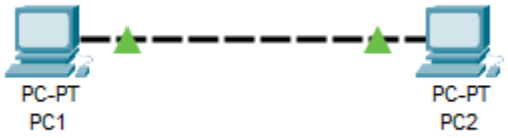
TP - Services “Réseau”

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.



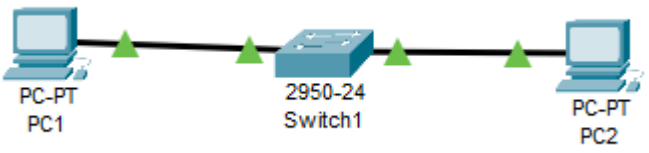
2. L’adresse de PC1 est 10.0.1.1 et l’adresse de PC2 est 10.0.1.2.

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.



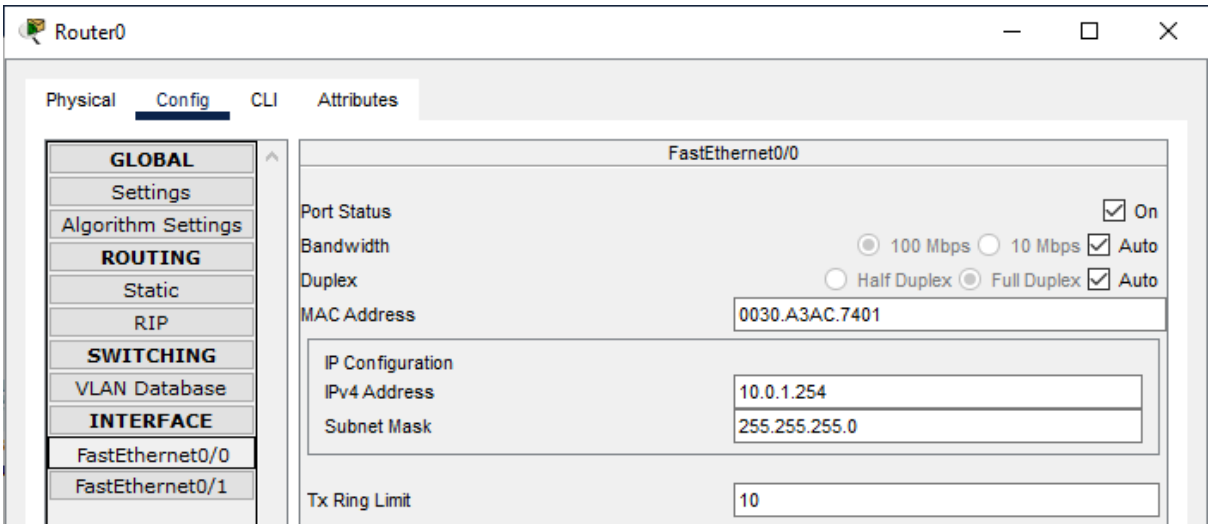

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.1.2

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
```

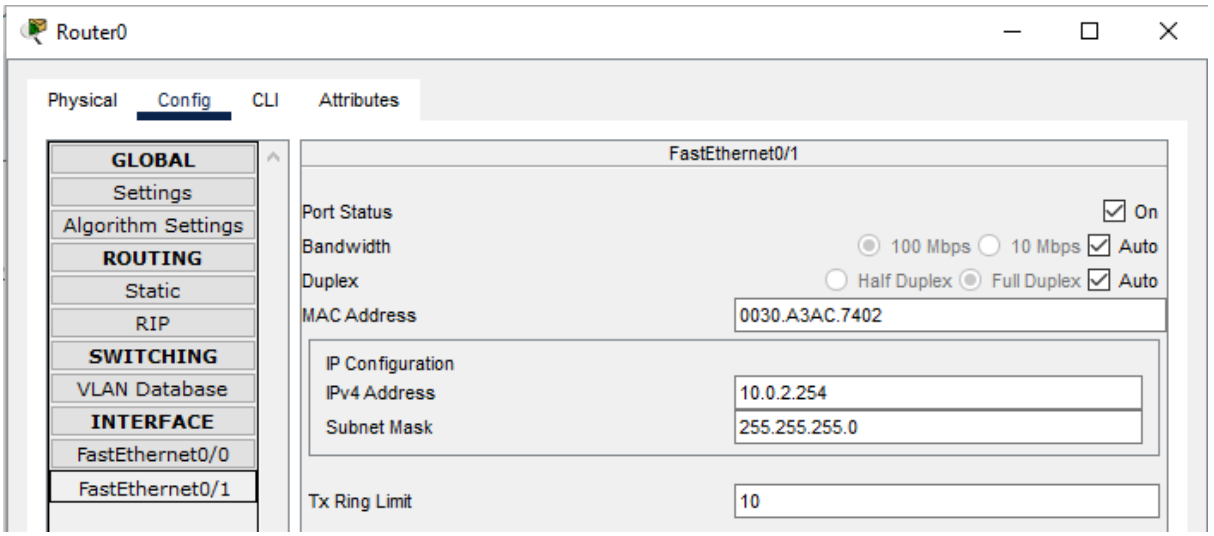
2. Il y a deux entrées dans le tableau. Chaque entrée correspond à l'adresse Mac d'un appareil connecté aux ports du switch.

```
Switch#show mac-address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

   1    0001.6441.4215    DYNAMIC     Fa0/1
   1    0050.0fal.c394    DYNAMIC     Fa0/2
```

Exercice 3 :

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





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 :

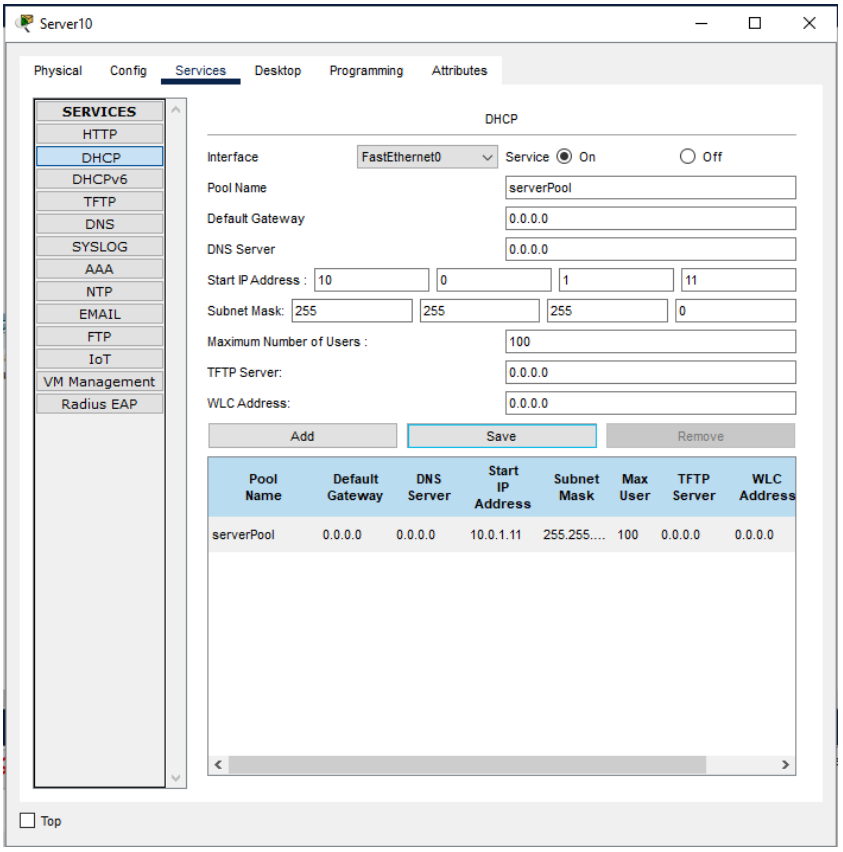
```
C:\>ping 10.0.2.20

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
```

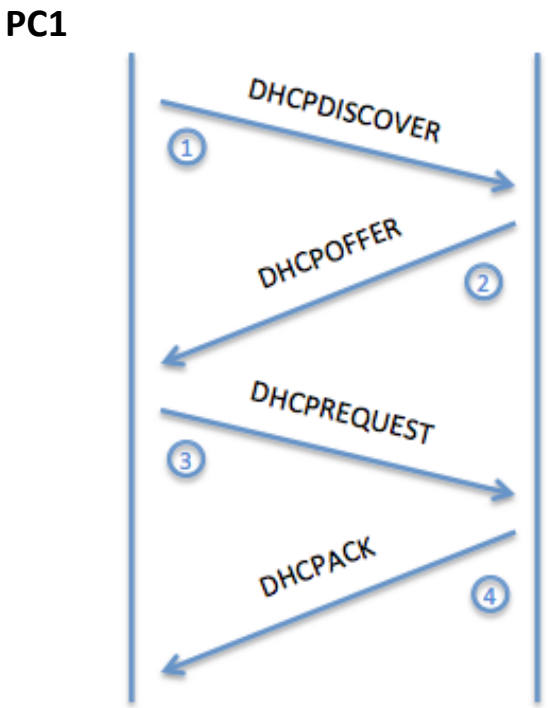
2. Après la configuration :



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 :



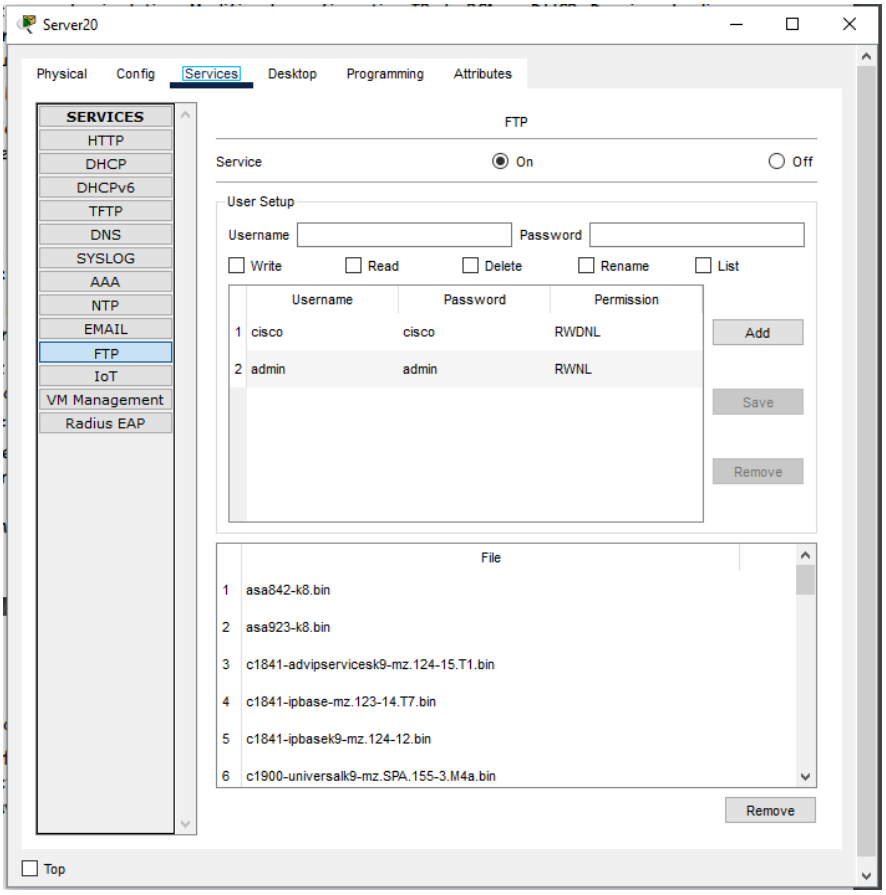
5. Nouveau “ipconfig /all”

```
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--
```

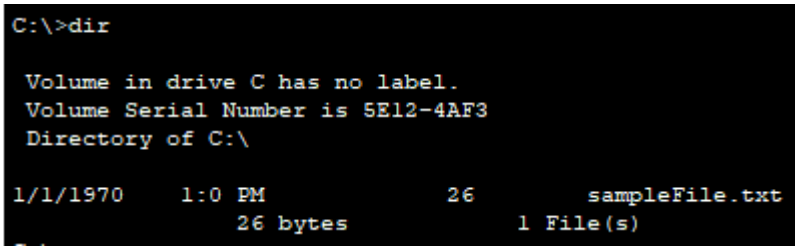
6.

Exercice 5 :

1. Ajouté.

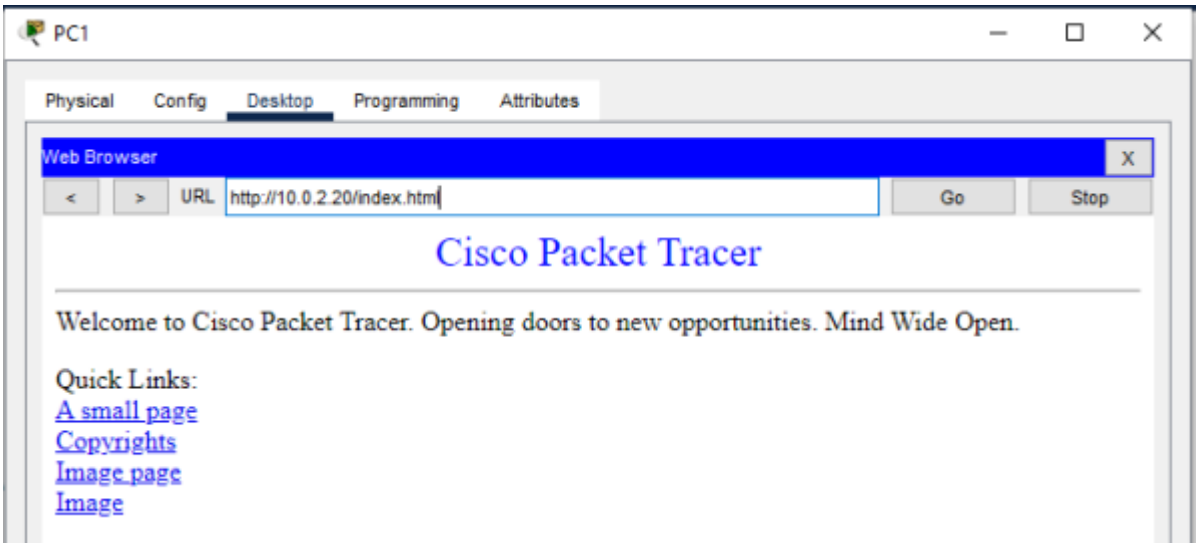


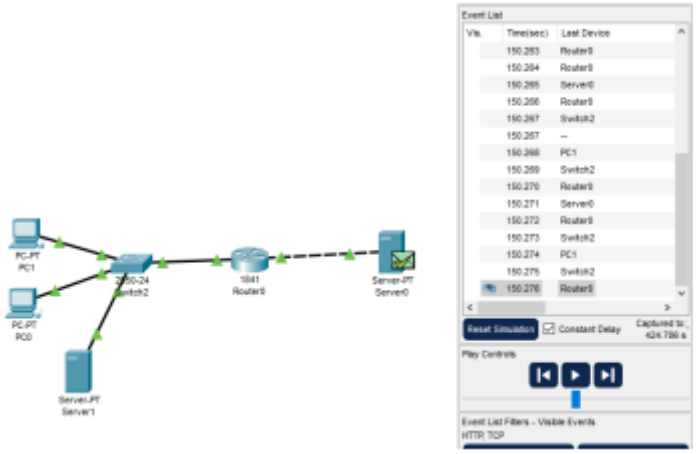
2. Le fichier est “sampleFile.txt”.



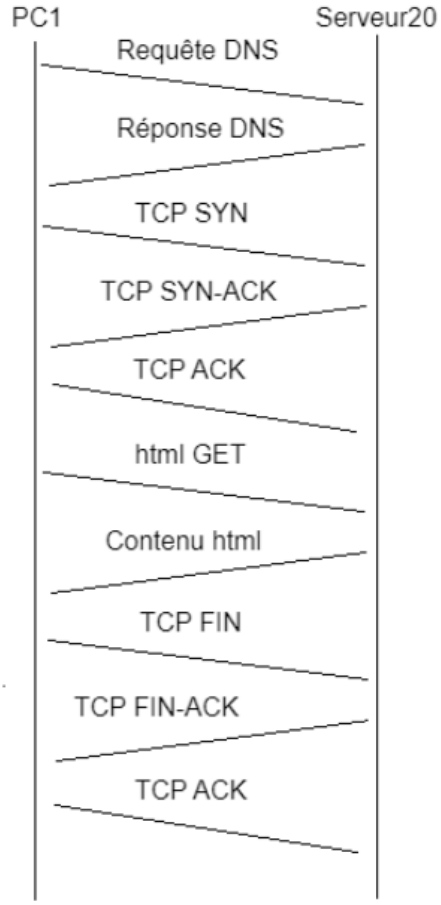
3.
4.
5. Il est impossible de supprimer le fichier, car nous n’avons pas la permission.

Exercice 6 :





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


PC1
Serveur20
Requête DNS
Réponse DNS
TCP SYN
TCP SYN-ACK
TCP ACK
html GET
Contenu html
TCP FIN
TCP FIN-ACK
TCP ACK