Nomad Workload orchestrator

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

CONCEPTS

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

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

RUN JOBS (cont.)

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 -check-index *<n> <file>*
Submit only if unchanged since plan

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

ALLOCATIONS (cont.)

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

nomad var list **[***<prefix>***]**
List variables

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
```