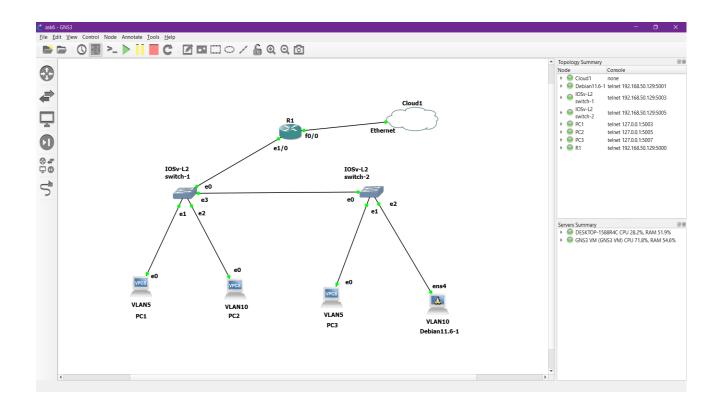
ΑΝΑΦΟΡΑ ΓΙΑ ΤΟ 6° ΕΡΓΑΣΤΗΡΙΟ ΣΤΑ ΔΙΚΤΥΑ ΥΠΟΛΟΓΙΣΤΩΝ

AM = 1070263

Ον/μο = ΣΠΥΡΟ ΣΟΥΛΙ

Έτος = 6°

<u>Υλοποίηση</u>



ping / traceroute 8.8.8.8

```
1070263(config)#exit
1070263#wr
Building configuration...
[OK]
1070263#
*May 26 14:07:53.623: %SYS-5-CONFIG_I: Configured from console by console
1070263#enable
1070263#conf t
Enter configuration commands, one per line. End with CNTL/Z.
1070263(config)#hostname 107263
% Hostname contains one or more illegal characters.
107263(config)#exit
107263#wr
*May 26 14:08:36.983: %SYS-5-CONFIG_I: Configured from console by console 107263#wr
Building configuration...
[OK]
107263#wr
Building configuration...
[OK]
107263#ping 8.8.8.8
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
Success rate is 100 percent (5/5), round-trip min/avg/max = 28/52/140 ms
Type escape sequence to abort.
Tracing the route to 8.8.8.8
VRF info: (vrf in name/id, vrf out name/id)
 1 192.168.1.254 104 msec 12 msec 12 msec
 2 10.13.255.65 12 msec 12 msec 8 msec
3 62.169.240.246 12 msec 12 msec 8 msec
4 62.169.241.164 16 msec 20 msec 20 msec
  5 62.169.224.67 20 msec
  185.3.220.117 20 msec 24 msec
6 10.13.255.1 16 msec * 12 msec
7 185.3.220.118 24 msec 20 msec 20 msec
  9 108.170.250.161 24 msec
 108.170.250.177 32 msec
10 142.251.227.249 28 msec
     216.239.46.221 28 msec
11 8.8.8.8 32 msec 32 msec 28 msec
107263#
```

show ip dhcp binding

```
107263(config)#exit
*May 26 14:08:36.983: %SYS-5-CONFIG_I: Configured from console by console
107263#wr
Building configuration...
[OK]
107263#wr
Building configuration...
[OK]
107263#ping 8.8.8.8
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
Success rate is 100 percent (5/5), round-trip min/avg/max = 28/52/140 ms 107263#traceroute 8.8.8.8
Type escape sequence to abort.
Tracing the route to 8.8.8.8
VRF info: (vrf in name/id, vrf out name/id)
1 192.168.1.254 104 msec 12 msec 12 msec
2 10.13.255.65 12 msec 12 msec 8 msec
  3 62.169.240.246 12 msec 12 msec 8 msec
  4 62.169.241.164 16 msec 20 msec 20 msec
  5 62.169.224.67 20 msec
185.3.220.117 20 msec 24 msec
  6 10.13.255.1 16 msec * 12 msec
  7 185.3.220.118 24 msec 20 msec 20 msec
  9 108.170.250.161 24 msec
    142.251.92.1 32 msec
    108.170.250.177 32 msec
 11 8.8.8.8 32 msec 32 msec 28 msec
107263#show ip dhcp binding
Bindings from all pools not associated with VRF:
IP address Client-ID/ Lease
                                                                                     Type
                        Hardware address/
                        User name
                                                    May 27 2023 02:20 PM
May 27 2023 02:20 PM
May 27 2023 01:37 PM
                                                                                    Automatic
Automatic
Automatic
                        0100.5079.6668.02
                        0100.5079.6668.00
ffdb.8400.0000.0100.
107.2.63.130
                        8400.00
107.2.63.131
107263#
                        0100.5079.6668.01
                                                      May 27 2023 02:19 PM
                                                                                     Automatic
```

show ip dhcp pool

```
3 62.169.240.246 12 msec 12 msec 8 msec
  4 62.169.241.164 16 msec 20 msec 20 msec 5 62.169.224.67 20 msec 185.3.220.117 20 msec 24 msec
  6 10.13.255.1 16 msec * 12 msec
  7 185.3.220.118 24 msec 20 msec 20 msec
  9 108.170.250.161 24 msec
     142.251.92.1 32 msec
     108.170.250.177 32 msec
 10 142.251.227.249 28 msec 216.239.46.221 28 msec
 11 8.8.8.8 32 msec 32 msec 28 msec
107263#show ip dhcp binding
Bindings from all pools not associated with VRF:
IP address Client-ID/ Lease
                                                               Lease expiration
                                                                                                  Type
                            Hardware address/
                                                              May 27 2023 02:20 PM
May 27 2023 02:20 PM
May 27 2023 01:37 PM
                           0100.5079.6668.02
0100.5079.6668.00
ffdb.8400.0000.0100.
012c.0205.750c.72db.
                                                                                                 Automatic
Automatic
                                                                                                  Automatic
107.2.63.130
                            8400.00
0100.5079.6668.01
107.2.63.131
                                                            May 27 2023 02:19 PM
                                                                                                  Automatic
107263#show ip dhcp pool
Pool 1070263-1DHCP :
Utilization mark (high/low) : 100 / 0
Subnet size (first/next) : 0 / 0
 Total addresses
                                             : 126
 Leased addresses
Leased adules.

Pending event

1 subnet is currently in the pool:

Current index IP address range

107.2.63.1 - 107.2.63.126
                                                                                   Leased addresses
Pool 1070263-2DHCP :
Utilization mark (high/low) : 100 / 0
Subnet size (first/next) : 0 / 0
 Total addresses
 Leased addresses
Pending event : none
1 subnet is currently in the pool :
Current index IP address range
                                                                                   Leased addresses
107.2.63.132
107263#
                              107.2.63.129
```

```
Press RETURN to get started.

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Prohibited.
**VIOS-12-01/show mac address-table
Mac Address Table

**Mac Address Table
1 0ccl.8fic.0000 DYNAMIC Gig/3
1 ca01.05c6.001c DYNAMIC Gig/3
1 ca01.05c6.001c DYNAMIC Gig/3
1 ca01.05c6.001c DYNAMIC Gig/3
1 ca01.05c6.001c DYNAMIC Gig/3
1 Total Mac Addresses for this criterion: 2
vIOS-12-013
```

Δείξτε τις ΙΡ διευθύνσεις όλων των τερματικών (PC1,PC2, PC3 και Debian)

```
Welcome to Virtual PC Simulator, version 0.6.2
Dedicated to Daling.
Build time: Apr 10 2010 02:42:20
Copyright (c) 2007-2014, Paul Meng (mirnshi@gmail.com)
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Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC1> dhcp
DDORA IP 107.2.63.3/25 GW 107.2.63.129

PC1> save
Saving startup configuration to startup.vpc.
done
PC1> in a
No router answered ICMPv6 Router Solicitation
PC1> show ip

IN/MSK : 107.163.3/25
GNEMAY : 107.263.129
GNEMAY : 107.263.129
GNEMAY : 107.263.129
GNEMAY : 8.8.8.8
GNEMAY : 8.8.8.8
GNEMAY : 8.8.8.8
GNEMAY : 9.8.8.8
GNEMAY : 10.966.8
GNEMAY : 10.966.8
GNEMOST:PORT : 127.0.6.1:10007
MTU: : 1500

PC1> IN/MTU: : 1500

PC1> IN/MTU: : 1500
```

```
Dedicated to Daling.
Build time: Apr 10 2019 02:42:20
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For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC2> DHCP

Bad command: "DHCP". Use ? for help.

PC2> wr

Bad command: "wr". Use ? for help.

PC2> wr

Bad command: "write". Use ? for help.

PC2> write
Bad command: "wr". Use ? for help.

PC2> wr

Bad command: "wr". Use ? for help.

PC2> saving startup configuration to startup.vpc
. done

PC2> show ip

NAME : PC3[1]

ITMASK : 107.2.63.131/25

ITMASK : 107.2.63.129

DHCP LEASE : 88893, 86400/43200/75600

MAC : 00:50:79:66:68:01

LPORT : 11500

PC2> ISON : 1500.
```

```
Welcome to Virtual PC Simulator, version 0.6.2

Dedicated to Daling.

Build time: Apr 10 2019 02:42:20

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For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC3>dhcp

DD0RA IP 107.2.63.2/25 GW 107.2.63.129

PC3> save

Saving startup configuration to startup.vpc

. done

PC3> show ip

NAME : PC3[1]

IP/MASK : 107.2.63.2/25

GATENAV : 107.2.63.129

DNS : 8.8.8.8

DDCP SERVER : 109.2.6.3

DDCP SERVER : 109.3.6.3

DDCP LEASE : 0.86.80 /43200/75600

MAC : 0.0150:79:66:68:02

LPORT : 100.0.1:10009

MTU: : 1500

PC3>
```

```
inet6 fe80::e72:dbff:fe84:0/64 scope link
    valid_lft forever preferred_lft forever
    root@debin:/home/debian# show ip
    bash: show: command not found
    root@debin:/home/debian# jp a

1: lo: <LOOPBACK,UP,LOMER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
    valid_lft forever preferred_lft forever
    valid_lft forever preferred_lft forever
    valid_lft forever preferred_lft forever
    valid_lft forever preferred_lft forever
    inet 107.2.63.130/25 brd 107.2.63.255 scope global dynamic ens4
    valid_lft 83332sec preferred_lft 83312sec
    inet6 fe80::72:dbff:fe84:0/64 scope link
    valid_lft forever preferred_lft forever
    root@debian:/home/debian# ping 8.8.8.8

    valid_lft forever preferred_lft forever
    root@debian:/home/debian# ping 8.8.8.8

    ping: connect: Network is unreachable
    root@debian:/home/debian# ping 8.8.8.8

    RING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
    4 bytes from 8.8.8.8: icmp_seq=1 ttl-115 time=139 ms
    4 bytes from 8.8.8.8: icmp_seq=2 ttl-115 time=45.5 ms
    4 bytes from 8.8.8.8: icmp_seq=3 ttl-115 time=65.7 ms
    valid_lft forever preferred_lft forever
    looved the forever preferred_lft forever
    looved the forever preferred_lft forever
    valid_lft 83300sec preferred_lft 83200sec
    inet6 fe80::27:dbff:fe84:0/64 scope link
    valid_lft 83305sec preferred_lft 6300sec
    inet6 fe80::27:dbff:fe84:0/64 scope link
```

ping / traceroute 8.8.8.8 PC1,PC2,PC3 Debian και ping google.com

```
6 ads1-117.185.3.220.tellas.gr (185.3.220.117) 43.177 ms 49.474 ms 62.169.224.67 (62.169.224.67) 3 (8.137 ms 7 18.13.255.1 (10.13.255.1) 39.128 ms **
8 ads1-118.185.3.220.tellas.gr (185.3.220.118) 39.174 ms 39.304 ms 39.374 ms 9 **
1 142.251.92.15 (142.251.92.1) 56.191 ms 108.170.250.177 (108.170.250.177) 56.484 ms 142.251.92.65 (142.251.92.65) 56.347 ms 11 172.253.65.43 (172.253.65.43) 56.257 ms 142.250.60.19 (142.250.60.19) 56.609 ms 172.253.65.31 (172.253.65.31) 55.574 ms 12 dbs.google (6.0.46) 48.010 ms 47.507 ms 47.280 ms 72.253.65.31 (172.253.65.31) 55.574 ms 12 dbs.google (6.0.46) 48.80.100 ms 47.507 ms 47.280 ms 72.253.65.31 (172.253.65.31) 55.574 ms 12 dbs.google (6.0.46) 48.80.100 ms 47.507 ms 47.280 ms 72.253.65.31 (172.253.65.31) 55.574 ms 12 dbs.google (6.0.46) 48.80.100 ms 47.507 ms 47.280 ms 72.253.65.31 (172.253.65.31) 55.574 ms 12 dbs.google (6.0.46) 48.80.100 ms 47.507 ms 47.280 ms 72.253.65.31 (172.253.65.31) 57.574 ms 12 ms 12.260 ms 19.210 ms 12 ms 19.286 ms 19.210 ms 19.220 ms 19.220
```

```
Executing the startup file
PC2> DHCP
Bad command: "DHCP". Use ? for help.
PC2> dhcp
DDORA IP 107.2.63.131/25 GW 107.2.63.129
PC2> wr
Bad command: "wr". Use ? for help.
PC2> write
Bad command: "write". Use ? for help.
PC2> wr
Bad command: "wr". Use ? for help.
PC2> save
Saving startup configuration to startup.vpc
. done
 PC2> show ip
NAME : PC2[1]
IP/MASK : 107.2.63.131/25
GATEWAY : 107.2.63.129
DNS : 8.8.8.8
DHCP SERVER : 107.2.63.129
DHCP LEASE : 85893, 86400/43200/75600
MAC : 00:50:79:66:68:01
LPORT : 10004
RHOST:PORT : 127.0.0.1:10005
MTU: : 1500
PC2> ping 8.8.8.8
84 bytes from 8.8.8.8 icmp_seq=1 ttl=115 time=120.075 ms
84 bytes from 8.8.8.8 icmp_seq=2 ttl=115 time=45.009 ms
84 bytes from 8.8.8.8 icmp_seq=3 ttl=115 time=42.790 ms
PC2> ping google.com
google.com resolved to 142.250.187.142
84 bytes from 142.250.187.142 icmp_seq=1 ttl=115 time=41.618 ms
84 bytes from 142.250.187.142 icmp_seq=2 ttl=115 time=42.066 ms
PC2>
Welcome to Virtual PC Simulator, version 0.6.2
Dedicated to Daling.
Build time: Apr 10 2019 02:42:20
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For more information, please visit wiki.freecode.com.cn.
Executing the startup file
PC3>dhcp
DDORA IP 107.2.63.2/25 GW 107.2.63.129
PC3> save
Saving startup configuration to startup.vpc
. done
 PC3> show ip
NAME : PC3[1]
IP/MASK : 107.2.63.2/25
GATEWAY : 107.2.63.129
DNS : 8.8.8.8
DHCP SERVER : 107.2.63.1
DHCP LEASE : 85903, 86400/43200/75600
MAC : 00:50:79:66:68:02
LPORT : 10008
RHOST:PORT : 127.0.0.1:10009
MTU: : 1500
PC3> ping 8.8.8.8
host (107.2.63.129) not reachable
PC3> ping google.com
host (107.2.63.129) not reachable
Cannot resolve google.com
 PC3>
```

Από το τερματικό debian εκτελέσετε traceroute προς τα υπόλοιπα τερματικά

```
root@debian:/home/debian# traceroute 8.8.8.8
traceroute to 8.8.8.8 (8.8.8.8), 30 hops max, 60 byte packets
 1 c-107-2-63-129.hsd1.az.comcast.net (107.2.63.129) 18.421 ms 19.286 ms 19.210 ms
 2 * 192.168.1.254 (192.168.1.254) 44.892 ms 44.875 ms

3 * 10.13.255.65 (10.13.255.65) 44.927 ms 44.865 ms

4 62.169.240.246 (62.169.240.246) 44.834 ms 44.856 ms 44.813 ms

5 62.169.241.164 (62.169.241.164) 51.542 ms 51.549 ms 51.616 ms
 6 adsl-117.185.3.220.tellas.gr (185.3.220.117) 51.393 ms 58.656 ms 62.169.224.67 (62.169.224.67)
1.202 ms
 7 10.13.255.1 (10.13.255.1) 40.852 ms * *
 8 adsl-118.185.3.220.tellas.gr (185.3.220.118) 40.939 ms 40.986 ms 41.148 ms
10 142.251.92.65 (142.251.92.65) 51.752 ms 108.170.250.161 (108.170.250.161) 51.647 ms 108.170.250.1
77 (108.170.250.177) 52.093 ms
11 142.250.60.31 (142.250.60.31) 51.901 ms 209.85.242.141 (209.85.242.141) 51.993 ms 209.85.248.179
(209.85.248.179) 50.451 ms
12 dns.google (8.8.8.8) 40.416 ms 51.905 ms 68.859 ms root@debian:/home/debian# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=115 time=56.8 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=115 time=52.5 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=115 time=49.4 ms
 --- 8.8.8.8 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 49.381/52.900/56.846/3.062 ms
root@debian:/home/debian# ping google.com
PING google.com (172.217.17.110) 56(84) bytes of data.
64 bytes from sof02s47-in-f14.1e100.net (172.217.17.110): icmp_seq=1 ttl=115 time=49.1 ms
 64 bytes from ams15s29-in-f110.1e100.net (172.217.17.110): icmp_seq=2 ttl=115 time=52.1 ms
 54 bytes from ams15s29-in-f14.1e100.net (172.217.17.110): icmp_seq=3 ttl=115 time=48.0 ms
 --- google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2004ms
rtt min/avg/max/mdev = 47.995/49.744/52.094/1.726 ms
root@debian:/home/debian# traceroute 107.2.63.2
traceroute to 107.2.63.2 (107.2.63.2), 30 hops max, 60 byte packets

1 c-107-2-63-129.hsd1.az.comcast.net (107.2.63.129) 19.412 ms 20.275 ms 20.215 ms
root@debian:/home/debian# traceroute 107.2.63.3
traceroute to 107.2.63.3 (107.2.63.3), 30 hops max, 60 byte packets
1 c-107-2-63-129.hsd1.az.comcast.net (107.2.63.129) 22.354 ms 23.750 ms 23.697 ms
2 c-107-2-63-3.hsd1.az.comcast.net (107.2.63.3) 3064.660 ms * *
 root@debian:/home/debian#
```

Υποβολή Εργασίας

Απότι θα δείτε ενώ έχουν γίνει όλες οι εντολές σωστά βγάζει αυτό το θέμα Εγινε κανονικά το sudo apt-get update && sudo apt-get install telnet gcc

Το wget https://github.com/kyrg/gns3-test/raw/main/ 6th _Ergasia.sh.x

Και το chmod ogu+x 6th_Ergasia.sh.x

Το πρόβλημα δημιουργείται στο sudo ./6th Ergasia.sh.x

```
-2023-05-26 14:44:30-- https://github.com/kyrg/gns3-test/raw/main/
 Resolving github.com (github.com)... 140.82.121.
Connecting to github.com (github.com)|140.82.121.3|:443... connected. HTTP request sent, awaiting response... 404 Not Found 2023-05-26 14:44:31 ERROR 404: Not Found.
--2023-05-26 14:44:31-- http://6th/
Resolving 6th (6th)... failed: Name or service not known.
wget: unable to resolve host address '6th'
--2023-05-26 14:44:31-- http://_ergasia.sh.x/
Resolving _ergasia.sh.x (_ergasia.sh.x)... failed: Name or service not known.

wget: unable to resolve host address '_ergasia.sh.x'

root@debian:/home/debian# wget https://github.com/kyrg/gns3-test/blob/main/6th_Ergasia.sh.x

--2023-05-26 14:45:08-- https://github.com/kyrg/gns3-test/blob/main/6th_Ergasia.sh.x

Resolving github.com (github.com)... 140.82.121.3
Connecting to github.com (github.com)|140.82.121.3|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: '6th_Ergasia.sh.x'
                                                                                                ] 140.41K 533KB/s in 0.3s
6th_Ergasia.sh.x [ <=>
2023-05-26 14:45:09 (533 KB/s) - '6th_Ergasia.sh.x' saved [143776]
 root@debian:/home/debian# chmod ogu+x 6th_Ergasia.sh.x
root@debian:/home/debian# chmod ogu+x 6th_Ergasia.sh.x
root@debian:/home/debian# sudo ./6th_Ergasia.sh.x
./6th_Ergasia.sh.x: 9: Syntax error: newline unexpected
root@debian:/home/debian# sudo./6th_Ergasia.sh.x
bash: sudo./6th_Ergasia.sh.x: No such file or directory
root@debian:/home/debian# sudo ./6th_Ergasia.sh.x
./6th_Ergasia.sh.x: 9: Syntax error: newline unexpected
root@debian:/home/debian# wget https://github.com/kyrg/gns3-test/blob/main/6th_Ergasia.sh.x
--2023-05-26 15:33:39-- https://github.com/kyrg/gns3-test/blob/main/6th_Ergasia.sh.x
Resolving github.com (github.com) ... 140.82 121.3
Resolving github.com (github.com)... 140.82.121.3
Connecting to github.com (github.com)|140.82.121.3|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
 Saving to: '6th_Ergasia.sh.x.1'
                                                                                                ] 140.41K 401KB/s
6th_Ergasia.sh.x.1 [ <=>
                                                                                                                                                 in 0.3s
2023-05-26 15:33:40 (401 KB/s) - '6th_Ergasia.sh.x.1' saved [143776]
 root@debian:/home/debian# chmod ogu+x 6th_Ergasia.sh.x
 root@debian:/home/debian# sudo ./6th_Ergasia.sh.x
 ./6th_Ergasia.sh.x: 9: Syntax error: newline unexpected root@debian:/home/debian#
```