

## **Domaća zadaća broj 1.**

### **Predmet:** **Računarske mreže**

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## Zadatak 1.

1	0.000000	CiscoInc_ae:75:c0	CiscoInc_ae:75:c0	LOOP	60	Reply
2	10.000304	CiscoInc_ae:75:c0	CiscoInc_ae:75:c0	LOOP	60	Reply
3	11.358100	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=1/256, ttl=64 (reply in 4)
4	11.359319	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=1/256, ttl=62 (request in 3)
5	12.359551	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=2/512, ttl=64 (reply in 6)
6	12.360807	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=2/512, ttl=62 (request in 5)
7	13.342008	192.168.1.1	224.0.0.9	RIPv2	86	Response
8	13.361042	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=3/768, ttl=64 (reply in 9)
9	13.362305	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=3/768, ttl=62 (request in 8)
10	14.362490	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=4/1024, ttl=64 (reply in 11)
11	14.363692	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=4/1024, ttl=62 (request in 10)
12	15.363858	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=5/1280, ttl=64 (reply in 13)
13	15.365106	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=5/1280, ttl=62 (request in 12)
14	16.365263	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=6/1536, ttl=64 (reply in 15)
15	16.366503	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=6/1536, ttl=62 (request in 14)

Slika 1. Računar 1 sa adresom 192.168.1.3 pinga računara 2 sa adresom 192.168.2.2(snimljeno na računaru 1)

Na slici se može vidjeti slanje pinga sa računara 1 na računar 2, pri čemu su oni u različitim mrežama i spojeni su na isti hub. Ping je uspješan.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	CiscoInc_68:ac:20	CiscoInc_68:ac:20	LOOP	60	Reply
2	2.550867	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=1/256, ttl=62 (reply in 3)
3	2.550916	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=1/256, ttl=64 (request in 2)
4	3.552338	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=2/512, ttl=62 (reply in 5)
5	3.552384	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=2/512, ttl=64 (request in 4)
6	4.553832	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=3/768, ttl=62 (reply in 7)
7	4.553878	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=3/768, ttl=64 (request in 6)
8	5.555211	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=4/1024, ttl=62 (reply in 9)
9	5.555230	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=4/1024, ttl=64 (request in 8)
10	6.556626	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=5/1280, ttl=62 (reply in 11)
11	6.556671	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=5/1280, ttl=64 (request in 10)
12	7.558028	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=6/1536, ttl=62 (reply in 13)
13	7.558074	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=6/1536, ttl=64 (request in 12)
14	7.561708	Dell_b1:42:c6	CiscoInc_68:ac:20	ARP	42	Who has 192.168.2.1? Tell 192.168.2.2
15	7.562373	CiscoInc_68:ac:20	Dell_b1:42:c6	ARP	60	192.168.2.1 is at ec:44:76:68:ac:20
16	9.998954	CiscoInc_68:ac:20	CiscoInc_68:ac:20	LOOP	60	Reply

Slika 2. Računar 2 sa adresom 192.168.2.2 prima ping od računara 1 sa adresom 192.168.1.3(snimljeno na računaru 2)

Na ovoj slici se može vidjeti prijem paketa koje šalje računar 1 ka računaru 2, te odgovor računara 2.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	CiscoInc_68:ac:21	CiscoInc_68:ac:21	LOOP	60	Reply
2	0.223078	CiscoInc_ae:75:c1	CDP/VTP/DTP/PAgP/UD...	CDP	350	Device ID: Router Port ID: FastEthernet0/1
3	1.192558	CiscoInc_ae:75:c1	CiscoInc_ae:75:c1	LOOP	60	Reply
4	2.550494	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=1/256, ttl=63 (reply in 5)
5	2.551144	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=1/256, ttl=63 (request in 4)
6	3.551971	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=2/512, ttl=63 (reply in 7)
7	3.552617	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=2/512, ttl=63 (request in 6)
8	4.553502	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=3/768, ttl=63 (reply in 9)
9	4.554048	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=3/768, ttl=63 (request in 8)
10	5.554855	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=4/1024, ttl=63 (reply in 11)
11	5.555447	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=4/1024, ttl=63 (request in 10)
12	6.556296	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=5/1280, ttl=63 (reply in 13)
13	6.556867	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=5/1280, ttl=63 (request in 12)
14	7.557642	192.168.1.3	192.168.2.2	ICMP	98	Echo (ping) request id=0x15ec, seq=6/1536, ttl=63 (reply in 15)
15	7.558259	192.168.2.2	192.168.1.3	ICMP	98	Echo (ping) reply id=0x15ec, seq=6/1536, ttl=63 (request in 14)
16	9.998903	CiscoInc_68:ac:21	CiscoInc_68:ac:21	LOOP	60	Reply

Slika 3. Računar 1 sa adresom 192.168.1.3 pinga računara 2 sa adresom 192.168.2.2 (snimljeno na računaru 2)

Na ovoj slici se može vidjeti slanje paketa sa računara 1 na računar 2 i slanje odgovora. Ovo je zabilježeno na računaru 3, koji je spojen direktno na Hub. Paketi koji idu sa računara 1 i 2 se šalju na odgovarajuće rutere, a ruteri ih dalje prosljeđuju na hub. Hub te pakete šalje svim uređajima koji su spojeni na njega. Iz tog razloga se ti paketi mogu snimiti na računaru 3, koji je spojen direktno na hub.