



IUS
INSTITUT
UNIVERSITAIRE
DES SCIENCES

**Faculté des Sciences et des
Technologies**

(FST)

Niveau : L3-FST

Réseaux 1

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Date : 08 Décembre 2024

Réseaux 1

Configuration et Utilisation du Protocole FTP (File Transfer Protocol) , Configuration et Tests du Protocole TCP et UDP (User Datagram Protocol) sur Cisco Packet Tracer.

TD 4

Objectif :

Ce TD vous permettra de comprendre comment configurer et utiliser le protocole FTP dans un réseau, les principes fondamentaux de TCP et son utilisation pratique dans des protocoles comme HTTP et FTP et le fonctionnement du protocole **UDP** (User Datagram Protocol), qui est un protocole de communication sans connexion, par rapport au protocole TCP. .

1. Configurer un serveur FTP dans une topologie réseau.
2. Tester le transfert de fichiers entre des clients et le serveur FTP.
3. Simuler un transfert de données via un service utilisant TCP (exemple : HTTP ou FTP).

Étapes du TD :

1. Configuration du Protocole FTP :

Topologie du Réseau :

- ♦ Appareils :
 - 1 routeur 2811 (pour l'interconnexion).
 - 2 switch (pour connecter les appareils locaux).
 - 1 serveur (pour activer le service FTP).
 - 4 PC .

Travaux Dirigés :

Contenu du rapport

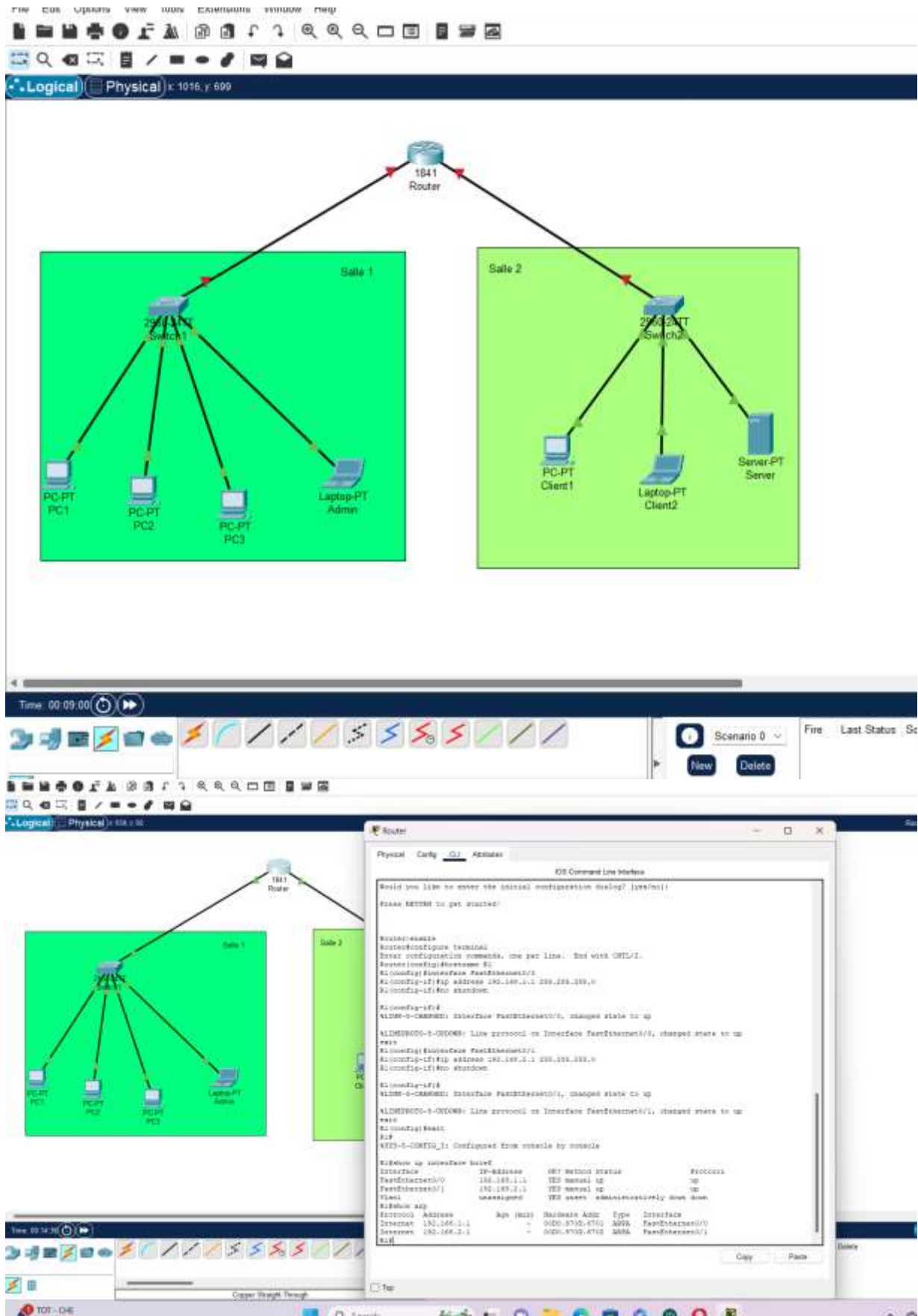
Le rapport doit inclure :

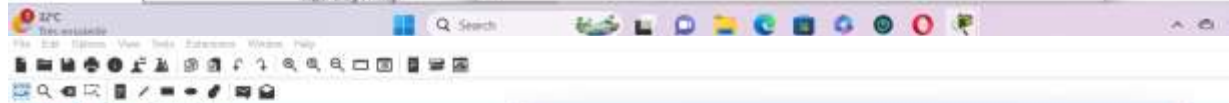
1. Une page de couverture.
2. Une description des résultats de la tâche.
3. Les résultats de l'exécution des commandes (captures d'écran).
4. Les conclusions sur la tâche accomplie.
5. Hébergez le rapport de travail au format Word et PDF, le fichier pkt, ainsi que les images sur GitHub.

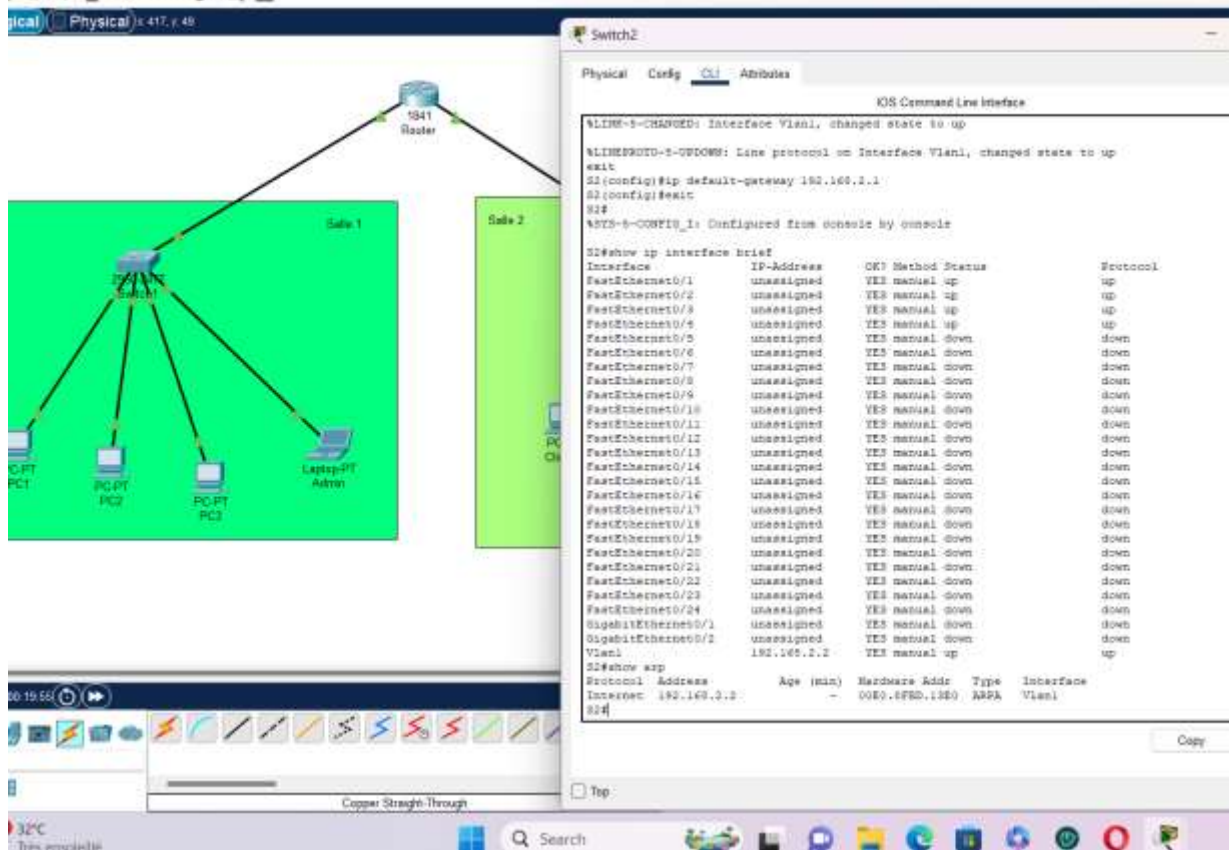
Travaux Dirigés :

Configuration et Utilisation du Protocole FTP (File Transfer Protocol) ,Configuration et Tests du Protocole TCP et UDP (User Datagram Protocol) sur Cisco Packet Tracer.

1. Reproduisez cette topologie en configurant le Protocole FTP.







Logical Physical 10/1/4

1941 Router

Switch 1

Switch 2

PC1 PC2 PC3 Laptop

PC1

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0/0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.10

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 8.8.8.8

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::2D0:50FF:FE3A:9C7D

Default Gateway

DNS Server

802.11

☐ Use 802.11 Security

Authentication WPA

Username

Password

Tip

Time: 08:28:50

Copper Straight Through

32°C

Search

Logical Physical 10/1/11

1941 Router

Switch 1

Switch 2

PC1 PC2 PC3 Laptop

PC2

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0/0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.11

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 8.8.8.8

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::2D0:50FF:FE3A:9C7E

Default Gateway

DNS Server

802.11

☐ Use 802.11 Security

Authentication WPA

Username

Password

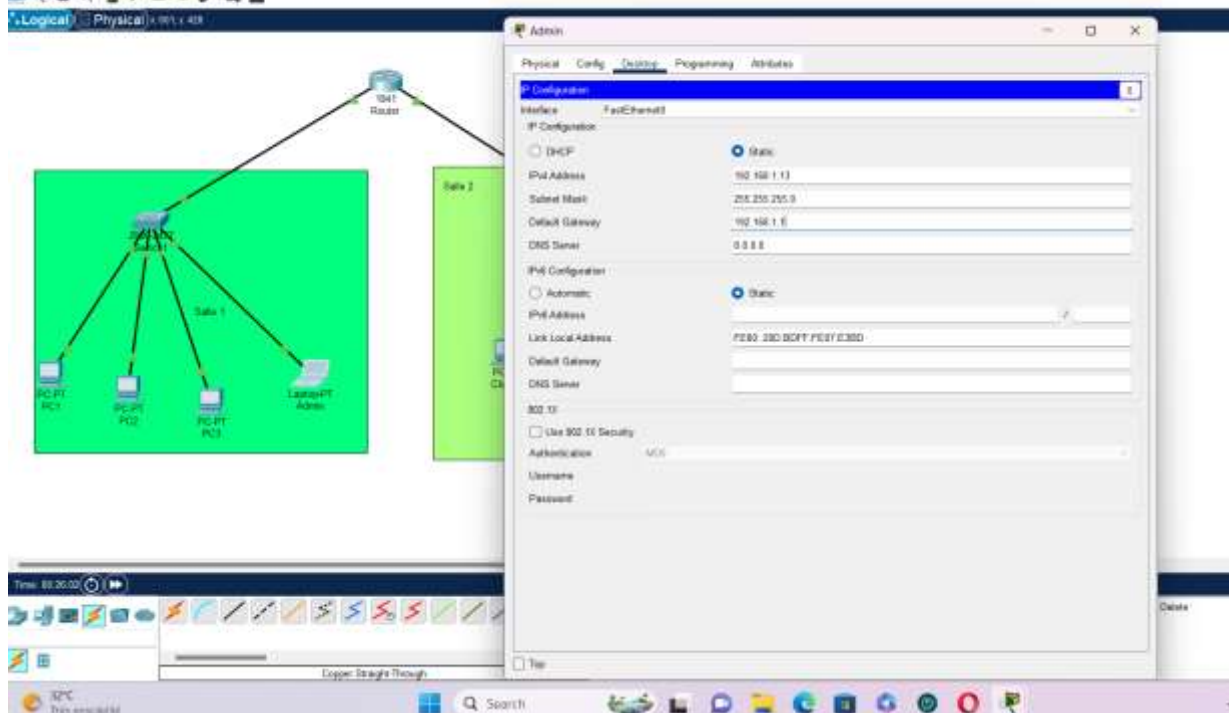
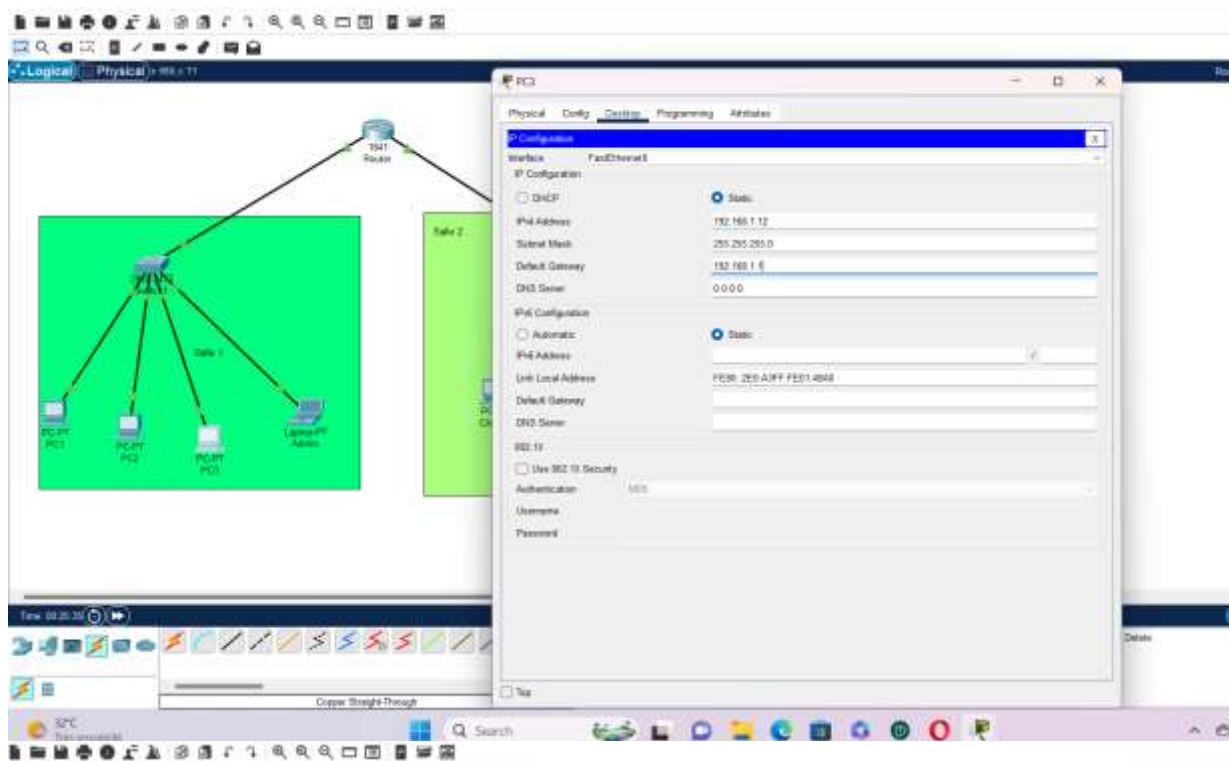
Tip

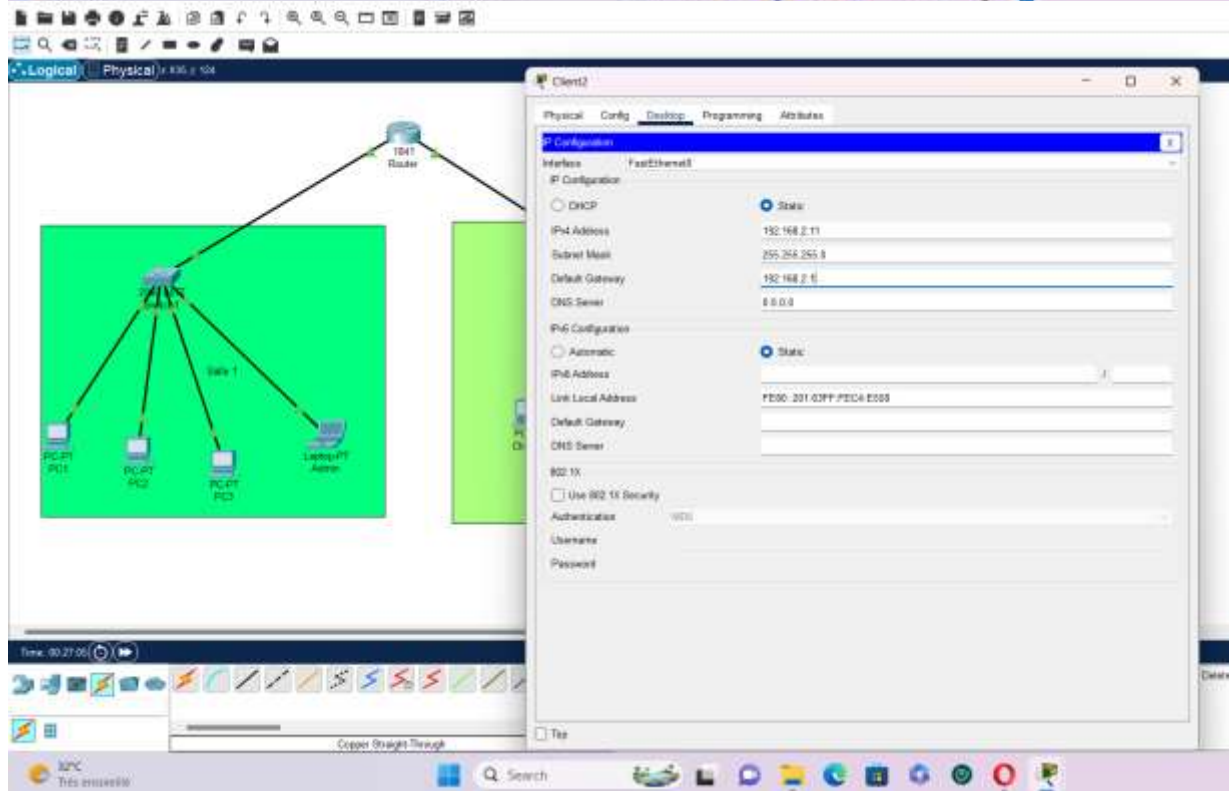
Time: 08:28:51

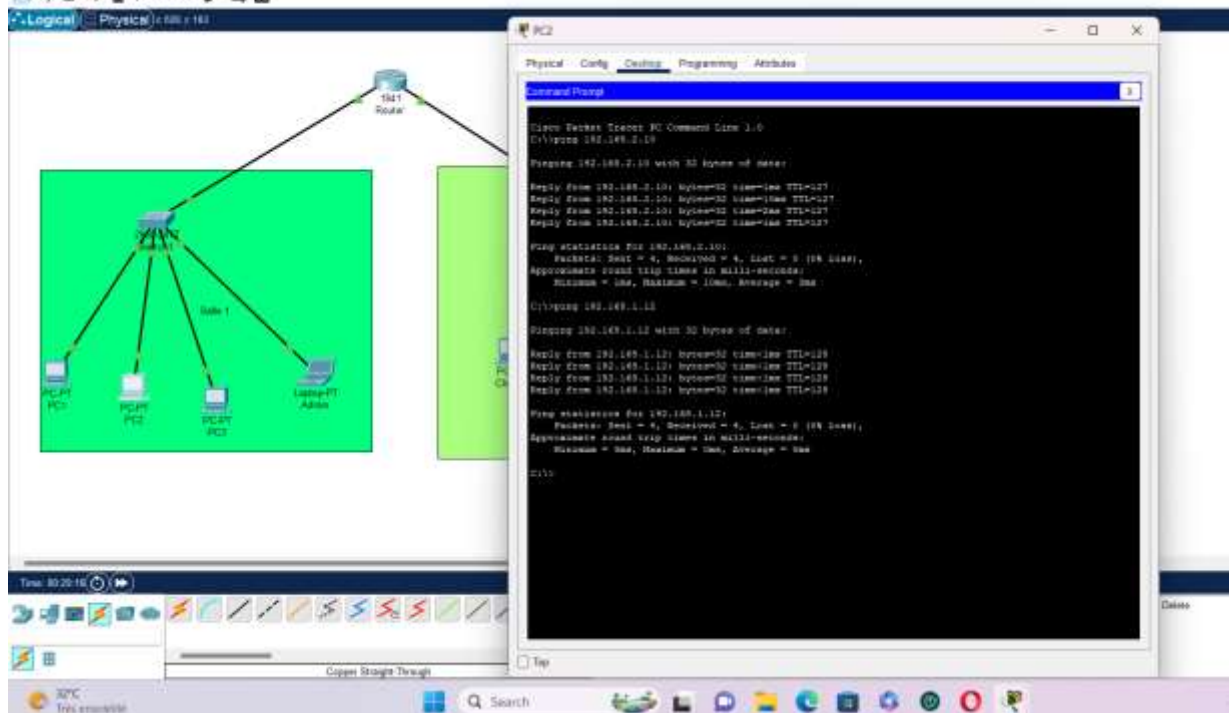
Copper Straight Through

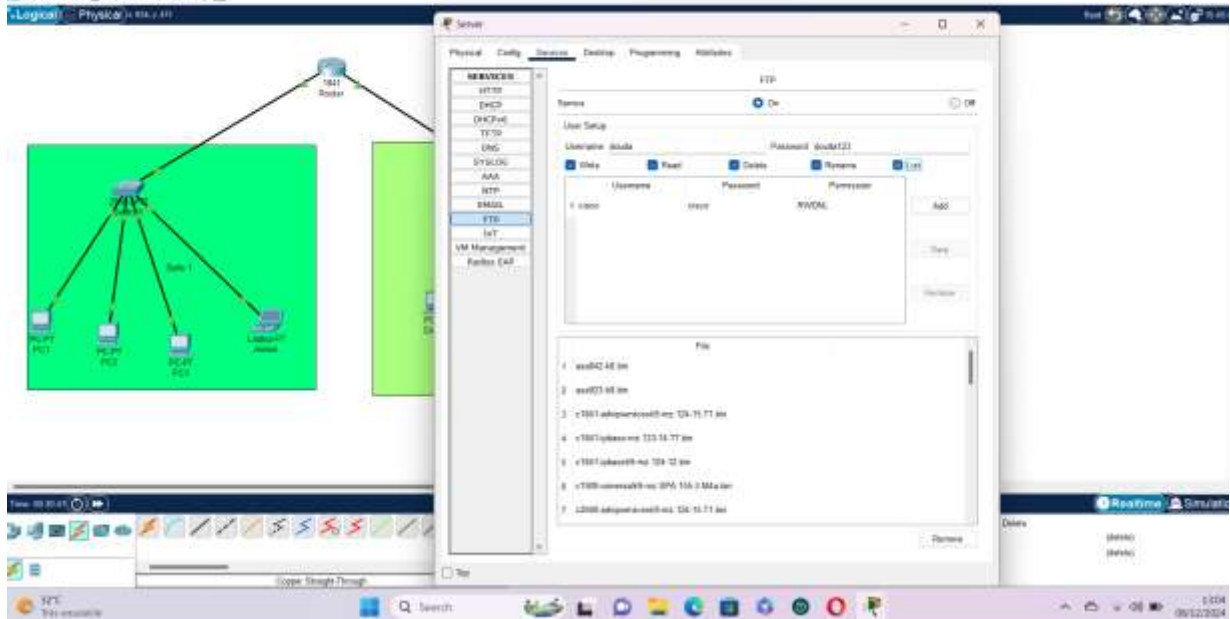
32°C

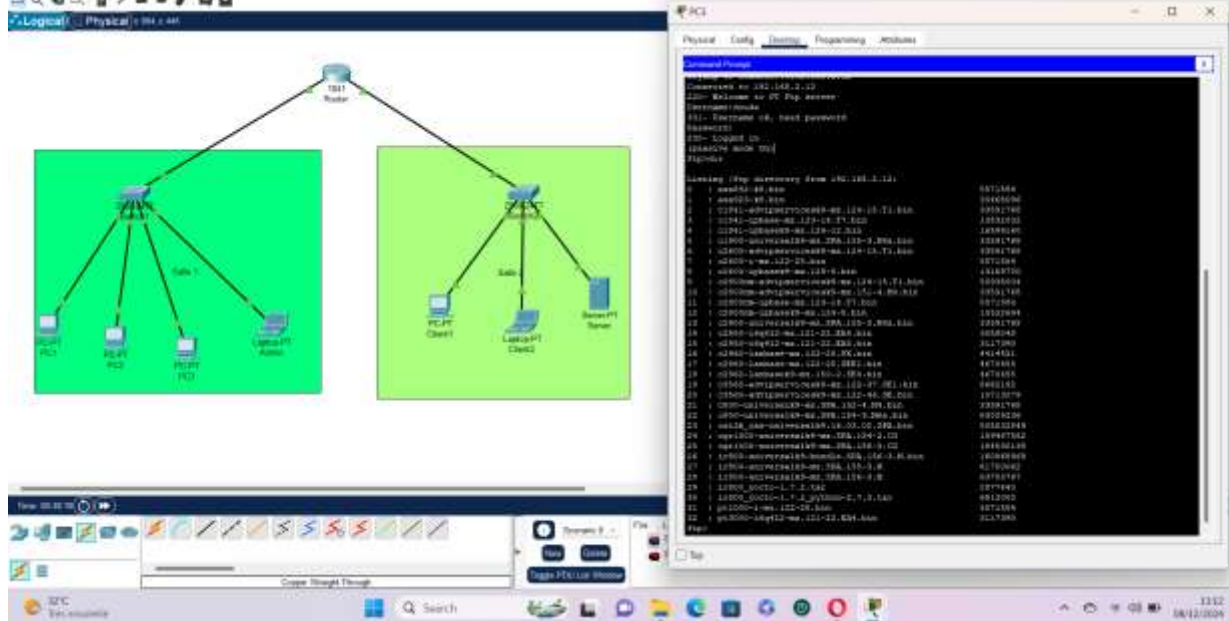
Search



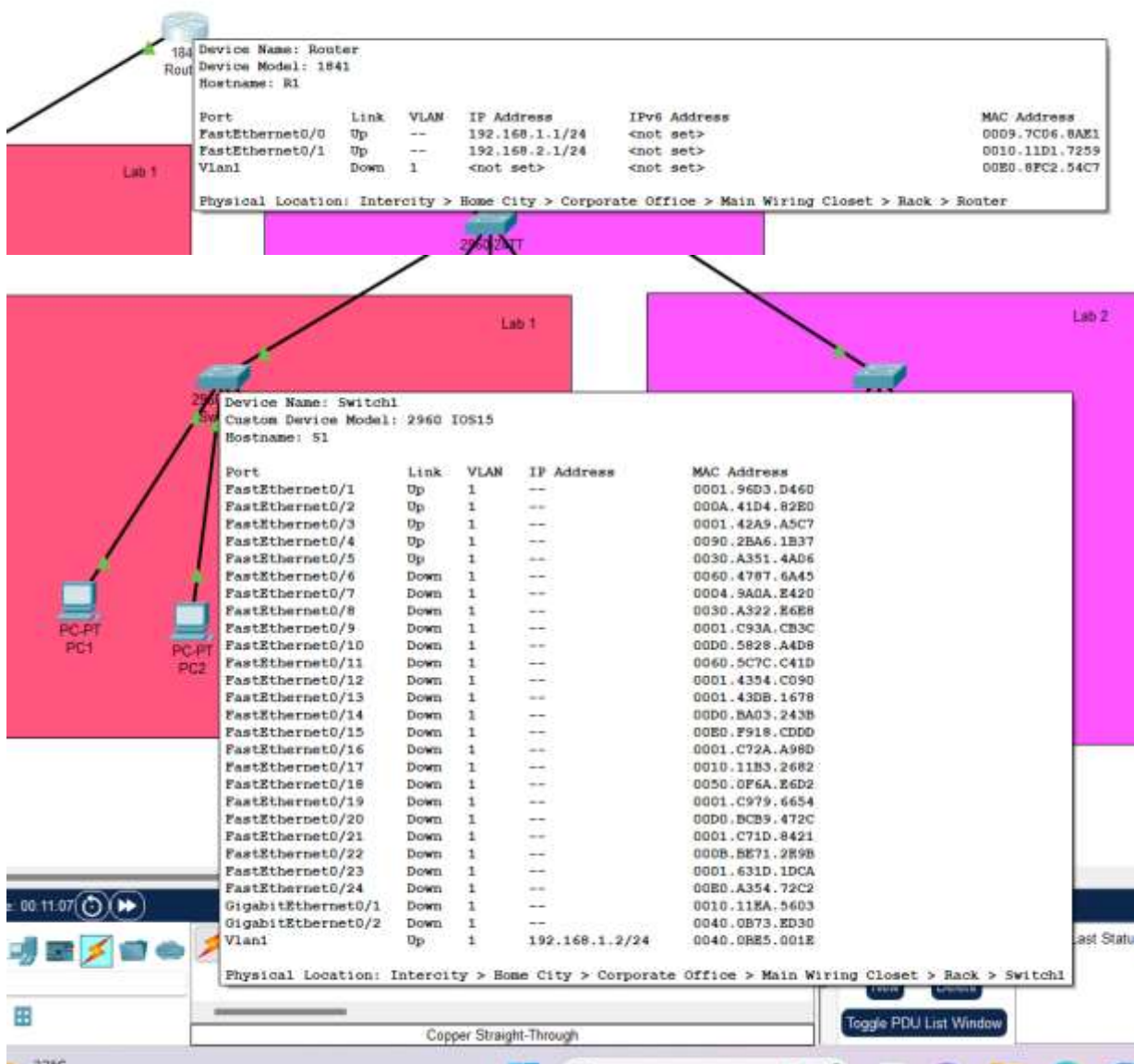
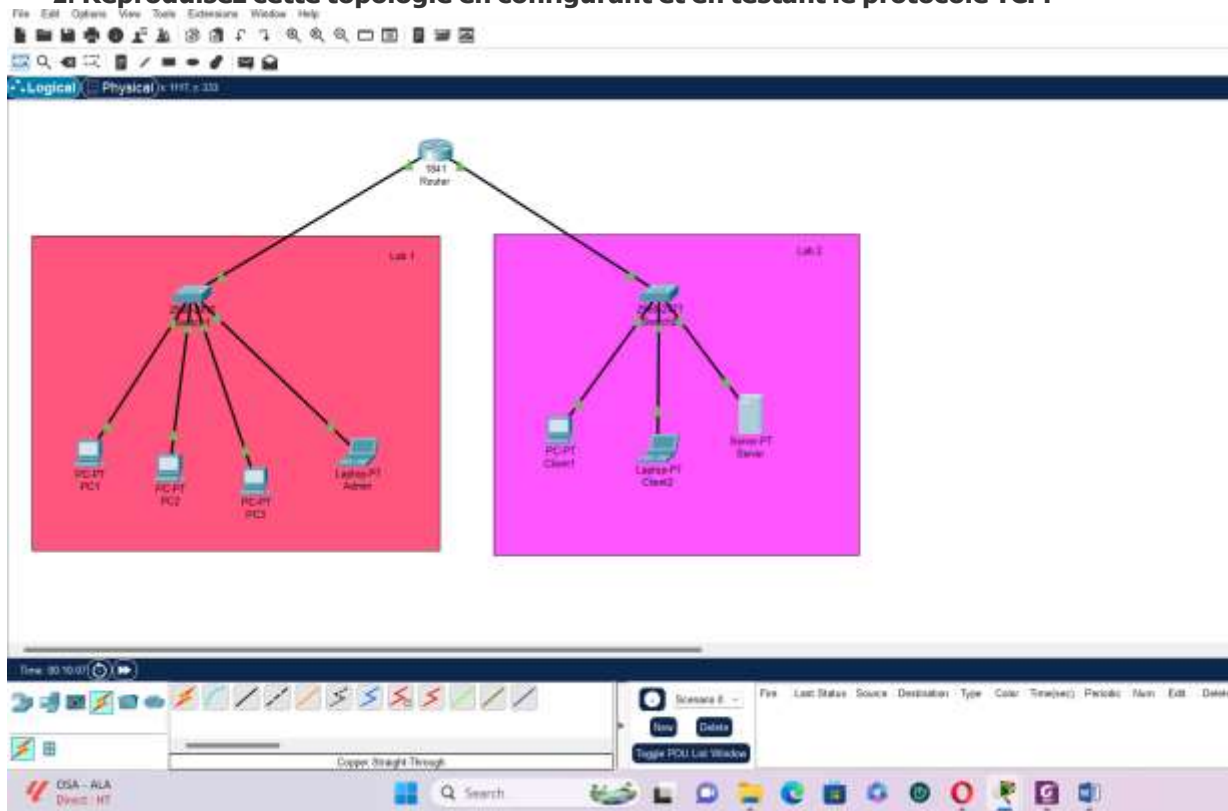








2. Reproduisez cette topologie en configurant et en testant le protocole TCP.



Lab 2

Device Name: Switch2
Custom Device Model: 2960 IOS15
Hostname: S2

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	---	0090.210A.20E6
FastEthernet0/2	Up	1	---	00E0.A311.9656
FastEthernet0/3	Up	1	---	00D0.BA90.C722
FastEthernet0/4	Up	1	---	0001.4269.207B
FastEthernet0/5	Down	1	---	0002.1653.01D7
FastEthernet0/6	Down	1	---	00D0.BADB.1EA7
FastEthernet0/7	Down	1	---	00D0.97B6.987B
FastEthernet0/8	Down	1	---	0005.5EDA.CA3E
FastEthernet0/9	Down	1	---	000B.BE6B.441B
FastEthernet0/10	Down	1	---	0001.4341.0613
FastEthernet0/11	Down	1	---	000B.BE8B.7AA6
FastEthernet0/12	Down	1	---	0060.2F0B.D07B
FastEthernet0/13	Down	1	---	000C.8543.048E
FastEthernet0/14	Down	1	---	0000.8D79.81A3
FastEthernet0/15	Down	1	---	0009.7C48.C324
FastEthernet0/16	Down	1	---	0003.E46B.D8C5
FastEthernet0/17	Down	1	---	0002.4AA8.624C
FastEthernet0/18	Down	1	---	0001.C750.A4ED
FastEthernet0/19	Down	1	---	0001.96AD.9C80
FastEthernet0/20	Down	1	---	0060.4786.C8A5
FastEthernet0/21	Down	1	---	0030.F292.167B
FastEthernet0/22	Down	1	---	00D0.9769.2151
FastEthernet0/23	Down	1	---	00D0.FF96.4C47
FastEthernet0/24	Down	1	---	000A.F3C5.15A8
GigabitEthernet0/1	Down	1	---	0007.8C19.A588
GigabitEthernet0/2	Down	1	---	0001.9785.2EED
Vlan1	Up	1	192.168.2.2/24	00D0.BC19.E12A

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch2

Toggle PDU List Window

Device Name: PC1
Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.10/24	<not set>	0090.2192.3B77
Bluetooth	Down	<not set>	<not set>	000A.411D.7BB0

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > PC1

00:11:33

Copper Straight-Through

Device Name: PC2
Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.11/24	<not set>	0001.9769.9ADC
Bluetooth	Down	<not set>	<not set>	00E0.8FEE.84A6

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > PC2

Copper Straight-Through

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status

Server-PT
Server

Laptop
Client

Device Name: Client2
Device Model: Laptop-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.2.11/24	<not set>	000C.85C9.B9B4
Bluetooth	Down	<not set>	<not set>	00E0.F91C.8908

Gateway: 192.168.2.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > Client2

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
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Device Name: Server
Device Model: Server-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.2.12/24	<not set>	0090.0CB1.0926

Gateway: 192.168.2.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Server

Realtime Simu

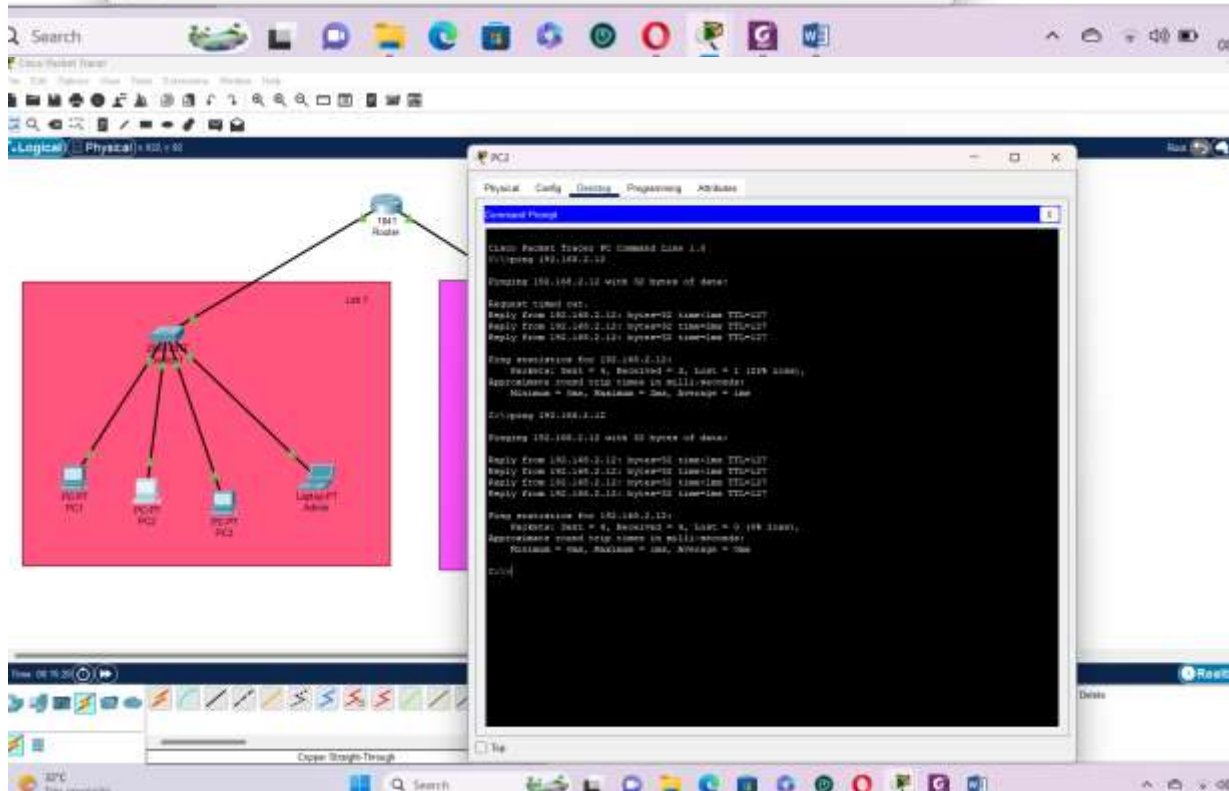
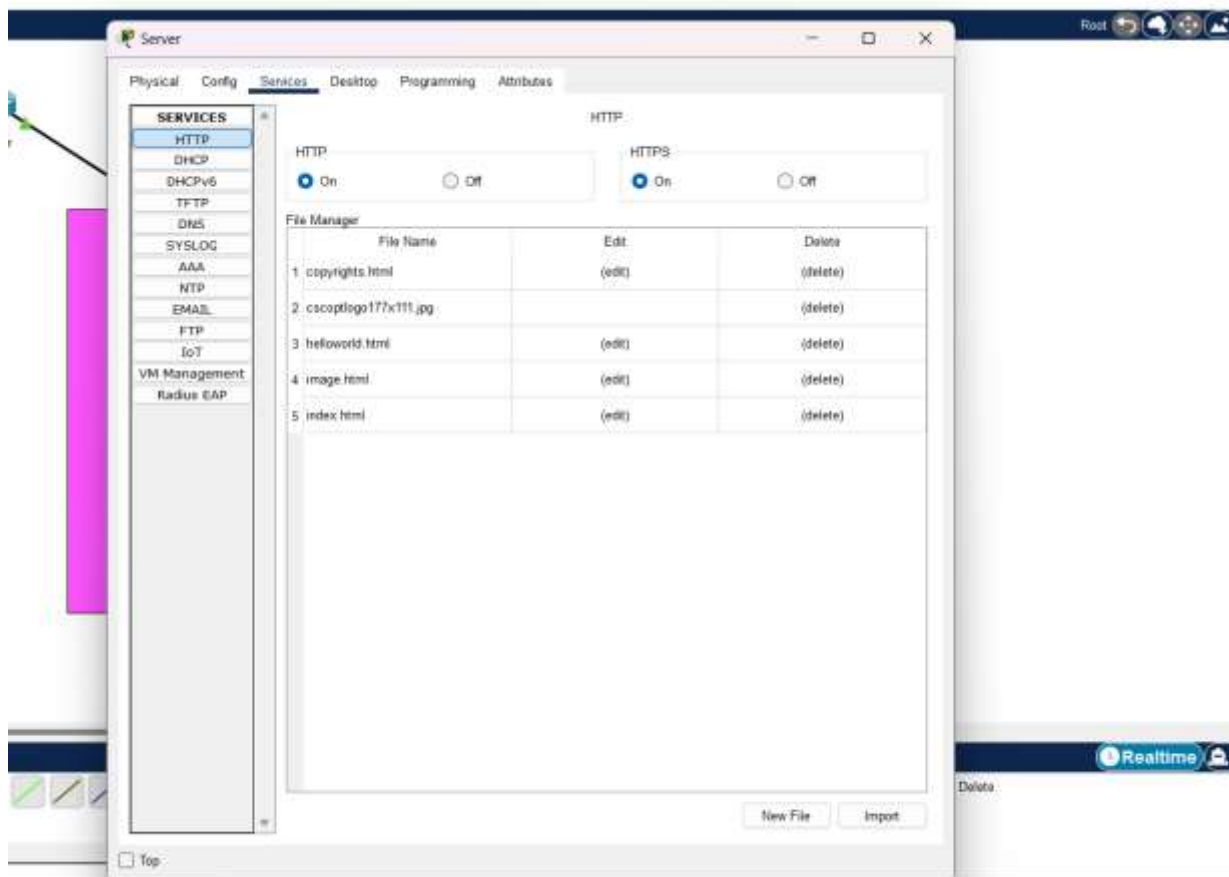
Scenario 0

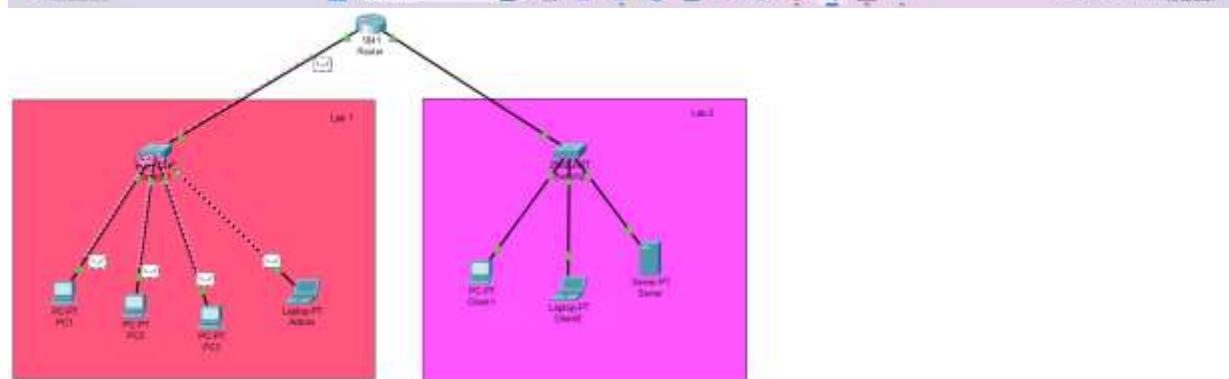
New Delete

PDU List Window

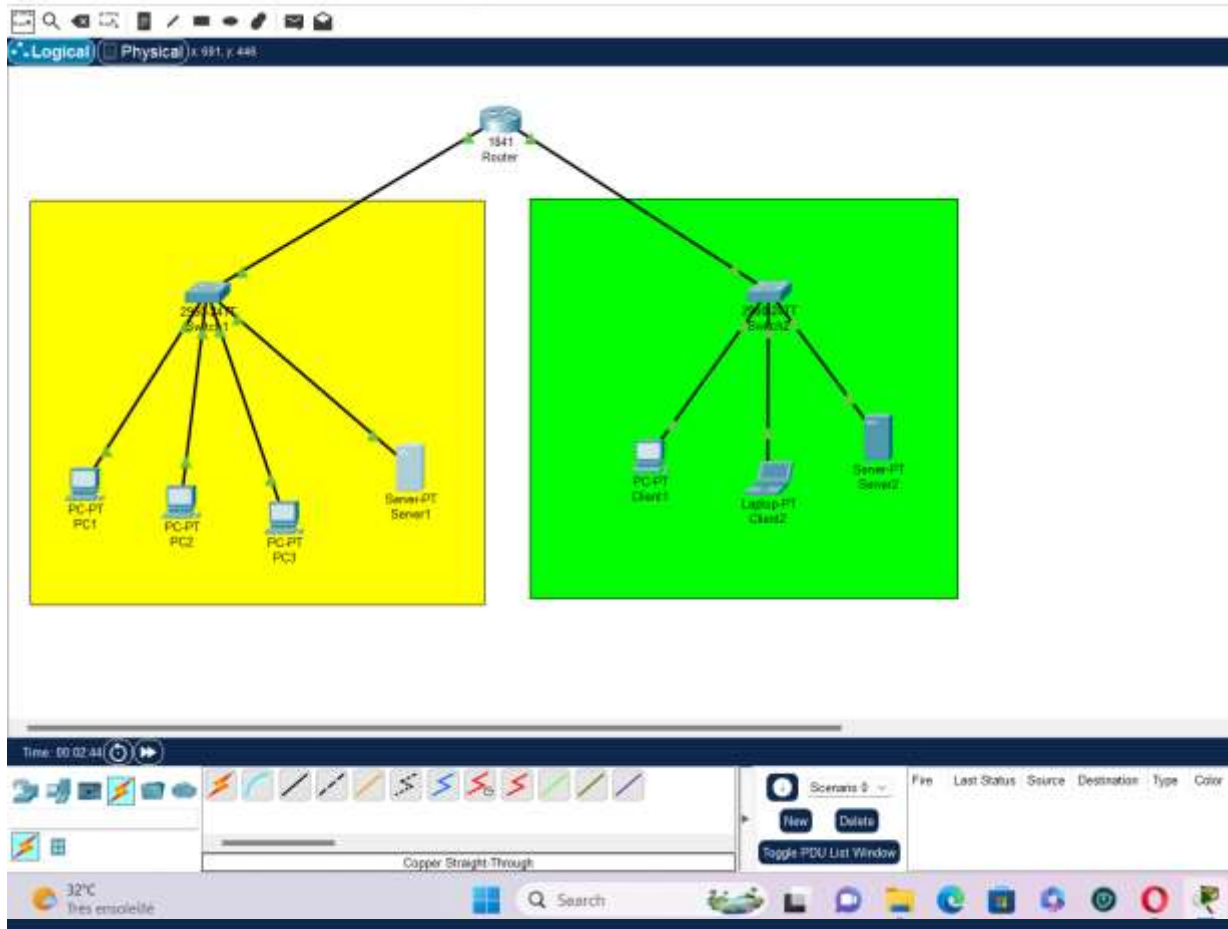
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
------	-------------	--------	-------------	------	-------	-----------	----------	-----	------	--------

08/12/2





3. Reproduisez cette topologie en configurant et en testant le protocole UDP.



Device Name: Router
Device Model: 1841
Hostname: R1

Port	Link	VLAN	IP Address	IPv6 Address	MAC Address
FastEthernet0/0	Up	--	192.168.1.1/24	<not set>	00E0.A375.8841
FastEthernet0/1	Up	--	192.168.2.1/24	<not set>	000A.4140.3BC1
Vlan1	Down	1	<not set>	<not set>	0050.0F3A.D158

Physical Location: Intercity > Rome City > Corporate Office > Main Wiring Closet > Rack > Router

Device Name: Switch1
Custom Device Model: 2960 IOS15
Hostname: S1

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	--	00D0.5801.7DCA
FastEthernet0/2	Up	1	--	000C.8532.12E2
FastEthernet0/3	Up	1	--	0001.43B7.A596
FastEthernet0/4	Up	1	--	0090.2BC9.41A9
FastEthernet0/5	Up	1	--	00D0.FFC8.DC39
FastEthernet0/6	Down	1	--	0001.63DE.953E
FastEthernet0/7	Down	1	--	0040.0BE2.7641
FastEthernet0/8	Down	1	--	0060.5C45.008C
FastEthernet0/9	Down	1	--	0060.5C08.A40C
FastEthernet0/10	Down	1	--	00D0.585E.7A74
FastEthernet0/11	Down	1	--	0006.2A18.318A
FastEthernet0/12	Down	1	--	00D0.BC10.0A42
FastEthernet0/13	Down	1	--	0030.F291.4D9E
FastEthernet0/14	Down	1	--	0001.C998.48C4
FastEthernet0/15	Down	1	--	0004.9A90.2511
FastEthernet0/16	Down	1	--	0001.C96C.A635
FastEthernet0/17	Down	1	--	0006.2A98.50DA
FastEthernet0/18	Down	1	--	0001.4388.9E36
FastEthernet0/19	Down	1	--	000C.8548.A07C
FastEthernet0/20	Down	1	--	0005.5BA4.EC8D
FastEthernet0/21	Down	1	--	0001.979C.25B6
FastEthernet0/22	Down	1	--	0060.5C6A.CDB1
FastEthernet0/23	Down	1	--	0003.E417.0B35
FastEthernet0/24	Down	1	--	0040.0B41.2659
GigabitEthernet0/1	Down	1	--	00E0.8007.A7A5
GigabitEthernet0/2	Down	1	--	0001.4200.E194
Vlan1	Up	1	192.168.1.2/24	0090.2162.BC82

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch1

Copper Straight-Through

Toggle PDU List Window

Device Name: PC1
Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.10/24	<not set>	0090.2169.CCB8
Bluetooth	Down	<not set>	<not set>	0006.2A0E.4084

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > PC1

Device Name: PC2
Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.11/24	<not set>	000A.41C5.87E7
Bluetooth	Down	<not set>	<not set>	000C.CFE6.7DC2

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > PC2

Device Name: PC2
Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.11/24	<not set>	000A.41C5.87E7
Bluetooth	Down	<not set>	<not set>	000C.CFE6.7DC2

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > PC2

Server-PT
Server1

Client1
Laptop-PT
Client2

PC
PC3

Device Name: PC3
Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.12/24	<not set>	0007.ECBE.4013
Bluetooth	Down	<not set>	<not set>	0001.4303.72E2

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > PC3

Scenario 0

Fire

Last Status

Source

Destination

New

Delete

Toggle PDU List Window

Copper Straight-Through

Search

Server-PT
Server0

Device Name: Server1
Device Model: Server-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.1.13/24	<not set>	0030.F293.C1AA

Gateway: 192.168.1.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Server0

Scenario 0

Fire

Last Status

Source

Destination

Type

Color

New

Delete

2960

Switch

Device Name: Switch2

Custom Device Model: 2960 IOS15

Hostname: S2

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	--	0050.0FEC.A819
FastEthernet0/2	Up	1	--	0007.EC82.C3CC
FastEthernet0/3	Up	1	--	000C.85A6.C182
FastEthernet0/4	Up	1	--	0001.637B.0D6E
FastEthernet0/5	Down	1	--	00D0.58B6.B013
FastEthernet0/6	Down	1	--	00D0.58CB.C125
FastEthernet0/7	Down	1	--	00D0.D393.118A
FastEthernet0/8	Down	1	--	00E0.F78B.9D71
FastEthernet0/9	Down	1	--	0006.2AE7.1854
FastEthernet0/10	Down	1	--	00D0.D309.EB25
FastEthernet0/11	Down	1	--	0002.172D.ADC0
FastEthernet0/12	Down	1	--	0003.E428.E349
FastEthernet0/13	Down	1	--	0060.70C1.1A82
FastEthernet0/14	Down	1	--	0030.A381.9701
FastEthernet0/15	Down	1	--	0001.4231.A7C9
FastEthernet0/16	Down	1	--	00D0.5818.2965
FastEthernet0/17	Down	1	--	0009.7C42.8BD6
FastEthernet0/18	Down	1	--	0003.E471.2AE9
FastEthernet0/19	Down	1	--	0009.7CE8.5401
FastEthernet0/20	Down	1	--	0002.4A67.CD7D
FastEthernet0/21	Down	1	--	000C.CF38.6D74
FastEthernet0/22	Down	1	--	000C.8537.3DA4
FastEthernet0/23	Down	1	--	00D0.97C7.B5D4
FastEthernet0/24	Down	1	--	0060.479C.E62C
GigabitEthernet0/1	Down	1	--	0005.5E0A.7EA1
GigabitEthernet0/2	Down	1	--	00D0.BC22.019E
Vlan1	Up	1	192.168.2.2/24	0002.4A98.D57D

Physical Location: Intercity > Home City > Corporate Office > Main Wiring C

New

Delete

Toggle PDU List Window

PC-PT

Client

Device Name: Client1

Device Model: PC-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.2.10/24	<not set>	0090.2B09.575B
Bluetooth	Down	<not set>	<not set>	0001.C9C3.657B

Gateway: 192.168.2.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > Client1

Scenario 0

New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	C
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Server-PT
Server DNS(UDP)

Device Name: Client2
Device Model: Laptop-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.2.11/24	<not set>	0005.5EA3.2E76
Bluetooth	Down	<not set>	<not set>	000A.41D8.401D

Gateway: 192.168.2.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > Client2

Realtime

Scenario 0

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

New Delete

Toggle PDU List Window

Server-PT
Server DNS

Device Name: Server DNS(UDP)
Device Model: Server-PT

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0	Up	192.168.2.12/24	<not set>	00D0.9778.C715

Gateway: 192.168.2.1
DNS Server: <not set>
Line Number: <not set>

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Server

Realtime

Scenario 0

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Delete

Physical: 192.1.1.1

Server DNS(UDP)

Physical Config Services Desktop Programming Applications

Services

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name Type A Record

Address

No	Name	Type	Detail
0	client1	A Record	192.168.2.10
1	client2	A Record	192.168.2.11
2	pc1	A Record	192.168.1.10
3	pc2	A Record	192.168.1.11
4	pc3	A Record	192.168.1.12
5	server dns(udp)	A Record	192.168.2.12
6	server1	A Record	192.168.1.12

DNS Cache

08/14/2023

Open Straight Through

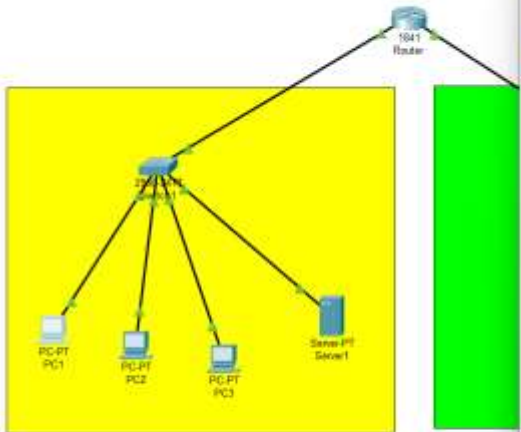
Scenario 0

New Delete

Toggle PDU List Window

File Edit Options View Tools Extensions Windows Help

Logical Physical 14.636 x 71



1841 Router

PC-PT PC1

PC-PT PC2

PC-PT PC3

Server-PT Server1

PC1

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.10

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 192.168.2.10

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80:298:21FF:FE5B:C0D6

Default Gateway

DNS Server

802.1X

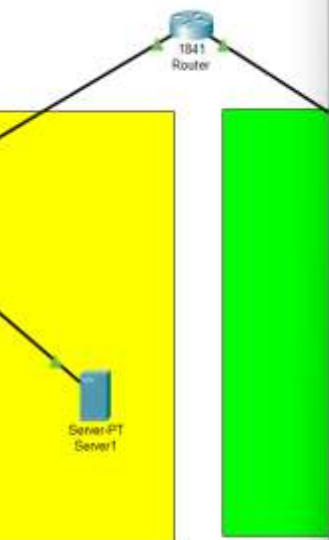
☐ Use 802.1X Security

Authentication MD5

Username

Password

Time: 09:15:30



1841 Router

Server-PT Server1

PC2

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.11

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 192.168.2.12

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80:20A:41FF:FE05:B7E7

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

Copper Straight-Through

Top

Search

Logical Physical 100 x 140

1041 Router

PC-PT PC1

PC-PT PC2

PC-PT PC3

Server-PT Server1

PC1

PC2

PC3

Server1

Time: 00:10:03

Copper Straight-Through

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0/0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.12

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 192.168.2.12

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80:20F:ECFF:FE22:4013

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username

Password

Top

Logical Physical 100 x 140

1041 Router

PC-PT PC1

PC-PT PC2

PC-PT PC3

Server-PT Server1

PC1

PC2

PC3

Server1

Time: 00:10:03

Copper Straight-Through

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0/0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.13

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 192.168.2.12

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80:20F:ECFF:FE22:C1AA

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username

Password

Top

Physical x 547, y 54

Client1

Physical Config Desktop Programming Attributes

Configuration

Interface: FastEthernet0

IP Configuration

- ☐ DHCP
- ☒ Static

IPv4 Address: 192.168.2.10

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.2.1

DNS Server: 192.168.2.12

IPv6 Configuration

- ☐ Automatic
- ☒ Static

IPv6 Address: [empty]

Link Local Address: FE80::200:20FF:FE00:575B

Default Gateway: [empty]

DNS Server: [empty]

802.1X

- ☐ Use 802.1X Security

Authentication: MD5

Username: [empty]

Password: [empty]

Top

Copper Straight Through

13°C This emulated

Search

Physical x 547, y 54

Client2

Physical Config Desktop Programming Attributes

Configuration

Interface: FastEthernet0

IP Configuration

- ☐ DHCP
- ☒ Static

IPv4 Address: 192.168.2.11

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.2.1

DNS Server: 192.168.2.12

IPv6 Configuration

- ☐ Automatic
- ☒ Static

IPv6 Address: [empty]

Link Local Address: FE80::200:20FF:FE00:2E7E

Default Gateway: [empty]

DNS Server: [empty]

802.1X

- ☐ Use 802.1X Security

Authentication: MD5

Username: [empty]

Password: [empty]

Details

Copper Straight Through

13°C This emulated

Search

Appareils	Interface	Adresse IP	Passerelle
R1	Fa0/0	192.168.1.1	-
R1	Fa0/1	192.168.2.1	-
S1	vlan 1	192.168.1.2	192.168.1.1
S2	vlan 1	192.168.2.2	192.168.2.1
PC1	Ethernet	192.168.1.10	192.168.1.1
PC 2	Ethernet	192.168.1.11	192.168.1.1
PC3	Ethernet	192.168.1.12	192.168.1.1
Printer	Ethernet	-	192.168.1.1
Admin	Ethernet	192.168.2.10	192.168.2.1
client 1	Ethernet	192.168.2.11	192.168.2.1
Server DNS	Ethernet	192.168.2.12	192.168.2.1
client 2	Ethernet	192.168.2.13	192.168.2.1

