



IMPLEMENTA IPV6 EN TU ISP

Configuración Ipv6 en Mikrotik



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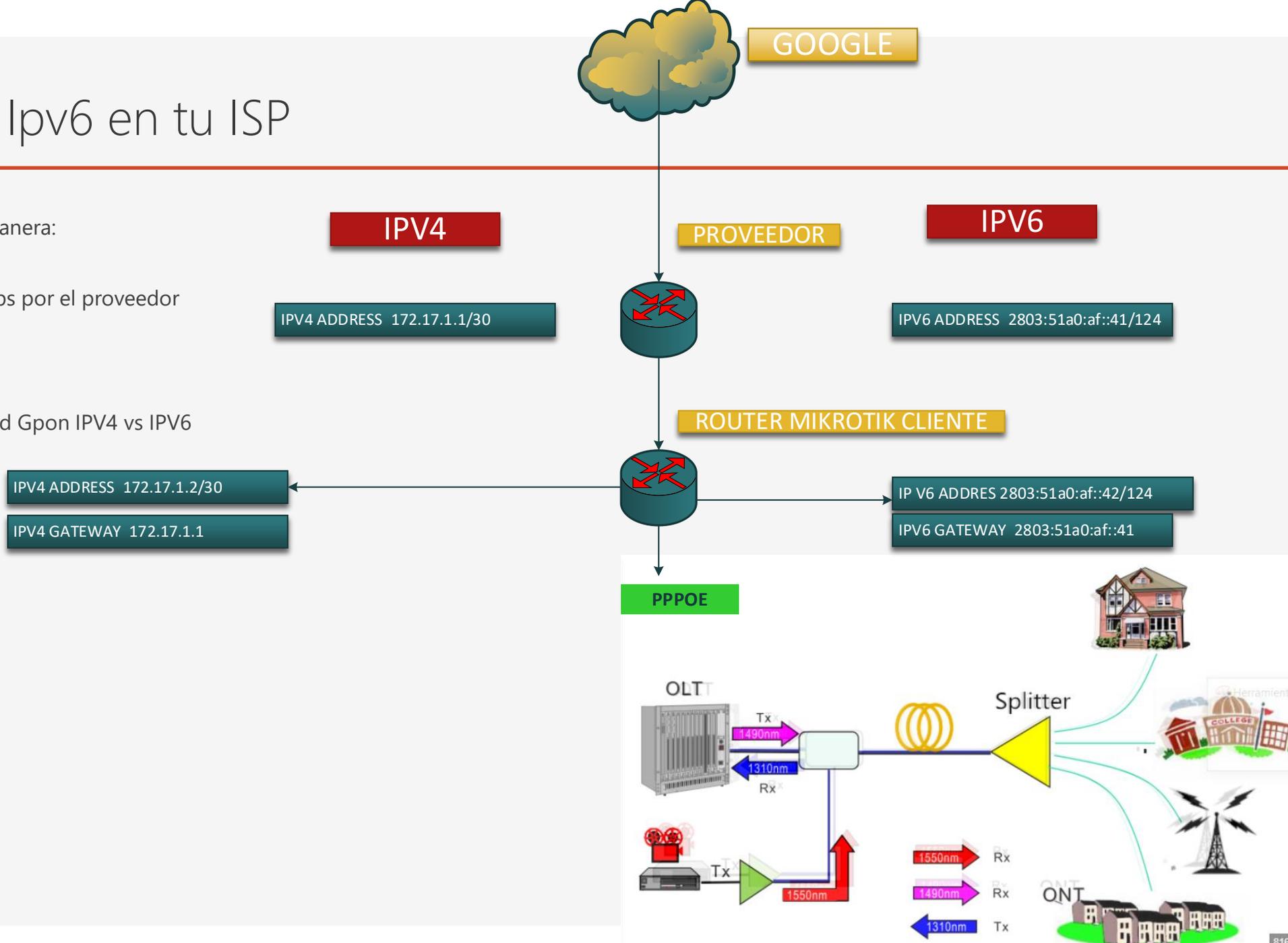
Requisitos Mínimos

1. Tener habilitado ipv6 en tu Mikrotik
2. Disponer de recursos asignados por el proveedor.
3. Conexión P2P en ipv6 con el proveedor.
4. Conocer la funcionalidad de tu red en ipv4

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Funciona de la siguiente manera:

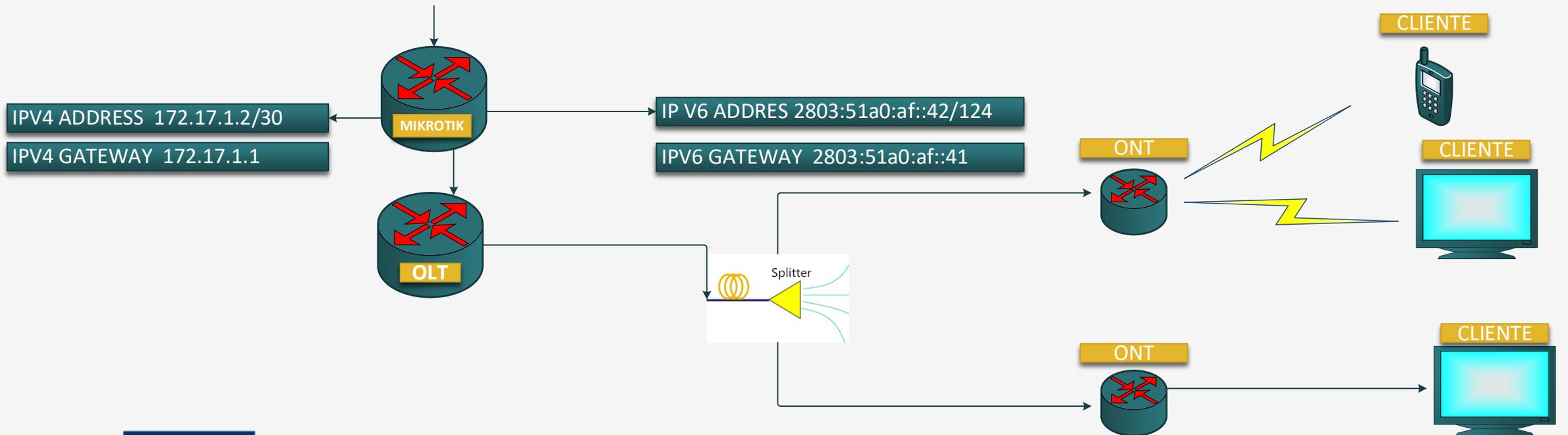
- 1 Asignación de las ips por el proveedor
- 2 Esquema de una red Gpon IPV4 vs IPV6



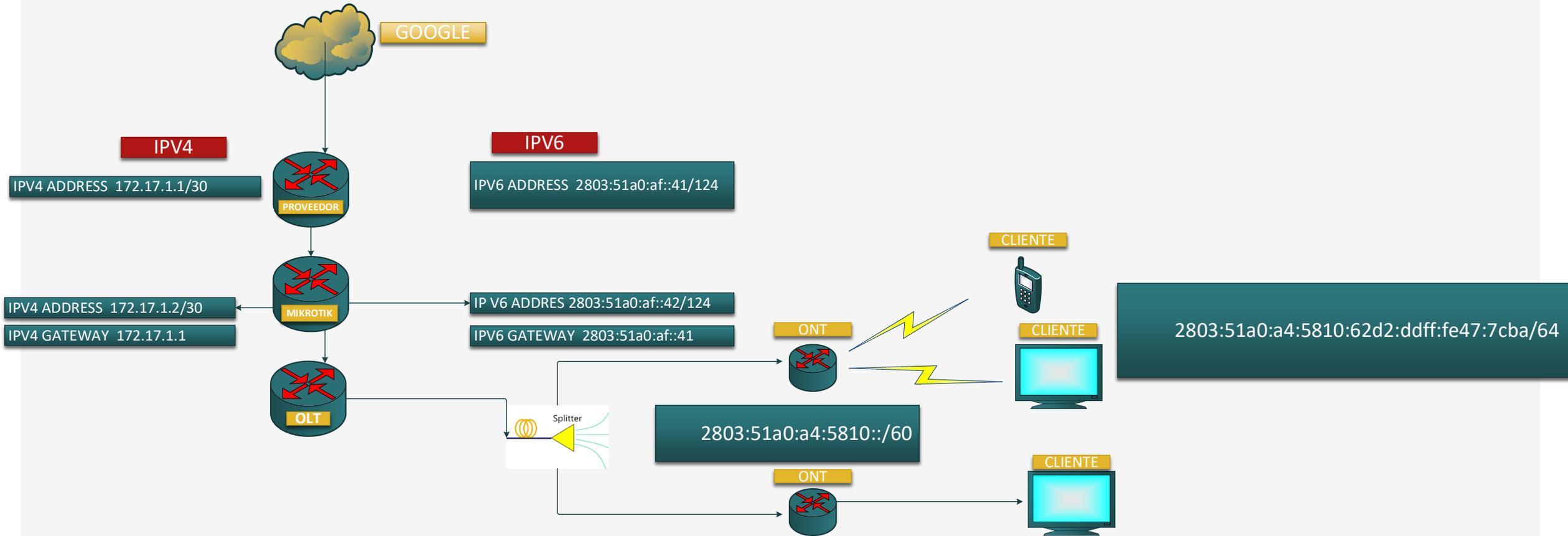
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La red topología de la red FttH tradicional con la configuración de IPV4 funcionara de la misma manera que se encontraba configurado, no se realizara cambios en esta configuración.

El IPV6 se agrega con dual Stack, es decir convivirán los dos protocolos en Ipv4 & Ipv6



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Agregar la IPV6 address asignada por el proveedor, por lo general asignan un /48 según el requerimiento

The screenshot shows the Mikrotik WinBox interface. On the left sidebar, the 'IPv6' menu item is highlighted with a red box. The main window displays the 'IPv6 Address List' table. A red arrow points from the 'IPv6' menu item to the 'IPv6 Address List' table. The table has the following data:

	Address	Fro...	Interface	Advertise
::: WAN IPV6				
G	2803:51a0:af:42/124		sfp-sfpplus1	no
DL	fe80::f0:1a/64		<pppoe-201901208>	no
DL	fe80::f0:1b/64		<pppoe-20190987>	no
DL	fe80::f0:1c/64		<pppoe-201901174>	no
DL	fe80::f0:4b/64		<pppoe-201901211>	no
DL	fe80::f0:1d0/64		<pppoe-201901002>	no
DL	fe80::f0:1d3/64		<pppoe-20190459>	no
DL	fe80::f0:1f7/64		<pppoe-20190866>	no
DL	fe80::f0:3bb/64		<pppoe-20190096>	no
DL	fe80::f0:624/64		<pppoe-20190961>	no
DL	fe80::f0:11ec/64		<pppoe-20190087>	no
DL	fe80::f0:1afa/64		<pppoe-20190391>	no
DL	fe80::f0:1c1f/64		<pppoe-20190694>	no
DL	fe80::f0:1d94/64		<pppoe-201901081>	no
DL	fe80::f0:1d95/64		<pppoe-20190748>	no

The dialog box 'IPv6 Address <2803:51a0:af:42/124>' is open, showing the following fields and options:

- Address: 2803:51a0:af:42/124
- From Pool: [Dropdown]
- Interface: sfp-sfpplus1
- EUI64
- Advertise
- No DAD
- Buttons: OK, Cancel, Apply, Disable, Comment, Copy, Remove
- Global: enabled

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Agregar la IPV6 Gateway asignada por el proveedor, por lo general asignan un /48 según el requerimiento

The screenshot displays the Mikrotik WinBox interface. On the left sidebar, the 'IPv6' menu item is highlighted with a red box. A red arrow points from this box to the 'IPv6 Route List' window. The 'Route <::/0>2803:51a0:af:41>' window is open, showing configuration for a static route. The configuration includes:

- General tab selected
- Dst Address: `::/0`
- Gateway: `2803:51a0:af:41`
- Immediate Gateway: `2803:51a0:af:41:sfp-sfpplus1`
- Check Gateway: (empty)
- Blackhole
- Distance: `1`
- Scope: `30`
- Target Scope: `10`
- VRF Interface: (empty)
- Routing Table: `main`

The 'IPv6 Route List' window shows a table of routes:

	Dst Address	Gateway	Distance
::: GATEWAY IPV6			
AS	<code>::/0</code>	<code>2803:51a0:af:41</code>	<code>1</code>
DAd	<code>2803:51a0:a4:3::/64</code>	<code>fe80::3d73:36d8:ae6a:8620%<pppoe-20190764></code>	<code>1</code>
DAv	<code>2803:51a0:a4:6::/64</code>	<code><pppoe-201901158></code>	<code>1</code>
DAd	<code>2803:51a0:a4:7::/64</code>	<code>fe80::6097:63ed:7fab:b90b%<pppoe-201901158></code>	<code>1</code>
DAd	<code>2803:51a0:a4:9::/64</code>	<code>fe80::62d2:ddff:fe47:5471%<pppoe-20190692></code>	<code>1</code>
DAd	<code>2803:51a0:a4:19::/64</code>	<code>fe80::b8d2:4708:2aaf:8a90%<pppoe-20190637></code>	<code>1</code>
DAd	<code>2803:51a0:a4:1e::/64</code>	<code>fe80::62d2:ddff:fe47:79d9%<pppoe-20190761-1></code>	<code>1</code>

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Configurar el POOL IPV6

The screenshot shows the Mikrotik WinBox interface with the following elements:

- Session:** 181.198.67.123:8295
- Left Sidebar:** A tree view of configuration categories. 'IPv6' is highlighted in red, and its sub-menu 'Pool' is also highlighted in red.
- IPv6 Pool Window:** A window titled 'IPv6 Pool' with two tabs: 'Pools' and 'Used Prefixes'.
 - The 'Pools' tab contains a table with the following data:

Name	Prefix	Prefix Length	Exp
pool-lan-onus	2800:2a0:2123::/49	64	
pool-lan-prefix-delegation	2800:2a0:2123:8000::/49	64	
 - The 'Used Prefixes' tab is currently empty.
- Configuration Dialogs:** Two dialog boxes are open, one for each pool.
 - IPv6 Pool <pool-lan-onus>:** Fields include Name (pool-lan-onus), Prefix (2800:2a0:2123::/49), Prefix Length (64), and Expire Time (empty). Buttons: OK, Cancel, Apply, Copy, Remove.
 - IPv6 Pool <pool-lan-prefix-delegation>:** Fields include Name (pool-lan-prefix-delegation), Prefix (2800:2a0:2123:8000::/49), Prefix Length (64), and Expire Time (empty). Buttons: OK, Cancel, Apply, Copy, Remove.

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The screenshot shows the MikroTik WinBox interface. On the left sidebar, the 'PPP' menu item is highlighted with a red box. The main window displays the 'PPP Profile <OVPN-SmartOLT>' configuration dialog. In this dialog, the 'Remote IPv6 Prefix Pool' and 'DHCPv6 PD Pool' fields are highlighted with a red box, both set to 'pool-lan-onus' and 'pool-lan-prefix-delegation' respectively. The 'Name' field is set to 'OVPN-SmartOLT'. Other fields like 'Local Address', 'Remote Address', 'Bridge', and 'Bridge Learning' are also visible. The 'Address List' is set to 'CLIENTES IP'.

Después de crear el PoolIPv6, se debe de relacionar en el PPPOE Profiles.

Esto generara los prefijos para las ont y los clientes.