivity between two network devices

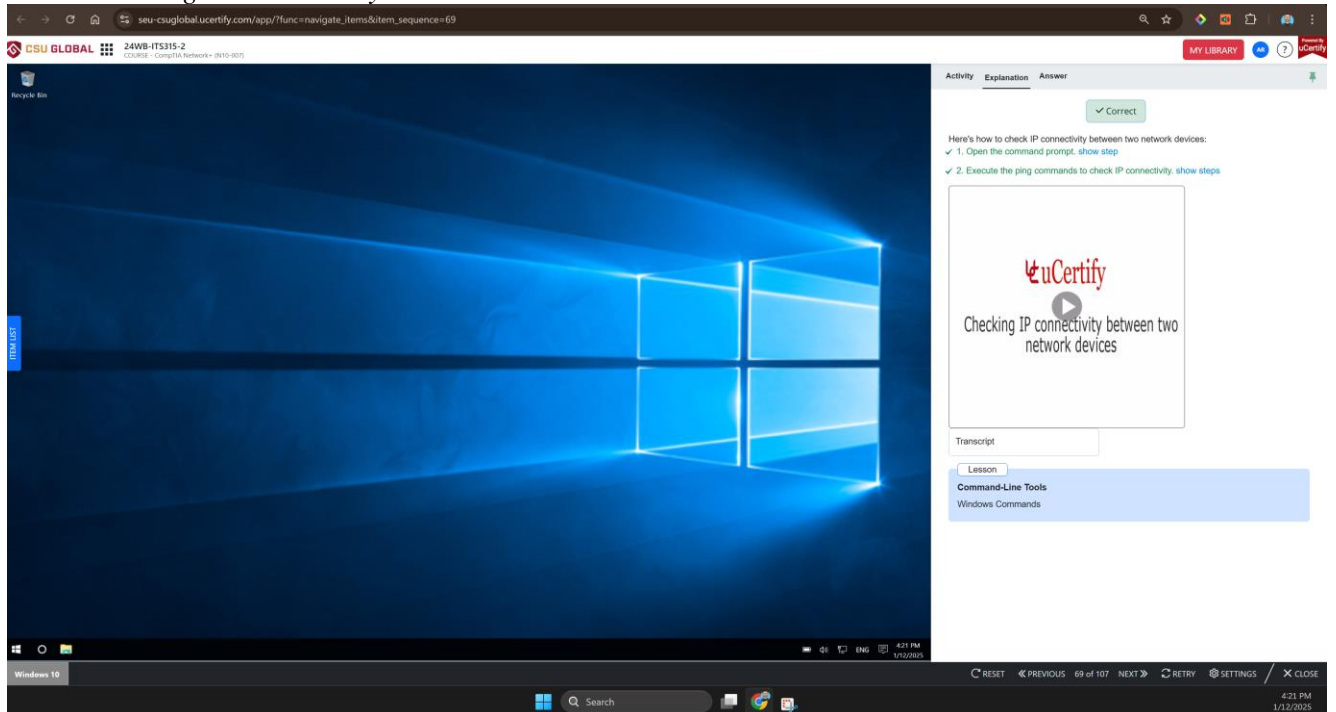


Figure 3
14.1.1 Troubleshooting a network

seu-csuglobal.ucertify.com/app/?func=navigate_items&item_sequence=100

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Correct Answer Your Answer

Network Architecture

CLICK TO DRAG THE COLORS
 ENABLE ■
 DISABLE ■

Activity Explanation

✓ Correct

The given initial configuration has all switch ports disabled. This can happen as a result of power outage in the organization. To bring the systems online, all ports have to be enabled except the ports connecting SWITCH 1 to SWITCH 3. This is a redundant connection and will create a loop. So you need to make the following configuration:

- ✓ All ports of SWITCH 2 should be enabled.
- ✓ All ports of SWITCH 1 should be enabled except the last port that connects SWITCH 1 to SWITCH 3.
- ✓ All ports of SWITCH 3 should be enabled except the first port that connects SWITCH 1 to SWITCH 3.

The below figure shows the required connection:

Figure: Network Architecture

Lesson

Network Troubleshooting
 Troubleshooting Basics

RESET PREVIOUS 100 of 107 NEXT RETRY SETTINGS CLOSE

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Figure 4
14.1.2 Diagnosing a network problem

seu-csuglobal.ucertify.com/app/?func=navigate_items&item_sequence=101

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Correct Answer Your Answer

Diagnosing a network problem

- Gather information
- Duplicate the problem, if possible
- Question users
- Identify symptoms
- Determine if anything has changed
- Approach multiple problems individually

Note: Click to select. Drag and Drop to set sequence.

Activity Explanation

✓ Correct

Here are the steps to diagnose a network problem:

- ✓ **1. Gather information:** Because a typical problem report lacks sufficient information to give a troubleshooter insight into a problem's underlying cause, the troubleshooter should collect additional information, perhaps using network maintenance tools or interviewing impacted users.
- ✓ **2. Duplicate the problem, if possible:** Testing to see if you can duplicate the problem is often a key step in problem diagnosis.
- ✓ **3. Question users:** Although it can be difficult to gather information from your end users, this is often critical in correctly pinpointing the exact problem. Oftentimes, finding out user actions prior to the problem is critical.
- ✓ **4. Identify symptoms:** What are the actual symptoms the problem has created.
- ✓ **5. Determine if anything has changed:** Perhaps your end users will provide valuable clues if they accurately indicate what changes they might have made to systems.
- ✓ **6. Approach multiple problems individually:** Unfortunately, you might discover there are multiple issues. Be sure to approach each one individually.

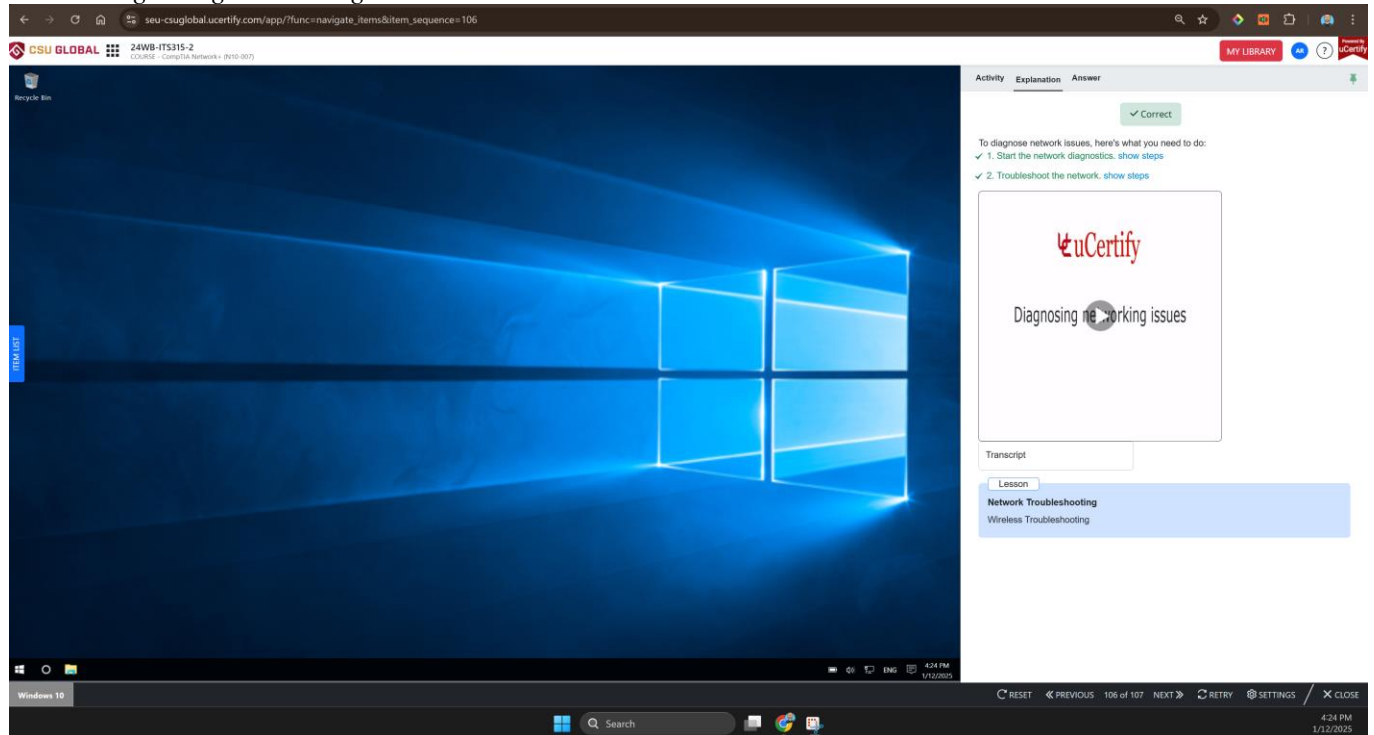
Lesson

Network Troubleshooting
 Troubleshooting Basics

RESET PREVIOUS 101 of 107 NEXT RETRY SETTINGS CLOSE

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Figure 5
14.5.1 Diagnosing networking issues



Figures 1 through 5 show that all the lab questions were answered correctly.