Nomad Workload orchestrator

CONCEPTS

You submit a job; Nomad evaluates it and places allocations on client nodes. Status commands walk that chain.

Job your spec file
↓ `evaluation`
Eval scheduler run
↓ `places`
Allocation group on a node
↓ `runs`
Task container, process
↓ `logs, exec`

job plan exits 0 for no change, 1 when allocations would change, 255 on error. Handy in CI.

Job, alloc and node IDs can be shortened to a unique prefix.

CONNECT

`export NOMAD_ADDR=`*`<url>`*
Set the server address

`export NOMAD_TOKEN=`*`<secret-id>`*
Authenticate with an ACL token

`export NOMAD_NAMESPACE=`*`<ns>`*
Work in a namespace

`nomad` **`server members`**
List servers and leader

`nomad` **`version`**
Print the CLI version

RUN JOBS

`nomad` **`job init`**
Write example.nomad.hcl

`nomad` **`job validate`** *`<file>`*
Check a job file offline

`nomad` **`job plan`** *`<file>`*
Dry run with a diff

`nomad` **`job run`** *`<file>`*
Submit or update a job

`nomad` **`job run -detach`** *`<file>`*
Submit without monitoring

`nomad` **`job run -var`** *`<key>=<value> <file>`*
Set a job variable

INSPECT JOBS

`nomad` **`status`**
List all jobs

`nomad` **`job status`** *`<job>`*
Summary, allocations, deployment

`nomad` **`job inspect`** *`<job>`*
Show the stored job as JSON

`nomad` **`job history`** *`<job>`*
List versions of a job

`nomad` **`job allocs`** *`<job>`*
List allocations of a job

CHANGE AND STOP

`nomad` **`job stop`** *`<job>`*
Stop a job

`nomad` **`job stop -purge`** *`<job>`*
Stop and remove from the state

`nomad` **`job scale`** *`<job> <group> <count>`*
Set a task group count

`nomad` **`job revert`** *`<job> <version>`*
Roll back to an older version

`nomad` **`job restart`** *`<job>`*
Restart allocations in place

`nomad` **`job promote`** *`<job>`*
Promote canaries

ALLOCATIONS

`nomad` **`alloc status`** *`<alloc>`*
Task states and events

`nomad` **`alloc logs`** *`<alloc> <task>`*
Print task stdout

`nomad` **`alloc logs -f`** *`<alloc> <task>`*
Follow logs

`nomad` **`alloc logs -job`** *`<job>`*
Logs of a random alloc of the job

`nomad` **`alloc exec`** *`<alloc> <cmd>`*
Run a command in a task

`nomad` **`alloc fs`** *`<alloc>`* **`[`***`<path>`***`]`**
Browse the allocation directory

`nomad` **`alloc restart`** *`<alloc>`*
Restart a task in place

NODES

`nomad` **`node status`**
List client nodes

`nomad` **`node status`** *`<node>`*
Resources and allocations of a node

`nomad` **`node drain -enable`** *`<node>`*
Migrate allocations away

`nomad` **`node drain -disable`** *`<node>`*
Cancel a drain

`nomad` **`node eligibility -disable`** *`<node>`*
Stop new placements

EVALS AND DEPLOYMENTS

`nomad` **`eval status`** *`<eval>`*
Why a placement failed

VARIABLES AND NAMESPACES

`nomad` **`var put`** *`<path> <key>=<value>`*
Write a variable

`nomad` **`var get`** *`<path>`*
Read a variable

RECIPES

Plan, then apply exactly that plan

```
nomad job plan web.nomad.hcl
# copy the Job Modify Index from the output
nomad job run -check-index <n> web.nomad.hcl
```

Drain a node for maintenance

```
nomad node drain -enable -yes <node>
nomad node status <node>
# ...maintenance...
nomad node drain -disable <node>
nomad node eligibility -enable <node>
```

Debug a failing task

```
nomad job status <job>
nomad alloc status <alloc>
nomad alloc logs -stderr <alloc> <task>
nomad alloc exec -task <task> <alloc> /bin/sh
```