Applying Data Virtualization service patch v1.5.0.0-275

IBM

Contents

Introduction

This document describes how to install the Data Virtualization service patch `v1.5.0.0-275`.

The `v1.5.0.0-275` service patch includes the following security issues:

- CVE-2017-3164, CVE-2017-12629
- CVE-2018-1308, CVE-2018-8010, CVE-2018-8026, CVE-2018-11802, CVE-2018-12536, CVE-2018-12545
- CVE-2019-0193, CVE-2019-17558, CVE-2019-17571
- CVE-2020-9493, CVE-2020-13941, CVE-2020-13957
- CVE-2021-4104, CVE-2021-22112, CVE-2021-27905, CVE-2021-29262, CVE-2021-29943
- PRISMA-2021-0041, PRISMA-2021-0081
- CVE-2022-23302, CVE-2022-23305, CVE-2022-23307

Applying patches

A Red Hat® OpenShift® project administrator can apply patches on a cluster that is connected to the internet or on an air-gapped cluster.

Before you begin

Required role: To install a patch, you must be an administrator of the project (namespace) where the software is deployed.

In this topic, the term *software* can be either the Cloud Pak for Data control plane or a service.

Before you apply patches, ensure that:

- The machine from which you will run the commands meets the requirements described in Preparing your installation node.
- You have the required information about your Red Hat OpenShift cluster, as described in Collecting information about your cluster from your administrator.
- The Data Virtualization service instance is running correctly. All service pods must be running and ready.
- You use the same `repo.yaml` file that you used to deploy Data Virtualization service Version `v1.5.0.0`.
- Obtain the Cloud Pak for Data installation files for Version 3.5.0.

Tip: For a list of all available options, enter the following command:

```
./cpd-cli patch --help
```

Procedure

To install patches:

1. Complete the appropriate task to apply patches on your environment:

Applying patches on clusters connected to the internet

From your installation node:

1. Change to the directory where you placed the Cloud Pak for Data command-line interface and the `repo.yaml` file.

2. Log in to your Red Hat OpenShift cluster as a project administrator:

   ```
   oc login OpenShift_URL:port
   ```

3. Run the following command to patch the service:

   Important: If you are using the internal Red Hat OpenShift registry and you are using the default self-signed certificate, specify the `--insecure-skip-tls-verify` flag to prevent x509 errors.

   ```
   ./cpd-cli patch \
   --repo ./repo.yaml \
   --assembly dv \
   --namespace Project \
   --patch-name Patch_name \
   --transfer-image-to Registry_location \
   --cluster-pull-prefix Registry_from_cluster \
   --ask-push-registry-credentials \
   ```

```
--action transfer
```

Replace the following values:

Variable	Replace with
Project	Specify the project (namespace) where the software that you want to patch is deployed.
Patch_name	Specify the name of the patch that you want to install. This information is included in the patch description. **Value:** `v1.5.0.0-275`
| *Registry_location* | The location to store the images in the registry server.<br><br>**Guidance for Red Hat OpenShift registry users:**<br><br>• To determine the external route to the registry, run the appropriate command for your environment:<br><br>  – OpenShift 3.11:<br><br>```
$(oc get route -n default docker-registry -o
   jsonpath="{.spec.host}")
```<br><br>  – OpenShift 4.5:<br><br>```
$(oc get route -n openshift-image-registry | grep image-
registry | awk '{print $2}')
``` |
| *Registry_from_cluster* | The location from which pods on the cluster can *pull* images.<br><br>**Guidance for Red Hat OpenShift registry users:**<br><br>• This is the internal name of the registry service. The default service name is:<br><br>  – OpenShift 3.11:<br><br>```
docker-registry.default.svc:5000
```<br><br>  – OpenShift 4.5:<br><br>```
image-registry.openshift-image-registry.svc:5000
``` |

4. Run the following command to patch the service instance:

```
./cpd-cli patch \
--repo ./repo.yaml \
--assembly dv \
--namespace Project \
--patch-name Patch_name \
--transfer-image-to Registry_location \
--cluster-pull-prefix Registry_from_cluster \
--ask-push-registry-credentials \
--action transfer \
--all-instances
```

Use the same values that you specified when you patched the service.

Applying patches on air-gapped clusters

From your installation node:

1. Change to the directory where you placed the Cloud Pak for Data command-line interface and the `repo.yaml` file.

2. Run the following command to download the patch to your local machine:

```
./cpd-cli patch \
--repo ./repo.yaml \
--assembly dv \
--version 1.5.0 \
--patch-name Patch_name \
--action download
```

Replace the following values:

Variable	Replace with
Patch_name	Specify the name of the patch that you want to install. This information is included in the patch description. **Value:** `v1.5.0.0-275`

3. Transfer the following items to a machine that can connect to the cluster and to the registry server:

- The `cpd-cli-workspace` directory. Ensure that the directory structure remains unchanged.
- A copy of the Cloud Pak for Data installation command-line interface. Ensure that the command-line interface is compatible with the machine that you are transferring the files to and that it is the same version as the command-line interface that you ran in the preceding steps.

4. From the machine that can connect to the cluster, run the following command to apply the service patch:

Important: If you are using the internal Red Hat OpenShift registry:

- Do not specify the `--ask-pull-registry-credentials` parameter.
- If you are using the default self-signed certificate, specify the `--insecure-skip-tls-verify` flag to prevent x509 errors.

```
./cpd-cli patch \
--namespace Project \
--load-from Image_directory_location \
--assembly dv \
--patch-name Patch_name \
--transfer-image-to Registry_location \
--cluster-pull-prefix Registry_from_cluster \
--ask-push-registry-credentials \
--action push
```

Replace the following values:

Variable	Replace with
Project	Specify the project (namespace) where the software that you want to patch is deployed.
Image_directory_location	The location of the `cpd-cli-workspace` directory.
Patch_name	Specify the name of the patch that you want to install. This information is included in the patch description. **Value:** `v1.5.0.0-275`
Registry_location	The location to store the images in the registry server.

Variable	Replace with
	• To determine the external route to the registry, run the appropriate command for your environment: – OpenShift 3.11: ``` $(oc get route -n default docker-registry -o jsonpath="{.spec.host}") ``` – OpenShift 4.5: ``` $(oc get route -n openshift-image-registry | grep image- registry | awk '{print $2}') ```
Registry_from_cluster	The location from which pods on the cluster can *pull* images. **Guidance for Red Hat OpenShift registry users:** • This is the internal name of the registry service. The default service name is: – OpenShift 3.11: ``` docker-registry.default.svc:5000 ``` – OpenShift 4.5: ``` image-registry.openshift-image-registry.svc:5000 ```

5. Run the following command to download the service instance patch to your local machine:

```
./cpd-cli patch \
--repo ./repo.yaml \
--assembly dv \
--version 1.5.0 \
--patch-name Patch_name \
--action download \
--all-instances
```

Replace the following values:

Variable	Replace with
Patch_name	Specify the name of the patch that you want to install. This information is included in the patch description. **Value:** `v1.5.0.0-275`

6. Run the following command to patch the service instance:

```
./cpd-cli patch \
--assembly dv \
--namespace Project \
--load-from Image_directory_location \
--patch-name Patch_name \
--transfer-image-to Registry_location \
--cluster-pull-prefix Registry_from_cluster \
--all-instances \
--action push
```

Use the same values that you specified when you patched the service.

Troubleshooting

If you complete all steps to install the Data Virtualization service patch `v1.5.0.0-275` but you see errors, consider the following troubleshooting resources.

If you see that the dv-engine-0 pod failed to restart and the dv-engine-0 pod log shows an error that is similar to this message, consider the following resource.

```
2021-03-08_01.26.17,468_UTC ERROR ERROR: Failed during SSL setup for DV engine. Exit

2021-03-08_01.26.17,480_UTC ERROR Failed to start DV engine
```

- Failure to start DV engine after upgrading Cloud Pak for Data 3.5.0 or applying a patch to Cloud Pak for Data 3.5.0 control plane

If the dv-engine-0 pod starts after you install the Data Virtualization service patch `v1.5.0.0-275`, but you see HTTP 500 errors on the Data Virtualization console, see the following resource.

- Resolving SSL certificates in Data Virtualization after you upgrade or patch

For general troubleshooting information, see the following resources.

- Cannot connect to Data Virtualization
- Troubleshooting the Data Virtualization service