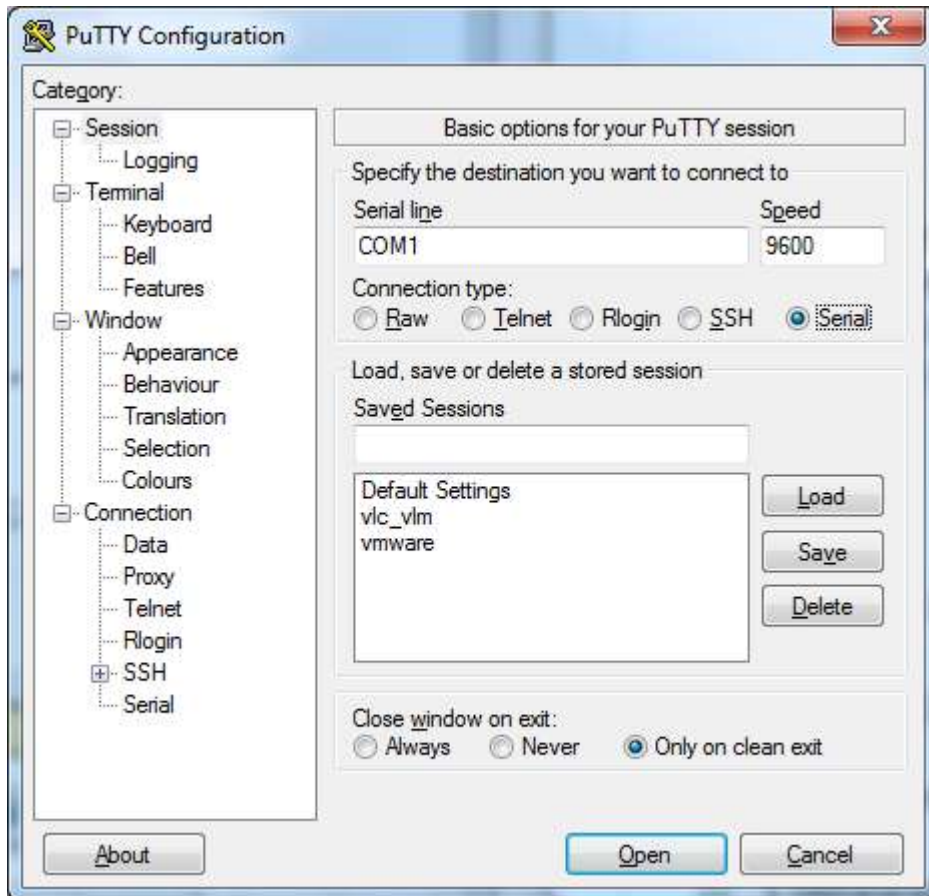


Connexion au routeur via le cable console pour le configurer



Configuration de base du routeur

```
COM1 - PuTTY

Router>enable
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname GAD
GAD(config)#enable pa
GAD(config)#enable password cisco
GAD(config)#enable secret class
GAD(config)#line vty 0 4
GAD(config-line)#password cisco
GAD(config-line)#login
GAD(config-line)#exit
GAD(config)#in
GAD(config)#interface f
GAD(config)#interface fastEthernet 0/0
GAD(config-if)#ip ad
GAD(config-if)#ip add
GAD(config-if)#ip address 192.168.14.1 255.255.255.0
GAD(config-if)#exit
```

Configuration de l'interface serial

```
GAD#conf t
Enter configuration commands, one per line. End with CNTL/Z.
GAD(config)#int
GAD(config)#interface ser
GAD(config)#interface serial 0/0/0
GAD(config-if)#ip add
GAD(config-if)#ip address 192.168.15.1 255.255.255.0
GAD(config-if)#exit
GAD(config)#exit
GAD#
*Mar 16 09:33:17.879: %SYS-5-CONFIG_I: Configured from console by console
GAD#
```

```
COM1 - PuTTY
GAD(config)#interface serial 0/0/0
GAD(config-if)#cl
GAD(config-if)#cloc
GAD(config-if)#clock rate 2000000
```

Etat de l'IP route

```
COM1 - PuTTY
GAD#show ip route
*Mar 16 09:57:56.403: %SYS-5-CONFIG_I: Configured from console by console
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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

C    192.168.14.0/24 is directly connected, FastEthernet0/0
C    192.168.15.0/24 is directly connected, Serial0/0/0
GAD#
```

Etat de la table de routage d'un poste de travail

```
C:\Users\eleve>netstat -r

Liste d'Interfaces
11...00 25 64 b5 43 be .....Intel(R) 82567LM-3 Gigabit Network Connection
1.....Software Loopback Interface 1
12...00 00 00 00 00 00 e0 Teredo Tunneling Pseudo-Interface
13...00 00 00 00 00 00 e0 Carte Microsoft ISATAP #2

IPv4 Table de routage

Itinéraires actifs :
Destination réseau    Masque réseau    Adr. passerelle    Adr. interface    Métrique
0.0.0.0                0.0.0.0          192.168.14.1       192.168.14.2      276
127.0.0.0              255.0.0.0        On-link            127.0.0.1         306
127.0.0.1              255.255.255.255  On-link            127.0.0.1         306
127.255.255.255        255.255.255.255  On-link            127.0.0.1         306
192.168.14.0           255.255.255.0    On-link            192.168.14.2      276
192.168.14.2           255.255.255.255  On-link            192.168.14.2      276
192.168.14.255        255.255.255.255  On-link            192.168.14.2      276
224.0.0.0              240.0.0.0        On-link            127.0.0.1         306
224.0.0.0              240.0.0.0        On-link            192.168.14.2      276
255.255.255.255        255.255.255.255  On-link            127.0.0.1         306
255.255.255.255        255.255.255.255  On-link            192.168.14.2      276

Itinéraires persistants :
Adresse réseau    Masque réseau    Adresse passerelle    Métrique
0.0.0.0           0.0.0.0          192.168.14.1         Par défaut

IPv6 Table de routage

Itinéraires actifs :
If Metric Network Destination    Gateway
1 306 ::1/128                    On-link
1 306 ff00::/8                    On-link

Itinéraires persistants :
Aucun

C:\Users\eleve>
```

pour que les 192,168,15,2 et 192,168,16,2 réponde il faut déclarer les routes au niveau du router en utilisant par exemple les routes statiques ou le RIP.

Declaration de la route static

```
COM1 - PuTTY

GAD# conf t
Enter configuration commands, one per line.  End with CNTL/Z.
GAD(config)#ip route 192.168.16.0 255.255.255.0 168.168.15.2
GAD(config)#
```

Declaration et show ip sur BHM

```
COM1 - PuTTY
% Incomplete command.

BHM(config)#ip route 192.168.14.0 255.255.255.0 192.168.15.1
BHM(config)#show ip route
      ^
% Invalid input detected at '^' marker.

BHM(config)#exit
BHM#show
00:52:35: %SYS-5-CONFIG_I: Configured from console by consoleip 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

S    192.168.14.0/24 [1/0] via 192.168.15.1
C    192.168.15.0/24 is directly connected, Serial0/0
C    192.168.16.0/24 is directly connected, Ethernet0/0
BHM#
```

Ping avec route statique

```
CA\ Administrateur : C:\Windows\system32\cmd.exe
Statistiques Ping pour 192.168.15.2:
  Paquets : envoyés = 4, reçus = 0, perdus = 4 (perte 100%),
C:\Users\eleve>ping 192.168.15.2
Envoi d'une requête 'Ping' 192.168.15.2 avec 32 octets de données :
Délai d'attente de la demande dépassé.
Délai d'attente de la demande dépassé.
Délai d'attente de la demande dépassé.
Délai d'attente de la demande dépassé.
Statistiques Ping pour 192.168.15.2:
  Paquets : envoyés = 4, reçus = 0, perdus = 4 (perte 100%),
C:\Users\eleve>ping 192.168.15.2
Envoi d'une requête 'Ping' 192.168.15.2 avec 32 octets de données :
Réponse de 192.168.15.2 : octets=32 temps=2 ms TTL=254
Réponse de 192.168.15.2 : octets=32 temps=2 ms TTL=254
Réponse de 192.168.15.2 : octets=32 temps=2 ms TTL=254
Réponse de 192.168.15.2 : octets=32 temps=2 ms TTL=254
Statistiques Ping pour 192.168.15.2:
  Paquets : envoyés = 4, reçus = 4, perdus = 0 (perte 0%),
Durée approximative des boucles en millisecondes :
  Minimum = 2ms, Maximum = 2ms, Moyenne = 2ms
C:\Users\eleve>ping 192.168.16.2
Envoi d'une requête 'Ping' 192.168.16.2 avec 32 octets de données :
Réponse de 192.168.16.2 : octets=32 temps=3 ms TTL=126
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126
Statistiques Ping pour 192.168.16.2:
  Paquets : envoyés = 4, reçus = 4, perdus = 0 (perte 0%),
Durée approximative des boucles en millisecondes :
  Minimum = 1ms, Maximum = 3ms, Moyenne = 1ms
C:\Users\eleve>_
```

Table de routage avec route statique

```

C:\Users\eleve>netstat -r
=====
Liste d'Interfaces
11...00 25 64 b5 43 be .....Intel(R) 82567LM-3 Gigabit Network Connection
1.....Software Loopback Interface 1
12...00 00 00 00 00 00 e0 Teredo Tunneling Pseudo-Interface
13...00 00 00 00 00 00 e0 Carte Microsoft ISATAP #2
=====

IPv4 Table de routage
=====
Itinéraires actifs :
Destination réseau      Masque réseau  Adr. passerelle  Adr. interface  Métrique
0.0.0.0                 0.0.0.0       192.168.14.1     192.168.14.2    276
127.0.0.0               255.0.0.0     On-link          127.0.0.1       306
127.0.0.1               255.255.255.255 On-link          127.0.0.1       306
127.255.255.255         255.255.255.255 On-link          127.0.0.1       306
192.168.14.0            255.255.255.0 On-link          192.168.14.2    276
192.168.14.2            255.255.255.255 On-link          192.168.14.2    276
192.168.14.255          255.255.255.255 On-link          192.168.14.2    276
224.0.0.0               240.0.0.0     On-link          127.0.0.1       306
224.0.0.0               240.0.0.0     On-link          192.168.14.2    276
255.255.255.255         255.255.255.255 On-link          127.0.0.1       306
255.255.255.255         255.255.255.255 On-link          192.168.14.2    276
=====
Itinéraires persistants :
Adresse réseau      Masque réseau  Adresse passerelle  Métrique
0.0.0.0             0.0.0.0       192.168.14.1      Par défaut
=====

IPv6 Table de routage
=====
Itinéraires actifs :
If Metric Network Destination      Gateway
1      306 ::1/128                      On-link
1      306 ff00::/8                      On-link
=====
Itinéraires persistants :
Aucun
C:\Users\eleve>

```

Suppression des routes static

```

COM1 - PuTTY
GAD(config)#no ip route 192.168.16.0 255.255.255.0 192.168.15.2
GAD(config)#exit
GAD#sho
*Mar 16 10:20:02.703: %SYS-5-CONFIG_I: Configured from console by consolew ip ro
ute
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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

C      192.168.14.0/24 is directly connected, FastEthernet0/0
C      192.168.15.0/24 is directly connected, Serial0/0/0
GAD#

```

Configuration du rip

```
COM1 - PuTTY
GAD#conf t
Enter configuration commands, one per line. End with CNTL/Z.
GAD(config)#rout
GAD(config)#router rip
GAD(config-router)#network 192.168.14.0
GAD(config-router)#network 192.168.15.0
GAD(config-router)#
```

Ping et table de routage sur le poste avec le RIP

```
Administrateur : C:\Windows\system32\cmd.exe

Envoi d'une requête 'Ping' 192.168.16.2 avec 32 octets de données :
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126
Réponse de 192.168.16.2 : octets=32 temps=1 ms TTL=126

Statistiques Ping pour 192.168.16.2:
    Paquets : envoyés = 4, reçus = 4, perdus = 0 (perte 0%),
Durée approximative des boucles en millisecondes :
    Minimum = 1ms, Maximum = 1ms, Moyenne = 1ms

C:\Users\eleve>netstat -r

=====
Liste d'Interfaces
 11...00 25 64 b5 43 be .....Intel(R) 82567LM-3 Gigabit Network Connection
 1.....Software Loopback Interface 1
 12...00 00 00 00 00 00 e0 Teredo Tunneling Pseudo-Interface
 13...00 00 00 00 00 00 e0 Carte Microsoft ISATAP #2
=====

IPv4 Table de routage
=====
Itinéraires actifs :
Destination réseau    Masque réseau    Adr. passerelle    Adr. interface    Métrique
0.0.0.0                0.0.0.0          192.168.14.1       192.168.14.2      276
127.0.0.0              255.0.0.0        On-link            127.0.0.1         306
127.0.0.1              255.255.255.255  On-link            127.0.0.1         306
127.255.255.255        255.255.255.255  On-link            127.0.0.1         306
192.168.14.0           255.255.255.0    On-link            192.168.14.2      276
192.168.14.2           255.255.255.255  On-link            192.168.14.2      276
192.168.14.255         255.255.255.255  On-link            192.168.14.2      276
224.0.0.0              240.0.0.0        On-link            127.0.0.1         306
224.0.0.0              240.0.0.0        On-link            192.168.14.2      276
255.255.255.255        255.255.255.255  On-link            127.0.0.1         306
255.255.255.255        255.255.255.255  On-link            192.168.14.2      276
=====
Itinéraires persistants :
Adresse réseau    Masque réseau    Adresse passerelle    Métrique
0.0.0.0           0.0.0.0          192.168.14.1          Par défaut
=====

IPv6 Table de routage
=====
Itinéraires actifs :
If Metric Network Destination    Gateway
1    306 ::1/128                      On-link
1    306 ff00::/8                      On-link
=====
Itinéraires persistants :
Aucun

C:\Users\eleve>
```

Le RIP ou la route statique ne change pas la vision du poste de travail.

Declaration et show ip route sur BHM

```
COM1 - PuTTY
BHM(config)#show ip
BHM(config)#show ip route
^
% Invalid input detected at '^' marker.

BHM(config)#exit
BHM#route print
00:28:34: %SYS-5-CONFIG_I: Configured from console
BHM#show ip rou
BHM#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

R    192.168.14.0/24 [120/1] via 192.168.15.1, 00:00:00, Serial0/0
C    192.168.15.0/24 is directly connected, Serial0/0
C    192.168.16.0/24 is directly connected, Ethernet0/0
BHM#
```

```
GAD>show ip protocols
Routing Protocol is "rip"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Sending updates every 30 seconds, next due in 20 seconds
  Invalid after 180 seconds, hold down 180, flushed after 240
  Redistributing: rip
  Default version control: send version 1, receive any version
    Interface        Send Recv Triggered RIP Key-chain
  FastEthernet0/0    1    1 2
  Serial0/0/0        1    1 2
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  192.168.14.0
  192.168.15.0
Routing Information Sources:
  Gateway         Distance   Last Update
  192.168.15.2     120       00:00:10
Distance: (default is 120)
```

La distance administrative est 120. Nous sommes à 1 hop de 192,168,15,2

Gateway of last resort is not set

```
C 192.168.14.0/24 is directly connected, FastEthernet0/0
C 192.168.15.0/24 is directly connected, Serial0/0/0
R 192.168.16.0/24 [120/1] via 192.168.15.2, 00:00:27, Serial0/0/0
```

GAD>show ip route

Codes: C - connected, S - static, 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
i - IS-IS, su - IS-IS summary, 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

```
C 192.168.14.0/24 is directly connected, FastEthernet0/0
C 192.168.15.0/24 is directly connected, Serial0/0/0
R 192.168.16.0/24 [120/1] via 192.168.15.2, 00:00:01, Serial0/0/0
```

GAD>

La table est mise à jour toute les 30 secondes

No.	Time	Source	Destination	Protocol	Info
2	0.630041	192.168.14.1	255.255.255.255	RIPV1	Response
21	26.399700	192.168.14.1	255.255.255.255	RIPV1	Response
40	53.739569	192.168.14.1	255.255.255.255	RIPV1	Response
65	83.576638	192.168.14.1	255.255.255.255	RIPV1	Response
84	109.945430	192.168.14.1	255.255.255.255	RIPV1	Response
108	138.634124	192.168.14.1	255.255.255.255	RIPV1	Response
129	167.527055	192.168.14.1	255.255.255.255	RIPV1	Response

Frame 21 (86 bytes on wire, 86 bytes captured)

- Ethernet II, Src: Cisco_04:a7:b0 (00:1d:a1:04:a7:b0), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
 - Destination: Broadcast (ff:ff:ff:ff:ff:ff)
 - Source: Cisco_04:a7:b0 (00:1d:a1:04:a7:b0)
 - Type: IP (0x0800)
- Internet Protocol, Src: 192.168.14.1 (192.168.14.1), Dst: 255.255.255.255 (255.255.255.255)
- User Datagram Protocol, Src Port: router (520), Dst Port: router (520)
- Routing Information Protocol
 - command: Response (2)
 - version: RIPv1 (1)
 - IP Address: 192.168.15.0, Metric: 1
 - Address Family: IP (2)
 - IP Address: 192.168.15.0 (192.168.15.0)
 - Metric: 1
 - IP Address: 192.168.16.0, Metric: 2
 - Address Family: IP (2)
 - IP Address: 192.168.16.0 (192.168.16.0)
 - Metric: 2

0000 ff ff ff ff ff ff 00 1d a1 04 a7 b0 08 00 45 c0 E.
 0010 00 48 00 00 00 00 02 11 e9 3c c0 a8 0e 01 ff ff .H.....<.....
 0020 ff ff 02 08 02 08 00 34 8a 73 02 01 00 00 00 02 4.S.....
 0030 00 00 00 a8 0f 00 00 00 00 00 00 00 00 00 00
 0040 00 01 00 02 00 00 c0 a8 10 00 00 00 00 00 00
 0050 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0060 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Toute les 30 secondes on peut voir la transmission de la table de routage

Propager la mise a jour des tables RIP sur un réseau public commuté provoque un trafic important sur de nombreuses stations. De plus, cela envoie la table de routage des adresses privées sur le réseau public ce qui est inutile.

Configuration de BHM en mode passif

```
BHM(config)#router rip
BHM(config-router)#passive-interface serial 0/0
```

```
GAD#show ip route
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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
```

```
C 192.168.14.0/24 is directly connected, FastEthernet0/0
C 192.168.15.0/24 is directly connected, Serial0/0/0
R 192.168.16.0/24 [120/1] via 192.168.15.2, 00:01:37, Serial0/0/0
```

la disparition du réseau n'est pas immédiate

```
BHM#show ip rip database
192.168.14.0/24 auto-summary
192.168.14.0/24
[1] via 192.168.15.1, 00:00:10, Serial0/0
192.168.15.0/24 auto-summary
192.168.15.0/24 directly connected, Serial0/0
192.168.16.0/24 is possibly down
192.168.16.0/24 is possibly down
```

MOINS D'UNE MINUTE

```
BHM#show ip rip database
192.168.14.0/24 auto-summary
192.168.14.0/24
[1] via 192.168.15.1, 00:00:27, Serial0/0
192.168.15.0/24 auto-summary
192.168.15.0/24 directly connected, Serial0/0
```

```
GAD(config)#interface serial 0/0/0
GAD(config-if)#no ip s
GAD(config-if)#no ip sp
GAD(config-if)#no ip split-horizon
GAD(config-if)#exit
GAD(config)#exit
GAD#show ip route
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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

```
C 192.168.14.0/24 is directly connected, FastEthernet0/0
```

```
C 192.168.15.0/24 is directly connected, Serial0/0/0
```

PARTIE 2

Liste des tables de routages

```
GAD#show ip route
```

```
Codes: C - connected, S - static, 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  
i - IS-IS, su - IS-IS summary, 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

```
C 192.168.13.0/24 is directly connected, Serial0/0/1  
C 192.168.14.0/24 is directly connected, FastEthernet0/0  
C 192.168.15.0/24 is directly connected, Serial0/0/0  
R 192.168.16.0/24 [120/1] via 192.168.15.2, 00:00:01, Serial0/0/0  
[120/1] via 192.168.13.2, 00:00:01, Serial0/0/1$*
```

on constate la présence de deux routes pour un même réseau

```
GAD#show ip interface serial 0/0/0 | inc fast
```

```
IP fast switching is enabled  
IP fast switching on the same interface is enabled  
IP multicast fast switching is enabled  
IP multicast distributed fast switching is disabled
```

```
GAD#show ip interface serial 0/0/1 | inc fast
```

```
IP fast switching is enabled  
IP fast switching on the same interface is enabled  
IP multicast fast switching is enabled  
IP multicast distributed fast switching is disabled
```

deactivation du fast switching :

```
GAD(config)#interface serial 0/0/0  
GAD(config-if)#no ip rout  
GAD(config-if)#no ip route-c  
GAD(config-if)#no ip route-cache  
GAD(config-if)#exit  
GAD(config)#interface serial 0/0/1  
GAD(config-if)#no ip r  
GAD(config-if)#no ip ro  
GAD(config-if)#no ip route-c  
GAD(config-if)#no ip route-cache
```

```
GAD(config-if)#exit
GAD(config)#exit
GAD#show ip interface serial 0/0/0 | inc fast
  IP fast switching is disabled
  IP fast switching on the same interface is disabled
  IP multicast fast switching is disabled
  IP multicast distributed fast switching is disabled
GAD#show ip interface serial 0/0/1 | inc fast
  IP fast switching is disabled
  IP fast switching on the same interface is disabled
  IP multicast fast switching is disabled
  IP multicast distributed fast switching is disabled
```

Test de routage :

```
C:\Users\eleve>tracert 192.168.14.2
```

Détermination de l'itinéraire vers WK1 [192.168.14.2]
avec un maximum de 30 sauts :

```
1 1 ms 1 ms 1 ms 192.168.16.1
2 3 ms 2 ms 2 ms 192.168.13.1
3 3 ms 3 ms 3 ms WK1 [192.168.14.2]
```

Itinéraire déterminé.

```
C:\Users\eleve>tracert 192.168.14.2
```

Détermination de l'itinéraire vers WK1 [192.168.14.2]
avec un maximum de 30 sauts :

```
1 1 ms 1 ms 1 ms 192.168.16.1
2 3 ms 2 ms 2 ms 192.168.15.1
3 3 ms 3 ms 3 ms WK1 [192.168.14.2]
```

Itinéraire déterminé.

La transmission alterne bien entre les deux chemin.

Etat de la configuration du routeur à la fin du TP :

```
interface FastEthernet0/1
 network 192.168.13.0
 network 192.168.14.0
 network 192.168.15.0
```

GAD#show ip route

Codes: C - connected, S - static, 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

i - IS-IS, su - IS-IS summary, 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

C 192.168.13.0/24 is directly connected, Serial0/0/1

C 192.168.14.0/24 is directly connected, FastEthernet0/0

C 192.168.15.0/24 is directly connected, Serial0/0/0

R 192.168.16.0/24 [120/1] via 192.168.15.2, 00:00:27, Serial0/0/0

[120/1] via 192.168.13.2, 00:00:27, Serial0/0/1

GAD#show interface | inc up

FastEthernet0/0 is up, line protocol is up

Full-duplex, 100Mb/s, 100BaseTX/FX

Auto-duplex, Auto Speed, 100BaseTX/FX

Serial0/0/0 is up, line protocol is up

DCD=up DSR=up DTR=up RTS=up CTS=up

Serial0/0/1 is up, line protocol is up

DCD=up DSR=up DTR=up RTS=up CTS=up