nmcli NetworkManager CLI

CONCEPTS

A device is a network interface; a connection is a saved profile that can be activated on a device.

Device eth0, wlan0
↓ has
Profile saved settings
↓ up
Active connection running config

Names can be abbreviated: nmcli c s, nmcli d, nmcli d w l.

connection modify writes the saved profile only; run connection up again (or device reapply) to apply it.

STATUS

nmcli general status
Show NetworkManager state

nmcli device status
List devices and their state

nmcli device show *<ifname>*
Show device details and IP

nmcli networking connectivity check
Recheck internet connectivity

nmcli -t -f RUNNING general
Is NetworkManager running?

nmcli monitor
Watch changes live

WI-FI

nmcli device wifi list
List access points

nmcli device wifi connect *<ssid>* **password** *<pw>*
Connect to a network

nmcli --ask device wifi connect *<ssid>*
Connect, prompt for password

nmcli radio wifi off
Switch Wi-Fi off

nmcli radio wifi on
Switch Wi-Fi on

nmcli device wifi rescan
Trigger a new scan

nmcli device wifi list --rescan yes
Rescan, then list

WI-FI (cont.)

nmcli device wifi connect *<ssid>* **password** *<pw>* **hidden yes**
Join a hidden network

nmcli device wifi show-password
Show current SSID and key

nmcli device wifi hotspot ssid *<ssid>* **password** *<pw>*
Start a hotspot

CONNECTIONS

nmcli connection show
List saved profiles

nmcli connection show --active
List active connections

nmcli connection show *<name>*
Show every setting of a profile

nmcli connection up *<name>*
Activate a profile

nmcli connection down *<name>*
Deactivate a profile

nmcli connection up *<name>* **ifname** *<ifname>*
Activate on a given device

nmcli connection delete *<name>*
Delete a profile

nmcli connection edit *<name>*
Edit interactively

nmcli connection reload
Reread profiles from disk

ADD AND MODIFY

nmcli connection add type ethernet ifname *<ifname>* **con-name** *<name>*
Create an Ethernet profile (DHCP)

nmcli connection add type wifi ifname *<ifname>* **con-name** *<name>* **ssid** *<ssid>*
Create a Wi-Fi profile

nmcli connection modify *<name>* **connection.autoconnect no**
Stop auto-connecting

nmcli connection modify *<name>* **wifi-sec.key-mgmt wpa-psk wifi-sec.psk** *<pw>*
Set Wi-Fi security

ADD AND MODIFY (cont.)

nmcli connection modify *<name>* **ipv4.method manual ipv4.addresses** *<ip>*/*<len>* **ipv4.gateway** *<gw>*
Set a static IPv4 address

nmcli connection modify *<name>* **ipv4.dns "***<dns1>* *<dns2>***"**
Set DNS servers

nmcli connection modify *<name>* **+ipv4.dns** *<dns>*
Append a DNS server

nmcli connection modify *<name>* **ipv4.method auto**
Back to DHCP

DEVICES AND SYSTEM

nmcli device connect *<ifname>*
Connect a device

nmcli device disconnect *<ifname>*
Disconnect, block auto-connect

nmcli device reapply *<ifname>*
Apply profile changes live

nmcli general hostname
Show the hostname

nmcli general hostname *<name>*
Set the hostname

OUTPUT AND OPTIONS

nmcli -p *<command>*
Pretty output

nmcli -t -f *<fields>* *<command>*
Terse, selected fields

nmcli -g *<fields>* *<command>*
Print only the values

RECIPES

Static IP on Ethernet

```
nmcli connection modify "Wired
connection 1" \
  ipv4.method manual \
  ipv4.addresses 192.168.1.50/24
\
  ipv4.gateway 192.168.1.1 \
  ipv4.dns "1.1.1.1 9.9.9.9"
nmcli connection up "Wired
connection 1"
```