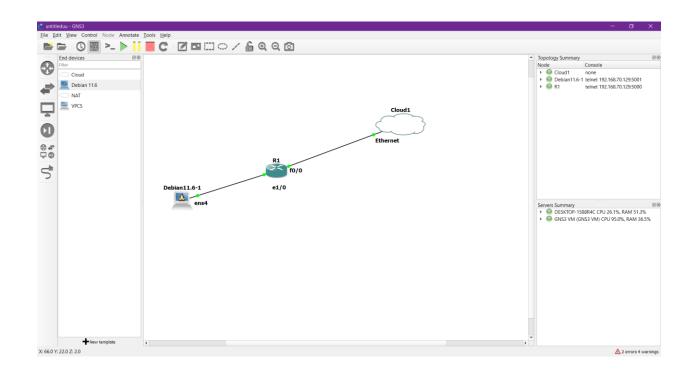
ΑΝΑΦΟΡΑ ΓΙΑ ΤΟ 2° ΕΡΓΑΣΤΗΡΙΟ ΣΤΑ ΔΙΚΤΥΑ ΥΠΟΛΟΓΙΣΤΩΝ

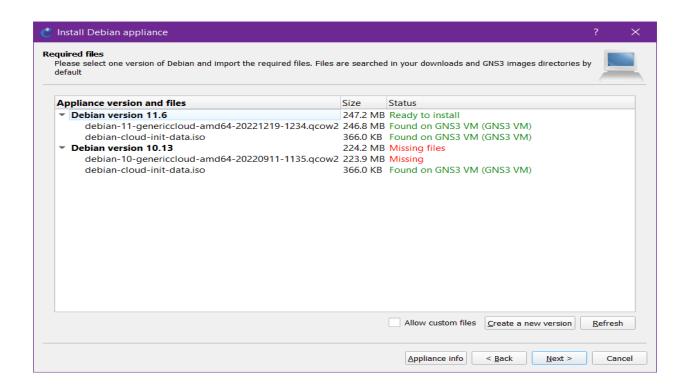
AM = 1070263

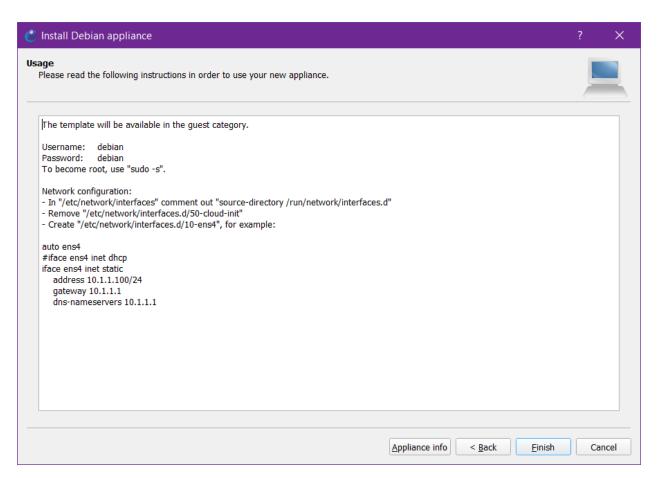
 $Ov/\mu o = \Sigma \Pi Y P O \Sigma O Y \Lambda I$

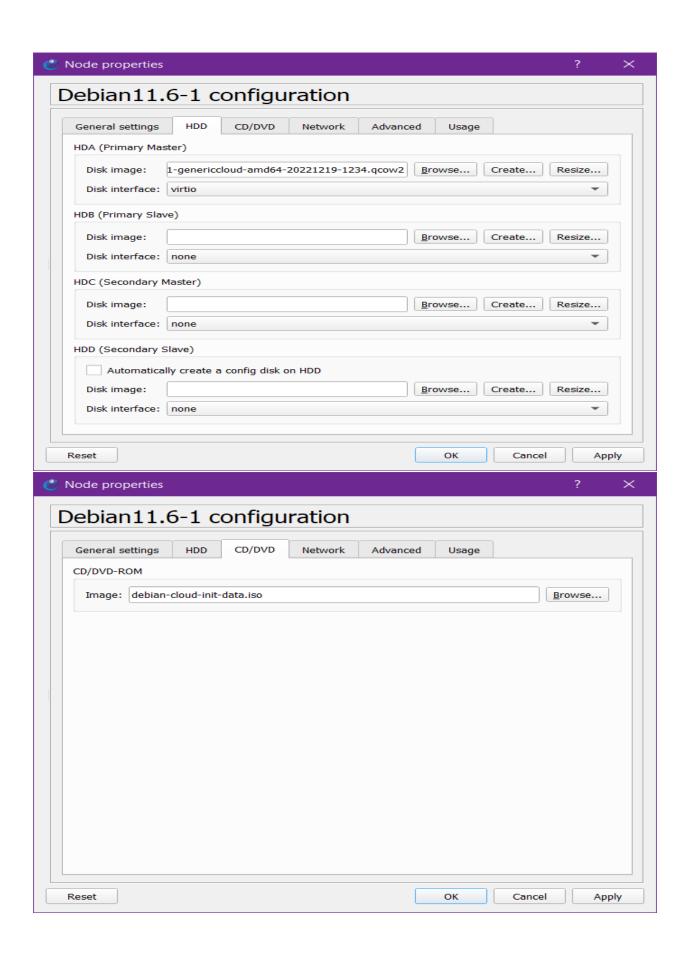
Έτος = 6°

Υλοποίηση









Έχουμε έτοιμο το Debian οπότε προχωράμε στην παραμετροποίηση.

1. Αλλάξτε το hostname του Router με τον αριθμό μητρώου σας.

```
Press RETURN to get started!

Apr 2 19:47:24.355: XLIMEPOID-5-UPDOAN: Line protocol on Interface VoIP-Null@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface FastEthernetO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:24.355: XLIMEA-JUPDOAN: Interface EthernetIO@, changed state to up
Type 2 19:47:25.179: XLIMEA-JUPDOAN: Interface FastEthernetIO@, changed state to up
Type 2 19:47:25.379: XLIMEA-JUPDOAN: Interface Type 2 19:47:25.309: XLIMEA-JUPDOAN: Interface Type 2 19:47:25.309: XLIMEA-JUPDOAN: Line protocol on Interface Type 2 19:47:25.309: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.379: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.379: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.379: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.399: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.399: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.399: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.399: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.399: XLIMEA-JUPDOAN: Line protocol on Interface EthernetIO@, changed state to down
Type 2 19:47:25.399: XLIMEA-JUPDOAN: Line protocol on Interfa
```

2. Διαμορφώστε την πρόσβαση μέσω console με τις ακόλουθες ρυθμίσεις και passwd τον αριθμό μητρώου σας

```
Apr 2 19:47:26.939: %LINK-5-CHANGED: Interface Ethernet1/2, changed state to administratively down Apr 2 19:47:26.947: %LINK-5-CHANGED: Interface Ethernet1/3, changed state to administratively down
R1#config 5
% Invalid input detected at '^' marker.
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#hostname 1070263
% Hostname contains one or more illegal characters.
1070263(config)#exit
1070263#
*Apr 2 19:48:12.651: %SYS-5-CONFIG_I: Configured from console by console 1070263#wri
Narning: Attempting to overwrite an NVRAM configuration previously written
by a different version of the system image.

Overwrite the previous NVRAM configuration?[confirm]
Building configuration...
[OK]
1070263#enable
1070263#config t
Enter configuration commands, one per line. End with CNTL/Z. 1070263(config)#line soncole 0
% Invalid input detected at '^' marker.
1070263(config)#line console 0
1070263(config-line)#history size 15
1070263(config-line)#login
1070263(config-line)#logging synchronous
1070263(config-line)#exit
1070263(config)#exit
1070263#w
*Apr 2 19:51:02.787: %SYS-5-CONFIG_I: Configured from console by console 1070263#wri
Building configuration...
[OK]
1070263#
```

3. Διαμορφώστε την πρόσβαση μέσω telnet με τις ακόλουθες ρυθμίσεις με passwd τον αριθμό μητρώου σας.

```
| Naming: Attempting to overwrite an NNRAM configuration previously written by a different version of the system image.
| Overwrite the previous NNRAM configuration?[confirm] |
| Building configuration... |
| OK] | Invalid input described at 'A' marker. |
| Namid input detected at 'A'
```

4. Προσθήκη χρήστη

```
1070263(config)#line console 0
1070263(config-line)#password 1070263
1070263(config-line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#line)#
```

5. Εισαγωγή passwd για να μπορεί να εισέλθει ο router σε config mode.

```
Building configuration...

[OK]

10702638cnotle

10702638cnotlig t

Enter configilation commands, one per line. End with CNTL/Z.

1070263(configilation vty 0 15

1070263(configilation) password 1070263

1070263(configilation) password 1070263

1070263(configilation) placed in the state of t
```

6. Ενεργοποιήστε dhcp-client στο interface FastEthernet 0/0

```
Apr 2 19:54:56.859: %SYS-5-CONFIG_I: Configured from console by console
1070263Hwm
Building configuration...
[OK]
1070263Henable
1070263Henable
1070263Henable
1070263Henable
1070263(config) #sett
1070263Henable
10702
```

7. Αναθέστε ΙΡ διεύθυνση στο interface. Ε1/0 σύμφωνα με τον αριθμό μητρώου σας

8. Υλοποιήστε DHCP server στον interface e1/0

```
% Unrecognized host or address, or protocol not running.

10702638int el/0
% Invalid input detected at '^' marker.

10702638conf t
Enter configuration commands, one per line. End with CNTL/Z.

1070263(config)#int el/0
1070263(config)#int el/0
1070263(config)#int el/0
1070263(config-if)#in add 103-UPDOMN: Interface Etherneti/0, changed state to up

1070263(config-if)#int loop 8
1070263(config-if)#int loop 9
1070263(config)#interface Ethernet 1/0
1070263(config)#interface Ether
```

9. Υλοποιήστε NAT στο interface e1/0.

```
1070263(config)#interface Ethernet 1/0
1070263(config-if)#ip dhcp pool DHCPpool
1070263(dhcp-config)#exit
1070263(config)#configure t
% Invalid input detected at '^' marker.
1070263(config)#exit
*Apr 2 20:13:49.323: %SYS-5-CONFIG_I: Configured from console by console 1070263#configure t
Enter configuration commands, one per line. End with CNTL/Z. 1070263(config)#interface FastEthernet 0/0 1070263(config-if)#ip nat outside 1070263(config-if)#exit
 Apr 2 20:14:15.687: %LINEPROTO-5-UPDOWN: Line protocol on Interface NVIO, changed state to up
.
1070263(config-if)#exit
1070263(config)#exit
 1070263#wr
Building configuration...
 *Apr 2 20:14:22.671: %SYS-5-CONFIG_I: Configured from console by console[OK]
1070263#enable
1070263#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
1070263(config)#interface Ethernet 1/0
1070263(config-if)#ip nat inside
1070263(config-if)#ip nat inside source list 1 interface
% Invalid input detected at '^' marker.
1070263(config-if)#$de source list 1 interface FastEthernet 0/0 overload 1070263(config)#$de source list 1 interface FastEthernet 0/0 overload 1070263(config)#access-list 1 permit 107.02.63.1 0.255.255.255 1070263(config)#exit
1070263#wr
Building configuration...
*Apr 2 20:16:40.295: %SYS-5-CONFIG_I: Configured from console by console
1070263#
```

Ερώτημα 1°

• ip a

```
] Finished Remove Stale Onli…ext4 Metadata Check Snapshots.
        ] Reached target Graphical Interface.
    Starting Update UTMP about System Runlevel Changes...

OK | Finished Update UTMP about System Runlevel Changes.

24.738376| cloud-init[443]: Cloud-init v. 20.4.1 running 'modules:final' at Sun, 02 Apr 2023 20:19:

24.764792| cloud-init[443]: Cloud-init v. 20.4.1 finished at Sun, 02 Apr 2023 20:19:26 +0000. Datas
  Up 24.76 seconds
       ] Finished Execute cloud user/final scripts.
] Reached target Cloud-init target.
Debian GNU/Linux 11 debian ttyS0
debian login: debian
 Password:
Linux debian 5.10.0-20-cloud-amd64 #1 SMP Debian 5.10.158-2 (2022-12-13) x86_64
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
debian@debian:~$ sudo -s
root@debian:/home/debian# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
     inet 127.0.0.1/8 scope host lo
        valid Ift forever preferred Ift forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens4: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo fast state UP group default qlen 1000
    link/ether 0c:ba:a4:07:00:00 brd ff:ff:ff:ff:ff
    altname enp0s3
    altname ens3
    inet 107.2.63.2/24 brd 107.2.63.255 scope global dynamic ens4
        valid_lft 86315sec preferred_lft 86315sec
    inet6 fe80::eba:a4ff:fe07:0/64 scope link
        valid_lft forever preferred_lft forever
 root@debian:/home/debian#
```

```
valid_lft forever preferred_lft forever
2: ens4: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
     link/ether 0c:ba:a4:07:00:00 brd ff:ff:ff:ff:ff
     altname enp0s3
altname ens3
     inet 107.2.63.2/24 brd 107.2.63.255 scope global dynamic ens4
         valid_lft 86315sec preferred_lft 86315sec
     inet6 fe80::eba:a4ff:fe07:0/64 scope link
valid_lft forever preferred_lft forever root@debian:/home/debian# ping 8.8.8.8 PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data. From 107.2.63.1 icmp_seq=1 Destination Host Unreachable
From 107.2.63.1 icmp seq=2 Destination Host Unreachable
From 107.2.63.1 icmp_seq=3 Destination Host Unreachable
From 107.2.63.1 icmp_seq=4 Destination Host Unreachable
From 107.2.63.1 icmp_seq=5 Destination Host Unreachable
From 107.2.63.1 icmp_seq=6 Destination Host Unreachable From 107.2.63.1 icmp_seq=7 Destination Host Unreachable From 107.2.63.1 icmp_seq=8 Destination Host Unreachable
From 107.2.63.1 icmp_seq=9 Destination Host Unreachable
From 107.2.63.1 icmp_seq=10 Destination Host Unreachable
From 107.2.63.1 icmp_seq=11 Destination Host Unreachable
From 107.2.63.1 icmp_seq=12 Destination Host Unreachable
From 107.2.63.1 icmp_seq=13 Destination Host Unreachable From 107.2.63.1 icmp_seq=14 Destination Host Unreachable From 107.2.63.1 icmp_seq=15 Destination Host Unreachable
From 107.2.63.1 icmp seq=16 Destination Host Unreachable
From 107.2.63.1 icmp seq=17 Destination Host Unreachable
From 107.2.63.1 icmp_seq=18 Destination Host Unreachable
From 107.2.63.1 icmp_seq=19 Destination Host Unreachable
From 107.2.63.1 icmp_seq=20 Destination Host Unreachable From 107.2.63.1 icmp_seq=21 Destination Host Unreachable From 107.2.63.1 icmp_seq=22 Destination Host Unreachable
From 107.2.63.1 icmp_seq=23 Destination Host Unreachable
From 107.2.63.1 icmp_seq=24 Destination Host Unreachable
From 107.2.63.1 icmp_seq=25 Destination Host Unreachable
From 107.2.63.1 icmp_seq=26 Destination Host Unreachable
From 107.2.63.1 icmp_seq=27 Destination Host Unreachable From 107.2.63.1 icmp_seq=28 Destination Host Unreachable
```

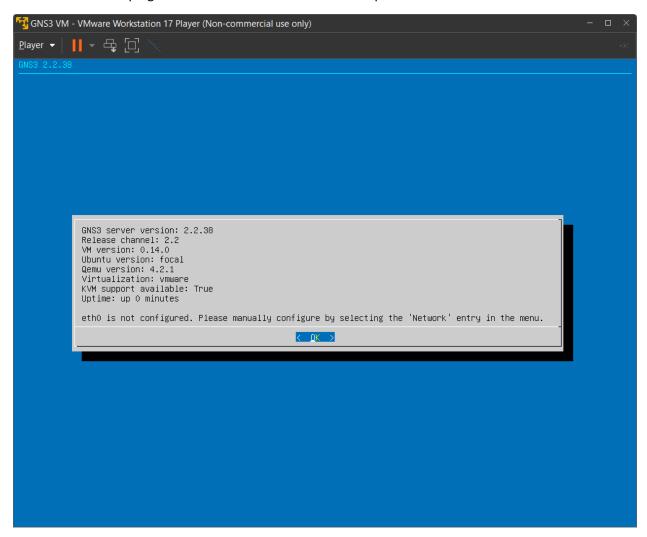
```
From 107.2.63.1 icmp seq=81 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=82 Destination Host Unreachable From 107.2.63.1 icmp_seq=83 Destination Host Unreachable
From 107.2.63.1 icmp_seq=80 Destination Most Unreachable From 107.2.63.1 icmp_seq=84 Destination Host Unreachable From 107.2.63.1 icmp_seq=86 Destination Host Unreachable From 107.2.63.1 icmp_seq=87 Destination Host Unreachable From 107.2.63.1 icmp_seq=80 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=90 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=91 Destination Host Unreachable
From 107.2.63.1 icmp_seq=91 Destination Most Unreachable
From 107.2.63.1 icmp_seq=92 Destination Host Unreachable
From 107.2.63.1 icmp_seq=93 Destination Host Unreachable
From 107.2.63.1 icmp_seq=95 Destination Host Unreachable
From 107.2.63.1 icmp_seq=96 Destination Host Unreachable
From 107.2.63.1 icmp_seq=98 Destination Host Unreachable
From 107.2.63.1 icmp_seq=99 Destination Host Unreachable
From 107.2.63.1 icmp_seq=100 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=101 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=102 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=103 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=104 Destination Host Unreachable
From 107.2.63.1 icmp_seq=105 Destination Host Unreachable
From 107.2.63.1 icmp_seq=106 Destination Host Unreachable
From 107.2.63.1 icmp_seq=107 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=108 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=109 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=110 Destination Host Unreachable
From 107.2.63.1 icmp_seq=111 Destination Host Unreachable
From 107.2.63.1 icmp_seq=112 Destination Host Unreachable
From 107.2.63.1 icmp_seq=113 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=114 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=115 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=116 Destination Host Unreachable
 From 107.2.63.1 icmp_seq=117 Destination Host Unreachable From 107.2.63.1 icmp_seq=118 Destination Host Unreachable From 107.2.63.1 icmp_seq=119 Destination Host Unreachable
                                                          ping 8.8.8.8
  oot@debian:/home/debian# sudo traceroute 8.8.8.8
 traceroute to 8.8.8.8 (8.8.8.8), 30 hops max, 60 byte packets
1 107.2.63.1 (107.2.63.1) 14.251 ms 13.512 ms 13.378 ms
2 107.2.63.1 (107.2.63.1) 13.270 ms !H 13.164 ms !H 13.042 ms !H
  oot@debian:/home/debian# 🗍
```

- sudo apt-get update
- sudo apt-get install telnet

Εκτελέστε telnet

```
*Apr 2 20:19:12.139: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/3, changed state to up 
*Apr 2 20:19:12.647: %SYS-5-CONFIG I: Configured from memory by console
*Apr 2 20:19:12.867: %LIMEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up 
*Apr 2 20:19:12.81: %LINEPROTO-5-UPDOWN: Line protocol on Interface NVI0, changed state to down 
*Apr 2 20:19:12.971: %SYS-5-RESTART: System restarted --
Cisco IOS Software, 7200 Software (C7200-ADVENTERPRISERO-M), Version 15.3(3)XB12, RELEASE SOFTWARE (fc2 
Technical Support: http://www.cisco.com/techsupport 
Copyright (c) 1986-2013 by Cisco Systems, Inc. 
Compiled Tue 19-Nov-13 04:39 by prod_rel team 
*Apr 2 20:19:13.003: %SNNP-5-COLDSTART: SNNP agent on host 1070263 is undergoing a cold start 
*Apr 2 20:19:13.303: %SNNP-5-COLDSTART: SNNP agent on host 1070263 is undergoing a cold start 
*Apr 2 20:19:13.315: %CRYPTO-6-GDOI_ON_OFF: GDOI is OFF 
*Apr 2 20:19:14.427: %LIMK-5-CHANGED: Interface Ethernet1/1, changed state to administratively down 
*Apr 2 20:19:14.571: %LIMK-5-CHANGED: Interface Ethernet1/2, changed state to administratively down 
*Apr 2 20:19:14.571: %LIMK-5-CHANGED: Interface Ethernet1/3, changed state to administratively down 
*Apr 2 20:19:15.571: %LIMEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/1, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/2, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/3, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/3, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/3, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/3, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/3, changed state to down 
*Apr 2 20:19:15.571: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1
```

To ping 8.8.8.8 δεν δουλεύει πιθανότατα λόγω του eth0



Ψάχνω τρόπους λύσεις 3 ημέρες τώρα και έχω δοκιμάσει τα πάντα από το user community https://gns3.com/community/featured/gns3-vm-error-eth0-is-not-config

Και από πολλά βίντεο στο youtube αλλα δεν κατάφερα να το λύσω.

Ίσως δουλέψει καλύτερα σε εσάς.

Ευχαριστώ για τον χρόνο σας!