NavGATE

CLI REFERENCE

NAVGATE OS · NAVIJIN GATEWAYS

NavCLI 2.0 Command Reference

The Navijin gateway command line: navigate the settings tree, stage and apply changes safely, read live status and run diagnostics, from the serial console or the built-in web CLI.

Settings tree | Staged changes | Live status | Diagnostics | Port forwarding | NavCloud

Applies to
NG-GE504-P with NavGATE OS 1.0.19 or later

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ABOUT THIS GUIDE

About NavCLI

NavCLI is the command line of **NavGATE OS**, the operating system of Navijin gateways. Settings are organised in **folders (paths)**. You move with `cd`, look with `ls`, prepare changes with `set`, and apply them all at once with `save`. Nothing changes on the network until you type `save`, and the prompt shows `*` while changes are waiting. Every input is validated against fixed patterns, so mistakes are rejected with a clear message instead of breaking the configuration.

Conventions: menu paths are shown in **bold** (for example **Network** → **VLAN**); commands and values in `monospace`. Screenshots may differ slightly by firmware version.

Who this guide is for

- Network engineers and integrators who prefer the command line
- Support teams working through the web CLI
- Administrators repeating standard configurations

What you need

- A Navijin gateway running NavGATE OS
- The administrator password (created at first sign-in; there is no default password)
- A console cable, or a browser for the web CLI

Factory defaults

Setting	Default
Default LAN address	`192.168.1.1/24` (web interface at `https://192.168.1.1`)
Administrator password	None. You create it at first sign-in in the web interface
Shortcut	`nv` is an alias for `navcli`
Cloud	NavCloud connection enabled, check-in every 300 seconds

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SECTION 01

Opening NavCLI

NavCLI is available in three places. The commands are the same in each.

Where	How	Notes
Serial console	Connect the console cable and sign in	NavCLI opens automatically after sign-in. Type `linux` for the system shell.
Web CLI	Web interface → **NavCLI**	Available to signed-in administrators. Actions that ask for confirmation need `yes` at the end, e.g. `run reboot yes`.
SSH / Telnet	Not available	By design, NavGATE OS does not run SSH or Telnet services, which removes common attack surfaces.

NOTE

The serial console never offers a password-less shell. If no administrator password has been set yet, the console shows the web address where you must finish setup.

```
Navijin NavGATE OS - NavCLI 2.0. Type help.
[Office-GW] / > help
```

SECTION 02

How NavCLI works

1 Move to a folder

Settings live in folders. Use absolute or relative paths.

```
cd /network/wan      go to the internet settings
cd ..                one folder up
cd /                 back to the top
```

2 Look at the settings

`ls` shows sub-folders, or each setting with its current value.

```
[Office-GW] /network/wan > ls
  mode       dhcp
  ip
  gateway
  dns        1.1.1.1
  username
  password
```

3 Prepare changes

`set` stages a change in the current folder. The prompt shows `*` while changes are waiting.

```
[Office-GW] /network/wan > set mode static
[Office-GW] /network/wan* > set ip 203.0.113.10/24
[Office-GW] /network/wan* > set gateway 203.0.113.1
[Office-GW] /network/wan* > set dns 1.1.1.1 8.8.8.8
```

4 Review

`diff` lists every staged change in all folders. Passwords are hidden.

```
[Office-GW] /network/wan* > diff
```

5 Apply or cancel

`save` checks all staged changes and applies them; only the services involved restart. `discard` cancels everything.

```
[Office-GW] /network/wan* > save
[ok] saved and applied: network
```

TIP

Run one command in another folder without moving: `/network/lan set ip 10.0.0.1/24`. Filter any output with `| find`: `stat leases | find iphone`.

SECTION 03

Command summary

Command	What it does	Example
`cd <path>`	Go to a settings folder	`cd /network/dhcp`
`ls`	Show sub-folders or settings with values	`ls`
`print [path]`	Show settings as text (all, or one branch)	`print /network`
`set <key> <value>`	Stage a change in the current folder	`set hostname Office-GW`
`unset <key>`	Put a setting back to its default	`unset lease`
`add <name>` / `del <name>`	Create or remove an entry in a list folder	`add camera1` (in /firewall/forward)
`diff`	List all staged changes	`diff`
`save`	Validate and apply all staged changes	`save`
`discard`	Cancel all staged changes	`discard`
`stat <item>`	Live status, read only	`stat ports`
`run <action>`	Diagnostics and actions	`run ping 1.1.1.1`
`help [command|folder]`	Help for a command or folder	`help set` , `help wan`
`history` · `clear` · `exit`	Session helpers	
`linux`	System shell (console only)	

SECTION 04

Settings reference

These are the folders and keys you can change with `set` , with the values NavCLI accepts.

Folder	Key	Allowed values	Default
`/system`	`hostname`	Letters, digits, `- _ .` (max 63)	
`/system`	`timezone`	Region/City, e.g. `Asia/Dubai` , `Europe/London` , or `UTC`	UTC
`/network/wan`	`mode`	`dhcp` · `static` · `pppoe`	dhcp

`/network/wan`	`ip`	Address/prefix for static, e.g. `203.0.113.10/24` (prefix /8–/30)	
`/network/wan`	`gateway`	Provider's router address	
`/network/wan`	`dns`	One or more addresses separated by spaces	
`/network/wan`	`username` / `password`	PPPoE account (1–64 characters, no spaces in username)	
`/network/lan`	`ip`	Gateway LAN address, e.g. `192.168.20.1/24`	192.168.1.1/24
`/network/dhcp`	`server`	`on` · `off`	on
`/network/dhcp`	`start`	First address (last octet) 2–254	100
`/network/dhcp`	`count`	Number of addresses 1–253	150
`/network/dhcp`	`lease`	e.g. `30m` , `12h` , `1d`	12h
`/cloud`	`enabled`	`yes` · `no`	yes
`/cloud`	`interval`	Check-in interval, 60–86400 seconds	300
`/firewall/forward/<name>`	`protocol`	`tcp` · `udp` · `both`	
`/firewall/forward/<name>`	`wan-port`	1–65535 or a range such as `8000-8010`	
`/firewall/forward/<name>`	`to-ip`	LAN device address	
`/firewall/forward/<name>`	`to-port`	Port on the device (default: same as wan-port)	

NOTE

`save` refuses incomplete settings and tells you what to fix. For example, a static WAN without `ip` and `gateway` , PPPoE without a `username` , or a port forward without `wan-port` and `to-ip` .

SECTION 05

Live status: stat

Command	Shows
`stat system`	Model, NavGATE OS version, serial number, hostname, cloud state, time and uptime
`stat perf`	CPU, memory, sessions, current WAN download/upload, load

`stat history 1m|1h|24h`	Now, average and peak for CPU, memory, sessions and WAN download
`stat ports`	Link state and speed of LAN1–LAN4 and WAN
`stat leases`	Devices with an address from this gateway: IP, MAC, name, type, vendor and where they are connected
`stat devices [ap|switch|camera]`	Navijin access points, switches and cameras: model, firmware, online/offline
`stat cloud`	NavCloud state, last contact, serial and claim code
`stat arp` · `stat routes` · `stat sessions`	Neighbour table, IPv4 routes, active session count

```
[Office-GW] / > stat system
  Model            NG-GE504-P
  Firmware         NavGATE OS 1.0.19
  Serial           NJ...
  Hostname         Office-GW
  Cloud            connected
  Uptime           3d 4h 12m
```

SECTION 06

Tools and actions: run

Command	What it does
`run ping <host>`	Send 4 pings
`run trace <host>`	Trace the path (up to 15 hops)
`run lookup <name>`	DNS lookup
`run log [n]`	Last n lines of the system log (default 30, max 500)
`run reboot`	Restart the gateway (asks for confirmation)
`run factory-reset`	Erase all settings and restart with factory defaults (asks for confirmation)
`run new-claim-code`	Create a new NavCloud claim code; the old one stops working

IMPORTANT

`run factory-reset` erases the administrator password and every setting. Back up the configuration first (web interface → Maintenance → Backup & restore).

SECTION 07

Worked examples

1 Name the gateway and set the time zone

```
cd /system
set hostname DXB-Office-GW
set timezone Asia/Dubai
save
```

2 Change the LAN subnet and DHCP pool

After saving, reconnect your computer to the new subnet.

```
cd /network/lan
set ip 10.20.0.1/24
cd /network/dhcp
set start 50
set count 200
set lease 8h
save
```

3 Connect with PPPoE

```
cd /network/wan
set mode pppoe
set username user@isp
set password ********
save
```

4 Publish a service with a port forward

Use port forwarding only for services that must be public; for cameras and NVRs use VPN instead.

```
cd /firewall/forward
add webserver
cd webserver
set protocol tcp
set wan-port 443
set to-ip 192.168.1.20
save
```

5 Connect the gateway to NavCloud

```
/cloud set enabled yes
save
stat cloud          shows the claim code to enter in NavCloud
```

6 Troubleshoot an Internet problem

```
stat ports
stat system
run ping 1.1.1.1
run lookup navijin.com
run trace cloud.navijin.com
run log 50 | find wan
```

SECTION 08

Errors and good practice

Message	Meaning	Fix
`'x' is not a setting here - type ls`	The key does not exist in this folder	Run `ls` or `help <folder>`
`ip: a.b.c.d/nn`	Address format not valid	Use address/prefix, e.g. `192.168.1.1/24`
`static WAN needs ip and gateway`	Incomplete static WAN	Set both, then `save`
`PPPoE needs a username`	Incomplete PPPoE	Set `username` (and `password`)
`forward 'x' needs wan-port and to-ip`	Incomplete port forward	Set both values
`... add 'yes' at the end to confirm`	Confirmation needed in the web CLI	e.g. `run reboot yes`

- Always review with `diff` before `save`.
- Change LAN addresses from the console or with a second way back in.
- Keep the administrator password unique and long; remote CLI access is only through the authenticated web interface.
- Keep NavGATE OS updated; firmware is distributed as signed images.

Navijin

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