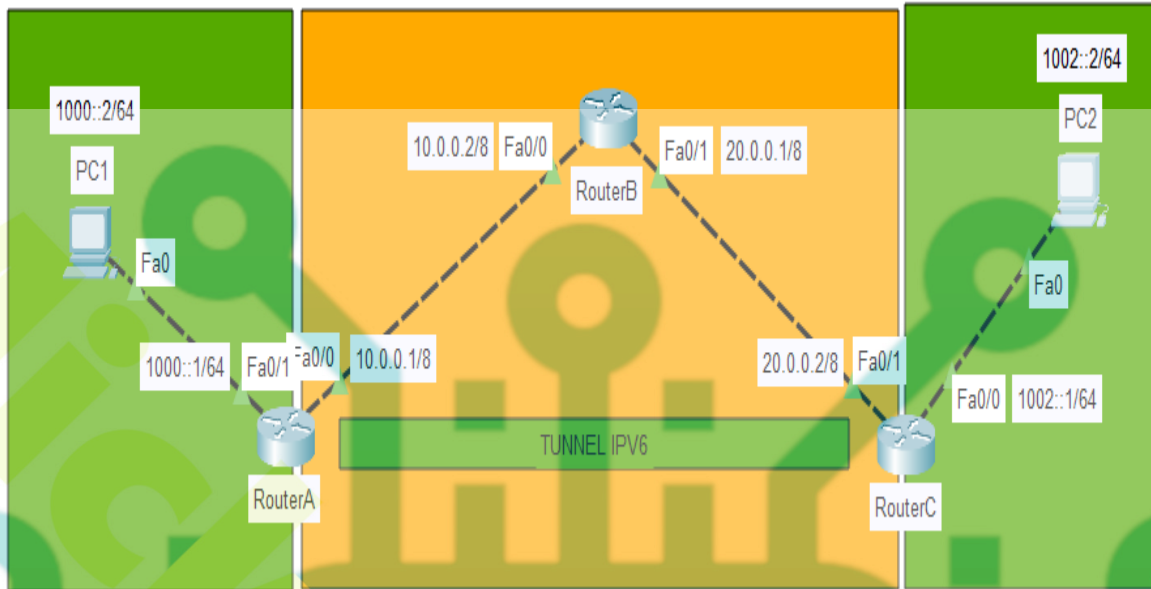# TD – tunnel 6 to 4

Objectif : créer un tunnel IPv6 dans un réseau IPv4

Il existe 2 réseaux IPv6 qui vont avoir leur trafic tunnelé à travers le réseau IPv4.

Configuration de base

```
Router A
en
conf t
hostname RouterA
ipv6 unicast-routing
int fa0/1
ipv6 address 1000::1/64
no shutdown
int fa0/0
ip address 10.0.0.1 255.0.0.0
no shutdown

Router B
en
conf t
hostname RouterB
int fa0/0
ip add 10.0.0.2 255.0.0.0
no shutdown
int fa0/1
ip address 20.0.0.1 255.0.0.0
no shutdown
```

```
Router C
en
conf t
hostname RouterC
ipv6 unicast-routing
int fa0/1
ip add 20.0.0.2 255.0.0.0
no shutdown
int fa0/0
ipv6 add 1002::1/64
no shutdown
```

Configuration des PC

IPv6 Configuration

○ DHCP	○ Auto Config	◉ Static

IPv6 Address   1000::2   /   64

Link Local Address   FE80::230:A3FF:FE25:6EBA

IPv6 Gateway   1000::1

IPv6 DNS Server

PC1

IPv6 Configuration

○ DHCP	○ Auto Config	◉ Static

IPv6 Address   1002::2   /   64

Link Local Address   FE80::201:64FF:FEBE:C752

IPv6 Gateway   1002::1

IPv6 DNS Server

PC2

Création du tunnel

```
Routeur A
en
conf t
int tunnel 0
tunnel source fa0/0
#identification de la source
tunnel destination 20.0.0.2
#identification de la destination
tunnel mode ipv6ip
#spécification du type de tunnel ipv6 over ipv4
ipv6 address 1001::1/64
#spécification des adresses de tunnel
```

```
Routeur C
en
conf t
int tunnel 0
tunnel source fa0/1
tunnel destination 10.0.0.1
tunnel mode ipv6ip
ipv6 add 1001::2/64
#spécification des adresses de tunnel
```

Configuration du routage

IPv4

```
Router A
router eigrp 1
network 10.0.0.0

Router B
router eigrp 1
network 10.0.0.0
network 20.0.0.0

Router C
router eigrp 1
network 20.0.0.0
```

Ipv6

```
Router A
ipv6 route 1002::0/64 1001::2
#adresse du tunnel

RouterC
ipv6 route 1000::0/64 1001::1
#adresse du tunnel
```

Test de la configuration

A partir de PC1

```
C:\>ping 1002::2

Reply from 1002::2: bytes=32 time<1ms TTL=126
Reply from 1002::2: bytes=32 time=3ms TTL=126
Reply from 1002::2: bytes=32 time<1ms TTL=126
Reply from 1002::2: bytes=32 time<1ms TTL=126


sh ipv6 route
```