

Part 1: Manual Blue-Green Deployment

[Blue-Green deployments](#) involve running two versions of an application at the same time and moving production traffic from the old version to the new version (more [about blue-green deployments](#)).

1. Create a new project (bluegreen)

```
oc new-project bluegreen --display-name="Blue/Green Deployment"
```

2. Deploy first copy of [the example application](#)

```
oc new-app --name=example-blue openshift/deployment-example:v1
```

3. Create route to first copy of the example application

```
oc expose svc/example-blue --name=example
```

Browse to the application at `example.bluegreen.<router_domain>` to verify you see the 'v1' image.

4. Deploy second copy of the example application

```
oc new-app --name=example-green openshift/deployment-example:v2
```

5. Edit the route and change service to example-blue

```
oc edit route/example
```

Change `spec.to.name` to `example-green` and save and exit the editor.

6. In your browser, refresh the page until you see the 'v2' image.

Part 2: Pipeline Blue-Green Deployment

Modify the [deployment configuration](#) created from Part 1 to use [Pipelines in OpenShift](#) to [deploy a new version of the example application and ask for approval to switch the route](#).

1. Create a Jenkins instance

```
oc new-app jenkins-ephemeral --param MEMORY_LIMIT=1Gi
```

2. Turn off all triggers from our deployment configurations

```
oc set triggers dc/example-green --remove-all
oc set triggers dc/example-blue --remove-all
```

3. Create the Pipeline Build Configuration

```
oc create -f \
https://raw.githubusercontent.com/wkulhanek/openshift-bluegreen/master/example-pipeline.yaml
```

4. In the Web Console navigate to your project.

5. Select Builds/Pipelines in the navigator on the left.

- You will see your Pipeline configuration. It points to a Jenkinsfile in Github.
- Click **Start Pipeline** to kick off a new build.
- The build will progress until it is time to approve switching over to the new version of the application.
- At this point you can verify that even though we deployed a new version of the application in the other deployment configuration our route still displays the blue v1 text.
- Back in your pipeline click the **Input Required** link. You will be directed to the Jenkins Login Page. Log in with your OpenShift credentials.
- Click **Proceed** to continue the deployment of the new application version.
- Refresh the route to see the updated application. The first time you will see a light green box with text 'v2'.