

1.Zadatak

R1: 0.0.0.0 – 0.0.0.0 -via Gig0/1( jer Gig interfejsi su mnogo brži no Fa interfejsi..)  
  
R2: 0.0.0.0 – 0.0.0.0 -via Gig0/1  
 192.168.1.0 – 255.255.255.128 via Gig0/0  
 192.168.1.148 -255.255.255.252 via Gig0/0   
  
R3: 0.0.0.0 – 0.0.0.0 -via Gig0/0  
 192.168.1.0 – 255.255.255.128 via Gig0/1  
  
R4: 0.0.0.0 – 0.0.0.0 -via Gig0/0  
 192.168.1.0 – 255.255.255.128 via Gig0/0  
 192.168.1.148 -255.255.255.252 via Gig0/0  
 192.168.1.144 – 255.255.255.252 via Gig0/0  
   
R5: 0.0.0.0 – 0.0.0.0 -via Gig0/1

2. Zadatak

2.1)  
Oba protkola!!  
***Gledamo u tabelu rutiranja, gledamo administrativne distance:  
C-0, Static-1, OSPF-110, RIP-120, a DefaultRoute je poslednje što se gleda..***Host1 – R1 – Host1 - R1 – R3 – R2 -R4 – DNS server – R4 – R2 – R1 – Host1 – R1 – R3 -R2 -R4 -R5 - WebServer – R5 – R4 - R2 - R1 - Host1

Caka je bila u tome da se prilikom DNS Response i HTTP Response saobraćaj odvija sa R4 na R2 pa na R1..Razlog tome je naravno posebna implementacija statičke rute na ruteru R2.

2.2)  
Host1 – R1 – Host1 – R1 – R2 – R4 – DNS Server – R4 – R2 - R1 – Host1 – R1 – R2 – R4 – R5 -WebServer – R5 – R4 – R2 – R1 – Host1

Caka je bila u tome da se statička ruta rutera R1 zanemaruje jer ista nema uticaj na putanju između izvora i destinacije...slušamo RIP..

2.3) Statička ruta je Deafult Route što se poslednje gleda u tabeli rutiranja..  
Host1 – R1 – Host1 -R1 – R3 - R2 – R4 – DNS Server – R4 – R2 – R3 – R1 – Host1 – R1 – R3 – R2 – R4 – R5 – WebServer – R5 – R4 – R2 – R3 – R1 – Host1

2.5) Samo jedan ARP zahtjev. Prije nego što uopšte može da izađe van svoje mreže, Host1 šalje ARP Request kako bi naučio par (IP,MAC) svog Default Gateway-a.

2.6) Oba uređaja moraju imati ispravno podešeno IP, Subnet Mask i Default Gateway stim još da DNS server mora imati i „A Record“ tj.tabelu mapiranja tekstualnaAdresa – NjenaIPAdresa!

2.4)  
  
ARP-Request Mreža1 Host1Mac unknown Host1IP R1IP  
ARP-Reply Mreža1 R1Mac Host1Mac R1IP Host1IP

Idemo: Host1 – R1 – R2 – R4 - DNS  
DNS-Query Mreža1 Host1Mac R1Mac Host1IP DNS\_IP 1024+ 53  
DNS-Query Mreža3 R1Mac R2Mac Host1IP DNS\_IP 1024+ 53  
DNS-Query Mreža5 R2Mac R4Mac Host1IP DNS\_IP 1024+ 53  
DNS-Query Mreža6 R4Mac DNS\_ServerMac Host1IP DNS\_IP 1024+ 53  
  
Idemo: DNS – R4 – R2 - R3 – R1 – Host1 –NAT!!  
DNS-Response Mreža6 DNSMac R4Mac R4(NAT!)interfejsGig0/1IP Host1IP 53 1024+  
DNS-Response Mreža5 R4Mac R2Mac R4(NAT!)interfejsGig0/1IP Host1IP 53 1024+  
DNS-Response Mreža4 R2Mac R3Mac R4(NAT!)interfejsGig0/1IP Host1IP 53 1024+  
DNS-Response Mreža2 R3Mac R1Mac R4(NAT!)interfejsGig0/1IP Host1IP 53 1024+  
DNS-Response Mreža1 R1Mac Host1Mac R4(NAT!)interfejsGig0/1IP Host1IP 53 1024+  
  
Slušamo OSPF!!  
HTTP-Request Mreža1 Host1Mac R1Mac Host1IP WebServerIP 1024+ 80  
HTTP-Request Mreža2 R1Mac R3Mac Host1IP WebServerIP 1024+ 80  
HTTP-Request Mreža4 R3Mac R2Mac Host1IP WebServerIP 1024+ 80  
HTTP-Request Mreža5 R2Mac R4Mac Host1IP WebServerIP 1024+ 80  
HTTP-Request Mreža7 R4Mac R5Mac Host1IP WebServerIP 1024+ 80  
HTTP-Request Mreža8 R5Mac WebServerMac Host1IP WebServerIP 1024+ 80  
  
Slušamo OSPF!!  
HTTP-Response Mreža8 WebServerMac R5Mac R4(NAT!)interfejsGig0/1IP Host1IP 80 1024+  
HTTP-Response Mreža7 R5Mac R4Mac R4(NAT!)interfejsGig0/1IP Host1IP 80 1024+  
HTTP-Response Mreža6 R4Mac R2Mac R4(NAT!)interfejsGig0/1IP Host1IP 80 1024+  
HTTP-Response Mreža4 R4Mac R3Mac R4(NAT!)interfejsGig0/1IP Host1IP 80 1024+  
HTTP-Response Mreža2 R3Mac R1Mac R4(NAT!)interfejsGig0/1IP Host1IP 80 1024+  
HTTP-Response Mreža1 R1Mac Host1Mac R4(NAT!)interfejsGig0/1IP Host1IP 80 1024+

3. Zadatak.   
DORA!!

1) DHCP Request  
SourceMac SourceIP DestinationMac DestinationIP SourcePort DestPort  
HostMac 0.0.0.0 DHCP\_MAC 255.255.255.255 68 67  
  
2) DHSCP OFFER  
SourceMac SourceIP DestinationMac DestinationIP SourcePort DestPort  
DHCP\_MAC DHCP HostMac 255.255.255.255 67 68  
  
3) DHCP Request  
SourceMac SourceIP DestinationMac DestinationIP SourcePort DestPort  
HostMac 0.0.0.0 DHCP\_MAC 255.255.255.255 68 67  
  
4) DHCP ACK  
2) DHSCP OFFER  
SourceMac SourceIP DestinationMac DestinationIP SourcePort DestPort  
DHCP\_MAC DHCP HostMac 255.255.255.255 67 68