

## How to set up 6to4 on the WAN and DHCPv6 on the LAN

This example shows how to configure your ATP/USG Flex's WAN as IPv4 address and LAN interface as auto-configuration.

In this scenario:

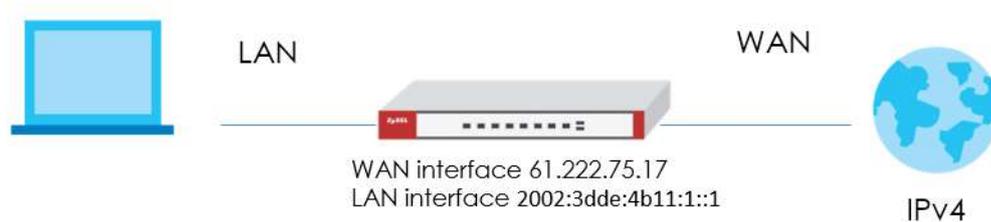
WAN IPv4 Address is 61.222.75.17

DNS Server Set as 2001:4860:4860::8888

LAN Subnet Set as 2002:3dde:4b11:1::/64

As Note: IPv4 must be convert to HEX, this means IP61.222.75.17 => HEX: **3d.de.4b.11**.

This must be used Prefix+Hex:1/64 is IPv6 IP.



## Setting Up the IPv4 Interfaces

### Wan

1. In the Configuration > Ethernet > IPv4 Configuration section, double-click the WAN interface you want to modify.
2. Set a IPv4 IP address for example the below IP address is 61.222.75.17.

IPv4 View  Show Advanced Settings  Create New Object

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### IP Address Assignment

Get Automatically

Advance

Use Fixed IP Address

IP Address:

Subnet Mask:

Gateway:  ((Optional))

Metric:  (0-15)

Enable IGMP Support

IGMP Upstream

IGMP Downstream

3. Navigate to CONFIGURATION > Network > Interface > Tunnel > Add, Select Enable. Enter tunnel0 as the Interface Name and select 6to4 as the Tunnel

Mode. In the 6to4 Tunnel Parameter section, this example just simply uses the default 6to4 Prefix, 2002::/16. Enter your Relay Router's IP address (192.88.99.1 in this example). Select wan1 as the Gateway. Click OK

**Add corresponding**

Show Advanced Settings

**General Settings**

Enable

**Interface Properties**

Interface Name: tunnel0

Zone: TUNNEL

Tunnel Mode: 6to4

**IPv6 Address Assignment**

IPv6 Address/Prefix Length: (Optional)

Metric: 0 (0-15)

**6to4 Tunnel Parameter**

6to4 Prefix: 2002::/16

Relay Router: 192.88.99.1 ((Optional))

**NOTE: traffic destined to the non-6to4 prefix domain tunnels to the relay router**

Advance

**Gateway Settings**

My Address

Interface wan Static -- 61.222.75.17/255.255.255.0

IP Address 0.0.0.0

Remote Gateway Address: Automatic

OK Cancel

## Lan

1. Create IPv6 DHCP Pool (Configuration > Object > DHCPv6 > Lease > Add)

**Add corresponding**

Name: DHCP\_Address\_Pool

Lease Type: Address Pool

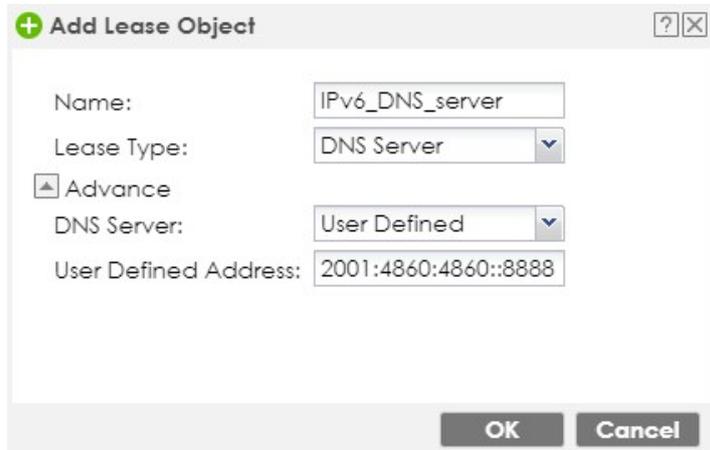
Interface: lan1

Starting IP Address: 2002:3dde:4b11:1::2

End IP Address: 2002:3dde:4b11:1::12

OK Cancel

2. Create IPv6 DHCP DNS Server object. (Configuration > Object > DHCPv6 > Lease > Add)



**+ Add Lease Object** [?] [X]

Name: IPv6\_DNS\_server

Lease Type: DNS Server

Advance

DNS Server: User Defined

User Defined Address: 2001:4860:4860::8888

OK Cancel

In the Configuration > Ethernet > IPv6 Configuration section, double-click the LAN interface you want to modify.

3. Enable Interface and Enable IPv6. Key in IPv6 Address/Prefix Length:  
2002:3dde:4b11:1::1/64

**Edit Ethernet**

IPv6 View ▾ Hide Advanced Settings Create New Object

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**General Settings**

Enable Interface

**General IPv6 Setting**

Enable IPv6 ⓘ

**Interface Properties**

Interface Type: internal

Interface Name: lan1

Port: P3, P4, P5

Zone: LAN1

MAC Address: BC:CF:4F:B7:47:F2

Description:  ((Optional))

**IPv6 Address Assignment**

Enable Stateless Address Auto-configuration (SLAAC)

Link-Local Address: fe80::becf:4fff:feb7:47f2/64

IPv6 Address/Prefix Length: **2002:3dde:4b11:1::1/7** ((Optional))

4. Scroll down and choose Server for DHCPv6 dropdown menu. Navigate to IPv6 Router Advertisement Setting.

5. Enable Router Advertisement, Host Get Network Configuration From DHCPv6 and Hosts Get Other Configuration From DHCPv6 checkboxes.

IPv6 View ▾ Show Advanced Settings Create New Object

**DHCPv6 Setting**

DHCPv6: **Server**

DUID: 00:03:00:01:BC:CF:4F:B7:47:F2

Advance

DHCPv6 Lease Options

#	Name	Type	Value
1	IPv6_DNS_server	DNS Server	2001:4860:4860::8888
2	DHCP_Address_Pool	Address Pool	2002:3dde:4b11:1::2-...

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**IPv6 Router Advertisement Setting**

Enable Router Advertisement

Advance

Advertised Hosts Get Network Configuration From DHCPv6

Advertised Hosts Get Other Configuration From DHCPv6

## Test Result

```
C:\>ping 2002:3dde:4b11:1::1

Ping 2002:3dde:4b11:1::1 (使用 32 位元組的資料):
回覆自 2002:3dde:4b11:1::1: 時間<1ms
回覆自 2002:3dde:4b11:1::1: 時間<1ms
回覆自 2002:3dde:4b11:1::1: 時間<1ms
回覆自 2002:3dde:4b11:1::1: 時間<1ms

2002:3dde:4b11:1::1 的 Ping 統計資料:
    封包: 已傳送 = 4, 已收到 = 4, 已遺失 = 0 (0% 遺失),
    大約的來回時間 (毫秒):
        最小值 = 0ms, 最大值 = 0ms, 平均 = 0ms
```