



**IUS**  
INSTITUT  
UNIVERSITAIRE  
DES SCIENCES

Faculté des Sciences de Technologies

## *Rapport TD5 réseau*

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**Niveau** : L3-Sciences Informatiques

## DESCRIPTION :

➔ Apprendre à configurer un serveur DHCP, DNS ainsi qu'un routeur comme serveur DHCP

## Configuration Routeur :

```
R>
R>enable
R#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R(config)#hostname R1
R1(config)#interface FastEthernet0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#interface FastEthernet0/1
R1(config-if)#ip address 192.168.2.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ip interface brief
Interface                IP-Address      OK? Method Status      Protocol
FastEthernet0/0          192.168.1.1     YES manual up          up
FastEthernet0/1          192.168.2.1     YES manual up          up
Vlan1                    unassigned      YES unset  administratively down down
R1#show arp
Protocol Address          Age (min) Hardware Addr  Type   Interface
Internet 192.168.1.1      -         0006.2A52.4B01 ARPA    FastEthernet0/0
Internet 192.168.2.1      -         0006.2A52.4B02 ARPA    FastEthernet0/1
R1#
```

Copy

Paste

## Configuration server DNS et le service DHCP

Server0

PhysicalConfigServicesDesktopProgrammingAttributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name  Type

Address

No.	Name	Type	Detail
0	admin	A Record	192.168.1.5
1	ing	A Record	192.168.1.2
2	ismael	A Record	192.168.2.2
3	joseph	A Record	192.168.2.3
4	marie	A Record	192.168.1.3
5	naguiby	A Record	192.168.1.3
6	server dns	A Record	192.168.2.5
7	wbm	A Record	192.168.1.4

DNS Cache

Server0

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

laptop0

Default Gateway

0.0.0.0

DNS Server

0.0.0.0

Start IP Address :

192

168

2

4

Subnet Mask:

255

255

255

0

Maximum Number of Users :

246

TFTP Server:

0.0.0.0

WLC Address:

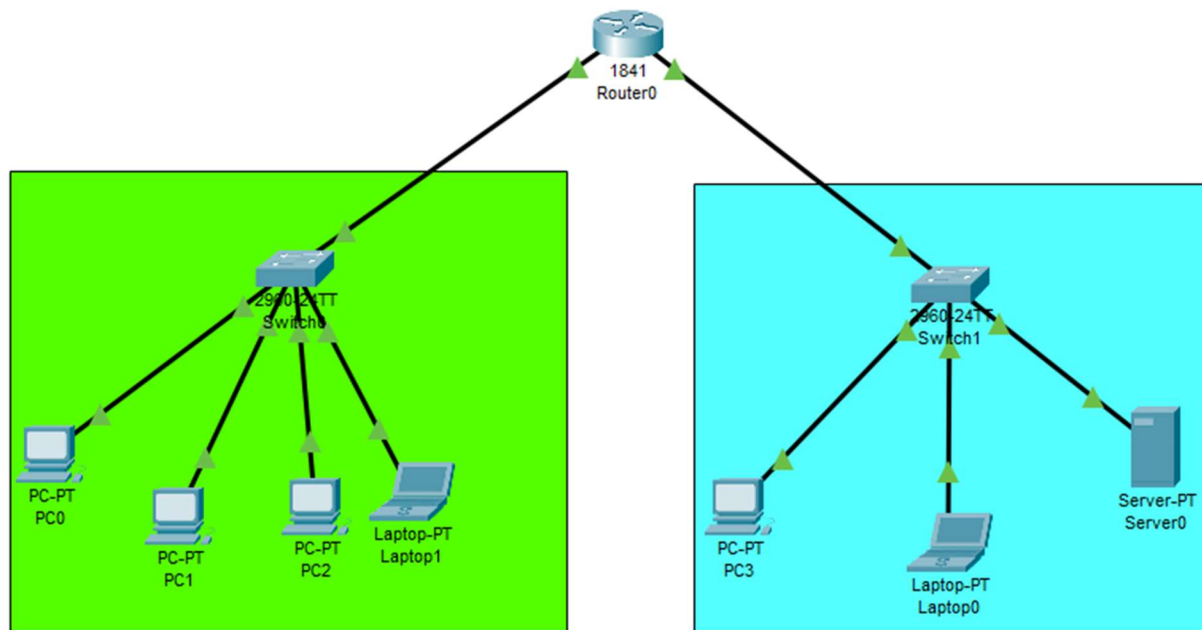
0.0.0.0

Add

Save

Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
laptop0	0.0.0.0	0.0.0.0	192.168....	255.255....	246	0.0.0.0	0.0.0.0
laptop1	0.0.0.0	0.0.0.0	192.168....	255.255....	251	0.0.0.0	0.0.0.0
pc3	0.0.0.0	0.0.0.0	192.168....	255.255....	251	0.0.0.0	0.0.0.0
pc2	0.0.0.0	0.0.0.0	192.168....	255.255....	252	0.0.0.0	0.0.0.0
pc1	0.0.0.0	0.0.0.0	192.168....	255.255....	253	0.0.0.0	0.0.0.0
pc0	0.0.0.0	0.0.0.0	192.168....	255.255....	254	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	192.168....	255.255....	512	0.0.0.0	0.0.0.0



## 2- Configurer le serveur DHCP

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: Printer0

Default Gateway: 192.168.1.1

DNS Server: 0.0.0.0

Start IP Address: 192 168 1 6

Subnet Mask: 255 255 255 0

Maximum Number of Users: 250

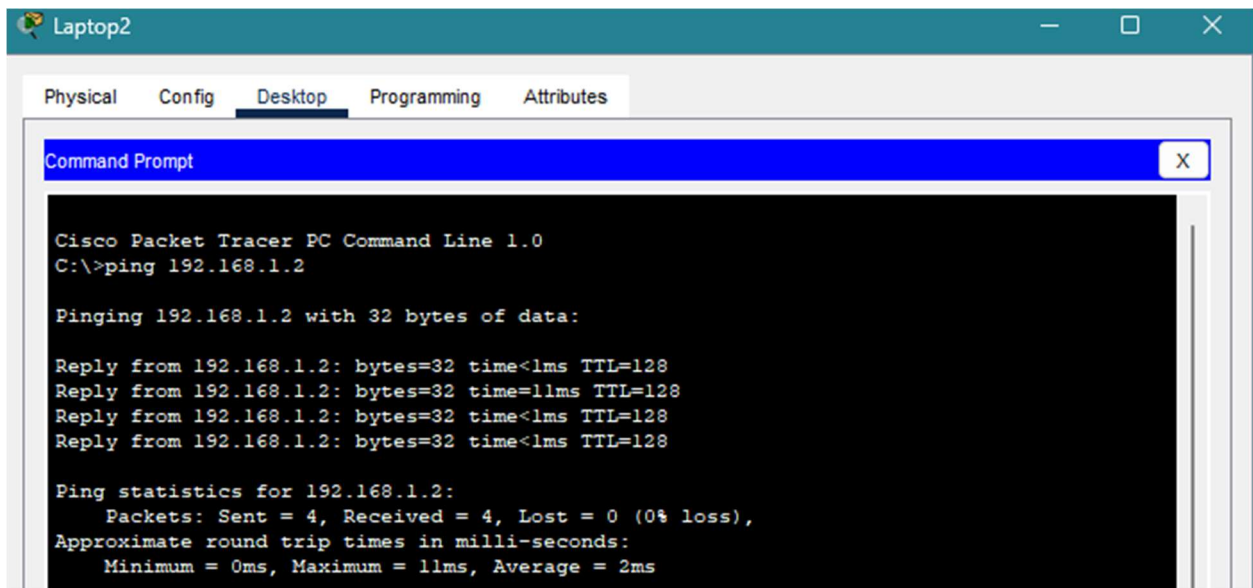
TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

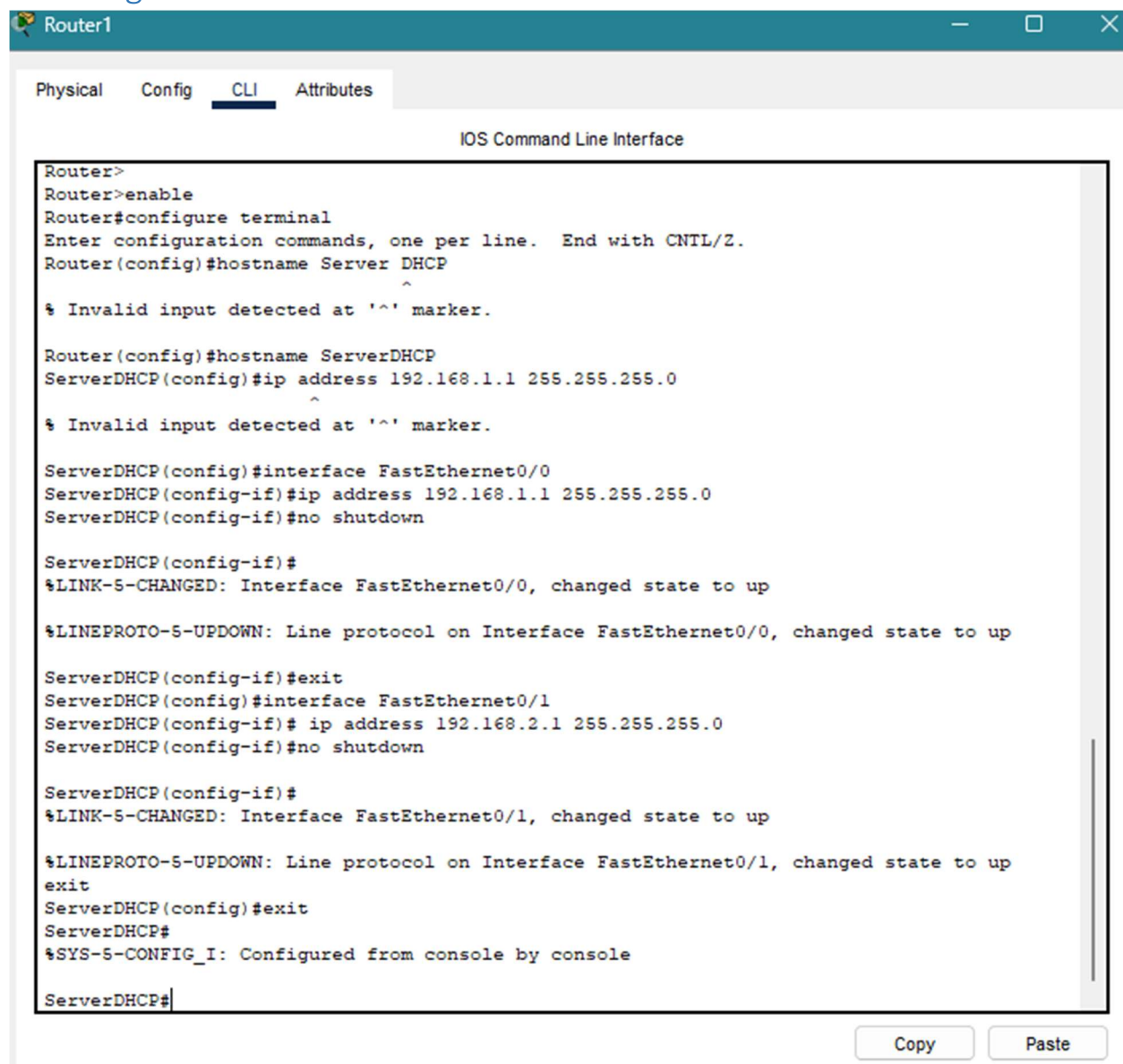
Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
Printer0	192.168....	0.0.0.0	192.168....	255.255....	250	0.0.0.0	0.0.0.0
Server 1	192.168....	0.0.0.0	192.168....	255.255....	251	0.0.0.0	0.0.0.0
Laptop2	192.168....	0.0.0.0	192.168....	255.255....	251	0.0.0.0	0.0.0.0
PC5	192.168....	0.0.0.0	192.168....	255.255....	253	0.0.0.0	0.0.0.0
PC4	192.168....	0.0.0.0	192.168....	255.255....	254	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	512	0.0.0.0	0.0.0.0

Top



### 3- configurant le routeur comme serveur DHCP



```
Router>
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Server DHCP
      ^
% Invalid input detected at '^' marker.

Router(config)#hostname ServerDHCP
ServerDHCP(config)#ip address 192.168.1.1 255.255.255.0
      ^
% Invalid input detected at '^' marker.

ServerDHCP(config)#interface FastEthernet0/0
ServerDHCP(config-if)#ip address 192.168.1.1 255.255.255.0
ServerDHCP(config-if)#no shutdown

ServerDHCP(config-if)#
%LINK-S-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-S-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

ServerDHCP(config-if)#exit
ServerDHCP(config)#interface FastEthernet0/1
ServerDHCP(config-if)# ip address 192.168.2.1 255.255.255.0
ServerDHCP(config-if)#no shutdown

ServerDHCP(config-if)#
%LINK-S-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-S-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
exit
ServerDHCP(config)#exit
ServerDHCP#
%SYS-S-CONFIG_I: Configured from console by console

ServerDHCP#
```

```
ServerDHCP> show arp
Protocol Address      Age (min)  Hardware Addr  Type   Interface
Internet 192.168.1.1          -    0002.1768.E901  ARPA   FastEthernet0/0
Internet 192.168.2.1          -    0002.1768.E902  ARPA   FastEthernet0/1

ServerDHCP>show ip interface brief
Interface      IP-Address      OK? Method Status      Protocol
FastEthernet0/0 192.168.1.1     YES manual up          up
FastEthernet0/1 192.168.2.1     YES manual up          up
Vlan1          unassigned      YES unset  administratively down down
```



```
% Invalid input detected at '^' marker.

ServerDHCP>ip dhcp excluded-address 192.168.1.1
^
% Invalid input detected at '^' marker.

ServerDHCP> enable
ServerDHCP#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
ServerDHCP(config)#hostname S2
S2(config)#interface vlan 1
S2(config-if)# ip address 192.168.2.2 255.255.255.0
% 192.168.2.0 overlaps with FastEthernet0/1
S2(config-if)# no shutdown

S2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

S2(config-if)#exit
S2(config)# ip default-gateway 192.168.2.1
S2(config)# exit
S2# show ip interface brief

```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/0	192.168.1.1	YES	manual	up	up
FastEthernet0/1	192.168.2.1	YES	manual	up	up
Vlan1	192.168.2.2	YES	manual	up	down

```

S2# show arp
-----

```

4- Reproduisez cette topologie en configurant le serveur DNS et le routeur comme serveur DHCP.

Server DNS

PhysicalConfigServicesDesktopProgrammingAttributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name  Type A Record

Address

Add

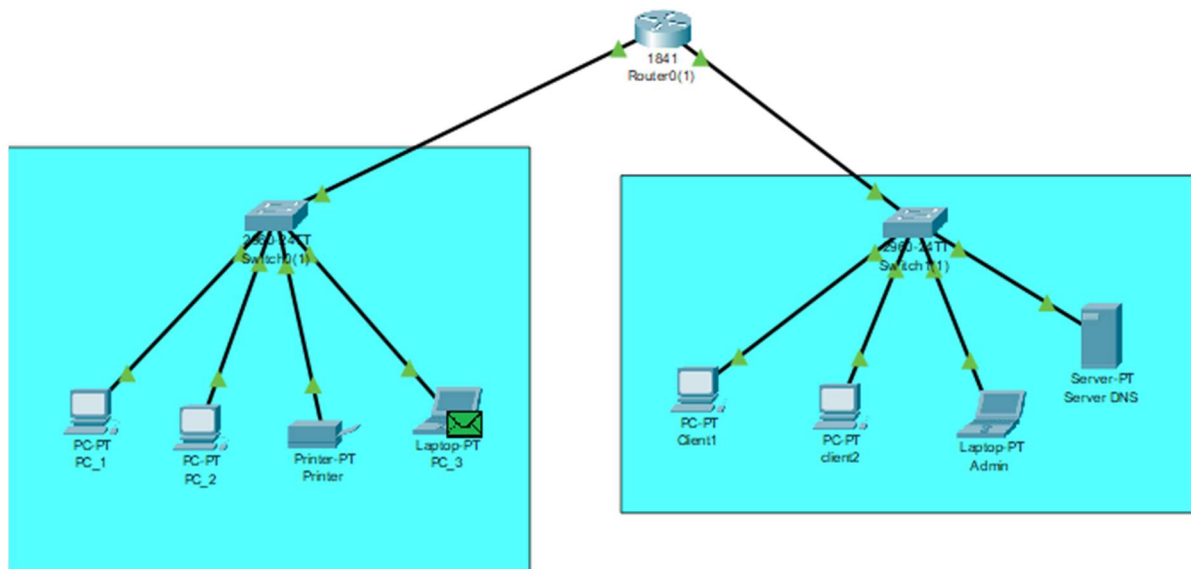
Save

Remove

No.	Name	Type	Detail
0	admin	A Record	192.168.2.10
1	client1	A Record	192.168.2.11
2	client2	A Record	192.168.2.13
3	pc_1	A Record	192.168.1.10
4	pc_2	A Record	192.168.1.11
5	pc_3	A Record	192.168.1.12
6	server dns	A Record	192.168.2.12

DNS Cache

☐ Top



Conclusion :

Par ce TD je parviens à mieux configurer mes réseaux, et savoir comment configurer un service DHCP, DNS etc....