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## Avant-Propos

E6 :

Elaboration de documents relatifs à la production et à la fourniture de services

A1.1.1 , Analyse du cahier des charges d'un service à produire

A1.2.4 , Détermination des tests nécessaires à la validation d'un service

A1.2.4 , Détermination des tests nécessaires à la validation d'un service

A1.3.4 , Déploiement d'un service

A3.2.1 , Installation et configuration d'éléments d'infrastructure

A4.1.9 , Rédaction d'une documentation technique

## Routage Statique IPV6

```
R1(config)#ipv6 route 2001:B2B2:CAFE::/64 serial0/0
```

```
R1(config)#ipv6 unicast-routing
```

## RIP IPV6

```
R1(config)#ipv6 unicast-routing
```

```
R1(config-if)#ipv6 rip SIO enable
```

Il faut marquer cette commande sur toutes les interfaces sur tous les routeurs.

Le nom SIO est le nom du processus, il doit être le même sur toutes les interfaces, mais on peut mettre le nom que l'on veut tant qu'il reste le même.

```
R2#sh ipv6 route
IPv6 Routing Table - 7 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
C   2001:BOB0:CAFE::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:BOB0:CAFE::FF/128 [0/0]
    via ::, FastEthernet0/0
C   2001:B2B2:CAFE::/64 [0/0]
    via ::, Serial0/0
L   2001:B2B2:CAFE::FE/128 [0/0]
    via ::, Serial0/0
R   2001:BABA:CAFE::/64 [120/2]
    via FE80::C201:FFF:FEBC:0, Serial0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0
```

```
PC1> ping 2001:B2B2:CAFE::FE
```

```
2001:B2B2:CAFE::FE icmp6_seq=1 ttl=63 time=31.200 ms
2001:B2B2:CAFE::FE icmp6_seq=2 ttl=63 time=15.600 ms
2001:B2B2:CAFE::FE icmp6_seq=3 ttl=63 time=15.600 ms
2001:B2B2:CAFE::FE icmp6_seq=4 ttl=63 time=15.600 ms
2001:B2B2:CAFE::FE icmp6_seq=5 ttl=63 time=15.600 ms
```

## OSPF IPV6

R2 :

```
R1(config)#ipv6 unicast-routing
```

```
R1(config)#ipv6 router ospf 1
```

```
R1(config-rtr)#router-id 1.1.1.1
```

```
R1(config)#int loopback 8
R1(config-if)#
*Mar 1 00:05:28.411: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback8, changed state to up
R1(config-if)#ipv6 address 2001:DB8:ACAD:8::1/64
R1(config-if)#ipv6 ospf 1 area 0
```

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

```
R1(config-if)#ipv6 address 2001:DB8:ACAD:12::2/64
R1(config-if)#ipv6 address FE80::2 link-local
R1(config-if)#ipv6 ospf 1 area 1
```

C'était area 0 qu'il fallait mettre.

```
R1(config)#int serial 0/1
R1(config-if)#ipv6 address 2001:DB8:ACAD:23::2/64
R1(config-if)#ipv6 address FE80::2 link-local
R1(config-if)#ipv6 ospf 1 area 0
```

R1 :

```
R2(config)#ipv6 router ospf 1
R2(config-rtr)#router-id 2.2.2.2
```

```
R2(config)#int serial 0/0
R2(config-if)#ipv6 address 2001:DB8:ACAD:12::2/64
R2(config-if)#ipv6 address FE80::2 link-local
R2(config-if)#ipv6 ospf 1 area 1
```

```
R2(config)#int lo 0
R2(config-if)#
*Mar 1 00:10:17.875: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
R2(config-if)#ipv6 address 2001:DB8:ACAD::1/64
R2(config-if)#ipv6 ospf 1 area 1
```

```
R2(config)#int lo 1
R2(config-if)#ipv6 address 2001:DB8:ACAD:1::1/64
*Mar 1 00:11:09.319: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed state to up
R2(config-if)#ipv6 address 2001:DB8:ACAD:1::1/64
R2(config-if)#ipv6 ospf 1 area 1
```

```
R2(config)#int lo 2
R2(config-if)#ipv6 address 2001:DB8:ACAD:2::2/64
*Mar 1 00:12:01.707: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed state to up
R2(config-if)#ipv6 address 2001:DB8:ACAD:2::2/64
R2(config-if)#ipv6 ospf area 1
^
% Invalid input detected at '^' marker.
R2(config-if)#ipv6 ospf 1 area 1
```

```
R2(config)#int lo 3
R2(config-if)#
*Mar 1 00:12:57.303: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback3, changed state to up
R2(config-if)#ipv6 address 2001:DB8:ACAD:3::3/64
R2(config-if)#ipv6 ospf 1 area 1
```

Route CIDR :

```
R2(config)#ipv6 router ospf 1
R2(config-rtr)#area 1 range 2001:DB8:ACAD::/62
R2(config-rtr)#exit
```

R3 :

```
R3(config)#ipv6 router ospf 1
R3(config-rtr)#router-id 3.3.3.3
```

```
R3(config)#int loopback 4
R3(config-if)#ipv6 address 2001:DB8:ACAD:4::1/64
R3(config-if)#ipv6 ospf 1 area 2
```

```
R1#ping 2001:DB8:ACAD:5::1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2001:DB8:ACAD:5::1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 8/27/48 ms
```

Sh ipv6 route

Sh ipv6 protocols

Sh ipv6 ospf interface brief

Sh ipv6 ospf neighbor

Sh ipv6 ospf database

```
2001:DB8:ACAD:0000 0000 0000 01|00
                                01|01
                                01|10
                                01|11
```

Donc 2001:DB8:ACAD:4/62 la summarisation pour le router 3

```
R3(config)#ipv6 router ospf 1
```

```
R3(config-rtr)#area 2 range 2001:DB8:ACAD:4::/62
```

```
O   2001:DB8:ACAD:4::/62 [110/0]
    via ::, Null0
```