

NetworkManager

NetworkManager (<https://networkmanager.dev/>) is a program that provides automatic detection and configuration for systems to connect to networks.

Installation

```
# apk add networkmanager (https://pkgs.alpinelinux.org/packages?name=networkmanager)
```

Note:

Networkmanager needs to have udev to be setup properly. The busybox implementation mdev is not sufficient. You can set up proper udev with:

```
# setup-devd udev
```

Otherwise your network devices can be listed as (strictly-)unmanaged.

There are multiple interfaces available for NetworkManager:

- TUI: `networkmanager-tui` (https://pkgs.alpinelinux.org/packages?name=networkmanager-tui&branch=edge&repo=&arch=x86_64&maintainer=), a curses-based interface (run `nmtui`)
- Command line: `networkmanager-cli` (https://pkgs.alpinelinux.org/packages?name=networkmanager-cli&branch=edge&repo=&arch=x86_64&maintainer=) (run `nmcli`)
- GUI: `plasma-nm` (https://pkgs.alpinelinux.org/packages?name=plasma-nm&branch=edge&repo=&arch=x86_64&maintainer=) for Plasma integration and applet
- GUI: `network-manager-applet` (https://pkgs.alpinelinux.org/packages?name=network-manager-applet&branch=edge&repo=&arch=x86_64&maintainer=) for a GTK system tray applet

You will need to install an additional package if you want NetworkManager to connect to wifi:

```
# apk add networkmanager-wifi (https://pkgs.alpinelinux.org/packages?name=networkmanager-wifi)
```

After installation start NetworkManager:

```
# rc-service networkmanager start
```

Then set it to autostart the service on boot:

```
# rc-update add networkmanager default
```

Also your user needs to be in the plugdev group:

```
# adduser <YourUsername> plugdev
```

Note: you will need to log out for the new group to take effect

Wired networks

If wired networks do not appear or you get an error message like "Could not activate connection: Connection 'Ethernet connection 1' is not available on device etho because device is strictly unmanaged", add the following to `/etc/NetworkManager/NetworkManager.conf`:

```
[ifupdown]
managed=true
```

Wireless networks

wpa_supplicant backend



Todo: (KDE Plasma Desktop) find out if it is possible to prevent requesting the password for **KDE Wallet** on login



Todo: (KDE Plasma Desktop) for autoconnect to wifi network on start, it appears that the "all users may connect to this network" option must be selected in settings, as root is not a choice to allow. There are likely better workarounds

- Follow: [Wi-Fi#wpa supplicant](#) and [Wi-Fi#Automatic Configuration on System Boot](#)

Note: wpa_supplicant (https://pkgs.alpinelinux.org/packages?name=wpa_supplicant&bran)

`ch=edge&repo=&arch=x86_64&maintainer=)` configuration might not be required, if it isn't it may be a good idea to have it setup just as a fallback

Now open `/etc/NetworkManager/NetworkManager.conf` in a text editor and change it to something like this:

Contents of `/etc/NetworkManager/NetworkManager.conf`

```
[main]
dhcp=internal
plugins=ifupdown,keyfile

[ifupdown]
managed=true

[device]
wifi.scan-rand-mac-address=yes
wifi.backend=wpa_supplicant
```

Note: if these options dont work on your system you can change them as necessary

Now you need to stop conflicting services:

```
# rc-service networking stop
```

```
# rc-service wpa_supplicant stop
```

Now restart NetworkManager:

```
# rc-service networkmanager restart
```

Now connect to a network using one of the interfaces mentioned in [Installation](#)

If that connects and stays connected with no issues enable the `networkmanager` service and disable the `networking` and `wpa_supplicant` boot services:

```
# rc-update add networkmanager
```

```
# rc-update del networking boot
```

```
# rc-update del wpa_supplicant boot
```

iwd backend

NetworkManager supports wireless networks through `iwd` (https://pkgs.alpinelinux.org/packages?name=iwd&branch=edge&repo=&arch=x86_64&maintainer=), however, consider existing issues (<https://gitlab.freedesktop.org/NetworkManager/NetworkManager/-/issues?scope=all&utf8=%E2%9C%93&state=opened&search=iwd>) before using it. After installation, enable the server and restart NetworkManager:

```
rc-service iwd start
rc-service networkmanager restart
```

To use `iwd` (https://pkgs.alpinelinux.org/packages?name=iwd&branch=edge&repo=&arch=x86_64&maintainer=) though, you've have to edit NetworkManager's configuration because it still defaults to `wpa_supplicant` (https://pkgs.alpinelinux.org/packages?name=wpa_supplicant&branch=edge&repo=&arch=x86_64&maintainer=) instead. Add the following to `/etc/NetworkManager/NetworkManager.conf`:

```
[device]
wifi.backend=iwd
```

VPN support

Since version 1.16, NetworkManager has support for Wireguard^[1] (<https://cgit.freedesktop.org/NetworkManager/NetworkManager/tree/NEWS?id=1.16.0>).

Support for other VPN types is provided by plugins. They are provided in the following packages:

- `networkmanager-openvpn` (https://pkgs.alpinelinux.org/packages?name=networkmanager-openvpn&branch=edge&repo=&arch=x86_64&maintainer=) for OpenVPN

nm-applet

not authorized to control networking

You can enable all users to edit connections without adding polkit. First, make the `conf.d` directory for networkmanager:

```
# mkdir -p /etc/NetworkManager/conf.d
```

Then, add following content to `/etc/NetworkManager/conf.d/any-user.conf`:

```
[main]
auth-polkit=false
```

Finally, restart networkmanager:

```
# rc-service networkmanager restart
```

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