

IPv6 en TLM/UPNA

Área de Ingeniería Telemática
Dpto. Automática y Computación
<http://www.tlm.unavarra.es/>

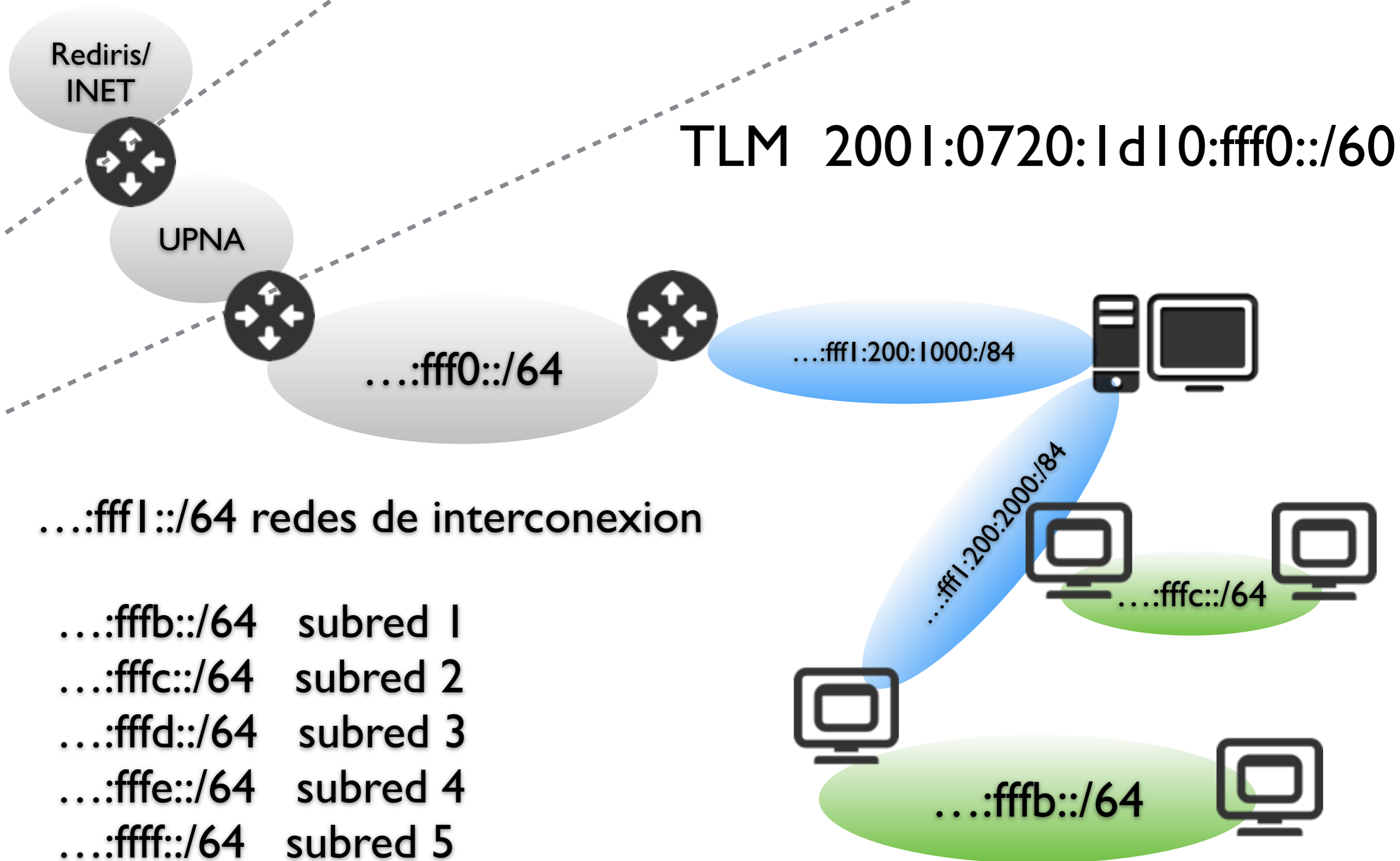
IPv6 para prácticas en TLM

- ▶ Provisional / este año
- ▶ Tunnel
- ▶ Una subred /64 por grupo :-)

Mapa

UPNA 2001:720:1d10::/48

TLM 2001:0720:1d10:fff0::/60

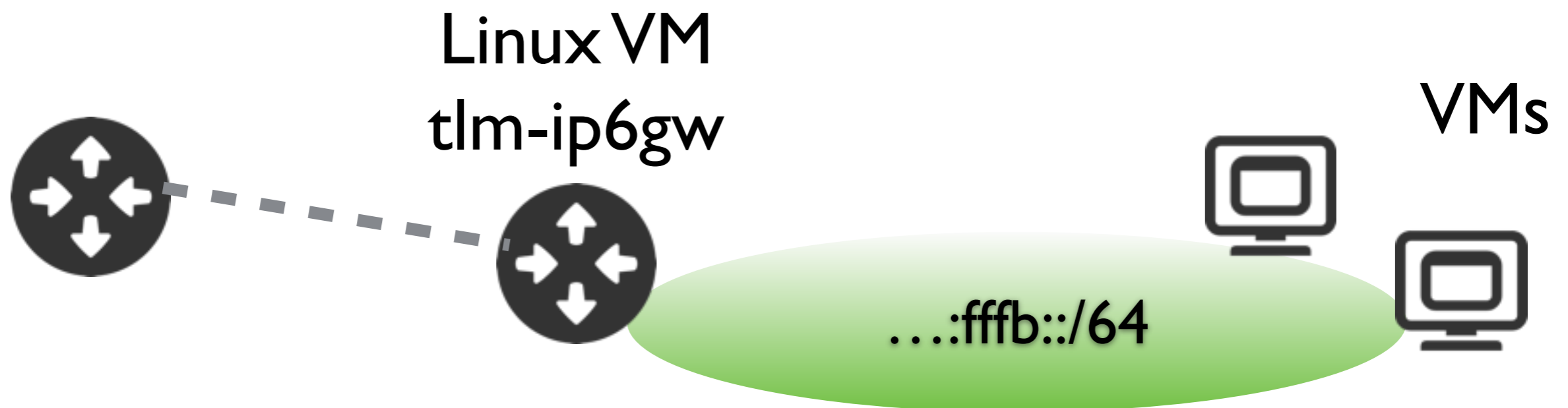


...:fff1::/64 redes de interconexion

- ...:fffb::/64 subred 1
- ...:fffc::/64 subred 2
- ...:fffd::/64 subred 3
- ...:fffe::/64 subred 4
- ...:ffff::/64 subred 5

Red IPv6 para cada grupo

- ▶ Red con un router Linux VM
- ▶ Hosts en VMs



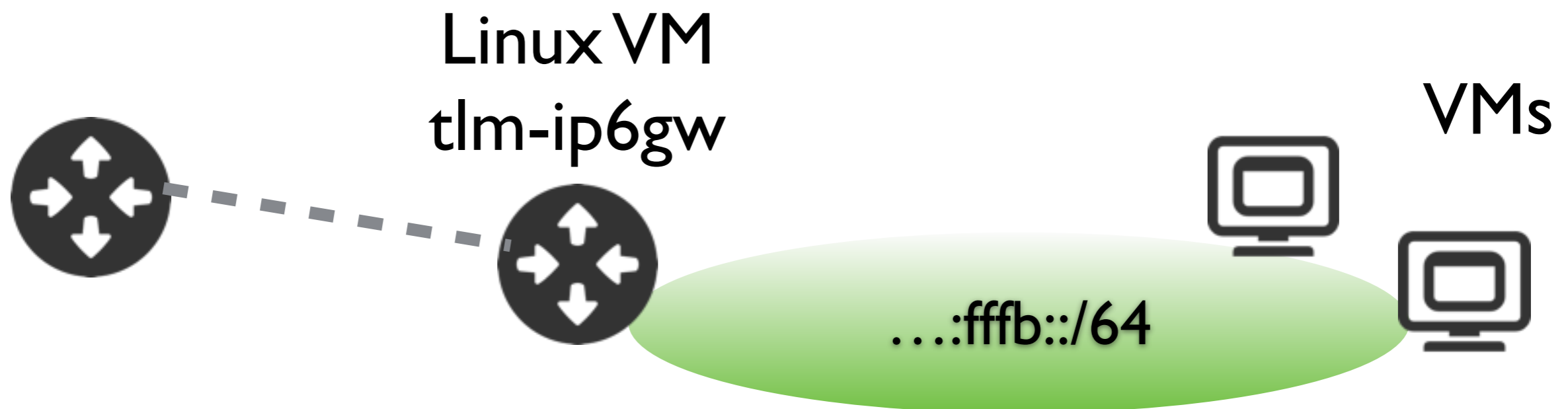
Configuración manual

► GW

```
ip -6 addr add 2001:720:1d10:fffb::1/64 dev eth1  
ifconfig eth1 inet6 add 2001:720:1d10:fffb::1/64
```

► VM

```
ip -6 addr add 2001:720:1d10:fffb::123/64 dev eth0  
ifconfig eth0 inet6 add 2001:720:1d10:fffb::123/64  
ip -6 route add 2000::/3 via 2001:720:1d10:fffb::1  
route -A inet6 add 2000::/3 gw 2001:720:1d10:fffb::1
```



Configuración manual

► Arranque en `/etc/network/interfaces`

```
auto eth0
```

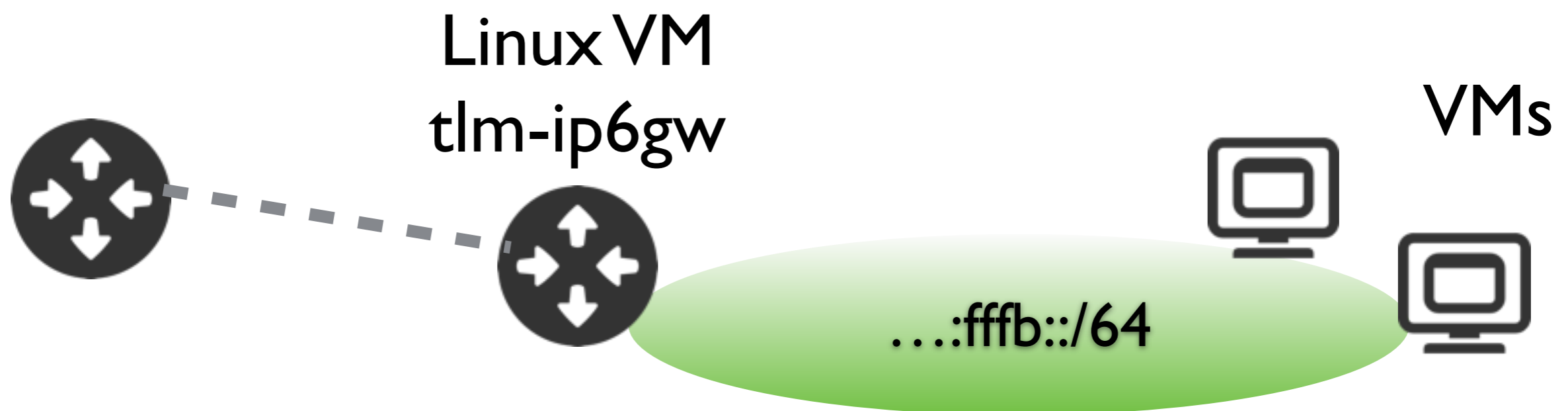
```
iface eth1 inet6 static
```

```
address 2001:720:1d10:fffb::123
```

```
netmask 64
```

```
gateway 2001:720:1d10:fffb::1
```

```
dns-nameservers 2001:4860:4860::8888
```

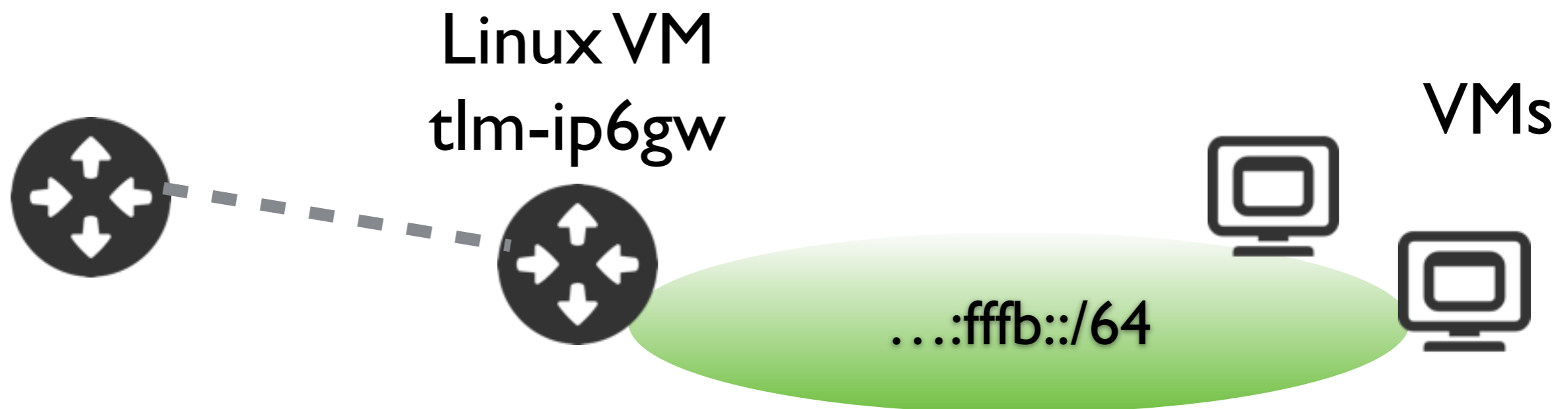


Configuración stateless

► GW

- ip6 en eth1 2001:720:1d10:fffb::1/64
- Anunciarse como router usando radvd
service radvd start

```
En /etc/radvd.conf
interface eth0 {
    AdvSendAdvert on;
    prefix 2001:720:1d10:fffb::1/64 {
        AdvOnLink on;
        AdvAutonomous on;
        AdvRouterAddr on;
    };
};
```



Configuración stateless

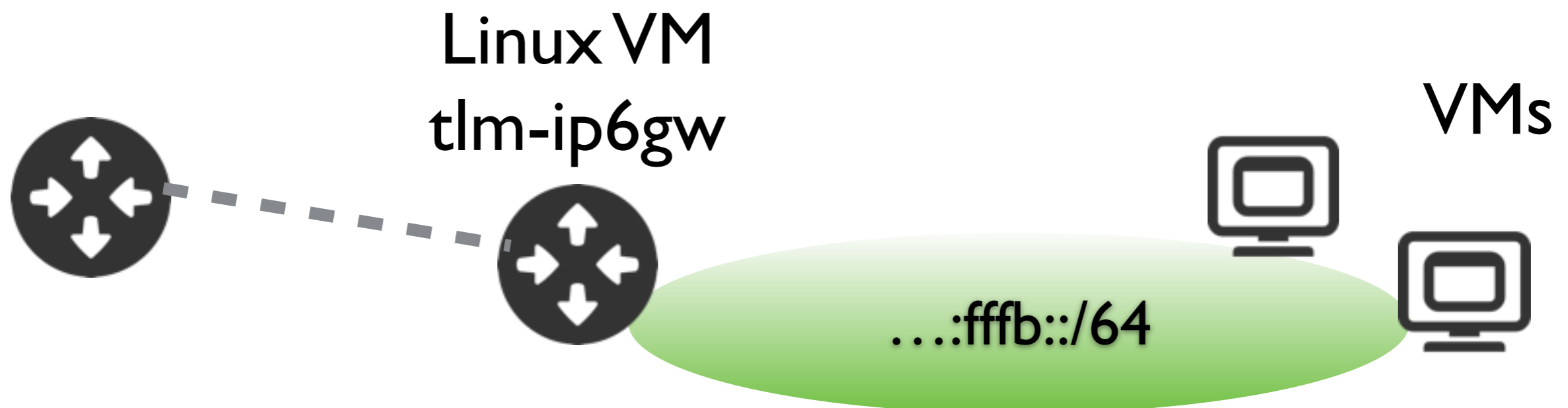
▶ VM

- ▶ No hay que hacer nada, configuración automática via NDP

Automática EUI-64

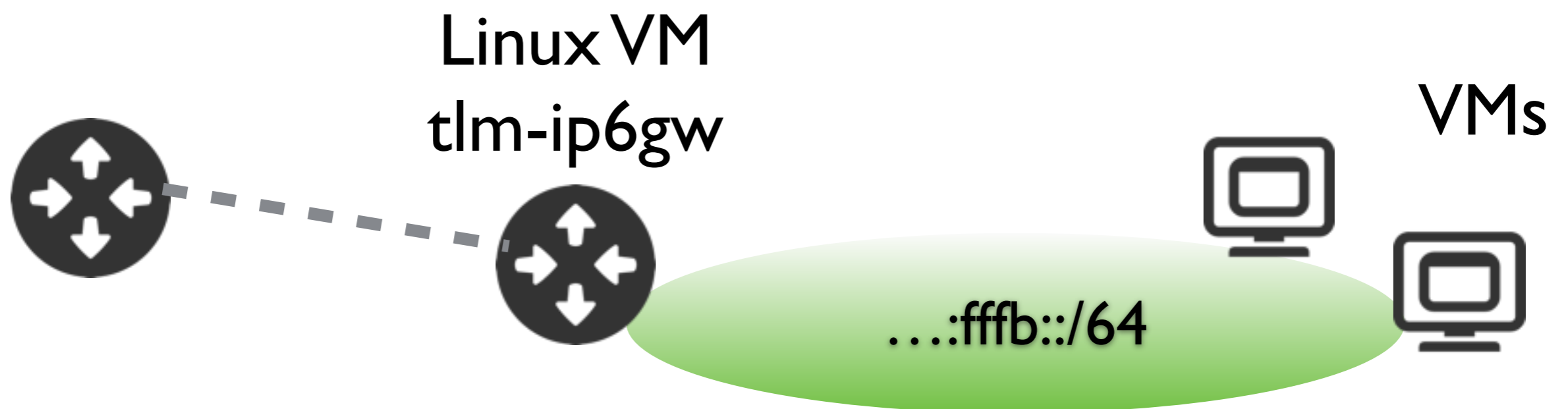
```
$ ifconfig  
eth0      Link encap:Ethernet  HWaddr 08:00:27:6e:9d:d6  
          inet6 addr: 2001:720:1d10:fffa:a00:34ff:fe6e:67d9/64 Scope:Global  
          inet6 addr: fe80::a00:27ff:fe6e:9dd6/64 Scope:Link  
          inet6 addr: 2001:720:1d10:fffa:40b9:17a7:b603:c6ce/64 Scope:Global  
          . . .
```

Aleatoria



Configuración DHCP

► Servidor DHCP6



Comunicación con IPv4

- ▶ NAT64
- ▶ Gateway de DNS
- ▶ Proximo año...

