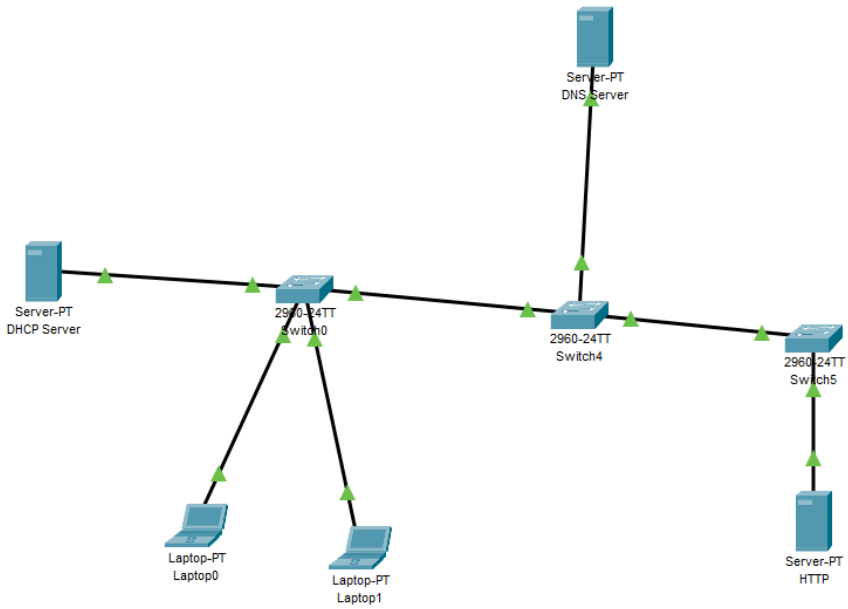
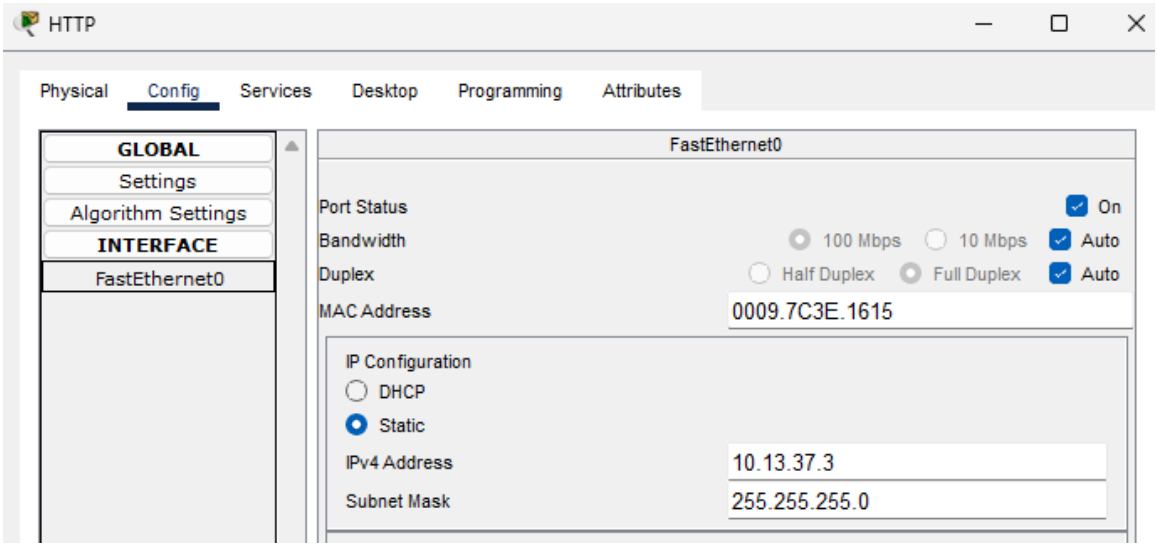
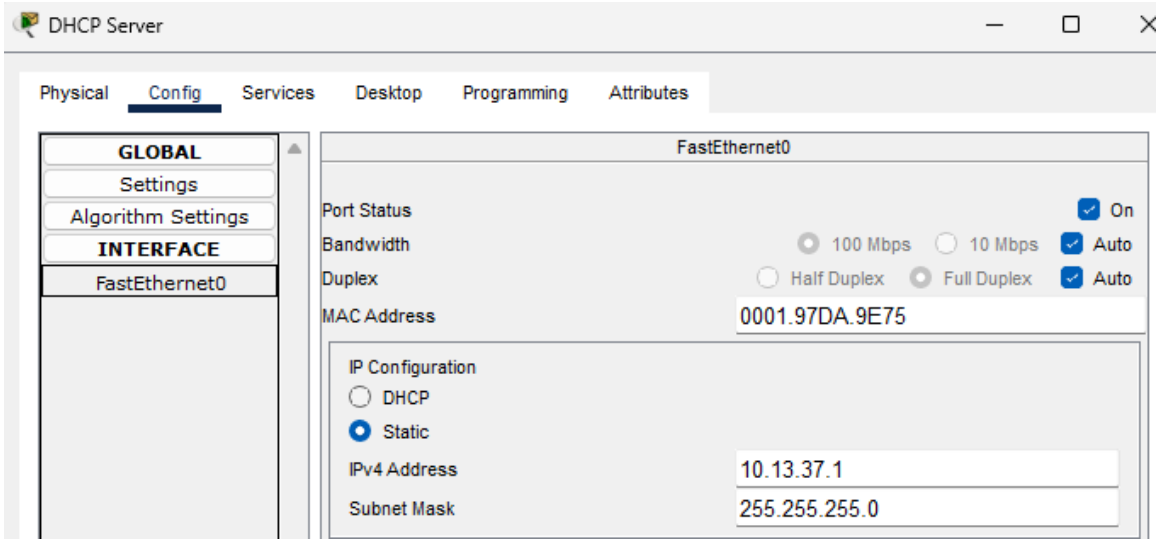
Architettura

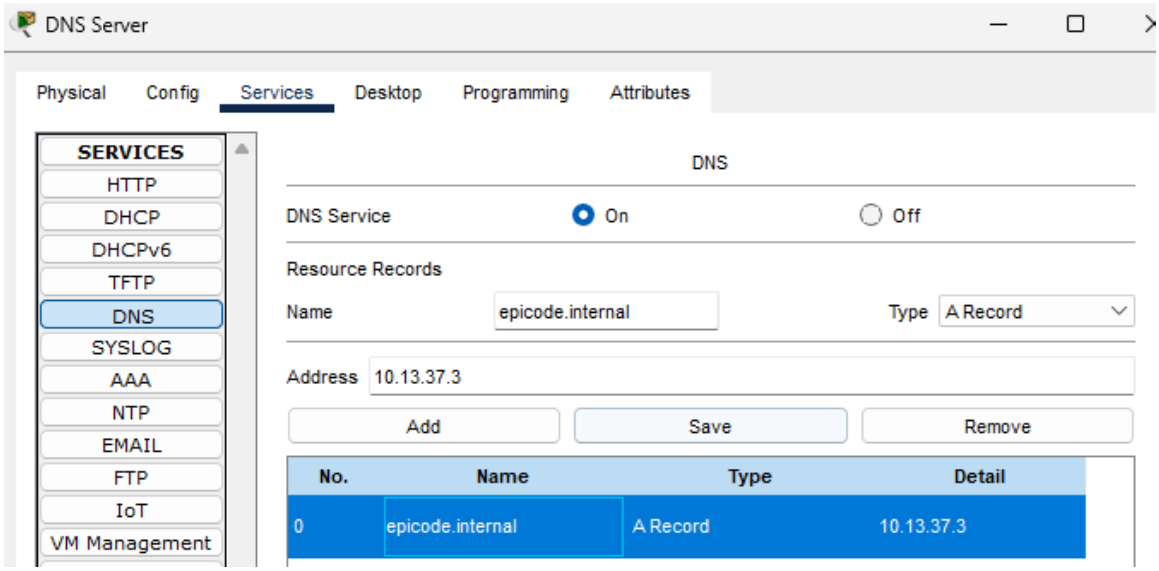


Server HTTP

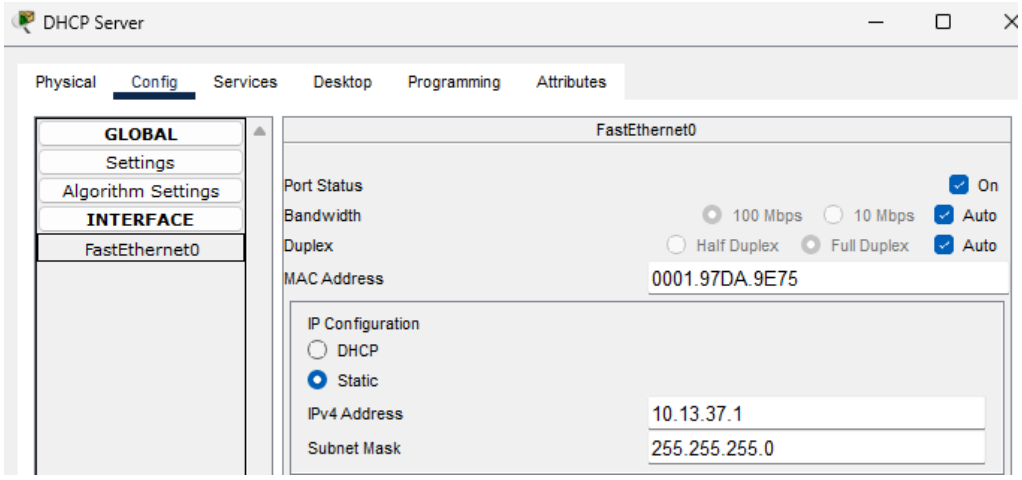


Server DNS


DHCP Server
Physical
Config
Services
Desktop
Programming
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
FastEthernet0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
0001.97DA.9E75
IP Configuration
DHCP
Static
IPv4 Address
10.13.37.1
Subnet Mask
255.255.255.0


DNS Server
Physical
Config
Services
Desktop
Programming
Attributes
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
DNS
DNS Service
On
Off
Resource Records
Name
epicode.internal
Type
A Record
Address
10.13.37.3
Add
Save
Remove
No.
Name
Type
Detail
0
epicode.internal
A Record
10.13.37.3

Server DHCP


DHCP Server
Physical
Config
Services
Desktop
Programming
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
FastEthernet0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
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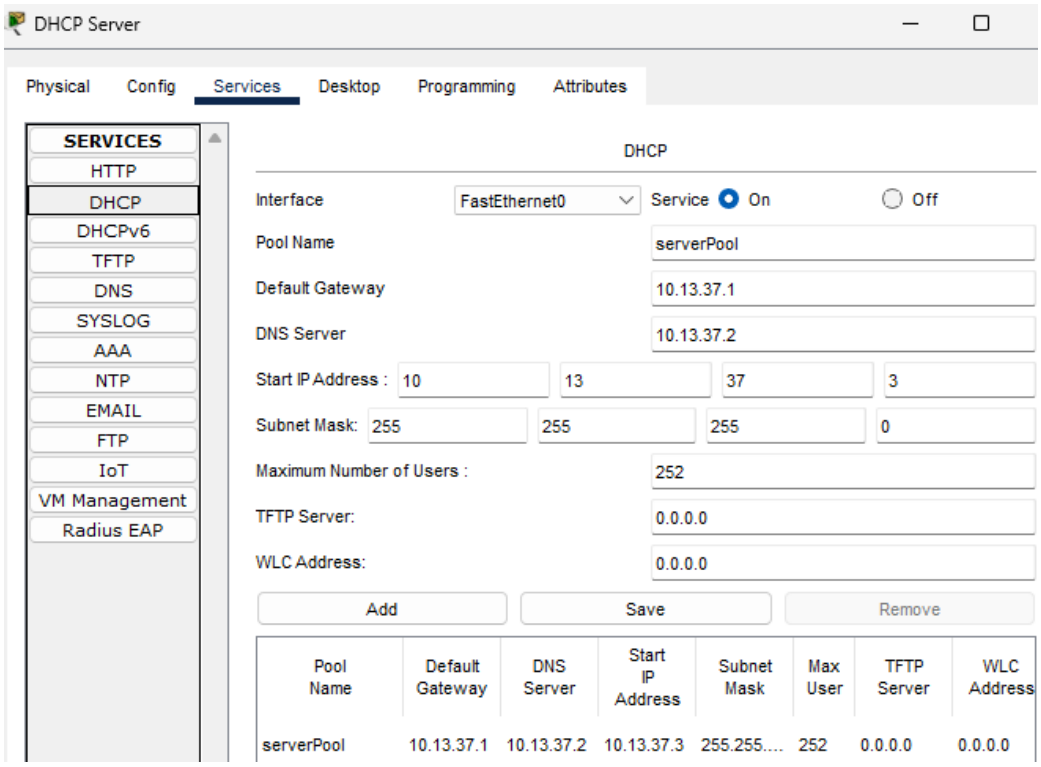
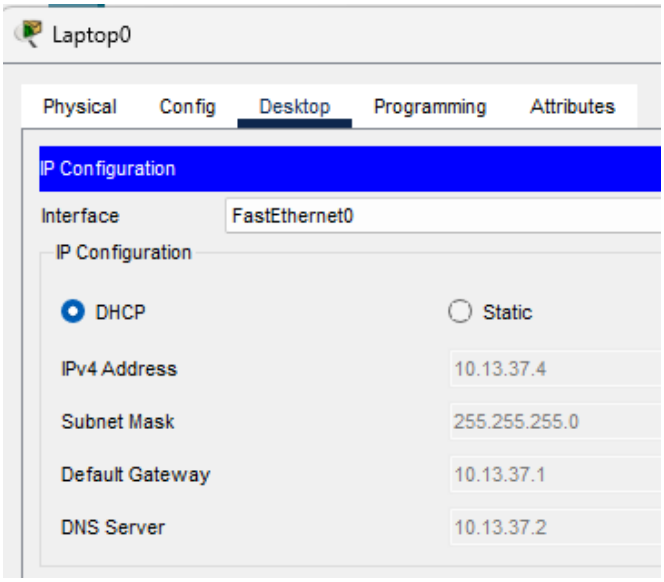
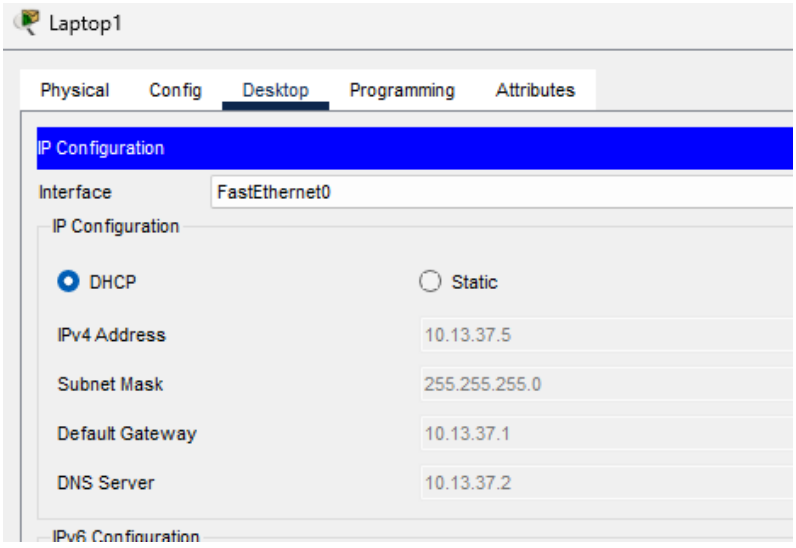
Half Duplex
Full Duplex
Auto
MAC Address
0001.97DA.9E75
IP Configuration
DHCP
Static
IPv4 Address
10.13.37.1
Subnet Mask
255.255.255.0


DHCP Server
Physical
Config
Services
Desktop
Programming
Attributes
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP
DHCP
Interface
FastEthernet0
Service
On
Off
Pool Name
serverPool
Default Gateway
10.13.37.1
DNS Server
10.13.37.2
Start IP Address :
10
13
37
3
Subnet Mask:
255
255
255
0
Maximum Number of Users :
252
TFTP Server:
0.0.0.0
WLC Address:
0.0.0.0
Add
Save
Remove
Pool Name
Default Gateway
DNS Server
Start IP Address
Subnet Mask
Max User
TFTP Server
WLC Address
serverPool
10.13.37.1
10.13.37.2
10.13.37.3
255.255....
252
0.0.0.0
0.0.0.0

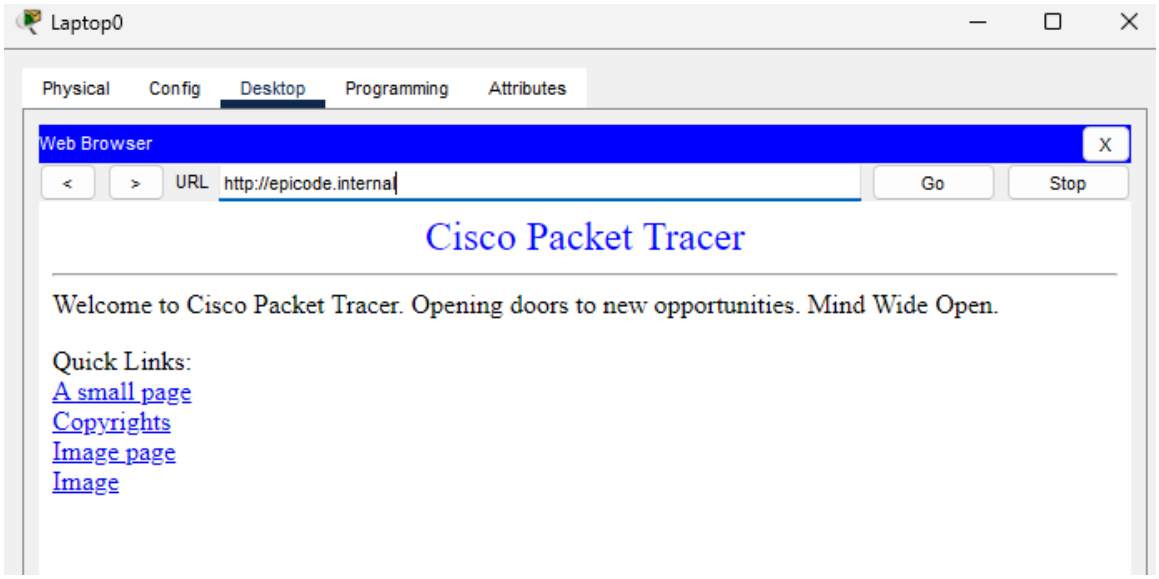
Client 1

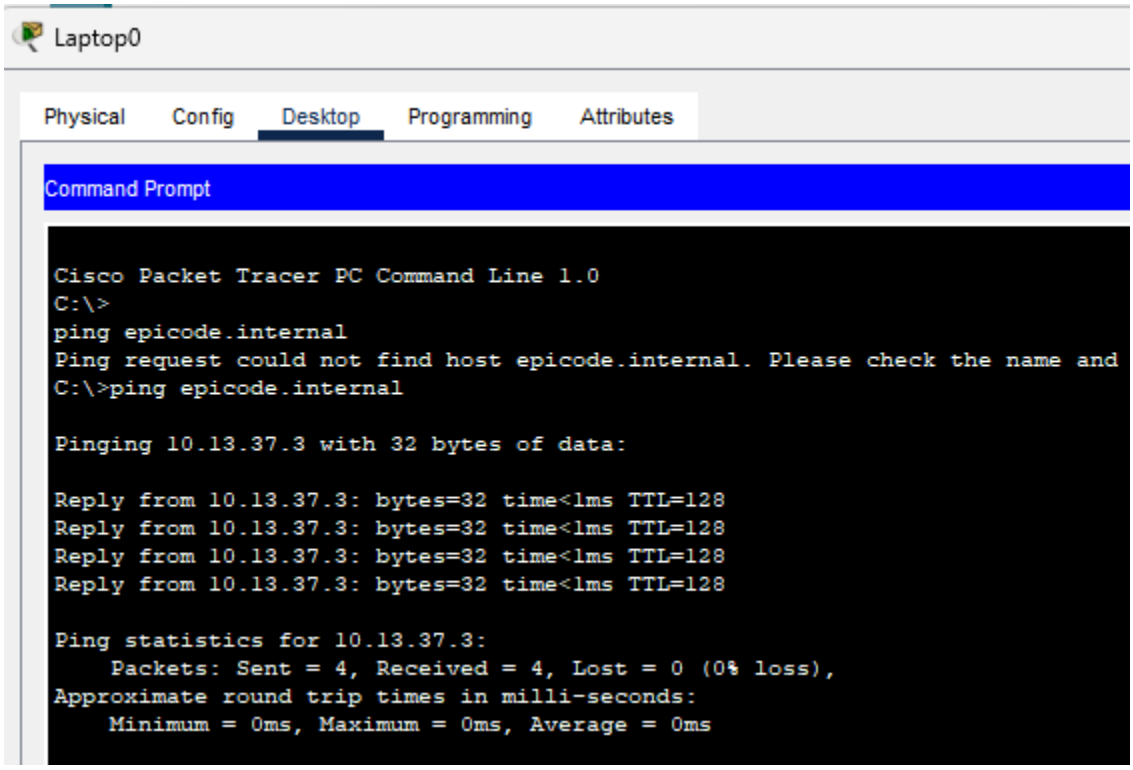


Client 0

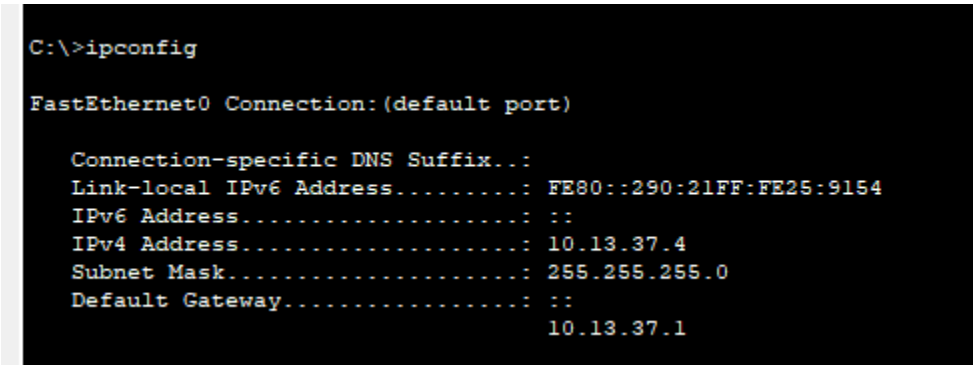


Accesso a **epicode.internal** via browser dal **Laptop0** e relativo ping

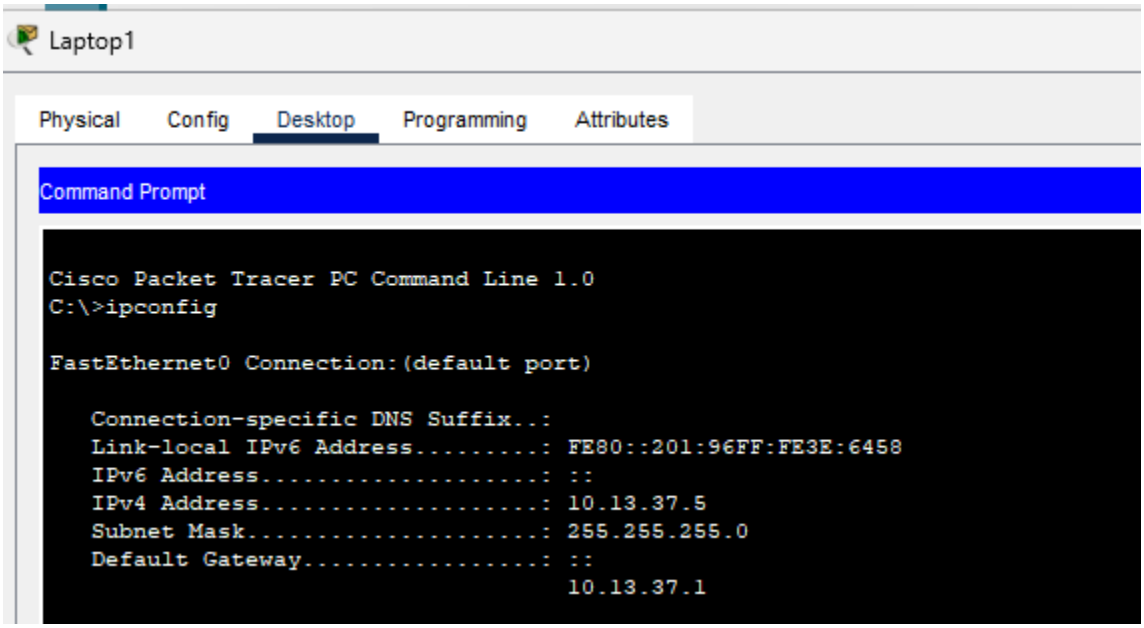




Ipconfig Laptop0



Ipconfig Laptop1



Esercizio facoltativo 1

Dalla screen è possibile vedere il download in corso di un file sul laptop1 dall'FTP sulla macchina con ip 10.13.37.3 (Server HTTP)

```
C:\>ftp 10.13.37.3
Trying to connect...10.13.37.3
Connected to 10.13.37.3
220- Welcome to PT Ftp server
Username:cisco
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>dir
```

Laptop1

Physical Config Desktop Programming Attributes

Command Prompt

```
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>dir

Listing /ftp directory from 10.13.37.3:
0   : asa842-k8.bin                                5571584
1   : asa923-k8.bin                                30468096
2   : c1841-advipservicesk9-mz.124-15.T1.bin       33591768
3   : c1841-ipbase-mz.123-14.T7.bin                13832032
4   : c1841-ipbasek9-mz.124-12.bin                 16599160
5   : c1900-universalk9-mz.SPA.155-3.M4a.bin       33591768
6   : c2600-advipservicesk9-mz.124-15.T1.bin       33591768
7   : c2600-i-mz.122-28.bin                        5571584
8   : c2600-ipbasek9-mz.124-8.bin                  13169700
9   : c2800nm-advipservicesk9-mz.124-15.T1.bin     50938004
10  : c2800nm-advipservicesk9-mz.151-4.M4.bin      33591768
11  : c2800nm-ipbase-mz.123-14.T7.bin              5571584
12  : c2800nm-ipbasek9-mz.124-8.bin                15522644
13  : c2900-universalk9-mz.SPA.155-3.M4a.bin       33591768
14  : c2950-i6q4l2-mz.121-22.EA4.bin               3058048
15  : c2950-i6q4l2-mz.121-22.EA8.bin               3117390
16  : c2960-lanbase-mz.122-25.FX.bin               4414921
17  : c2960-lanbase-mz.122-25.SEE1.bin             4670455
18  : c2960-lanbasek9-mz.150-2.SE4.bin             4670455
19  : c3560-advipservicesk9-mz.122-37.SE1.bin      8662192
20  : c3560-advipservicesk9-mz.122-46.SE.bin       10713279
21  : c800-universalk9-mz.SPA.152-4.M4.bin         33591768
22  : c800-universalk9-mz.SPA.154-3.M6a.bin        83029236
23  : cat3k_caa-universalk9.16.03.02.SPA.bin       505532849
24  : cgr1000-universalk9-mz.SPA.154-2.CG          159487552
25  : cgr1000-universalk9-mz.SPA.156-3.CG          184530138
26  : ir800-universalk9-bundle.SPA.156-3.M.bin     160968869
27  : ir800-universalk9-mz.SPA.155-3.M             61750062
28  : ir800-universalk9-mz.SPA.156-3.M             63753767
29  : ir800_yocto-1.7.2.tar                        2877440
30  : ir800_yocto-1.7.2_python-2.7.3.tar           6912000
31  : pt1000-i-mz.122-28.bin                       5571584
32  : pt3000-i6q4l2-mz.121-22.EA4.bin              3117390
ftp>get asa842-k8.bin

Reading file asa842-k8.bin from 10.13.37.3:
File transfer in progress...
```

Esercizio facoltativo 2

Il **livello fisico** trasmette i le informazioni video tramite il mezzo fisico (cavo, wi-fi, switch) dalle telecamere al server per la memorizzazione dei video

Il **livello data** identifica telecamere, server e switch grazie agli indirizzi mac

Il **livello rete** inoltra i pacchetti tramite il protocollo IP permettendo l'indirizzamento univoco di ogni dispositivo

Il **livello di trasporto** utilizza il protocollo TCP o UDP per trasmettere i video al server

Il **livello sessione** gestisce stabilisce, mantiene e termina le sessioni tra le applicazioni

Il **livello presentazione** comprime, codifica e si occupa della crittografia dei video.

Il **livello applicazione** fornisce l'interfaccia tra l'applicazione e la rete.