

Ονοματεπώνυμο:

AM :

Απαντήσεις

A

B Server DHCP, Server DNS, Lease obtained, lease expired

C με 192.168.1.10/24 και με το tool <https://www.calculator.net/ip-subnet-calculator.html?cclass=any&csubnet=24&cip=192.168.1.10&ctype=ipv4&printit=0&x=54&y=17>
192.168.1.254

D $(2^{(32-24)}) - 2 = 254$

E uop.gr. 21600 IN NS

The screenshot shows the DigiWebInterface IP Subnet Calculator. The 'Hostnames or IP addresses' field contains 'uop.gr'. The 'Type' is set to 'NS'. The 'Nameservers' section shows 'Resolver: Default'. The 'Options' section has several checkboxes, with 'Show command' and 'Colorize output' selected. The 'Dig' button is clicked, and the results are displayed below. The results show four NS records for uop.gr, all with TTL 21600 and IN class. The records are: tripoli2.uop.gr, pelopas2.uop.gr, sns0.grnet.gr, and sns1.grnet.gr. The interface also includes a 'Reset form' button and a 'Donate' button.

| uop.gr@8.8.4.4 (Default): |
|--------------------------------------|
| uop.gr. 21600 IN NS tripoli2.uop.gr. |
| uop.gr. 21600 IN NS pelopas2.uop.gr. |
| uop.gr. 21600 IN NS sns0.grnet.gr. |
| uop.gr. 21600 IN NS sns1.grnet.gr. |

tripoli2.uop.gr.

pelopas2.uop.gr.

sns0.grnet.gr.

sns1.grnet.gr.

F είναι όλα τα layers

G τους mail servers του domain name uop.gr. 21600 IN MX 10
pelopas2.uop.gr.

H 192.0.43.8

I Στο 50

```
6 4 ms 2 ms 3 ms 79.128.228.252
7 4 ms 4 ms 3 ms 62.75.3.73
8 32 ms 33 ms 33 ms 62.75.14.138
9 30 ms 31 ms 105 ms 217.161.88.205
10 32 ms 30 ms 31 ms ae3-pcr1.fis.cw.net [195.2.27.225]
11 35 ms 31 ms 37 ms ae13.cr7-fra2.ip4.gtt.net [154.14.34.89]
12 118 ms 120 ms 122 ms ae16.cr4-was1.ip4.gtt.net [89.149.139.133]
13 120 ms 119 ms 117 ms ip4.gtt.net [69.174.10.82]
14 117 ms 120 ms 120 ms 43-8.any.icann.org [192.0.43.8]
```

Traccia completata.

C:\Users\CelaniDe>tracert -4 google.com

Traccia instradamento verso google.com [142.250.181.238]
su un massimo di 30 punti di passaggio:

```
1 <1 ms <1 ms <1 ms speedport.ip [192.168.1.1]
2 1 ms 2 ms 3 ms 10.106.108.100
3 2 ms 2 ms 2 ms ampe-asr99b-xari-asr9kb.backbone.otenet.net [79.128.228.181]
4 1 ms 2 ms 2 ms ampe-asr99b-poly-asr9ka.backbone.otenet.net [79.128.228.253]
5 * * 4 ms 79.128.36.212
6 3 ms 4 ms 4 ms 79.128.228.252
7 5 ms 5 ms 5 ms 62.75.3.73
8 31 ms 32 ms 31 ms 62.75.14.142
9 33 ms 34 ms 31 ms 74.125.51.154
10 33 ms 31 ms 34 ms -
```

A 0x83a2

B 0.021812000

C στο response

to vittima della
software. Evita le
gli i tuoi file con una
fice.

παιδων) η πικρ
ces που έχετε.(1
ας δίνει είναι επι
χ IPv4 διεύθυνσ
μονάδα)

στο ίδιο υποδίκτη

το online εργαλ
βρείτε τους DNS

ε επίπεδα της στο

που χρησιμοποι
στα αποτελέσμα
ια ένα URL (πχ
πεύθυνος.(1 μον
ως παράμετρο το

nome - Blocco note di Win
fica Formato Visualizz

dns.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

dns

| No. | Time | Source | Destination | Protocol | Length | Info |
|-----|-----------|-------------|-------------|----------|--------|---|
| 3 | 2.045262 | 192.168.1.5 | 192.168.1.1 | DNS | 93 | Standard query 0x3328 NS google.com OPT |
| 4 | 2.066432 | 192.168.1.1 | 192.168.1.5 | DNS | 153 | Standard query response 0x3328 NS google.com NS ns1.googl |
| 11 | 10.677210 | 192.168.1.5 | 192.168.1.1 | DNS | 92 | Standard query 0xd698 NS bbc.co.uk OPT |
| 12 | 10.699022 | 192.168.1.1 | 192.168.1.5 | DNS | 160 | Standard query response 0xd698 NS bbc.co.uk NS ns3.bbc.ne |
| 18 | 17.733316 | 192.168.1.5 | 192.168.1.1 | DNS | 89 | Standard query 0x79d5 NS gm.com OPT |
| 19 | 17.752780 | 192.168.1.1 | 192.168.1.5 | DNS | 153 | Standard query response 0x79d5 NS gm.com NS nsx4.gm.com N |

Flags: 0x8180 Standard query response, No error

Questions: 1

Answer RRs: 4

Authority RRs: 0

Additional RRs: 1

Queries

Answers

- > bbc.co.uk: type NS, class IN, ns3.bbc.net.uk
- > bbc.co.uk: type NS, class IN, ns4.bbc.net.uk
- > bbc.co.uk: type NS, class IN, ns4.bbc.co.uk
- > bbc.co.uk: type NS, class IN, ns3.bbc.co.uk

Additional records

[Request In: 11]

[Time: 0.021812000 seconds]

Text item (text), 26 byte(s)

Packets: 23 · Displayed: 6 (26.1%)

Profile: Default

D src socket = (192.168.1.5:49758) dst socket = (209.51.188.148:80)

E 15 segments

F 20172

G sequence number = 19517 and length = 656 bytes.

H 0x0800

I later

J total length = 72 bytes

K dest mac = (00:19:b9:f1:bc:31) and src mac = (00:16:e6:df:1f:73)

L όχι επειδή δεν έχουμε την subnet mask

M oxi (later)

N www.nasa.gov (later)

A

1 χωράει $2^{(32-21)} - 2 = 2046$

2 Later

| Δίκτυο | Απαίτηση σε hosts | Χωρητικότητα Υποδικτύου σε (hosts) | Διεύθυνση Δικτύου | Εύρος έγκυρων διευθύνσεων IPv4 (για hosts) από - έως | Prefix |
|--------|----------------------|--|-------------------|---|--------|
| Δ1 | 525 | 1022 | 192.168.128.0 | 192.168.128.1 - 192.168.131.254 | 22 |
| Δ2 | 450 | 510 | 192.168.132.0 | 192.168.132.1 - 192.168.133.254 | 23 |
| Δ3 | 320 | | | | |
| Δ4 | 100 | | | | |
| Δ5 | 63 | | | | |
| Δ6 | 50 | | | | |
| Δ7 | 32 | | | | |
| Δ8 | 10 | | | | |
| Δ9 | 7 | | | | |
| Δ10 | 4 | | | | |

Για μάσκα 20 επειδή με 21 δεν λειτουργεί σωστά

| Δίκτυο | Απαίτηση σε hosts | Χωρητικότητα Υποδικτύου σε (hosts) | Διεύθυνση Δικτύου | Εύρος έγκυρων διευθύνσεων IPv4 (για hosts) από - έως | Prefix |
|--------|----------------------|--|-------------------|---|--------|
| Δ1 | 525 | 1022 | 192.168.128.0 | 192.168.128.1 - 192.168.131.254 | 22 |
| Δ2 | 450 | 510 | 192.168.132.0 | 192.168.132.1 - 192.168.133.254 | 23 |
| Δ3 | 320 | 510 | 192.168.134.0 | 192.168.134.1 - 192.168.135.254 | 23 |
| Δ4 | 100 | 126 | 192.168.136.0 | 192.168.136.1 - 192.168.136.126 | 25 |
| Δ5 | 63 | 126 | 192.168.136.128 | 192.168.136.129 - 192.168.136.254 | 25 |
| Δ6 | 50 | 62 | 192.168.137.0 | 192.168.137.1 - 192.168.137.62 | 26 |
| Δ7 | 32 | 62 | 192.168.137.64 | 192.168.137.65 - 192.168.137.126 | 26 |
| Δ8 | 10 | 14 | 192.168.137.128 | 192.168.137.129 - 192.168.137.142 | 28 |
| Δ9 | 7 | 14 | 192.168.137.144 | 192.168.137.145 - 192.168.137.158 | 28 |

| | | | | | |
|-----|---|---|-----------------|-----------------------------------|----|
| Δ10 | 4 | 6 | 192.168.137.160 | 192.168.137.161 - 192.168.137.166 | 29 |
|-----|---|---|-----------------|-----------------------------------|----|

3

B 192.168.137.168 - 192.168.143.255

R2

| Type | Network | Prefix | Next hop |
|------|--------------|--------|------------|
| S | 192.168.20.0 | /24 | 10.10.20.1 |
| S | 10.10.10.0 | /24 | 10.10.20.1 |
| S | 192.168.10.0 | /24 | 10.10.20.1 |

R1

| Type | Network | Prefix | Next hop |
|------|--------------|--------|------------|
| S | 192.168.30.0 | /24 | 10.10.20.2 |
| S | 192.168.10.0 | /24 | 10.10.10.2 |

R3

| Type | Network | Prefix | Next hop |
|------|--------------|--------|------------|
| S | 192.168.20.0 | /24 | 10.10.10.1 |
| S | 10.10.20.0 | /24 | 10.10.10.1 |
| S | 192.168.30.0 | /24 | 10.10.10.1 |

C

1 vai, η network address is 192.168.120.0

2 boradcast address = 192.168.127.255

3 192.168.120.1 - 192.168.127.254

4 $2^{(32-21)} = 2046$