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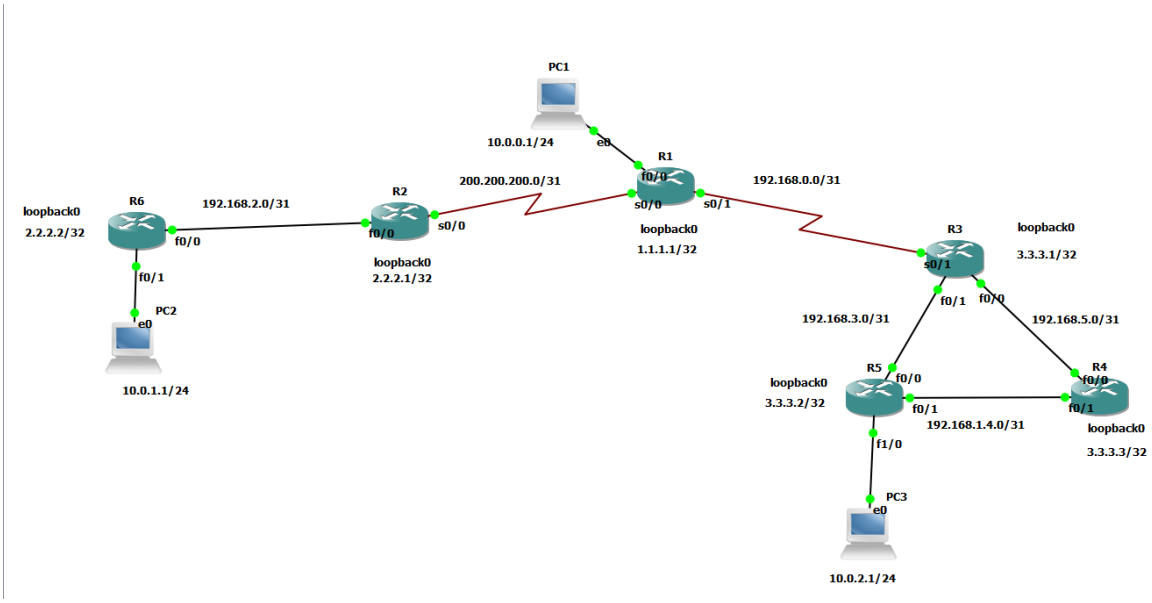
OSPF doit identifier tous les appareils à l'aide d'un « router ID ». Cet identifiant, unique, peux être obtenu en paramétrant une interface « Loopback » et en lui associant une adresse « IP ».



Configuration Loopback & adresse ip

```
R6(config)#int loopback0
R6(config-if)#ip a
*Mar  1 00:02:49.375: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R6(config-if)#ip add
R6(config-if)#ip address 2.2.2.2 255.255.255.255
```

```
R6(config)#int fastEthernet 0/1
R6(config-if)#ip add
R6(config-if)#ip address 10.0.1.255 255.255.255.0
Bad mask /24 for address 10.0.1.255
```

```
R6(config-if)#no shut
```

```
R6(config)#int fastEthernet 0/0
R6(config-if)#ip add
R6(config-if)#ip address 192.168.2.1 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R6(config-if)#
R6(config-if)#no shut
```

```
R2(config)#int loopback0
R2(config-if)#ip add
R2(config-if)#ip address
*Mar  1 00:03:50.535: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R2(config-if)#ip address 2.2.2.1 255.255.255.255
```

```
R2(config)#int fastEthernet 0/0
R2(config-if)#ip address 192.168.2.0 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R2(config-if)#no shut
```

```
R2(config)#int serial 0/0
R2(config-if)#ip add
R2(config-if)#ip address 200.200.200.1 255.255.255.254
R2(config-if)#no shut
```

```
R1(config)#int loopback0
R1(config-if)#
*Mar  1 00:04:13.159: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R1(config-if)#ip add
R1(config-if)#ip address 1.1.1.1 255.255.255.255
```

```
R1(config)#int fastEthernet 0/0
R1(config-if)#200.200.200.2 255.255.255.254
               ^
% Invalid input detected at '^' marker.

R1(config-if)#ip address 200.200.200.2 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R1(config-if)#no shut
```

```
R1(config)#int fastEthernet 0/0
```

```
R1(config-if)#ip address 10.0.0.255 255.255.255.0
Bad mask /24 for address 10.0.0.255
R1(config-if)#no shut
```

```
R1(config)#int serial 0/0
R1(config-if)#ip add
R1(config-if)#ip address 200.200.200.0 255.255.255.254
R1(config-if)#no shut
```

```
R1(config)#int serial 0/1
R1(config-if)#ip add
R1(config-if)#ip address 192.168.0.1 255.255.255.254
R1(config-if)#no shut
```

```
R3(config)#int loopback0
R3(config-if)#
*Mar  1 00:04:42.787: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R3(config-if)#ip add
R3(config-if)#ip address 3.3.3.1 255.255.255.255
```

```
R3(config)#int serial 0/1
R3(config-if)#ip add
R3(config-if)#ip address 192.168.0.1 255.255.255.254
R3(config-if)#no shut
```

```
R3(config)#int fastEthernet 0/1
R3(config-if)#ip add
R3(config-if)#ip address 192.168.3.1 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R3(config-if)#no shut
```

```
R3(config)#int fastEthernet 0/0
R3(config-if)#ip add
R3(config-if)#ip address 192.168.5.1 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R3(config-if)#no shut
```

```
R4(config)#int loopback0
R4(config-if)#ip
*Mar  1 00:05:57.367: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R4(config-if)#ip add
R4(config-if)#ip address 3.3.3.3 255.255.255.255
```

```
R4(config)#int fastEthernet 0/1
R4(config-if)#ip address 192.168.4.0 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R4(config-if)#no shut
```

```
R4(config)#int fastEthernet 0/0
R4(config-if)#ip address 192.168.5.0 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R4(config-if)#no shut
```

```
R5(config)#int loopback0
R5(config-if)#
*Mar  1 00:06:21.631: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R5(config-if)#ip addres
R5(config-if)#ip address 3.3.3.2 255.255.255.255
```

```
R5(config)#int fastEthernet 0/1
R5(config-if)#ip add
R5(config-if)#ip address 192.168.4.1 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R5(config-if)#no shut
```

```
R5(config)#int fastEthernet 1/0
R5(config-if)#ip add
R5(config-if)#ip address 10.0.2.255 255.255.255.0
Bad mask /24 for address 10.0.2.255
R5(config-if)#no shut
```

```
R5(config)#int fastEthernet 0/0
R5(config-if)#ip address 192.168.3.0 255.255.255.254
% Warning: use /31 mask on non point-to-point interface cautiously
R5(config-if)#no shut
```

Ajout des Ips sur les PCs

```
PC2> ip 10.0.1.1 255.255.255.0 10.0.1.254
Checking for duplicate address...
PC1 : 10.0.1.1 255.255.255.0 gateway 10.0.1.254
```

```
PC1> ip 10.0.0.1 255.255.255.0 10.0.0.254
Checking for duplicate address...
10.0.0.1 is being used by MAC c0:01:0f:48:00:00
Address not changed
```

```
PC3> ip 10.0.2.1 255.255.255.0 10.0.2.254
Checking for duplicate address...
PC1 : 10.0.2.1 255.255.255.0 gateway 10.0.2.254
```

Configuration OSPF

```
R4(config)#rooter ospf 100
```

```
R4(config-router)#network 192.168.5.0 0.0.0.1 area 1
R4(config-router)#network 192.168.4.0 0.0.0.1 area 1
```

```
R5(config)#router ospf 100
R5(config-router)# network 192.168.3.0 0.0.0.1 area 1
```

```
R5(config-router)# network 10.0.2.0 0.0.0.255 area 1
```

```
R5(config-router)# network 192.168.4.0 0.0.0.1 area 1
```

```
R5(config-router)#passive-interface f1/0
```
à appliquer seulement s'il y a un pc de relier au router.

```
R3(config)#router ospf 100
R3(config-router)#network 192.168.5.0 0.0.0.1 area 1
R3(config-router)#
*Mar  1 02:09:33.583: %OSPF-5-ADJCHG: Process 100, Nb
g Done
R3(config-router)#network 192.168.3.0 0.0.0.1 area 1
R3(config-router)#network 192.168.3
*Mar  1 02:10:13.855: %OSPF-5-ADJCHG: Process 100, Nb
g Done
R3(config-router)#network 192.168.0.0 0.0.0.1 area 0
```

```
R1(config)#router ospf 100
% Incomplete command.

R1(config-router)#network 192.168.0.0 0.0.0.1 area 0
R1(config-router)#network 200.200.200.0 0.0.0.1 area 0
R1(config-router)#network 10.0.0.1 0.0.0.255 area 0
R1(config-router)#passive-interface f1/0
                                     ^
% Invalid input detected at '^' marker.

R1(config-router)#passive-interface f0/0
```

```
R2(config)#router ospf 100
R2(config-router)# network 192.168.2.0 0.0.0.1 area 2
R2(config-router)# network 200.200.200.0 0.0.0.1 area 0
```

```
R6(config)#router ospf 100
R6(config-router)#network 192.168.2.0 0.0.0.1 area 2
R6(config-router)#network 192.168.2.0 0.0.0.1 area 2
*Mar  1 02:22:34.375: %OSPF-5-ADJCHG: Process 100, Nb
g Done
R6(config-router)#network 10.0.1.0 0.0.0.255 area 2
R6(config-route
                                    ^
% Invalid input detected at '^' marker.

R6(config-router)#passive-interface f0/1
```

Ensuite il faut ping entre pc, malheureusement, le pc2 n'arrive pas a trouvé l'adresse réseau du R6.

Il reste plus qu'à sauvegarder les pc

```
PC2> save startupres6.vpc
Saving startup configuration to startupres6.vpc
.  done
```

```
PC1> save startupres6.vpc
Saving startup configuration to startupres6.vpc
.  done
```

```
PC3> save startupress6.vpc
Saving startup configuration to startupress6.vpc
.  done
```