Manual:Hurricane Electric Tunnel Broker Example for Home

From MikroTik Wiki

Following example will show how to get IPv6 connectivity on a RouterOS device through IPv4 network using 6to4 tunnel.

To be able to create the tunnel, you have to have a public IPv4 address and enable ping from Tunnel Broker IPv4 server.

When you create a tunnel using Hurricane Electric Tunnel Broker (https://tunnelbroker.net), you will be given a routed /64 IPv6 prefix and additional information necessary for setting up the tunnel:

Applies to RouterOS: v6.34+

IPv6 Tunnel Endpoints

Server IPv4 address:	216.66.80.90
Server IPv6 address:	2001:470:**27**:37e::1/64
Client IPv4 address:	**194.105.56.170**
Client IPv6 address:	2001:470:**27**:37e::2/64

Available DNS Resolvers

Anycasted IPv6 Caching Nameserver:	2001:470:20::2
Anycasted IPv4 Caching Nameserver:	74.82.42.42

Routed IPv6 Prefixes and rDNS Delegations

Routed /64:	2001:470:**28**:37e::/64

This example presumes that your public IPv4 address is 194.105.56.170

Hurricane Electric provides ready to use commands for RouterOS in the 'Example Configurations' section:

```
/interface 6to4 add comment="Hurricane Electric IPv6 Tunnel Broker" disabled=no \
 local-address=194.105.56.170 mtu=1280 name=sit1 remote-address=216.66.80.90
```

```
/ipv6 route add comment="" disabled=no distance=1 dst-address=2000::/3 gateway=2001:470:27:37e::1 \
 scope=30 target-scope=10
```

```
/ipv6 address add address=2001:470:27:37e::2/64 advertise=no disabled=no eui-64=no interface=sit1
```

These commands will setup the tunnel itself - the router will be able to connect to IPv6 hosts, but end-user devices (computers, tablets, phones) will not yet have IPv6 connectivity.

To be able to assign IPv6 addresses to your clients you have to add the Routed IPv6 Prefix to your internal interface (by default bridge-local)

```
/ipv6 address add address=2001:470:28:37e:: interface=bridge-local advertise=yes
```

Enable DNS server advertising through network discovery

```
/ipv6 nd set [ find default=yes ] advertise-dns=yes
```

And finaly add IPv6 DNS servers (these are Google public DNS servers, you can also use the one which is provided by Hurricane Electric - 2001:470:20::2)

```
/ip dns set allow-remote-requests=yes servers=2001:4860:4860::8888,2001:4860:4860::4444
```

Afterwards enable IPv6 on your device and you should have IPv6 connectivity. http://ipv6-test.com can be used to test IPv6 connectivity

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