OpenShift Dedicated 4 Applications

Configuring OpenShift Dedicated for your applications
Abstract

This document provides information about configuring OpenShift Dedicated for your application deployments. This includes setting up custom wildcard domains.
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1.1. Configuring custom domains for applications

Custom domains are specific wildcard domains that can be used with OpenShift Dedicated applications. The top-level domains (TLDs) are owned by the customer that is operating the OpenShift Dedicated cluster. The Custom Domains Operator sets up a new ingresscontroller with a custom certificate as a second day operation. The public DNS record for this ingresscontroller can then be used by an external DNS to create a wildcard CNAME record for use with a custom domain.

**NOTE**

Custom API domains are not supported because Red Hat controls the API domain. However, customers can change their application domains. For private custom domains with a private IngressController, set .spec.scope to Internal in the CustomDomain CR.

**Prerequisites**

- A user account with dedicated-admin privileges
- A unique wildcard domain, such as *.apps.<company_name>.io
- A wildcard custom certificate, such as CN=*.apps.<company_name>.io
- Access to a cluster with the latest version of the oc CLI installed

**IMPORTANT**

Do not use the reserved names default or apps*, such as apps or apps2, in the metadata/name: section of the CustomDomain CR.

**Procedure**

1. Create a new TLS secret from a private key and a public certificate, where fullchain.pem and privkey.pem are your public or private wildcard certificates.

   **Example**

   ```bash
   $ oc create secret tls <name>-tls --cert=fullchain.pem --key=privkey.pem -n <my_project>
   ```

2. Create a new CustomDomain custom resource (CR):

   **Example <company_name>-custom-domain.yaml**

   ```yaml
   apiVersion: managed.openshift.io/v1alpha1
   kind: CustomDomain
   metadata:
     name: <company_name>
   spec:
     domain: apps.companyname.io
   ```
The custom domain.

The secret created in the previous step.

3. Apply the CR:

   **Example**

   ```shell
   $ oc apply -f <company_name>-custom-domain.yaml
   ```

4. Get the status of your newly created CR:

   ```shell
   $ oc get customdomains
   ```

   **Example output**

<table>
<thead>
<tr>
<th>NAME</th>
<th>ENDPOINT</th>
<th>DOMAIN</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;company_name&gt;</td>
<td>xxrywp.&lt;company_name&gt;.cluster-01.opln.s1.openshiftapps.com</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*.apps.&lt;company_name&gt;.io</td>
<td>xxrywp.&lt;company_name&gt;.cluster-01.opln.s1.openshiftapps.com</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ready</td>
<td></td>
</tr>
</tbody>
</table>

5. Using the endpoint value, add a new wildcard CNAME recordset to your managed DNS provider, such as Route53, Azure DNS, or Google DNS.

   **Example**

   ```shell
   *.apps.<company_name>.io -> xxrywp.<company_name>.cluster-01.opln.s1.openshiftapps.com
   ```

6. Create a new application and expose it:

   **Example**

   ```shell
   $ oc new-app --docker-image=docker.io/openshift/hello-openshift -n my-project
   $ oc create route edge --service=hello-openshift hello-openshift-tls --hostname hello-openshift-tls-my-project.apps.acme.io -n my-project
   $ oc get route -n my-project
   $ curl https://hello-openshift-tls-my-project.apps.<company_name>.io
   Hello OpenShift!
   ```