

IBM Content Navigator Configuration database migration from on-prem to IBM Cloud Pak for Business Automation

In the IBM Cloud Pak for Business Automation (CP4BA), the containerized version of IBM FileNet Content Manager, with core business automation capabilities can manage and govern large amounts of content. Prepare your source and target environments before you move to the Cloud Pak environment. For details about the entire move process refer to [Moving from on premises to Cloud Pak for Business Automation](#) in the CP4BA documentation. This document covers additional steps required to migrate the IBM Content Navigator (ICN) configuration. Complete all applicable steps from both the CP4BA documentation and this technical document.

1. Preparing your source FileNet Content Manager environment for the move

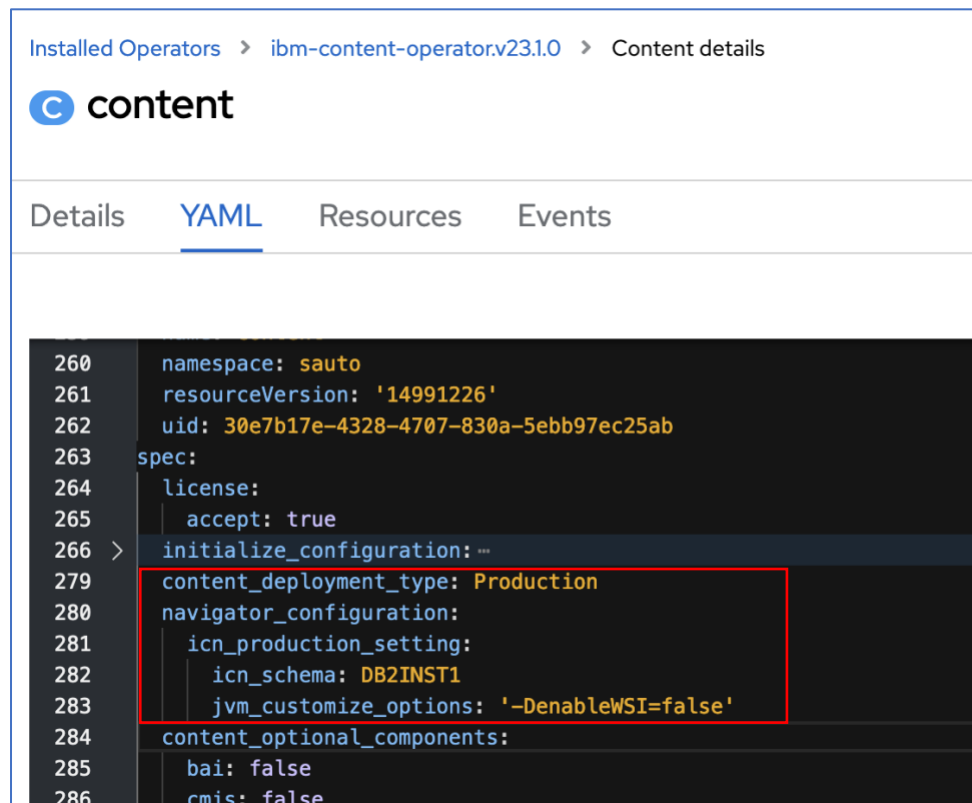
1. Ensure that you have a current backup of the Navigator configuration database, and any custom plugins or viewer license that might be present.
2. Verify the database server is at a version supported by CP4BA.
 - a. The existing on-premises IBM Content Navigator database can be reused in IBM Cloud Pak for Business Automation (CP4BA). You can use your existing database server and configuration database or copy the configuration database to a new database or a new database server for use in the CP4BA deployment.
3. Determine the location and schema name of the IBM Content Navigator database.
 - a. Log in to the IBM Content Navigator server as a user with access to the IBM Content Navigator Configuration and Deployment Tool.
 - b. Right-click **Configure Your Database and Data Source** in the profile pane and click **Edit Selected Task**.
 - c. Note the values given as needed for the required secrets and parameters in the `datasource_configuration` and `navigator_configuration` sections of the custom resource file.

2. Preparing the target environment for FileNet Content Manager

1. Set the custom resource parameter `icn_production_setting.icn_schema` in the custom resource YAML file to the correct value when you are deploying CP4BA. In a traditional deployment of Navigator, the schema name defaults to the name of the database user given to Navigator to use as the database connection user that default schema name is often “DB2INST1”,
2. In the post deployment steps, you need to update Content Repository connection to utilize WSI, supported in a CP4BA deployment, instead of EJB as was used in the traditional deployment. To allow this change, a JVM option is required on the Navigator container deployment to disable the rule that only WSI is allowed. Refer the following sample to update the CR YAML file.

```
navigator_configuration:  
  icn_production_setting:  
    icn_schema: DB2INST1  
  jvm_customize_options: '-DenableWSI=false'
```

Refer the following snapshot sample for the Navigator schema name and WSI configuration in a sample CP4BA deployment custom resource YAML content.



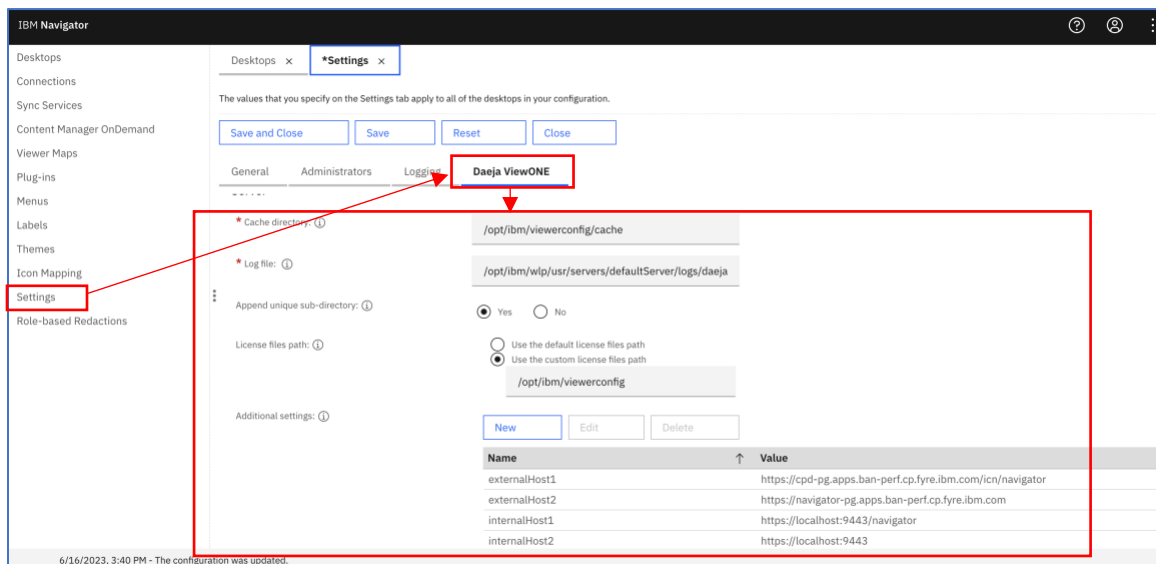
```
260 namespace: sauto  
261 resourceVersion: '14991226'  
262 uid: 30e7b17e-4328-4707-830a-5ebb97ec25ab  
263 spec:  
264   license:  
265     accept: true  
266 > initialize_configuration: --  
279   content_deployment_type: Production  
280   navigator_configuration:  
281     icn_production_setting:  
282       icn_schema: DB2INST1  
283       jvm_customize_options: '-DenableWSI=false'  
284   content_optional_components:  
285     bai: false  
286     cmis: false
```

For more information on the Navigator parameters in the custom resource YAML file, see <https://www.ibm.com/docs/en/cloud-paks/cp-biz-automation/23.0.1?topic=parameters-business-automation-navigator>

3. Completing post deployment tasks

1. Modify Navigator file paths to reflect deployment in a containerized environment.

- Update Viewer log path to CP4BA container path. In container environment, the default log path is `/opt/ibm/wlp/usr/servers/defaultServer/logs`, it saves the logs to Navigator log PV.
- Update other server file paths. Go to Navigator configuration page and complete the following steps:
 - a. Log in to Navigator Admin desktop → Settings → Daeja ViewONE → Server as a Navigator administrative user.
 - b. Update the value of "Cache directory" and "Log file" and "License files path". The default Daeja licenses path is `/opt/ibm/viewerconfig`.
 - c. Update the externalHost values to use the new Navigator URL if you have similar `Additional settings`. Refer the configuration steps in the following snapshot:

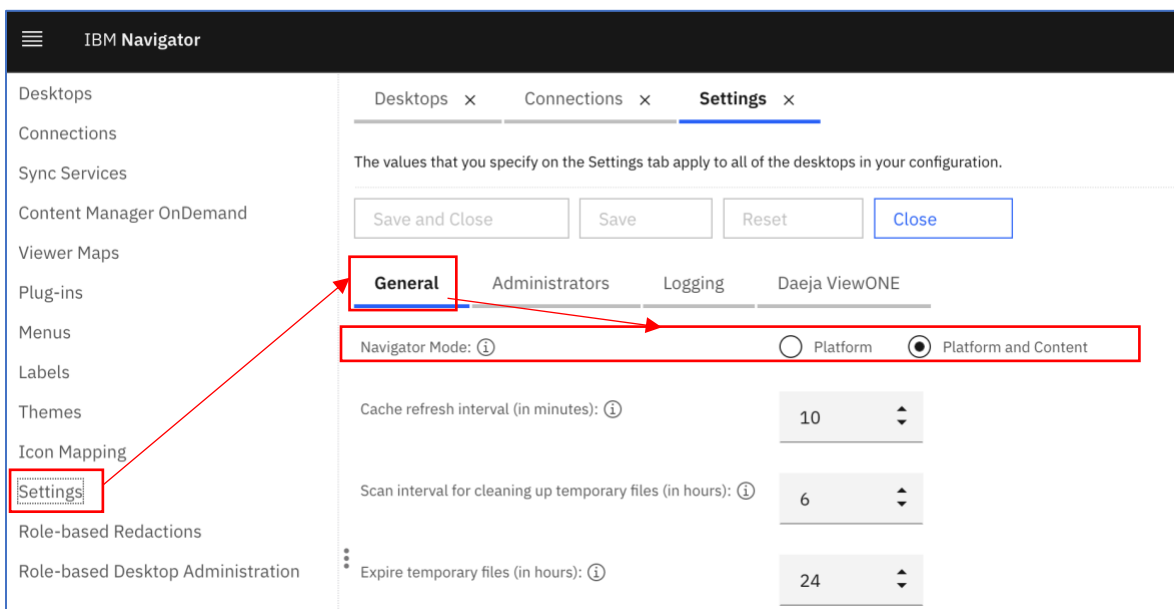


Regarding external host configuration in `Additional settings` section. For detail information refer to <https://www.ibm.com/support/pages/daeja-viewone-virtual-can-fail-load-balanced-ha-and-sso-environments>.

2. Update Navigator Mode in Navigator admin desktop

Navigator mode has 2 options in CP4BA environment: **Platform, Platform and Content**. In a traditional deployment, the Navigator mode is always Content only. In the Navigator configuration database, **navigatorMode=0** means the desktop mode is Content, **navigatorMode=1** means it's **Platform** desktop, **navigatorMode=2** means it's **Platform and Content** desktop. To allow a Navigator configuration with navigatorMode of Content only to operate in a CP4BA deployment, the Navigator Mode must be changed to one supported by CP4BA.

In Navigator UI, select the Navigator Mode **Platform and Content** to ensure the content capabilities from the traditional deployment are retained. Refer the following snapshot for configuration for Navigator mode.



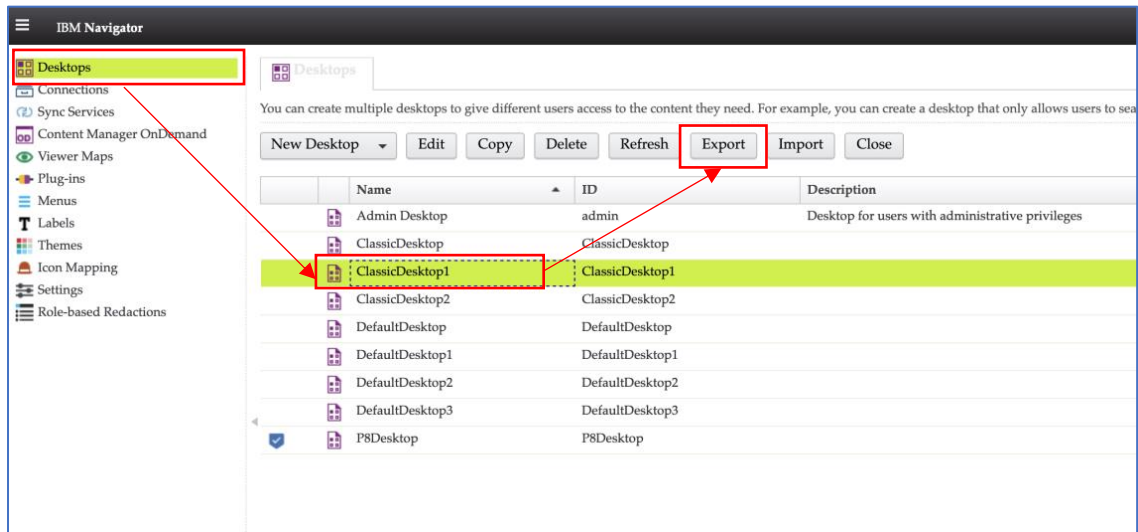
3. Update desktop type for custom themes

After the Navigator is deployed in CP4BA environment, you cannot see the themes created with a traditional deployment. You need to update the desktop type of every custom theme to reflect a value which is valid for a CP4BA deployment.

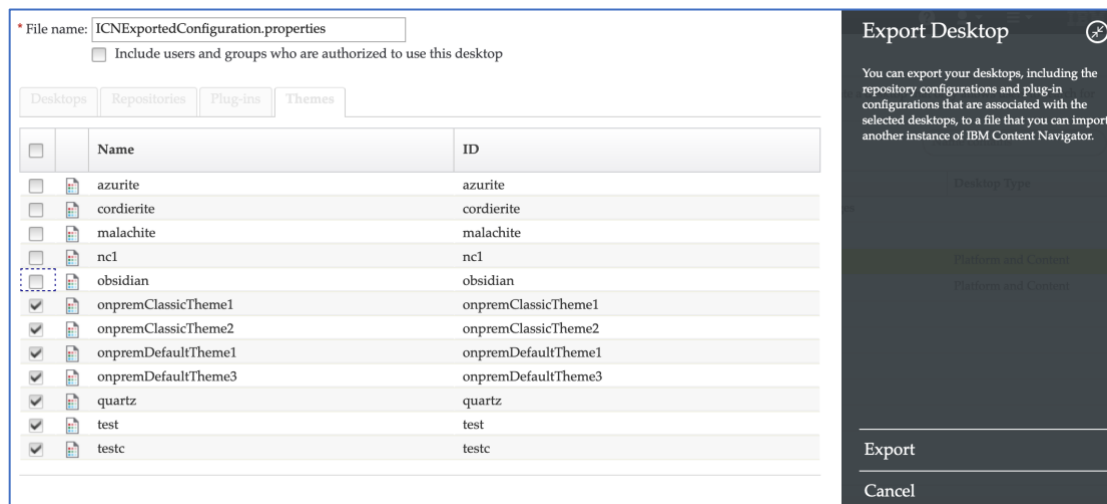
Use desktop export feature of Navigator to update the desktop type by following these steps to migrate custom themes:

- a) Export the themes data by exporting Navigator desktop using the Navigator admin desktop.

Log in to Navigator admin desktop → Open **Desktop view** → Select one custom desktop → Click **Export**.



- b) In the popup page, select the custom themes which you want to migrate under the tab Themes, and click **Export**, the default file name is ICNExportedConfiguration.properties.

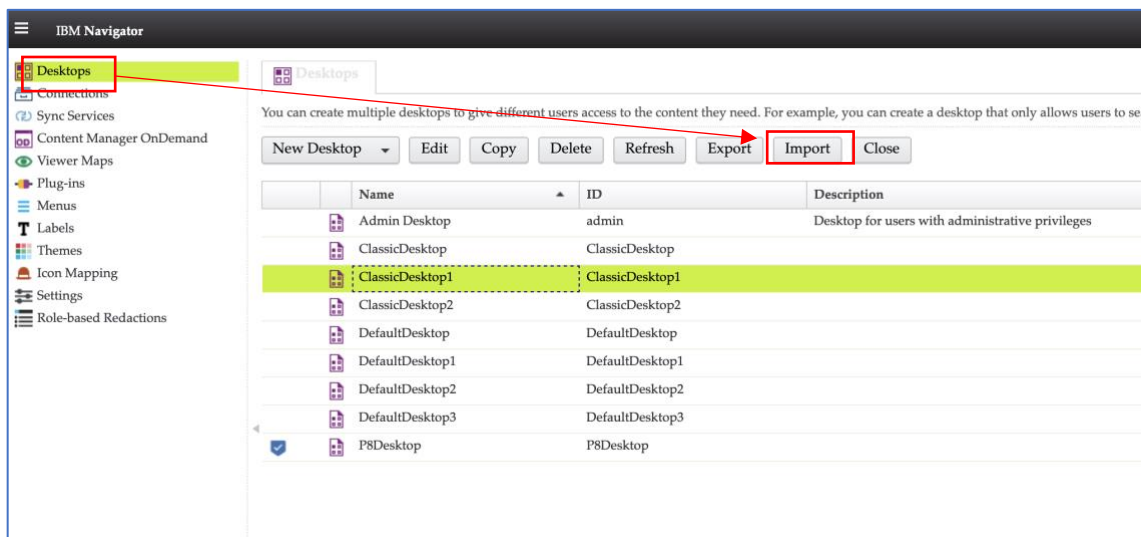


- c) Update the desktop type value in the theme data file. Open the theme data file `ICNExportedConfiguration.properties`, then replace all the values `desktopType=default` to `desktopType=platformContent` or `desktopType=platform`. To retain the Content capabilities, a value of `desktopType= platformContent` is used.

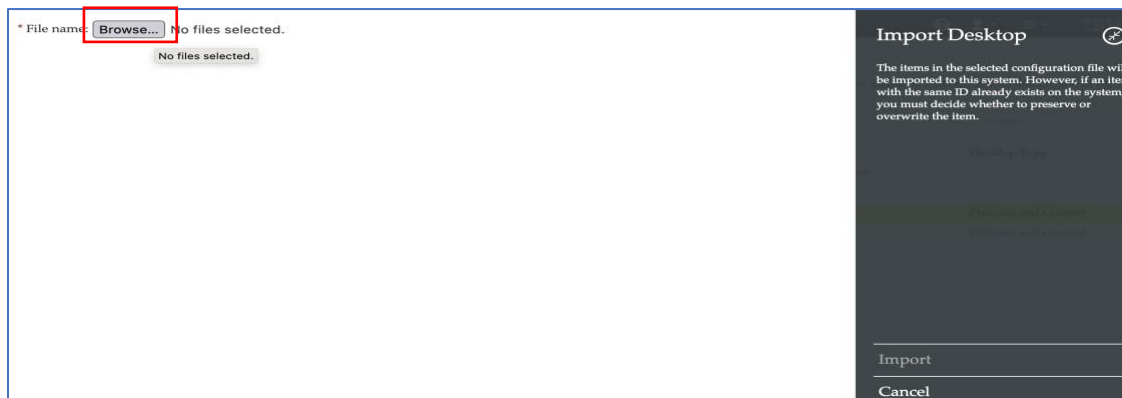
As the Navigator desktop import feature has build-level limitation, it needs to use the same build version. If the target environment is CP4BA 22.0.2, no action is needed. If the target environment is CP4BA 23.0.1, update the build version from `version=3.0.13` to `version=3.0.14` in the first line of the file `ICNExportedConfiguration`. See the following snapshot:

```
exported.summary = version=3.0.14; buildLevel=icn3013.000.xxx;
interfaceText.navigato ClassicDesktop2.applicationName = d
interfaceText.navigato ClassicDesktop2.favorites = display
interfaceText.navigato ClassicDesktop2.browse = displayedI
interfaceText.navigato ClassicDesktop2.search = displayedI
interfaceText.navigato ClassicDesktop2.casesearch = display
interfaceText.navigato ClassicDesktop2.datacap = displayedI
mobilefeature.navigato ClassicDesktop2.favorites = display=
mobilefeature.navigato ClassicDesktop2.browse = display=fa
mobilefeature.navigato ClassicDesktop2.search = display=fa
```

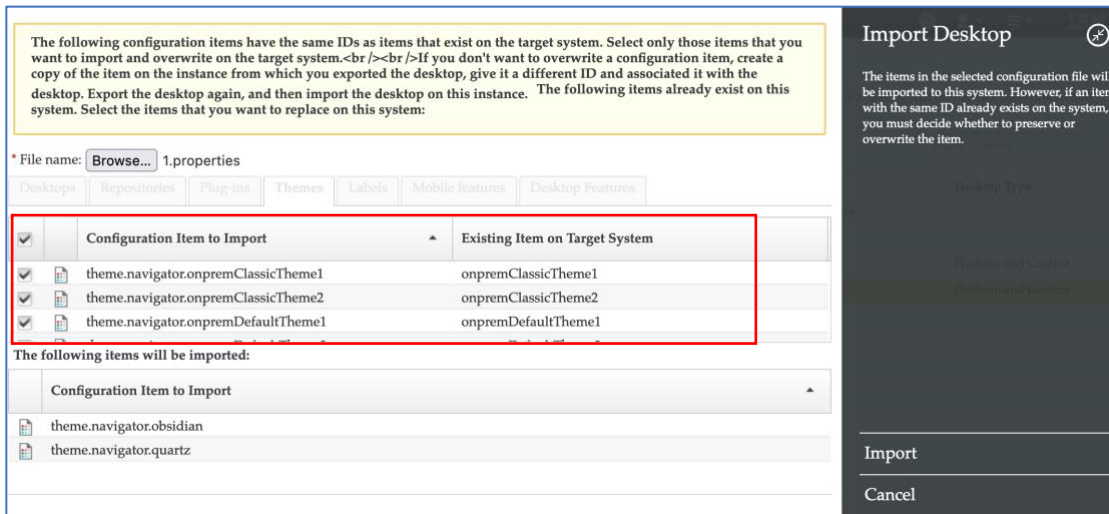
- d) Import the new theme data file into CP4BA environment by Navigator admin desktop.
Log in to Navigator admin desktop → Open **Desktop view** → Click **Import**.



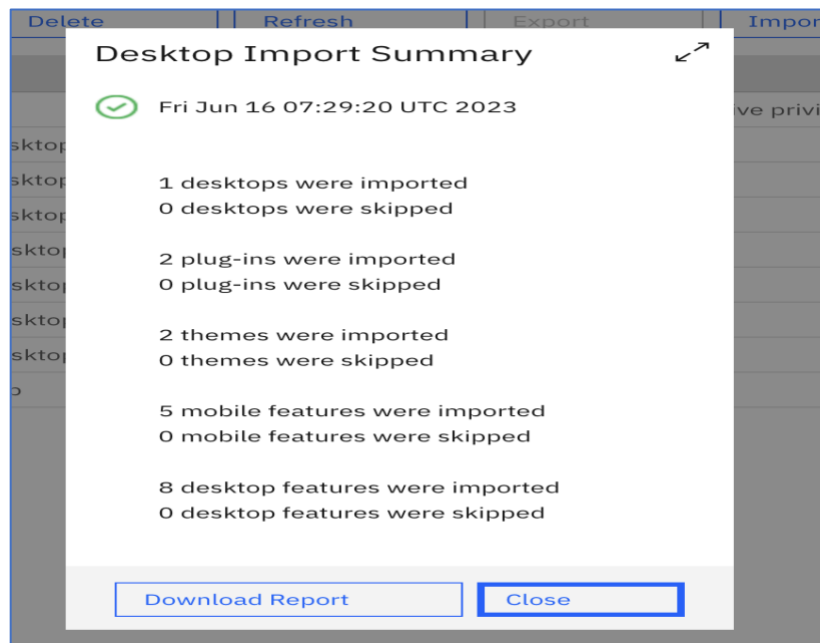
Open the **Import popup** page → Click **Browse** → Select the properties file you updated before.



Select the custom themes you want to overwrite into CP4BA environment.



After you imported the data, it shows you overwrite summary page. See the following result snapshot:



4. Update Repositories connection setting to use WSI and the CP4BA deployed CPE.

The CP4BA uses WSI to connect remote CPE repositories that needs to change EJB protocol to WSI protocol for the CPE repository connection on CP4BA environment.

- Go to the Repositories page → Navigator Admin desktop → Connections → Repositories.
- Change the Protocol to WSI and enter the WSI server URL → connect and the save.

The CPE public WSI URL can be got from the CP4BA access information configmap, the configmap name like xxx_cp4ba-access-info. Following snapshot is a sample of the configuration map,

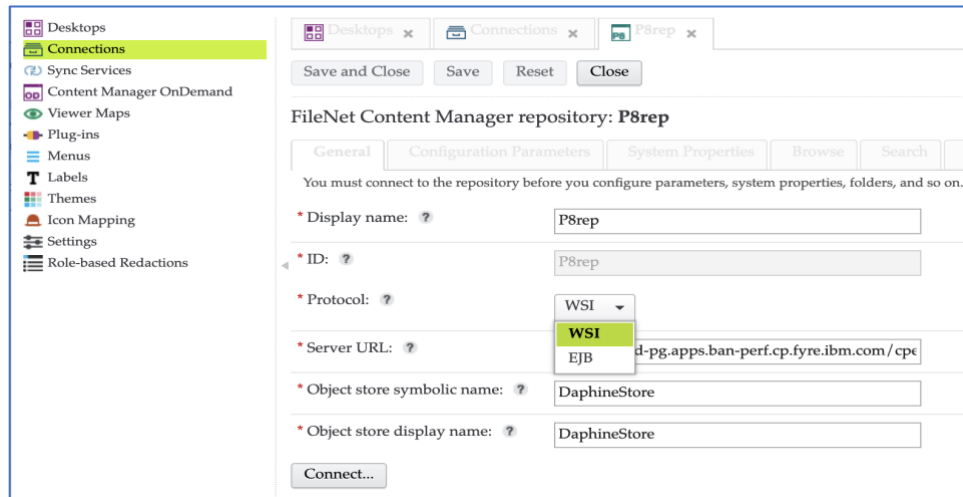
cpe-access-info

```
Content Platform Engine administration: https://cpd-pg.apps.ban-perf.cp.fyre.ibm.com/cpe/acce/
Content Platform Engine health check: https://cpe-pg.apps.ban-perf.cp.fyre.ibm.com/P8CE/Health
Content Platform Engine ping page: https://cpe-pg.apps.ban-perf.cp.fyre.ibm.com/FileNet/Engine
FileNet Process Services ping page: https://cpe-pg.apps.ban-perf.cp.fyre.ibm.com/peengine/IOR/ping
FileNet Process Services details page: https://cpe-pg.apps.ban-perf.cp.fyre.ibm.com/peengine/IOR/admin/help
FileNet P8 Content Engine Web Service page: https://cpe-pg.apps.ban-perf.cp.fyre.ibm.com/wsi/FNCEWS40MTOM/
FileNet Process Engine Web Service(PEWS) page: https://cpe-pg.apps.ban-perf.cp.fyre.ibm.com/pewsi/ProcessEngineWS-I
```

cpe-stateless-access-info

```
Content Platform Engine health check: https://cpe-stless-pg.apps.ban-perf.cp.fyre.ibm.com/P8CE/Health
Content Platform Engine ping page: https://cpe-stless-pg.apps.ban-perf.cp.fyre.ibm.com/FileNet/Engine
FileNet Process Services ping page: https://cpe-stless-pg.apps.ban-perf.cp.fyre.ibm.com/peengine/IOR/ping
FileNet Process Services details page: https://cpe-stless-pg.apps.ban-perf.cp.fyre.ibm.com/peengine/IOR/admin/help
FileNet P8 Content Engine Web Service page: https://cpe-stless-pg.apps.ban-perf.cp.fyre.ibm.com/wsi/FNCEWS40MTOM/
FileNet Process Engine Web Service(PEWS) page: https://cpe-stless-pg.apps.ban-perf.cp.fyre.ibm.com/pewsi/ProcessEngineWS-I
```

Configuration example with CPE public WSI URL,



If you want to use container internal WSI URL for CPE repository, run the following command:

```
oc get svc | grep cpe-stateless
```

The name returned is the server's name in the URL

```
icp4adeploy-cpe-stateless-svc
```

CPE internal WSI URL example,

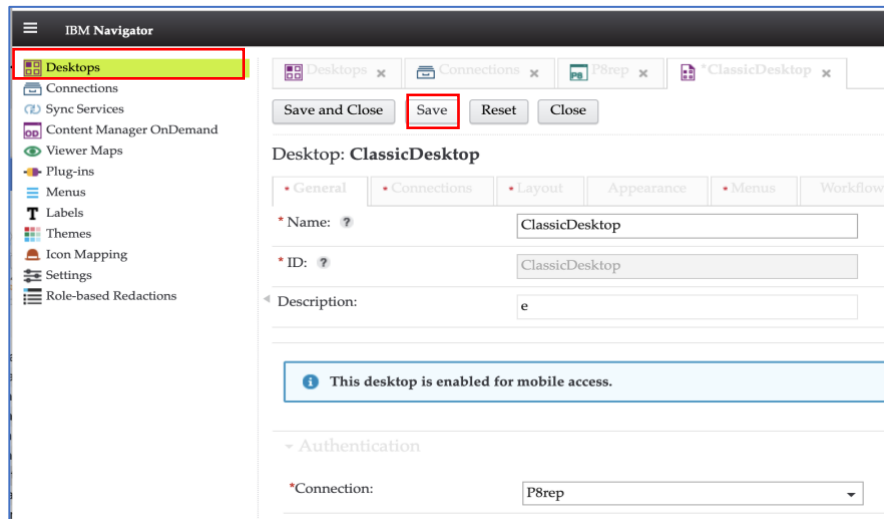
```
https://icp4adeploy-cpe-stateless-svc.cp4ba.svc:9443/wsi/FNCEWS40MTOM
```

c. Repeat this setting for all existing repository connections.

5. Update desktop type for existing desktops by Navigator admin desktop

In Navigator admin desktop, update the desktop type for all existing desktop by re-save desktop configuration. It updates desktop type from default to platform or platformContent.

Log in to Navigator admin desktop → change any desktop property → Click **Save** to update the desktop type for desktop data.



6. Reload Navigator plugins

If you have plugins installed on on-premises environment, you need to copy the installed plugins to CP4BA plugins PV, and then reload the plugins with container path and save in Navigator admin desktop again.

In container, the default plugins folder location is `/opt/ibm/plugins`, it has some default plugins files under this folder. But for the custom plugins, you need to copy the plugins files to this folder or copy them to a location, which container can use and make container user can access the files.

Copy the IBM Content Navigator plug-in files from your on-premises location to the `/opt/ibm/plugins` path in the IBM Content Navigator volume using a command like this:

```
podname=$(oc get pod | grep navigator pod name | awk '{print $1}')  
kubectl cp path to plugin files NAMESPACE/$podname:/opt/ibm/plugins
```

7. Other settings to update

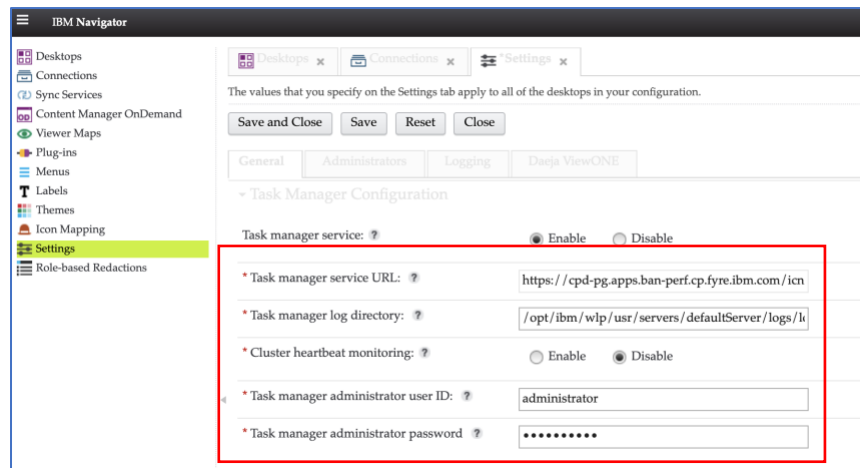
There are optional features of Navigator, reconfigure them if need. If necessary, reconfigure SSL by following the CP4BA documentation.

- a) Update **Task Manager** configuration by Navigator admin desktop. Task Manager services URL and log path are still using the values of on-prem environment that needs to be updated in Navigator admin desktop.

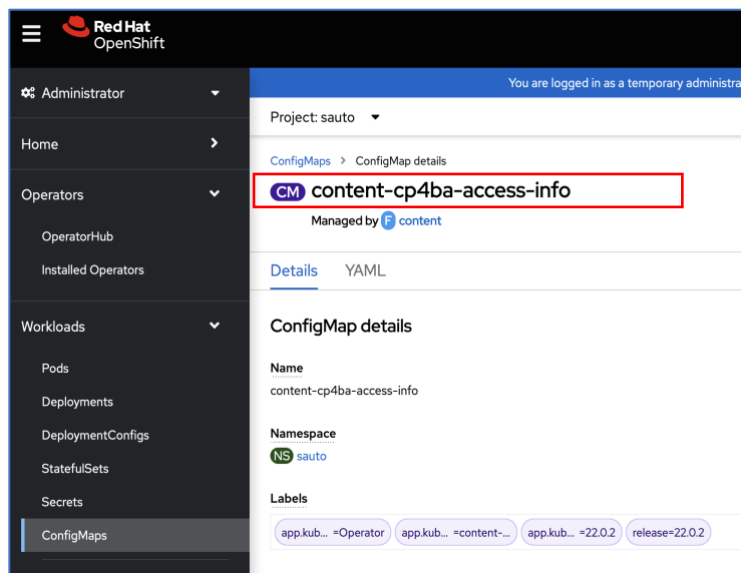
Follow the steps to update:

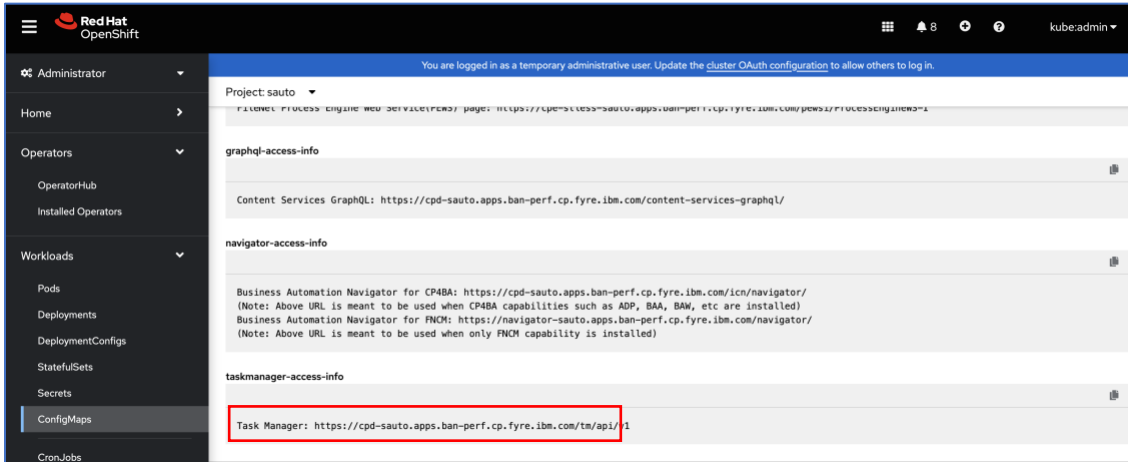
Log in to Navigator Admin desktop → Settings → Task Manager Configuration → Enter your new Task Manager URL and user access information → Click **Save**.
Update Task Manager configuration → Restart the Task Manager container cluster.

Tips: When you are saving the TM configuration, if you see `com.ibm.ecm.crypto.CipherException: Failed to encrypt` error, it can be resolved by using <https://www.ibm.com/support/pages/node/876336>.



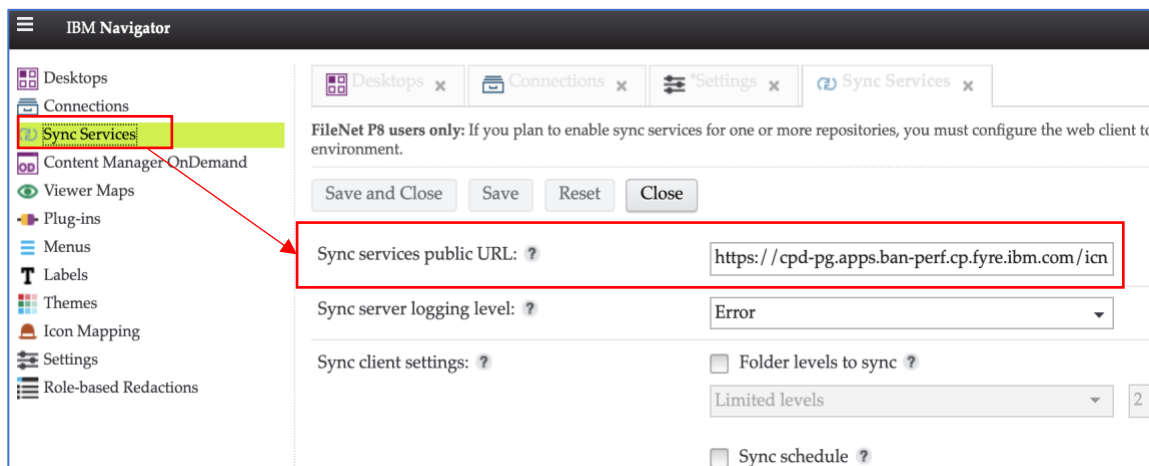
If you don't know your new Task Manager URL, you can get it by the ConfigMaps `content-cp4ba-access-info` in OCP, scroll down the page you can get the URL if the Task Manager is deployed.





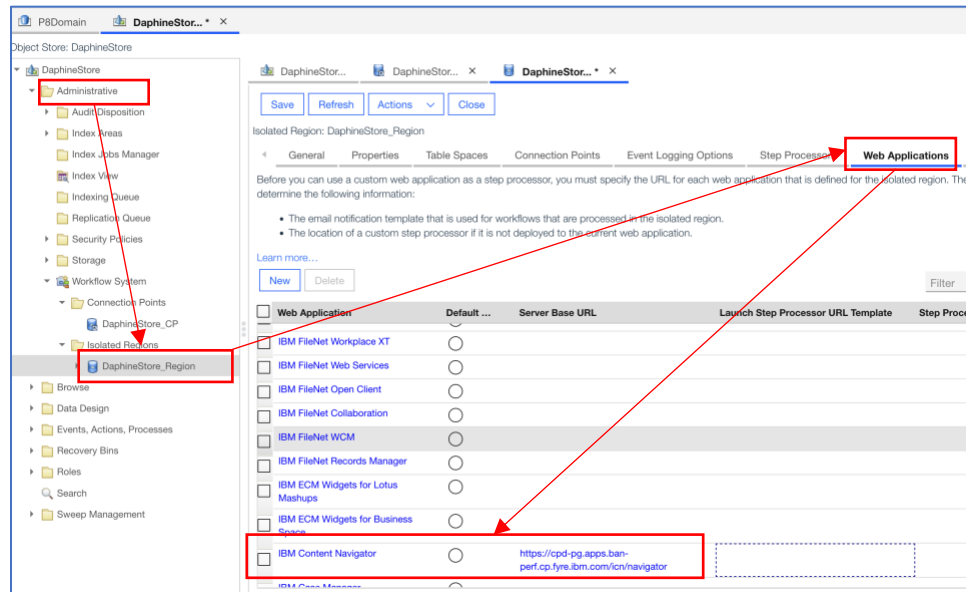
Make sure to restart Task Manager POD after you updated the Task Manager configuration.

- b) If you have Sync enabled, you also need to update Sync URL by your CP4BA Sync services URL in Navigator admin desktop.
 The Sync URL like `https://<navigator-host>/icn/ sync/notify`, it might have error messages at first time you save with new URL, ignore the error messages, reopen the page and then make sure the new value has been saved.



- c) Update Workflow configuration by ACCE

Log in to ACCE in CP4BA environment → Update Navigator server base URL. See the following snapshot:



- d) If the Office Online is configured on on-prem Navigator, you need to reconfigure the Office Online for CP4BA after the migration as new, we will not cover this configuration in this doc.