

TP6 : ROUTAGE STATIQUE

I. Visualisation de la table de routage.

- On clique une fois sur le routeur **R11**.
- Puis, on sélectionne l'onglet **CLI** (*Command Line Interface*).
- Ensuite on appuie sur la touche [Entrée], et le prompt R11 > apparaît.
- Et enfin on tape la commande : **sh ip route** (*sh = show*)

```
R11>sh 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

10.0.0.0/24 is subnetted, 2 subnets
C      10.0.8.0 is directly connected, FastEthernet0/0
C      10.0.11.0 is directly connected, FastEthernet0/1
```

- On clique une fois sur **PC11**, et j'active l'onglet **Desktop**.
- On clique sur **Command Prompt** qui est *l'invite de commande*.

On tape ensuite plusieurs commandes ping afin de tester toutes les interfaces qui séparent PC11 de PC12 :

- PC> **ping 10.0.11.1** (R11 côté réseau 11)
- PC> **ping 10.0.8.11** (R11 côté réseau 8)
- ➔ On remarque que l'on obtient les réponses aux demandes d'écho (trames ICMP)
- Je fais un **ping 10.0.8.12** (R12 coté réseau 8)
- ➔ (On remarque que ça ne passe plus)

```

C:\>ping 10.0.8.12

Pinging 10.0.8.12 with 32 bytes of data:

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

Ping statistics for 10.0.8.12:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.11.1

Pinging 10.0.11.1 with 32 bytes of data:

Reply from 10.0.11.1: bytes=32 time<1ms TTL=255
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.0.11.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 10.0.11.1

Pinging 10.0.11.1 with 32 bytes of data:

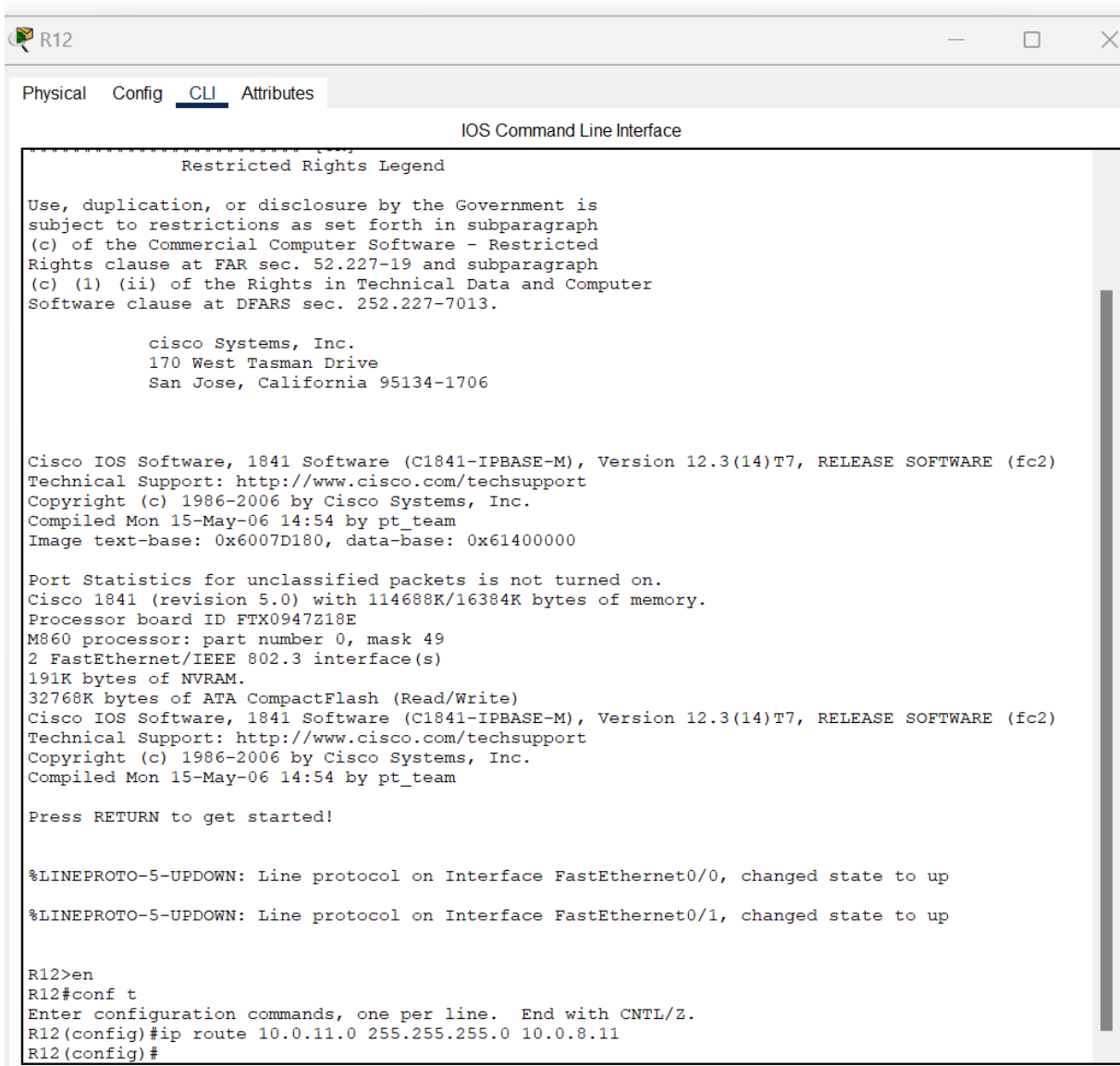
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255
Reply from 10.0.11.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.0.11.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

```

2. Ajout d'une route statique sur R12.

- On clique une fois sur le routeur R12.
- On active l'onglet CLI
- On appuie sur la touche [Entrée]
- Une fois que le prompt apparaît, on tape la commande : R12> **en** (enable)
- Une fois que le prompt est devenu R12#, on tape la commande : **conf t**
- Une fois que R12(config)# apparaît on tape la commande suivante :
➔ R12(config)# ip route 10.0.11.0 255.255.255.0 10.0.8.11



```
R12
Physical Config CLI Attributes
IOS Command Line Interface

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    cisco Systems, Inc.
    170 West Tasman Drive
    San Jose, California 95134-1706

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Image text-base: 0x6007D180, data-base: 0x61400000

Port Statistics for unclassified packets is not turned on.
Cisco 1841 (revision 5.0) with 114688K/16384K bytes of memory.
Processor board ID FTX0947218E
M860 processor: part number 0, mask 49
2 FastEthernet/IEEE 802.3 interface(s)
191K bytes of NVRAM.
32768K bytes of ATA CompactFlash (Read/Write)
Cisco IOS Software, 1841 Software (C1841-IPBASE-M), Version 12.3(14)T7, RELEASE SOFTWARE (fc2)
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Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

R12>en
R12#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R12(config)#ip route 10.0.11.0 255.255.255.0 10.0.8.11
R12(config)#
```

➔ Ensuite on tape les commandes suivantes :

- R12(config)# exit

```
R12(config)#exit
R12#
%SYS-5-CONFIG_I: Configured from console by console
```

- R12# sh run

```
R12#sh run
Building configuration...

Current configuration : 646 bytes
!
version 12.3
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R12
!
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
ip ssh version 1
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 10.0.8.12 255.255.255.0
 duplex auto
 speed auto
!
```


3. Ajout d'une route statique sur R11.

➔ On reprend la série de commandes ping là où j'ai interrompu.

- On effectue un ping sur le PC11 avec la commande : PC> **ping 10.0.8.12**

➔ Ça fonctionne

- On effectue un ping sur le PC11 avec la commande : PC> **ping 10.0.12.1**

➔ Ça échoue, car le routeur 11 ne connaît pas le réseau 10.0.12.0/24. Sa table de routage ne comporte, pour l'instant, que les réseaux connectés directement.

```
C:\>ping 10.0.8.12

Pinging 10.0.8.12 with 32 bytes of data:

Reply from 10.0.8.12: bytes=32 time<1ms TTL=254
Reply from 10.0.8.12: bytes=32 time<1ms TTL=254
Reply from 10.0.8.12: bytes=32 time<1ms TTL=254
Reply from 10.0.8.12: bytes=32 time<1ms TTL=254

Ping statistics for 10.0.8.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 10.0.12.1

Pinging 10.0.12.1 with 32 bytes of data:

Reply from 10.0.11.1: Destination host unreachable.
Reply from 10.0.11.1: Destination host unreachable.
Request timed out.
Reply from 10.0.11.1: Destination host unreachable.

Ping statistics for 10.0.12.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

- Donc on va rentrer une route statique sur R11 :

```
R11>en
R11#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R11(config)#ip route 10.0.12.0 255.255.255.0 10.0.8.12
R11(config)#
```

```

R11(config)#exit
R11#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 3 subnets
C       10.0.8.0 is directly connected, FastEthernet0/0
C       10.0.11.0 is directly connected, FastEthernet0/1
S       10.0.12.0 [1/0] via 10.0.8.12

```

- Le ping 10.0.12.1 fonctionne :

```

C:\>ping 10.0.12.1

Pinging 10.0.12.1 with 32 bytes of data:

Reply from 10.0.12.1: bytes=32 time<1ms TTL=254
Reply from 10.0.12.1: bytes=32 time<1ms TTL=254
Reply from 10.0.12.1: bytes=32 time<1ms TTL=254
Reply from 10.0.12.1: bytes=32 time<1ms TTL=254

Ping statistics for 10.0.12.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

```

- On sauvegarde ensuite les modifications effectuées dans R11 :

```

R11#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R11#

```

4. A vous de jouer.

➔ Ajout de toutes les routes depuis R21 :

```
R21>en
R21#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R21(config)#ip route 10.0.22.0 255.255.255.0 10.0.16.22
R21(config)#ip route 10.0.1.0 255.255.255.0 10.0.16.16
R21(config)#ip route 10.0.8.0 255.255.255.0 10.0.16.16
R21(config)#ip route 10.0.11.0 255.255.255.0 10.0.16.16
R21(config)#ip route 10.0.12.0 255.255.255.0 10.0.16.16
```

➔ Ajout de toutes les routes depuis R22 :

```
R21(config)#exit
R21#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 7 subnets
S       10.0.1.0 [1/0] via 10.0.16.16
S       10.0.8.0 [1/0] via 10.0.16.16
S       10.0.11.0 [1/0] via 10.0.16.16
S       10.0.12.0 [1/0] via 10.0.16.16
C       10.0.16.0 is directly connected, FastEthernet0/0
C       10.0.21.0 is directly connected, FastEthernet0/1
S       10.0.22.0 [1/0] via 10.0.16.22

R21#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R21#
```

```

R22#
%SYS-5-CONFIG_I: Configured from console by console
en
R22#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R22(config)#ip route 10.0.21.0 255.255.255.0 10.0.16.21
R22(config)#ip route 10.0.1.0 255.255.255.0 10.0.16.16
R22(config)#ip route 10.0.8.0 255.255.255.0 10.0.16.16
R22(config)#ip route 10.0.11.0 255.255.255.0 10.0.16.16
R22(config)#ip route 10.0.12.0 255.255.255.0 10.0.16.16
R22(config)#exit
R22#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 7 subnets
S       10.0.1.0 [1/0] via 10.0.16.16
S       10.0.8.0 [1/0] via 10.0.16.16
S       10.0.11.0 [1/0] via 10.0.16.16
S       10.0.12.0 [1/0] via 10.0.16.16
C       10.0.16.0 is directly connected, FastEthernet0/0
S       10.0.21.0 [1/0] via 10.0.16.21
C       10.0.22.0 is directly connected, FastEthernet0/1

R22#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R22#

```

➔ Ajout de toutes les routes depuis R11 :

```

R11#
%SYS-5-CONFIG_I: Configured from console by console
conf t
Enter configuration commands, one per line. End with CNTL/Z.
R11(config)#ip route 10.0.1.0 255.255.255.0 10.0.8.8
R11(config)#ip route 10.0.16.0 255.255.255.0 10.0.8.8
R11(config)#ip route 10.0.21.0 255.255.255.0 10.0.8.8
R11(config)#ip route 10.0.22.0 255.255.255.0 10.0.8.8
R11(config)#exit
R11#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 7 subnets
S       10.0.1.0 [1/0] via 10.0.8.8
C       10.0.8.0 is directly connected, FastEthernet0/0
C       10.0.11.0 is directly connected, FastEthernet0/1
S       10.0.12.0 [1/0] via 10.0.8.12
S       10.0.16.0 [1/0] via 10.0.8.8
S       10.0.21.0 [1/0] via 10.0.8.8
S       10.0.22.0 [1/0] via 10.0.8.8

R11#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R11#

```

➔ Ajout de toutes les routes depuis R12 :

```

R12>en
R12#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R12(config)#ip route 10.0.1.0 255.255.255.0 10.0.8.8
R12(config)#ip route 10.0.16.0 255.255.255.0 10.0.8.8
R12(config)#ip route 10.0.21.0 255.255.255.0 10.0.8.8
R12(config)#ip route 10.0.22.0 255.255.255.0 10.0.8.8
R12(config)#exit
R12#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 7 subnets
S       10.0.1.0 [1/0] via 10.0.8.8
C       10.0.8.0 is directly connected, FastEthernet0/0
S       10.0.11.0 [1/0] via 10.0.8.11
C       10.0.12.0 is directly connected, FastEthernet0/1
S       10.0.16.0 [1/0] via 10.0.8.8
S       10.0.21.0 [1/0] via 10.0.8.8
S       10.0.22.0 [1/0] via 10.0.8.8

R12#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R12#

```

➔ Ajout de toutes les routes depuis R8 :

```

R8>en
R8#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R8(config)#ip route 10.0.11.0 255.255.255.0 10.0.8.11
R8(config)#ip route 10.0.12.0 255.255.255.0 10.0.8.12
R8(config)#ip route 10.0.16.0 255.255.255.0 10.0.1.16
R8(config)#ip route 10.0.21.0 255.255.255.0 10.0.1.16
R8(config)#ip route 10.0.22.0 255.255.255.0 10.0.1.16
R8(config)#exit
R8#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 8 subnets
C       10.0.1.0 is directly connected, FastEthernet0/0
C       10.0.2.0 is directly connected, Serial0/0/0
C       10.0.8.0 is directly connected, FastEthernet0/1
S       10.0.11.0 [1/0] via 10.0.8.11
S       10.0.12.0 [1/0] via 10.0.8.12
S       10.0.16.0 [1/0] via 10.0.1.16
S       10.0.21.0 [1/0] via 10.0.1.16
S       10.0.22.0 [1/0] via 10.0.1.16

R8#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R8#

```

➔ Ajout de toutes les routes depuis R16 :

```

R16#
%SYS-5-CONFIG_I: Configured from console by console
en
R16#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R16(config)#ip route 10.0.8.0 255.255.255.0 10.0.1.8
R16(config)#ip route 10.0.11.0 255.255.255.0 10.0.1.8
R16(config)#ip route 10.0.12.0 255.255.255.0 10.0.1.8
R16(config)#ip route 10.0.22.0 255.255.255.0 10.0.16.22
R16(config)#ip route 10.0.21.0 255.255.255.0 10.0.16.21
R16(config)#exit
R16#
%SYS-5-CONFIG_I: Configured from console by console
sh 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

    10.0.0.0/24 is subnetted, 8 subnets
C       10.0.1.0 is directly connected, FastEthernet0/0
C       10.0.2.0 is directly connected, Serial0/0/0
S       10.0.8.0 [1/0] via 10.0.1.8
S       10.0.11.0 [1/0] via 10.0.1.8
S       10.0.12.0 [1/0] via 10.0.1.8
C       10.0.16.0 is directly connected, FastEthernet0/1
S       10.0.21.0 [1/0] via 10.0.16.21
S       10.0.22.0 [1/0] via 10.0.16.22

R16#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R16#

```

➔ Vérification de la connectivité générale de chacun des quatre PC vers les trois autres :

- Depuis le PC11 :

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.12.2

Pinging 10.0.12.2 with 32 bytes of data:

Reply from 10.0.12.2: bytes=32 time<1ms TTL=126
Reply from 10.0.12.2: bytes=32 time<1ms TTL=126
Reply from 10.0.12.2: bytes=32 time<1ms TTL=126
Reply from 10.0.12.2: bytes=32 time=17ms TTL=126

Ping statistics for 10.0.12.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 17ms, Average = 4ms

C:\>ping 10.0.21.2

Pinging 10.0.21.2 with 32 bytes of data:

Reply from 10.0.21.2: bytes=32 time=10ms TTL=124
Reply from 10.0.21.2: bytes=32 time<1ms TTL=124
Reply from 10.0.21.2: bytes=32 time=10ms TTL=124
Reply from 10.0.21.2: bytes=32 time=10ms TTL=124

Ping statistics for 10.0.21.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 7ms

C:\>ping 10.0.22.2

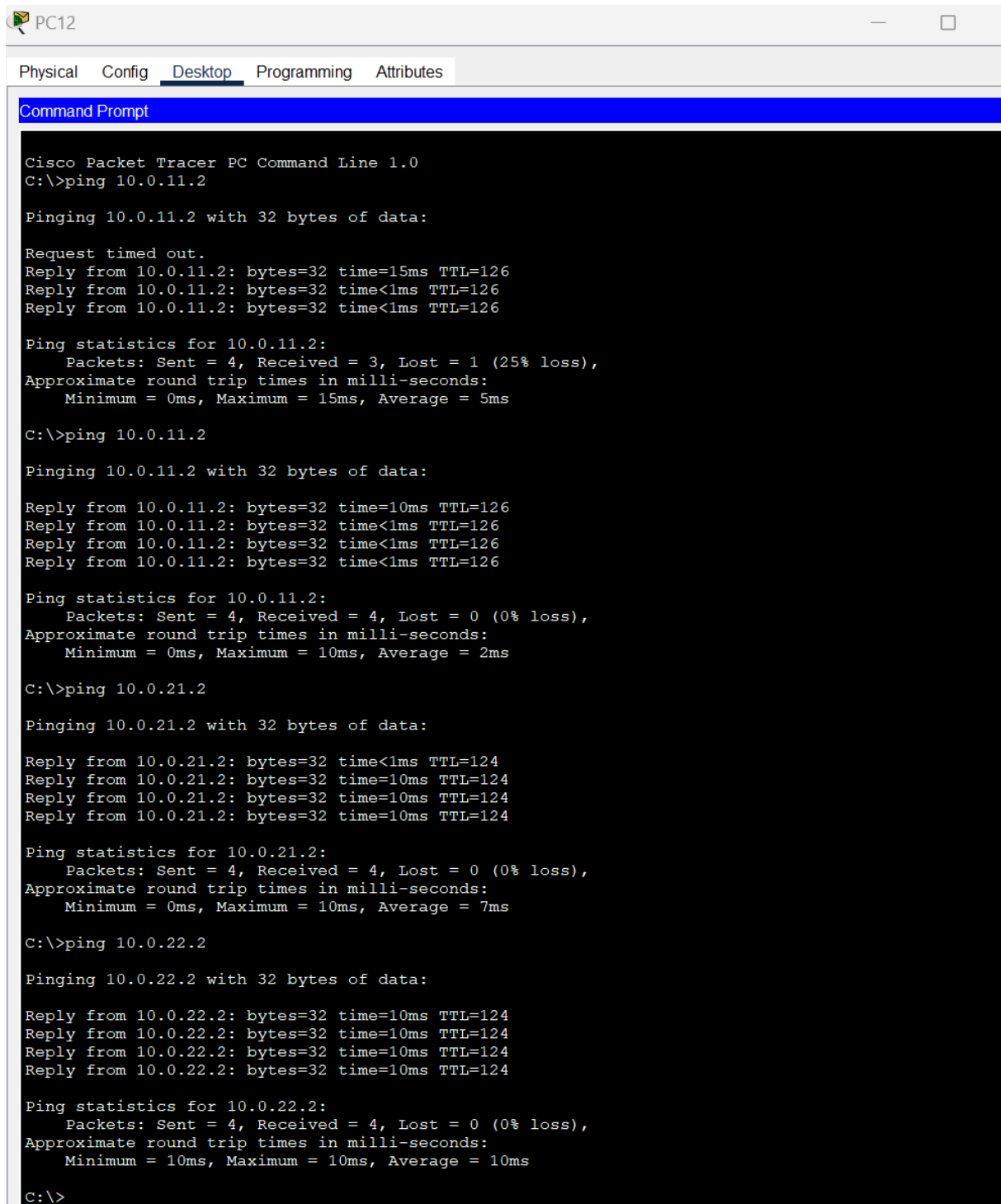
Pinging 10.0.22.2 with 32 bytes of data:

Reply from 10.0.22.2: bytes=32 time=10ms TTL=124
Reply from 10.0.22.2: bytes=32 time=10ms TTL=124
Reply from 10.0.22.2: bytes=32 time=10ms TTL=124
Reply from 10.0.22.2: bytes=32 time<1ms TTL=124

Ping statistics for 10.0.22.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 7ms

C:\>
```

- Depuis le PC12 :



```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.11.2

Pinging 10.0.11.2 with 32 bytes of data:

Request timed out.
Reply from 10.0.11.2: bytes=32 time=15ms TTL=126
Reply from 10.0.11.2: bytes=32 time<1ms TTL=126
Reply from 10.0.11.2: bytes=32 time<1ms TTL=126

Ping statistics for 10.0.11.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 15ms, Average = 5ms

C:\>ping 10.0.11.2

Pinging 10.0.11.2 with 32 bytes of data:

Reply from 10.0.11.2: bytes=32 time=10ms TTL=126
Reply from 10.0.11.2: bytes=32 time<1ms TTL=126
Reply from 10.0.11.2: bytes=32 time<1ms TTL=126
Reply from 10.0.11.2: bytes=32 time<1ms TTL=126

Ping statistics for 10.0.11.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 2ms

C:\>ping 10.0.21.2

Pinging 10.0.21.2 with 32 bytes of data:

Reply from 10.0.21.2: bytes=32 time<1ms TTL=124
Reply from 10.0.21.2: bytes=32 time=10ms TTL=124
Reply from 10.0.21.2: bytes=32 time=10ms TTL=124
Reply from 10.0.21.2: bytes=32 time=10ms TTL=124

Ping statistics for 10.0.21.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 7ms

C:\>ping 10.0.22.2

Pinging 10.0.22.2 with 32 bytes of data:

Reply from 10.0.22.2: bytes=32 time=10ms TTL=124
Reply from 10.0.22.2: bytes=32 time=10ms TTL=124
Reply from 10.0.22.2: bytes=32 time=10ms TTL=124
Reply from 10.0.22.2: bytes=32 time=10ms TTL=124

Ping statistics for 10.0.22.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 10ms, Average = 10ms

C:\>
```

- Depuis le PC21 :

```

C:\>ping 10.0.11.2

Pinging 10.0.11.2 with 32 bytes of data:

Reply from 10.0.11.2: bytes=32 time=10ms TTL=124
Reply from 10.0.11.2: bytes=32 time=10ms TTL=124
Reply from 10.0.11.2: bytes=32 time=11ms TTL=124
Reply from 10.0.11.2: bytes=32 time=12ms TTL=124

Ping statistics for 10.0.11.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 12ms, Average = 10ms

C:\>
C:\>ping 10.0.12.2

Pinging 10.0.12.2 with 32 bytes of data:

Reply from 10.0.12.2: bytes=32 time=9ms TTL=124
Reply from 10.0.12.2: bytes=32 time=10ms TTL=124
Reply from 10.0.12.2: bytes=32 time=10ms TTL=124
Reply from 10.0.12.2: bytes=32 time=10ms TTL=124

Ping statistics for 10.0.12.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 9ms, Maximum = 10ms, Average = 9ms

C:\>ping 10.0.22.2

Pinging 10.0.22.2 with 32 bytes of data:

Reply from 10.0.22.2: bytes=32 time=1ms TTL=126
Reply from 10.0.22.2: bytes=32 time<1ms TTL=126
Reply from 10.0.22.2: bytes=32 time<1ms TTL=126
Reply from 10.0.22.2: bytes=32 time<1ms TTL=126

Ping statistics for 10.0.22.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

```

- Depuis le PC22 :

PC22

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.21.2

Pinging 10.0.21.2 with 32 bytes of data:

Reply from 10.0.21.2: bytes=32 time<1ms TTL=126
Reply from 10.0.21.2: bytes=32 time<1ms TTL=126
Reply from 10.0.21.2: bytes=32 time<1ms TTL=126
Reply from 10.0.21.2: bytes=32 time=3ms TTL=126

Ping statistics for 10.0.21.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 3ms, Average = 0ms

C:\>ping 10.0.12.2

Pinging 10.0.12.2 with 32 bytes of data:

Request timed out.
Reply from 10.0.12.2: bytes=32 time=10ms TTL=124
Reply from 10.0.12.2: bytes=32 time=10ms TTL=124
Reply from 10.0.12.2: bytes=32 time<1ms TTL=124

Ping statistics for 10.0.12.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 6ms

C:\>ping 10.0.11.2

Pinging 10.0.11.2 with 32 bytes of data:

Reply from 10.0.11.2: bytes=32 time=10ms TTL=124
Reply from 10.0.11.2: bytes=32 time=10ms TTL=124
Reply from 10.0.11.2: bytes=32 time=10ms TTL=124
Reply from 10.0.11.2: bytes=32 time=10ms TTL=124

Ping statistics for 10.0.11.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 10ms, Average = 10ms

C:\>
```