

Nastavni predmet RAČUNALNE MREŽE

Naslov cjeline Djelovanje u mrežnom sloju

Naslov jedinice Vježba 7: Statičko usmjeravanje

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PRIPREMA ZA VJEŽBU

Unos informacija o putanji u usmjerničku tablicu kod statičkog usmjeravanja:

- Statičko usmjeravanje uključuje ručno konfiguriranje usmjerničke tablice, gdje administrator mreže direktno specificira putanje do određenih odredišta. Informacije o putanjama se unose ručno, i to obično pomoću naredbi na mrežnim uređajima.

`ip route <odredište_mreže><maska_mreže><sljedeći_hop>`

`odredište_mreže`: Ciljna IP adresa odredišne mreže.

`maska_mreže`: Maska podmreže koja identificira raspon adresa odredišne mreže.

`sljedeći_hop`: IP adresa sljedećeg usmjerničkog čvora prema kojem će paketi biti proslijeđeni kako bi stigli do odredišta.

Primjer konkretnog unosa:

1. `ip route 192.168.1.0 255.255.255.0 10.0.0.1`

2. `ip route add -net 192.168.1.0 255.255.255.0 gw 10.0.0.1`

IZVOĐENJE VJEŽBE


```

Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip addr 192.168.20.193 255.255.255.192
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
exit
Router(config)#interface FastEthernet1/0
Router(config-if)#ip addr 192.168.80.65 255.255.255.192
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
exit
Router(config)#

Router(config)#interface serial2/0
Router(config-if)#ip addr 172.16.30.1 255.255.255.2
Bad mask 0xFFFFF02 for address 172.16.30.1
Router(config-if)#ip addr 172.16.30.1 255.255.255.252
Router(config-if)#clock rat 6400
Unknown clock rate
Router(config-if)#clock rat 64000
This command applies only to DCE interfaces
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#

```

```

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.194

Pinging 192.168.20.194 with 32 bytes of data:

Reply from 192.168.20.194: bytes=32 time=5ms TTL=128
Reply from 192.168.20.194: bytes=32 time<1ms TTL=128
Reply from 192.168.20.194: bytes=32 time=2ms TTL=128
Reply from 192.168.20.194: bytes=32 time=4ms TTL=128

Ping statistics for 192.168.20.194:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 2ms

C:\>

```

```
C:\>ping 192.168.20.193
```

```
Pinging 192.168.20.193 with 32 bytes of data:
```

```
Reply from 192.168.20.193: bytes=32 time<lms TTL=255  
Reply from 192.168.20.193: bytes=32 time<lms TTL=255  
Reply from 192.168.20.193: bytes=32 time<lms TTL=255  
Reply from 192.168.20.193: bytes=32 time<lms TTL=255
```

```
Ping statistics for 192.168.20.193:
```

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

```
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
```

```
    172.16.0.0/30 is subnetted, 1 subnets  
C       172.16.30.0 is directly connected, Serial2/0  
    192.168.20.0/26 is subnetted, 1 subnets  
C       192.168.20.192 is directly connected, FastEthernet0/0  
    192.168.80.0/26 is subnetted, 1 subnets  
C       192.168.80.64 is directly connected, FastEthernet1/0
```

```
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
```

```
    172.16.0.0/30 is subnetted, 1 subnets  
C       172.16.30.0 is directly connected, Serial2/0
```

```
Router#enable  
Router#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#ip route 192.168.20.192 255.255.255.192 172.16.30.1  
Router(config)#ip route 192.168.20.64 255.255.255.192 172.16.30.1  
Router(config)#
```