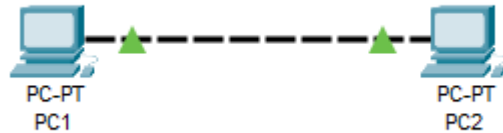


TP - Services “Réseau”

Exercice 1 :

1. Un câble Ethernet droit est utilisé pour connecter deux appareils similaires, comme deux ordinateurs. Les fils à chaque extrémité sont câblés de la même manière, permettant une communication directe entre les deux appareils sans besoin d'un dispositif intermédiaire.



2. L'adresse de PC1 est 10.0.1.1 et l'adresse de PC2 est 10.0.1.2.

IPv4 Address

3. J'effectue un “ping 10.0.1.2” sur la console de PC1 et ça fonctionne.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.1.2

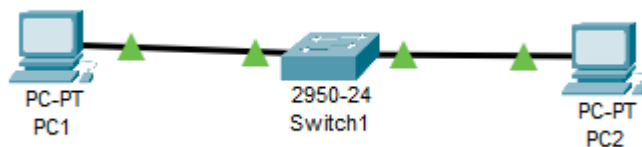
Pinging 10.0.1.2 with 32 bytes of data:

Reply from 10.0.1.2: bytes=32 time<1ms TTL=128
Reply from 10.0.1.2: bytes=32 time<1ms TTL=128
Reply from 10.0.1.2: bytes=32 time<1ms TTL=128
Reply from 10.0.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 10.0.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Exercice 2 :

1. Une fois le switch mit, tout fonctionne.



```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.1.2

Pinging 10.0.1.2 with 32 bytes of data:

Reply from 10.0.1.2: bytes=32 time=7ms TTL=128
Reply from 10.0.1.2: bytes=32 time<1ms TTL=128
Reply from 10.0.1.2: bytes=32 time<1ms TTL=128
Reply from 10.0.1.2: bytes=32 time<1ms TTL=128

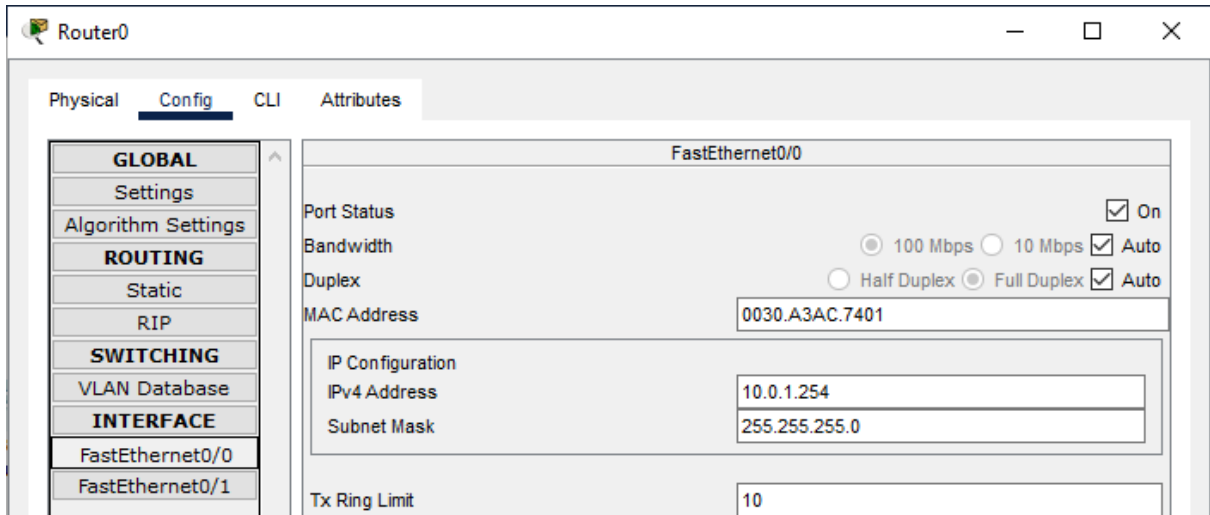
Ping statistics for 10.0.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 7ms, Average = 1ms
```

- Il y a deux entrées dans le tableau. Chaque entrée correspond à l'adresse Mac d'un appareil connecté aux ports du switch.

```
Switch#show mac-address-table
      Mac Address Table
-----
Vlan    Mac Address      Type      Ports
----    -
1       0001.6441.4215   DYNAMIC   Fa0/1
1       0050.0fa1.c394   DYNAMIC   Fa0/2
```

Exercice 3 :

- Interface connectée au réseau de PC1 et PC2 : 10.0.1.254/24.
Interface connectée au réseau du serveur : 10.0.2.254/24.



Router0

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

SWITCHING

- VLAN Database

INTERFACE

- FastEthernet0/0
- FastEthernet0/1

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

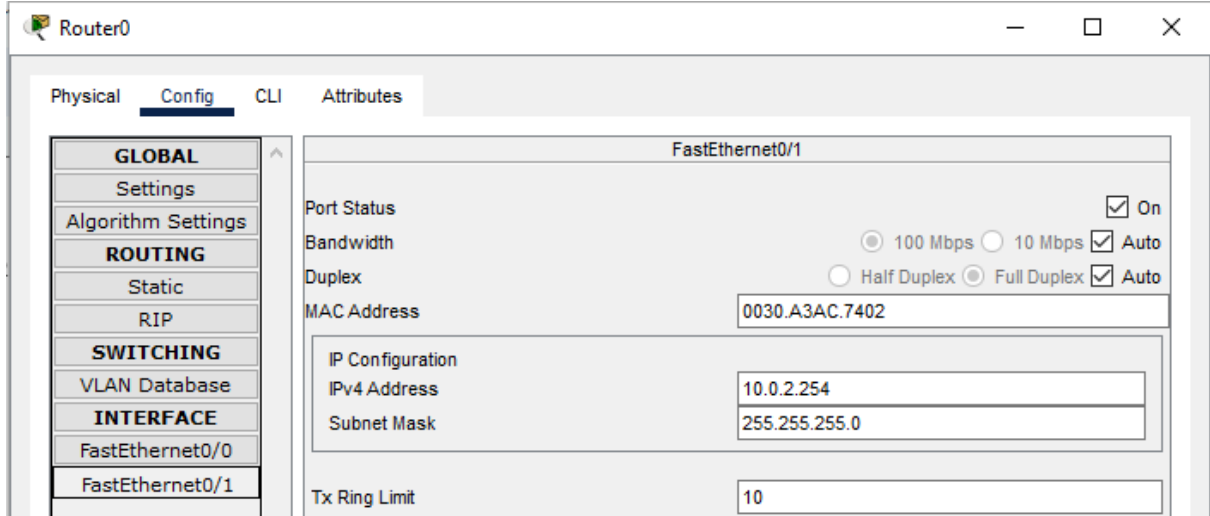
MAC Address 0030.A3AC.7401

IP Configuration

IPv4 Address 10.0.1.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10



Router0

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

SWITCHING

- VLAN Database

INTERFACE

- FastEthernet0/0
- FastEthernet0/1

FastEthernet0/1

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0030.A3AC.7402

IP Configuration

IPv4 Address 10.0.2.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10

2. J'utilise la commande "ping 10.0.1.254" à partir de PC1 et "ping 10.0.2.254" à partir de Serveur20. Les deux fonctionnent.

```
C:\>ping 10.0.1.254

Pinging 10.0.1.254 with 32 bytes of data:

Reply from 10.0.1.254: bytes=32 time<1ms TTL=255
Reply from 10.0.1.254: bytes=32 time<1ms TTL=255
Reply from 10.0.1.254: bytes=32 time<1ms TTL=255
Reply from 10.0.1.254: bytes=32 time<1ms TTL=255

Ping statistics for 10.0.1.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 10.0.1.254

Pinging 10.0.1.254 with 32 bytes of data:

Reply from 10.0.1.254: bytes=32 time<1ms TTL=255
Reply from 10.0.1.254: bytes=32 time<1ms TTL=255
Reply from 10.0.1.254: bytes=32 time<1ms TTL=255
Reply from 10.0.1.254: bytes=32 time<1ms TTL=255

Ping statistics for 10.0.1.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

3. La connexion ne marche pas comme prévu :

```
C:\>ping 10.0.2.20

Pinging 10.0.2.20 with 32 bytes of data:

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

Ping statistics for 10.0.2.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Mais après des réglages :

```
C:\>ping 10.0.2.20

Pinging 10.0.2.20 with 32 bytes of data:

Reply from 10.0.2.20: bytes=32 time<1ms TTL=127
Reply from 10.0.2.20: bytes=32 time<1ms TTL=127
Reply from 10.0.2.20: bytes=32 time<1ms TTL=127
Reply from 10.0.2.20: bytes=32 time<1ms TTL=127

Ping statistics for 10.0.2.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Exercice 4 :

1. Une fois le Server10 défini et les "Default Gateway" mis à jour, la connexion marche parfaitement.

```

C:\>PING 10.0.2.20

Pinging 10.0.2.20 with 32 bytes of data:

Reply from 10.0.2.20: bytes=32 time<1ms TTL=127
Reply from 10.0.2.20: bytes=32 time=3ms TTL=127
Reply from 10.0.2.20: bytes=32 time<1ms TTL=127
Reply from 10.0.2.20: bytes=32 time<1ms TTL=127

Ping statistics for 10.0.2.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 3ms, Average = 0ms

```

2. Après la configuration :

Server10

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: 0.0.0.0

DNS Server: 0.0.0.0

Start IP Address: 10.0.1.11

Subnet Mask: 255.255.255.0

Maximum Number of Users: 100

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Buttons: Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	10.0.1.11	255.255.255.0	100	0.0.0.0	0.0.0.0

Top

3. .

```

C:\>ipconfig /all

FastEthernet0 Connection: (default port)

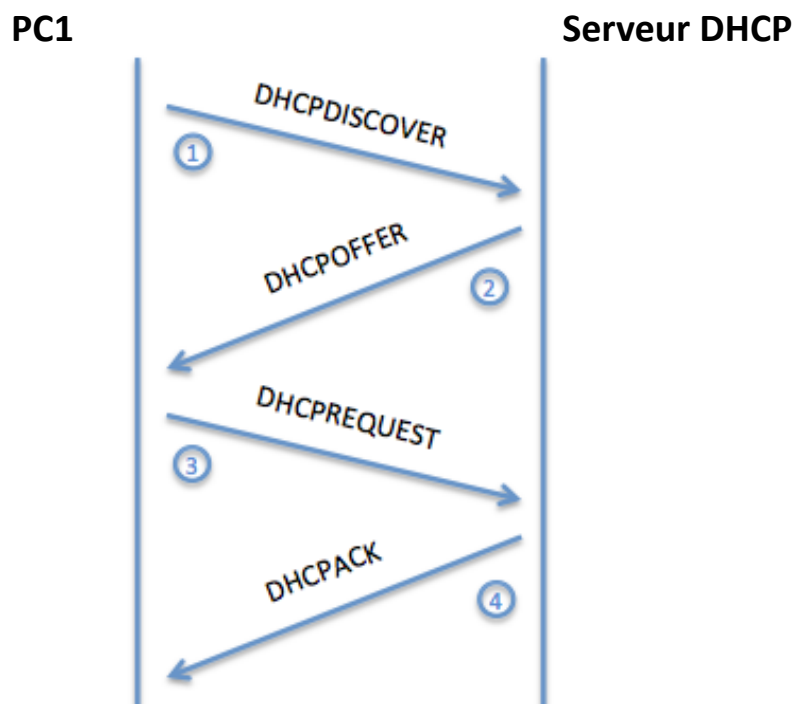
    Connection-specific DNS Suffix...: 
    Physical Address. . . . .: 0001.6441.4215
    Link-local IPv6 Address . . . . .: FE80::201:64FF:FE41:4215
    IPv6 Address. . . . .: ::
    IPv4 Address. . . . .: 10.0.1.1
    Subnet Mask . . . . .: 255.0.0.0
    Default Gateway . . . . .: ::
                                0.0.0.0
    DHCP Servers . . . . .: 0.0.0.0
    DHCPv6 IAID. . . . .: 
    DHCPv6 Client DUID. . . . .: 00-01-00-01-EB-A7-BB-68-00-01-64-41-42-15
    DNS Servers . . . . .: ::
                                0.0.0.0

Bluetooth Connection:

    Connection-specific DNS Suffix...: 
    Physical Address. . . . .: 0004.9A26.E095
    Link-local IPv6 Address . . . . .: ::
    --More--

```

4. Diagramme d'échanges :



5. Nouveau "ipconfig /all"

```
C:\>ipconfig /renew

IP Address. . . . .: 10.0.1.13
Subnet Mask. . . . .: 255.255.255.0
Default Gateway. . . . .: 0.0.0.0
DNS Server. . . . .: 0.0.0.0

C:\>ipconfig /all

FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix. . . : 
    Physical Address. . . . .: 0001.6441.4215
    Link-local IPv6 Address . . . . .: FE80::201:64FF:FE41:4215
    IPv6 Address. . . . .: ::
    IPv4 Address. . . . .: 10.0.1.13
    Subnet Mask. . . . .: 255.255.255.0
    Default Gateway. . . . .: ::
                                0.0.0.0
    DHCP Servers. . . . .: 10.0.1.10
    DHCPv6 IAID. . . . .: 
    DHCPv6 Client DUID. . . . .: 00-01-00-01-EB-A7-BB-68-00-01-64-41-42-15
    DNS Servers. . . . .: ::
                                0.0.0.0

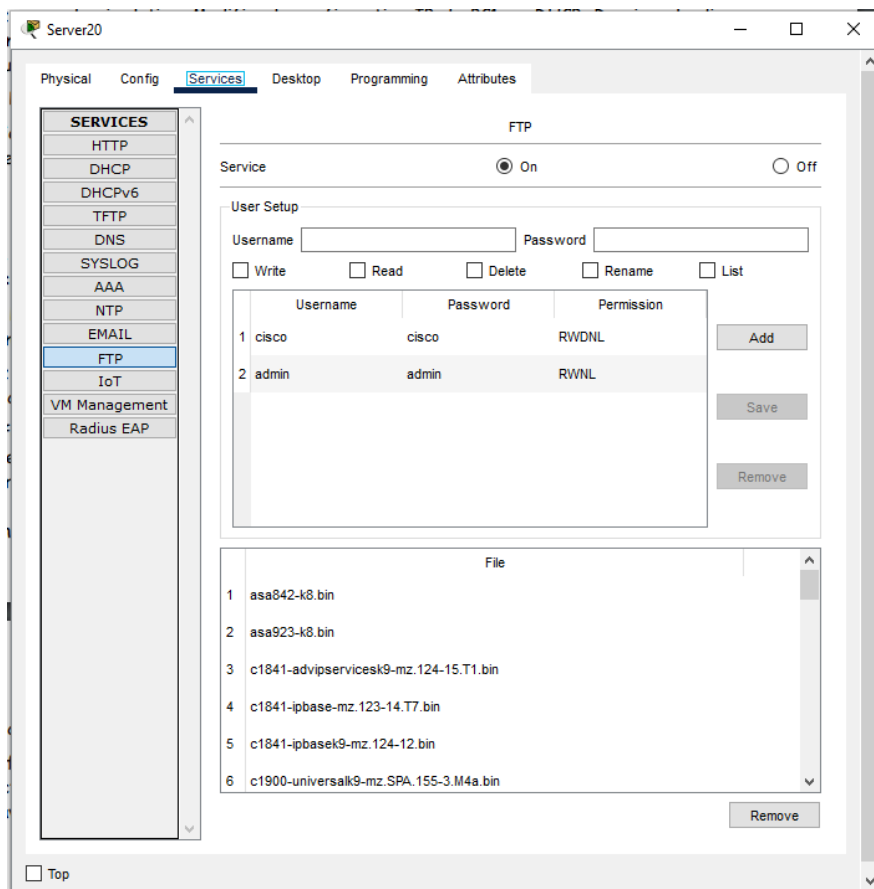
Bluetooth Connection:

    Connection-specific DNS Suffix. . . : 
    Physical Address. . . . .: 0004.9A26.E095
    Link-local IPv6 Address . . . . .: ::
--More--
```

6.

Exercise 5 :

1. Ajouté.



2. Le fichier est "sampleFile.txt".

```
C:\>dir

Volume in drive C has no label.
Volume Serial Number is 5E12-4AF3
Directory of C:\

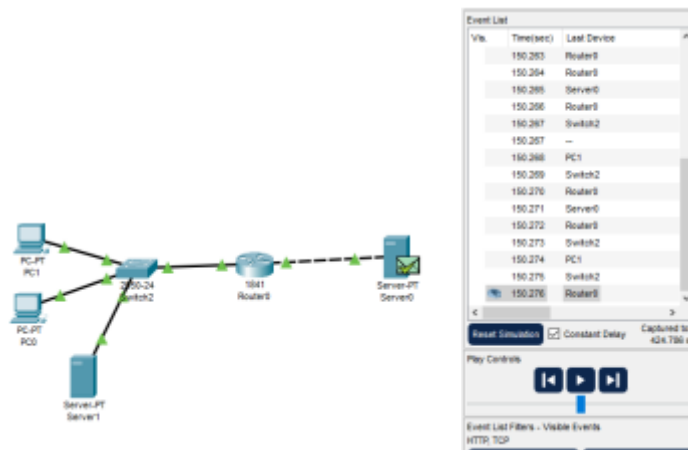
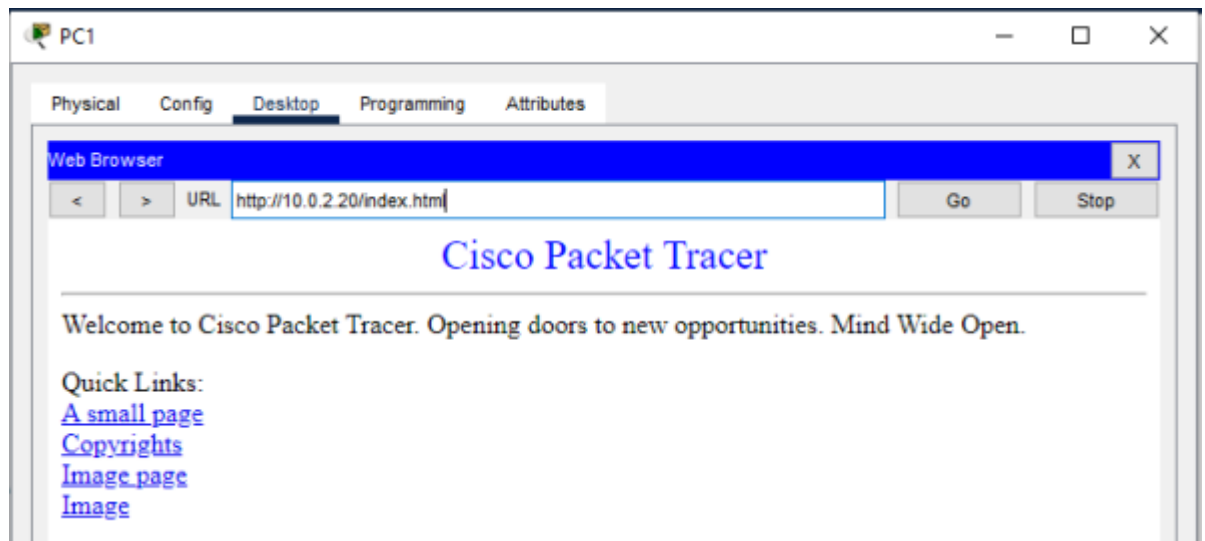
1/1/1970    1:0 PM                26      sampleFile.txt
                26 bytes                1 File(s)
```

3.

4.

5. Il est impossible de supprimer le fichier, car nous n'avons pas la permission.

Exercise 6 :



Le PC1 a demandé la page web au Serveur20 et celui-ci lui a envoyé.

