34.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	10.0.0.7	224.0.0.9	RIPv2	106	Response
2	35.034481459	10.0.0.7	224.0.0.9	RIPv2	106	Response
3	53.159273284	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0xdfded942
4	53.159601657	42:00:aa:00:00:03	Broadcast	ARP	42	Who has 10.0.0.12? Tell 10.0.0.1
5	54.167535253	10.0.0.1	10.0.0.12	DHCP	342	DHCP Offer - Transaction ID 0xdfded942
6	56.230052902	0.0.0.0	255.255.255.255	DHCP	342	DHCP Request - Transaction ID 0xdfded942
7	56.233134189	10.0.0.1	10.0.0.12	DHCP	342	DHCP ACK - Transaction ID 0xdfded942
8	56.254020932	42:00:aa:00:00:02	Broadcast	ARP	42	Gratuitous ARP for 10.0.0.12 (Request)
9	56.254086489	10.0.0.1	10.0.0.12	ICMP	62	Echo (ping) request id=0x9049, seq=0/0, ttl=64 (reply in 12)
10	56.254100314	42:00:aa:00:00:02	Broadcast	ARP	42	Who has 10.0.0.1? Tell 10.0.0.12
11	56.254130587	42:00:aa:00:00:03	42:00:aa:00:00:02	ARP	42	10.0.0.1 is at 42:00:aa:00:00:03
12	56.254135701	10.0.0.12	10.0.0.1	ICMP	62	Echo (ping) reply id=0x9049, seq=0/0, ttl=64 (request in 9)
13	71.046325165	10.0.0.7	224.0.0.9	RIPv2	106	Response
14	101.056710198	10.0.0.7	224.0.0.9	RIPv2	106	Response

U procesu dodjele IP-adresa izmjenjuje se 4 vrste poruka: DHCP Discover - poslan od strane računala PC3 s izvorišnom IP-adresom 0.0.0.0 (jer računalo tek treba dobiti adresu) i odredišnom adresom postavljenom na broadcast adresu 255.255.255.255 (računalo PC3 ne zna adresu DHCP-poslužitelja, pa mora adresirati sva računala). Zatim DHCP Offer - DHCP poslužitelj (10.0.0.1) šalje ponuđenu IP-adresu (10.0.0.12), podatke o nadležnim DNS-poslužiteljima, podrazumijevanom usmjeritelju i mrežnoj masci. Onda DHCP Request - računalo PC3 (0.0.0.0) šalje na broadcast adresu zahtjev za ponuđenom adresom, te DHCP ACK - DHCP-poslužitelj (10.0.0.1) odobrava zahtjev za adresom, definira vrijeme „najma" adrese (10.0.0.12), te potvrđuje podatke o podrazumijevanom usmjeritelju i DNS-poslužiteljima.

35.

a) IP-adresa dnsHr.hr je 7.0.0.2

b) računalo nadležno za primanje pošte u domeni zpm.fer.hr je 10 zpmMail.zpm.fer.hr

c) računalo nadležno za primanje pošte u domeni tel.fer.hr je 10 www.tel.fer.hr

d) DNS-poslužitelji nadležni za domenu hr su: dnsHr.hr i hr2.com

e) DNS-poslužitelj nadležan za domenu fer.hr je dnsFer.fer.hr

f) DNS-poslužitelj nadležan za domenu tel.fer.hr je dnsTel.tel.fer.hr

g) DNS-poslužitelji nadležni za vršnu domenu („.") su aRootServer, bRootServer, cRootServer

h) ime računala s IP-adresom 20.0.0.4 je mm.tel.fer.hr

36.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	30.0.0.1	224.0.0.9	RIPv2	286	Response
2	14.890327700	30.0.0.3	30.0.0.2	DNS	70	Standard query 0x993f MX tel.fer.hr
3	15.109698400	30.0.0.2	30.0.0.3	DNS	90	Standard query response 0x993f MX tel.fer.hr MX 10 www.tel.fer.hr

Analizirajući snimljeni promet može se identificirati slijed poruka protokola DNS izmijenjenih u mreži od trenutka slanja upita s računala pc do primitka odgovora. Računalo pc šalje DNS-upit svom nadležnom DNS-poslužitelju računalu dnsZpm. S obzirom da dnsZpm u svom priručnom spremniku ima traženu adresu, šalje odgovor na upit.

37.

```
   4 65.845590840  30.0.0.3         30.0.0.2        DNS       59 Standard query 0x3b87 NS <Root>
   5 65.878847758  30.0.0.2         30.0.0.3        DNS      181 Standard query response 0x3b87 NS <Root> NS aRootServer NS cRootServer NS bRootServer A 1.0.0.2 A 2.0.0.2 A 3.0.0.2
```

> Frame 4: 59 bytes on wire (472 bits), 59 bytes captured (472 bits) on interface 0
> Ethernet II, Src: 42:00:aa:00:00:1c (42:00:aa:00:00:1c), Dst: 42:00:aa:00:00:1b (42:00:aa:00:00:1b)
> Internet Protocol Version 4, Src: 30.0.0.3, Dst: 30.0.0.2
▼ User Datagram Protocol, Src Port: 50880, Dst Port: 53
    Source Port: 50880
    Destination Port: 53
    Length: 25
    Checksum: 0xbd39 [unverified]
    [Checksum Status: Unverified]
    [Stream index: 1]
  > [Timestamps]
> Domain Name System (query)

```
0000   42 00 aa 00 00 1b 42 00  aa 00 00 1c 08 00 45 00    B·····B· ······E·
0010   00 2d 2d 03 00 00 40 11  11 b9 1e 00 00 03 1e 00    ·--·--@· ········
0020   00 02 c6 c0 00 35 00 19  bd 39 3b 87 01 00 00 01    ·····5·· ·9;·····
0030   00 00 00 00 00 00 00 00  02 00 01                   ········ ···
```

Izvorišna vrata su 50880, a odredišna su 53.

38.

a) protokoli koji su se pojavili kao rezultat slanja elektroničke poruke su: ARP (sloj podatkovne poveznice) – koristi se za mapiranje IP adresa na MAC adrese u lokalnoj mreži kako bi se omogućilo ispravno preusmjeravanje podataka, TCP (transportni sloj) – segmentira i sastavlja podatke te otkriva izgubljene podatke, DNS (aplikacijski sloj) – pretvara nama čitljiva imena domena u IP adrese, SMTP (aplikacijski sloj) – definira postupak razmjene poruka elektroničke pošte između dva udaljena računala

b)

```
23 292.174027804 20.0.0.4        20.0.0.2        DNS       74 Standard query 0x577a A www.tel.fer.hr
24 292.211148449 20.0.0.2        20.0.0.4        DNS       90 Standard query response 0x577a A www.tel.fer.hr A 20.0.0.3
25 292.211385873 20.0.0.4        20.0.0.2        DNS       74 Standard query 0x65f7 AAAA www.tel.fer.hr
26 292.251180572 20.0.0.2        20.0.0.4        DNS      150 Standard query response 0x65f7 AAAA www.tel.fer.hr SOA dnsTel.tel.fer.hr
27 292.253258943 42:00:aa:00:00:18 Broadcast     ARP       42 Who has 20.0.0.3? Tell 20.0.0.4
28 292.292290052 42:00:aa:00:00:17 42:00:aa:00:00:18 ARP  42 20.0.0.3 is at 42:00:aa:00:00:17
29 292.292349792 20.0.0.4        20.0.0.3        TCP       74 17768 → 25 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 SACK PERM=1 TSval=1660618407 TSecr=0
30 292.332138740 20.0.0.3        20.0.0.4        TCP       74 25 → 17768 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1460 WS=64 SACK PERM=1 TSval=2749958339 TSecr=1660618407
31 292.336471368 20.0.0.4        20.0.0.3        TCP       66 17768 → 25 [ACK] Seq=1 Ack=1 Win=65664 Len=0 TSval=1660618488 TSecr=2749958339
32 292.571456015 20.0.0.3        20.0.0.4        SMTP     108 S: 220 www.tel.fer.hr ESMTP Postfix (3.3.4)
33 292.578368834 20.0.0.4        20.0.0.2        DNS       73 Standard query 0x6303 A mm.tel.fer.hr
34 292.611217303 20.0.0.2        20.0.0.4        DNS       89 Standard query response 0x6303 A mm.tel.fer.hr A 20.0.0.4
35 292.611865605 20.0.0.4        20.0.0.3        SMTP      86 C: HELO mm.tel.fer.hr
36 292.652091117 20.0.0.3        20.0.0.4        SMTP      86 S: 250 www.tel.fer.hr
37 292.652914051 20.0.0.4        20.0.0.3        SMTP      95 C: MAIL FROM:<root@tel.fer.hr>
38 292.741412885 20.0.0.3        20.0.0.4        SMTP      80 S: 250 2.1.0 Ok
39 292.741840136 20.0.0.4        20.0.0.3        SMTP      95 C: RCPT TO:<imunes@zpm.fer.hr>
40 292.811182824 20.0.0.3        20.0.0.4        SMTP      80 S: 250 2.1.5 Ok
41 292.811442242 20.0.0.4        20.0.0.3        SMTP      72 C: DATA
42 292.851232746 20.0.0.3        20.0.0.4        SMTP     103 S: 354 End data with <CR><LF>.<CR><LF>
43 292.851858811 20.0.0.4        20.0.0.3        SMTP     444 C: DATA fragment, 378 bytes
44 293.121132962 20.0.0.3        20.0.0.4        TCP       66 25 → 17768 [ACK] Seq=128 Ack=463 Win=65664 Len=0 TSval=2749958999 TSecr=1660619007
45 293.121156454 20.0.0.4        20.0.0.3        SMTP/I… 69 from: dominik <root@tel.fer.hr>, subject: Hello,  (text/plain)
46 293.161134985 20.0.0.3        20.0.0.4        SMTP     100 S: 250 2.0.0 Ok: queued as D41FCA6E
47 293.165456580 20.0.0.4        20.0.0.3        SMTP      72 C: QUIT
48 293.191152182 20.0.0.3        20.0.0.4        SMTP      81 S: 221 2.0.0 Bye
49 293.191362732 20.0.0.4        20.0.0.3        TCP       66 17768 → 25 [FIN, ACK] Seq=472 Ack=177 Win=65664 Len=0 TSval=1660619347 TSecr=2749959209
50 293.201155633 20.0.0.3        20.0.0.4        TCP       66 25 → 17768 [FIN, ACK] Seq=177 Ack=472 Win=65664 Len=0 TSval=2749959209 TSecr=1660619347
51 293.201177428 20.0.0.4        20.0.0.3        TCP       66 [TCP Out-Of-Order] 17768 → 25 [FIN, ACK] Seq=472 Ack=178 Win=65664 Len=0 TSval=1660619357 TSecr=2749959209
52 293.221136920 20.0.0.3        20.0.0.4        TCP       66 [TCP Out-Of-Order] 25 → 17768 [FIN, ACK] Seq=177 Ack=473 Win=65664 Len=0 TSval=2749959239 TSecr=1660619347
53 293.221294301 20.0.0.4        20.0.0.3        TCP       66 [TCP Dup ACK 51#1] 17768 → 25 [ACK] Seq=473 Ack=178 Win=65664 Len=0 TSval=1660619377 TSecr=2749959209
54 293.231249904 20.0.0.3        20.0.0.4        TCP       66 [TCP Dup ACK 52#1] 25 → 17768 [ACK] Seq=178 Ack=473 Win=65664 Len=0 TSval=2749959239 TSecr=1660619347
55 293.871228517 42:00:aa:00:00:17 Broadcast     ARP       42 Who has 20.0.0.1? Tell 20.0.0.3
```

Prvo se pomoću DNS-a adresa pretvara u IP adresu. Zatim se šalje ARP upit da se sazna gdje se nalazi ta IP adresa te se zatim pomoću SMTP-a šalje poruka koja se dodatno TCP-om ispituje je li ispravna.

c) Prvi skup traži od vršnog DNS poslužitelja adresu te mu je on šalje, DNS pretvara ime www.tel.fer.hr u IP adresu, a drugi segment pretvara mm.tel.fer.hr u IP adresu. Nadležni poslužitelj elektroničke pošte za domenu tel.fer.hr je dnsTel.tel.fer.hr. mm saznaje adresu tako da pita svog nadležnog poslužitelja za IP adresu. Nadležni poslužitelj elektroničke pošte za domenu zpm.fer.hr je dnsZpm.zpm.fer.hr. www saznaje adresu tako da pita svog nadležnog poslužitelja za IP adresu.

d) dvije konekcije se koriste (prva: portovi 28004 sa 25, druga: 17768 sa 25), TCP se koristi za pouzdan prijenos podataka te segmentaciju i potvrdu primitka

e)

```
Wireshark · Follow TCP Stream (tcp.stream eq 0) · eth0 (on mm)

220 www.tel.fer.hr ESMTP Postfix (3.3.4)
HELO mm.tel.fer.hr
250 www.tel.fer.hr
MAIL FROM:<root@tel.fer.hr>
250 2.1.0 Ok
RCPT TO:<imunes@zpm.fer.hr>
250 2.1.5 Ok
DATA
354 End data with <CR><LF>.<CR><LF>
Date: Sun, 28 May 2023 07:13:04 +0000
From: dominik <root@tel.fer.hr>
To: imunes@zpm.fer.hr
Subject: Hello
Message-Id: <20230528071304.6d1057e5cb62fac6709c4665@tel.fer.hr>
X-Mailer: Sylpheed 3.7.0 (GTK+ 2.24.32; i386-portbld-freebsd11.2)
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit


--
dominik <root@tel.fer.hr>

.
250 2.0.0 Ok: queued as D41FCA6E
QUIT
221 2.0.0 Bye
```

39.

a) protokoli koji su se pojavili kao rezultat pristupanja elektroničkoj pošti na POP-poslužitelju računala zpmMail su: DNS (aplikacijski sloj), ARP (sloj podatkovne poveznice), TCP (transportni sloj), POP (aplikacijski sloj)

b) jedna TCP – konekcija se uspostavlja te se koriste port A (50018) i port B (110)

c) DNS sluzi za provjeru autentičnosti pošiljatelja

d)

No.	Time	Source	Destination	Protocol	Length	Info
27	102.311581655	30.0.0.3	30.0.0.4	POP	79	C: USER imunes
28	102.348047487	30.0.0.4	30.0.0.3	POP	71	S: +OK
29	102.348551532	30.0.0.3	30.0.0.4	POP	79	C: PASS imunes
30	102.397856867	30.0.0.4	30.0.0.3	POP	71	S: +OK
31	102.398374149	30.0.0.3	30.0.0.4	POP	72	C: STAT
32	102.439876260	30.0.0.4	30.0.0.3	POP	77	S: +OK 1 892
33	102.440213273	30.0.0.3	30.0.0.4	POP	72	C: UIDL
34	102.480900099	30.0.0.4	30.0.0.3	POP	71	S: +OK
35	102.577946428	30.0.0.3	30.0.0.4	TCP	66	50018 → 110 [ACK] Seq=39 Ack=32 Win=65664 Len=0 TSval=523622588 TSecr=2721642618
36	102.620946556	30.0.0.4	30.0.0.3	POP/IMF	105	1 623cfbd78fe8190db9240f80d7d13299 , .
37	102.621648890	30.0.0.3	30.0.0.4	POP	72	C: LIST
38	102.660341673	30.0.0.4	30.0.0.3	POP	71	S: +OK
39	102.760296562	30.0.0.3	30.0.0.4	TCP	66	50018 → 110 [ACK] Seq=45 Ack=76 Win=65664 Len=0 TSval=523622770 TSecr=2721642798
40	102.798072626	30.0.0.4	30.0.0.3	POP/IMF	76	1 892 , .
41	102.798481154	30.0.0.3	30.0.0.4	POP	74	C: RETR 1
42	102.839843585	30.0.0.4	30.0.0.3	POP	71	S: +OK
43	102.939877575	30.0.0.3	30.0.0.4	TCP	66	50018 → 110 [ACK] Seq=53 Ack=91 Win=65664 Len=0 TSval=523622950 TSecr=2721642978
44	102.980381306	30.0.0.4	30.0.0.3	POP/IMF	962	from: dominik <root@tel.fer.hr>, subject: AJDEVISE, (text/plain)
45	102.982489013	30.0.0.3	30.0.0.4	POP	72	C: QUIT
46	103.008007061	30.0.0.4	30.0.0.3	POP	71	S: +OK
47	103.008505284	30.0.0.3	30.0.0.4	TCP	66	50018 → 110 [FIN, ACK] Seq=59 Ack=992 Win=65664 Len=0 TSval=523623018 TSecr=2721643158
48	103.019857894	30.0.0.4	30.0.0.3	TCP	66	110 → 50018 [FIN, ACK] Seq=992 Ack=59 Win=65664 Len=0 TSval=2721643158 TSecr=523622990
49	103.019902332	30.0.0.3	30.0.0.4	TCP	66	[TCP Out-Of-Order] 50018 → 110 [FIN, ACK] Seq=59 Ack=993 Win=65664 Len=0 TSval=523623030 TSecr=2721643158
50	103.039862191	30.0.0.4	30.0.0.3	TCP	66	[TCP Out-Of-Order] 110 → 50018 [FIN, ACK] Seq=992 Ack=60 Win=65664 Len=0 TSval=2721643188 TSecr=523623018
51	103.040018167	30.0.0.3	30.0.0.4	TCP	66	[TCP Dup ACK 49#1] 50018 → 110 [ACK] Seq=60 Ack=993 Win=65664 Len=0 TSval=523623050 TSecr=2721643158
52	103.049868769	30.0.0.4	30.0.0.3	TCP	66	[TCP Dup ACK 50#1] 110 → 50018 [ACK] Seq=993 Ack=60 Win=65664 Len=0 TSval=2721643188 TSecr=523623018
53	127.059575275	30.0.0.1	224.0.0.9	RIPv2	286	Response

LIST izlistava poruke i njihove veličine, a RETR zahtjev za dohvaćanje poruke

e) Received from mm (unknown [20.0.0.4]) by www.tel.fer.hr (postfix) with ESMTP

f) nije šifrirana, lozinka je običan niz znakova (u našem slučaju 'imunes')

40.

No.	Time	Source	Destination	Protocol	Length	Info
836	77.869794396	30.0.0.3	30.0.0.4	HTTP	380	GET / HTTP/1.1
839	78.048220730	30.0.0.4	30.0.0.3	HTTP	375	HTTP/1.1 200 OK (text/html)
841	78.431748688	30.0.0.3	30.0.0.4	HTTP	347	GET /powerlogo.gif HTTP/1.1
847	78.468510983	30.0.0.4	30.0.0.3	HTTP	1001	HTTP/1.1 200 OK (GIF89a)
850	78.486253338	30.0.0.3	30.0.0.4	HTTP	312	GET /favicon.ico HTTP/1.1
853	78.508249441	30.0.0.4	30.0.0.3	HTTP/X…	541	HTTP/1.1 404 Not Found

1. Zahtjev za početnom stranicom servera
2. Zahtjev za slikom powerlogo.gif
3. Zahtjev za slikom favicon.ico -> Not found

41. Prvi http. GET / HTTP/1.1 -> (zahtjev) -> TCP -> TCP[ACK] -> (potvrda, text/HTML)->HTTP /1.1 200 OK (Zahtjev za početnom stranicom)

Zahtjev za powerlogo.gif, tahtjev za favicon.icon.

Prekid veze.

42.

No.	Time	Source	Destination	Protocol	Length	Info
914	69.761686392	30.0.0.2	30.0.0.3	DNS	181	Standard query response 0x5921 No such name AAAA detectportal.firefox.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
915	69.762052420	30.0.0.2	30.0.0.3	DNS	91	Standard query 0x76a3 A detectportal.firefox.com.fer.hr
916	69.802113059	30.0.0.2	30.0.0.3	DNS	165	Standard query response 0x76a3 No such name A detectportal.firefox.com.fer.hr SOA dnsFer.fer.hr
917	69.802470402	30.0.0.3	30.0.0.2	DNS	91	Standard query 0x83a1 AAAA detectportal.firefox.com.fer.hr
918	69.841667702	30.0.0.2	30.0.0.3	DNS	165	Standard query response 0x83a1 No such name AAAA detectportal.firefox.com.fer.hr SOA dnsFer.fer.hr
919	76.521454873	30.0.0.1	224.0.0.9	RIPv2	286	Response
920	84.670774742	30.0.0.2	30.0.0.3	DNS	85	Standard query 0x867a A push.services.mozilla.com
921	84.931332320	30.0.0.2	30.0.0.3	DNS	141	Standard query response 0x867a No such name A push.services.mozilla.com SOA dnsMM.mm.com
922	84.935481460	30.0.0.3	30.0.0.2	DNS	85	Standard query 0xb48d AAAA push.services.mozilla.com
923	84.971260527	30.0.0.2	30.0.0.3	DNS	141	Standard query response 0xb48d No such name AAAA push.services.mozilla.com SOA dnsMM.mm.com
924	84.971450258	30.0.0.3	30.0.0.2	DNS	96	Standard query 0x4f6d A push.services.mozilla.com.zpm.fer.hr
925	85.011207905	30.0.0.2	30.0.0.3	DNS	182	Standard query response 0x4f6d No such name A push.services.mozilla.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
926	85.011407935	30.0.0.3	30.0.0.2	DNS	96	Standard query 0xe557 AAAA push.services.mozilla.com.zpm.fer.hr
927	85.071151734	30.0.0.2	30.0.0.3	DNS	182	Standard query response 0xe557 No such name AAAA push.services.mozilla.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
928	85.071241594	30.0.0.3	30.0.0.2	DNS	92	Standard query 0x4bfc A push.services.mozilla.com.fer.hr
929	85.221262328	30.0.0.2	30.0.0.3	DNS	166	Standard query response 0x4bfc No such name A push.services.mozilla.com.fer.hr SOA dnsFer.fer.hr
930	85.221449013	30.0.0.3	30.0.0.2	DNS	92	Standard query 0xd5d1 AAAA push.services.mozilla.com.fer.hr
931	85.241473387	30.0.0.2	30.0.0.3	DNS	166	Standard query response 0xd5d1 No such name AAAA push.services.mozilla.com.fer.hr SOA dnsFer.fer.hr
932	85.242920789	30.0.0.3	30.0.0.2	DNS	85	Standard query 0xaf65 A push.services.mozilla.com
933	85.281291756	30.0.0.2	30.0.0.3	DNS	141	Standard query response 0xaf65 No such name A push.services.mozilla.com SOA dnsMM.mm.com
934	85.281537218	30.0.0.3	30.0.0.2	DNS	85	Standard query 0xddb5 AAAA push.services.mozilla.com
935	85.311209961	30.0.0.2	30.0.0.3	DNS	141	Standard query response 0xddb5 No such name AAAA push.services.mozilla.com SOA dnsMM.mm.com
936	85.311420696	30.0.0.3	30.0.0.2	DNS	96	Standard query 0x4154 A push.services.mozilla.com.zpm.fer.hr
937	85.352016798	30.0.0.2	30.0.0.3	DNS	182	Standard query response 0x4154 No such name A push.services.mozilla.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
938	85.352310290	30.0.0.3	30.0.0.2	DNS	96	Standard query 0x1317 AAAA push.services.mozilla.com.zpm.fer.hr
939	85.381252972	30.0.0.2	30.0.0.3	DNS	182	Standard query response 0x1317 No such name AAAA push.services.mozilla.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
940	85.381476841	30.0.0.3	30.0.0.2	DNS	92	Standard query 0x241f A push.services.mozilla.com.fer.hr
941	85.421260689	30.0.0.2	30.0.0.3	DNS	166	Standard query response 0x241f No such name A push.services.mozilla.com.fer.hr SOA dnsFer.fer.hr
942	85.421473859	30.0.0.3	30.0.0.2	DNS	92	Standard query 0xa096 AAAA push.services.mozilla.com.fer.hr
943	85.461526428	30.0.0.2	30.0.0.3	DNS	166	Standard query response 0xa096 No such name AAAA push.services.mozilla.com.fer.hr SOA dnsFer.fer.hr
944	85.466079798	30.0.0.3	30.0.0.2	DNS	85	Standard query 0x832f A push.services.mozilla.com
945	85.501872077	30.0.0.2	30.0.0.3	DNS	141	Standard query response 0x832f No such name A push.services.mozilla.com SOA dnsMM.mm.com
946	85.502123247	30.0.0.3	30.0.0.2	DNS	85	Standard query 0xd67b AAAA push.services.mozilla.com
947	85.561142691	30.0.0.2	30.0.0.3	DNS	141	Standard query response 0xd67b No such name AAAA push.services.mozilla.com SOA dnsMM.mm.com
948	85.561222346	30.0.0.3	30.0.0.2	DNS	96	Standard query 0x19f0 A push.services.mozilla.com.zpm.fer.hr
949	85.621144046	30.0.0.2	30.0.0.3	DNS	182	Standard query response 0x19f0 No such name A push.services.mozilla.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
950	85.621227550	30.0.0.3	30.0.0.2	DNS	96	Standard query 0xca67 AAAA push.services.mozilla.com.zpm.fer.hr
951	85.661673524	30.0.0.2	30.0.0.3	DNS	182	Standard query response 0xca67 No such name AAAA push.services.mozilla.com.zpm.fer.hr SOA dnsZpm.zpm.fer.hr
952	85.661930815	30.0.0.3	30.0.0.2	DNS	92	Standard query 0x4a79 A push.services.mozilla.com.fer.hr
953	85.702215444	30.0.0.2	30.0.0.3	DNS	166	Standard query response 0x4a79 No such name A push.services.mozilla.com.fer.hr SOA dnsFer.fer.hr
954	85.702337289	30.0.0.3	30.0.0.2	DNS	92	Standard query 0xb321 AAAA push.services.mozilla.com.fer.hr
955	85.741168439	30.0.0.2	30.0.0.3	DNS	166	Standard query response 0xb321 No such name AAAA push.services.mozilla.com.fer.hr SOA dnsFer.fer.hr
956	108.551046492	30.0.0.1	224.0.0.9	RIPv2	286	Response

Klikom na ZZT browser već ima kopiju stranice pa se ne stvara nova kolekcija.

DNS protokol nije pokrenut jer je zpmMail već imao IP adresu.