

Adgang til Router via Telnet

Telnet 172.16.0.1

Telnet til router

User Access Verification

Password:
Router-1>

USER mode (kun se mode)

Skift til Privilegeret mode hvor man kan konfigurerer routeren

Router-1>enable
Password:
Router-1#

PRIILIGERET mode (konfigurere mv.)

Slette konfigurations filen og genstarte routeren

Router-1#erase startup-config
Router-1#reload
Proceed with reload? [confirm]

Sletter configurations filen STARTUP-CONFIG
Genstarter router

Kopiere konfigurationen i opstarts konfigurations filen

Router-1#copy running-config startup-config

Kopiere kørende konfiguration til startup config

Kommandoer som bruges til at vise router opsætning og status

Router-1#show interface serial 1
Router-1#show interfaces ethernet 0

Viser status mv. for interface serial 1
Viser status mv. for interface ethernet 0

Router-1#show controllers ethernet 0
Router-1#show controllers serial

Viser status mv. for interface Ethernet 0
Viser status mv. for alle serieal interfaces

Router-4#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is not set

Viser router tabellen

172.16.0.0/16 is variably subnetted, 10 subnets, 2 masks
C 172.16.0.12/30 is directly connected, Serial1
C 172.16.0.13/32 is directly connected, Serial1
C 172.16.0.8/30 is directly connected, Serial0
C 172.16.0.10/32 is directly connected, Serial0
R 172.16.0.4/30 [120/1] via 172.16.0.10, 00:00:12, Serial0
R 172.16.0.5/32 [120/1] via 172.16.0.10, 00:00:12, Serial0
R 172.16.0.6/32 [120/2] via 172.16.0.13, 00:00:22, Serial1
R 172.16.0.0/30 [120/1] via 172.16.0.13, 00:00:22, Serial1
R 172.16.0.1/32 [120/2] via 172.16.0.10, 00:00:12, Serial0
R 172.16.0.2/32 [120/1] via 172.16.0.13, 00:00:22, Serial1

Kommandoer som bruges til at vise router opsætning og status (fortsat)

```
Router-1#show running-config                                Viser kørende configuration
version 12.2
hostname Router-1
!
interface Ethernet0/0
  ip address 10.0.0.1 255.0.0.0
  ip nat outside
!
interface FastEthernet0/0
  ip address 172.16.0.1 255.255.0.0
  ip nat inside
!
interface Serial1/0
  ip address 192.168.0.1 255.255.255.0
  ip nat inside
  encapsulation ppp
  clockrate 4000000
!
router rip
  network 10.0.0.0
  network 172.16.0.0
  network 192.168.0.0
!
ip nat pool eksternt-net-1-adr 10.0.0.1 10.0.0.1 netmask 255.0.0.0
ip nat inside source list 1 pool eksternt-net-1-adr overload
ip classless
ip route 0.0.0.0 0.0.0.0 10.0.0.2
!
access-list 1 permit any
!
line con 0
  password 123
  login
line vty 0 4
  password 123
  login
end

Router-1#
```

Interface konfigurering

```
Router-1#configure terminal                                Konfigurer fra terminalen
Enter configuration commands, one per line. End with CNTL/Z.
```

Router-1(config)#interface serial 1	Opsæt interface serial 1
Router-1(config-if)#ip address 192.168.0.1 255.255.255.0	Opsæt interface serial 1 me adr.
Router-1(config-if)#clock rate 2000000	Opsæt DCE til clockrate 2Mbps
Router-1(config-if)#encapsulation ppp	Opsæt encapsulation til PPP

Router-1(config-if)#no shutdown	Tænd for interface
Router-1(config-if)#shutdown	Sluk for interface

Router-1(config-if)#exit	Afslut interface config mode
Router-1(config)#	
Router-1(config)#exit	Afslut config mode
Router-1#	

Router protokol konfigurering

Router-1# **configure terminal**

Konfigurer fra terminalen

Enter configuration commands, one per line. End with CNTL/Z.

Router-1(config)#**ip routing**

Aktiver ip routing

Router-1(config)#**router rip**

Opsæt RIP protokollen

Router-1(config-router)#**network 192.168.0.0**

Så den anvender net 192.168.0.0

Router-1(config-router)#**network 10.0.0.0**

og net 10.0.0.0

Router-1(config-router)#**version 2**

Vælg RIP version 2

Router-1(config- router)#**exit**

Afslut router config mode

Router-1(config)#

Afslut config mode

Router-1#

Statisk route på router

Router-1(config)#**ip route 172.16.0.0 255.255.0.0 192.168.0.7** Opsæt statisk route til net 172.16.0.0
netmaske 255.255.0.0 via adr. 192.168.0.7

Router-1(config)#**ip route 0.0.0.0 0.0.0.0 10.0.0.2**

Opsæt gateway of last resort til 10.0.0.2

Password konfigurering

Router-1(config)#**enable secret 123**

Konfigurerer så der skal anvendes password for at
komme i prævilegeret mode (enable mode)

Router-1# **configure terminal**

Konfigurer fra terminalen

Enter configuration commands, one per line. End with CNTL/Z.

Router-1(config)#**line console 0**

Konfigurerer consol med password

Router-1(config-line)#**login**

password skal være 123

Router-1(config-line)#**password 123**

Afslut console config mode

Router-1(config-line)#**exit**

Router-1(config)#**line vty 0 4**

Konfigurerer vty (telnet) med password

Router-1(config-line)#**login**

password skal være 123

Router-1(config-line)#**password 123**

Afslut vty config mode

Router-1(config-line)#**exit**

Router-1(config)#

Hjælper adresse opsætning til brug i forbindelse med fx DHCP

Router-1(config)#**interface Ethernet1**

Hvis en host gerne vil have en adresse videre sender
Interfacet DHCP kaldet til helper adressen
192.168.0.35 som et unicast

Router-1(config-if)#**ip helper-address 192.168.0.35**

NAT på cisco routere

```
Router-1(config)#interface Ethernet 1
Router-1(config-if)# ip address 10.0.0.200 255.0.0.0
Router-1(config-if)# ip nat outside
!
Router-1(config)#interface Serial 1
Router-1(config-if)# ip address 192.168.0.1 255.255.255.0
Router-1(config-if)# ip nat inside
!
Router-1(config)#interface Serial 0
Router-1(config-if)# ip address 172.16.0.1 255.255.255.0
Router-1(config-if)# ip nat inside
!
Router-1(config)#ip nat pool eksternt-net-1-adr 10.0.0.200 10.0.0.200 netmask 255.0.0.0
```

Opsæt interface Ethernet 1

Ekstern side af netværk

Opsæt interface serial 1

Intern side af netværk

Opsæt interface serial 0

Intern side af netværk

```
Router-1(config)#ip nat inside source list 1 pool eksternt-net-1-adr overload
```

Den interne adresse side “source list 1” er den
den access-liste som er vist herunder, som tillader
alle at få adgang til det eksterne net.

Den eksterne adresse side er defineret i net pool
”ekstern-net-1”. Overload betyder at der kun er en
offentlig adresse, men at der kan være flere der bruger
den samtidigt. Det betyder at der anvendes NAT og
PAT (Port Address Translation).

```
!
Router-1(config)#access-list 1 permit any
```

Tillad alle at bruge NAT pool