



# Connecting to IPv6

## ...for Linux

### Connecting with Linux

Most recent releases of the major linux distributions, such as Fedora, OpenSUSE, and Ubuntu, support IPv6 by default. The following instructions are fairly generic and should cover most linux distributions that support IPv6.

To set up IPv6 on Linux, you will need to have root level access to the computer you are using.

1. Open a **terminal window**
2. Get root level access if you haven't already, using one of the following commands:

```
su -      OR      sudo su -
```

3. To check if IPv6 is enabled, type the following command:

```
ls /proc/net/if_inet6
```

If IPv6 is enabled, the file should exist and you should see something like the following:

```
/proc/net/if_inet6
```

If this is the case, you can skip forward to step 4. If IPv6 is not enabled, the file will not exist, and you will see the following:

```
ls: cannot access /proc/net/if_inet6: No such file or directory
```

If this is the case, try to enable the IPv6 module by typing:

```
modprobe ipv6
```

Now, check if the IPv6 module was loaded by typing:

```
lsmod | grep ipv6
```

If the module was loaded successfully you should see something like the following:

```
ipv6          245989  14
```

The file `/proc/net/if_inet6` should also now exist, as outlined above.

4. Configure the IPv6 DNS server address by typing the following command:

```
echo "nameserver 2402:6000:4001:4::2" >> /etc/resolv.conf
```

To check if you have IPv6 connectivity, follow these steps:

1. Type the following command:

```
ifconfig
```

This will show your computer's IP address information in the

Command Prompt window. You should have at least one IPv6 address: e.g., "2001:0DB8:C000:D000::3".

2. Now, to see if IPv6 is working, type the following command into the Command Prompt window:

```
ping6 www.apnic.net
```

If all goes well, you should see responses coming back from `www.apnic.net` over IPv6.

### A note on applications

Some software applications contain IPv6 support, but it is not turned on by default. This section contains basic instructions on how to enable Mozilla Firefox and Mozilla Thunderbird to lookup IPv6 addresses in DNS. The default setting in both is to only look for IPv4 addresses.

#### Mozilla Firefox

1. In the Firefox address bar, enter the following:

```
about:config
```

This will bring up a complete list of configuration options for Firefox.

2. Locate the option `network.dns.disableIPv6`, and set it to `false` if it is not already.

#### Mozilla Thunderbird

1. In Thunderbird, go to **Tools -> Options** (for Mac, **Thunderbird -> Preferences**; for Linux, **Edit -> Preferences**).

This will cause the Thunderbird options window to be displayed.

2. On the **Advanced** tab, click on the button labelled **Config Editor**.

This will bring up a complete list of configuration options for Thunderbird.

3. Locate the option `network.dns.disableIPv6`, and set it to `false` if it is not already.