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Purpose

This wiki page describes the procedure for deploying or updating a Jenkins instance deployed into a Kubernetes cluster at ERCOT using a Windows/Linux server or desktop.

Deployments

**Pre-reqs**

1. Windows or Linux server or desktop environment.
2. Current versions of the [OC](https://repo.ercot.com/artifactory/maven-thirdparty/com/redhat/oc) and [Helm](https://repo.ercot.com/artifactory/maven-thirdparty/sh/helm/cli)command line tools available in the environment from Step #1.
3. Verify that the package version specified in the RFC has been distributed to the target environment here <https://repo.ercot.com/ui/bundles/source/Jenkins-JCasC?type=packages>
4. Helm access to https://<environment>.edge.repo.ercot.com/artifactory/helm/
5. Access to core configuration yaml from the jcasc-configuration git repo. [https://stash.ercot.com/projects/JCASC/repos/jcasc-configuration/browse](https://stash.ercot.com/projects/CICD/repos/jcasc-configuration/browse)
6. Access to instance/group configuration yaml from the appropriate group git repo. https://stash.ercot.com/projects/[JCASC](https://stash.ercot.com/projects/CICD/repos/jcasc-configuration/browse)/repos/jcasc-configuration-<group-abbreviation>/browse

**Instructions**

1. Add the helm chart repository by running (<environment> = dev, test, prod has no prefix)

helm repo add ercot-<environment>-charts  https://<environment>.edge.repo.ercot.com/artifactory/helm/

1. Update your local metadata for the helm charts repository by running

helm repo update

1. Confirm that jcasc is available and the version number by running

helm search repo ercot-<environment>-charts/jcasc

1. Login to the target OpenShift cluster by running (<clustername> = labk8s, devk8s, testk8s, ptk8s (prod-taylor), pbk8s (prod-bastrop))

oc login api.<clustername>.ercot.com:6443

1. Clone the core [jcasc-configuration](https://stash.ercot.com/scm/cicd/jcasc-configuration.git" \t "_blank) repository from the JCASC git project in stash into your deployment environment.  (NOTE: You may need to temporarily disable SSL validation in the git client if your system doesn't trust Globalsign's intermediate certificate.)

git clone https://stash.ercot.com/scm/jcasc/jcasc-configuration.git

1. Clone the appropriate **jcasc-configuration-<group-abbreviation>** repository from the JCASC git project in stash into your deployment environment. (NOTE: You may need to temporarily disable SSL validation in the git client if your system doesn't trust Globalsign's intermediate certificate.)

git clone https://stash.ercot.com/scm/jcasc/jcasc-configuration-<group-abbreviation>.git

1. Perform a dry-run of the deployment to ensure that things render correctly by running. Verify that there are no error messages in the output, if there are any, they are most likely to be at the top of the output.
2. helm upgrade jenkins-<group-abbreviation> ercot-<environment>-charts/jcasc --install --create-namespace --namespace jenkins-<group-abbreviation> --values /path/to/configuration-<environment>.yaml --values /path/to/group/configuration-<environment>.yaml --namespace jenkins-<group-abbreviation> --dry-run

CRITICAL NOTE: The ordering of core configuration and instance or group configuration is IMPORTANT. Core configuration must be provided first in the argument list and instance or group configuration must be provided second. If these are provided out of order the resulting configuration may not work as expected.

1. Perform the real deployment by removing the "--dry-run" flag from the previous command and re-running (see above code block). Capture the output from each helm upgrade command as evidence.
2. Repeat steps 6-9 for any additional instances being deployed into the same OpenShift cluster.