

Configuring Spinnaker



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Overview

Configure Spinnaker to be production ready

Learn about:

- Halyard's configuration file
- Managing secrets

Secure the Spinnaker

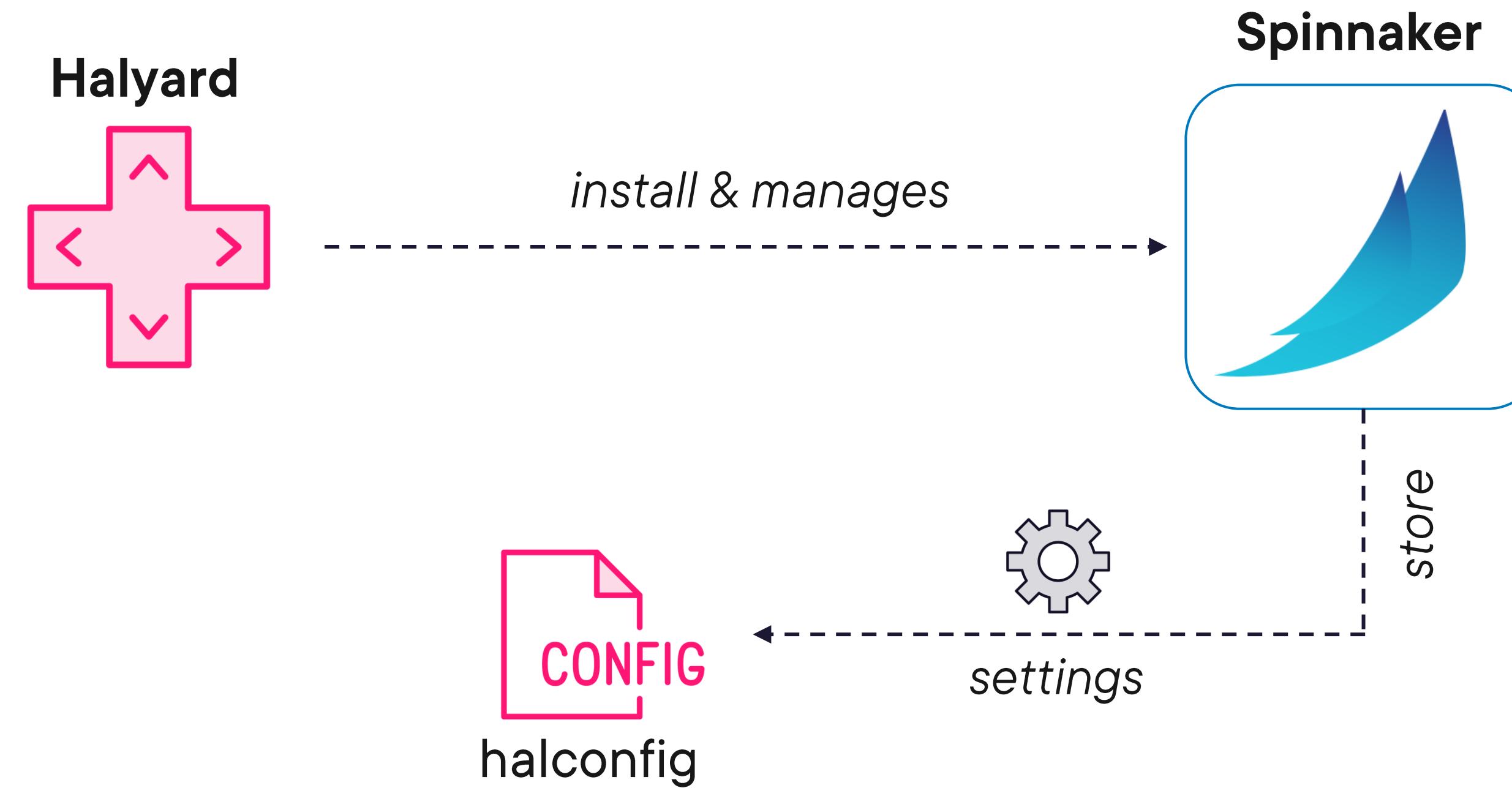
Integrate Jenkins & GitHub

- Setup Spinnaker pipelines

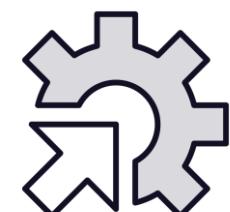
Production grade Spinnaker up & running



Halyard



Halconfig



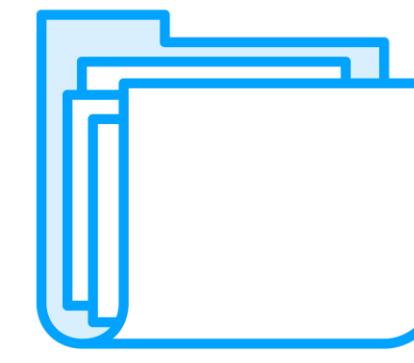
settings

= *halyard.halconfig.directory*



halconfig

is inside

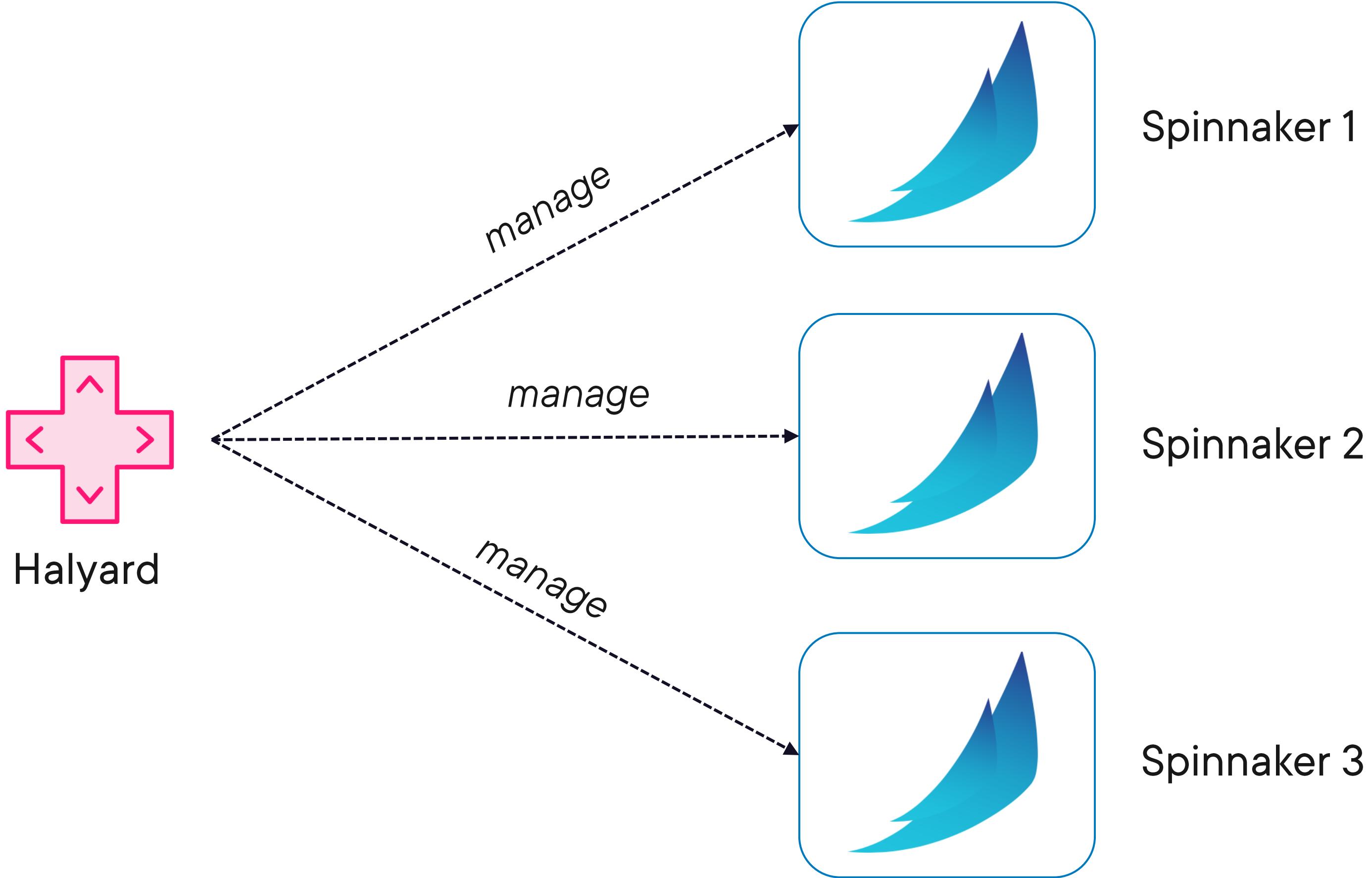


`~/.hal`



Spinnakers...





Deployment

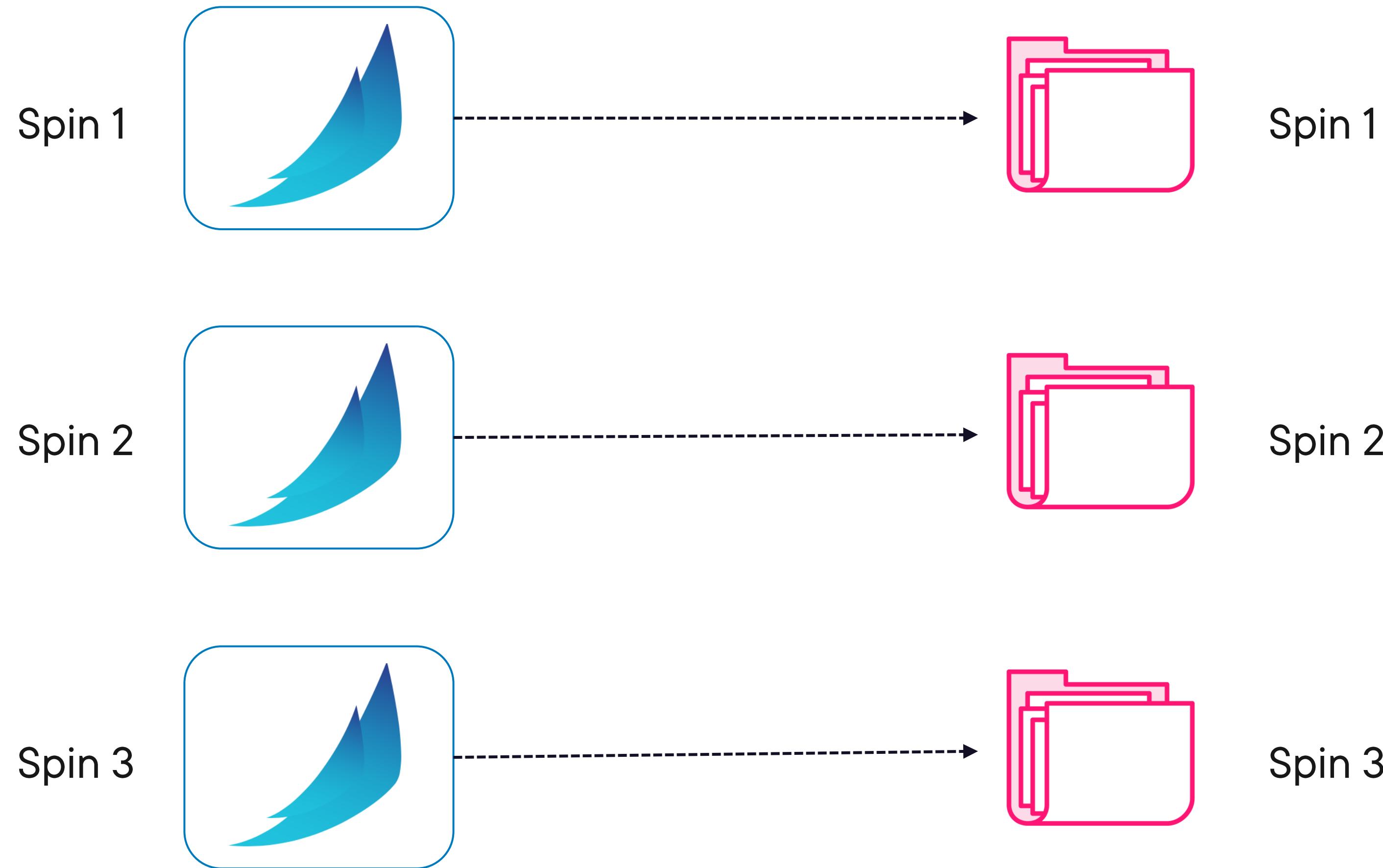


Has a separate configuration

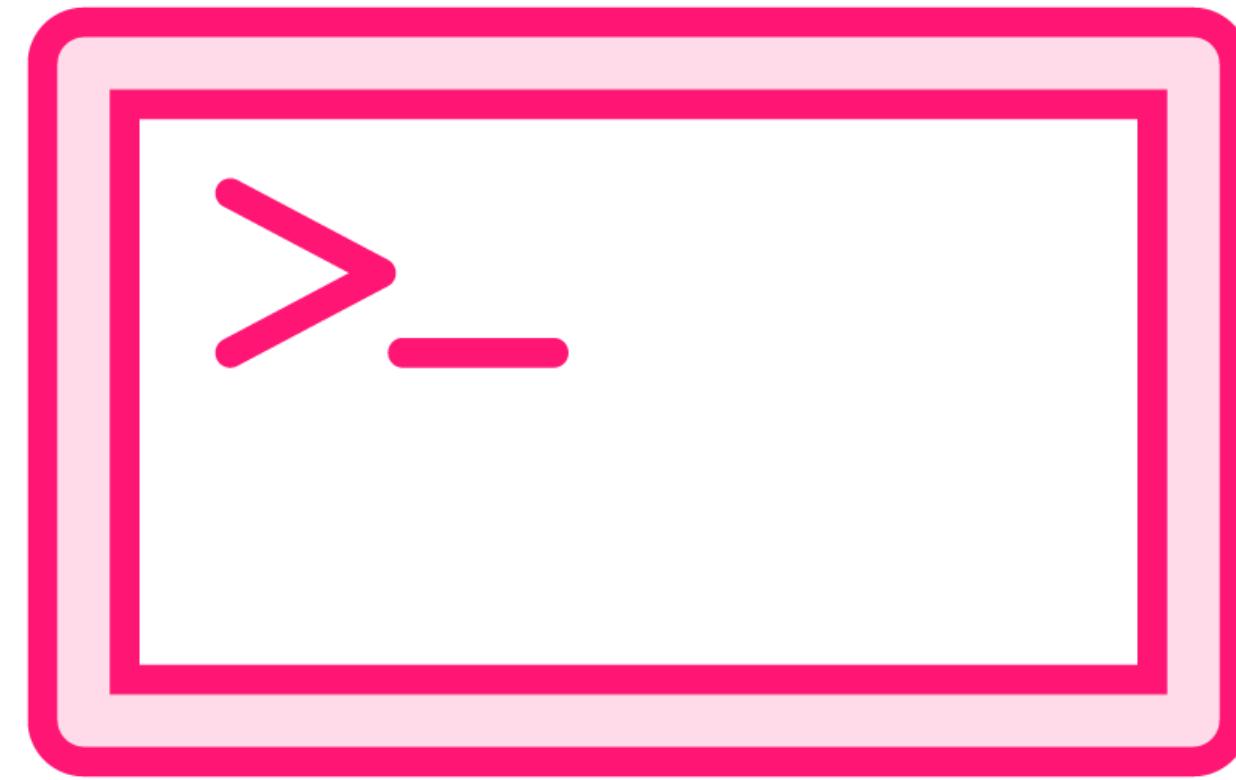
Has separate microservices such as gate, deck, front50, echo, etc.

Name of the 1st deployment is “default”





Updating Halyard Configuration



Using CLI

Running the “halyard config” command

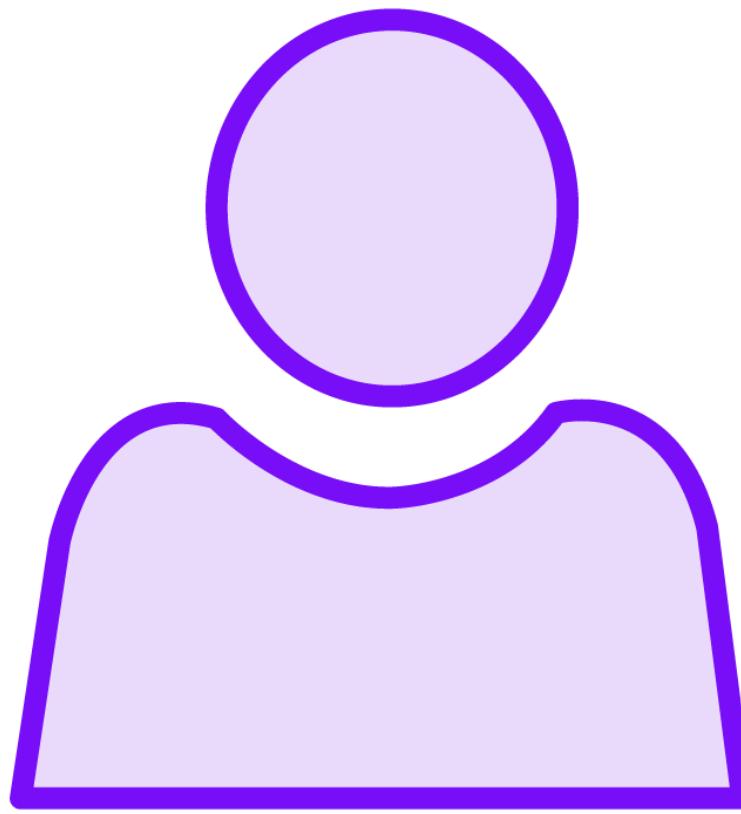


Using config file

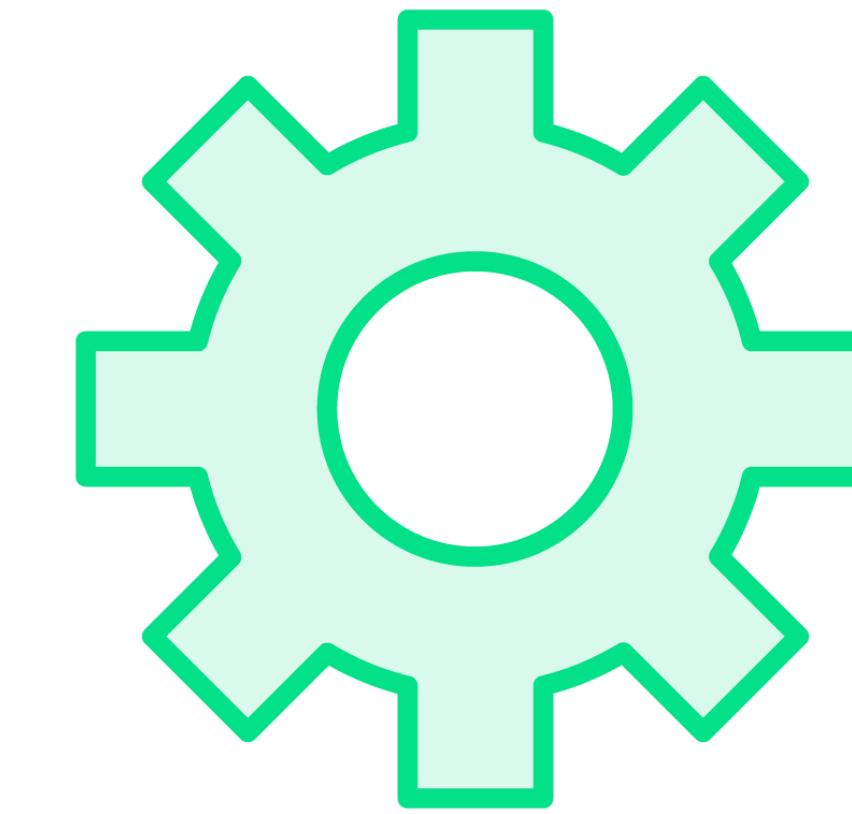
Changing the halconfig, service profile, or service settings file



Service Specific Changes



Using service-profile file



Using service-settings file



Comparisons

Service-profile file

Overrides a service's default spring profile settings.

Example: log level of cloud-driver service

vs

Service-setting file

Overrides a service's build and deployment settings.

Example: port of the echo service

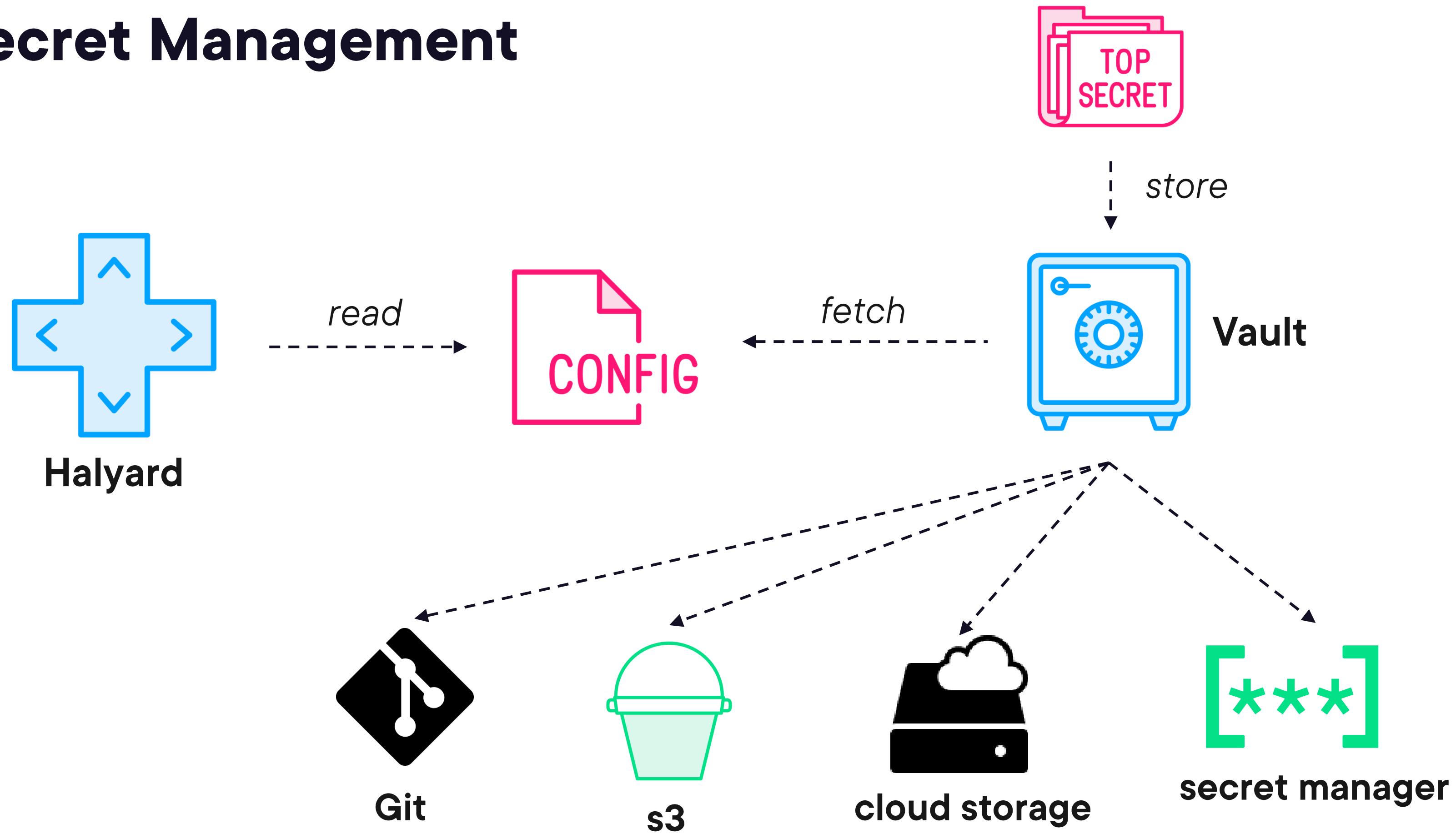


Demo

Override settings of cloud-driver and echo services



Secret Management

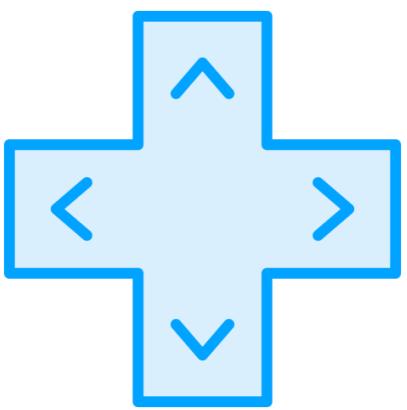


Demo

Store secrets in s3 buckets

Use secrets in the halconfig file



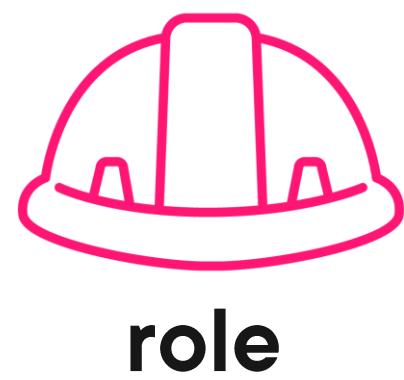


Halyard



Spinnaker

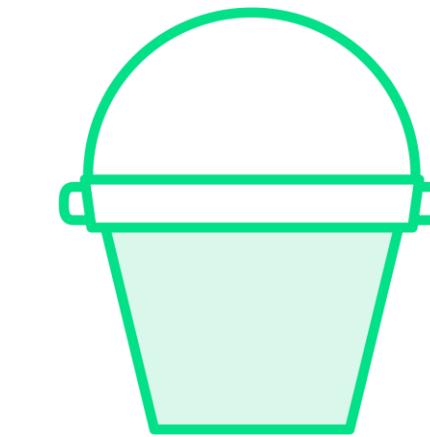
assume
assume



role



fetch



s3

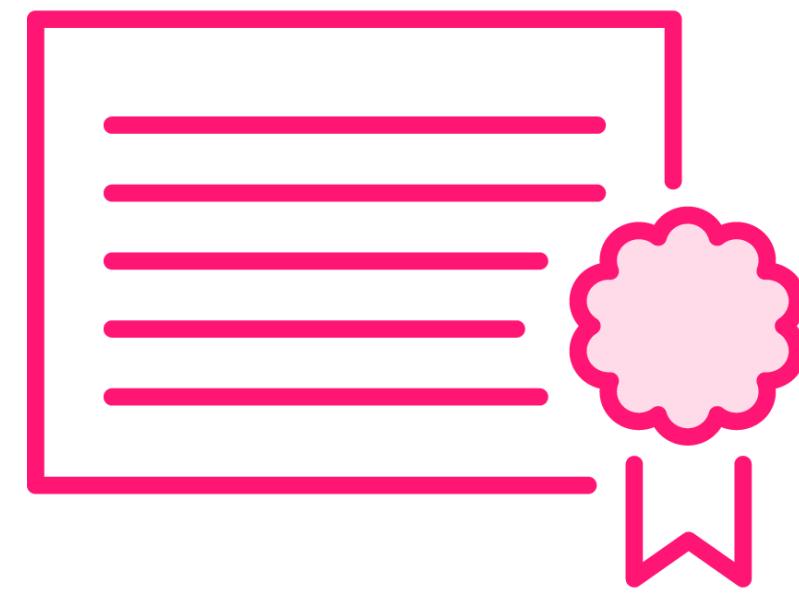




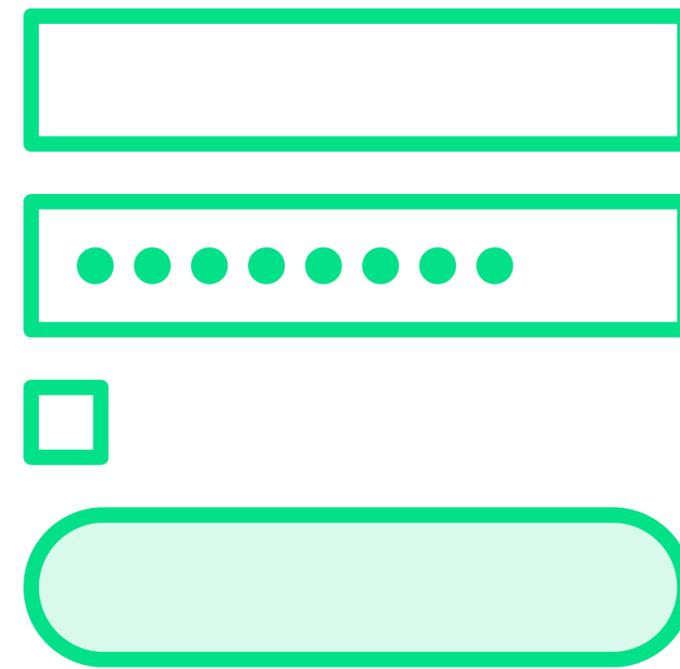
Securing Spinnaker



Spinnaker's Security



SSL certificate



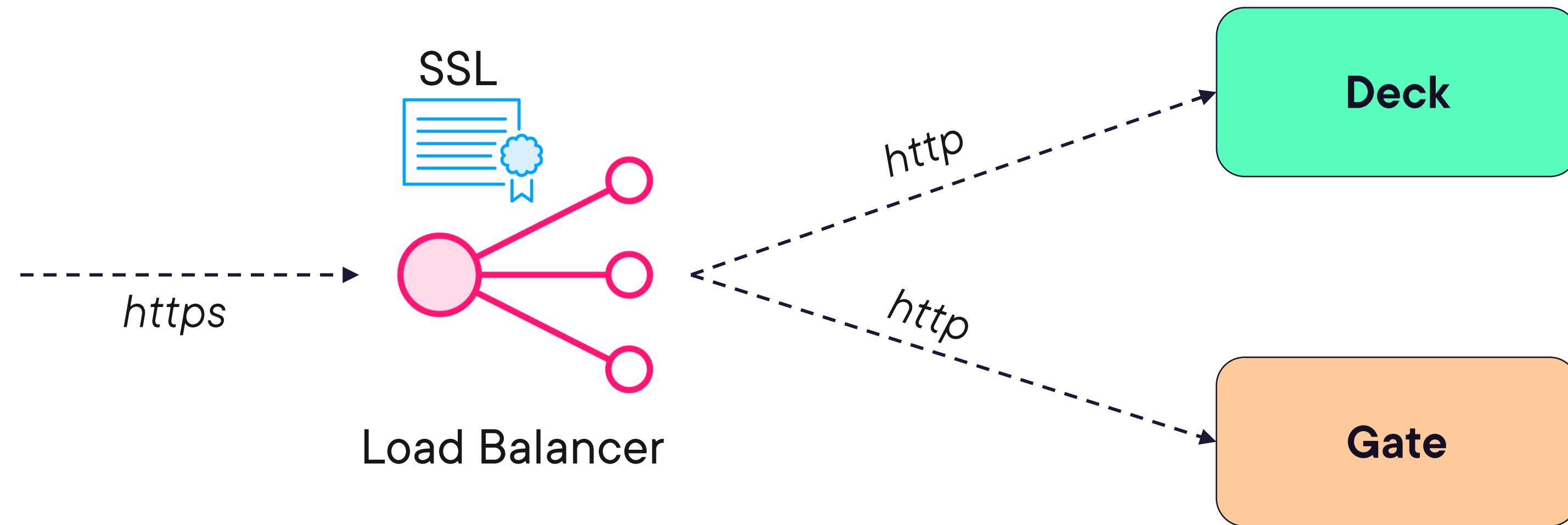
Authentication



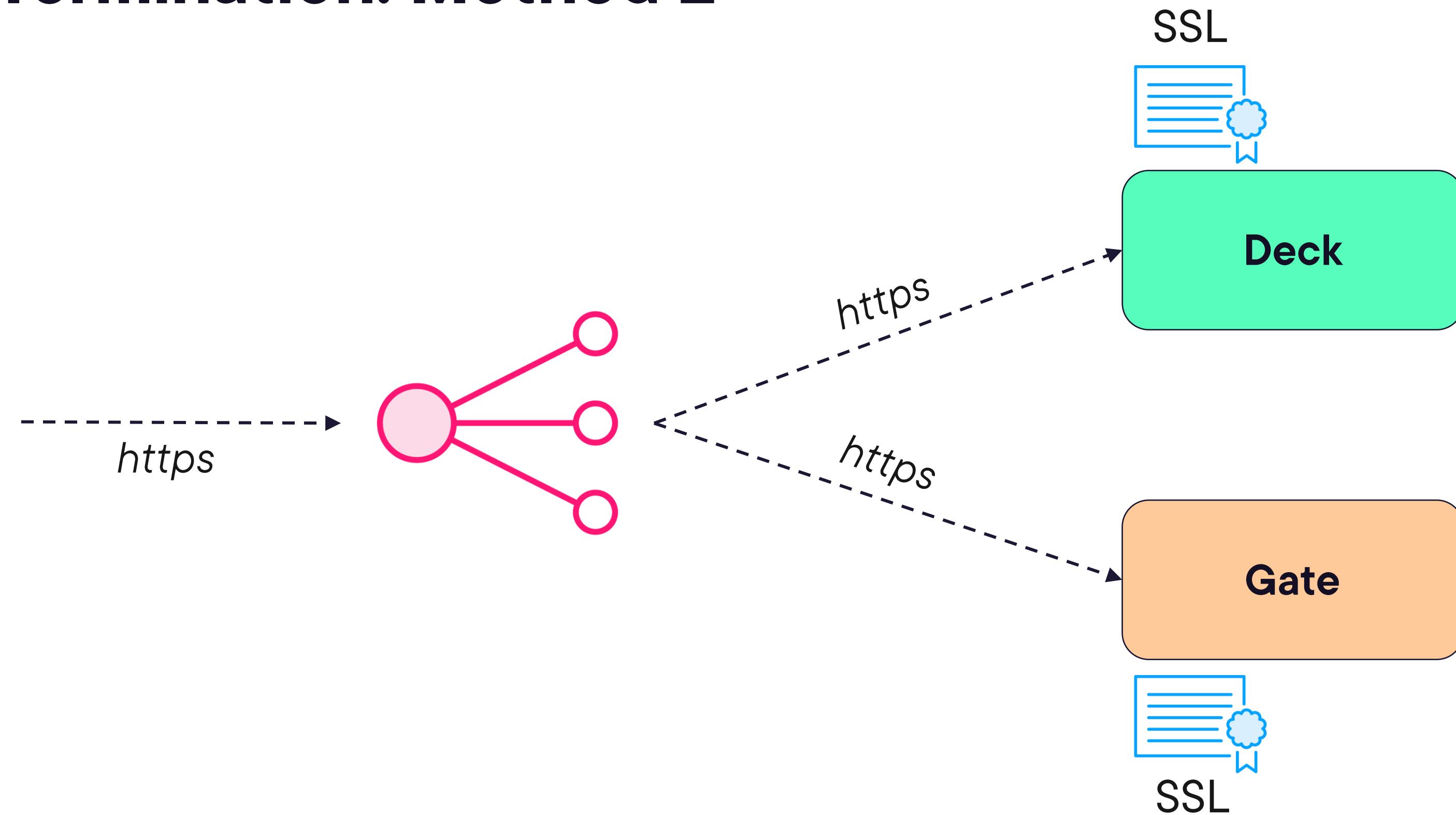
Authorization



SSL Termination: Method 1



SSL Termination: Method 2



Demo

Create DNS names for the UI & API services

Add TLS certificate



Deck

≡

spinnaker.panda-labs.online

Gate

≡

spinnaker-api.panda-labs.online



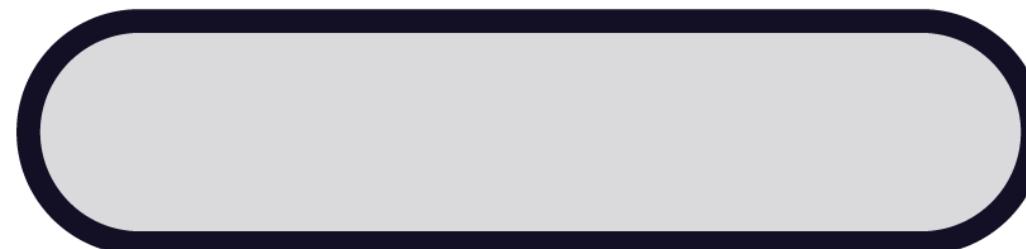
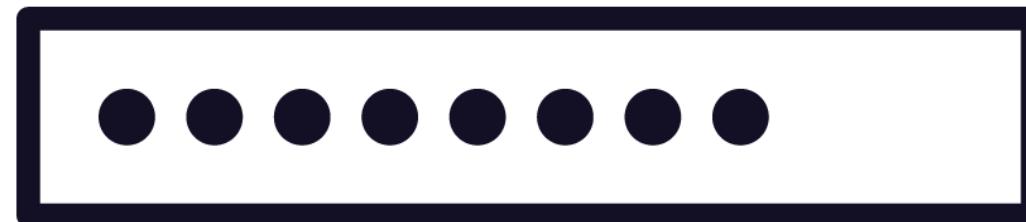
Authentication

Authentication

Adding a login page to the Spinnaker



Authentication in Spinnaker

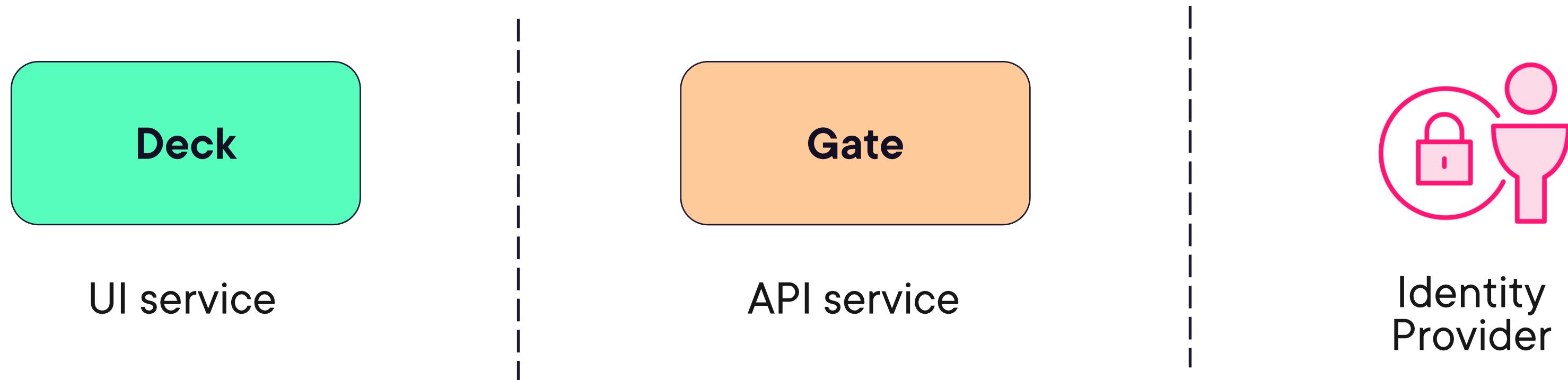


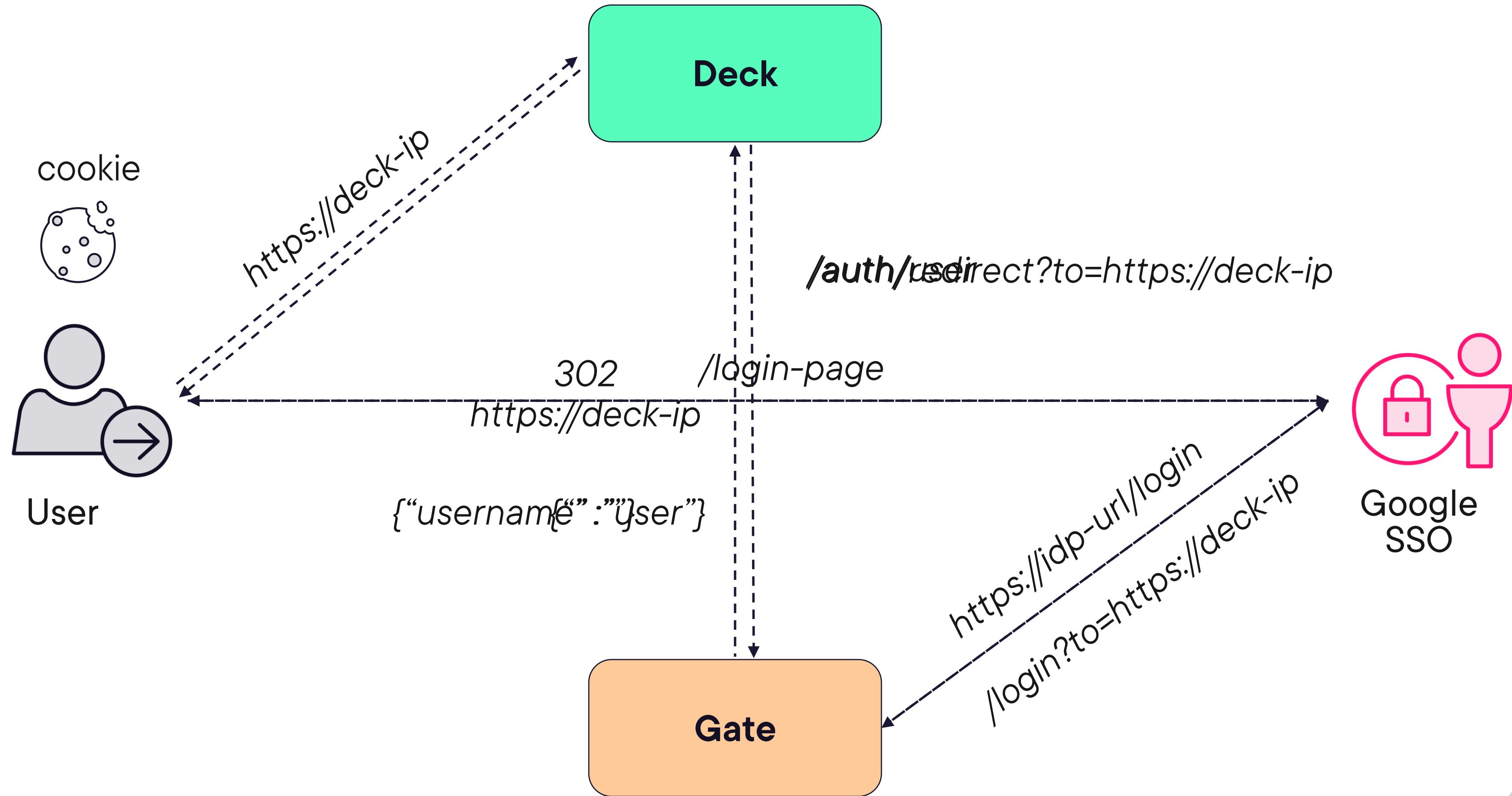
Multiple options for authentication

- OAuth2 (GitHub & Google)
- SAML (Okta)
- LDAP



Authentication in Spinnaker



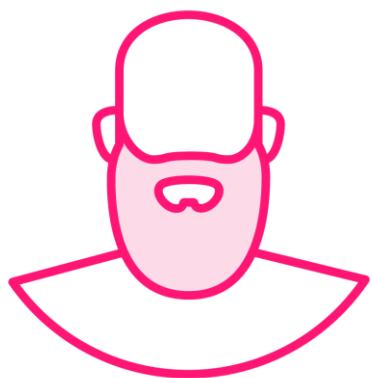


Demo

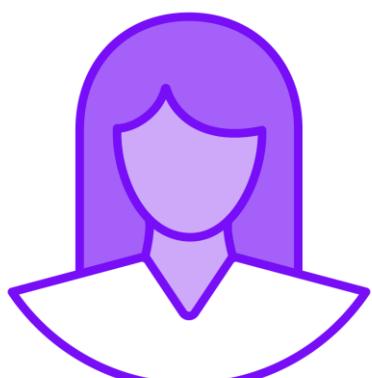
**Add Google single sign-on to our
Spinnaker**



Frontend
engineer

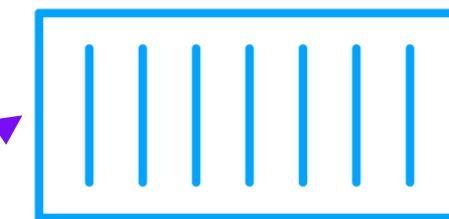


Platform
engineer

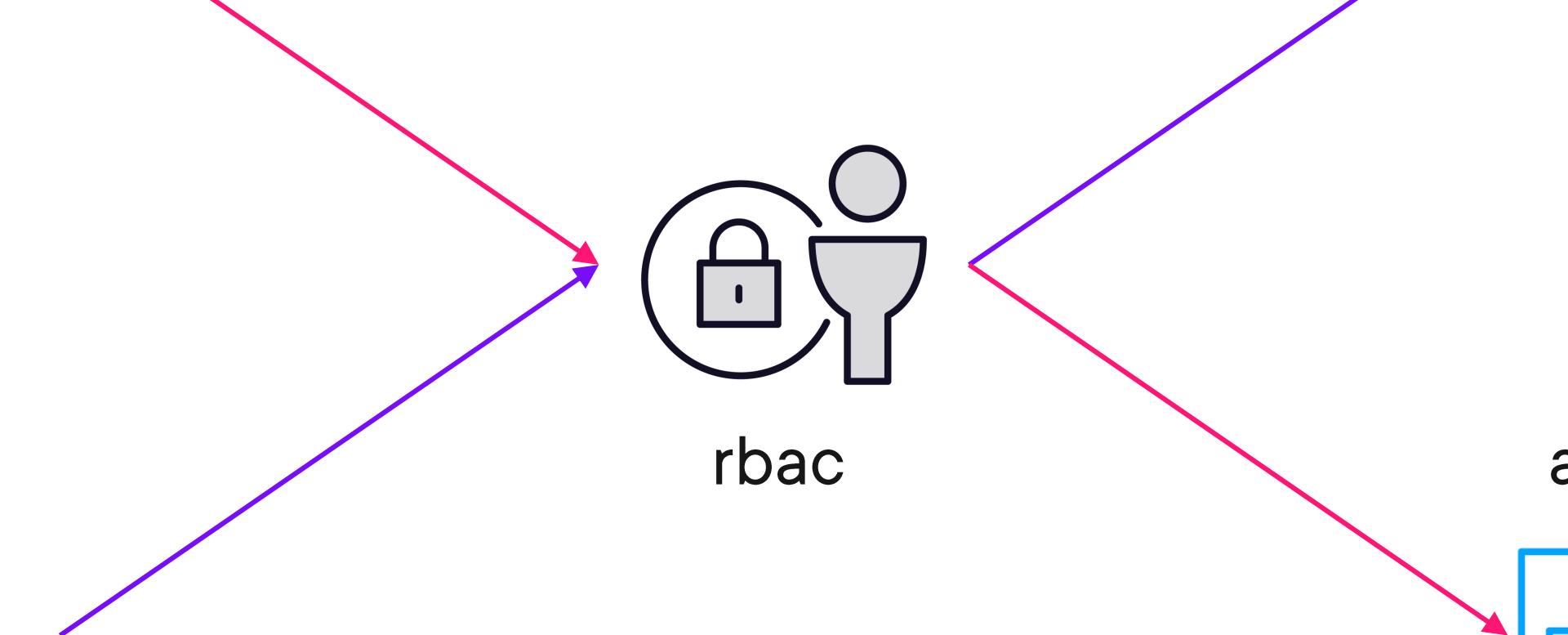
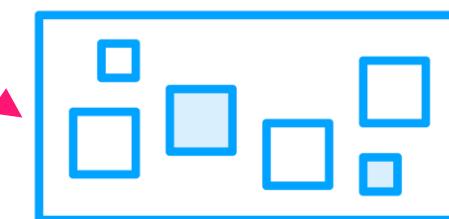


rbac

Platform
application



Frontend
application



Authorization



Authorization

Setup RBAC (Role Based Control) in Spinnaker

“Who can do what in Spinnaker”

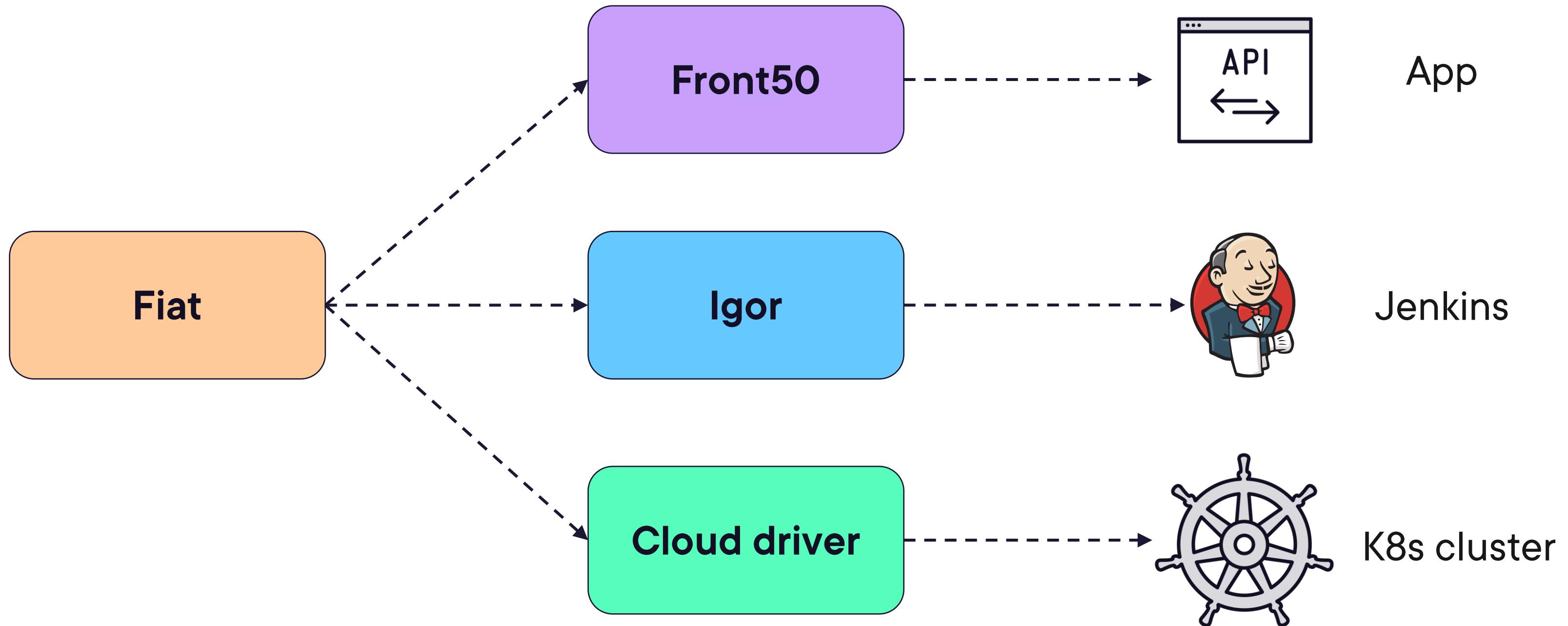


Authorization Microservice

Fiat



Authorization Microservices



Authorization in Spinnaker



Multiple authorization options

- Google groups
- Github organizations
- LDAP
- SAML



Demo

Enable RBAC in Spinnaker

- File based authorization



Authorization Points

Permission is granted to roles not to users

If not defined, anyone can access anything

Anyone can deploy applications to an unrestricted account

Anyone can edit and deploy an unrestricted application

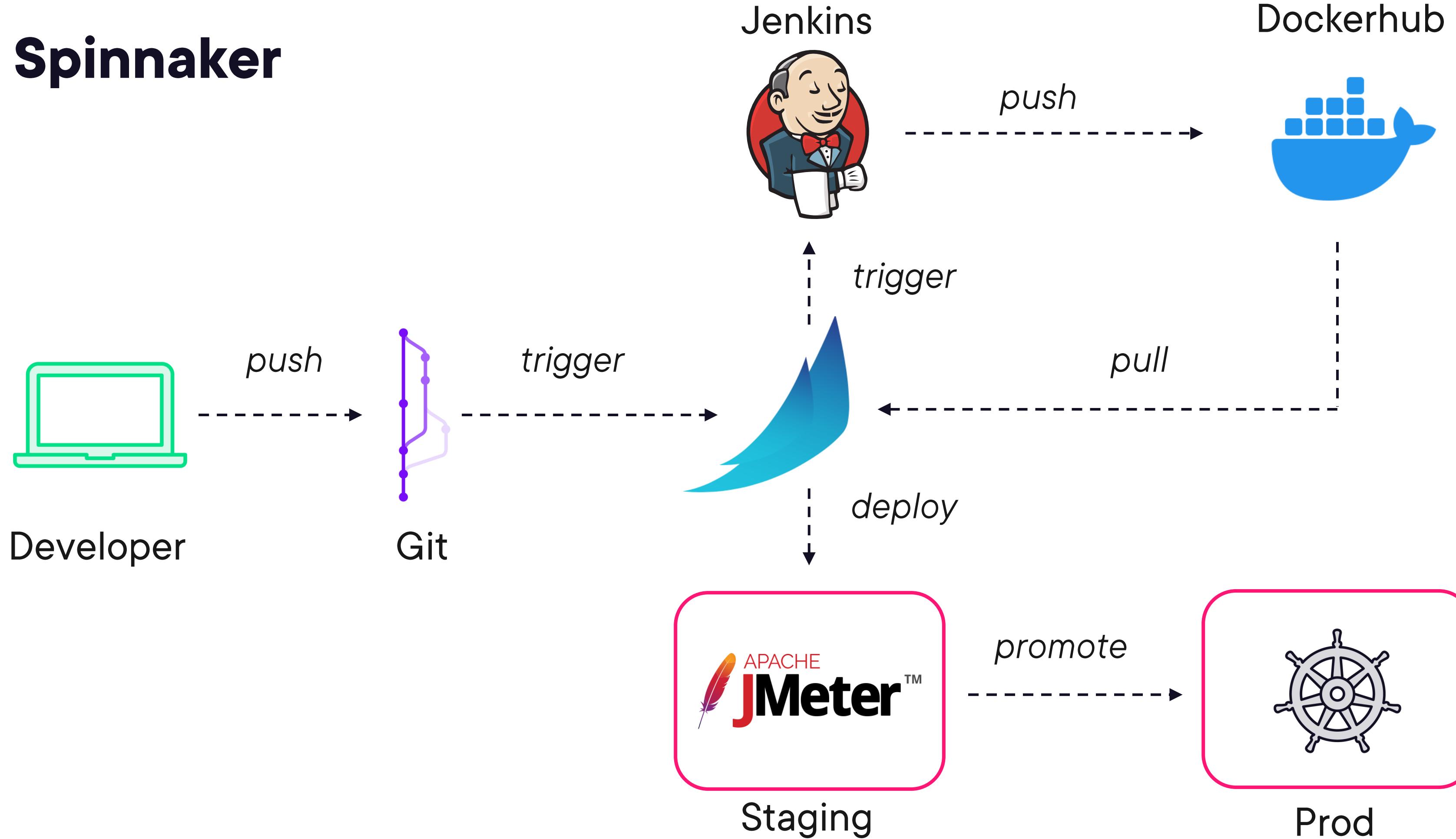
Access to an application \neq access to its associated account



Integrate Jenkins & Git



Spinnaker



Spinnaker Supports

AWS code build

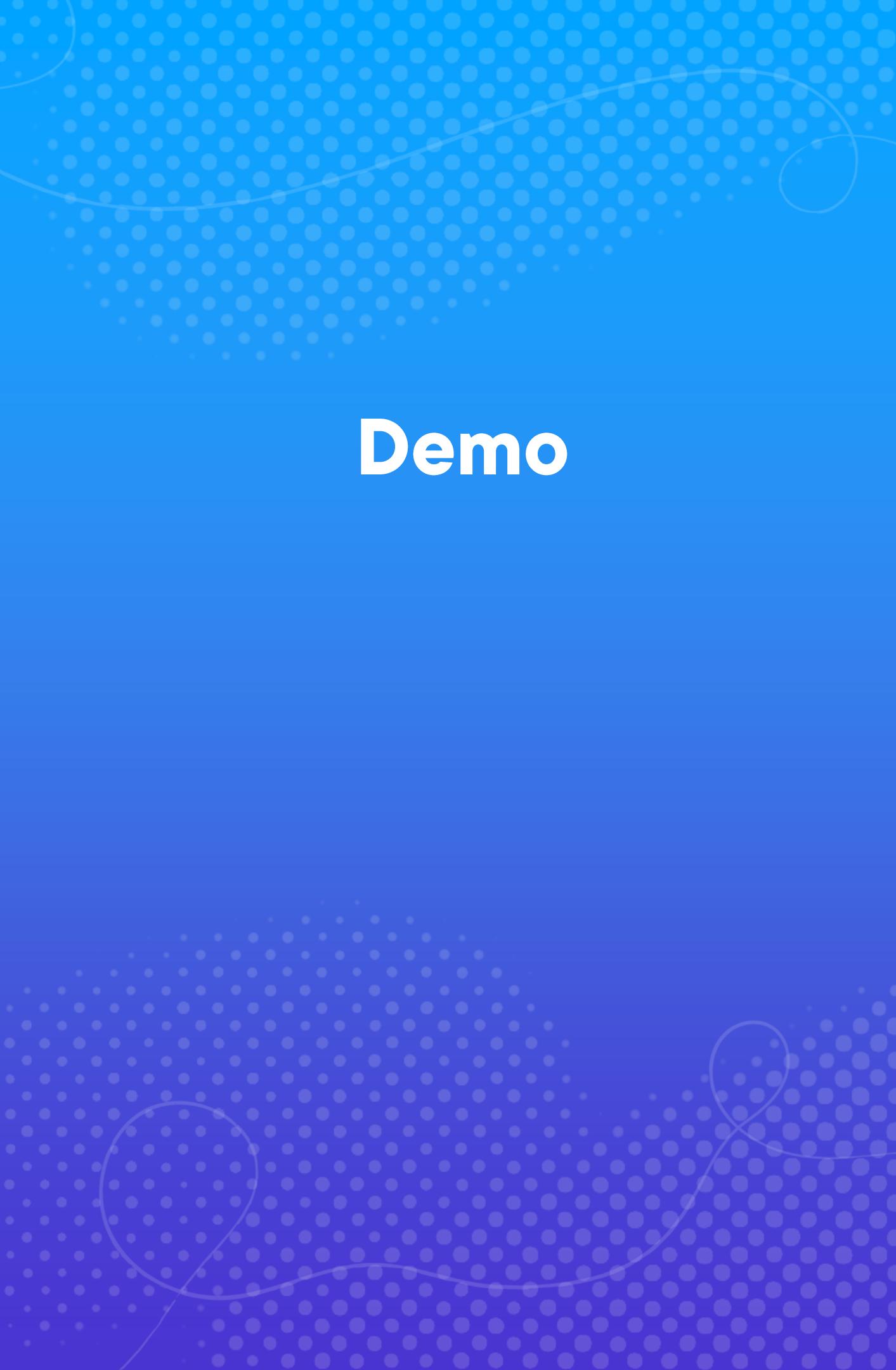
Google code build

Jenkins

Travis CI

Wrecker

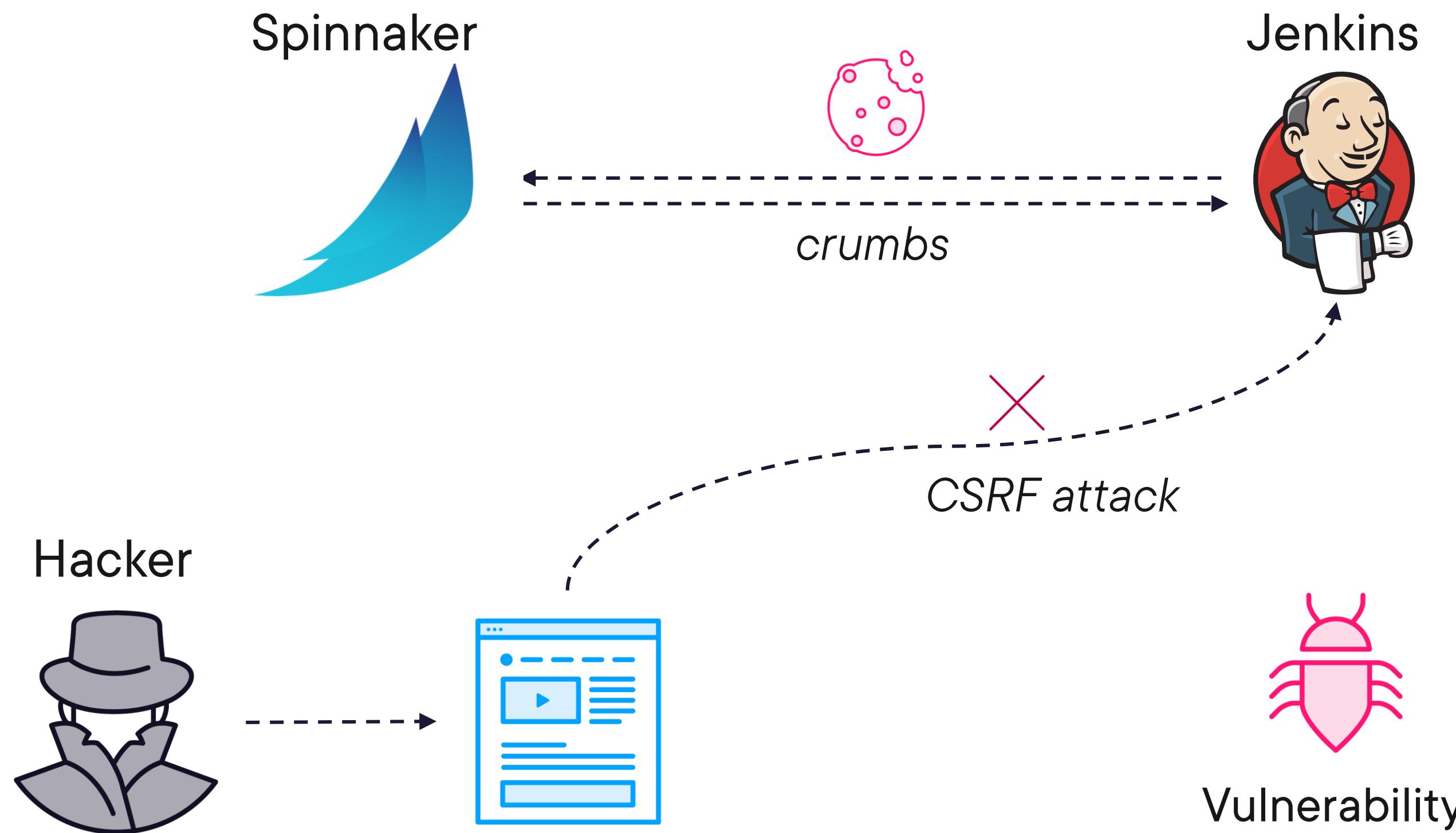


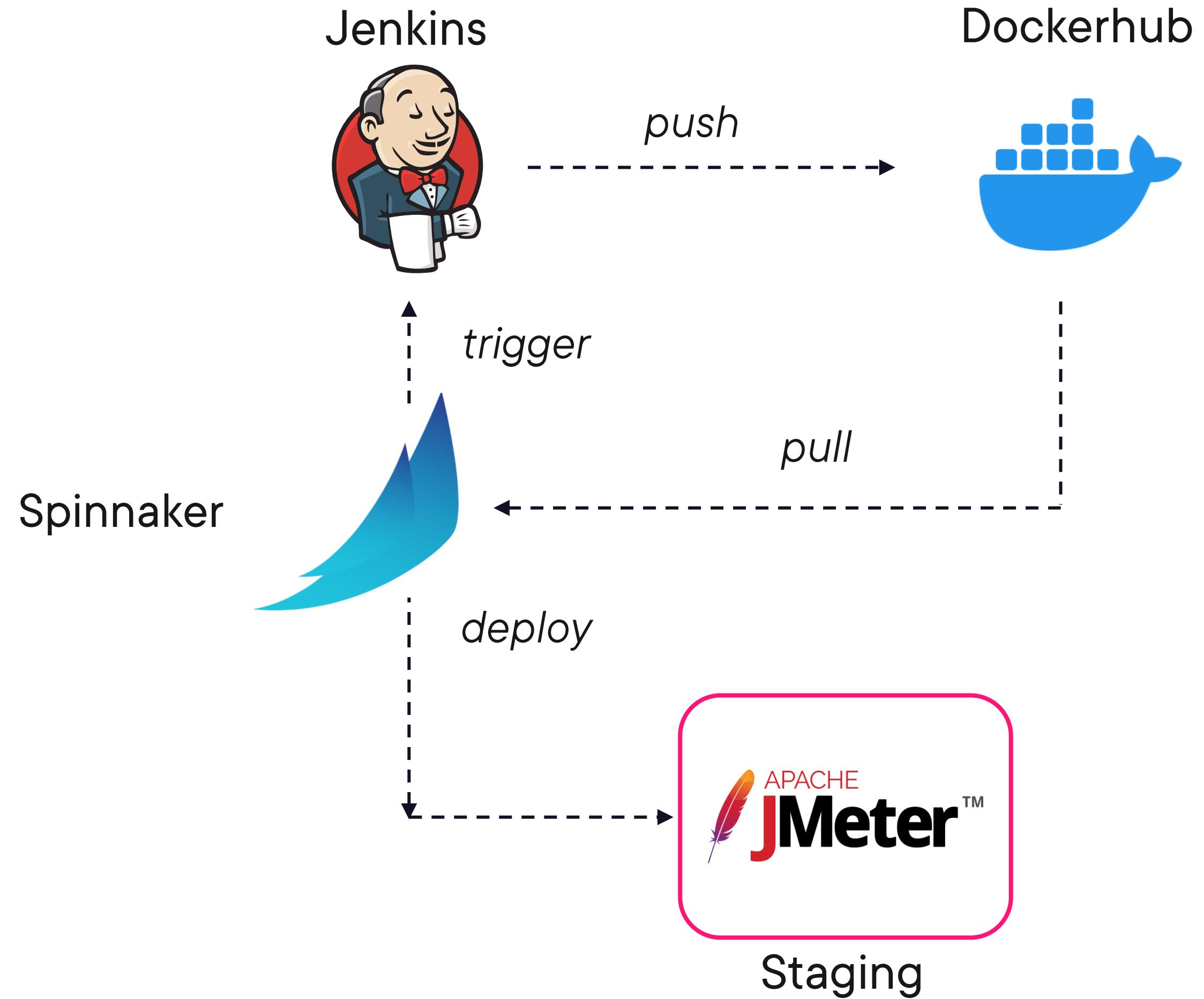


Demo

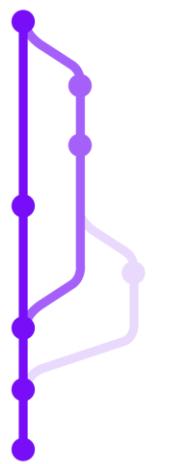
Integrate Jenkins with our Spinnaker







Integrate Git...



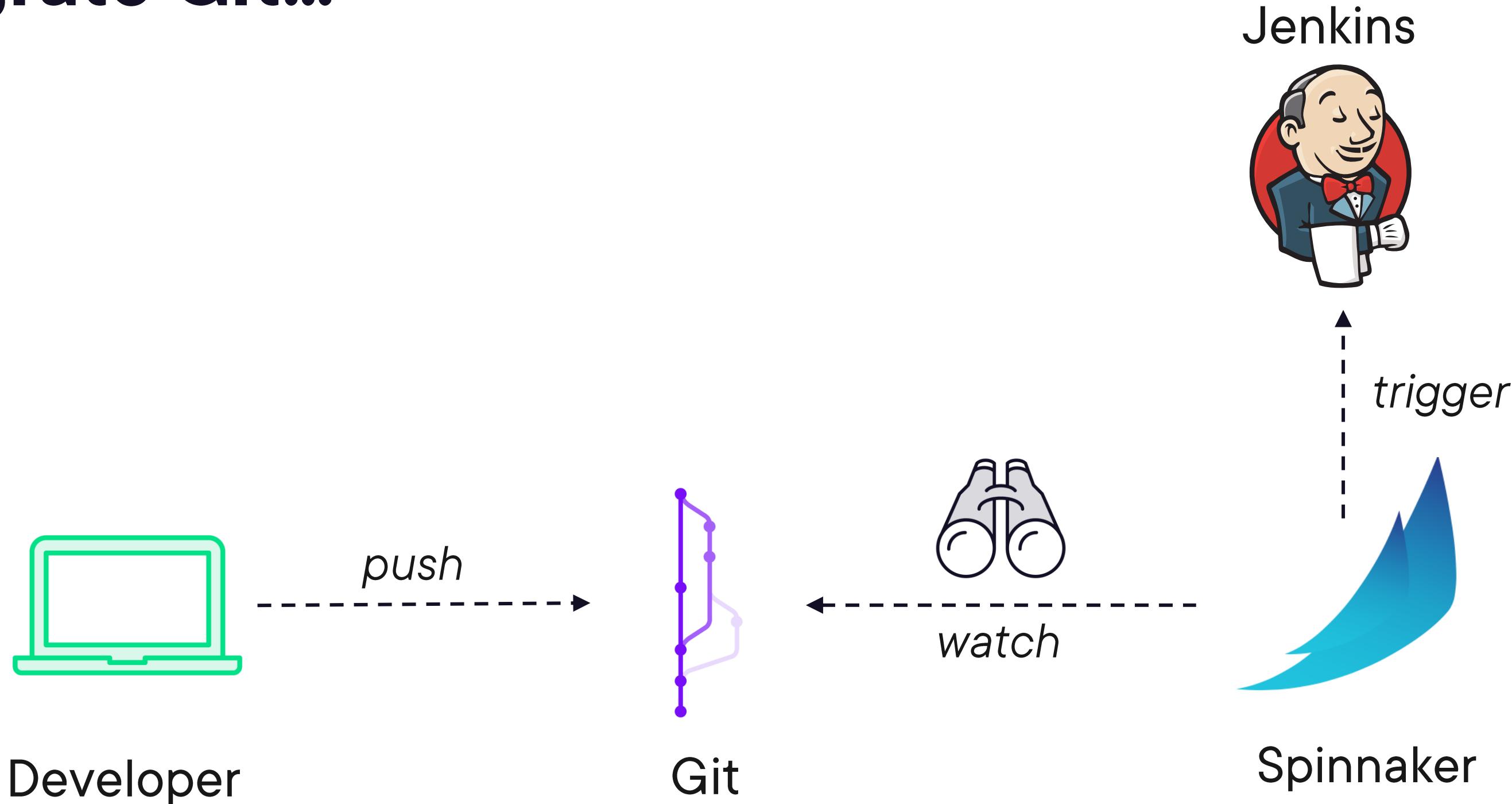
Git

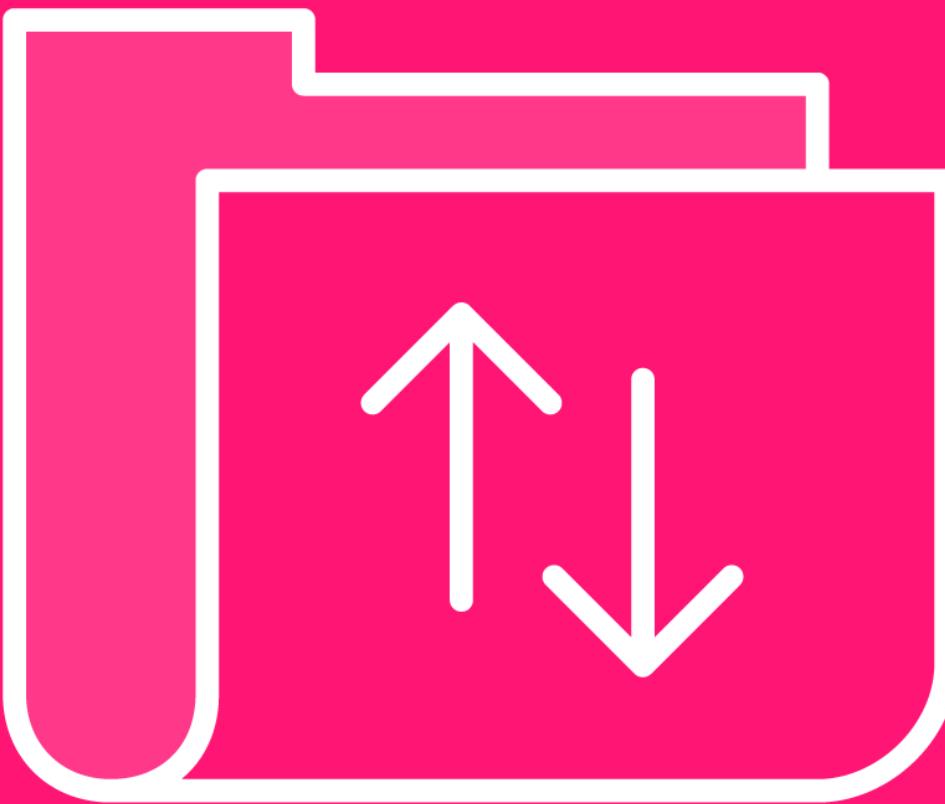


Spinnaker



Integrate Git...





Artifact

An external source from where Spinnaker can
download source code or compiled code



Types of Artifacts

Code repositories

Git, GitHub, Bitbucket, Gitlab

Maven & helm repositories

Object storage

s3, GCS, oracle object storage

HTTP download

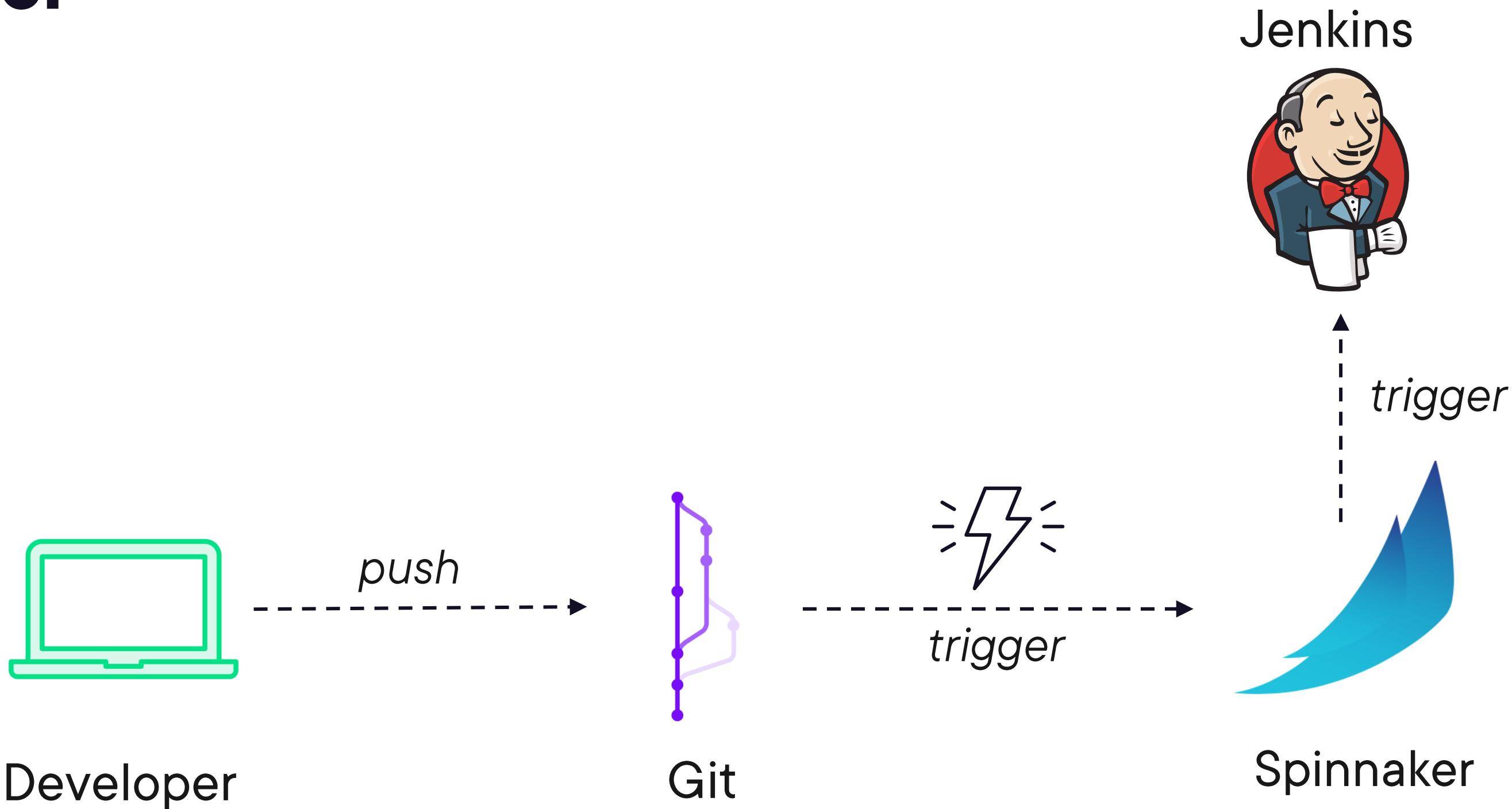


Demo

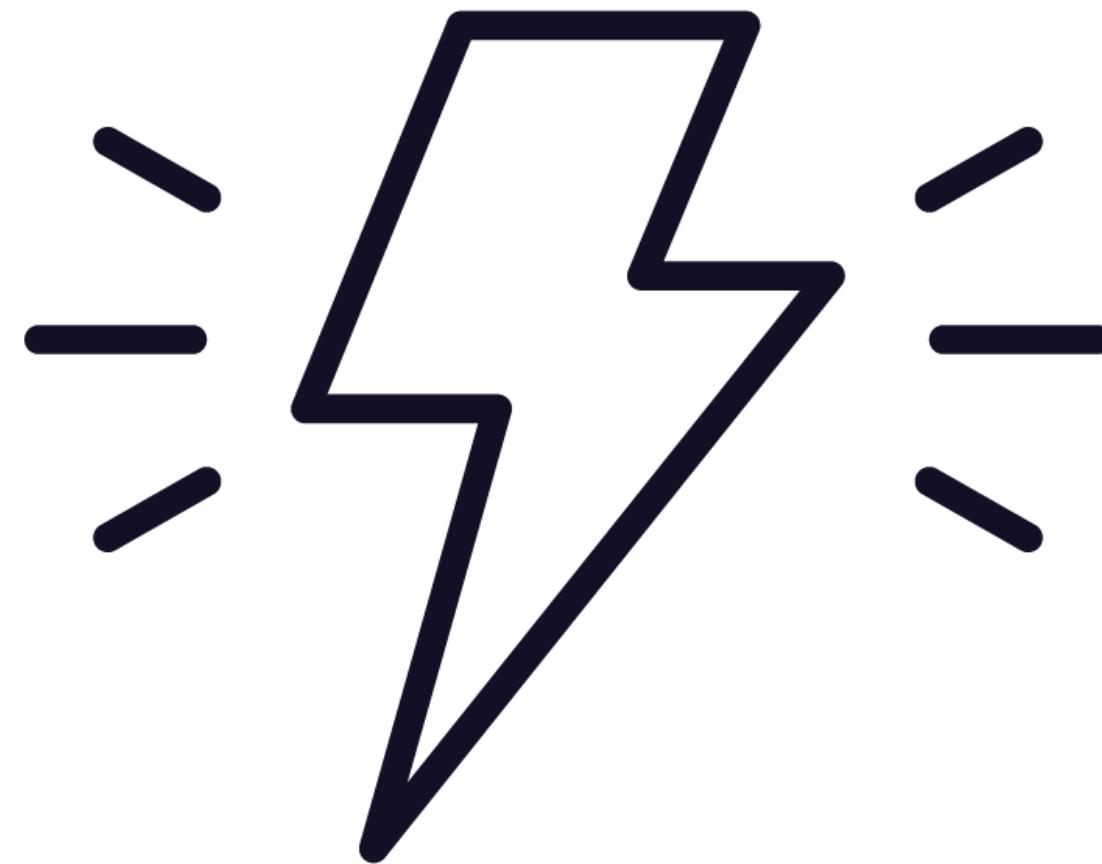
Add a GitHub repository to our Spinnaker



Trigger



Spinnaker Triggers

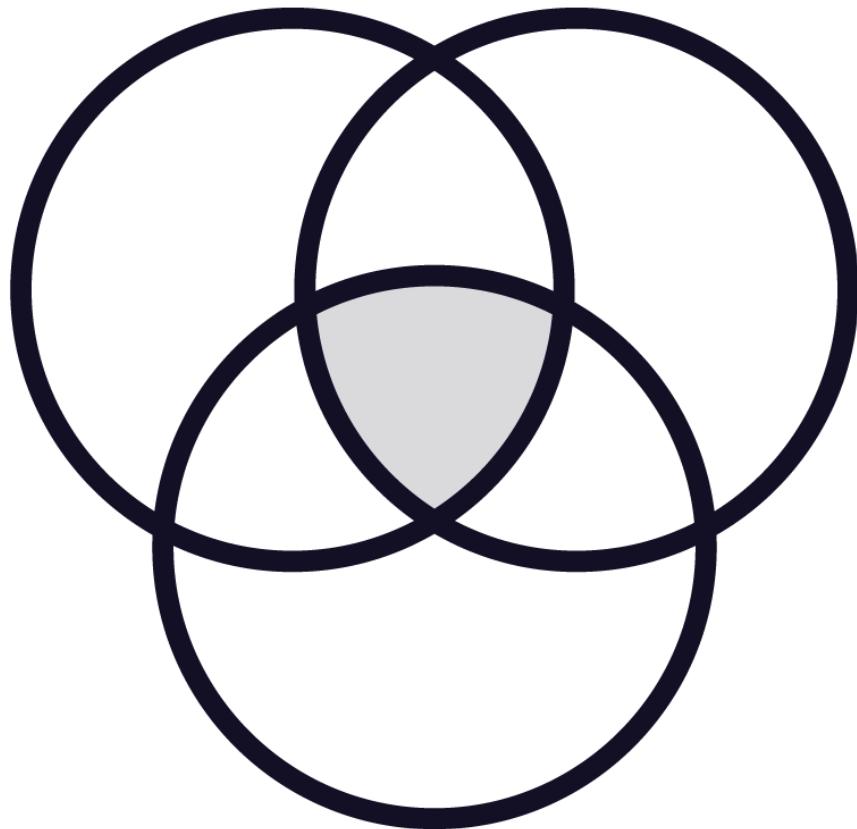


Many triggers

- Jenkins job
- Webhook
- Cron jobs
- Pub-sub messages
- GitHub commits
- Object storage push



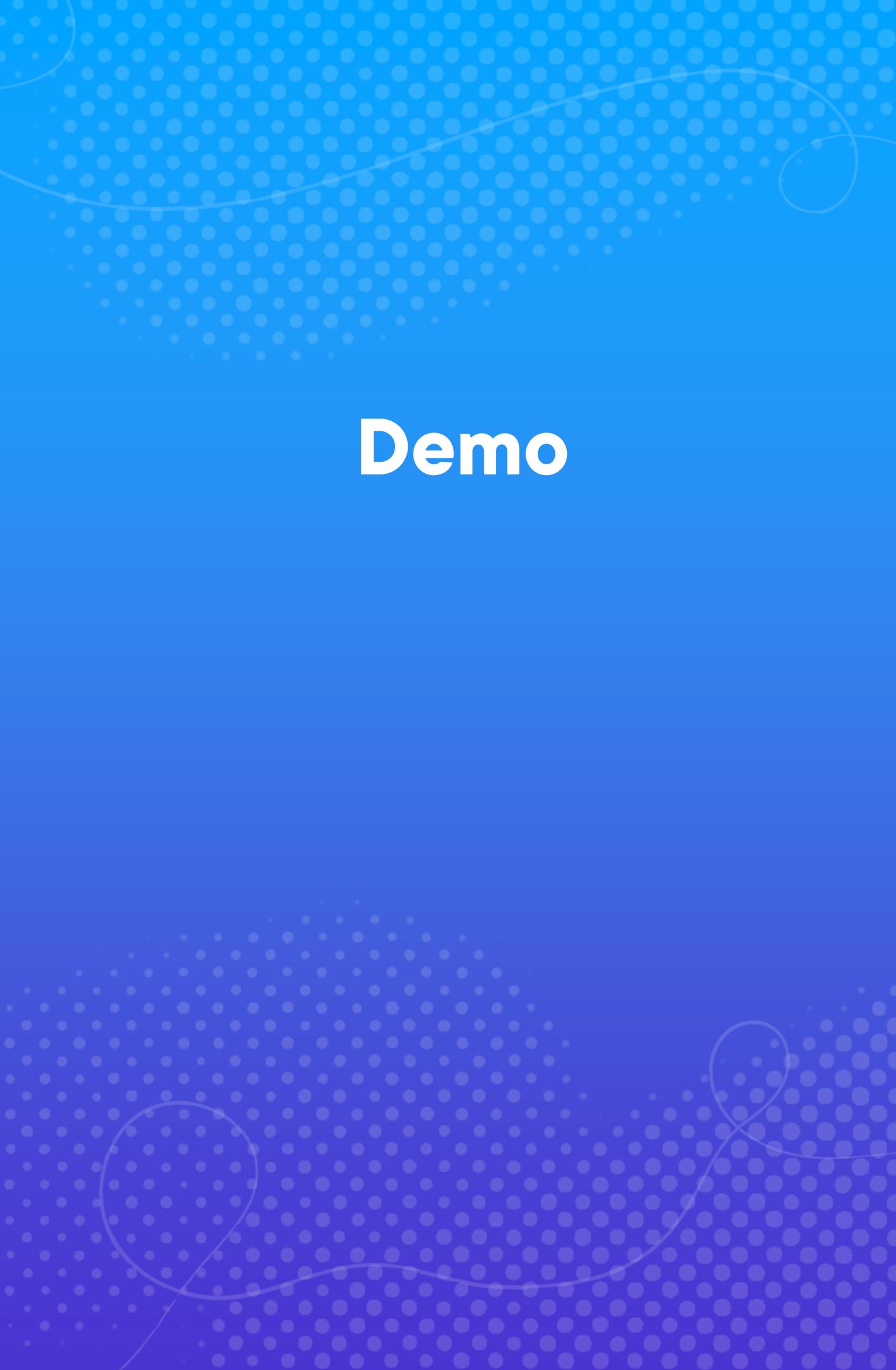
Generic Webhook



Use for:

- Bitbucket
- Gitlab
- Server hosted SCM





Demo

GitHub webhook trigger



Summary

Edit Spinnaker's configuration

- Halyard CLI
- Halconfig file

Add security to Spinnaker

Integrate Jenkins and GitHub with Spinnaker



Up Next:

Using Spinnaker

