How to configure IPv6 with Netplan on Ubuntu 18.04

Początek formularza

Introduction

Nowadays it became more important to configure your [server](https://www.snel.com/self-managed-servers/) with IPv6 and make it accessible via IPv6. To achieve this you can use this article to configure IPv6 for your [Ubuntu](https://www.snel.com/operating-systems/ubuntu-linux/) server.

Prerequisites

To configure your machine, you’ll need to have a working SSH connection to the [server](https://www.snel.com/self-managed-servers/). Because the modifications affect core system settings, you’ll need to have root privileges to make changes to the network interface. Finally, note that these instructions are for [Ubuntu](https://www.snel.com/operating-systems/ubuntu-linux/) 18.04, so note that this version of Ubuntu switched to netplan for network configuration.

Step 1 – Contact Support for an IPv6

If you do not have an IPv6 address assigned, the first step is to send an email to support@snel.com in order the get the required information for configuring your server with IPv6.

Step 2 – Log in to your server

Open a terminal and log in to your server using SSH

ssh root@ip\_address\_or\_domain

Step 3 – Configure network configuration

Since Ubuntu 18.04 you can use Netplan to configure your network interfaces. This is a yaml based configuration file which is used to configure the network interface of your server. In our example, our yaml file has the following name

/etc/netplan/01-netcfg.yaml

and the filename can be different on your installation. Please inspect the configuration file below

network:

version: 2

renderer: networkd

ethernets:

ens18:

accept-ra: no

addresses:

- 193.33.61.xxx/24

gateway4: 193.33.61.1

nameservers:

addresses: [89.207.128.252, 89.207.130.252]

Step 4 – Apply the changes

We can see that IPv4 is configured for this server. To add IPv6 we can add the IPv6 address with the prefix below the addresses also do not forget to add the IPv6 gateway. The configuration file should be similar to the config file below.

network:

version: 2

renderer: networkd

ethernets:

ens18:

accept-ra: no

addresses:

- 193.33.61.xxx/24

- 2a00:7b80:454:2000::xxx/48

gateway4: 193.33.61.1

gateway6: 2a00:7b80:454::1

nameservers:

addresses: [89.207.128.252, 89.207.130.252]

Before changing the configuration file it’s recommended to check for syntax errors. This can be checked with

netplan try

You can also apply the changes without checking on syntax error

netplan apply

Step 5 – Verify IPv6 on your Server

The final step is to check whether the configured IPv6 is working. If your own working station is supporting IPv6 you can test it through your terminal. You can find the commands below per Operating System.

Windows:

ping -6 2a00:7b80:451:1::8

Linux:

ping6 2a00:7b80:451:1::8

MacOS:

ping6 2a00:7b80:451:1::8

network:

version: 2

ethernets:

ens3:

dhcp4: true

dhcp6: no

addresses:

- 2a07:85XX:0:XXX::2/64

gateway6: 2a07:85XX::1

nameservers:

addresses:

- 1.1.1.1

- 8.8.8.8

- 2606:4700:4700::1111

- 2001:4860:4860::8888