

Nom	Prénom	Distribution	Version
Divaret	Nathan	Debian 8.5	2.0

# OSPF

## SOMMAIRE

### Contenu

1) Objectif.....	2
2) Définition.....	2
3) Configuration.....	2

Nom	Prénom	Distribution	Version
Divaret	Nathan	Debian 8.5	2.0

## 1) Objectif

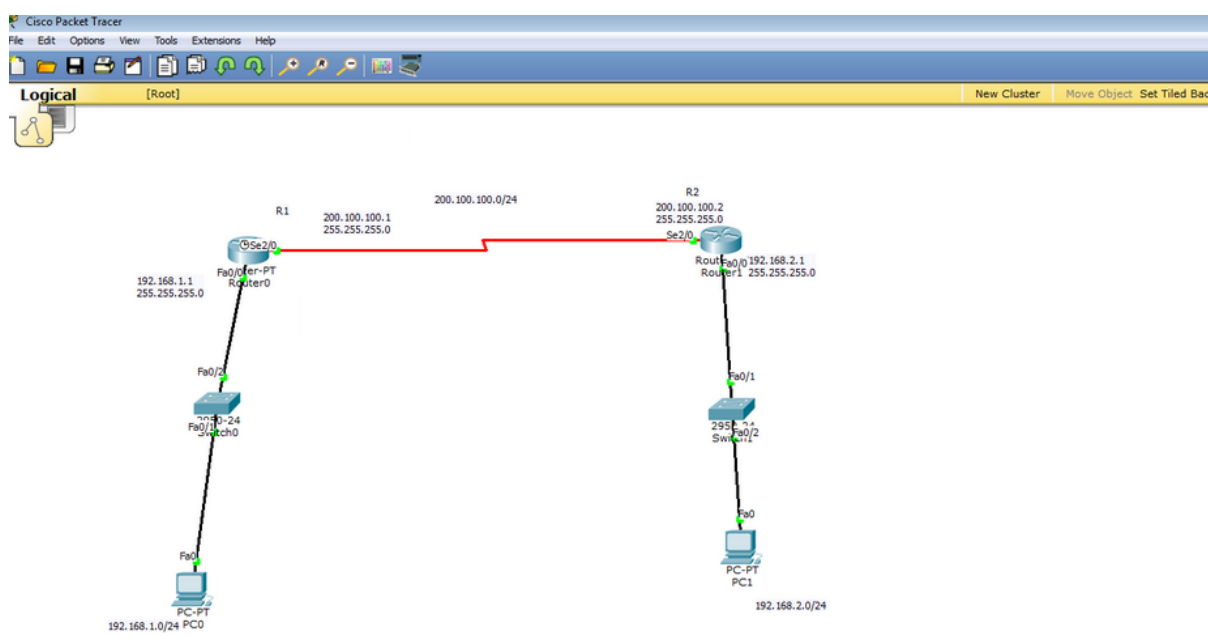
Dans cette procédure, nous allons montrer comment installer et configurer un serveur **FTP** avec un équilibrage de charges au moyen du service **Keepalived** sous Debian 8.5.

## 2) Définition

Open Shortest Path First (OSPF) est un protocole de routage interne IP de type « à état de liens ».

→ Obtenir une table de routage avec les meilleures routes

→ Converger au plus vite vers une table de routage optimale



## 3) Configuration

### R1

```
Router>enable
```

```
Router#configure terminal
```

Enter configuration commands, one per line. End with CNTL/Z.

```
Router(config)#interface FastEthernet0/0
```

```
Router(config-if)#ip address 192.168.1.1 255.255.255.0
```

```
Router(config-if)#no shutdown
```

```
Router(config-if)#
```

```
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
```

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

Nom	Prénom	Distribution	Version
Divaret	Nathan	Debian 8.5	2.0

```
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 200.100.100.1 255.255.255.0
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown
```

## R2

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#ip address 200.100.100.2 255.255.255.0
Router(config-if)#no clock rate
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
```

```
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
```

Pour la configuration des Postes :

The screenshot shows a window titled "IP Configuration" on a PC0. It is divided into two sections: "IP Configuration" and "IPv6 Configuration".

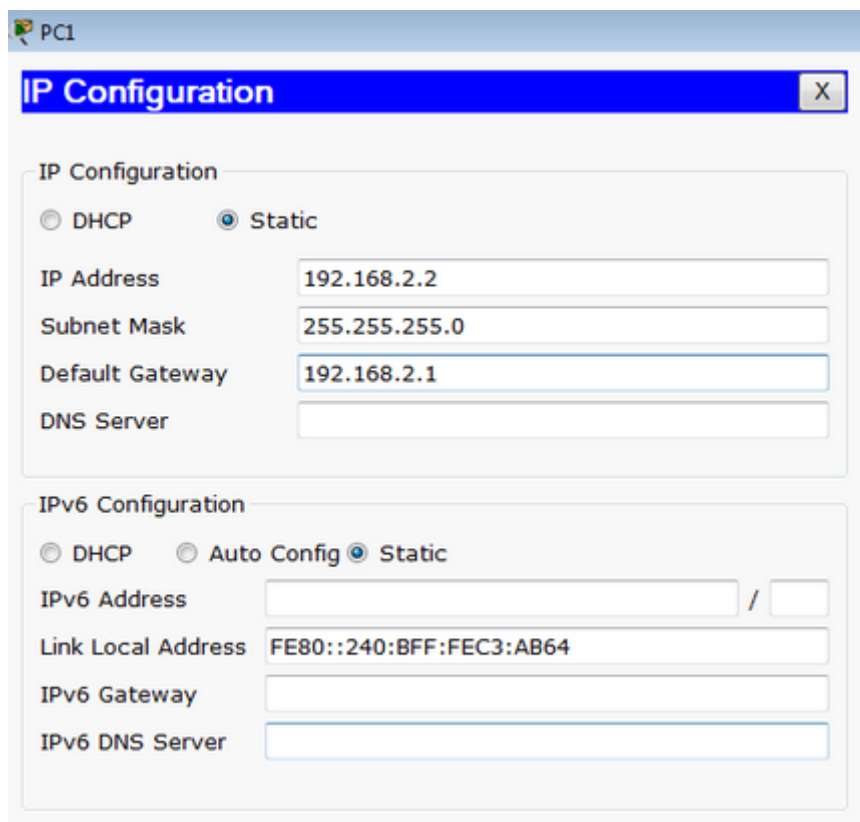
**IP Configuration:**

- Radio buttons:  DHCP,  Static
- IP Address: 192.168.1.2
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.1.1
- DNS Server: (empty)

**IPv6 Configuration:**

- Radio buttons:  DHCP,  Auto Config,  Static
- IPv6 Address: (empty) / (empty)
- Link Local Address: FE80::201:97FF:FE9B:7975
- IPv6 Gateway: (empty)
- IPv6 DNS Server: (empty)

Nom	Prénom	Distribution	Version
Divaret	Nathan	Debian 8.5	2.0



Maintenant, nous allons voir le routage dynamique avec OSPF

### Alors pour R1

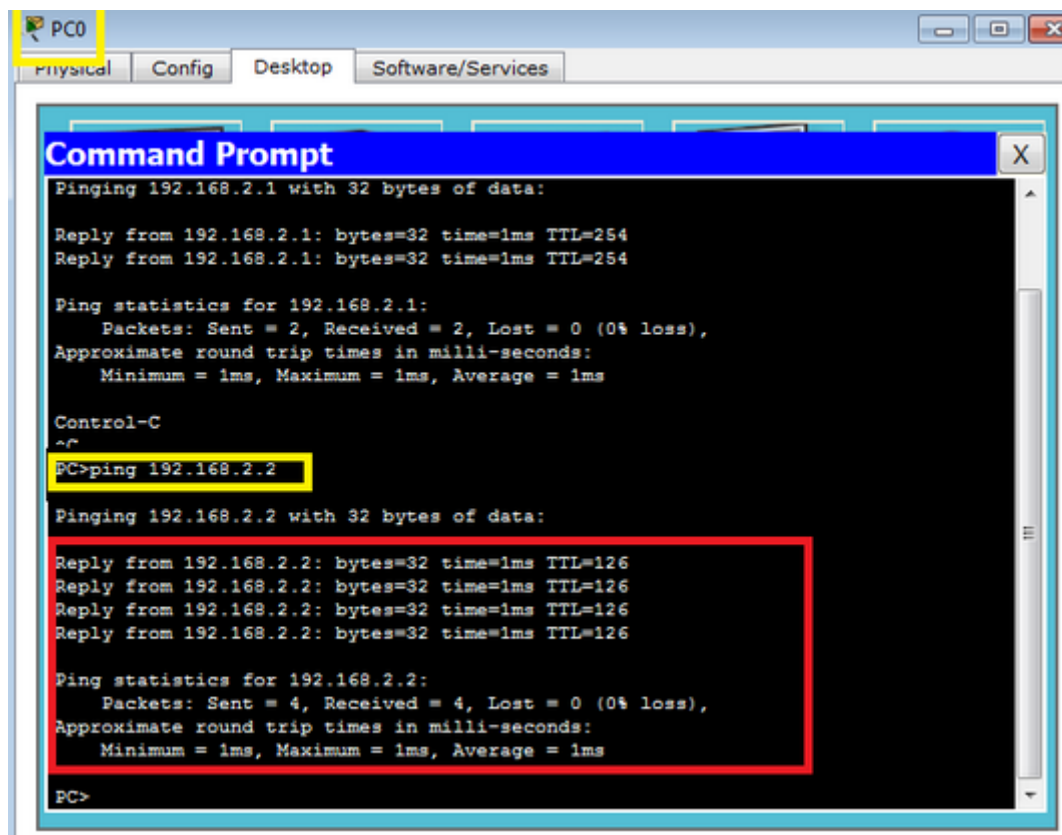
```
Router(config)#router ospf 100
Router(config-router)#net
Router(config-router)#network 192.168.1.0 0.0.0.255 ar
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router(config-router)#network 200.100.100.0 0.0.0.255 area 0
Router(config-router)#end
```

### R2

```
Router(config)#router ospf 100
Router(config-router)#network 200.100.100.0 0.0.0.255 area 0
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0
Router(config-router)#end
```

Nom	Prénom	Distribution	Version
Divaret	Nathan	Debian 8.5	2.0

On remarque cela ping correctement, le lien est disponible.



The image shows a screenshot of a virtual machine window titled "PC0" with tabs for "Physical", "Config", "Desktop", and "Software/Services". The "Desktop" tab is active, displaying a "Command Prompt" window. The Command Prompt shows the following text:

```
PC>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time=1ms TTL=254
Reply from 192.168.2.1: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.2.1:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

Control-C
~C
PC>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

PC>
```

The command prompt input "PC>ping 192.168.2.2" is highlighted with a yellow box. The output for the second ping is enclosed in a red box.