

## WKC 4.6.4 Catalog-API hot fix for Upgrades

[Step 1](#) and the substeps to download and copy the images to a local private registry for an air-gapped environment.

[Step 2](#) and the substeps to go through applying the patch using the online IBM entitled registry, or to apply the hotfix using the images downloaded to the local private registry from Step 1.

### Procedure

- 1) To apply the patch in an air-gapped environment, proceed with the following steps.
  - a) Log in to the OpenShift console as the cluster admin.
  - b) Prepare the authentication credentials to access the IBM production repository. Use the same auth.json file used for CASE download and image mirroring. An example directory path:

```
${HOME}/.airgap/auth.json
```

Or create an auth.json file that contains credentials to access icr.io and your local private registry. For example:

```
{
  "auths": {
    "cp.icr.io":{"email":"unused","auth":"<base64 encoded id:apikey>"},"<private
registry hostname>":{"email":"unused","auth":"<base64 encoded id:password>"}
  }
}
```

For more information about the auth.json file, see [containers-auth.json - syntax for the registry authentication file](#).

- c) Install skopeo by running:

```
yum install skopeo
```

- d) To confirm the path for the local private registry to copy the hotfix images to, run the following command:

```
oc describe pod <hotfix image pod> | grep -i "image:"
```

*<hotfix image pod>* can be the pod name for any of the images which will be patched with this hotfix.

For example:

```
oc describe pod catalog-api-b4fd5b-d6sg4 | grep Image:
```

...

Image:

```
cp.icr.io/cp/cpd/catalog_master@sha256:7e84c322975a934867e78044ef1894c5301a19d6a5d9  
2449f1c3d7a740a5c58b
```

- e) To get the local private registry source details, run the following commands:

```
oc get imageContentSourcePolicy  
oc describe imageContentSourcePolicy [cloud-pak-for-data-mirror]
```

The local private registry mirror repository and path details should be in the output of the describe command:

```
- mirrors:  
  - ${PRIVATE_REGISTRY_LOCATION}/cp/  
    source: cp.icr.io/cp/cpd
```

For more information about mirroring of images, see [Configuring your cluster to pull Cloud Pak for Data images](#).

- f) Use the *skopeo* command to copy the patch images from the IBM production registry to the local private registry. Using the appropriate auth.json file, copy the patch images from the IBM production registry to the Openshift cluster registry:

**NOTE: When copy/pasting the “skopeo” command below, it is recommended to copy the command into a text editor to ensure there are no additional newline characters. Remove any additional newline characters. Then copy/paste the command from the text editor to the command line. If these steps are not done, the command may fail.**

```
skopeo copy --all --authfile "<folder path>/auth.json" --dest-tls-verify=false --src-tls-verify=false
docker://cp.icr.io/cp/cpd/catalog_master@sha256:62c8053fad73dad872710ce3e08a83554cf9cabf7b4ce0e0294d2cf83806379d <local private registry>/cp/cpd/catalog_master@sha256:62c8053fad73dad872710ce3e08a83554cf9cabf7b4ce0e0294d2cf83806379d
```

- 2) To install the patch using the online IBM entitled registry, or to apply the hotfix using the images downloaded to the local private registry from Step 1, proceed with the following commands. Note that `${PROJECT_CPD_INSTANCE}` refers to the project name where WKC is installed.

**NOTE: When copy/pasting the “oc patch” command below, please ensure that it is contained on a single line without line breaks. Also, if any spaces are introduced by the copy/paste, they must be removed. If these steps are not done, the command may fail.**

- a) Run the following command to apply the patch to the Common Core Services custom resource (ccs-cr):

```
oc patch ccs ccs-cr -n ${PROJECT_CPD_INSTANCE} --type merge -p
'{"spec":{"catalog_api_image":{"name":"catalog_master@sha256","tag":"62c8053fad73dad872710ce3e08a83554cf9cabf7b4ce0e0294d2cf83806379d","tag_metadata":"2.0.0-20230526231710-114c0ecb1"}}}'
```

- b) Wait for the Common Core Services operator reconciliation to complete. Run the following command to monitor the reconciliation status:

```
oc get CCS ccs-cr -o yaml -n ${PROJECT_CPD_INSTANCE}
```

After a period of time, the `catalog-api` pods in `${PROJECT_CPD_INSTANCE}` should be up and running with the updated images.

## To revert the hotfix changes

Make sure to revert the image overrides before you install or upgrade to a newer refresh or a major release of IBM® Cloud Pak for Data.

To revert the image override, proceed with the following steps. Note that `${PROJECT_CPD_INSTANCE}` refers to the project name where WKC is installed.

- a) Run the following command to edit the Common Core Services custom resource

```
oc edit CCS ccs-cr -n ${PROJECT_CPD_INSTANCE}
```

- b) Remove the following lines within the CCS custom resource and save the change.

```
catalog_api_image:
  name: catalog_master@sha256
  tag: 62c8053fad73dad872710ce3e08a83554cf9cabf7b4ce0e0294d2cf83806379d
  tag_metadata: 2.0.0-20230526231710-114c0ecb1
```

- c) Wait for the Common Core Services operator reconciliation to complete. Run the following command to monitor the reconciliation status:

```
oc get CCS ccs-cr -o yaml -n ${PROJECT_CPD_INSTANCE}
```

After a period of time, the `catalog-api` pods in `${PROJECT_CPD_INSTANCE}` should be up and running with the original images.