

HOWTO_deploy_ArgoCD

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HOWTO deploy ArgoCD

Replace `<env>` with the name of the AWS account, e.g. `sandbox`

After change in each git repo remember to create a PR and merge it.

1. **Make sure you have admin access to the AWS account**

Look for an email *Invitation to join AWS Single Sign-On*
Accept invitation and setup password

2. **Configure cluster connection (if connecting from local machine, otherwise use the jumphost server)**

1. **Set credentials** in `~/.aws/credentials` and region in `~/.aws/config`
2. ****Install and configure kubectl (example instruction for linux)**

```
curl -LO https://storage.googleapis.com/kubernetes-release/release/v${kubectl_version}/bin/linux/amd64/kubectl
chmod a+rx ./kubectl
mv ./kubectl /usr/local/bin/kubectl

# If it's already set on jumphost skip this point. ref: https://docs.aws.amazon.com/eks/latest/userguide/create-kubeconfig.html
kubectl config use-context < env >
kubectl cluster-info # test access to cluster
```

3. **Install the recent helm version (example instruction for linux)**

```
curl https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3 > get_helm.sh
chmod 700 get_helm.sh
source ./get_helm.sh
chmod a+rx /usr/local/bin/helm
```

4. ****Install ArgoCD (example instruction for linux)**

```
wget -q https://github.com/argoproj/argo-cd/releases/download/v2.5.1/argocd-linux-amd64
sudo mv ./argocd-linux-amd64 /usr/local/bin/argocd
sudo chmod a+rx /usr/local/bin/argocd
```

5. ****Test cluster connection for example by listing the pods**

3. **Prepare infrastructure configuration**

Go to chosen platform repo, for example <https://github.com/gft-blx/k8s-hcvault-platform>
Fill all the required prerequisites details and parameters, mostly marked as TODO in the values files

4. **Add secrets to AWS Secret Manager**

1. `argo/repo-creds` - fill it with the value of a github token. Personal token could be created in <https://github.com/settings/tokens> with required permissions: admin:org, repo, user, workflow

5. ****Deploy Argo CD by Helm**

```
# In k8s-hcvault-platform/argo-cd run:
helm install -n argo-cd argo-cd . --values values-< env >.yaml # e.g. helm install -n argo-cd argo-cd . --values values-sandbox.yaml
```

After a while Argo should be deployed together with infrastructure.

6. **Check Argo**

```
kubectll port-forward svc/argo-cd-argocd-server -n argo-cd 8080:443 & # proxy traffic from jumphost to k8s
kubectll -n argo-cd get secrets argocd-initial-admin-secret --template={{.data.password}} | base64 --decode # copy th
argocd login localhost:8080 # username: admin password: copy from the command above, if you receive the message hand

argocd --help # to make sure argocd cli already installed
argocd app list # to make sure argocd request forwarded to eks cluster,
```

Troubleshooting

- update AWS credentials if expired
- make sure you're using right AWS profile
- CI may not auto-update image's tag so microservice update won't happen