LV02: Osnovna analiza mrežnog prometa

Priprema:

1. Što je i čemu služi protokol ARP?

Protokol ARP je protokol za prevođenje IP adresa u MAC adrese u lokalnoj mreži .

2. Što je i čemu služi protokol ICMP?

Protokol ICMP je protokol za dijagnosticiranje i izvještavanje o problemima u mrežnoj komunikaciji .

3. Što znaš o naredbi ping?

Naredba ping je naredba za testiranje dostupnosti i kašnjenja mrežnog odredišta ili usluge .

Izvođenje vježbe:

1. zadatak:

2. zadatak:

Oznaka na shemi	PC1	PC2
Naziv radne stanice	WSx	WSy
IP adresa	192.168.10.2	192.168.10.3
Subnet maska	255.255.255.0	255.255.255.0
Default Gateway	192.168.10.1	192.168.10.1

3. zadatak:

a. 32

b. DHCP, SSDP, BROWSER

c. SSDP-Simple Service Discovery Protocol (SSDP) mrežni je protokol temeljen na paketu internetskih protokola za oglašavanje i otkrivanje mrežnih usluga i informacija o prisutnosti.

DHCP (Dynamic Host Configuration Protocol) je mrežni protokol korištenod strane mrežnih računala za dodjelivanje IP adresa i ostalih mrežnih postavki

d. ARP Request

```
> Frame 1: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface 0
> Ethernet II, Src: AsrockIn_ce:9a:f7 (70:85:c2:ce:9a:f7), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
v Address Resolution Protocol (request)
    Hardware type: Ethernet (1)
    Protocol type: IPv4 (0x0800)
    Hardware size: 6
    Protocol size: 4
    Opcode: request (1)
    Sender MAC address: AsrockIn_ce:9a:f7 (70:85:c2:ce:9a:f7)
    Sender IP address: 192.168.10.2
    Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00)
    Target IP address: 192.160.10.1
```

ARP Request

```
> Frame 15: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface 0
> Ethernet II, Src: AsrockIn_ce:9a:f7 (70:85:c2:ce:9a:f7), Dst: AsrockIn_ce:9a:f0 (70:85:c2:ce:9a:f0)
v Address Resolution Protocol (reply)
    Hardware type: Ethernet (1)
    Protocol type: IPv4 (0x0800)
    Hardware size: 6
    Protocol size: 4
    Opcode: reply (2)
    Sender MAC address: AsrockIn_ce:9a:f7 (70:85:c2:ce:9a:f7)
    Sender IP address: 192.168.10.2
    Target MAC address: AsrockIn_ce:9a:f0 (70:85:c2:ce:9a:f0)
    Target IP address: 192.168.10.3
```

e.

```
> Frame 1: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface 0
> Ethernet II, Src: AsrockIn_ce:9a:f7 (70:85:c2:ce:9a:f7), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
v Address Resolution Protocol (request)
    Hardware type: Ethernet (1)
    Protocol type: IPv4 (0x0800)
    Hardware size: 6
    Protocol size: 4
    Opcode: request (1)
    Sender MAC address: AsrockIn_ce:9a:f7 (70:85:c2:ce:9a:f7)
    Sender IP address: 192.168.10.2
    Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00)
    Target IP address: 192.160.10.1
```

4. zadatak:

a. 4

b. ICMP

c. IPv4 protokola

d. Ethernet 1 okvir

e. 192.168.10.2

f. 192.168.10.3

g. `(70:85:c2:ce:9a:f7)`

h. `(70:85:c2:ce:9a:f0)`

i. `Type: IPv4 (0x0800)`

j. Veličina IP adrese je 4 bajta, a MAC adrese je 6 bajta

k. Total lenght: 60

l. Total length – Header length= 60-20=40

m. Stavimo ICMP u search box

n. 8 ih ima sve ukupno

o. ICMP

p. IP protokola

q. Ethernet 1 okvir

5. zadatak: