

Packet Tracer Lab 23 Solution Guide

Business Application Offline

Incident ID: INC-1023

Objective

This lab focuses on identifying and restoring a business application following scheduled infrastructure maintenance.

Although enterprise routing, WAN connectivity, and network communication remain fully operational, users across the organization are unable to access the centralized corporate file server.

The objective is to troubleshoot the issue using a structured methodology, identify the root cause, restore server availability, and validate successful application access.

Root Cause

The network interface on the corporate file server (**FastEthernet0**) was disabled during scheduled infrastructure maintenance.

As a result:

- The file server became unreachable.
- Enterprise routing remained fully operational.
- Other infrastructure services continued functioning normally.
- Business application access was interrupted.

Symptoms Observed

- Enterprise routing operational.
- OSPF neighbors established.
- WAN connectivity operational.

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- DNS server reachable.
- Users successfully communicate with other departments.
- File server unreachable.
- Business application unavailable.

Troubleshooting Process

Troubleshooting Process

Step 1 — Verify Network Connectivity

From a workstation:

ping 192.168.10.1

Should succeed.

This confirms:

- Layer 2 connectivity
- Layer 3 routing
- Gateway availability

Step 2 — Verify Enterprise Connectivity

Test communication with another department.

Example:

ping 192.168.20.10

Should succeed.

Step 3 — Compare Server Connectivity

Test:

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ping 192.168.40.10

DNS Server

Should succeed.

Then:

ping 192.168.40.20

File Server

Should fail.

This confirms the issue is isolated to one server.

Step 4 — Inspect the File Server

Open:

SRV-FILE

Navigate to:

Config



FastEthernet0

Users should identify:

Port Status

OFF

This is the primary indicator of the issue.

BridgeOpsOne

Commands Used

ipconfig

ping

Resolution

On the File Server:

Config

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FastEthernet0

↓

Port Status

ON

No network configuration changes are required.

Validation

Successful resolution should include:

- Successful ping to **192.168.40.20**

BridgeOpsOne

- Enterprise routing remains operational.
- DNS server remains reachable.
- Branch communication remains operational.
- Business application restored.

Key Takeaways

- Not every outage is caused by the network.
- Verify infrastructure before modifying routing or switching.
- Compare working and non-working services to isolate failures.
- Infrastructure troubleshooting should begin with validation rather than assumptions.
- Follow a structured troubleshooting methodology and validate successful restoration after repairs.