

# Konfiguracija RIPv1 protokola

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## PRIPREMA

### 1. Koje su karakteristike protokola RIPv1?

- Koristi se unicast za slanje svih rutiranih tablica.
- Nema podršku za VLSM (Variable Length Subnet Masking).
- Koristi se broadcast za slanje zahtjeva za ažuriranjem i odgovara na njih.
- Ne podržava autentifikaciju.
- Ima maksimalan broj hopova od 15, što ograničava veličinu mreže koju može podržati.

-Pripada routing protokolu - vektorski

## VJEZBA

### 1/2 ZADATAK

```
RI#enable
RI#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
RI(config)#no ip domain-lookup
RI(config)#hostname r1
r1(config)#hostname R1
RI(config)#line con 0
RI(config-line)#logging synchronous
RI(config-line)#exit
RI(config)#interface s2/0
RI(config-if)#no shutdown
RI(config-if)#ip address 192.168.2.1 255.255.255.0
RI(config-if)#exit
RI(config)#interface s2/0
RI(config-if)#clock rate 64000
This command applies only to DCE interfaces
RI(config-if)#
%LINK-3-UPDOWN: Interface Serial2/0, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to down

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

RI(config-if)#clock rate 64000
RI(config-if)#exit
RI(config)#exit
RI#
%SYS-5-CONFIG_I: Configured from console by console

RI#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
R2#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#no ip domain lookup
R1(config)#hostname R3
R3(config)#hostname R2
R2(config)#line con 0
R2(config-line)#logging synchronous
R2(config-line)#exit
R2(config)#interface s2/0
R2(config-if)#no shutdown
R2(config-if)#ip address 192.168.2.2 255.255.255.0
R2(config-if)#exit
R2(config)#interface s3/0
^
% Invalid input detected at '^' marker.

R2(config)#interface s3/0
R2(config-if)#no shutdown
R2(config-if)#clock rate 64000
This command applies only to DCE interfaces
R2(config-if)#ip address 192.168.3.1 255.255.255.0
R2(config-if)#exit
R2(config)#exit
^
% Invalid input detected at '^' marker.

R2(config)#exit
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#exit
```

Ctrl+F6 to exit CLI focus

Copy

Paste

R3

Physical Config CLI Attributes

IOS Command Line Interface

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#no ip domain-lookup
Router(config)#hostname R3
R3(config)#line con 0
R3(config-line)#logging synchronoust
^
% Invalid input detected at '^' marker.

R3(config-line)#logging synchronous+
^
% Invalid input detected at '^' marker.

R3(config-line)#logging synchronous
R3(config-line)#exit
R3(config)#interface s3/0
R3(config-if)#no shutdown
R3(config-if)#ip address 192.168.3.2 255.255.255.0
R3(config-if)#clock rate 64000
^
% Invalid input detected at '^' marker.

R3(config-if)#clock rate 64000
R3(config-if)#xeit
^
% Invalid input detected at '^' marker.

R3(config-if)#exit
R3(config)#exit
R3#
%SYS-5-CONFIG_I: Configured from console by console

R3#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
```

### 3. ZADATAK

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.4.1

Pinging 192.168.4.1 with 32 bytes of data:

Reply from 192.168.4.1: bytes=32 time=22ms TTL=253
Reply from 192.168.4.1: bytes=32 time=15ms TTL=253
Reply from 192.168.4.1: bytes=32 time=21ms TTL=253
Reply from 192.168.4.1: bytes=32 time=14ms TTL=253

Ping statistics for 192.168.4.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 14ms, Maximum = 22ms, Average = 18ms
```

### 4. ZADATAK

```
C:\>
C:\>PING 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time=4ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.2.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 4ms, Average = 1ms
```

```
C:\>PING 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time=16ms TTL=254
Reply from 192.168.2.2: bytes=32 time=9ms TTL=254
Reply from 192.168.2.2: bytes=32 time=10ms TTL=254
Reply from 192.168.2.2: bytes=32 time=13ms TTL=254

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 9ms, Maximum = 16ms, Average = 12ms
```

```
C:\>PING 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time=7ms TTL=254
Reply from 192.168.2.2: bytes=32 time=11ms TTL=254
Reply from 192.168.2.2: bytes=32 time=10ms TTL=254
Reply from 192.168.2.2: bytes=32 time=11ms TTL=254

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 7ms, Maximum = 11ms, Average = 9ms
```

## 5. ZADATAK

```
l1>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

R1: 192.168.1.0/24 is directly connected, FastEthernet0/0
R1: 192.168.2.0/24 is directly connected, Serial2/0

l1>
```

## 6. ZADATAK

```
R1>enable
R1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#router rip
R1(config-router)#network 192.168.1.0
R1(config-router)#netnetwork 192.168.2.0

R2>enable
R2#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#router rip
R2(config-router)#network 192.168.2.0
R2(config-router)#network 192.168.3.0
R2(config-router)#sexit

R3>enable
R3#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#router rip
R3(config-router)#network 192.168.3.0
R3(config-router)#network 192.168.4.0
R3(config-router)#exit
R3(config)#exit
R3#
%SYS-5-CONFIG_I: Configured from console by console

R3#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

R   192.168.1.0/24 [120/2] via 192.168.3.1, 00:00:12, Serial2/0
R   192.168.2.0/24 [120/1] via 192.168.3.1, 00:00:12, Serial2/0
C   192.168.3.0/24 is directly connected, Serial2/0
C   192.168.4.0/24 is directly connected, FastEthernet0/0
```

```
R1#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
```

```
C 192.168.1.0/24 is directly connected, FastEthernet0/0  
C 192.168.2.0/24 is directly connected, Serial2/0  
R 192.168.3.0/24 [120/1] via 192.168.2.2, 00:00:19, Serial2/0  
R 192.168.4.0/24 [120/2] via 192.168.2.2, 00:00:19, Serial2/0
```

```
R2#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
```

```
R 192.168.1.0/24 [120/1] via 192.168.2.1, 00:00:05, Serial2/0  
C 192.168.2.0/24 is directly connected, Serial2/0  
C 192.168.3.0/24 is directly connected, Serial3/0  
R 192.168.4.0/24 [120/1] via 192.168.3.2, 00:00:01, Serial3/0
```