Linkerd Service mesh CLI

CONCEPTS

The CLI only prints YAML: pipe it to kubectl apply -f - to change the cluster.

linkerd install CRDs, then control plane
↓ linkerd check
Control plane identity, destination, policy
↓ inject
Meshed pods proxy sidecar per pod
↓ viz install
Viz extension stat, tap, top, dashboard

Install order matters: CRDs first, then the control plane, then extensions such as viz.

Meshing is done at pod creation: restart workloads after annotating them.

INSTALL & UPGRADE

linkerd check --pre
Pre-flight cluster checks

linkerd install --crds | kubectl apply -f -
Install the CRDs

linkerd install | kubectl apply -f -
Install the control plane

linkerd viz install | kubectl apply -f -
Install the viz extension

linkerd install --ha
High-availability control plane

linkerd install --set *<key>=<val>*
Override a Helm chart value

linkerd install -f *<values.yaml>*
Install with a values file

linkerd install --identity-trust-anchors-file *<ca.crt>*
Supply your own trust anchor

CHECK & VERSION

linkerd check
Verify the control plane

linkerd check --proxy -n *<ns>*
Verify data-plane proxies

CHECK & VERSION (cont.)

linkerd check --crds
Only check the CRDs

linkerd viz check
Verify the viz extension

linkerd version
Client and server versions

linkerd version --client
Client version only

INJECT

linkerd inject *<file|dir|URL⟶>*
Annotate manifests for meshing

kubectl get deploy *<name>* **-o yaml | linkerd inject - | kubectl apply -f -**
Mesh a live deployment

kubectl annotate ns *<ns>* **linkerd.io/inject=enabled**
Auto-inject a whole namespace

linkerd uninject *<file⟶>*
Remove the injection annotation

DASHBOARD

linkerd viz dashboard
Open the web dashboard

linkerd viz dashboard --port *<n>*
Pick the local port

linkerd viz dashboard --show url
Print the URL only

METRICS

linkerd viz stat deploy -n *<ns>*
Success rate, RPS, latency

linkerd viz stat *<kind>/<name>* **-n** *<ns>*
Stats for one resource

linkerd viz stat ns
Stats per namespace

linkerd viz stat deploy -A
All namespaces

linkerd viz stat deploy/ *<name>* **--from deploy/**<src>
Traffic from a source

linkerd viz stat deploy --to deploy/<dst>
Traffic to a destination

METRICS (cont.)

linkerd viz stat deploy -t *<window>*
Time window, 15s minimum

linkerd viz edges deploy -n *<ns>*
Show who talks to whom (mTLS)

linkerd viz routes svc/ *<name>* **-n** *<ns>*
Per-route metrics

LIVE TRAFFIC

linkerd viz tap deploy/ *<name>* **-n** *<ns>*
Stream live requests

linkerd viz tap deploy/ *<name>* **--path** *<prefix>*
Filter by path prefix

linkerd viz tap deploy/ *<name>* **--method** *<verb>*
Filter by HTTP method

linkerd viz top deploy/ *<name>* **-n** *<ns>*
Top-like live table of requests

DEBUG & IDENTITY

linkerd identity -n *<ns>* *<pod>*
Show a pod's mTLS certificate

UNINSTALL

linkerd viz uninstall | kubectl delete -f -
Remove the viz extension

linkerd uninstall | kubectl delete -f -
Remove the control plane

GLOBAL FLAGS

-n, --namespace *<ns>*
Namespace of the resource

--context *<name>*
Kubeconfig context

--kubeconfig *<path>*
Kubeconfig file

RECIPES

Mesh a namespace and verify

```
kubectl annotate ns <ns>
linkerd.io/inject=enabled
kubectl rollout restart deploy -n
<ns>
linkerd check --proxy -n <ns>
linkerd viz stat deploy -n <ns>
```