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Stand Up Spinnaker in 30mins or Less

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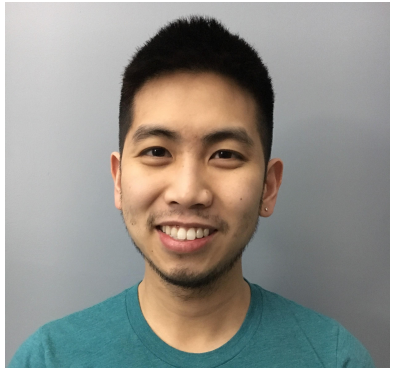

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About this talk

What we'll cover:

- Brief overview of Spinnaker
- How to Stand Up Spinnaker
  - Halyard
  - Installing Spinnaker on to EKS
  - Adding a 2nd EKS cluster
- Where to get support

Spinnaker is a
multi-cloud,
continuous delivery platform
for the enterprise

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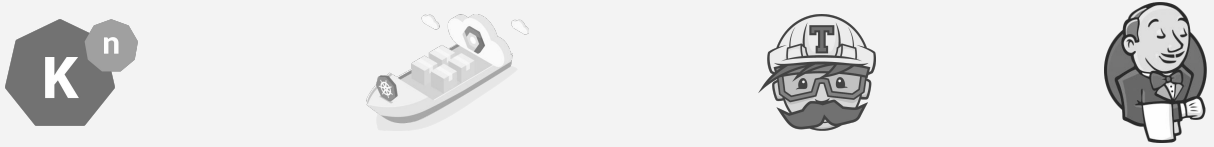
Spinnaker is a set of interfaces; e.g. a platform

Continuous Integration



Delivery

Security

Canaries

Spinnaker

Observability

Rollbacks

Infrastructure

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What we've prepared already:

Everything in this webinar is available at **github.com/armory/webinar**

1. Created two EKS Clusters
   a. One for Spinnaker ("webinar-eks-spinnaker")
   b. One as a Deployment Target ("webinar-eks-target")
2. Installed NGINX Ingress Controller in the Spinnaker EKS cluster, with a certificate for `*.webinar.armory.io`
3. Set up a DNS entry pointing `*.webinar.armory.io` at our NGINX Ingress Controller
4. Create a kubeconfig file with access to both EKS clusters
5. Installed the `aws` CLI and the `kubectl` CLI

Introduction to kubeconfig

```
apiVersion: v1

clusters:
- cluster:
    certificate-authority-data: <base64 CA>
    server: https://<cluster-url>
  name: cluster-1

- cluster:
    certificate-authority-data: <base64 CA>
    server: https://<cluster-url>
  name: cluster-2

users:
- name: cluster-1-token-user
  user:
    token: <JWT-encoded-token>

- name: cluster-2-iam-user
    exec:
      args:
      - token
      - -i
      - <EKS_CLUSTER_NAME>
      command: aws-iam-authenticator
```

```
…
contexts:
- context:
    cluster: cluster-1
    user: cluster-1-token-user
  name: cluster-1-context
- context:
    cluster: cluster-2
    user: cluster-2-iam-user
  name: cluster-2-context

current-context: cluster-1-context
kind: Config
preferences: {}
```

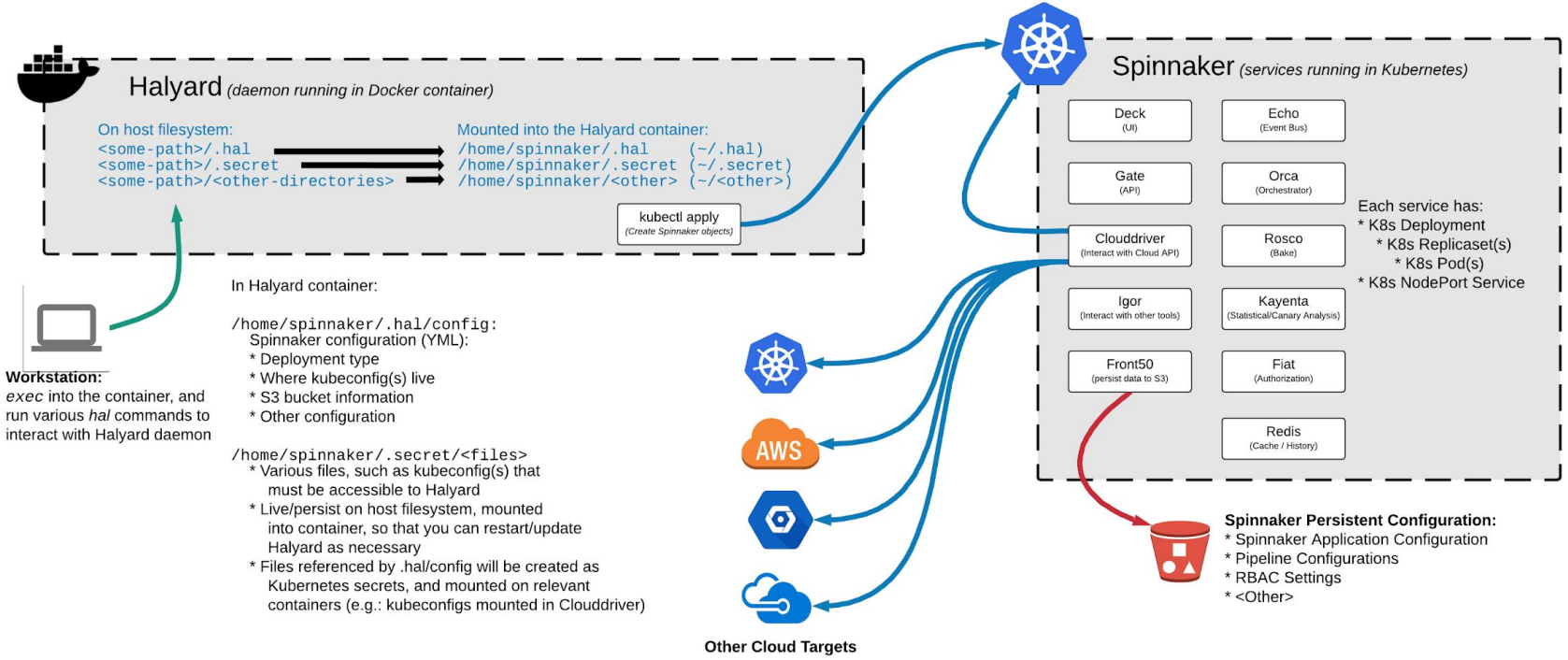
```
+ kubectl config get-contexts
CURRENT   NAME                      CLUSTER                   AUTHINFO
*         webinar-eks-spinnaker     webinar-eks-spinnaker     webinar-eks-spinnaker
          webinar-eks-target        webinar-eks-target        webinar-eks-target
```

Spinnaker Up and Running

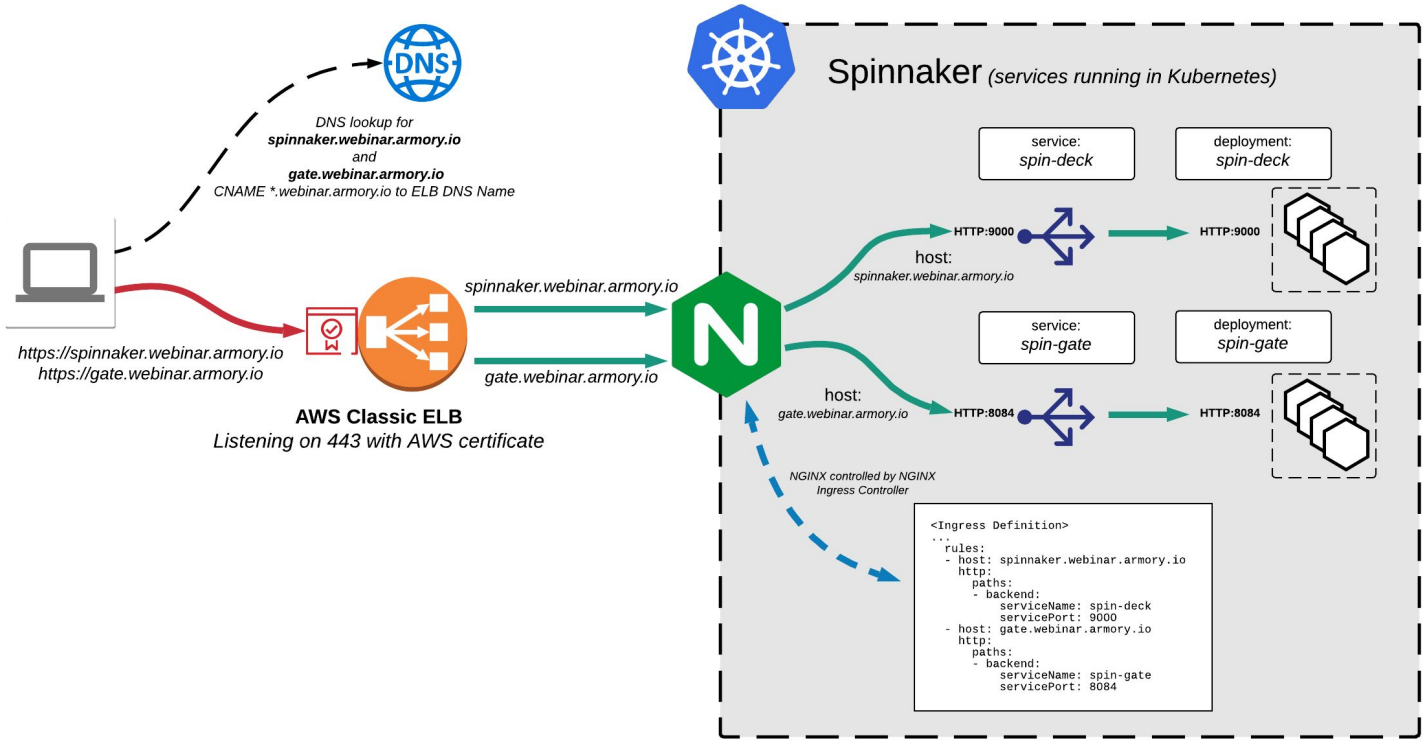
In order to install Spinnaker, we will need to do the following:

1. Get credentials (`kubeconfig`) for a Kubernetes cluster where Spinnaker will be installed
2. Set up an S3 bucket and credentials to access that S3 bucket
3. Configure Kubernetes Service Accounts for EKS clusters
4. Install Spinnaker using Halyard
5. Expose Spinnaker

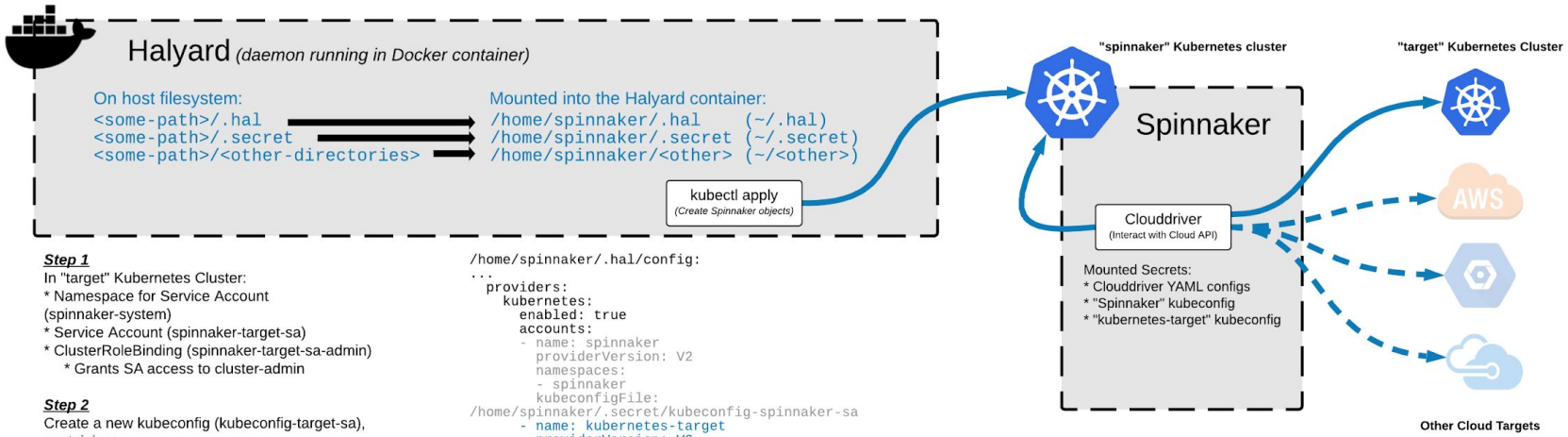
Installing Spinnaker



Accessing Spinnaker (Ingress and Service)



Adding a Kubernetes Deployment Target



Step 1
In "target" Kubernetes Cluster:
* Namespace for Service Account (spinnaker-system)
* Service Account (spinnaker-target-sa)
* ClusterRoleBinding (spinnaker-target-sa-admin)
  * Grants SA access to cluster-admin

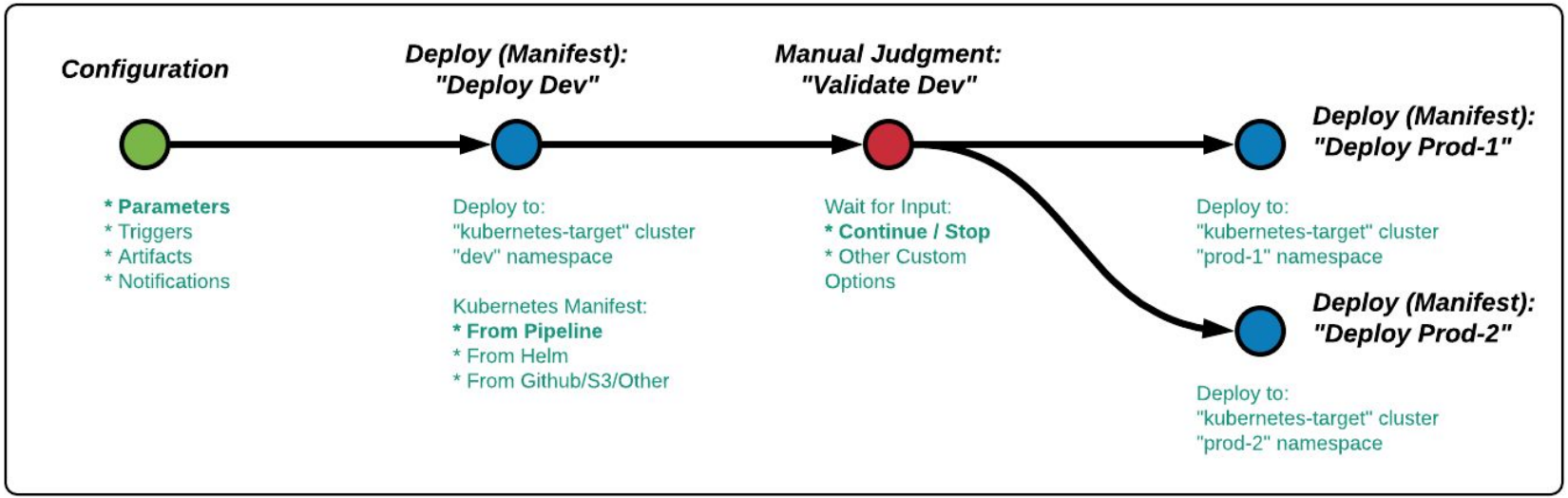
Step 2
Create a new kubeconfig (kubeconfig-target-sa), containing:
* cluster information (URL and CA)
* user (token for service account)
* context combining cluster and user

Step 3
Add kubeconfig to Spinnaker as a new kubernetes account.

```
/home/spinnaker/.hal/config:
...
  providers:
    kubernetes:
      enabled: true
      accounts:
      - name: spinnaker
        providerVersion: V2
        namespaces:
        - spinnaker
        kubeconfigFile:
/home/spinnaker/.secret/kubeconfig-spinnaker-sa
      - name: kubernetes-target
        providerVersion: V2
        omitNamespaces:
        - spinnaker-system
        kubeconfigFile:
/home/spinnaker/.secret/kubeconfig-target-sa
        primaryAccount: spinnaker
...

/home/spinnaker/.secret/kubeconfig-spinnaker-sa
/home/spinnaker/.secret/kubeconfig-target-sa
```

Demo Pipeline



Getting Started With Spinnaker

Getting Started Resources:

- Spinnaker Slack: http://join.spinnaker.io/
- Video Tutorials: https://docs.armory.io/user-guides/video-tutorials/

Installing Spinnaker:

- Halyard Install: https://www.spinnaker.io/setup/install/
- Armory Install: https://docs.armory.io/spinnaker/install/