Networks

# OSPFv2

(config)# router ospf 10

(config-router)# router-id 1.1.1.1

# clear ip ospf process

(config-router)# network 192.168.0.0 0.0.0.255 area 0

(config-router)# int g0/0/0

(config-if)# ip ospf 10 area 0

(config-router)# passive-interface f0/0

(config-if)# ip ospf priority 255

(config-if)# ip ospf cost 100

(config-if)# ip ospf hello-interval 5

(config-if)# ip ospf dead-interval 20

(config)# ip route 0.0.0.0 0.0.0.0 Serial0/1/0

(config-router)# default-information originate

DEBUG

#show ip ospf neighbor

#show ip protocols

#show ip ospf

#show ip ospf interface

# ACL

Afbeelding met tekst, binnen, schermafbeelding

Automatisch gegenereerde beschrijving

(config)# access-list access-list-number {deny | permit | remark text } source [source-wildcard]

(config)# ip access-list standard access-list-name

(config-if)# ip access-group {number of name} {in | out}

## Standard ACL (1-99) ⬄ (1300-1999)

(config)# access-list 10 permit 192.168.0.0 0.0.0.255

(config)# access-list 10 permit host 192.168.10.0

(config)# ip access-list standard PERMIT-ACCESS

(config-std-nacl)# permit host 192.168.10.0

(config-std-nacl)# permit 192.168.0.0 0.0.0.255

(config-std-nacl)# exit

(config)# int s0/1/0

(config-if)# ip access-group 10 out

(config-if)# ip access-group PERMIT-ACCESS out

## Secure SSH with ACL

(config)# ip access-list standard ADMIN-HOST

(config-std-nacl)# remark This ACL secures incoming vty lines

(config-std-nacl)# permit 192.168.10.10

(config-std-nacl)# deny any

(config-std-nacl)# exit

(config)# line vty 0 4

(config-line)# login local

(config-line)# transport input ssh

(config-line)# access-class ADMIN-HOST in

(config-line)# end

## Extended ACL (100-199) ⬄ (2000-2699)

(config)# access-list 100 permit { icmp | ip | tcp | udp } any any eq { domain | ftp | ftp-data | pop3 | smtp | telnet | www | ‘port number’ }

(config)# access-list 100 permit tcp any any eq www

OR

(config)# access-list 100 permit tcp any any eq 80

established keyword allows the reply traffic to return

Afbeelding met tekst

Automatisch gegenereerde beschrijving

(config)# ip access-list extended ‘name-list’

(config)# ip access-list extended SURFING

Afbeelding met tekst

Automatisch gegenereerde beschrijving

Afbeelding met tekst

Automatisch gegenereerde beschrijving

# NAT

## Static NAT

(config)# Ip nat inside source static 192.168.10.254 209.165.201.5

(config)# int s0/1/0

(config-if)# Ip address 192.168.1.2 255.255.255.252

(config-if)# ip nat inside

(config-if)# exit

(config)# int s0/1/1

(config-if)# ip address 209.165.200.1 255.255.255.252

(config-if)# Ip nat outside

## Dynamic NAT

(config)# ip nat pool NAT-POOL1 209.165.200.226 209.165.200.226.240 netmask 255.255.255.224

(config)# access-list 1 permit 192.168.0.0 0.0.255.255

(config)# ip nat inside source list 1 pool NAT-POOL1

(config)# int s0/1/0

(config-if)# ip nat inside

(config-if)# int s0/1/1

(config-if)# ip nat outside

# clear ip nat translation \*

## PAT

(config)# ip nat inside source list 1 interface serial 0/1/0 overload

(config)# access-list 1 permit 192.168.0.0 0.0.255.255

(config)# interface s0/1/0

(config-if)# ip nat inside

(config-if)# interface s0/1/1

(config-if)# ip nat outside

### PAT POOL

(config)# ip nat pool NAT-POOL2 209.165.200.226 209.165.200.240 netmask 255.255.255.240

(config)# access-list 1 permit 192.168.0.0 0.0.255.255

(config)# ip nat inside source list 1 pool NAT-POOL2 overload

(config)# int s0/1/0

(config-if)# ip nat inside

(config-if)# int s0/1/1

(config-if)# ip nat outside

### Debug

# show ip nat translation

# show ip nat statistics

(config) # ntp server ‘ip’

(config) # service timestamps log data

# copy running-config tft

# copy running-config usbflash0:

#### get the iso from tft or flash

# copy tftp: flash:

#service timestamp log datetime