OpenShift Container Platform 4.3

Web console

Getting started with the web console in OpenShift Container Platform

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Abstract

This document provides instructions for accessing and customizing the OpenShift Container Platform web console.

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CHAPTER 1. ACCESSING THE WEB CONSOLE

The OpenShift Container Platform web console is a user interface accessible from a web browser. Developers can use the web console to visualize, browse, and manage the contents of projects.

Prerequisites

- JavaScript must be enabled to use the web console. For the best experience, use a web browser that supports WebSockets.
- Review the OpenShift Container Platform 4.x Tested Integrations page before you create the supporting infrastructure for your cluster.

1.1. UNDERSTANDING AND ACCESSING THE WEB CONSOLE

The web console runs as a pod on the master. The static assets required to run the web console are served by the pod. Once OpenShift Container Platform is successfully installed, find the URL for the web console and login credentials for your installed cluster in the CLI output of the installation program. For example:

```
INFO Install complete!
INFO Run 'export KUBECONFIG=<your working directory>/auth/kubeconfig' to manage the cluster with 'oc', the OpenShift CLI.
INFO The cluster is ready when 'oc login -u kubeadmin -p <provided>' succeeds (wait a few minutes).
INFO Access the OpenShift web-console here: https://console-openshift-console.apps.demo1.openshift4-beta-abcorp.com
INFO Login to the console with user: kubeadmin, password: <provided>
```

Use those details to log in and access the web console.

CHAPTER 2. USING THE OPENSHIFT CONTAINER PLATFORM DASHBOARD TO GET CLUSTER INFORMATION

Access the OpenShift Container Platform dashboard, which captures high-level information about the cluster, by navigating to **Home → Dashboards → Overview** from the OpenShift Container Platform web console.

The OpenShift Container Platform dashboard provides various cluster information, captured in individual dashboard cards.

2.1. ABOUT THE OPENSHIFT CONTAINER PLATFORM DASHBOARDS PAGE

The OpenShift Container Platform dashboard consists of the following cards:

- **Details** provides a brief overview of informational cluster details.
  Status include **ok**, **error**, **warning**, **in progress**, and **unknown**. Resources can add custom status names.
  - Cluster ID
  - Provider
  - Version
- **Cluster Inventory** details number of resources and associated statuses. It is helpful when intervention is required to resolve problems, including information about:
  - Number of nodes
  - Number of Pods
  - Persistent storage volume claims
  - Bare metal hosts in the cluster, listed according to their state (only available in **metal3** environment).
- **Cluster Capacity** charts help administrators understand when additional resources are required in the cluster. The charts contain an inner ring that displays current consumption, while an outer ring displays thresholds configured for the resource, including information about:
  - CPU time
  - Memory allocation
  - Storage consumed
  - Network resources consumed
- **Cluster Utilization** shows the capacity of various resources over a specified period of time, to help administrators understand the scale and frequency of high resource consumption.
- **Events** lists messages related to recent activity in the cluster, such as Pod creation or virtual machine migration to another host.

- **Top Consumers** helps administrators understand how cluster resources are consumed. Click on a resource to jump to a detailed page listing Pods and nodes that consume the largest amount of the specified cluster resource (CPU, memory, or storage).

CHAPTER 3. CONFIGURING THE WEB CONSOLE IN OPENSHIFT CONTAINER PLATFORM

You can modify the OpenShift Container Platform web console to set a logout redirect URL or disable the console.

Prerequisites

- Deploy an OpenShift Container Platform cluster.

3.1. CONFIGURING THE WEB CONSOLE

You can configure the web console settings by editing the **console.config.openshift.io** resource.

- Edit the **console.config.openshift.io** resource:

```
$ oc edit console.config.openshift.io cluster
```

The following example displays the sample resource definition for the console:

```
apiVersion: config.openshift.io/v1
kind: Console
metadata:
  name: cluster
spec:
  authentication:
    logoutRedirect: "" (1)
status:
  consoleURL: "" (2)
```

(1) Specify the URL of the page to load when a user logs out of the web console. If you do not specify a value, the user returns to the login page for the web console. Specifying a **logoutRedirect** URL allows your users to perform single logout (SLO) through the identity provider to destroy their single sign-on session.

(2) The web console URL. You cannot modify this parameter value. If you do, the cluster resets it to the default value.

CHAPTER 4. CUSTOMIZING THE WEB CONSOLE IN OPENSHIFT CONTAINER PLATFORM

You can customize the OpenShift Container Platform web console to set a custom logo, product name, links, notifications, and command line downloads. This is especially helpful if you need to tailor the web console to meet specific corporate or government requirements.

4.1. ADDING A CUSTOM LOGO AND PRODUCT NAME

You can create custom branding by adding a custom logo or custom product name. You can set both or one without the other, as these settings are independent of each other.

Prerequisites

- You must have administrator privileges.
- Create a file of the logo that you want to use. The logo can be a file in any common image format, including GIF, JPG, PNG, or SVG, and is constrained to a **max-height** of **60px**.

Procedure

1. Import your logo file into a ConfigMap in the **openshift-config** namespace:

```
$ oc create configmap console-custom-logo --from-file ~/path/to/console-custom-logo.png -n
openshift-config
```

2. Edit the web console's Operator configuration to include **customLogoFile** and **customProductName**:

```
$ oc apply -f <file>
```

```
apiVersion: operator.openshift.io/v1
kind: Console
metadata:
  name: cluster
spec:
  customization:
    customProductName: My Console
      customLogoFile:
        name: console-custom-logo
        key: console-custom-logo.png
```

Once the Operator configuration is updated, it will sync the custom logo ConfigMap into the console namespace, mount it to the console pod, and redeploy.

3. Check for success. If there are any issues, the console cluster operator will report **Degraded**, and the console Operator configuration will also report **CustomLogoDegraded**, but with reasons like **KeyOrFilenameInvalid** or **NoImageProvided**.
To check the **clusteroperator**, run:

```
$ oc get clusteroperator console -o yaml
```

To check the console Operator configuration, run:

```
$ oc get console.operator.openshift.io -o yaml
```

4.2. CREATING CUSTOM LINKS IN THE WEB CONSOLE

Prerequisites

- You must have administrator privileges.

Procedure

1. From **Administration → Custom Resource Definitions**, click on **ConsoleLink**.
2. Click **YAML** and edit the file:

```
apiVersion: console.openshift.io/v1
kind: ConsoleLink
metadata:
  name: example
spec:
  href: 'https://www.example.com'
  location: HelpMenu (1)
  text: Link 1
```

(1) Valid location settings are **HelpMenu**, **UserMenu**, **ApplicationMenu**, and **NamespaceDashboard**.

To make the custom link appear in all namespaces, follow this example:

```
apiVersion: console.openshift.io/v1
kind: ConsoleLink
metadata:
  name: namespaced-dashboard-link-for-all-namespaces
spec:
  href: 'https://www.example.com'
  location: NamespaceDashboard
  text: This appears in all namespaces
```

To make the custom link appear in only some namespaces, follow this example:

```
apiVersion: console.openshift.io/v1
kind: ConsoleLink
metadata:
  name: namespaced-dashboard-for-some-namespaces
spec:
  href: 'https://www.example.com'
  location: NamespaceDashboard
  # This text will appear in a box called "Laucher" under "namespace" or "project" in the web
console
  text: Custom Link Text
  namespaceDashboard:
    namespaces:
    # for these specific namespaces
```

```
    - my-namespace
    - your-namespace
    - other-namespace
```

To make the custom link appear in the application menu, follow this example:

```
apiVersion: console.openshift.io/v1
kind: ConsoleLink
metadata:
  name: application-menu-link-1
spec:
  href: 'https://www.example.com'
  location: ApplicationMenu
  text: Link 1
  applicationMenu:
    section: My New Section
    # image that is 24x24 in size
    imageURL: https://via.placeholder.com/24
```

3. Click the **Save** button to apply your changes.

4.3. DEFINING A TEMPLATE FOR AN EXTERNAL LOG LINK

If you are connected to a service that helps you browse your logs, but you need to generate URLs in a particular way, then you can define a template for your link.

Prerequisites

- You must have administrator privileges.

Procedure

1. From **Administration → Custom Resource Definitions**, click on **ConsoleExternalLogLink**.
2. Click **YAML** and edit the file:

```
apiVersion: console.openshift.io/v1
kind: ConsoleExternalLogLink
metadata:
  name: example
spec:
  hrefTemplate: >-
    https://example.com/logs?
resourceName=${resourceName}&containerName=${containerName}&resourceNamespace=$
{resourceNamespace}&podLabels=${podLabels}
  text: Example Logs
```

4.4. CREATING CUSTOM NOTIFICATION BANNERS

Prerequisites

- You must have administrator privileges.

Procedure

1. From **Administration → Custom Resource Definitions**, click on **ConsoleNotification**.
2. Click **YAML** and edit the file:

```
apiVersion: console.openshift.io/v1
kind: ConsoleNotification
metadata:
  name: example
spec:
  backgroundColor: '#0088ce'
  color: '#fff'
  link:
    href: 'https://www.example.com'
    text: Optional link text
  location: BannerTop (1)
  text: This is an example notification message with an optional link.
```

(1) Valid location settings are **BannerTop**, **BannerBottom**, and **BannerTopBottom**.

3. Click the **Save** button to apply your changes.

4.5. CUSTOMIZING CLI DOWNLOADS

You can configure links for downloading the CLI with custom link text and URLs, which can point directly to file packages or to an external page that provides the packages.

Prerequisites

- You must have administrator privileges.

Procedure

1. Navigate to **Administration → Custom Resource Definitions**
2. Select **ConsoleCLIDownload** from the list of Custom Resource Definitions (CRDs).
3. Click the **YAML** tab, and then make your edits:

```
apiVersion: console.openshift.io/v1
kind: ConsoleCLIDownload
metadata:
  name: example-cli-download-links-for-foo
spec:
  description: |
    This is an example of download links for foo
  displayName: example-foo
  links:
  - href: 'https://www.example.com/public/foo.tar'
    text: foo for linux
  - href: 'https://www.example.com/public/foo.mac.zip'
```

```
    text: foo for mac
  - href: 'https://www.example.com/public/foo.win.zip'
    text: foo for windows
```

4. Click the **Save** button.

4.6. ADDING YAML EXAMPLES TO KUBERNETES RESOURCES

You can dynamically add YAML examples to any Kubernetes resources at any time.

1. Prerequisites

   - You must have cluster administrator privileges.

Procedure

1. From **Administration → Custom Resource Definitions**, click on **ConsoleYAMLSample**.
2. Click **YAML** and edit the file:

```
apiVersion: console.openshift.io/v1
kind: ConsoleYAMLSample
metadata:
  name: example
spec:
  targetResource:
    apiVersion: batch/v1
    kind: Job
  title: Example Job
  description: An example Job YAML sample
  yaml: |
    apiVersion: batch/v1
    kind: Job
    metadata:
      name: countdown
    spec:
      template:
        metadata:
          name: countdown
        spec:
          containers:
          - name: counter
            image: centos:7
            command:
            - "bin/bash"
            - "-c"
            - "for i in 9 8 7 6 5 4 3 2 1 ; do echo $i ; done"
          restartPolicy: Never
```

   Use **spec.snippet** to indicate that the YAML sample is not the full YAML resource definition, but a fragment that can be inserted into the existing YAML document at the user's cursor.

3. Click **Save**.

CHAPTER 5. ABOUT THE DEVELOPER PERSPECTIVE IN THE WEB CONSOLE

The OpenShift Container Platform web console provides two perspectives; the **Administrator** perspective and the **Developer** perspective.

The **Developer** perspective provides workflows specific to developer use cases, such as the ability to:

- Create and deploy applications on OpenShift Container Platform by importing existing codebases, images, and dockerfiles.
- Visually interact with applications, components, and services associated with them within a project and monitor their deployment and build status.
- Group components within an application and connect the components within and across applications.
- Integrate serverless capabilities (Technology Preview).
- Create workspaces to edit your application code using Eclipse Che.

Prerequisites

To access the **Developer** perspective, ensure that you have logged in to the web console .

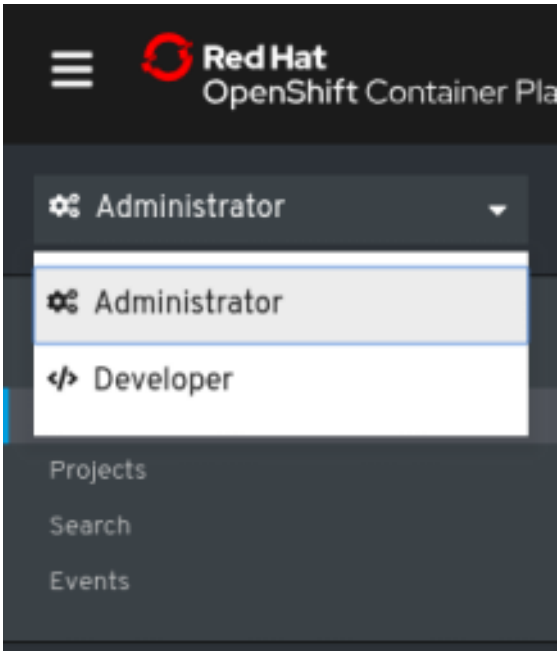
5.1. ACCESSING DEVELOPER PERSPECTIVE

The **Developer** perspective in the OpenShift Container Platform web console provides workflows specific to developer use cases.

You can access the **Developer** perspective from the web console as follows:

Procedure

1. Log in to the OpenShift Container Platform web console using your login credentials. The default view for the OpenShift Container Platform web console is the **Administrator** perspective.
2. Use the perspective switcher to switch to the **Developer** perspective. The **Topology** view with options to create an application is displayed.



Additional resources

- Creating and deploying applications on OpenShift Container Platform using the **Developer** perspective
- Viewing the applications in your project, verifying their deployment status, and interacting with them in the **Topology** view

CHAPTER 6. DISABLING THE WEB CONSOLE IN OPENSHIFT CONTAINER PLATFORM

You can disable the OpenShift Container Platform web console.

Prerequisites

- Deploy an OpenShift Container Platform cluster.

6.1. DISABLING THE WEB CONSOLE

You can disable the web console by editing the **console.operator.openshift.io** resource.

- Edit the **console.operator.openshift.io** resource:

```
$ oc edit console.operator.openshift.io cluster
```

The following example displays the parameters from this resource that you can modify:

```
apiVersion: config.openshift.io/v1
kind: Console
metadata:
  name: cluster
spec:
  managementState: Removed (1)
```

(1) Set the **managementState** parameter value to **Removed** to disable the web console. The other valid values for this parameter are **Managed**, which enables the console under the cluster's control, and **Unmanaged**, which means that you are taking control of web console management.