istioctl Service mesh CLI

CONCEPTS

Run analyze after every config change: it catches missing gateways, bad hosts and unlabelled namespaces before traffic breaks.

istiod control plane
↓ xDS push
Envoy / ztunnel data plane
↓ proxy-status
proxy-config what it received

A pod is <name>.<namespace>; use deployment/<name> in place of a pod name where the command accepts it.

proxy-config prints the xDS config a proxy holds; proxy-status tells you whether it is current.

INSTALL

istioctl install --set profile=<*name*>
Install a profile

istioctl install -f <*iop.yaml*>
Install from an IstioOperator file

istioctl install --set <*path*>**=**<*value*>
Override a single value

istioctl x precheck
Check the cluster before install

istioctl manifest generate -f <*iop.yaml*>
Render manifests to stdout

istioctl install -r <*rev*>
Install a revision alongside others

istioctl uninstall --revision <*rev*>
Remove one revision

istioctl uninstall --purge
Remove every Istio resource

STATUS & VERSION

istioctl version
Show client and control plane versions

istioctl proxy-status
Sync state of every proxy

ANALYZE & VALIDATE

istioctl analyze
Analyze the current namespace

istioctl analyze -A
Analyze all namespaces

istioctl analyze <*file.yaml*>
Check a file before applying

istioctl analyze -n <*ns*>
Analyze one namespace

PROXY CONFIG

istioctl pc cluster <*pod*>
Upstream clusters of a proxy

istioctl pc listener <*pod*>
Listeners of a proxy

istioctl pc route <*pod*>
Route tables of a proxy

istioctl pc endpoint <*pod*>
Endpoints the proxy knows

INJECT & DESCRIBE

istioctl x describe pod <*pod*>
Explain routing and policy for a pod

istioctl x check-inject <*pod*>
Why was sidecar injected or not?

istioctl kube-inject -f <*file.yaml*>
Inject the sidecar into a manifest

DASHBOARDS

istioctl dashboard kiali
Open Kiali

REVISIONS & TAGS

istioctl tag set <*tag*> **--revision** <*rev*>
Point a tag at a revision

AMBIENT

istioctl waypoint apply -n <*ns*>
Create a waypoint proxy

GLOBAL FLAGS

-n <*ns*>
Target namespace

--context <*name*>
Kubeconfig context to use