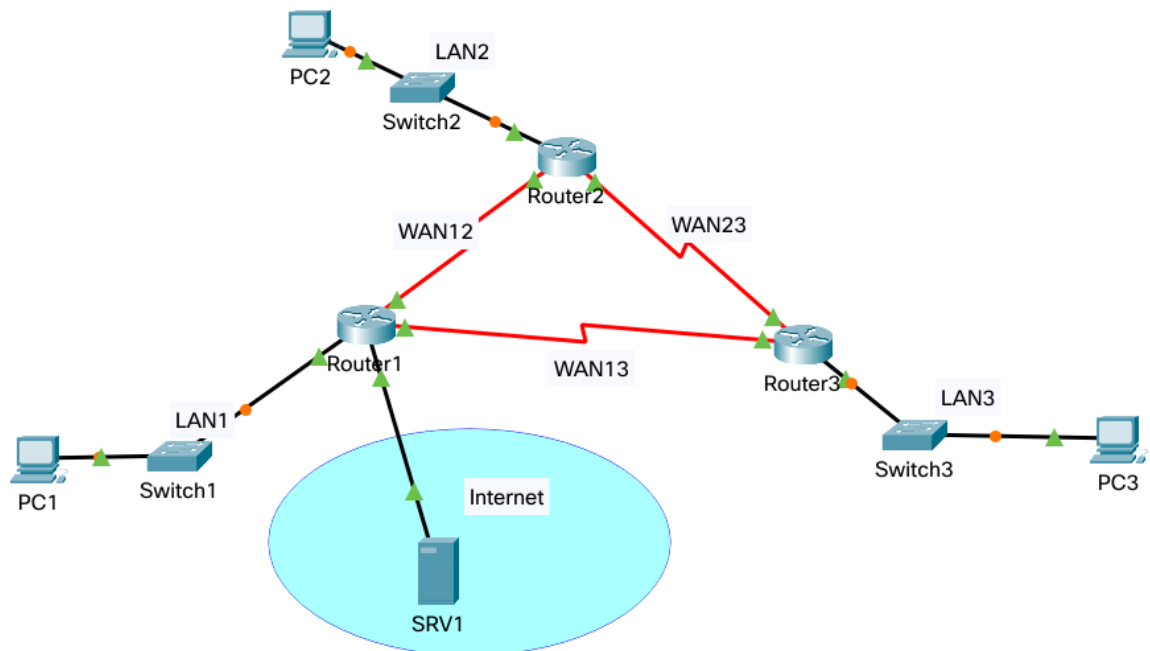


Labo n°4 : VLSM et RIPv2

-> Morgan Valentin

Schéma du labo :



Remarques

1. Ne pas mettre "default-information originate" si on a PAS de route à partager !
 - Donc juste pour R1, mais pas pour les autres.
2. Ne pas oublier de préciser les "clock rates" pour les liaisons entre routeurs
3. Mettre "no auto-summary" dans les configurations RIPv2.

Table d'adressage

Host	Network	IP range	Broadcast
LAN3 (60)	172.16.30.0	172.16.30.1 => 172.16.30.62	172.16.30.63
LAN1 (20)	172.16.30.64	172.16.30.65 => 172.16.30.94	172.16.30.95
LAN2 (7)	172.16.30.96	172.16.30.97 => 172.16.30.110	172.16.30.111
WAN12	172.16.30.112	172.16.30.113 => 172.16.30.114	172.16.30.115
WAN13	172.16.30.116	172.16.30.117 => 172.16.30.118	172.16.30.119
WAN23	172.16.30.120	172.16.30.121 => 172.16.30.122	172.16.30.123

Répartitions des adresses IP

Host/Device	Interface	IP	Mask
R1	g0/0	172.16.30.65	255.255.255.224 (/27)
R1 (=> internet)	g0/1	209.162.210.200	255.255.255.0 (/24)
R1 (=> R2)	s0/0/0	172.16.30.113	255.255.255.252 (/30)
R1 (=>R3)	s0/0/1	172.16.30.117	255.255.255.252 (/30)

Host/Device	Interface	IP	Mask
R2	g0/0	172.16.30.97	255.255.255.240 (/28)
R2 (=> R1)	s0/0/0	172.16.30.114	255.255.255.252 (/30)
R2 (=> R3)	s0/0/1	172.16.30.121	255.255.255.252 (/30)

Host/Device	Interface	IP	Mask
R3	g0/0	172.16.30.1	255.255.255.192 (/25)
R3 (=> R1)	s0/0/0	172.16.30.118	255.255.255.252 (/30)
R3 (=> R2)	s0/0/1	172.16.30.122	255.255.255.252 (/30)

R1

```
hostname R1
```

```
no ip domain-lookup
```

```
enable secret class
```

```
banner motd %Hello%
```

int g0/0

```
description vers LAN1
```

```
ip add 172.16.30.65 255.255.255.224
```

```
no shut
```

int g0/1

```
description vers INTERNET
```

```
ip add 209.162.210.200 255.255.255.0
```

```
no shut
```

int s0/0/0

```
description vers R2
```

```
ip add 172.16.30.113 255.255.255.252
```

```
clock rate 64000
```

```
no shut
```

int s0/0/1

```
description vers R3
```

```
ip add 172.16.30.117 255.255.255.252
```

```
clock rate 64000
```

```
no shut
```

line vty 0 4

```
logging synchronous
```

```
password cisco
```

```
login
```

line console 0

```
logging synchronous
```

```
password cisco
```

```
login
```

```
service password-encryption
```

```
ip route 0.0.0.0 0.0.0.0 g0/1
```

router rip

```
version 2
```

```
passive-interface g0/0
```

```
network 172.16.30.64
```

```
network 172.16.30.112
```

```
network 172.16.30.116
```

```
default-information originate
```

```
no auto-summary
```

R2

```
hostname R2
```

```
no ip domain-lookup
```

```
enable secret class
```

```
banner motd %Hello%
```

int g0/0

```
description vers LAN2
```

```
ip add 172.16.30.97 255.255.255.240
```

```
no shut
```

int s0/0/0

```
description vers R1
```

```
ip add 172.16.30.114 255.255.255.252
```

```
clock rate 64000
```

```
no shut
```

int s0/0/1

```
description vers R3
```

```
ip add 172.16.30.121 255.255.255.252
```

```
clock rate 64000
```

```
no shut
```

line vty 0 4

```
logging synchronous
```

```
password cisco
```

```
login
```

line console 0

```
logging synchronous
```

```
password cisco
```

```
login
```

```
service password-encryption
```

router rip

```
version 2
```

```
passive-interface g0/0
```

```
network 172.16.30.96
```

```
network 172.16.30.112
```

```
network 172.16.30.120
```

```
no auto-summary
```

R3

```
hostname R3
```

```
no ip domain-lookup
```

```
enable secret class
```

```
banner motd %Hello%
```

int g0/0

```
description vers LAN3
```

```
ip add 172.16.30.1 255.255.255.192
```

```
no shut
```

int s0/0/0

```
description vers R1
```

```
ip add 172.16.30.118 255.255.255.252
```

```
clock rate 64000
```

```
no shut
```

int s0/0/1

```
description vers R2
```

```
ip add 172.16.30.122 255.255.255.252
```

```
clock rate 64000
```

```
no shut
```

line vty 0 4

```
logging synchronous
```

```
password cisco
```

```
login
```

line console 0

```
logging synchronous
```

```
password cisco
```

```
login
```

```
service password-encryption
```

router rip

```
version 2
```

```
passive-interface g0/0
```

```
network 172.16.30.0
```

```
network 172.16.30.116
```

```
network 172.16.30.120
```

```
no auto-summary
```

S1

hostname S2

enable secret class

banner motd %Hello%

ip domain-name henallux.be

username userssh secret userssh

crypto key generate rsa general-keys modulus 1024

ip ssh version 2

int vlan1

description vers PC1

ip add 172.16.30.66 255.255.255.224

no shut

line vty 0 4

logging synchronous

password cisco

transport input ssh

login local

line console 0

logging synchronous

password cisco

service password-encryption

ip default-gateway 172.16.30.65

S2

```
hostname S2
enable secret class
banner motd %Hello%

ip domain-name henallux.be
username userssh secret userssh
crypto key generate rsa general-keys modulus 1024
ip ssh version 2

int vlan1
description vers PC2
ip add 172.16.30.98 255.255.255.240
no shut

line vty 0 4
logging synchronous
password cisco
transport input ssh
login local

line console 0
logging synchronous
password cisco

service password-encryption

ip default-gateway 172.16.30.97
```

S3

```
hostname S3
enable secret class
banner motd %Hello%

ip domain-name henallux.be
username userssh secret userssh
crypto key generate rsa general-keys modulus 1024
ip ssh version 2

int vlan1
description vers PC3
ip add 172.16.30.2 255.255.255.192
no shut

line vty 0 4
logging synchronous
password cisco
transport input ssh
login local

line console 0
logging synchronous
password cisco

service password-encryption

ip default-gateway 172.16.30.1
```


PC1

ipv4 address	172.16.30.67
Subnet Mask	255.255.255.224
Default Gateway	172.16.30.65

PC2

ipv4 address	172.16.30.99
Subnet Mask	255.255.255.240
Default Gateway	172.16.30.97

PC3

ipv4 address	172.16.30.3
Subnet Mask	255.255.255.192
Default Gateway	172.16.30.1