

TP 7- Route statique résumée et route par défaut

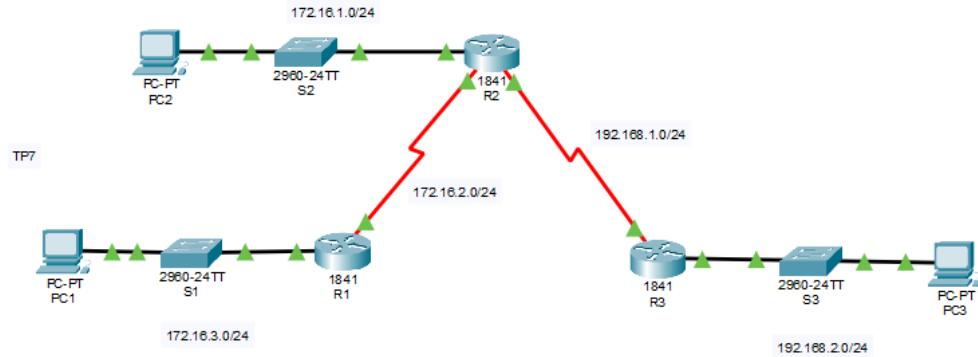
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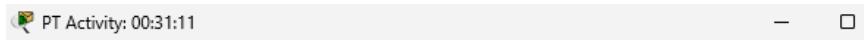
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→ On ouvre le fichier Packet Tracer TP7.pka. On ferme la fenêtre PT Activity.



Il n'y a pas de protocole de routage dynamique activé sur les routeurs de la simulation.

Les configurations IP des différentes interfaces sont les suivantes :



2.6.2 : Configuration d'une route par défaut

Périphérique	Interface	Adresse IP	Masque de sous-réseau	Passerelle par défaut
R1	Fa0/0	172.16.3.1	255.255.255.0	N/D
	S0/0/0	172.16.2.1	255.255.255.0	N/D
R2	Fa0/0	172.16.1.1	255.255.255.0	N/D
	S0/0/0	172.16.2.2	255.255.255.0	N/D
	S0/0/1	192.168.1.2	255.255.255.0	N/D
R3	Fa0/0	192.168.2.1	255.255.255.0	N/D
	S0/0/1	192.168.1.1	255.255.255.0	N/D
PC1	Carte réseau	172.16.3.10	255.255.255.0	172.16.3.1
PC2	Carte réseau	172.16.1.10	255.255.255.0	172.16.1.1
PC3	Carte réseau	192.168.2.10	255.255.255.0	192.168.2.1

TP 7- Route statique résumée et route par défaut

1. Examen des routes statiques

Etape 1 : consultation de la configuration

On procéde comme suit pour chacun des trois routeurs :

- On se connecte au routeur en utilisant le mot de passe cisco. On passe en mode d'exécution privilégié (commande enable ou en) en utilisant le mot de passe class.
- On vas dans routeur (ici 1) puis on selectionne CLI c'est ici que le mot de passe est demandé.

The screenshot shows a Windows-style application window titled "R1". The tab bar at the top has four tabs: "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area is a terminal window displaying the following text:

```
IOS Command Line Interface
%LINK-3-CHANGED: Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up

User Access Verification

Password:
* Password: timeout expired!

Press RETURN to get started!

User Access Verification

Password:
R1>
```

At the bottom right of the terminal window, there are "Copy" and "Paste" buttons. At the very bottom of the window, there is a "Top" button.

```
R1>enable  
Password:  
R1#
```

- On entre la commande show running-config (sh run) pour consulter la configuration actuelle du routage statique

```
R1#show running-config  
Building configuration...  
  
Current configuration : 931 bytes  
!  
version 12.3  
no service timestamps log datetime msec  
no service timestamps debug datetime msec  
no service password-encryption  
!  
hostname R1  
!  
!  
!  
enable secret 5 $1$.3RO$VLUOdBF2OqNBn0EjQBvR./  
!  
!  
!  
!  
!  
ip cef  
no ipv6 cef  
!  
  
spanning-tree mode pvst  
!  
!  
!  
!  
!  
interface FastEthernet0/0  
 ip address 172.16.3.1 255.255.255.0  
 duplex auto  
 speed auto  
!  
interface FastEthernet0/1  
 no ip address  
 duplex auto  
 speed auto  
 shutdown  
!  
interface Serial0/0/0  
 ip address 172.16.2.1 255.255.255.0  
 clock rate 64000  
!  
interface Serial0/0/1  
 no ip address  
 clock rate 2000000  
!  
interface Vlan1  
 no ip address  
 shutdown  
!
```

TP 7- Route statique résumée et route par défaut

```
ip classless
ip route 192.168.2.0 255.255.255.0 172.16.2.2
ip route 192.168.1.0 255.255.255.0 172.16.2.2
ip route 172.16.1.0 255.255.255.0 172.16.2.2
!
ip flow-export version 9
!
!
!
!
!
!
line con 0
password cisco
login
!
line aux 0
!
line vty 0 4
password cisco
login
!
!
!
end
```

R1#

- On entre la commande show ip route pour afficher la table de routage . Chaque routeur comprend des routes statiques vers chaque réseau distant.

```
R1#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route
```

Gateway of last resort is not set

```
    172.16.0.0/24 is subnetted, 3 subnets
S        172.16.1.0 [1/0] via 172.16.2.2
C        172.16.2.0 is directly connected, Serial0/0/0
C        172.16.3.0 is directly connected, FastEthernet0/0
S        192.168.1.0/24 [1/0] via 172.16.2.2
S        192.168.2.0/24 [1/0] via 172.16.2.2
```

R1#

On fait la même chose pour le routeur 2.

- On se connecte au routeur en utilisant le mot de passe cisco. On passe en mode d'exécution privilégié (commande enable ou en) en utilisant le mot de passe class.

The screenshot shows a Cisco IOS CLI interface. At the top, there are tabs: Physical, Config, CLI (which is selected), and Attributes. Below the tabs, it says "IOS Command Line Interface". The main area displays the following log messages:

```
*LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
*LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
*LINK-5-CHANGED: Interface Serial0/0/1, changed state to up
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
*LINK-3-UPDOWN: Interface Serial0/0/1, changed state to down
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to down
*LINK-3-UPDOWN: Interface Serial0/0/0, changed state to down
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to down
*LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
*LINK-5-CHANGED: Interface Serial0/0/1, changed state to up
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up
```

Below the log, it says "User Access Verification". A password prompt follows:

```
R2>enable
Password:
R2#|
```

At the bottom right of the main window, there are "Copy" and "Paste" buttons.

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- On entre la commande show running-config (sh run) pour consulter la configuration actuelle du routage statique .

```
R2#sh run
Building configuration...

Current configuration : 945 bytes
!
version 12.3
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R2
!
!
!
enable secret 5 $1$PCsi$wSNWHdMCJ/OFjFulaGztP0
!
!
!
!
ip cef
no ipv6 cef
--More-- |
```

```
spanning-tree mode pvst
!
!
!
!
!
interface FastEthernet0/0
 mac-address 0007.eca7.1511
 ip address 172.16.1.1 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 mac-address 0001.42dd.a220
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 172.16.2.2 255.255.255.0
!
interface Serial0/0/1
 ip address 192.168.1.2 255.255.255.0
 clock rate 64000
!
interface Vlan1
 no ip address
 shutdown
```

```

ip classless
ip route 172.16.3.0 255.255.255.0 Serial0/0/0
ip route 192.168.2.0 255.255.255.0 Serial0/0/1
!
ip flow-export version 9
!
!
!
!
!
!
line con 0
password cisco
login
!
line aux 0
!
line vty 0 4
password cisco
login
!
!
!
end

```

R2#

- On entre la commande show ip route pour afficher la table de routage . Chaque routeur comprend des routes statiques vers chaque réseau distant.

```

R2#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is not set

172.16.0.0/24 is subnetted, 3 subnets
C        172.16.1.0 is directly connected, FastEthernet0/0
C        172.16.2.0 is directly connected, Serial0/0/0
S        172.16.3.0 is directly connected, Serial0/0/0
C        192.168.1.0/24 is directly connected, Serial0/0/1
S        192.168.2.0/24 is directly connected, Serial0/0/1

```

R2#

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On fait la même chose pour le routeur 3.

- On se connecte au routeur en utilisant le mot de passe **cisco**. On passe en mode d'exécution privilégié (commande enable ou en) en utilisant le mot de passe **class**.

The screenshot shows a Windows application window titled "R3". The tab bar at the top has "Physical", "Config", "CLI" (which is selected), and "Attributes". Below the tabs is the title "IOS Command Line Interface". The main pane displays the following text:

```
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Mon 15-May-06 14:54 by pt_team

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up
%LINK-3-UPDOWN: Interface Serial0/0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up

User Access Verification

Password:
R3>enable
Password:
R3#
```

At the bottom right of the window are "Copy" and "Paste" buttons.

- On entre la commande show running-config (sh run) pour consulter la configuration actuelle du routage statique .

```
R3#sh run
Building configuration...

Current configuration : 972 bytes
!
version 12.3
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R3
!
!
!
enable secret 5 $1$PCsi$wSNWHdMCJ/OFjFulaGztP0
!
!
!
!
!
ip cef
no ipv6 cef
--More--
```

```
spanning-tree mode pvst
!
!
!
!
!
interface FastEthernet0/0
mac-address 0003.e472.7a36
ip address 192.168.2.1 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
mac-address 0006.2a91.d285
no ip address
duplex auto
speed auto
shutdown
!
interface Serial0/0/0
no ip address
clock rate 2000000
!
interface Serial0/0/1
ip address 192.168.1.1 255.255.255.0
!
interface Vlan1
no ip address
shutdown
```

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```
ip classless
ip route 172.16.3.0 255.255.255.0 192.168.1.2
ip route 172.16.2.0 255.255.255.0 192.168.1.2
ip route 172.16.1.0 255.255.255.0 192.168.1.2
!
ip flow-export version 9
!
!
!
!
!
!
line con 0
  password cisco
  login
!
line aux 0
!
line vty 0 4
  password cisco
  login
!
!
!
end
```

R3#

- On entre la commande show ip route pour afficher la table de routage . Chaque routeur comprend des routes statiques vers chaque réseau distant.

```
R3#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is not set

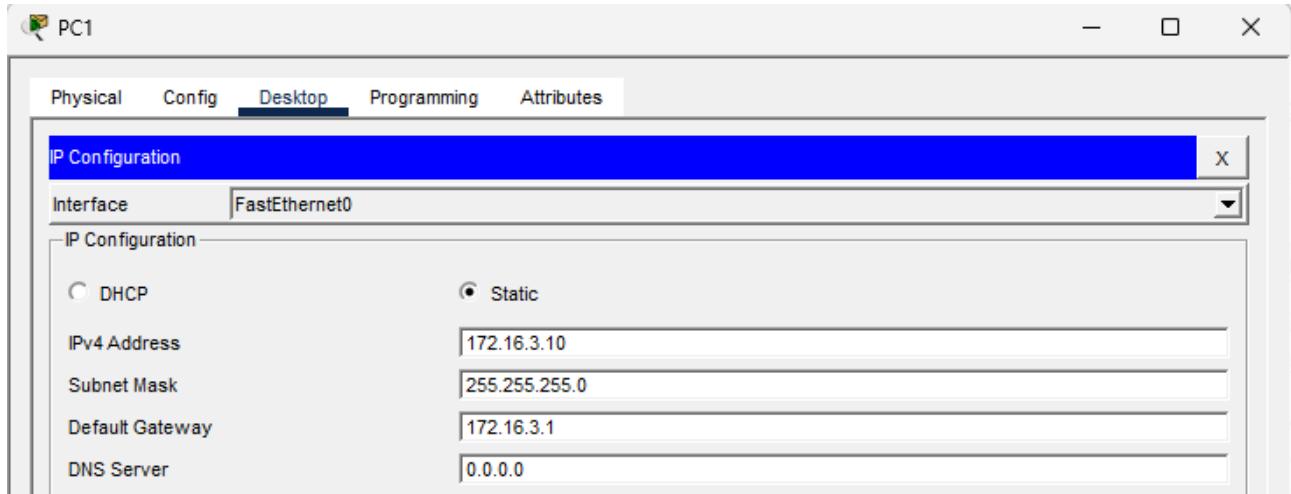
  172.16.0.0/24 is subnetted, 3 subnets
S    172.16.1.0 [1/0] via 192.168.1.2
S    172.16.2.0 [1/0] via 192.168.1.2
S    172.16.3.0 [1/0] via 192.168.1.2
C  192.168.1.0/24 is directly connected, Serial0/0/1
C  192.168.2.0/24 is directly connected, FastEthernet0/0
```

R3#

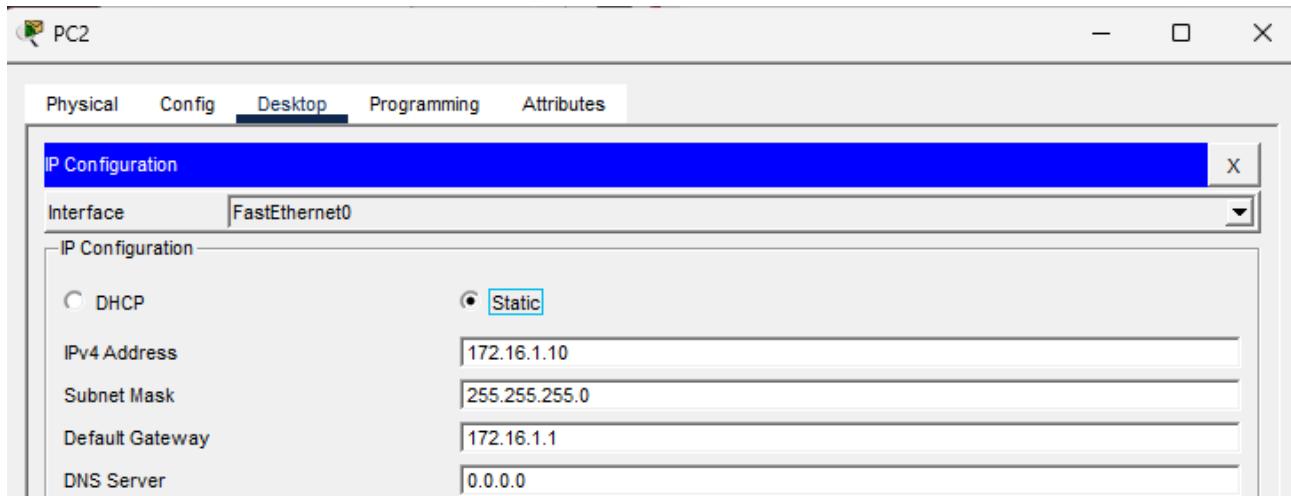
Etape 2 : vérification de la connectivité

A partir de l'invite de commandes sur les trois ordinateurs, on effectue un test ping des deux autres ordinateurs . Tout les pings fonctionnent.

@ip ordinateur 1 :172.16.3.10

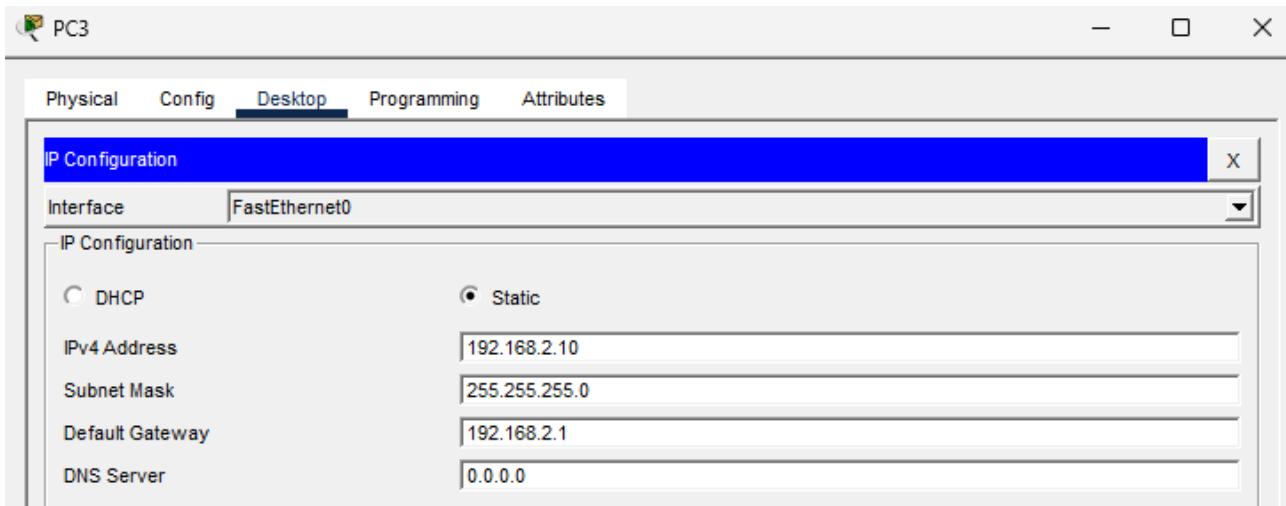


@ip ordinateur 2 :172.16.1.10



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@ip ordinateur 3 :192.168.2.10



Test ping a partir de l'ordinateur 1 :

- ping du pc2

```
C:\>ping 172.16.1.10

Pinging 172.16.1.10 with 32 bytes of data:

Reply from 172.16.1.10: bytes=32 time=8ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126
Reply from 172.16.1.10: bytes=32 time=4ms TTL=126
Reply from 172.16.1.10: bytes=32 time=2ms TTL=126

Ping statistics for 172.16.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 8ms, Average = 3ms

C:\>
```

- ping du pc3

```
C:\>ping 192.168.2.10

Pinging 192.168.2.10 with 32 bytes of data:

Reply from 192.168.2.10: bytes=32 time=14ms TTL=125
Reply from 192.168.2.10: bytes=32 time=2ms TTL=125
Reply from 192.168.2.10: bytes=32 time=2ms TTL=125
Reply from 192.168.2.10: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.2.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 14ms, Average = 5ms

C:\>
```

Test ping a partir de l'ordinateur 2 :

- ping du pc1

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 172.16.3.10

Pinging 172.16.3.10 with 32 bytes of data:

Reply from 172.16.3.10: bytes=32 time=1ms TTL=126
Reply from 172.16.3.10: bytes=32 time=4ms TTL=126
Reply from 172.16.3.10: bytes=32 time=1ms TTL=126
Reply from 172.16.3.10: bytes=32 time=2ms TTL=126

Ping statistics for 172.16.3.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 4ms, Average = 2ms

C:\>
```

-ping du pc3

```
C:\>ping 192.168.2.10

Pinging 192.168.2.10 with 32 bytes of data:

Reply from 192.168.2.10: bytes=32 time=1ms TTL=126
Reply from 192.168.2.10: bytes=32 time=1ms TTL=126
Reply from 192.168.2.10: bytes=32 time=4ms TTL=126
Reply from 192.168.2.10: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.2.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 4ms, Average = 2ms

C:\>
```

Test ping a partir de l'ordinateur 3 :

- ping du pc1

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 172.16.3.10

Pinging 172.16.3.10 with 32 bytes of data:

Reply from 172.16.3.10: bytes=32 time=2ms TTL=125
Reply from 172.16.3.10: bytes=32 time=8ms TTL=125
Reply from 172.16.3.10: bytes=32 time=2ms TTL=125
Reply from 172.16.3.10: bytes=32 time=2ms TTL=125

Ping statistics for 172.16.3.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 8ms, Average = 3ms

C:\>
```

TP 7- Route statique résumée et route par défaut

- ping du pc2

```
C:\>ping 172.16.1.10

Pinging 172.16.1.10 with 32 bytes of data:

Reply from 172.16.1.10: bytes=32 time=9ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126

Ping statistics for 172.16.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 9ms, Average = 3ms

C:\>
```

2. Résumé des routes statiques (routeur R3)

Etape 1 : remplacement des routes statiques existantes par une route résumée (agrégée)

On passe en mode Configuration globale sur le routeur R3 et entre les commandes suivantes :

```
R3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#
```

- R3(config)#no ip route 172.16.1.0 255.255.255.0 192.168.1.2
- R3(config)#no ip route 172.16.2.0 255.255.255.0 192.168.1.2
- R3(config)#no ip route 172.16.3.0 255.255.255.0 192.168.1.2
- R3(config)#ip route 172.16.0.0 255.255.252.0 192.168.1.2

```
R3(config)#no ip route 172.16.1.0 255.255.255.0 192.168.1.2
R3(config)#no ip route 172.16.2.0 255.255.255.0 192.168.1.2
R3(config)#no ip route 172.16.3.0 255.255.255.0 192.168.1.2
R3(config)#ip route 172.16.0.0 255.255.252.0 192.168.1.2
R3(config)#

```

Etape 2 : enregistrement des configurations mises à jour

Sur le routeur R3, on quitte le mode de configuration à l'aide de la combinaison de touches Ctrl+z.
On enregistre la configuration en exécutant la commande copy run start (copy running-config startup-config).

```
R3#  
%SYS-5-CONFIG_I: Configured from console by console  
copy run start  
Destination filename [startup-config]?  
Building configuration...  
[OK]  
R3#
```

Etape 3 : consultation de la configuration

Sur le routeur R3 :

- On entre la commande `sh run (show running-config)` pour vérifier la nouvelle configuration du routage statique.

```
R3#sh run
Building configuration...

Current configuration : 878 bytes
!
version 12.3
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R3
!
!
!
enable secret 5 $1$PCsi$wSNWHdMCJ/OFjFulaGztP0
!
!
!
!
ip cef
no ipv6 cef
--More--
```

```
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
    mac-address 0003.e472.7a36
    ip address 192.168.2.1 255.255.255.0
    duplex auto
    speed auto
!
interface FastEthernet0/1
    mac-address 0006.2a91.d285
    no ip address
    duplex auto
    speed auto
```

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```
shutdown
!
ip classless
ip route 172.16.0.0 255.255.252.0 192.168.1.2
!
ip flow-export version 9
!
!
!
!
!
!
line con 0
password cisco
login
!
line aux 0
!
line vty 0 4
password cisco
login
!
!
!
end
```

R3#

- On entre la commande show ip route pour afficher la table de routage modifiée. Une seule route statique accède à chaque réseau distant .

```
R3#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route
```

```
Gateway of last resort is not set

      172.16.0.0/22 is subnetted, 1 subnets
S        172.16.0.0 [1/0] via 192.168.1.2
C        192.168.1.0/24 is directly connected, Serial0/0/1
C        192.168.2.0/24 is directly connected, FastEthernet0/0
```

R3#

Etape 4 : vérification de la connectivité

A partir de l'invite de commandes sur PC3, on effectue un test ping des deux autres ordinateurs. Tous les tests ping doivent aboutir .

Pc2 :

```
C:\>ping 172.16.1.10

Pinging 172.16.1.10 with 32 bytes of data:

Reply from 172.16.1.10: bytes=32 time=9ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126
Reply from 172.16.1.10: bytes=32 time=4ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126

Ping statistics for 172.16.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 9ms, Average = 3ms

C:\>
```

Pc1 :

```
C:\>ping 172.16.3.10

Pinging 172.16.3.10 with 32 bytes of data:

Reply from 172.16.3.10: bytes=32 time=2ms TTL=125
Reply from 172.16.3.10: bytes=32 time=2ms TTL=125
Reply from 172.16.3.10: bytes=32 time=9ms TTL=125
Reply from 172.16.3.10: bytes=32 time=4ms TTL=125

Ping statistics for 172.16.3.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 9ms, Average = 4ms

C:\>
```

3. Configuration d'un réseau d'extrémité (routeur R1)

Etape 1 : remplacement des routes statiques existantes par une route par défaut

On passe en mode de configuration globale sur le routeur R1 et on entre les commandes suivantes :

```
Password:
R1>enable
Password:
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#
```

TP 7- Route statique résumée et route par défaut

- R1(config)#no ip route 172.16.1.0 255.255.255.0 172.16.2.2
- R1(config)#no ip route 192.168.1.0 255.255.255.0 172.16.2.2
- R1(config)#no ip route 192.168.2.0 255.255.255.0 172.16.2.2
- R1(config)#ip route 0.0.0.0 0.0.0.0 172.16.2.2

```
R1(config)#no ip route 172.16.1.0 255.255.255.0 172.16.2.2
R1(config)#no ip route 192.168.1.0 255.255.255.0 172.16.2.2
R1(config)#no ip route 192.168.2.0 255.255.255.0 172.16.2.2
R1(config)#ip route 0.0.0.0 0.0.0.0 172.16.2.2
R1(config)#

```

Etape 2 : enregistrement des configurations mises à jour

Sur le routeur R1, on quitte le mode de configuration à l'aide de la combinaison de touches Ctrl+z.
On enregistre la configuration en exécutant la commande copy run start.

```
R1#
%SYS-5-CONFIG_I: Configured from console by console
copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R1#

```

Etape 3 : consultation de la configuration Sur le routeur R1 :

- On entre la commande show running-config pour vérifier la nouvelle configuration du routage statique .

```
R1#show running-config
Building configuration...

Current configuration : 828 bytes
!
version 12.3
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$.3RO$VLUOdBF2OqNBn0EjQBvR./
!
!
!
!
!
ip cef
no ipv6 cef

```

```
spanning-tree mode pvst
!
!
!
!
!
interface FastEthernet0/0
 ip address 172.16.3.1 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 172.16.2.1 255.255.255.0
 clock rate 64000
!
interface Serial0/0/1
 no ip address
 clock rate 2000000
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 0.0.0.0 0.0.0.0 172.16.2.2
!
```

```
ip flow-export version 9
```

```
!
!
!
!
!
!
line con 0
 password cisco
 login
!
line aux 0
!
line vty 0 4
 password cisco
 login
!
!
!
end
```

```
R1#
```

TP 7- Route statique résumée et route par défaut

- On entre la commande show ip route pour afficher la table de routage modifiée. Une seule route statique par défaut accède à chaque réseau distant .

```
R1#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is 172.16.2.2 to network 0.0.0.0

  172.16.0.0/24 is subnetted, 2 subnets
C        172.16.2.0 is directly connected, Serial0/0/0
C        172.16.3.0 is directly connected, FastEthernet0/0
S*    0.0.0.0/0 [1/0] via 172.16.2.2

R1#
```

Etape 4 : vérification de la connectivité A partir de l'invite de commandes sur PC1, on effectue un test ping des deux autres ordinateurs. En principe, tous les tests ping doivent aboutir .

Pc3 :

```
C:\>ping 192.168.2.10

Pinging 192.168.2.10 with 32 bytes of data:

Reply from 192.168.2.10: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.2.10:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 2ms, Maximum = 2ms, Average = 2ms

C:\>
```

Pc2 :

```
C:\>ping 172.16.1.10

Pinging 172.16.1.10 with 32 bytes of data:

Reply from 172.16.1.10: bytes=32 time=1ms TTL=126
Reply from 172.16.1.10: bytes=32 time=3ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126
Reply from 172.16.1.10: bytes=32 time=1ms TTL=126

Ping statistics for 172.16.1.10:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>
```