**Tutorial 4**

1. Standard ACL - Refer to T4 ACL Workbook:
2. Page 5

3. Router Name: Router C

Interface: FA1

4. Router Name: Router D

Interface: E0

5. Router Name: Router D

Interface: E0

6. Router Name: Router E

Interface: E0

7. Router Name: Router C

Interface: FA1

8. Router Name: Router A

Interface: E0

9. Router Name: Router E

Interface: E0

10. Router Name: Router C

Interface: FA1

11. Router Name: Router E

Interface: E0

12. Router Name: Router F

Interface: FA1

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3. 0.0.0.0

4. 0.0.255.255

5. 0.255.255.255

6. 0.0.0.0

7. 0.0.0.31

8. 0.0.0.63

9. 0.0.0.0

10. 0.0.0.7

11. 0.0.31.255

12. 0.0.0.7

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4. 210.10.10.0 to 210.10.10.255

5. 192.220.10.0 to 192.220.10.15

6. Any address

7. 192.168.15.0 to 192.168.15.255

8. 172.16.10.0 to 172.16.10.255

9. Any address

10. 172.30.12.0 to 172.30.12.127

11. 192.168.15.0 to 192.168.15.3

12. 192.168.15.0 to 192.168.15.7

13. 192.168.15.0 to 192.168.15.15

14. 192.168.15.0 to 192.168.15.31

15. 192.168.15.0 to 192.168.15.63

16. 192.168.15.0 to 192.168.15.127

17. 192.168.15.0 to 192.168.15.255

18. 172.16.0.0 to 172.16.1.255

19. 172.85.0.0 to 172.85.15.255

20. 172.15.120.0 to 172.15.120.255

21. 192.15.10.0 to 192.15.10.31

22. 10.0.0.0 to 10.255.255.255

1. Page 26-32 (problem 3-9)

**Page 26 – Problem 3**

Router Name: Router B

Interface: FA1

Access-list #: 1

Router # configure terminal

Router (config) #: access-list 1 deny 204.90.30.125 0.0.0.0

access-list 1 deny 204.90.30.126 0.0.0.0

access-list 1 permit 204.90.30.0 0.0.0.255

Router (config) #: interface FA1

Router (config-if) #: ip access-group 1 in or out

Router (config-if) #: exit

Router (config) #: exit

**Page 27 – Problem 4**

Router Name: Router B

Interface: FA1

Access-list Name: Ralph

Router # configure terminal

Router (config) #: ip access-list standard Ralph

permit 204.90.30.0 0.0.0.127

Router (config) #: interface FA1

Router (config-if) #: ip access-group Ralph in or out

Router (config-if) #: exit

Router (config) #: exit

**Page 28 – Problem 5**

Router Name: Router C

Interface: E1

Access-list #: 2

Router # configure terminal

Router (config) #: access-list 2 deny 172.30.225.2 0.0.0.0

access-list 2 deny 172.30.225.3 0.0.0.0

access-list 2 permit any

Router (config) #: interface E1

Router (config-if) #: ip access-group 2 in or out

Router (config-if) #: exit

Router (config) #: exit

**Page 29 – Problem 6**

Router Name: Router A

Interface: E0

Access-list #: 3

Router # configure terminal

Router (config) #: access-list 3 deny 212.180.10.2 0.0.0.0 log

access-list 3 permit 212.180.10.6 0.0.0.0 log

Router (config) #: interface E0

Router (config-if) #: ip access-group 3 in or out

Router (config-if) #: exit

Router (config) #: exit

**Page 30 – Problem 7**

Router Name: Router B

Interface: FA1

Access-list #: 4

Router # configure terminal

Router (config) #: access-list 4 deny 192.168.15.0 0.0.0.31

access-list 4 deny 198.32.10.25 0.0.0.0

access-list 4 permit any

Router (config) #: interface FA1

Router (config-if) #: ip access-group 4 in or out

Router (config-if) #: exit

Router (config) #: exit

**Page 31 – Problem 8**

Router Name: Router A

Interface: FA0

Access-list Name: Cisco\_Lab\_A

Router # configure terminal

Router (config) #: ip access-list standard Cisco\_Lab\_A

permit 198.32.10.0 0.0.0.127

permit 198.32.10.192 0.0.0.0

deny 198.32.10.0 0.0.0.255

permit any

Router (config) #: interface FA0

Router (config-if) #: ip access-group Cisco\_Lab\_A in or out

Router (config-if) #: exit

Router (config) #: exit

**Page 32 – Problem 9**

Router Name: Router A

Interface: FA0

Access-list Name: 5

Router # configure terminal

Router (config) #: access-list 5 deny 10.250.1.1 0.0.0.0

access-list 5 deny 10.250.2.1 0.0.0.0

access-list 5 deny 10.250.4.1 0.0.0.0

access-list 5 deny 10.250.3.0 0.0.0.255

access-list 5 permit any

Router (config) #: interface FA0

Router (config-if) #: ip access-group 5 in or out

Router (config-if) #: exit

Router (config) #: exit

1. Extended ACL - Refer to T4 ACL Workbook:
2. Page 9
3. Router Name: Router A

Interface: Gig0/0

1. Router Name: Router F

Interface: Fa0/1

1. Router Name: Router C

Interface: Fa0/1

1. Router Name: Router F

Interface: Fa0/1

1. Router Name: Router C

Interface: Fa0/1

1. Router Name: Router D

Interface: Gig0/0

1. Router Name: Router E

Interface: Gig0/0

1. Router Name: Router E

Interface: Gig0/0

1. Router Name: Router C

Interface: Fa0/1

1. Router Name: Router E

Interface: Gig0/0

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3. 192.100.10.208 to 192.100.10.223

4. 210.48.72.192 to 210.48.72.223

5. 192.168.5.184 to 192.168.5.191

6. 172.32.128.0 to 172.32.143.255

7. 165.50.196.0 to 165.50.199.255

8. 172.16.128.0 to 172.16.255.255

9. 192.168.1.236 to 192.168.1.239

10. 172.32.160.0 to 172.32.191.255

11. 10.64.0.0 to 10.127.255.255

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4. 192.168.15.0 to 192.168.15.63

5. 172.32.4.0 to 172.32.4.255

6. Any addresses

7. 192.168.15.0 to 192.168.15.255

8. 172.16.40.0 to 172.16.43.255

9. 172.18.104.0 to 172.18.111.255

10. 192.168.15.96 to 192.168.15.127

1. Page 36-37(problem 1, 2)

Problem 1:

Router Name: Router A

Interface: Fa0/0

Access-list #: 105

Router# configure terminal

Router (config)# access-list 105 deny ip host 172.20.70.89 host 192.168.122.128

Router (config)# interface Fa0/0

Router (config-if)# ip access-group 105 in or out

Router (config-if)# exit

Router (config)# exit

Router# copy run start

Problem 2:

Router Name: Router B

Interface: Fa0/1

Access-list #: 110

Router# configure terminal

Router (config)# access-list 110 deny ip host 192.168.122.129 172.20.70.0 0.0.0.255

access-list 110 deny ip 192.168.122.0 0.0.0.127 host 172.20.70.89

access-list 110 permit ip any any

Router (config)# interface Fa0/1

Router (config-if)# ip access-group 110 in or out

Router (config-if)# exit

Router (config)# exit

Router# copy run start

1. Page 42-43 (problem 5-6)

Problem 5:

Router Name: Router A

Interface: Fa0/0

Access-list #: 115

Router# configure terminal

Router (config)# access-list 115 remark Deny access to the Network

access-list 115 deny ip 204.95.150.0 0.0.0.255 210.250.10.0 0.0.0.255

access-list 115 remark Allow all other traffic

access-list 115 permit ip any any

Router (config)# interface Fa0/0

Router (config-if)# ip access-group 115 in or out

Router (config-if)# exit

Router (config)# exit

Problem 6:

Router Name: Router B

Interface: Fa0/1

Access-list #: 120

Router# configure terminal

Router (config)# access-list 120 172.59.2.0 0.0.0.255 host 204.95.150.10

access-list 120 172.59.2.0 0.0.0.255 204.95.150.0 0.0.0.255

access-list 120 permit ip any any

Router (config)# interface Fa0/1

Router (config-if)# ip access-group 120 in or out

Router (config-if)# exit

Router (config)# exit

Router# copy run start

1. Page 48-51 (problem 9-12)

Problem 9:

Router Name: Router A

Interface: Gig0/1

Access-list #: 125

Router# configure terminal

Router (config)# access-list 125 deny ip 192.168.125.0 0.0.0.31 192.168.195.0 0.0.0.255

access-list 125 permit ip any any

Router (config)# interface Gig0/1

Router (config-if)# ip access-group 125 in or out

Router (config-if)# exit

Router (config)# exit

Problem 10:

Router Name: Router A

Interface: S0/0/0

Access-list Name: Media\_Center

Router# configure terminal

Router (config)# ip access-list extended Media\_Center

Router (config-ext-nacl)# remark Allow the first seven addresses from the Media Center

permit ip 172.31.195.0 0.0.0.7 192.168.125.0 0.0.0.255

Router (config)# interface S0/0/0

Router (config-if)# ip access-group Media\_Center in or out

Router (config-if)# exit

Router (config)# exit

Router# copy run start

Problem 11:

Router Name: Router A

Interface: Fa0/0

Access-list #: 130

Router# configure terminal

Router (config)# access-list 130 permit ip 192.16.20.0 0.0.0.3 172.22.75.0 0.0.0.255

access-list 130 deny ip 192.16.20.0 0.0.0.31 172.22.75.0 0.0.0.255

acess-list 130 permit ip any any

Router (config)# interface Fa0/0

Router (config-if)# ip access-group 130 in or out

Router (config-if)# exit

Router (config)# exit

Problem 12:

Router Name: Router B

Interface: Fa0/1

Access-list #: 135

Router# configure terminal

Router (config)# access-list 135 permit ip 172.22.75.0 0.0.0.7 172.18.50.0 0.0.0.255

access-list 135 deny ip 172.22.75.0 0.0.0.127 192.16.20.0 0.0.0.255

access-list permit ip any any

Router (config)# interface Fa0/1

Router (config-if)# ip access-group 135 in or out

Router (config-if)# exit

Router (config)# exit

Router# copy run start

1. Page 58-59 (problem 15-16)

Problem 15:

Router Name: Router B

Interface: Fa0/1

Access-list #: 140

Router# configure terminal

Router (config)# access-list 140 permit ICMP 192.128.45.0 0.0.0.255 172.16.125.0 0.0.0.255

access-list 140 permit ICMP 192.128.45.0 0.0.0.255 10.250.2.0 0.0.0.255

Router (config)# interface Fa0/1

Router (config-if)# ip access-group 140 in or out

Router (config-if)# exit

Router (config)# exit

Problem 16:

Router Name: Router B

Interface: Fa0/0

Access-list Name: PEGGYS\_LAB

Router# configure terminal

Router (config)# ip access-list extended PEGGYS\_LAB

Router (config-std-nacl)# deny tcp 10.250.8.0 0.0.0.127 192.128.45.0 0.0.0.255 eq 23

permit ip any any

Router (config)# interface Fa0/0

Router (config-if)# ip access-group PEGGYS\_LAB in or out

Router (config-if)# exit

Router (config)# exit

Router# copy run start

1. Page 62-63 (problem 19-20).

Problem 19:

Router Name: Router A

Interface: Gig0/0

Access-list #: 145

Router# configure terminal

Router (config)# access-list 145 remark Allow TFTP from the 192.168.15.0 network

access-list 145 permit udp 192.168.15.0 0.0.0.255 any eq tftp

Router (config)# interface Gig0/0

Router (config-if)# ip access-group 145 in or out

Router (config-if)# exit

Router (config)# exit

Problem 20:

Router Name: Router B

Interface: Gig0/1

Access-list #: 150

Router# configure terminal

Router (config)# access-list 150 permit tcp host 172.23.50.196 192.168.15.0 0.0.0.255 eq 80

access-list 150 deny ip 172.23.50.0 0.0.0.255 192.172.10.0 0.0.0.255

access-list 150 deny ip 172.23.50.0 0.0.0.255 192.168.15.0 0.0.0.255

Router (config)# interface Gig0/1

Router (config-if)# ip access-group 150 in or out

Router (config-if)# exit

Router (config)# exit