Institut Universitaire des Sciences

Faculté des sciences de technologies

TD 4 Réseau 2

Préparé par :

Nom: Byron

Prénom: Pierre Durell Naguiby

Niveau: L3 - Sciences Informatiques

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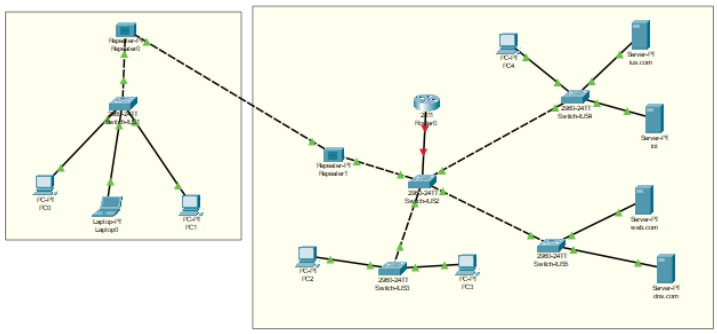
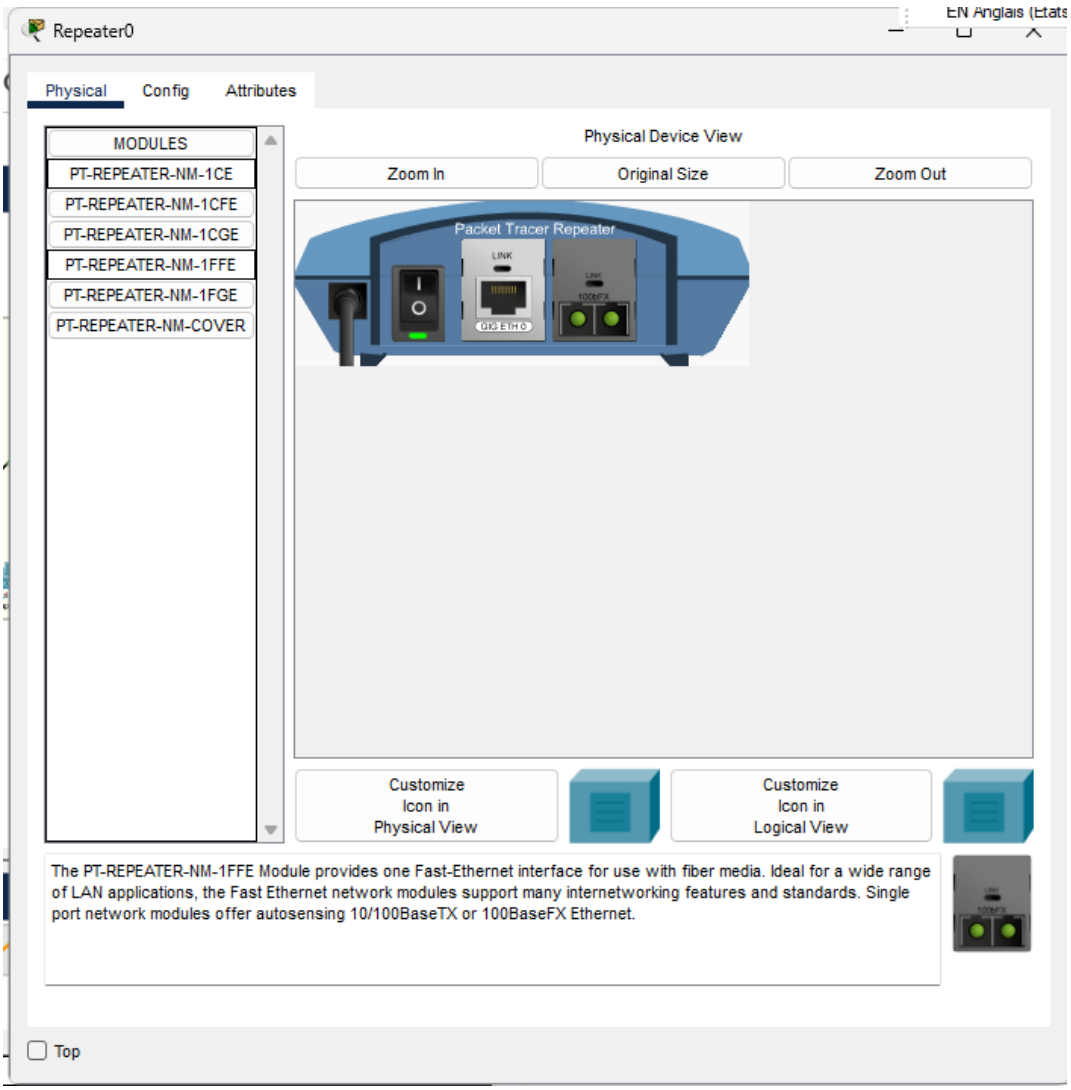
1. Reproduisez cette topologie en configurant le NAT du réseau



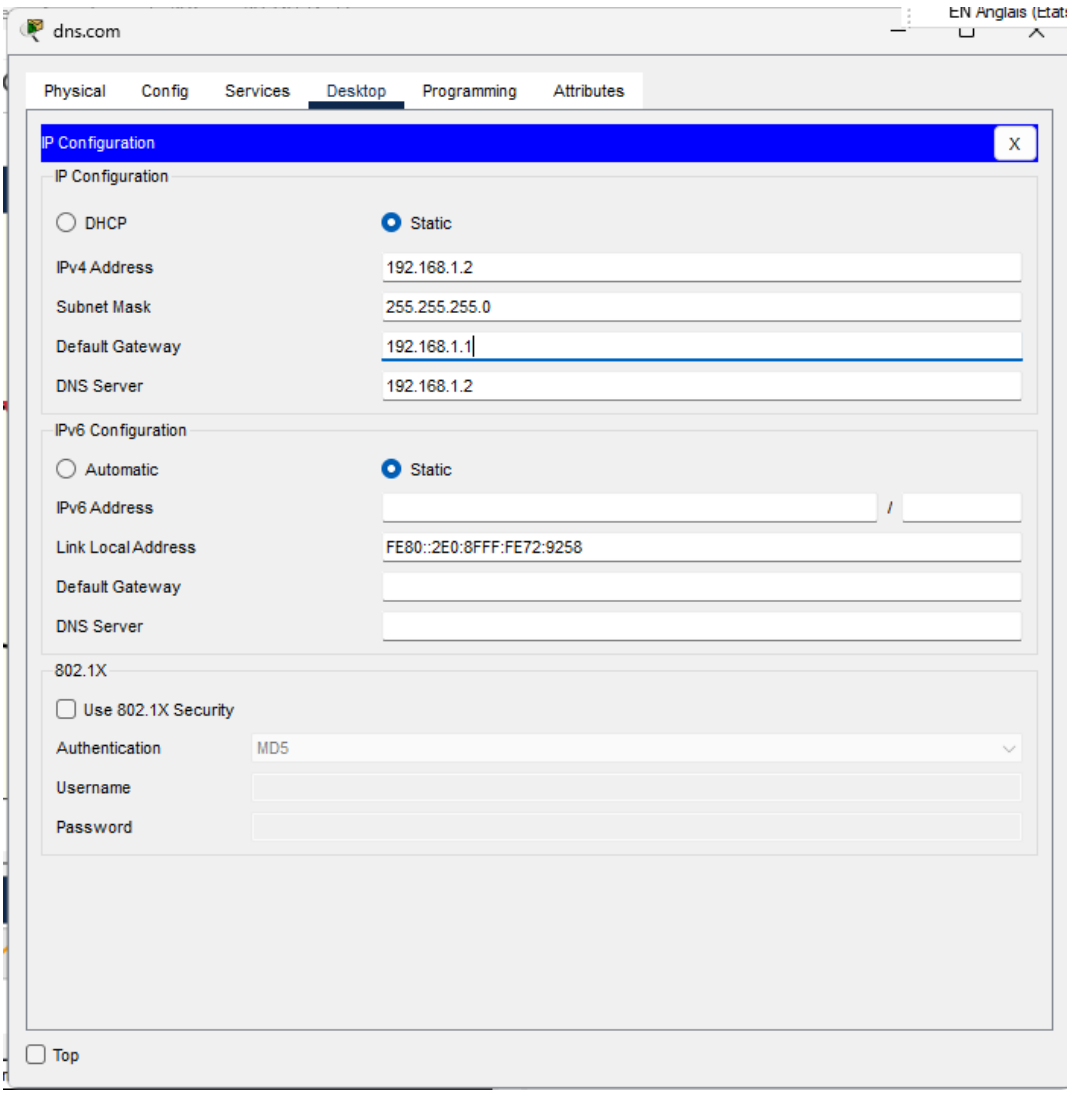
imageTopologie1

Configuration nat



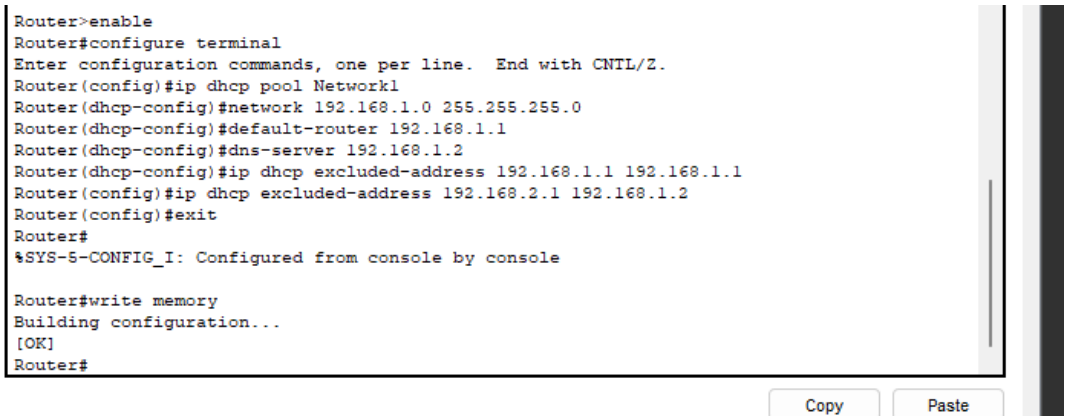
imageConfNat

DNS



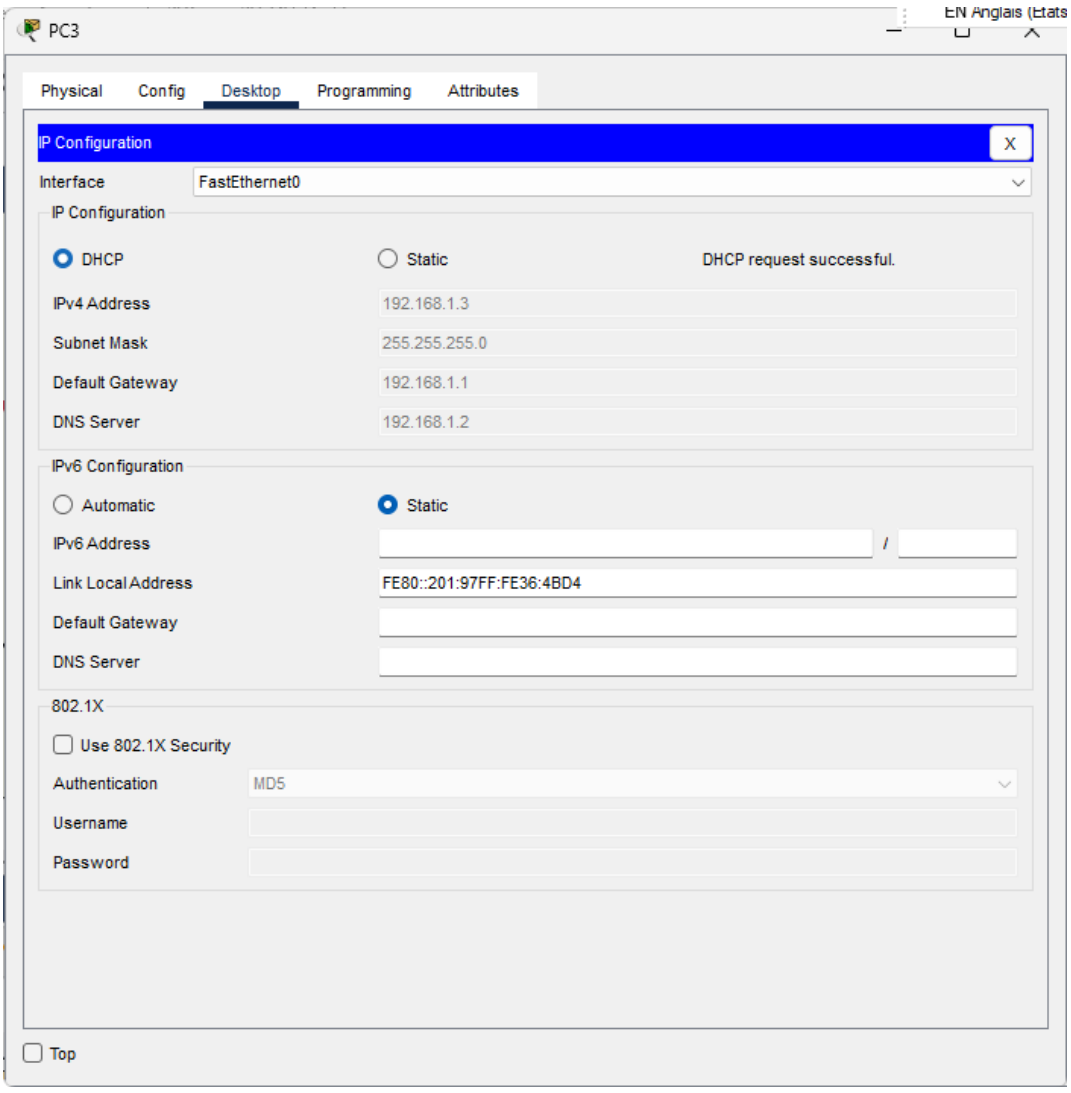
imageConfServeurDNS

Configuration du serveur DHCP sur le routeur Cisco



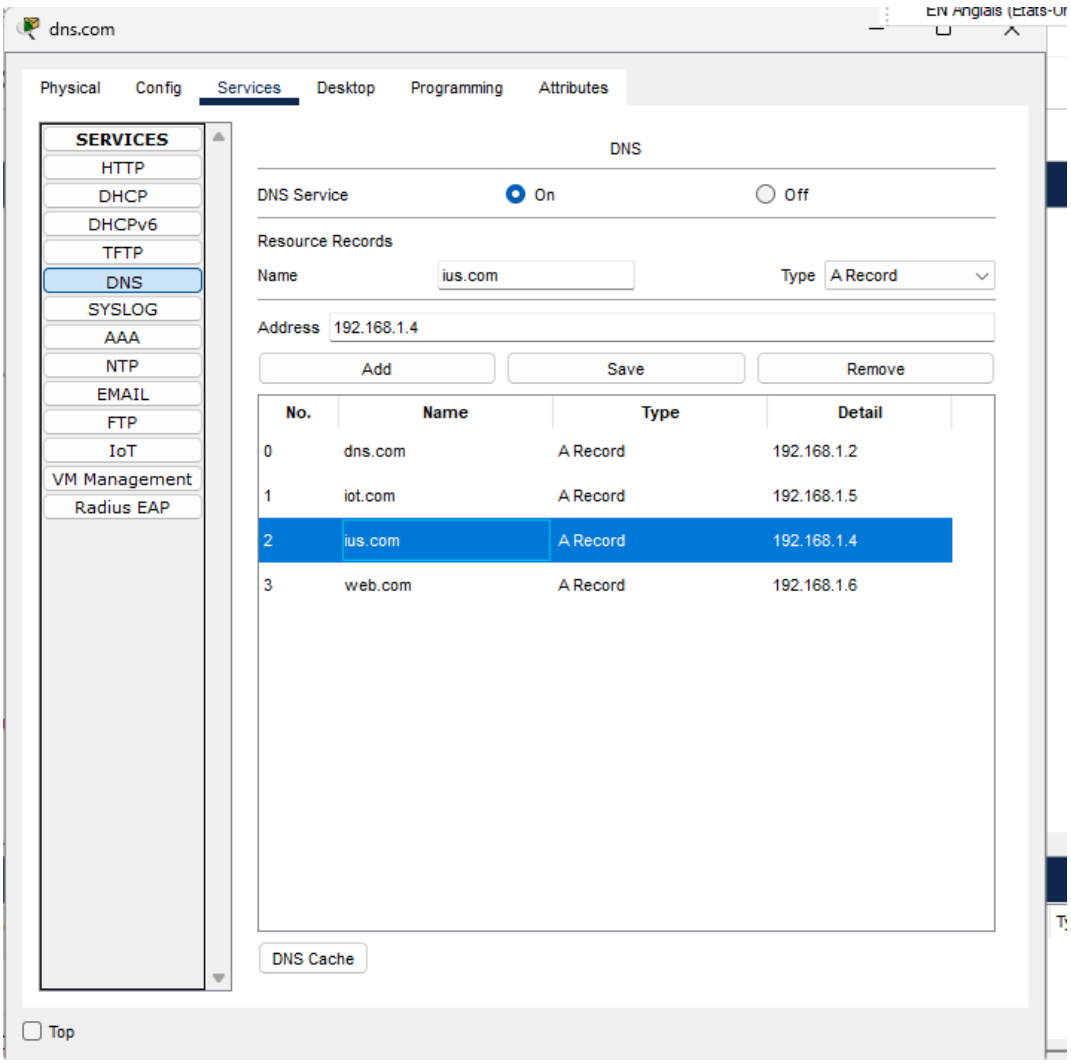
imageConfServeurDNS

Vérifications des ip



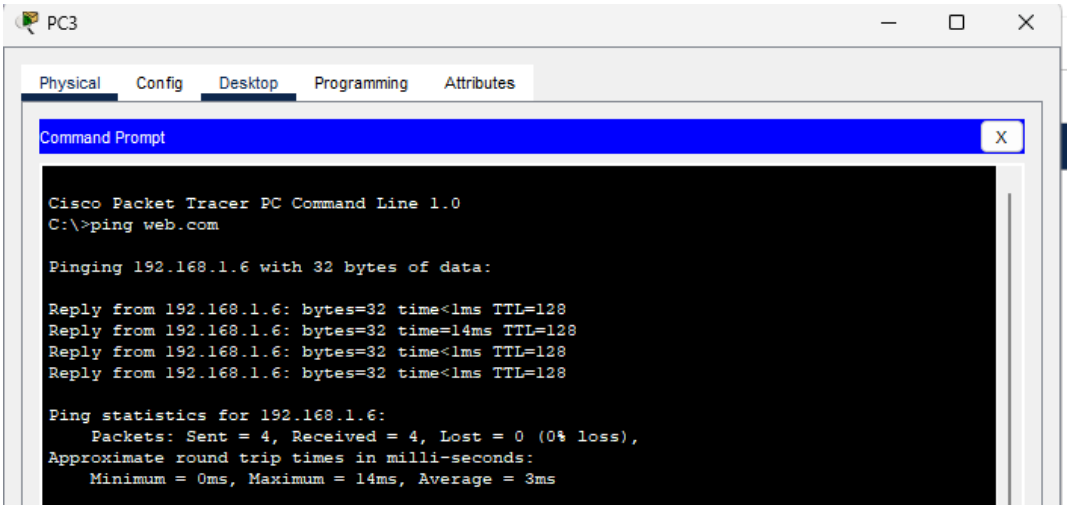
imageConfServeurDNS

Activé les services dns



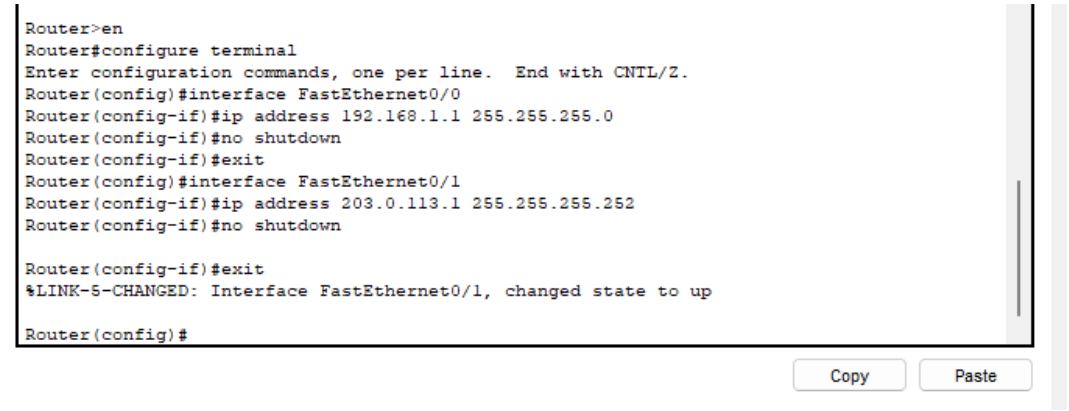
imageConfServeurDNS

Test



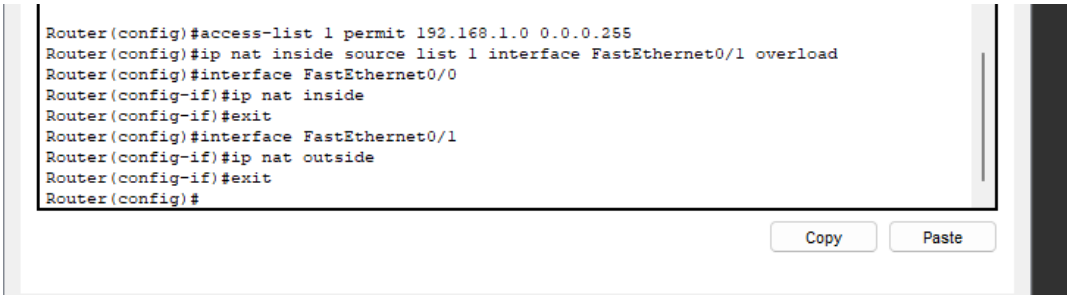
imageTestPing

Configuration de NAT sur le routeur Cisco :



imageConfNat

Configuration de NAT dynamique (PAT) :

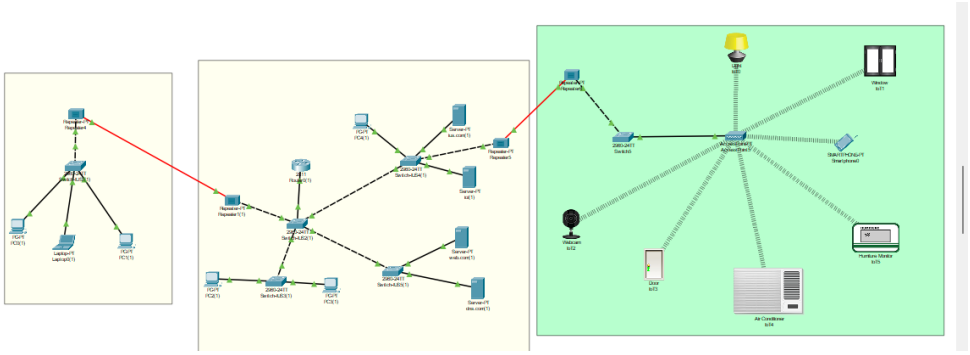


imageConfNatDyN

Test de connectivité

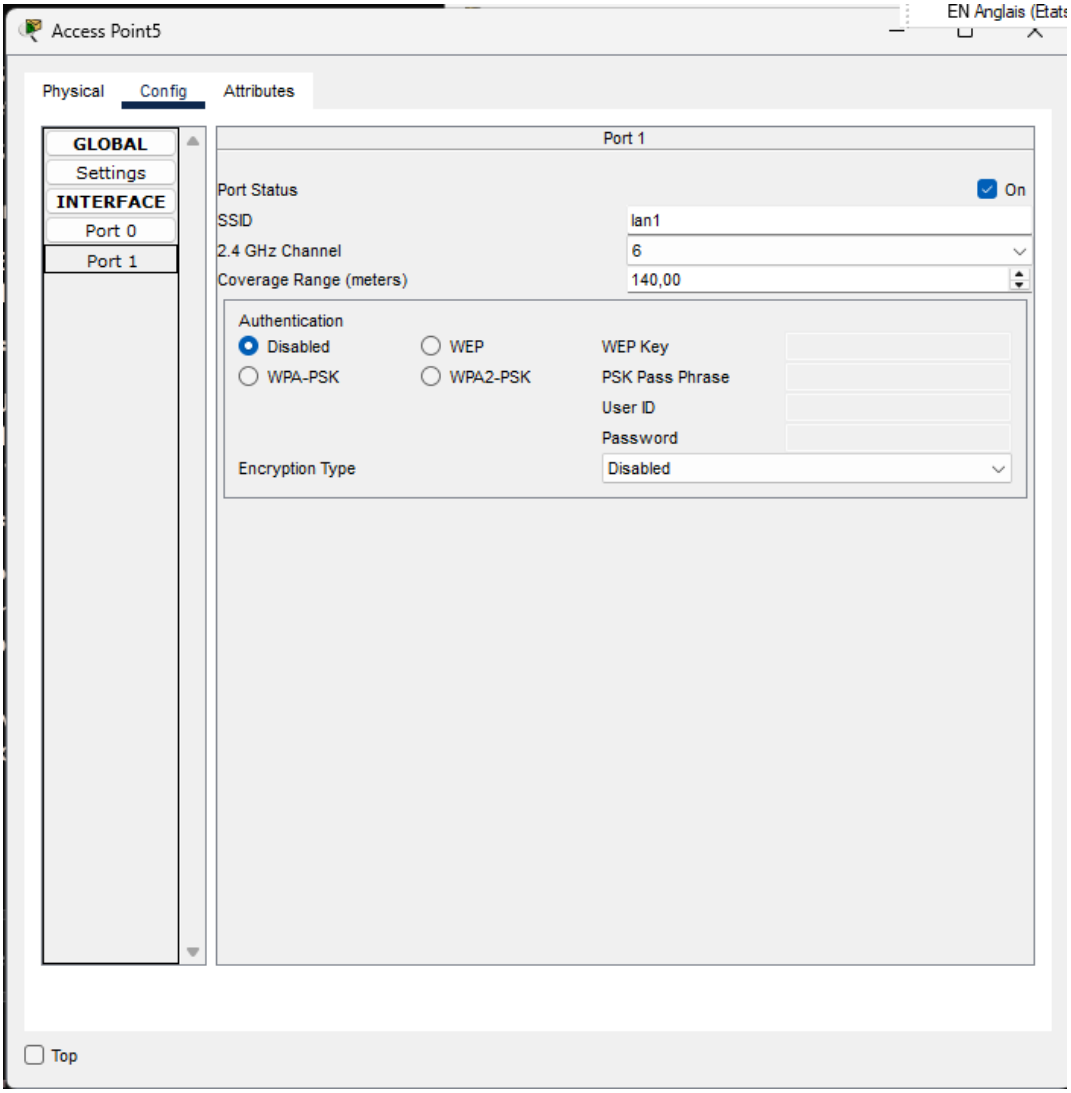
```
C:\>ping 203.0.113.1

Pinging 203.0.113.1 with 32 bytes of data:

Reply from 192.168.1.1: Destination host unreachable.
Request timed out.
Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.

Ping statistics for 203.0.113.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

2. Reproduisez cette topologie en configurant le réseau IoT (Internet des Objets).



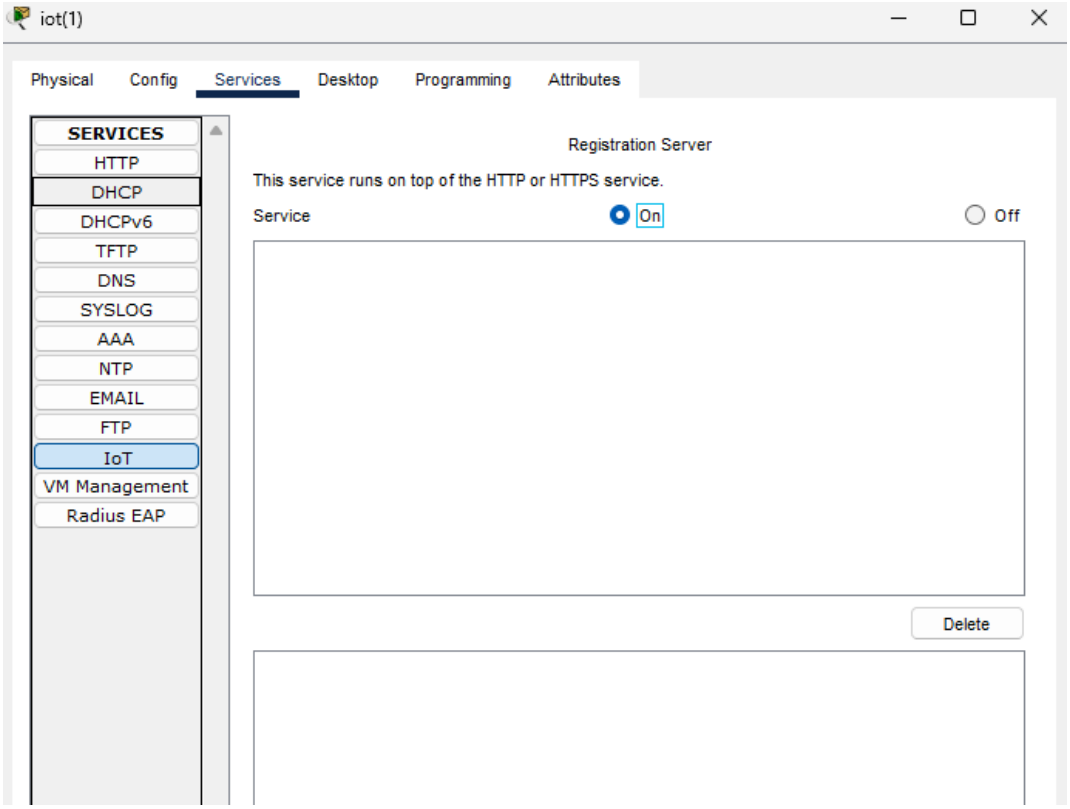
Topologie2

Configuration du point Acces



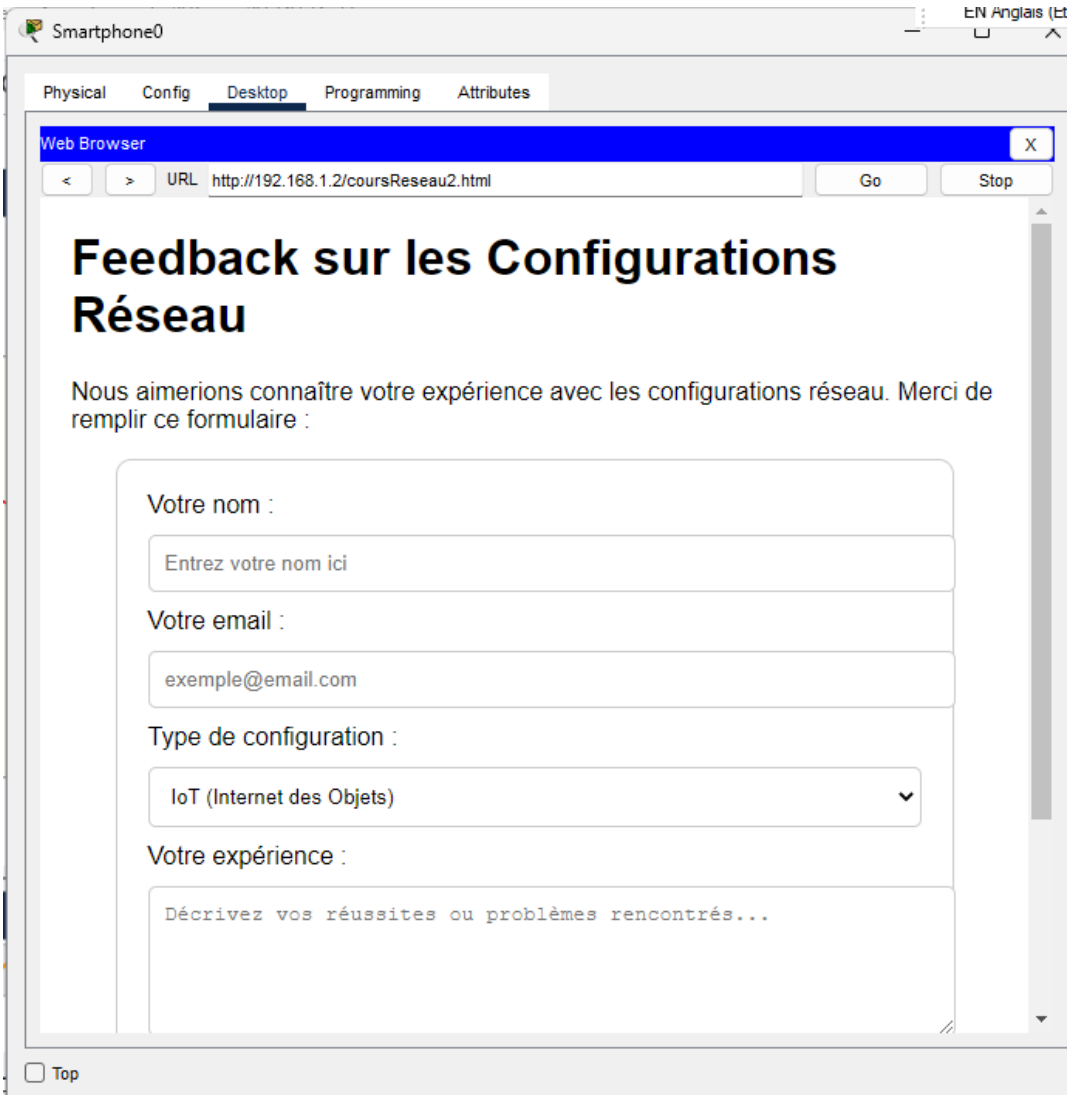
imgConfPT-Acess

Activation des services IOT



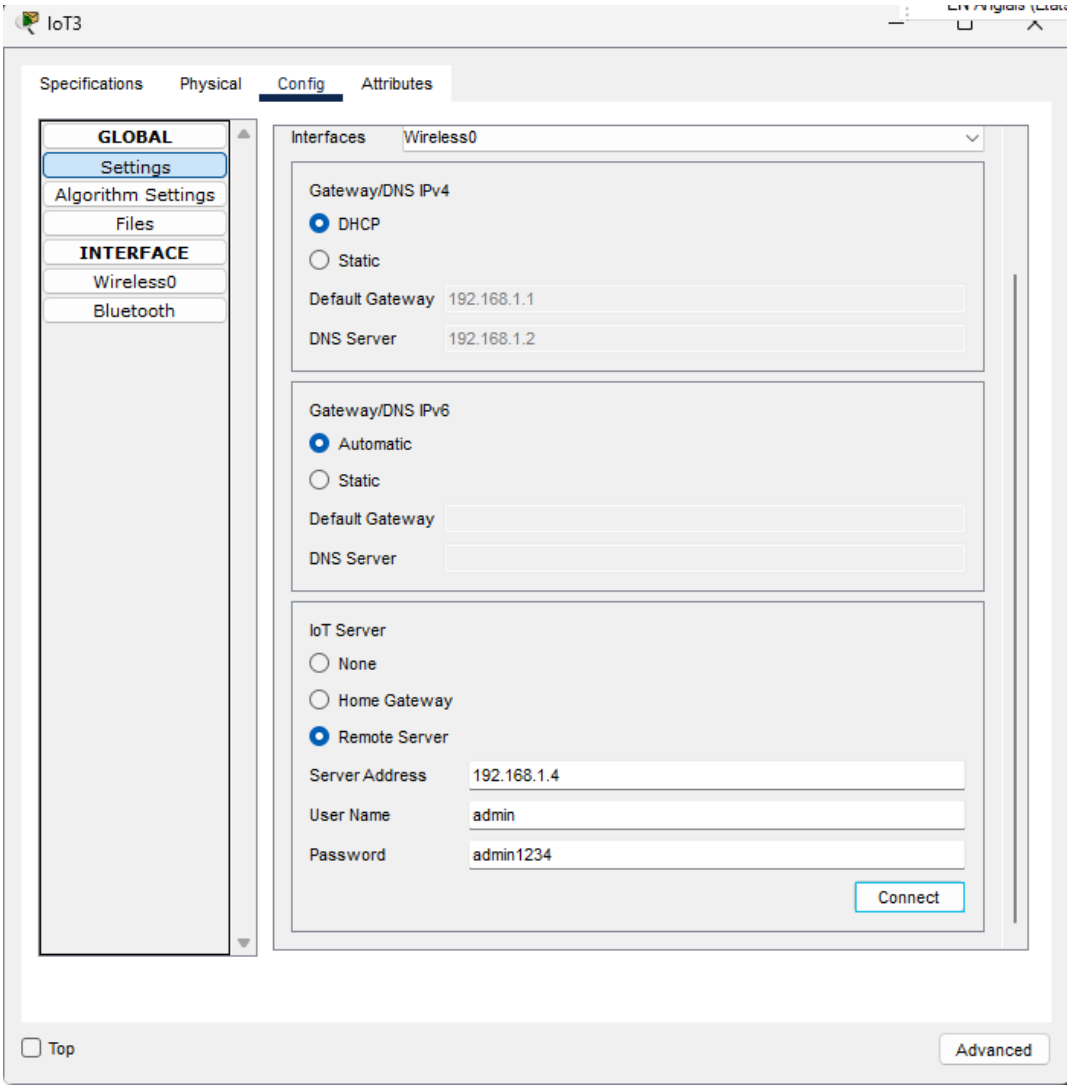
imageConfTest

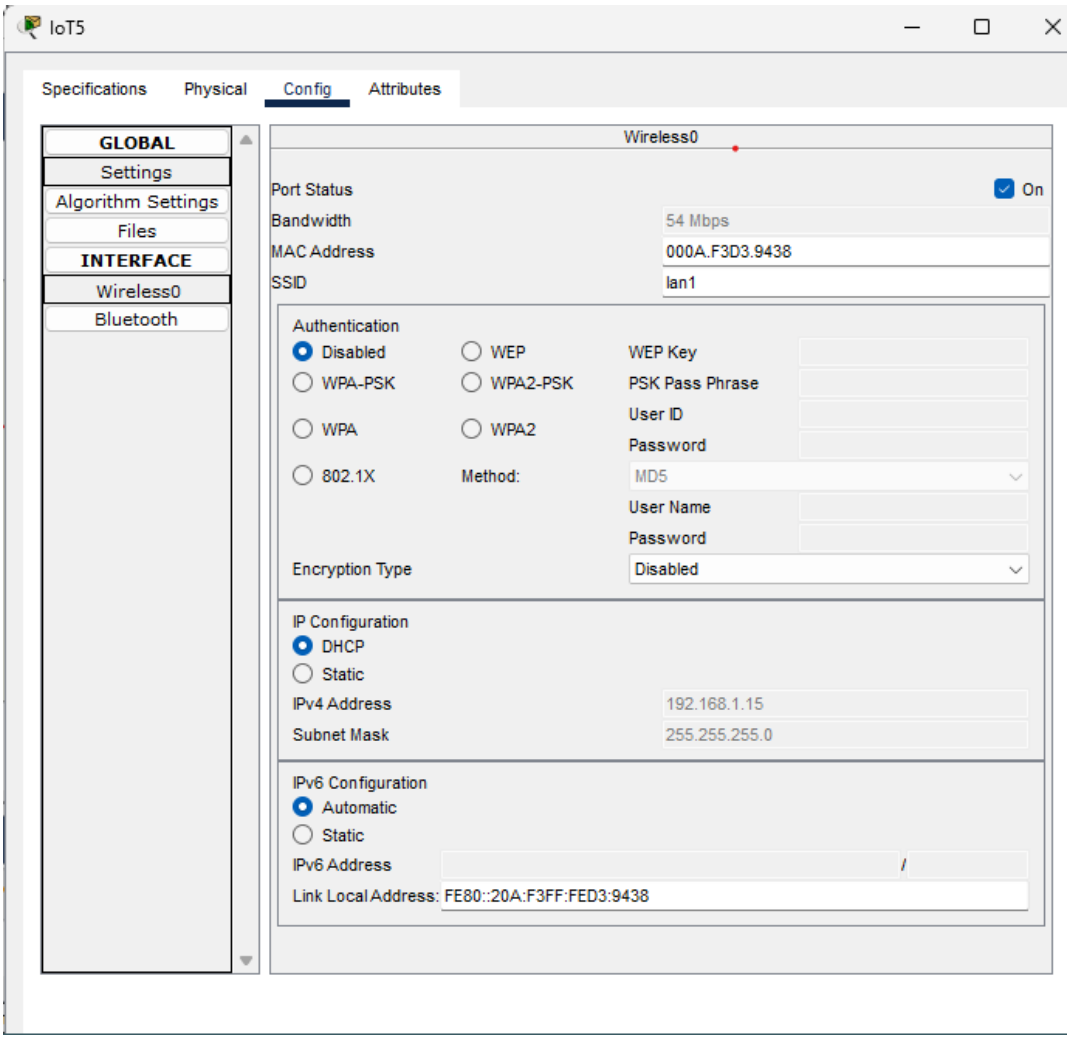
Registration au server

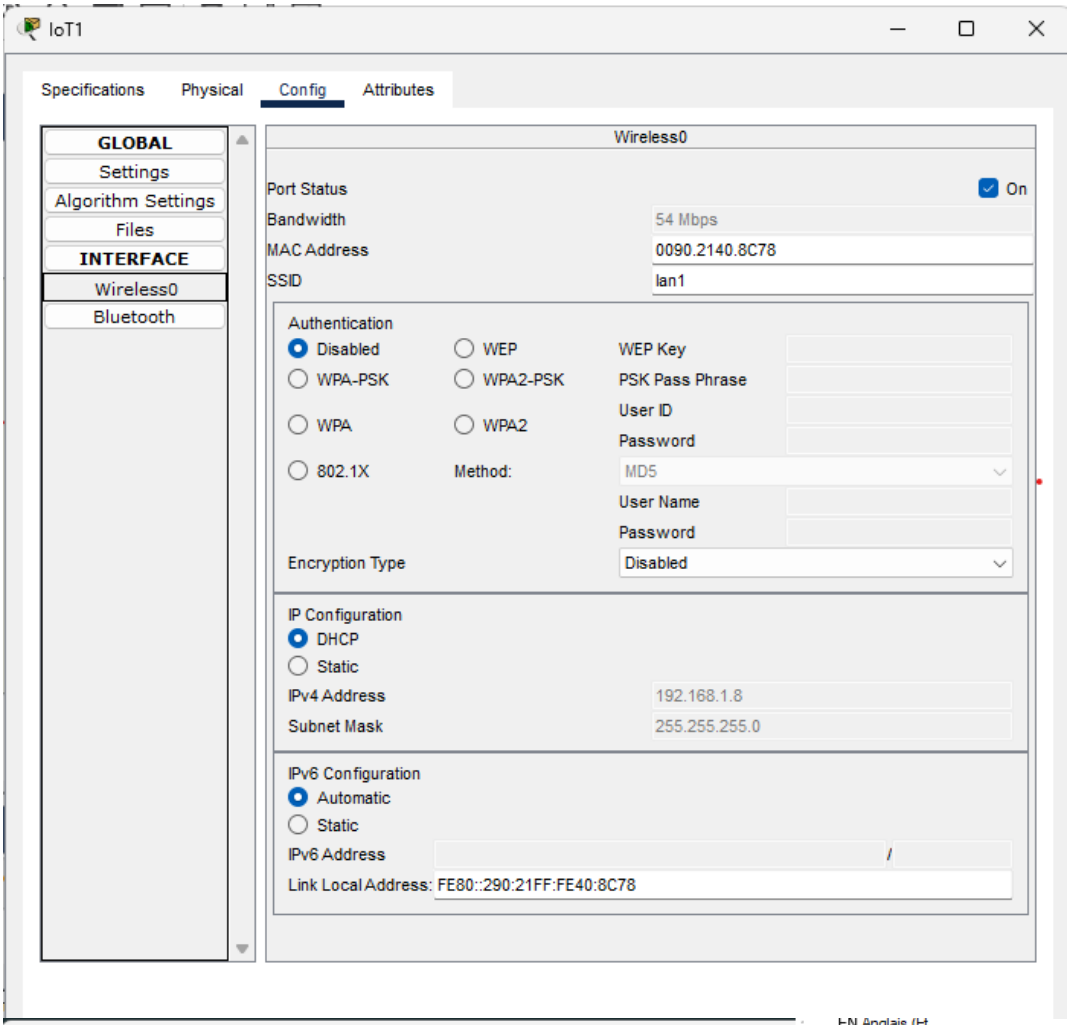


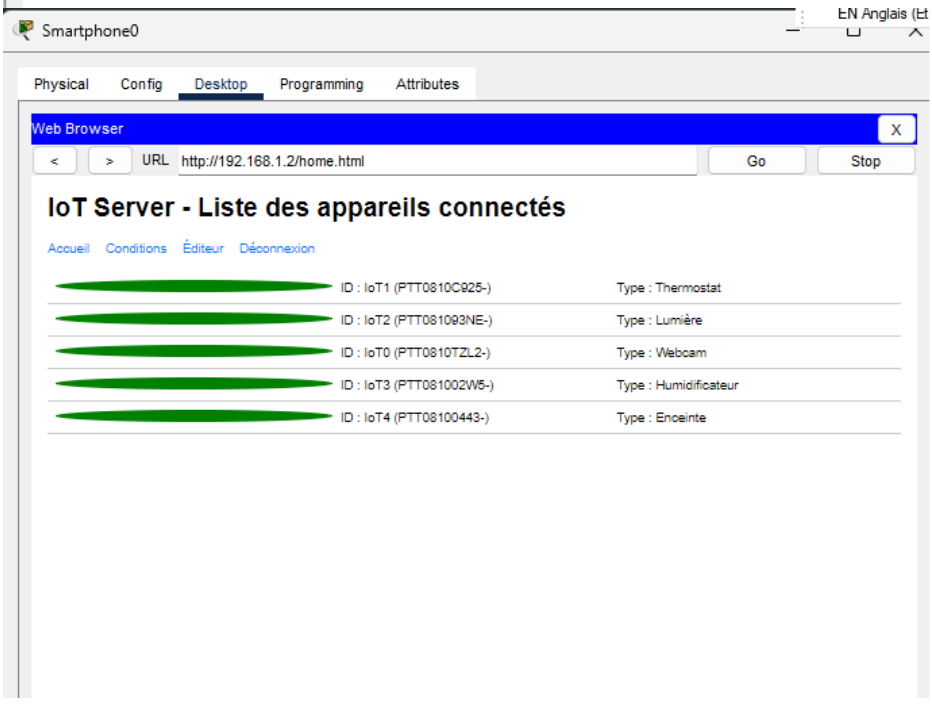
imageConfTest

Configurer les IOT


IoT3
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Interfaces
Wireless0
Gateway/DNS IPv4
DHCP
Static
Default Gateway
192.168.1.1
DNS Server
192.168.1.2
Gateway/DNS IPv6
Automatic
Static
Default Gateway
DNS Server
IoT Server
None
Home Gateway
Remote Server
Server Address
192.168.1.4
User Name
admin
Password
admin1234
Connect
Top
Advanced


IoT5
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
54 Mbps
MAC Address
000A.F3D3.9438
SSID
lan1
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.1.15
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address:
FE80::20A:F3FF:FED3:9438


IoT1
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
54 Mbps
MAC Address
0090.2140.8C78
SSID
lan1
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.1.8
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address:
FE80::290:21FF:FE40:8C78


Smartphone0
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
URL
http://192.168.1.2/home.html
Go
Stop
IoT Server - Liste des appareils connectés
Accueil
Conditions
Éditeur
Déconnexion
ID : IoT1 (PTT0810C925-)
Type : Thermostat
ID : IoT2 (PTT081093NE-)
Type : Lumière
ID : IoT0 (PTT0810TZL2-)
Type : Webcam
ID : IoT3 (PTT081002W5-)
Type : Humidificateur
ID : IoT4 (PTT08100443-)
Type : Enceinte

Conclusion

En conclusion, ce TD me permet de configurer et de simuler un réseau avec les protocoles NAT, DHCP et DNS, ainsi que les réseaux IoT.