

TUGAS PRAKTIKUM ROUTING DAN KEMAMAN JARINGAN

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Part 1: Verify Local Connectivity and Test Access Control List

Step 1: Ping devices on the local network to verify connectivity.

- From the command prompt of PC1, ping PC2.
- From the command prompt of PC1, ping PC3

The screenshot shows the Cisco Packet Tracer interface. On the left, the 'Logical' view displays a network topology with three routers (R1, R2, R3) and four PCs (PC1, PC2, PC3, PC4). A table titled 'Addressing Table' lists the IP addresses and interfaces for each device. The 'Instructions' section outlines the steps for Part 1: Verify Local Connectivity and Test Access Control List. The 'Command Prompt' window for PC1 shows the following commands and output:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.11

Pinging 192.168.10.11 with 32 bytes of data:

Reply from 192.168.10.11: bytes=32 time=1ms TTL=128
Reply from 192.168.10.11: bytes=32 time=1ms TTL=128
Reply from 192.168.10.11: bytes=32 time=1ms TTL=128
Reply from 192.168.10.11: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 1ms

C:\>ping 192.168.11.10

Pinging 192.168.11.10 with 32 bytes of data:

Request timed out.
Reply from 192.168.11.10: bytes=32 time=1ms TTL=127
Reply from 192.168.11.10: bytes=32 time=1ms TTL=127
Reply from 192.168.11.10: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.11.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Step 2: Ping devices on remote networks to test ACL functionality.

- From the command prompt of PC1, ping PC4.
- From the command prompt of PC1, ping the DNS Server.

The screenshot shows the Cisco Packet Tracer interface. On the left, the 'Logical' view displays a network topology with three routers (R1, R2, R3) and four PCs (PC1, PC2, PC3, PC4). A table titled 'Addressing Table' lists the IP addresses and interfaces for each device. The 'Instructions' section outlines the steps for Part 1: Verify Local Connectivity and Test Access Control List. The 'Command Prompt' window for PC1 shows the following commands and output:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.11.10

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.30.12

Pinging 192.168.30.12 with 32 bytes of data:

Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.

Ping statistics for 192.168.30.12:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.31.12

Pinging 192.168.31.12 with 32 bytes of data:

Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.

Ping statistics for 192.168.31.12:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

Part 2: Remove the ACL and Repeat the Test

Step 1: Use show commands to investigate the ACL configuration.

- show access-lists ?

```
R1>ena
R1#show access-lists ?
  <1-199>  ACL number
  WORD     ACL name
  |        Output Modifiers
  <cr>
R1#show access-lists
Standard IP access list 11
  10 deny 192.168.10.0 0.0.0.255 (8 match(es))
  20 permit any
R1#
```

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- show run | include interface|access

```
R1#show run | include interface|access
interface GigabitEthernet0/0
interface GigabitEthernet0/1
interface Serial0/0/0
  ip access-group 11 out
interface Serial0/0/1
interface Vlan1
access-list 11 deny 192.168.10.0 0.0.0.255
access-list 11 permit any
R1#
```

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Step 2: Remove access list 11 from the configuration.

- Serial0/0/0 interface

```
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#interface s0/0/0
R1(config-if)#no ip access-group 11 out
R1(config-if)#
```

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- Remove the ACL

```
R1(config-if)#exit
R1(config)#no access-list 11
R1(config)#
```

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- Verify that **PC1** can now ping the **DNS Server** and **PC4**.

```
C:\>ping 192.168.30.12

Pinging 192.168.30.12 with 32 bytes of data:

Request timed out.
Reply from 192.168.30.12: bytes=32 time=39ms TTL=125
Reply from 192.168.30.12: bytes=32 time=2ms TTL=125
Reply from 192.168.30.12: bytes=32 time=25ms TTL=125

Ping statistics for 192.168.30.12:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 39ms, Average = 22ms

C:\>ping 192.168.31.12

Pinging 192.168.31.12 with 32 bytes of data:

Request timed out.
Reply from 192.168.31.12: bytes=32 time=32ms TTL=125
Reply from 192.168.31.12: bytes=32 time=22ms TTL=125
Reply from 192.168.31.12: bytes=32 time=43ms TTL=125

Ping statistics for 192.168.31.12:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 22ms, Maximum = 43ms, Average = 32ms

C:\>
```