

TAMIRO Mehdi



Table des matières

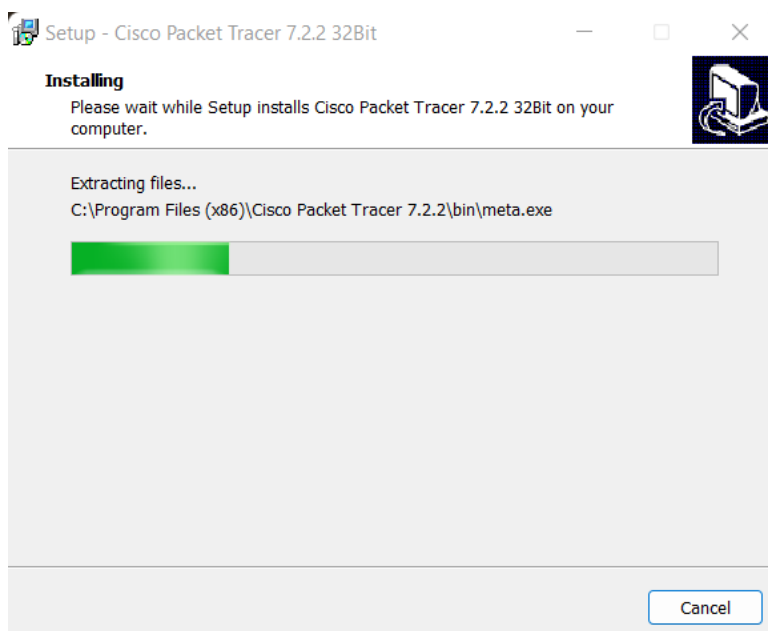
Installation de Cisco Packet Tracer	2
Mission 1 : Création d'un réseau pour Taco	4
- Paramétrage IP des machines	5
Mission 2 : Ajout d'un switch et de l'entreprise Biclou	5
- Plan Réseau	5
- Table d'adressage	6
Mission 3 : Test et Routage	6
- Test réseau	6
- Routage du réseau	7
Mission 4 : Création d'un serveur DHCP et ajout d'un point d'accès	9
- Création et paramétrage du DHCP	9
- Ajout d'un point d'accès sans fil pour pc portable	11
- Configuration des pcs portable	11
- Configuration du point d'accès sans fil	12
- Test du wifi	13
Mission 5 : Création d'un serveur DNS	14
- Ajout du serveur DNS au serveur DHCP	15
- Test du serveur DNS	15
Mission 6 : Réseau complexe	17
- Ajout du point d'accès sans fil	19
- Utilisation CLI	20

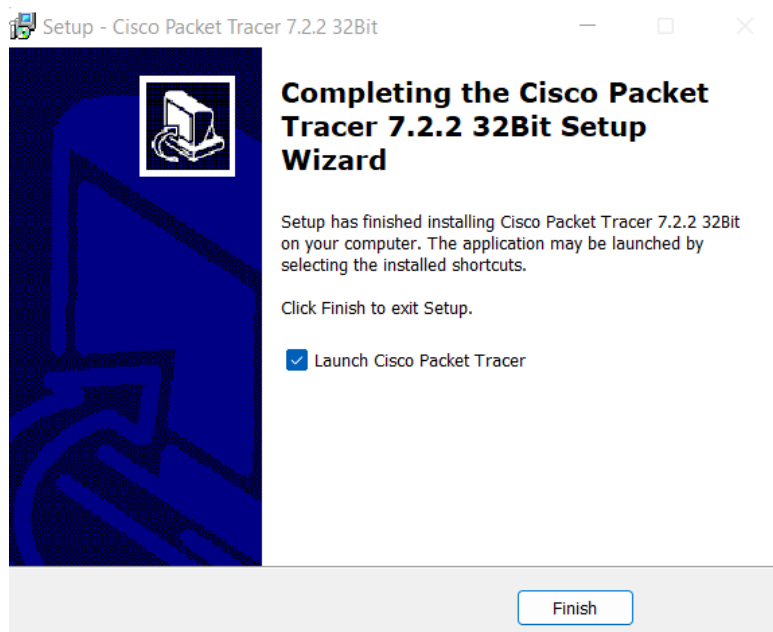
-	Configuration SSH
.....	27

Installation de Cisco Packet Tracer

Il faut commencer par télécharger le logiciel Cisco packet tracer.

Ensuite lancer sur l'exécutable, ensuite cliquer sur suivant puis sur installer



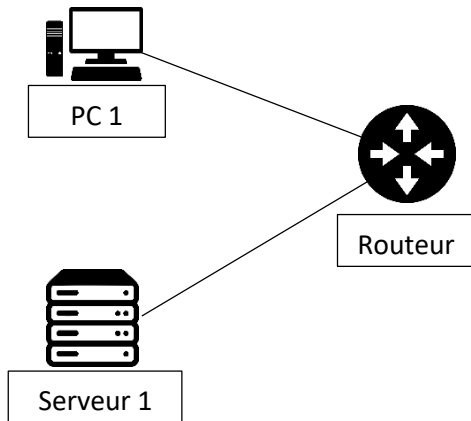


Ensuite connecter vous ou créer un compte

The image shows a login page with a light gray background. In the top right corner, there are two "FR" links. The main heading is "Se connecter". Below it is a label "Adresse e-mail" followed by a text input field. Under the input field is a large blue button with the text "Suivant". Below the button are three links: "Déverrouiller compte?", "Vous avez oublié votre adresse e-mail?", and "Aide". At the bottom, there is a horizontal line and the text "Vous n'avez pas de compte? S'inscrire".

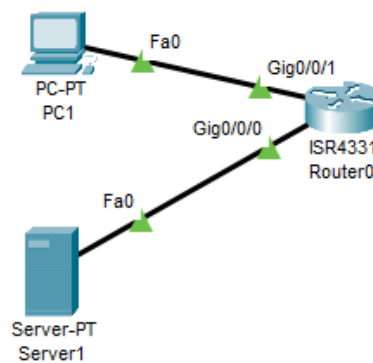
Mission 1 : Création d'un réseau pour Taco

Concevoir Le réseau de Taco pour son entreprise sur papier avec son adressage IP :

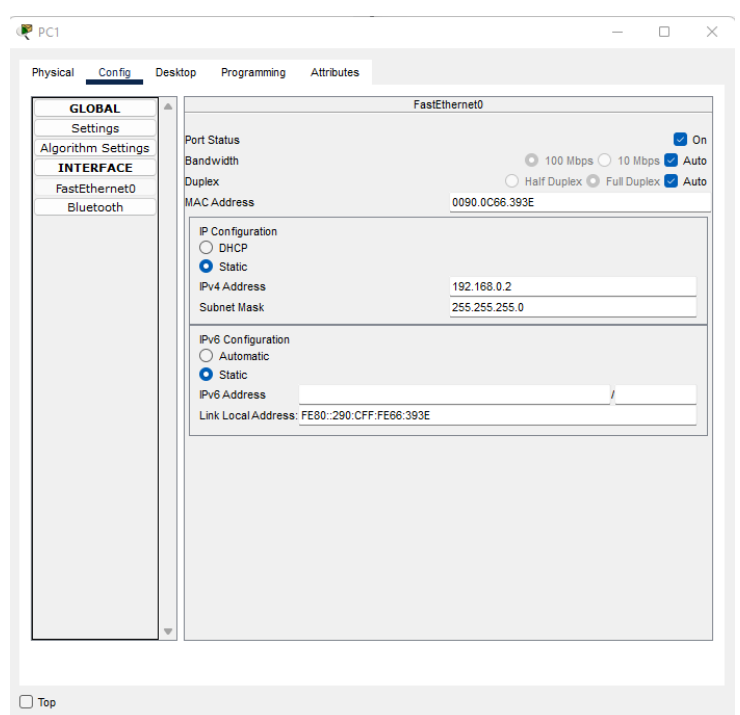
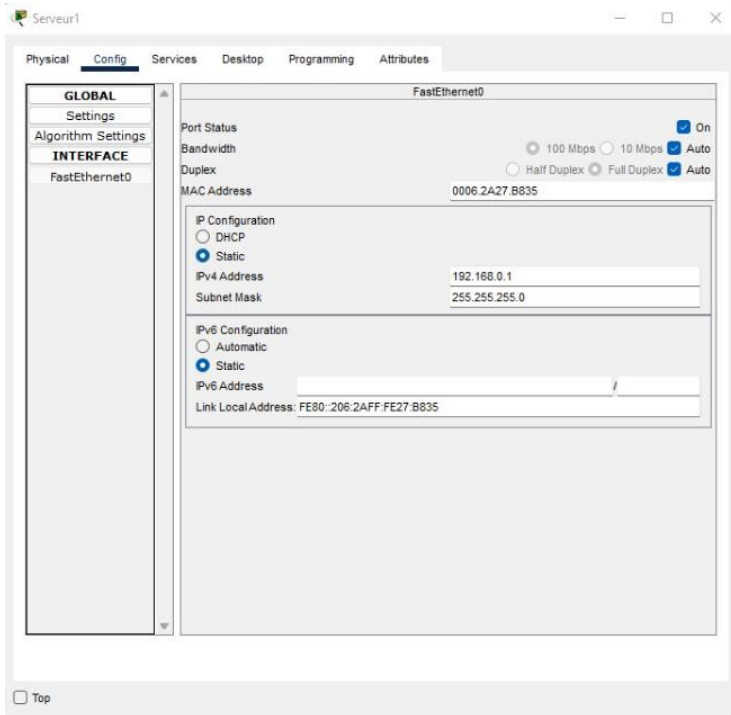


Nom	Port	Adresse IP
Routeur		192.168.0.254
PC 1	G 0/0/1	192.168.0.2
Serveur 1	G 0/0/0	192.168.0.1

Puis Créer le réseau sur Cisco Packet Tracer :



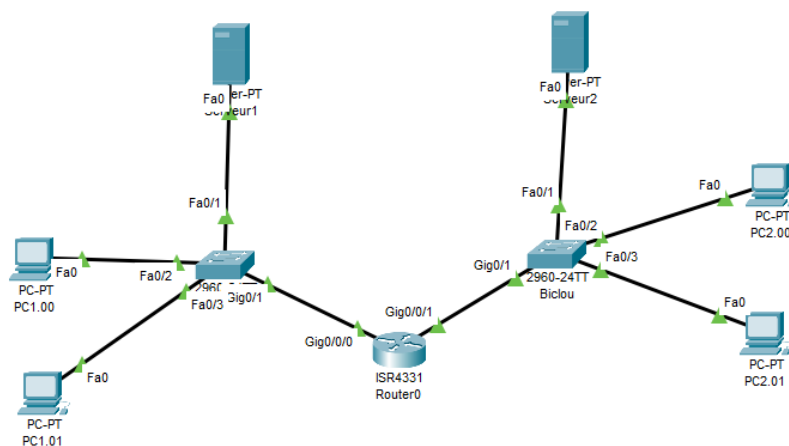
- Paramétrage IP des machines



Mission 2 : Ajout d'un switch et de l'entreprise Biclou

On commence par ajouter un switch au réseau de Taco puis on réplique la même chose du côté de Biclou.

- Plan Réseau



- Table d'adressage

Je fais une nouvelle table d'adressage des IP :

Nom	Port	Adresse IP
Routeur	G 0/1	192.168.0.254
Taco	G 0/0/0	
Serveur1	F 0/1	192.168.0.1
PC 1.00	F 0/2	192.168.0.2
PC 1.01	F 0/3	192.168.0.3

Réseau Taco

Nom	Port	Adresse IP
Routeur	G 0/1	192.168.100.254
Biclou	G 0/0/1	
Serveur1	F 0/1	192.168.100.1
PC 2.00	F 0/2	192.168.100.2
PC 2.01	F 0/3	192.168.100.3

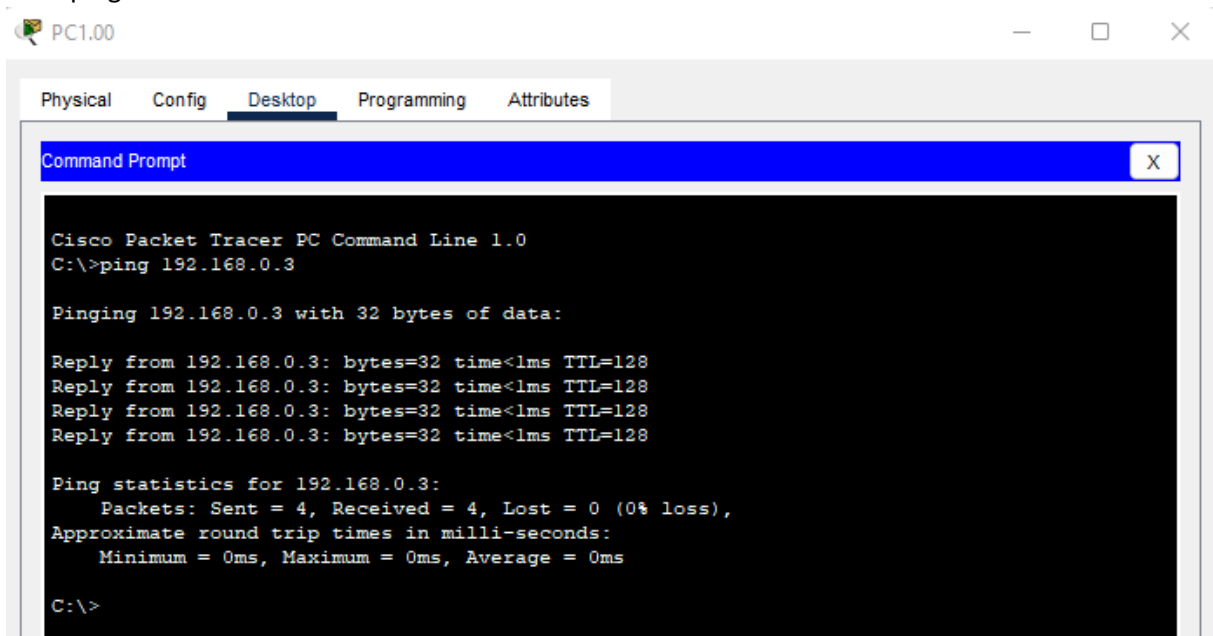
Réseau Biclou

Mission 3 : Test et Routage

- Test réseau

On commence par tester le réseau des deux coté

Taco ping PC 1.00 et PC 1.01 :



```

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.3

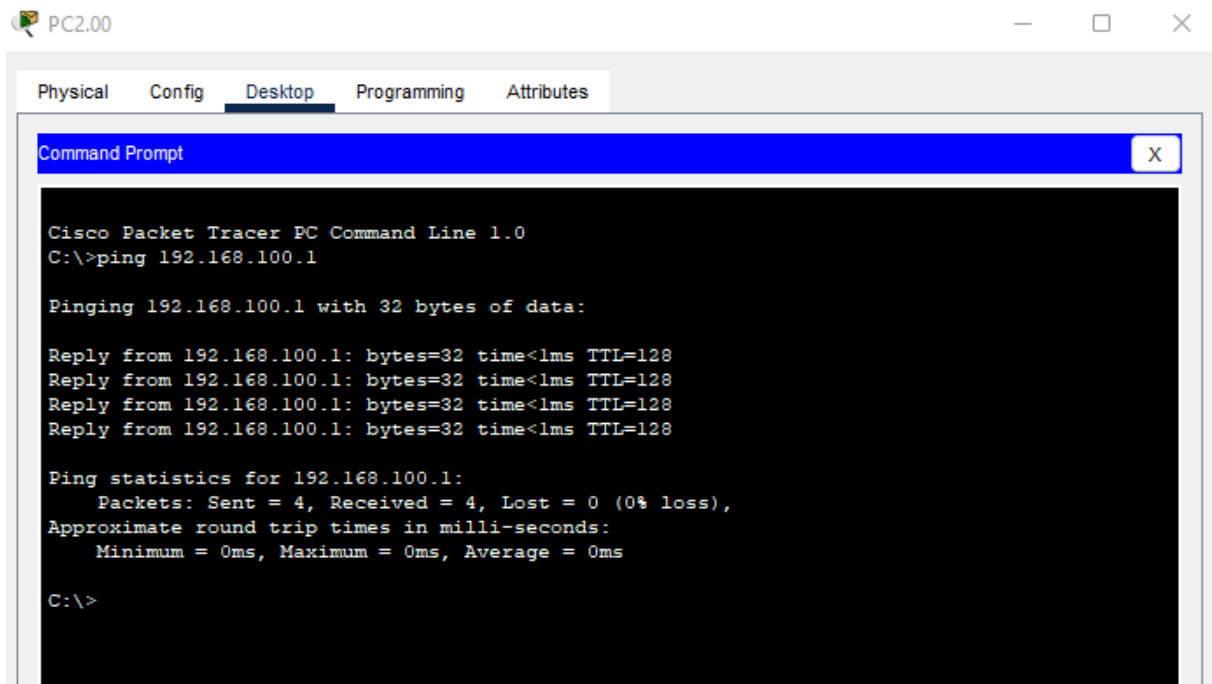
Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
  
```

Biclou ping PC 2.00 et Serveur2 :



```
PC2.00
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.1

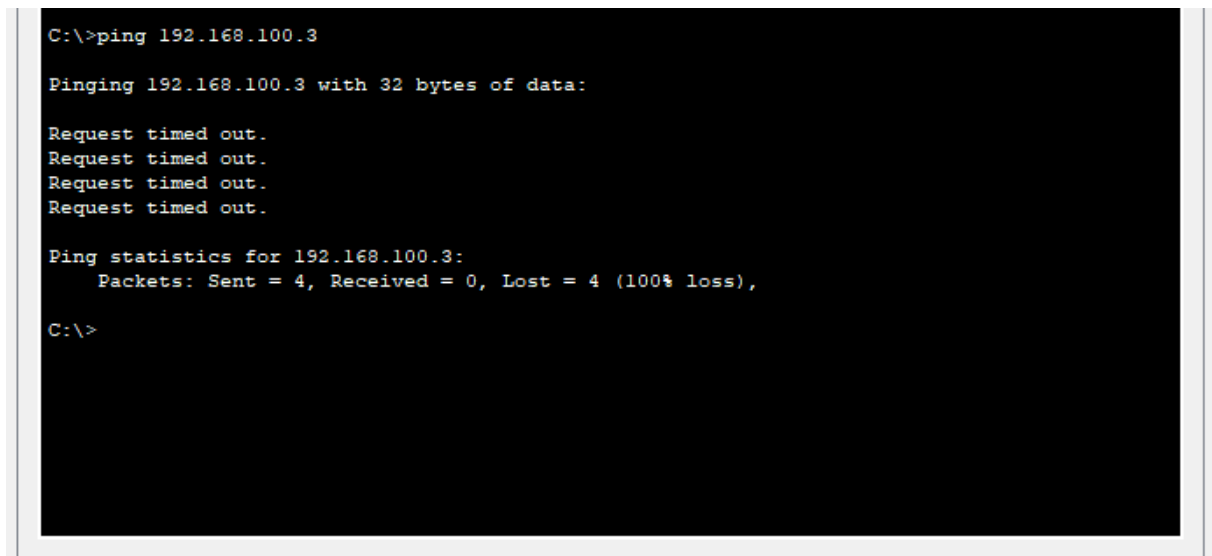
Pinging 192.168.100.1 with 32 bytes of data:

Reply from 192.168.100.1: bytes=32 time<1ms TTL=128
Reply from 192.168.100.1: bytes=32 time<1ms TTL=128
Reply from 192.168.100.1: bytes=32 time<1ms TTL=128
Reply from 192.168.100.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Vérifier que Taco ne peut pas accéder au réseau biclou :



```
C:\>ping 192.168.100.3

Pinging 192.168.100.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.100.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

- Routage du réseau

Le routage permettra aux deux réseaux de communiquer

Configuration routeur :

Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

GigabitEthernet0/0/0

Port Status ☒ On

Bandwidth ☒ 1000 Mbps ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.BCE1.CB01

IP Configuration

IPv4 Address 192.168.0.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#no ip address
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#ip address 192.168.0.254 255.255.255.0
Router(config-if)#ip address 192.168.0.254 255.255.255.0
Router(config-if)#
```

☐ Top

Réseau Taco

Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

GigabitEthernet0/0/1

Port Status ☒ On

Bandwidth ☒ 1000 Mbps ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.BCE1.CB02

IP Configuration

IPv4 Address 192.168.100.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#no ip address
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#ip address 192.168.0.254 255.255.255.0
Router(config-if)#ip address 192.168.0.254 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/1
Router(config-if)#ip address 192.168.100.254 255.255.255.0
Router(config-if)#ip address 192.168.100.254 255.255.255.0
Router(config-if)#
```

☐ Top

Réseau Biclou

Configuration passerelle :

PC1.00

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Global Settings

Display Name PC1.00

Interfaces FastEthernet0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.0.254

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

☐ Top

Réseau Taco

PC2.00

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Global Settings

Display Name PC2.00

Interfaces FastEthernet0

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway 192.168.100.254

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

☐ Top

Réseau Biclou

Vérification du routage ping depuis PC 1.00 vers PC 2.01 :

```
C:\>ping 192.168.100.3

Pinging 192.168.100.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.100.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.100.3

Pinging 192.168.100.3 with 32 bytes of data:

Reply from 192.168.100.3: bytes=32 time<1ms TTL=127
Reply from 192.168.100.3: bytes=32 time<1ms TTL=127
Reply from 192.168.100.3: bytes=32 time=1ms TTL=127
Reply from 192.168.100.3: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.100.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

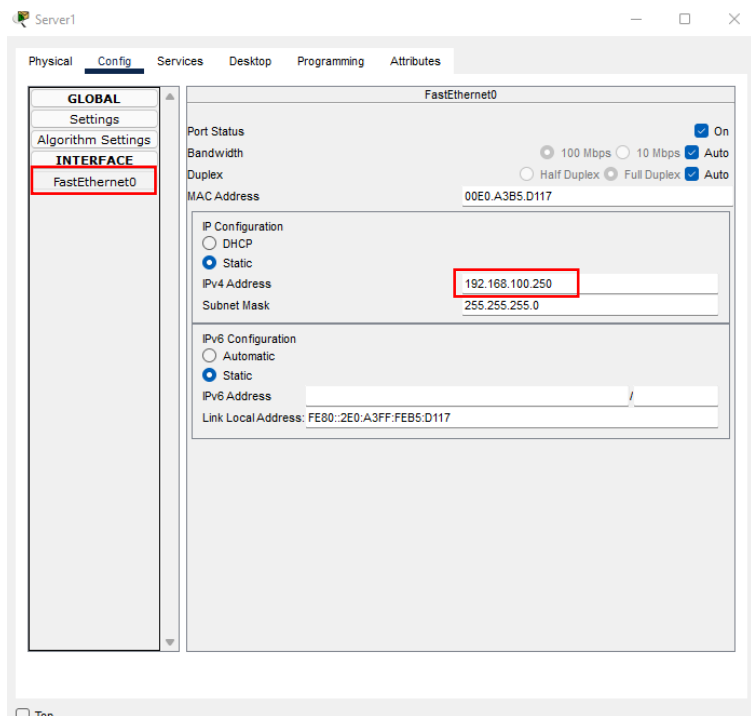
Avant paramétrage routeur

Après paramétrage routeur

Mission 4 : Création d'un serveur DHCP et ajout d'un point d'accès

- Création et paramétrage du DHCP

Configurer serveur un en IP Fixe 192.168.100.250, de la passerelle en 192.168.100.254 ensuite ajout de la fonction DHCP et configuration de la plage IP de 10 à 50.



Server1

Physical Config Services Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Global Settings

Display Name: Server1

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway: 192.168.100.254

DNS Server:

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway:

DNS Server:

☐ Top

Server1

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: 192.168.100.254

DNS Server: 0.0.0.0

Start IP Address: 192 168 100 10

Subnet Mask: 255 255 255 0

Maximum Number of Users: 41

TFTP Server: 0.0.0.0

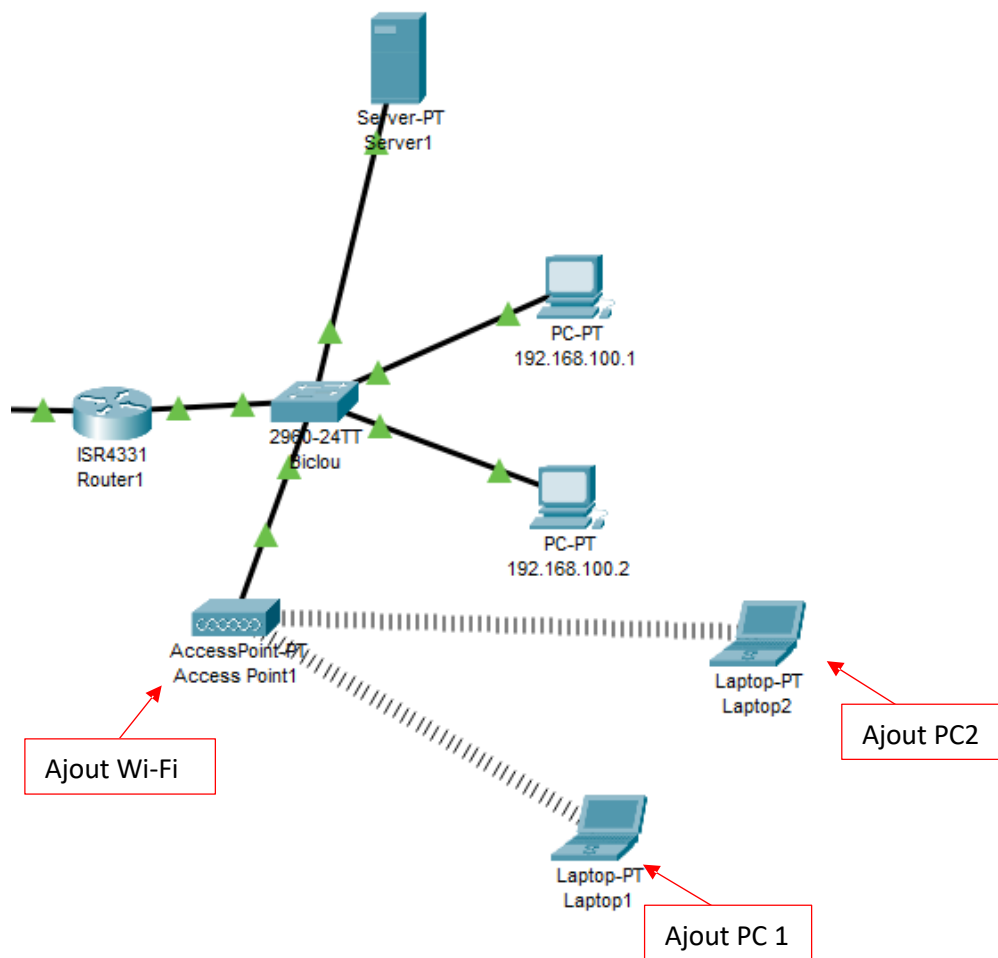
WLC Address: 0.0.0.0

Add Save Remove

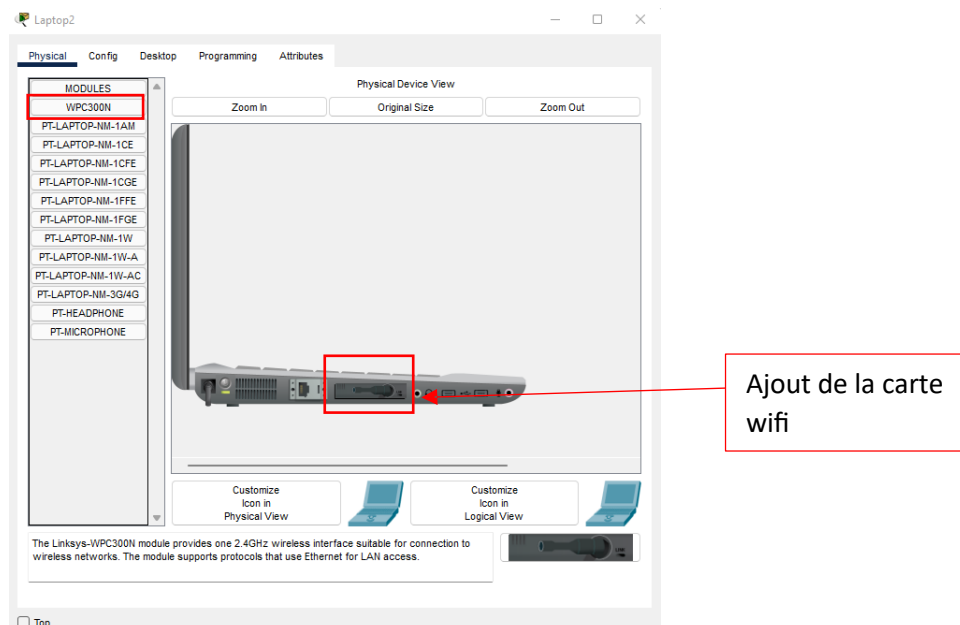
Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168....	0.0.0.0	192.168....	255.255....	41	0.0.0.0	0.0.0.0

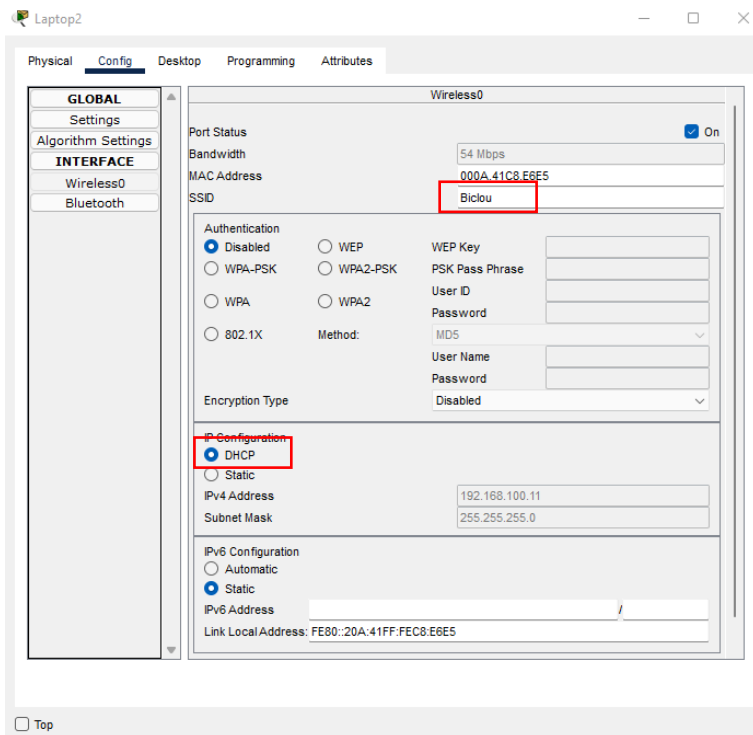
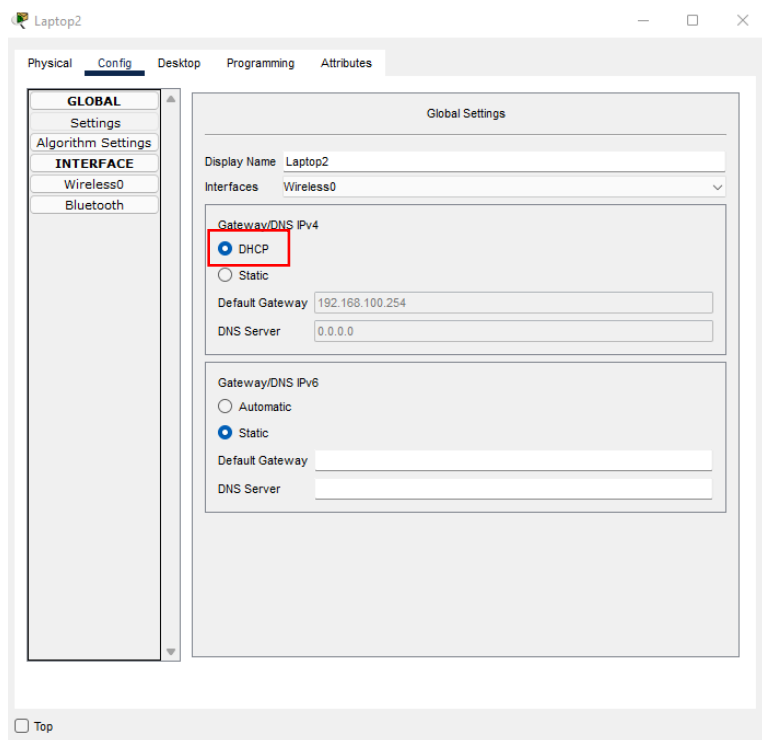
☐ Top

- Ajout d'un point d'accès sans fil pour pc portable
- Rajout d'un routeur pour le wifi puis de deux pc portables suivi de leur configuration.

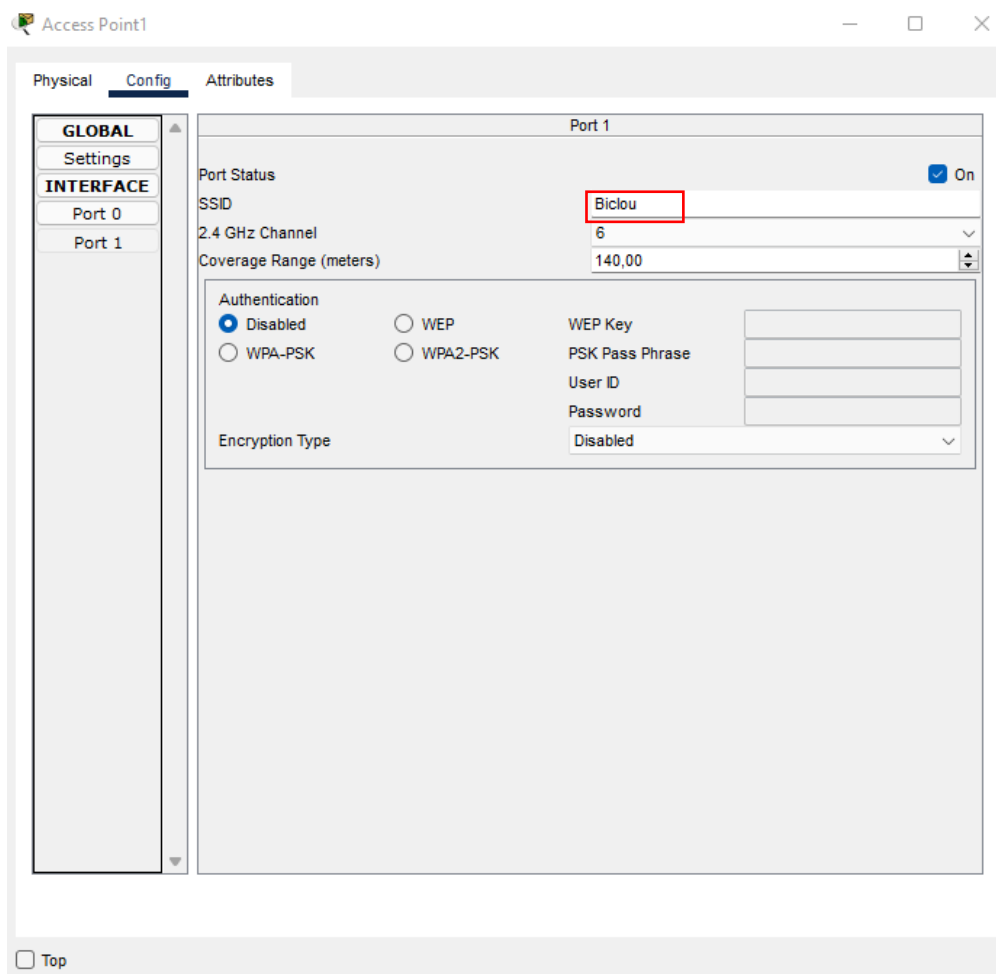


- Configuration des pcs portable

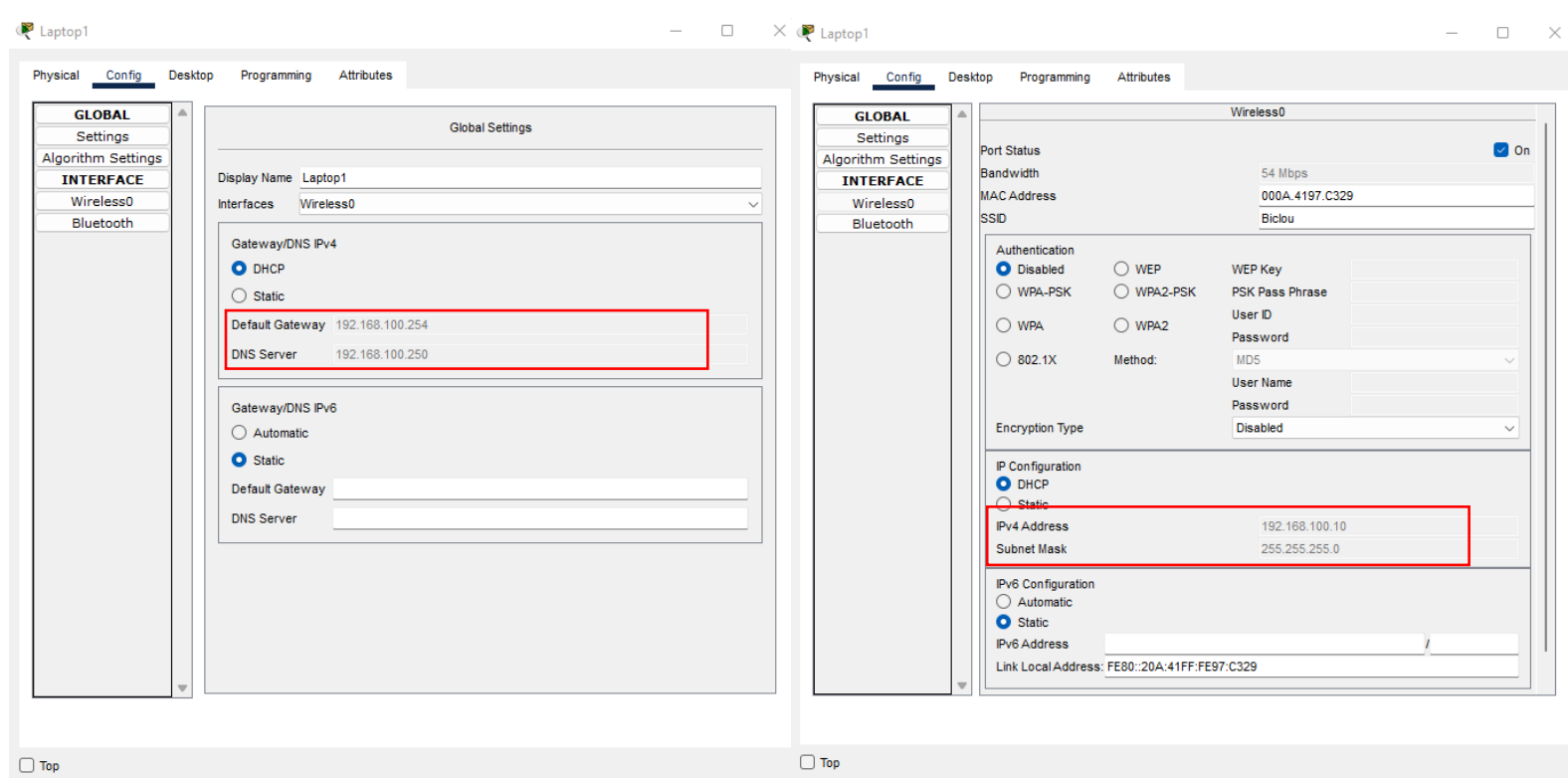




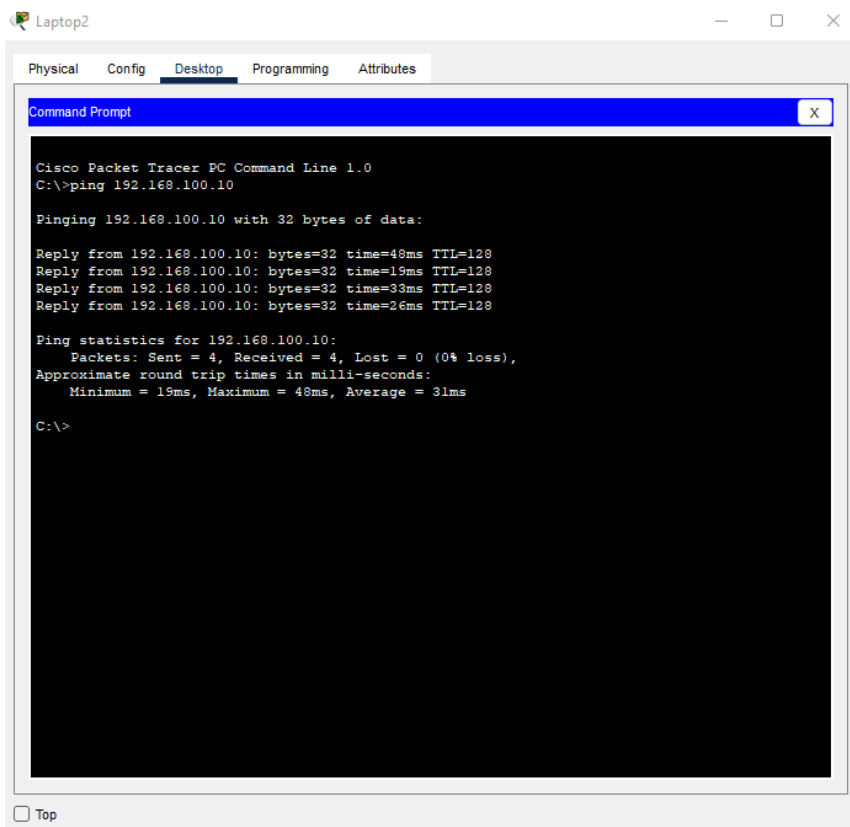
- Configuration du point d'accès sans fil



- Test du wifi



On peut voir que le serveur DHCP et le wifi fonctionne puisque le pc portable a pris une adresse IP sur la plage réseau et qu'il a reçu la passerelle et le serveur DNS. Le ping fonctionne aussi.



Mission 5 : Création d'un serveur DNS

- Paramétrage du DNS et création de la table d'annuaire

The screenshot shows the Mikrotik WinBox interface for configuring a DNS server. The 'Services' tab is selected, and the 'DNS' service is enabled (On). The 'Resource Records' section is visible, showing a table of records. A new record is being added with the name 'intranet.biclou.fr' and the address '192.168.100.250'. The 'Add' button is highlighted.

On active le DNS

On renseigne le nom au quel l'IP va correspondre

On renseigne l'IP

On ajoute le tout à l'annuaire

No.	Name	Type	Detail
0	intranet.biclou.fr	A Record	192.168.100.250
1	pc1	A Record	192.168.100.1
2	pc2	A Record	192.168.100.2
3	server1	A Record	192.168.100.250

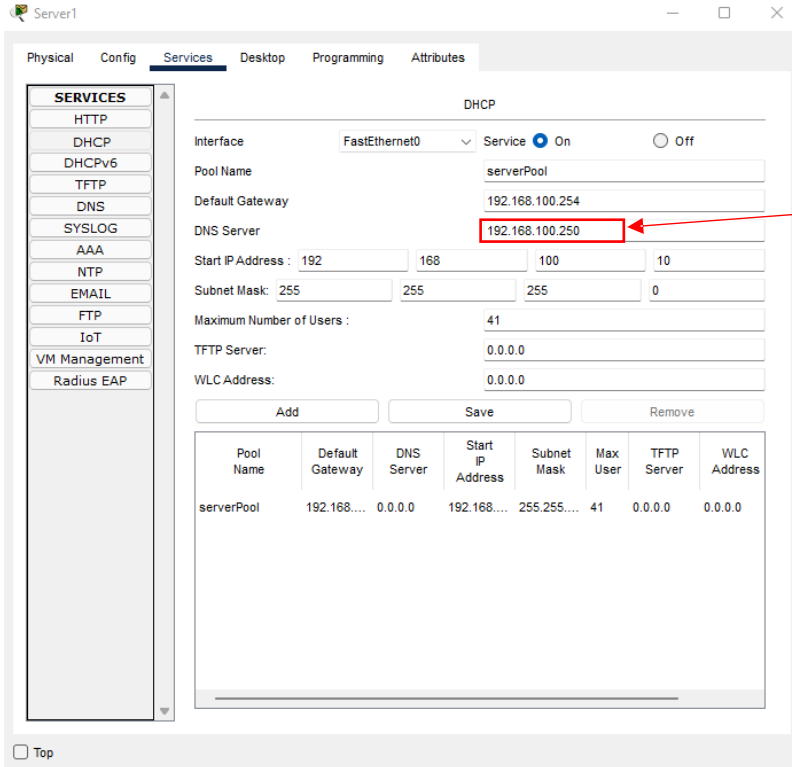
Ajout de l'IP du serveur DNS dans les pcs 1 et 2

The screenshot shows the Mikrotik WinBox interface for configuring the DNS server IP in the PC settings. The 'Config' tab is selected, and the 'DNS Server' field is set to '192.168.100.250'. The 'Add' button is highlighted.

On ajoute l'adresse du DNS

Global Settings
Display Name: 192.168.100.1
Interfaces: FastEthernet0
Gateway/DNS IPv4: Static
Default Gateway: 192.168.100.254
DNS Server: 192.168.100.250
Gateway/DNS IPv6: Automatic
Default Gateway:
DNS Server:

- Ajout du serveur DNS au serveur DHCP



On ajoute l'adresse du DNS au DHCP

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.100.254	192.168.100.250	192.168.100.10	255.255.255.0	41	0.0.0.0	0.0.0.0

- Test du serveur DNS

Avec un des pcs j'ai ping le serveur DNS avec son IP et son nom de domaine

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.250

Pinging 192.168.100.250 with 32 bytes of data:

Reply from 192.168.100.250: bytes=32 time<1ms TTL=128
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.250:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

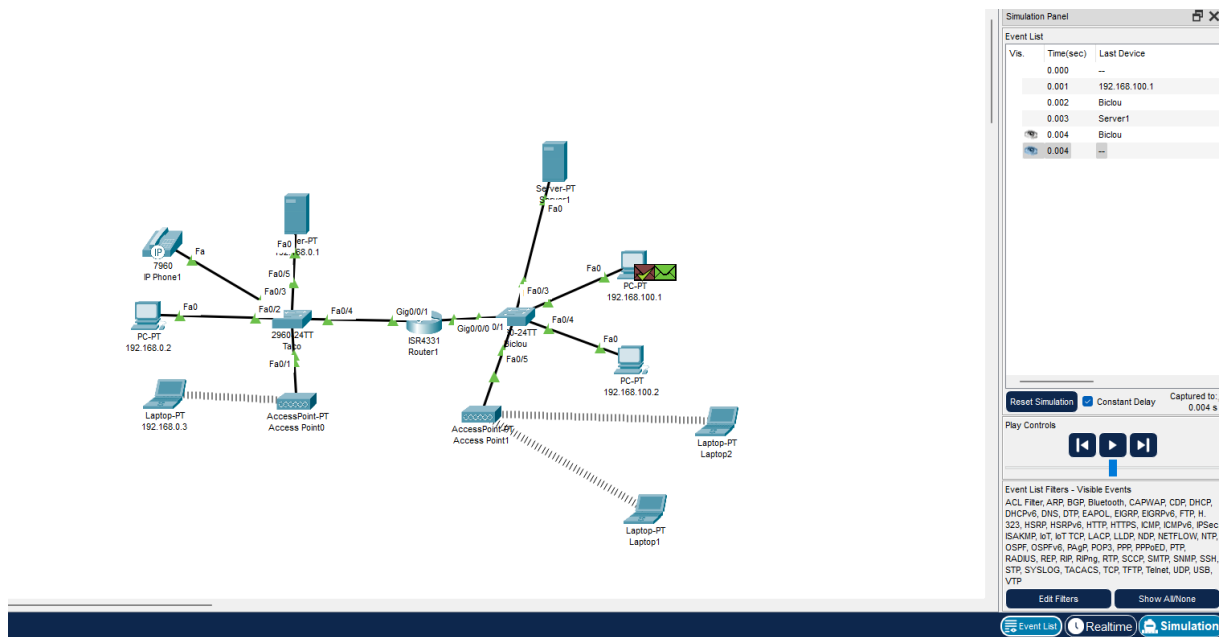
C:\>ping intranet.biclou.fr

Pinging 192.168.100.250 with 32 bytes of data:

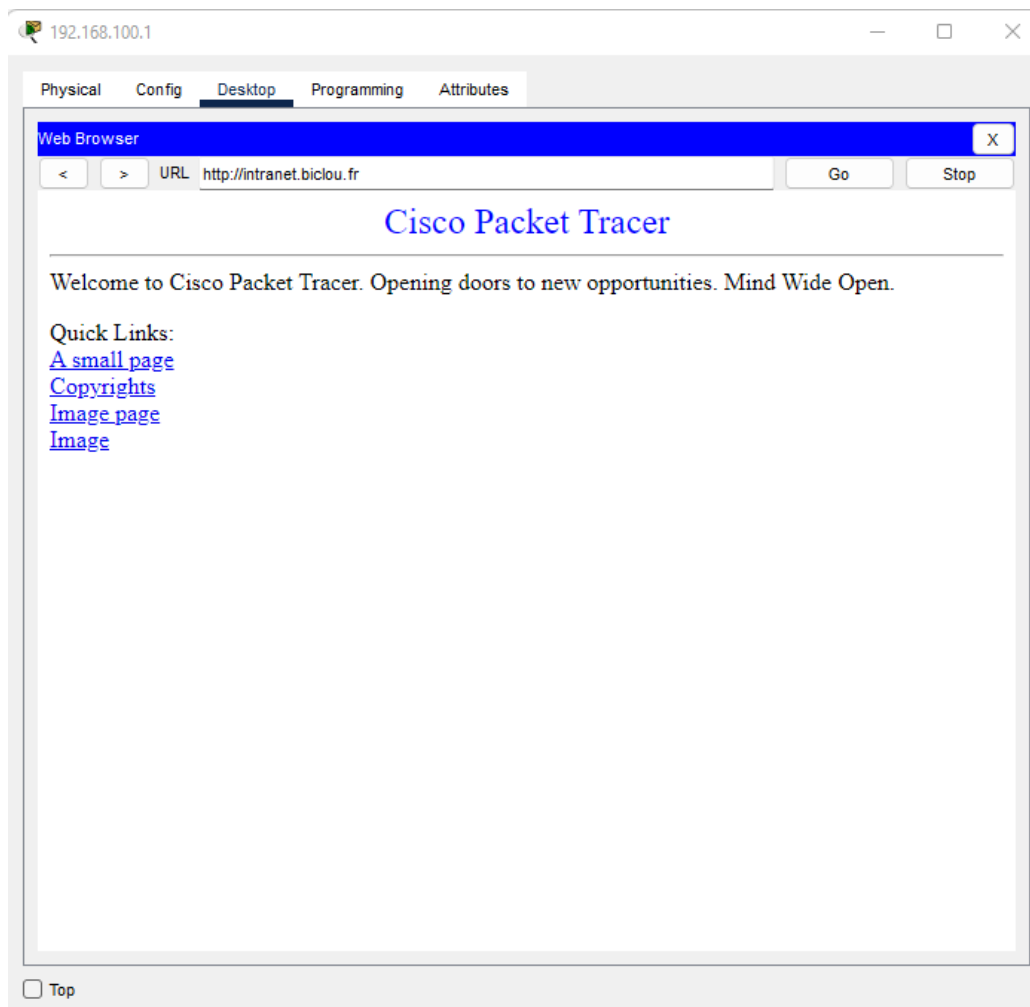
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128
Reply from 192.168.100.250: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.250:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```


On voit le trajet des paquet ping



J'arrive à accéder au serveur DNS depuis le navigateur d'un pc.



Mission 6 : Réseau complexe

Résumé du CDC :

- 6réseau, 2 par étage
- 2 PC + imprimante/ service
- Une salle info avec 1PC + imprimante + 3serveur + Switch + routeur
- Débits : Giga pour routeur, switch centrale et serveurs
FastEthernet pour le reste

Préparation matérielle :

- Routeur 1941
- Switch centrale 3650
- Switch étage 2960

Port utilisé :

- Routeur : g0/0 et g0/1
- Switch étage : f0/0 à f0/24, g0/0 et g0/2
- Switch centrale : g1/0/1 et g1/0/24, g1/1/1 à g1/1/4

Câblage :

- PC 1 port 1
- PC 2 port 2
- Imprimante port

Interface	Connecté à
G 1/0/24	Routeur
G 1/0/1	Serveur-AD
G 1/0/2	Serveur-Appli
G 1/0/3	Serveur-Fichiers
G 1/0/4	Switch étage 1 g0/1
G 1/0/5	Switch étage 2 g0/1
G 1/0/6	Switch étage 3 g0/1
G 1/0/10	PC Info
G 1/0/11	Imprimante 0
G 1/0/20	Wifi

Câblage switch principal

Direction	DI
Exams	EX
Paie	PA
Emploi	EM
Médecine	ME
Assurance	AS

Méthode de nomination

Interface	Connecté à
F0/1	DI1
F0/2	DI2
F0/3	Imprimante DI
F0/4	EX1
F0/5	EX2
F0/6	Imprimante EX
G 0/1	Switch Principal

Câblage switch étage 1

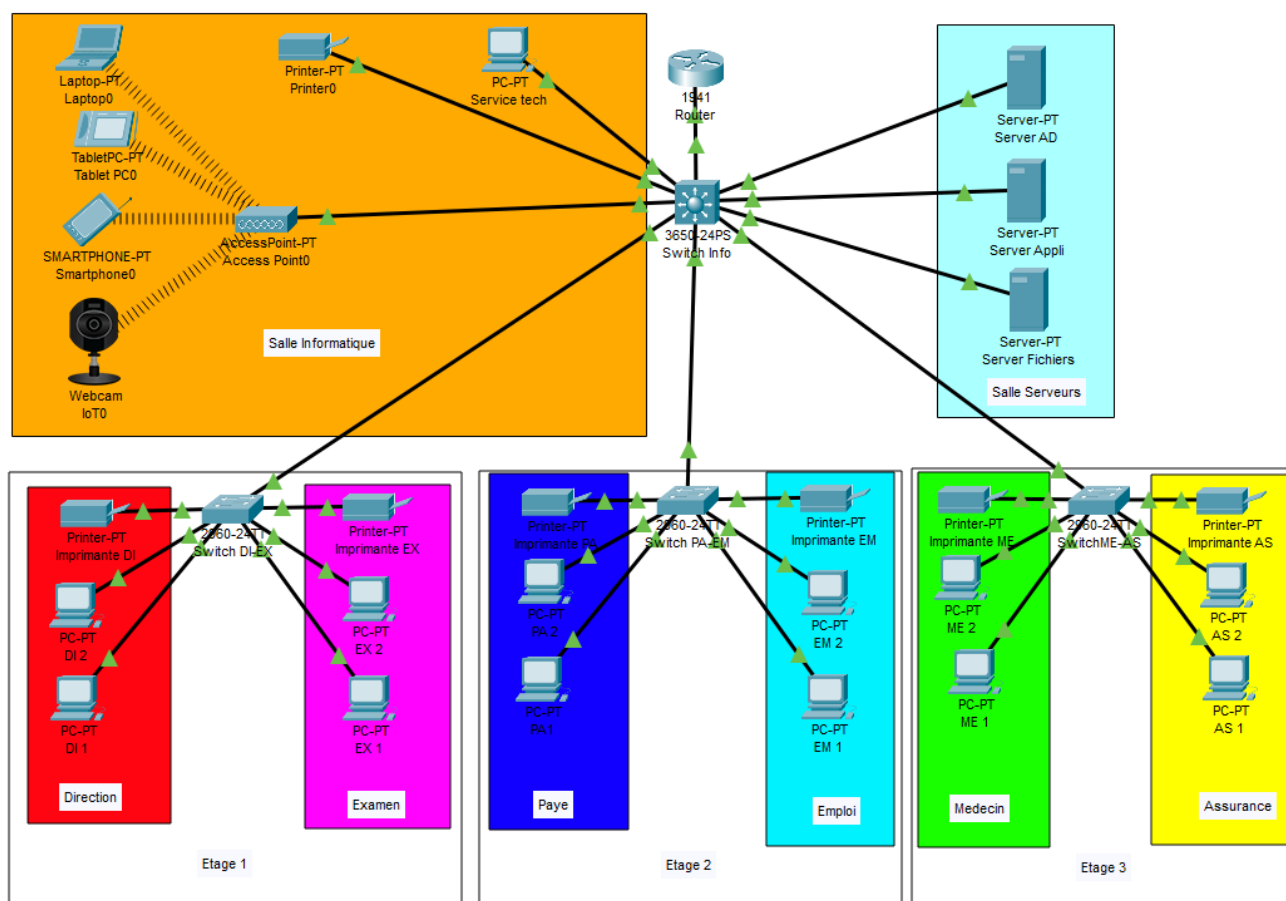
Interface	Connecté à
F0/1	PA1
F0/2	PA2
F0/3	Imprimante PA
F0/4	EM1
F0/5	EM2
F0/6	Imprimante EM
G 0/1	Switch Principal

Câblage switch étage 2

Interface	Connecté à
F0/1	ME1
F0/2	ME2
F0/3	Imprimante ME
F0/4	AS1
F0/5	AS2
F0/6	Imprimante AS
G 0/1	Switch Principal

Câblage switch étage 3

Schéma Logique



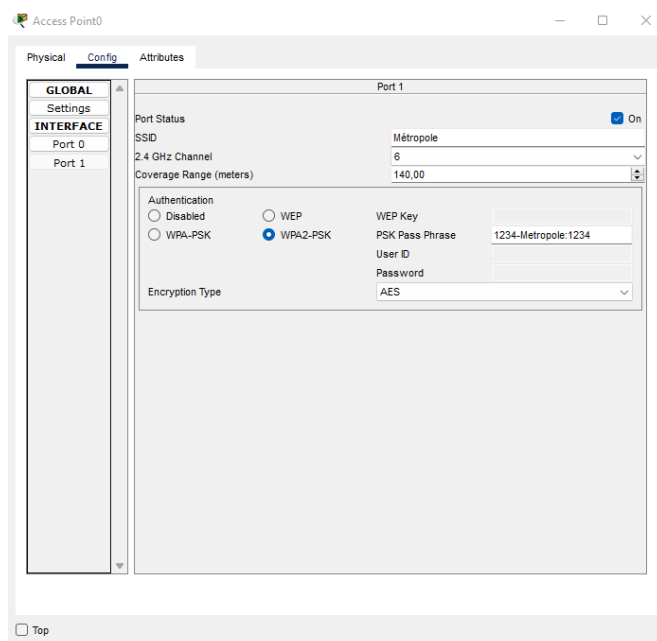
Adressage IP :

Service	Réseau	1 ^{er} IP	Dernière IP	Passerelle
Service tech	192.168.100.0/24	192.168.100.10	192.168.100.253	192.168.100.254
Directions	192.168.11.0/24	192.168.11.1	192.168.11.253	192.168.11.254
Exams	192.168.12.0/24	192.168.12.1	192.168.12.253	192.168.12.254
Paie	192.168.13.0/24	192.168.13.1	192.168.13.253	192.168.13.254
Emploi	192.168.14.0/24	192.168.14.1	192.168.14.253	192.168.14.254
Médecine	192.168.15.0/24	192.168.15.1	192.168.15.253	192.168.15.254
Assurance	192.168.16.0/24	192.168.16.1	192.168.16.253	192.168.16.254
Serveur AD	192.168.20.0/24	192.168.20.1	192.168.20.253	192.168.20.254
Serveur Appli	192.168.21.0/24	192.168.21.1	192.168.21.253	192.168.21.254
Serveur Fichiers	192.168.22.0/24	192.168.22.1	192.168.22.253	192.168.22.254
Imprimante	192.168.30.0/24	192.168.30.1	192.168.30.253	192.168.30.254
Laptop	192.168.60.0/24	192.168.60.1		192.168.60.254
TV	192.168.60.0/24	192.168.60.2		192.168.60.254
Tablette	192.168.60.0/24	192.168.60.3		192.168.60.254
Smartphone	192.168.60.0/24	192.168.60.4		192.168.60.254
Caméra IP	192.168.60.0/24	192.168.60.5		192.168.60.254

- Ajout du point d'accès sans fil

Nom SSID	Sécurité	Mot de passe
Métropole	WPA2-PSK	1234-Metropole:1234

- Configuration point d'accès



Configuration Laptop, TV, Tablette, Smartphone et caméra IP

Laptop0

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Wireless0

Bluetooth

Wireless0

Port Status ☒ On

Bandwidth 24 Mbps

MAC Address 0060.5C26.9AEC

SSID Métropole

Authentication

☐ Disabled ☐ WEP ☒ WPA2-PSK ☐ WPA ☐ WPA2 ☐ 802.1X

WEP Key

PSK Pass Phrase 1234-Metropole:1234

User ID

Password

Method: MD5

User Name

Password

Encryption Type AES

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.60.1

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address: FE80::260:5CFF:FE26:9AEC

☐ Top

- Utilisation CLI

- Table d'adresse MAC

Switch1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
% Invalid input detected at '^' marker.
Switch>show mac adress-table
^
% Invalid input detected at '^' marker.
Switch>show mac-adress-table
^
% Invalid input detected at '^' marker.
Switch>show mac-adress-table
^
% Invalid input detected at '^' marker.
Switch>show mac-address-table
Mac Address Table
-----
Vlan    Mac Address      Type      Ports
----    -
1       0001.437a.2904    DYNAMIC   Gig0/1
1       00d0.ba28.b7ae    DYNAMIC   Gig0/1
Switch>show mac-address-table
Mac Address Table
-----
Vlan    Mac Address      Type      Ports
----    -
1       0001.437a.2904    DYNAMIC   Gig0/1
1       0001.6333.c991    DYNAMIC   Fa0/2
1       0001.6360.003a    DYNAMIC   Fa0/1
1       00d0.ba28.b7ae    DYNAMIC   Gig0/1
Switch>
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

On voit ici que le commutateur ne connaît que lui et le switch principal

Ici j'ai fait un ping entre deux pc, on voit que leur deux @MAC se sont ajoutées

- Commande privilège et aide

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#line console 0
Switch(config-line)#exit
Switch(config)#interface FastEthernet 0/1
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Switch>en
Switch>enable
```

En faisant TAB la commande c'est complété toute seul

```

Switch>?
Exec commands:
  connect      Open a terminal connection
  disable      Turn off privileged commands
  disconnect    Disconnect an existing network connection
  enable        Turn on privileged commands
  exit          Exit from the EXEC
  logout        Exit from the EXEC
  ping          Send echo messages
  resume        Resume an active network connection
  show          Show running system information
  ssh           Open a secure shell client connection
  telnet        Open a telnet connection
  terminal      Set terminal line parameters
  traceroute    Trace route to destination
Switch>en
Switch#?
Exec commands:
  clear          Reset functions
  clock          Manage the system clock
  configure      Enter configuration mode
  connect        Open a terminal connection
  copy           Copy from one file to another
  debug          Debugging functions (see also 'undebg')
  delete         Delete a file
  dir            List files on a filesystem
  disable        Turn off privileged commands
  disconnect     Disconnect an existing network connection
  enable         Turn on privileged commands
  erase          Erase a filesystem
  exit           Exit from the EXEC
  logout         Exit from the EXEC
  more           Display the contents of a file
  no             Disable debugging informations
  ping           Send echo messages
  reload         Halt and perform a cold restart
  resume         Resume an active network connection
  setup          Run the SETUP command facility
  show           Show running system information
  ssh            Open a secure shell client connection
  telnet         Open a telnet connection
  terminal       Set terminal line parameters
  traceroute     Trace route to destination
  undebg         Disable debugging functions (see also 'debug')
  write          Write running configuration to memory, network, or terminal
Switch#

```

On voit qu'il y a beaucoup plus de commande disponible en mode Privilégié.

- VLAN

```

Router>en
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#host catalyst 3650
^
% Invalid input detected at '^' marker.

Router(config)#host catalyst-3650
catalyst-3650(config)#interface vlan 100
catalyst-3650(config-if)#ip address 192.168.100.1 255.255.255.0
catalyst-3650(config-if)#ip default-gateway 192.168.100.254
catalyst-3650(config)#interface vlan 100
catalyst-3650(config-if)#no shutdown

catalyst-3650>
catalyst-3650>show ip interface brief

```

Interface	IP-Address	OK?	Method	Status	Protocol
GigabitEthernet0/0	192.168.1.254	YES	manual	up	up
GigabitEthernet0/1	unassigned	YES	unset	administratively down	down
Vlan1	unassigned	YES	unset	administratively down	down
Vlan100	192.168.100.1	YES	manual	down	down

```

catalyst-3650>

```

Config router

```

Switch>en
Switch#configure interface
^
% Invalid input detected at '^' marker.

Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/
Switch(config)#host info
info(config)#interface vlan 100
info(config-if)#ip address 192.168.100.5 255.255.255.0
info(config-if)#ip default-gateway 192.168.100.254/24
^
% Invalid input detected at '^' marker.

info(config-if)#ip default-gateway 192.168.100.254
info(config)#interface vlan 100
info(config-if)#no shutdown

```

Config switch principal

```

info>show ip interface brief

```

Interface	IP-Address	OK?	Method	Status	Protocol
GigabitEthernet1/0/1	unassigned	YES	unset	up	up
GigabitEthernet1/0/2	unassigned	YES	unset	up	up
GigabitEthernet1/0/3	unassigned	YES	unset	up	up
GigabitEthernet1/0/4	unassigned	YES	unset	up	up
GigabitEthernet1/0/5	unassigned	YES	unset	up	up
GigabitEthernet1/0/6	unassigned	YES	unset	up	up
GigabitEthernet1/0/7	unassigned	YES	unset	down	down
GigabitEthernet1/0/8	unassigned	YES	unset	down	down
GigabitEthernet1/0/9	unassigned	YES	unset	down	down
GigabitEthernet1/0/10	unassigned	YES	unset	up	up
GigabitEthernet1/0/11	unassigned	YES	unset	up	up
GigabitEthernet1/0/12	unassigned	YES	unset	down	down
GigabitEthernet1/0/13	unassigned	YES	unset	down	down
GigabitEthernet1/0/14	unassigned	YES	unset	down	down
GigabitEthernet1/0/15	unassigned	YES	unset	down	down
GigabitEthernet1/0/16	unassigned	YES	unset	down	down
GigabitEthernet1/0/17	unassigned	YES	unset	down	down
GigabitEthernet1/0/18	unassigned	YES	unset	down	down
GigabitEthernet1/0/19	unassigned	YES	unset	down	down
GigabitEthernet1/0/20	unassigned	YES	unset	up	up
GigabitEthernet1/0/21	unassigned	YES	unset	down	down
GigabitEthernet1/0/22	unassigned	YES	unset	down	down
GigabitEthernet1/0/23	unassigned	YES	unset	down	down
GigabitEthernet1/0/24	unassigned	YES	unset	up	up
GigabitEthernet1/1/1	unassigned	YES	unset	down	down
GigabitEthernet1/1/2	unassigned	YES	unset	down	down
GigabitEthernet1/1/3	unassigned	YES	unset	down	down
GigabitEthernet1/1/4	unassigned	YES	unset	down	down
Vlan1	unassigned	YES	unset	administratively down	down
Vlan100	192.168.100.5	YES	manual	down	down


```

Switch>en
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#host dir-exam
dir-exam(config)#interface vlan 100
dir-exam(config-if)#ip address 192.168.100.2 255.255.255.0
dir-exam(config-if)#ip default-gateway 192.168.100.254
dir-exam(config)#interface vlan 100
dir-exam(config-if)#no shutdown
dir-exam(config-if)#exit
dir-exam(config)#exit
dir-exam#
%SYS-5-CONFIG_I: Configured from console by console

```

Config Switch
Direction-Examain

```

dir-exam>show ip interface brief

```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/1	unassigned	YES	manual	up	up
FastEthernet0/2	unassigned	YES	manual	up	up
FastEthernet0/3	unassigned	YES	manual	up	up
FastEthernet0/4	unassigned	YES	manual	up	up
FastEthernet0/5	unassigned	YES	manual	up	up
FastEthernet0/6	unassigned	YES	manual	up	up
FastEthernet0/7	unassigned	YES	manual	down	down
FastEthernet0/8	unassigned	YES	manual	down	down
FastEthernet0/9	unassigned	YES	manual	down	down
FastEthernet0/10	unassigned	YES	manual	down	down
FastEthernet0/11	unassigned	YES	manual	down	down
FastEthernet0/12	unassigned	YES	manual	down	down
FastEthernet0/13	unassigned	YES	manual	down	down
FastEthernet0/14	unassigned	YES	manual	down	down
FastEthernet0/15	unassigned	YES	manual	down	down
FastEthernet0/16	unassigned	YES	manual	down	down
FastEthernet0/17	unassigned	YES	manual	down	down
FastEthernet0/18	unassigned	YES	manual	down	down
FastEthernet0/19	unassigned	YES	manual	down	down
FastEthernet0/20	unassigned	YES	manual	down	down
FastEthernet0/21	unassigned	YES	manual	down	down
FastEthernet0/22	unassigned	YES	manual	down	down
FastEthernet0/23	unassigned	YES	manual	down	down
FastEthernet0/24	unassigned	YES	manual	down	down
GigabitEthernet0/1	unassigned	YES	manual	up	up
GigabitEthernet0/2	unassigned	YES	manual	down	down
Vlan1	unassigned	YES	manual	administratively down	down
Vlan100	192.168.100.2	YES	manual	down	down

```
Switch>en
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL
Switch(config)#host paie-emploi
paie-emploi(config)#interface vlan 100
paie-emploi(config-if)#ip address 192.168.100.3 255.255.255.255
paie-emploi(config-if)#ip default-gateway 192.168.100.254
paie-emploi(config)#no shutdown
^
```

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

Config Switch Paie-Emploi

```
paie-emploi(config)#interface vlan 100
paie-emploi(config-if)#no shutdown
paie-emploi(config-if)#exit
paie-emploi(config)#exit
paie-emploi#
%SYS-5-CONFIG_I: Configured from console by console
```

```
paie-emploi#
```

```
paie-emploi>show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/1	unassigned	YES	manual	up	up
FastEthernet0/2	unassigned	YES	manual	up	up
FastEthernet0/3	unassigned	YES	manual	up	up
FastEthernet0/4	unassigned	YES	manual	up	up
FastEthernet0/5	unassigned	YES	manual	up	up
FastEthernet0/6	unassigned	YES	manual	up	up
FastEthernet0/7	unassigned	YES	manual	down	down
FastEthernet0/8	unassigned	YES	manual	down	down
FastEthernet0/9	unassigned	YES	manual	down	down
FastEthernet0/10	unassigned	YES	manual	down	down
FastEthernet0/11	unassigned	YES	manual	down	down
FastEthernet0/12	unassigned	YES	manual	down	down
FastEthernet0/13	unassigned	YES	manual	down	down
FastEthernet0/14	unassigned	YES	manual	down	down
FastEthernet0/15	unassigned	YES	manual	down	down
FastEthernet0/16	unassigned	YES	manual	down	down
FastEthernet0/17	unassigned	YES	manual	down	down
FastEthernet0/18	unassigned	YES	manual	down	down
FastEthernet0/19	unassigned	YES	manual	down	down
FastEthernet0/20	unassigned	YES	manual	down	down
FastEthernet0/21	unassigned	YES	manual	down	down
FastEthernet0/22	unassigned	YES	manual	down	down
FastEthernet0/23	unassigned	YES	manual	down	down
FastEthernet0/24	unassigned	YES	manual	down	down
GigabitEthernet0/1	unassigned	YES	manual	up	up
GigabitEthernet0/2	unassigned	YES	manual	down	down
Vlan1	unassigned	YES	manual	administratively down	down
Vlan100	192.168.100.3	YES	manual	down	down

```
paie-emploi>
```

```

Switch>en
Switch#host Med-Ass
      ^
% Invalid input detected at '^' marker.

Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#host med-ass
med-ass(config)#interface vlan 100
med-ass(config-if)#ip address 192.168.100.4 255.255.255.0
med-ass(config-if)#ip default-gateway 192.168.100.254
      ^
% Invalid input detected at '^' marker.

med-ass(config-if)#ip default-gateway 192.168.100.254
med-ass#
%SYS-5-CONFIG_I: Configured from console by console

med-ass#interface vlan 100
      ^
% Invalid input detected at '^' marker.

med-ass#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
med-ass(config)#interface vlan 100
med-ass(config-if)#ip default-gateway 192.168.100.254

med-ass>show ip interface brief

```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/1	unassigned	YES	manual	up	up
FastEthernet0/2	unassigned	YES	manual	up	up
FastEthernet0/3	unassigned	YES	manual	up	up
FastEthernet0/4	unassigned	YES	manual	up	up
FastEthernet0/5	unassigned	YES	manual	up	up
FastEthernet0/6	unassigned	YES	manual	up	up
FastEthernet0/7	unassigned	YES	manual	down	down
FastEthernet0/8	unassigned	YES	manual	down	down
FastEthernet0/9	unassigned	YES	manual	down	down
FastEthernet0/10	unassigned	YES	manual	down	down
FastEthernet0/11	unassigned	YES	manual	down	down
FastEthernet0/12	unassigned	YES	manual	down	down
FastEthernet0/13	unassigned	YES	manual	down	down
FastEthernet0/14	unassigned	YES	manual	down	down
FastEthernet0/15	unassigned	YES	manual	down	down
FastEthernet0/16	unassigned	YES	manual	down	down
FastEthernet0/17	unassigned	YES	manual	down	down
FastEthernet0/18	unassigned	YES	manual	down	down
FastEthernet0/19	unassigned	YES	manual	down	down
FastEthernet0/20	unassigned	YES	manual	down	down
FastEthernet0/21	unassigned	YES	manual	down	down
FastEthernet0/22	unassigned	YES	manual	down	down
FastEthernet0/23	unassigned	YES	manual	down	down
FastEthernet0/24	unassigned	YES	manual	down	down
GigabitEthernet0/1	unassigned	YES	manual	up	up
GigabitEthernet0/2	unassigned	YES	manual	down	down
Vlan1	unassigned	YES	manual	administratively down	down
Vlan100	192.168.100.4	YES	manual	down	down

```

med-ass>

```

Config Switch
Médecin-Assurance

Activation du Vlan sur les ports

```
med-ass(config)#int fa 0/1
med-ass(config-if)#swit
med-ass(config-if)#switchport mode access
med-ass(config-if)#swi
med-ass(config-if)#switchport access vlan 100
% Access VLAN does not exist. Creating vlan 100
med-ass(config-if)#
%LINK-5-CHANGED: Interface Vlan100, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan100, changed state to up

med-ass(config-if)#no shut
med-ass(config-if)#end
med-ass#
%SYS-5-CONFIG_I: Configured from console by console

med-ass#reload
```

- Configuration SSH

```
med-ass>en
med-ass#cont f
^
% Invalid input detected at '^' marker.

med-ass#conf t
Enter configuration commands, one per line. End with CNTL/Z.
med-ass(config)#enable secret 1234-MetroPole:1234
med-ass(config)#ip domain-name metropole.com
med-ass(config)#crypto key generate rsa
The name for the keys will be: med-ass.metropole.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

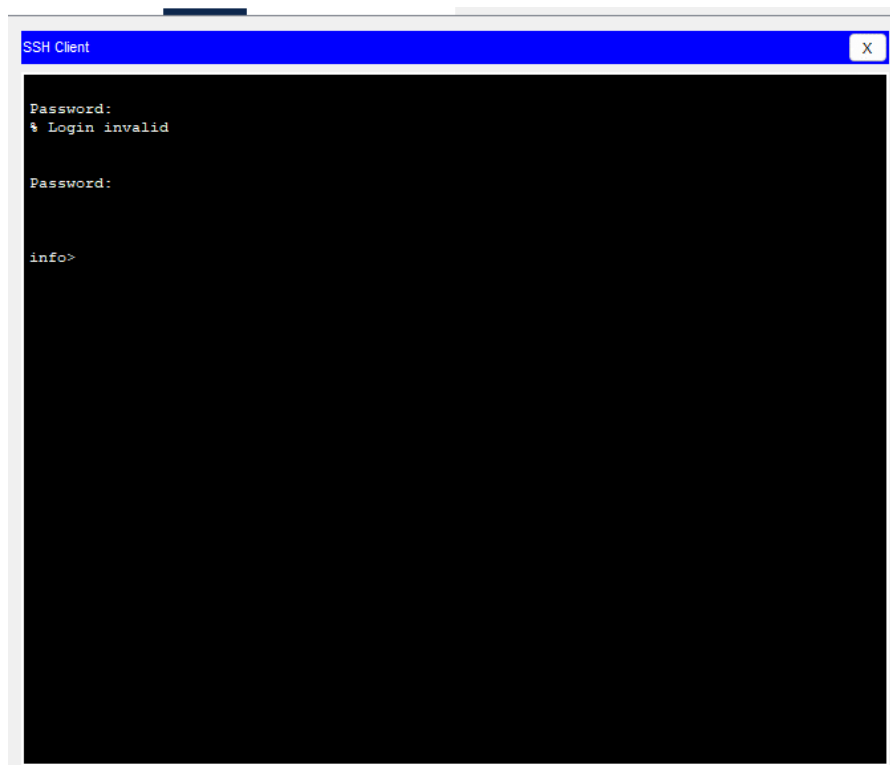
How many bits in the modulus [512]: 1024
% Generating 1024 bit RSA keys, keys will be non-exportable...[OK]

med-ass(config)#username admin secret 1234-MetroPole:1234
*Mar 1 1:4:44.364: %SSH-5-ENABLED: SSH 1.99 has been enabled
med-ass(config)#line vty 0 15
med-ass(config-line)#transport input ssh
med-ass(config-line)#login local
med-ass(config-line)#end
med-ass#
%SYS-5-CONFIG_I: Configured from console by console

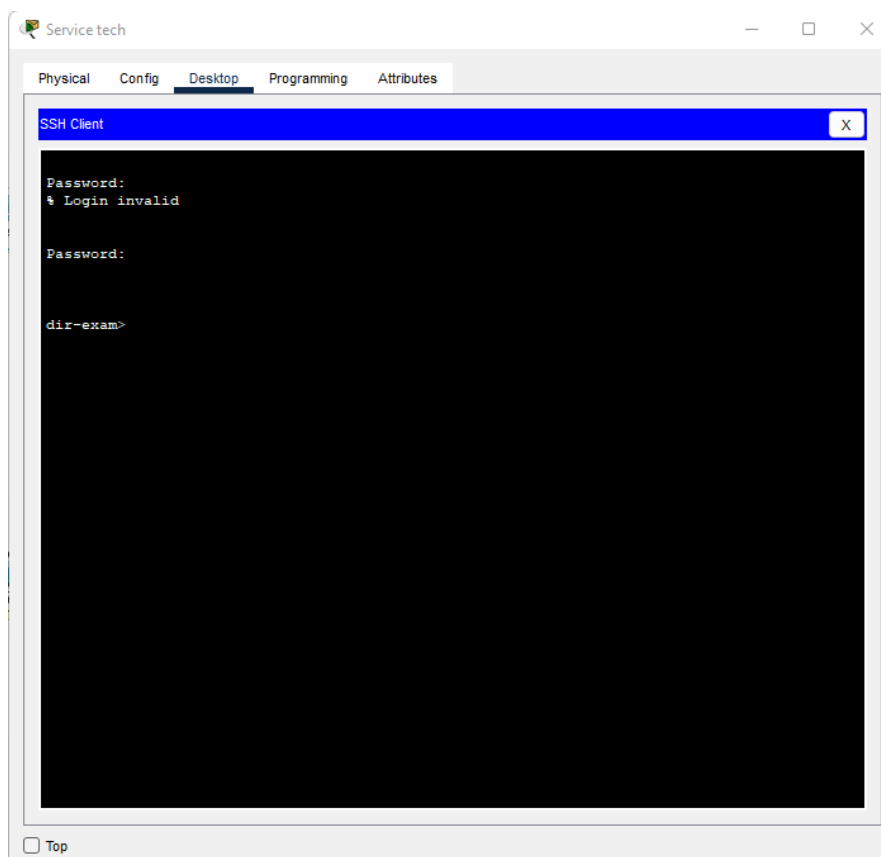
med-ass#
```

Test des connexion SSH

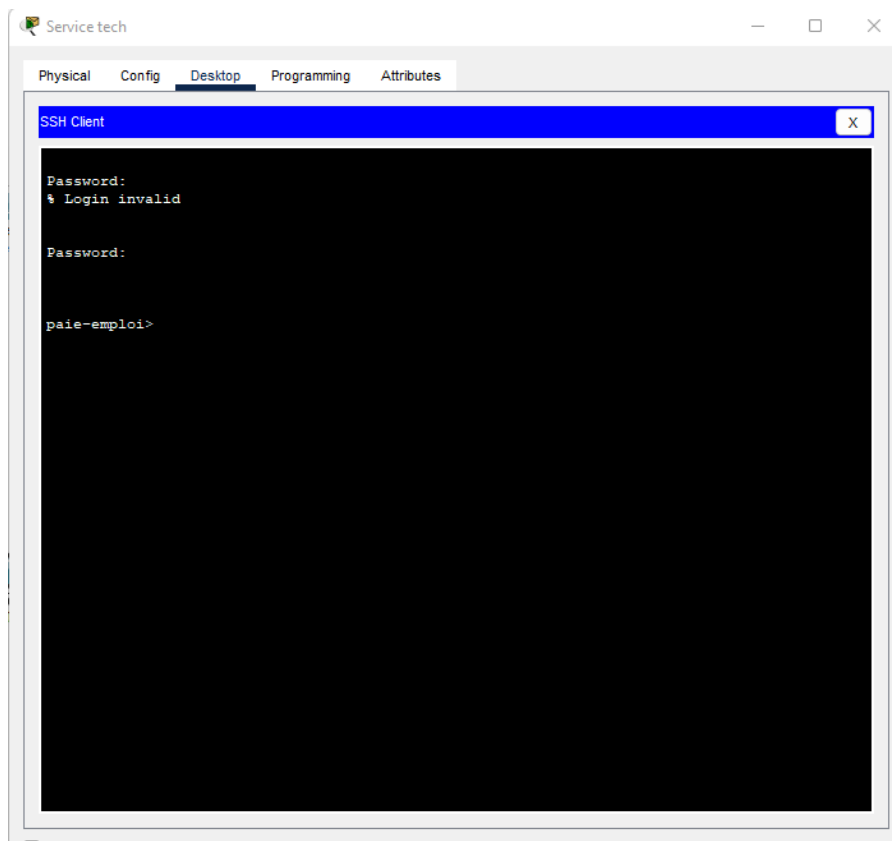
Switch INFO (Commutateur principale)



Switch Direction-Exam



Switch Paie-Emploi



Switch Medecin-Assurance

