FACULTÉ DES SCIENCES ET DES TECHNOLOGIES

(FST)

Troisième Année

RAPPORT

Sur le Projet Réseau 1

COURS

Réseau

PROFESSEUR

Ismael Saint Amour

PROJET

Configuration et Étude des Services DNS et DHCP

PREPARE PAR:

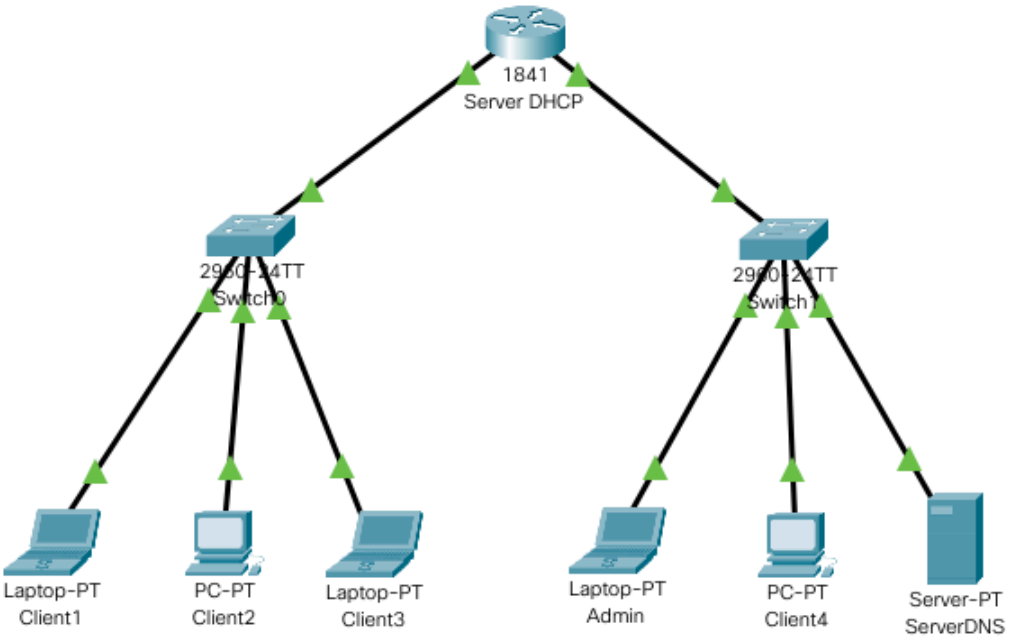
Peterson CHERY

SESSION

I

07 /01 / 2025

1. Conception de l’architecture du réseau :



2. Configuration du routeur:

Physical Config CLI Attributes

```
Router>enable
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#host Server DHCP
               ^
% Invalid input detected at '^' marker.

Router(config)#hostname Server DHCP
                        ^
% Invalid input detected at '^' marker.

Router(config)#hostname ServerDHCP
ServerDHCP(config)#interface FastEthernet0/0
ServerDHCP(config-if)#ip address 192.168.1.1 255.255.255.0
ServerDHCP(config-if)#no shut d

ServerDHCP(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

ServerDHCP(config-if)#exit
ServerDHCP(config)#exit
ServerDHCP#
%SYS-5-CONFIG_I: Configured from console by console

ServerDHCP#enable
ServerDHCP#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
ServerDHCP(config)#interface FastEthernet0/1
ServerDHCP(config-if)#ip address 192.168.2.1 255.255.255.0
ServerDHCP(config-if)#no shut d

ServerDHCP(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
```

Ctrl+F6 to exit CLI focus

```
ServerDHCP#enable
ServerDHCP#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
ServerDHCP(config)#interface FastEthernet0/1
ServerDHCP(config-if)#ip address 192.168.2.1 255.255.255.0
ServerDHCP(config-if)#no shut d

ServerDHCP(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

ServerDHCP(config-if)#exit
ServerDHCP(config)#exit
ServerDHCP#
%SYS-5-CONFIG_I: Configured from console by console

ServerDHCP#show arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  192.168.1.1             -   0090.2182.9301  ARPA   FastEthernet0/0
Internet  192.168.2.1             -   0090.2182.9302  ARPA   FastEthernet0/1
ServerDHCP#
```

Ctrl+F6 to exit CLI focus

3. Configuration des Commutateurs S1 et S2:

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname S1
S1(config)#interface vlan 1
S1(config-if)#ip address 192.168.1.2 255.255.255.0
S1(config-if)#no shut d

S1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

S1(config-if)#exit
S1(config)# ip default-gateway 192.168.1.1
S1(config)#
```

Ctrl+F6 to exit CLI focus Copy Paste

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname S2
S2(config)#interface vlan 1
S2(config-if)#ip address 192.168.2.2 255.255.255.0
S2(config-if)#no shut d

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

S2(config-if)#exit
S2(config)#ip default-gateway 192.168.2.1
S2(config)#show arp
          ^
% Invalid input detected at '^' marker.

S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console

S2#show arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  192.168.2.2           -   0001.C95E.E5ED  ARPA   Vlan1
S2#
```

Ctrl+F6 to exit CLI focus

4. Configuration du service DHCP:

IOS Command Line Interface

```
ServerDHCP(config)#ip dhcp excluded-address 192.168.2.2
ServerDHCP(config)#exit
ServerDHCP#
%SYS-5-CONFIG_I: Configured from console by console

ServerDHCP#ip dhcp pool PR-1
           ^
% Invalid input detected at '^' marker.

ServerDHCP#enable
ServerDHCP#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
ServerDHCP(config)#ip dhcp pool PR-1
ServerDHCP(dhcp-config)#network 192.168.1.0 255.255.255.0
ServerDHCP(dhcp-config)#default-router 192.168.1.1
ServerDHCP(dhcp-config)#dns-server 192.168.2.10
ServerDHCP(dhcp-config)#exit
ServerDHCP(config)#ip dhcp pool PR-2
ServerDHCP(dhcp-config)#network 192.168.2.0 255.255.255.0
ServerDHCP(dhcp-config)#default-router 192.168.2.1
ServerDHCP(dhcp-config)#dns-server 192.168.2.10
ServerDHCP(dhcp-config)#exit
ServerDHCP(config)#exit
```

Ctrl+F6 to exit CLI focus

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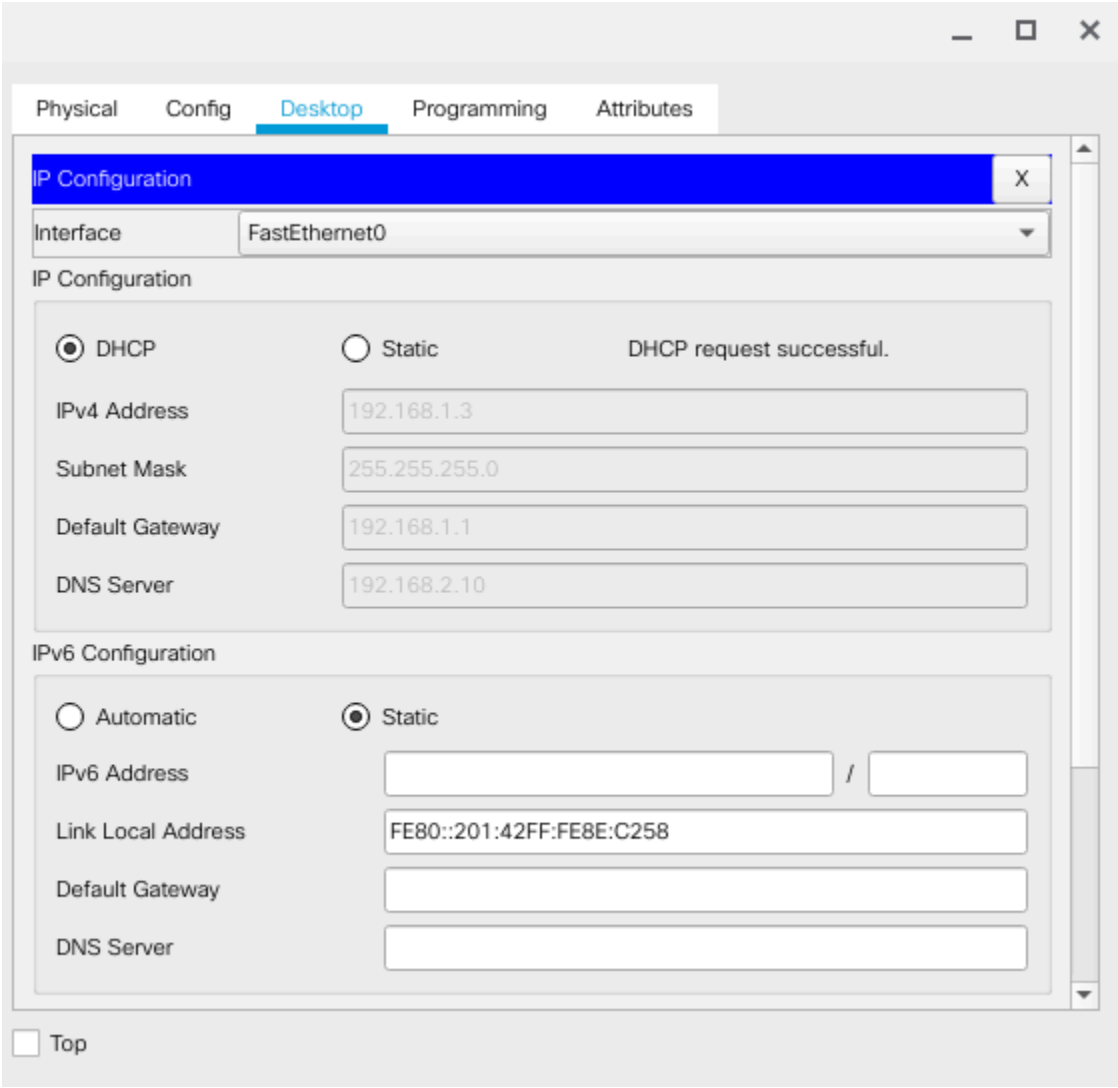
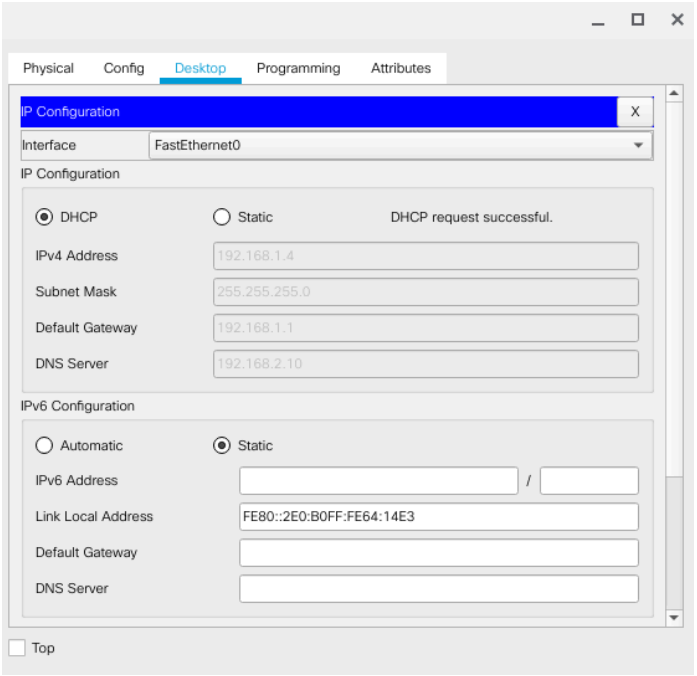
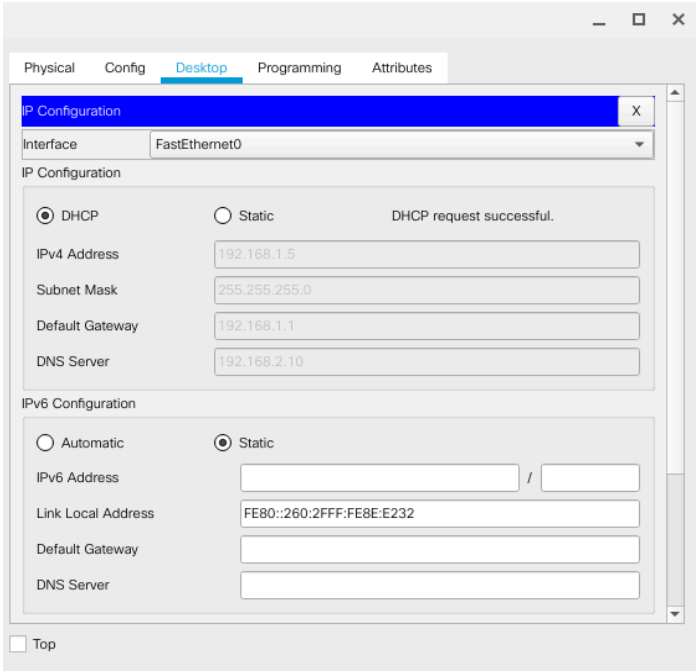
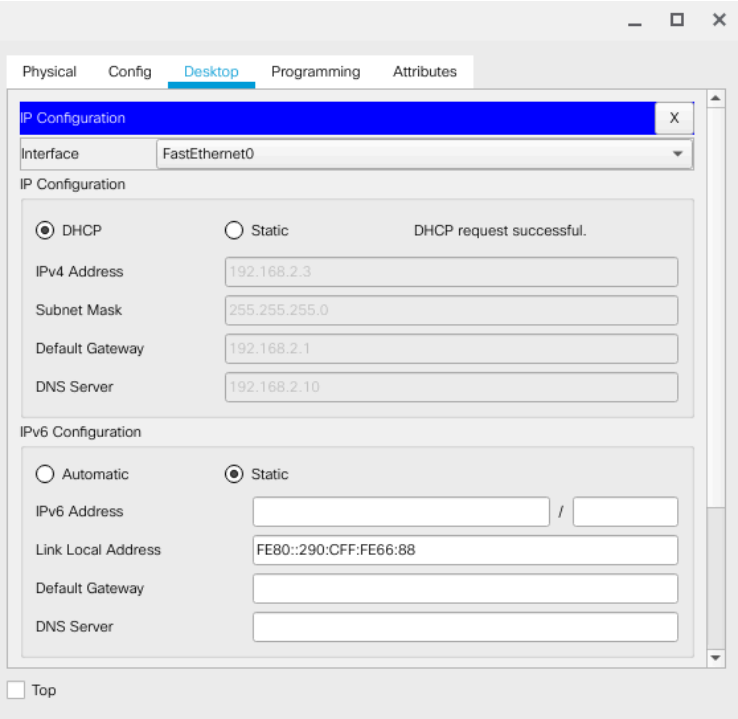
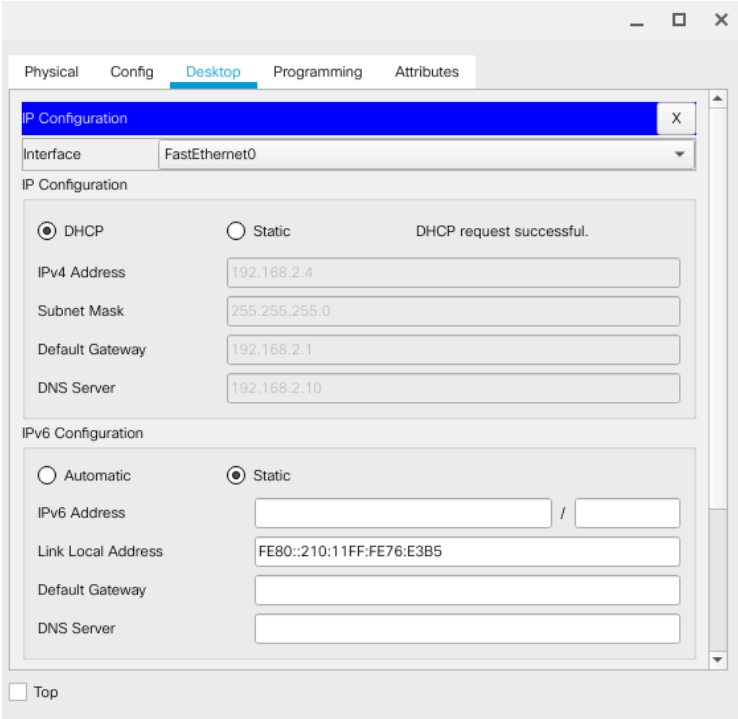
5. Configuration des dispositifs à l'aide du serveur DHCP:



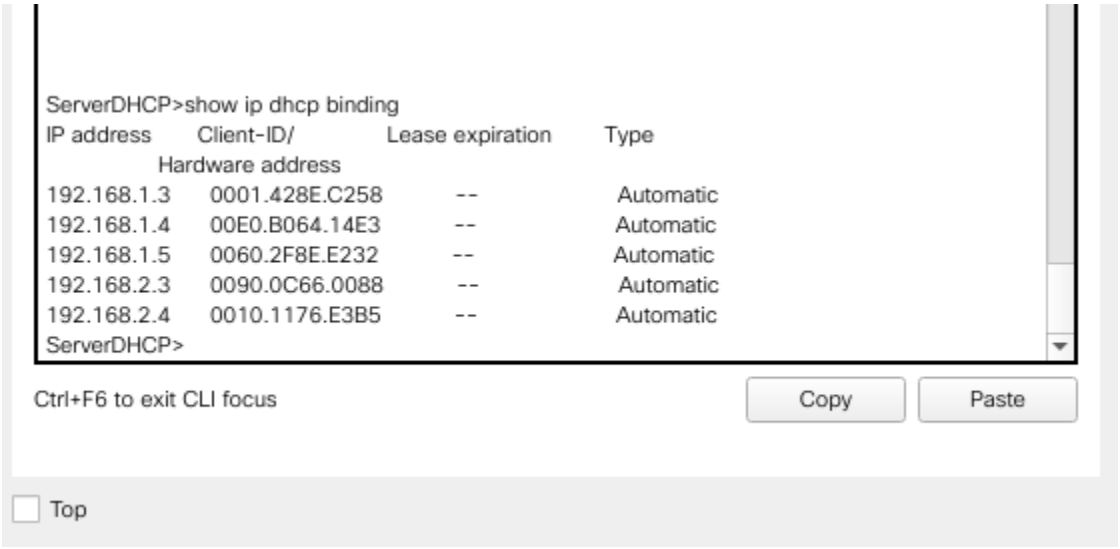




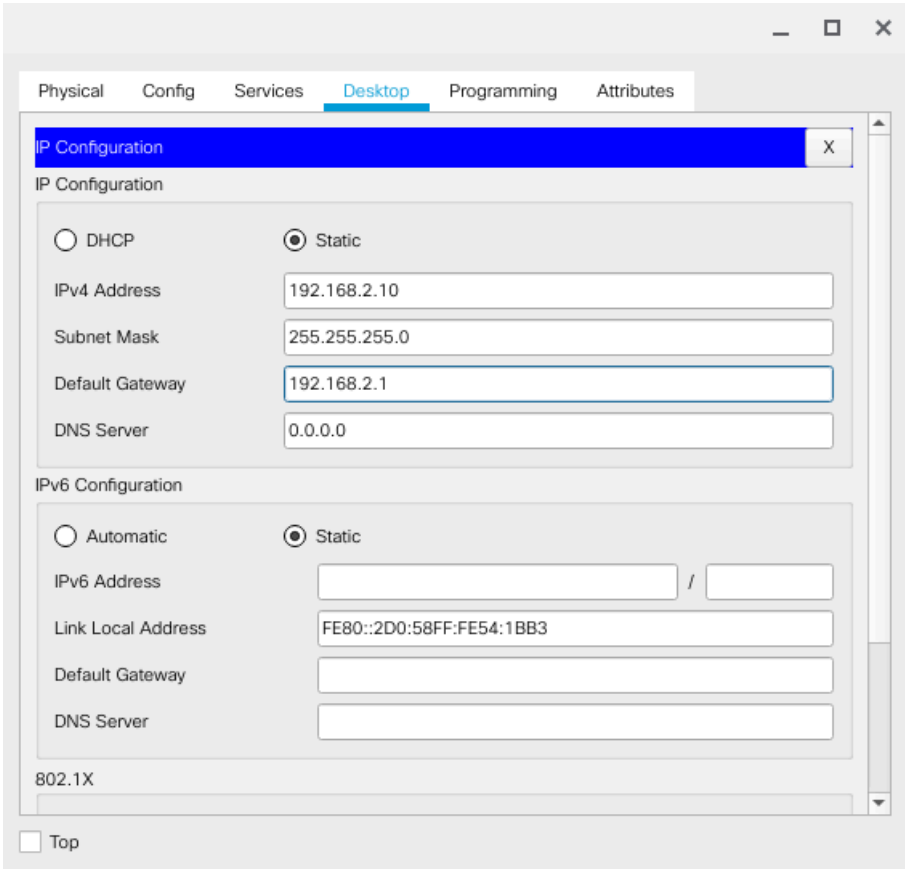


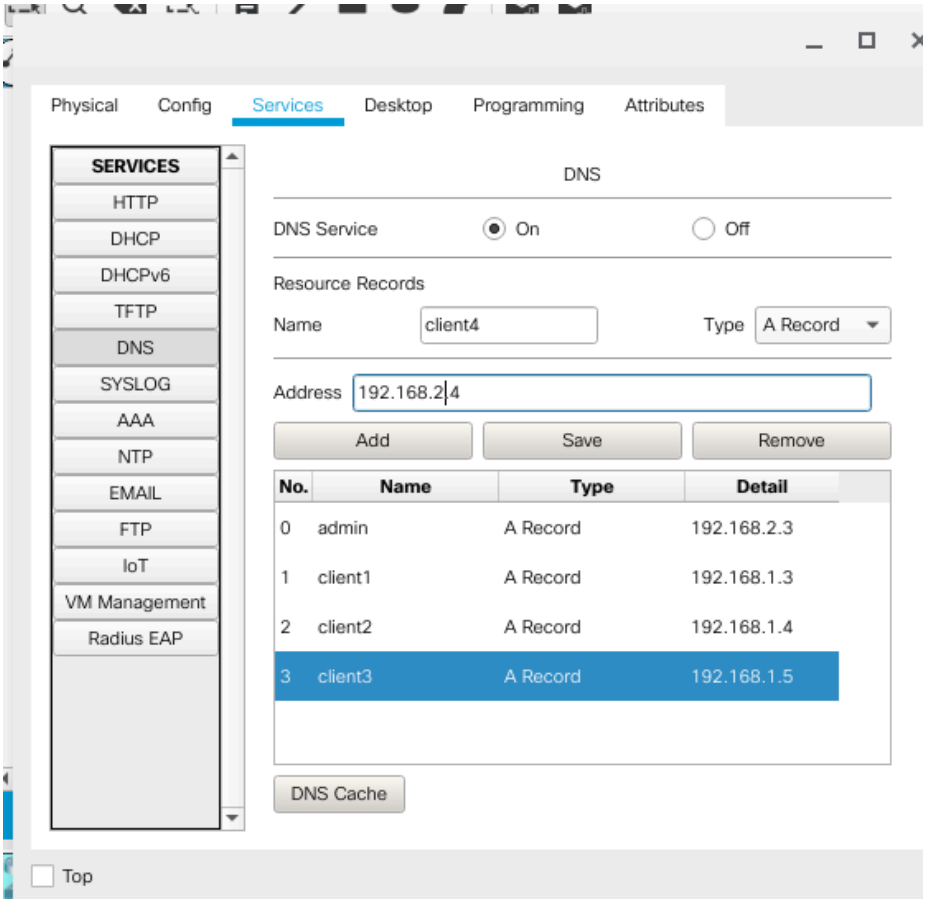


6. Vérification du serveur DHCP:

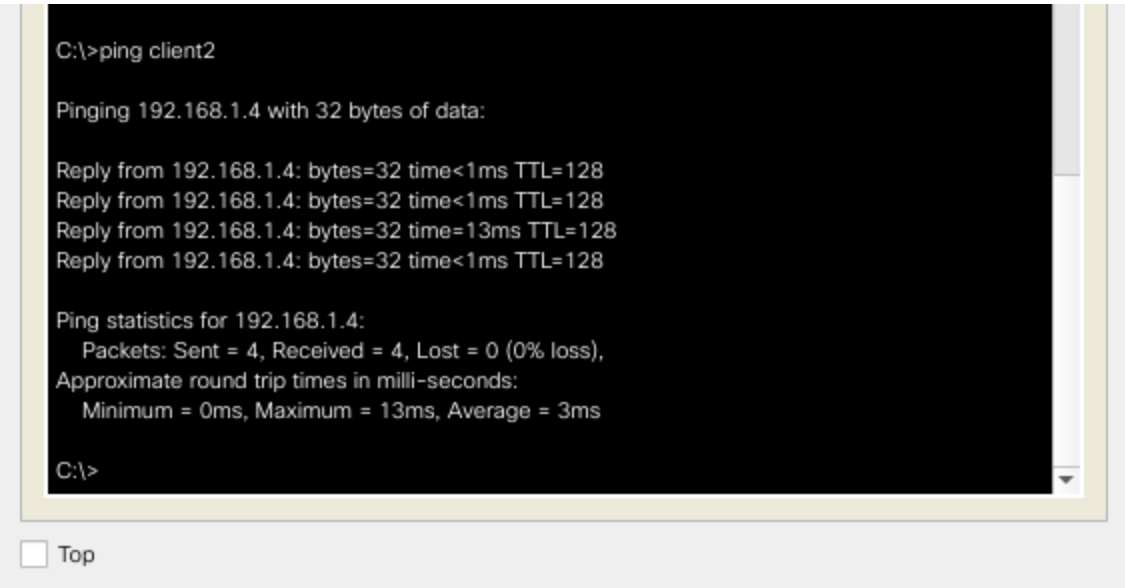


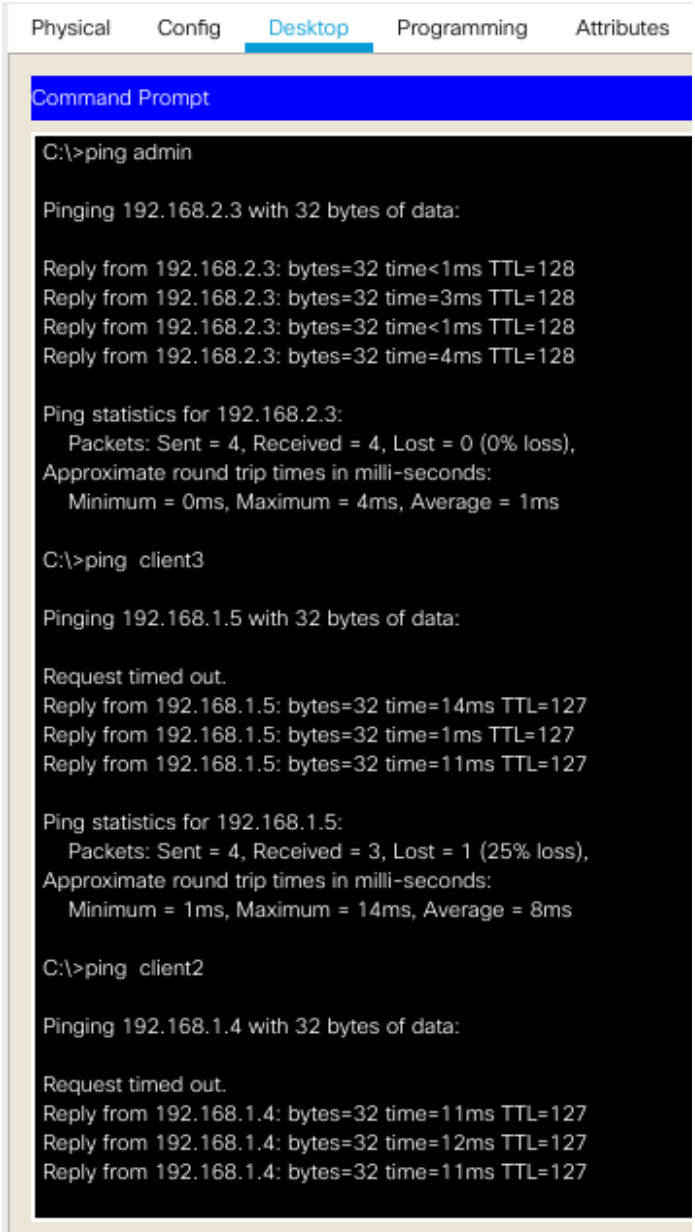
7. Configuration du serveur DNS et des dispositifs pour utiliser le serveur DNS:

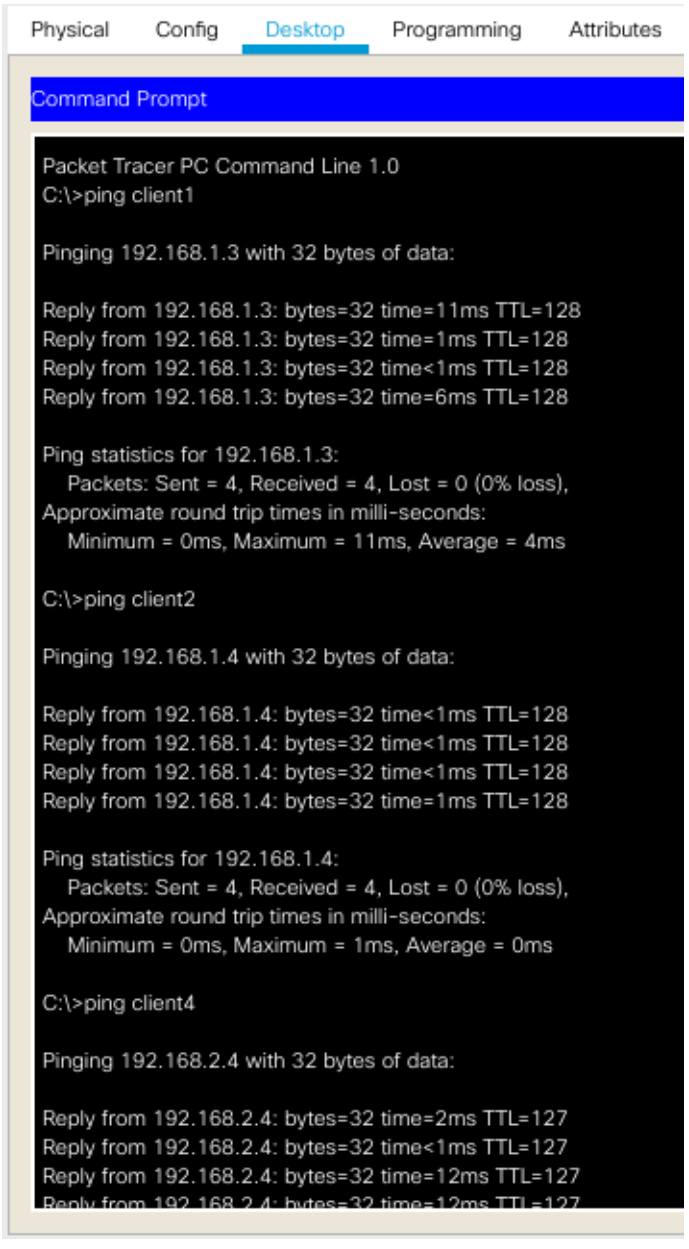

Physical
Config
Services
Desktop
Programming
Attributes
IP Configuration
X
IP Configuration
DHCP
Static
IPv4 Address
192.168.2.10
Subnet Mask
255.255.255.0
Default Gateway
192.168.2.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address
FE80::2D0:58FF:FE54:1BB3
Default Gateway
DNS Server
802.1X
Top

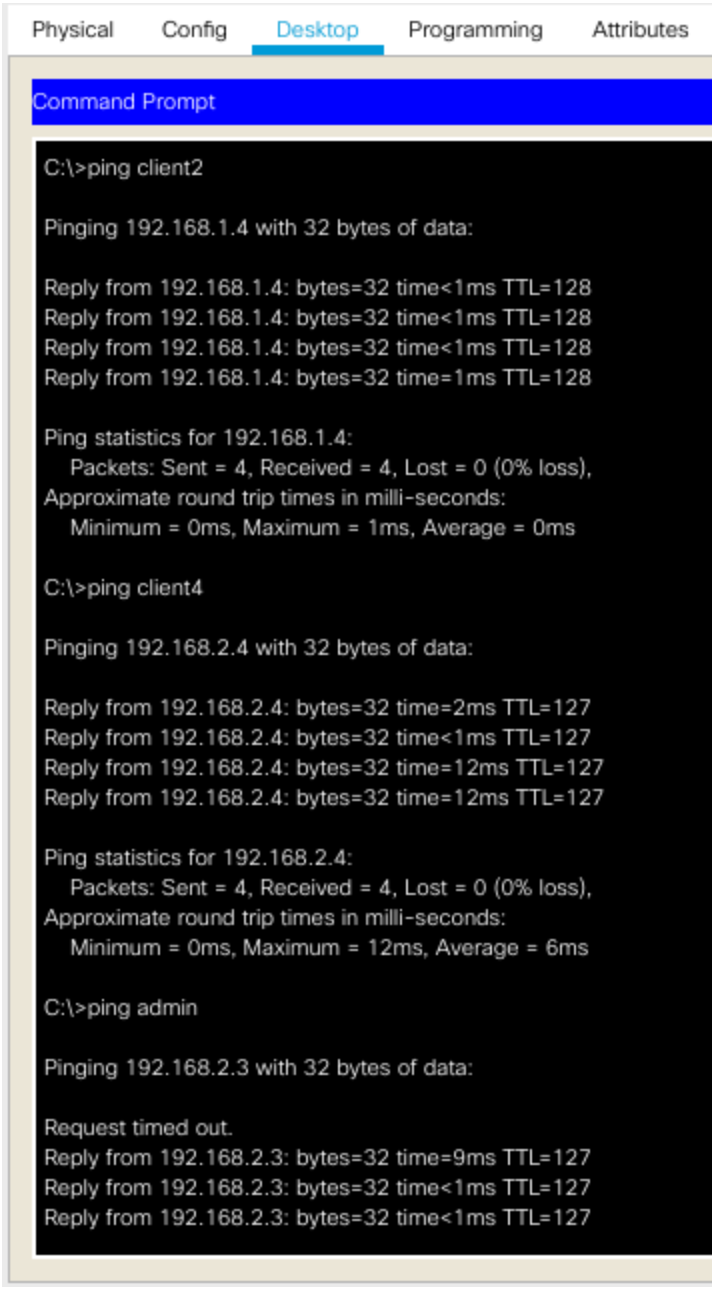

Physical
Config
Services
Desktop
Programming
Attributes
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP
DNS
DNS Service
On
Off
Resource Records
Name
client4
Type
A Record
Address
192.168.2.4
Add
Save
Remove
No.
Name
Type
Detail
0
admin
A Record
192.168.2.3
1
client1
A Record
192.168.1.3
2
client2
A Record
192.168.1.4
3
client3
A Record
192.168.1.5
DNS Cache
Top

8. Test de la Résolution du serveur DNS :









Conclusion:

DHCP et DNS sont des outils indispensables pour la gestion efficace des réseaux locaux. Ils permettent d'automatiser les tâches et de réduire les erreurs de configuration, d'améliorer les performances et de faciliter la gestion des réseaux.