Packet Tracer Lab Report

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Role: Computer Science Student

Lab Title: Configure IP ACLs to Mitigate Attacks

Date: April 22, 2025

# Objectives

- Verify connectivity among devices before firewall configuration.  
- Use ACLs to ensure remote access to the routers is available only from management station PC-C.  
- Configure ACLs on R1 and R3 to mitigate attacks.  
- Verify ACL functionality.

# Background / Scenario

Access to routers R1, R2, and R3 should only be permitted from PC-C, the management station. PC-C is also used for connectivity testing to PC-A, which is a server providing DNS, SMTP, FTP, and HTTPS services. Standard operating procedure is to apply ACLs on edge routers to mitigate common threats based on source and destination IP address. In this activity, ACLs will be created and applied on routers R1 and R3.

# Part 1:

Commands Used (if any):  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Verification Results:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Observations:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Screenshots (optional):

# Part 2:

Commands Used (if any):  
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Verification Results:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Observations:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Screenshots (optional):

# Part 3:

Commands Used (if any):  
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Verification Results:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Observations:  
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Screenshots (optional):

# Part 4:

Commands Used (if any):  
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Verification Results:  
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Observations:  
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Screenshots (optional):

# Part 5:

Commands Used (if any):  
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Verification Results:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Observations:  
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Screenshots (optional):

# Part 6:

Commands Used (if any):  
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Verification Results:  
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Observations:  
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Screenshots (optional):

# Reflection

Summarize what you learned in this lab about ACLs and network security.  
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