

*Applying Data Virtualization service  
patch v1.5.0.0-270*



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# Introduction

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This document describes how to install the Data Virtualization service patch v1.5.0.0-270.

The v1.5.0.0-270 service patch includes the following security issues:

- CVE-2018-5711, CVE-2018-10779, CVE-2018-15209, CVE-2018-17101, CVE-2018-25009, CVE-2018-25010, CVE-2018-25011, CVE-2018-25012, CVE-2018-25013, CVE-2018-25014
- CVE-2019-9924, CVE-2019-11038
- CVE-2020-1953, CVE-2020-1971, CVE-2020-10029, CVE-2020-10543, CVE-2020-10730, CVE-2020-10737, CVE-2020-10878, CVE-2020-12723, CVE-2020-14343, CVE-2020-14345, CVE-2020-14346, CVE-2020-14347, CVE-2020-14360, CVE-2020-14361, CVE-2020-14362, CVE-2020-14363, CVE-2020-24330, CVE-2020-24331, CVE-2020-24332, CVE-2020-24659, CVE-2020-25658, CVE-2020-25692, CVE-2020-25712, CVE-2020-29573, CVE-2020-36328, CVE-2020-36329, CVE-2020-36330, CVE-2020-36331, CVE-2020-36332
- CVE-2021-3156, CVE-2021-20270, CVE-2021-27291, CVE-2021-28363, CVE-2021-31535, CVE-2021-33503, CVE-2021-44228, CVE-2021-44832, CVE-2021-45046, CVE-2021-45105

# 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” on page 2](#)
  - [“Applying patches on air-gapped clusters” on page 3](#)

## 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
<i>Project</i>	Specify the project (namespace) where the software that you want to patch is deployed.
<i>Patch_name</i>	Specify the name of the patch that you want to install. This information is included in the patch description. <b>Value:</b> v1.5.0.0-270
<i>Registry_location</i>	The location to store the images in the registry server. <b>Guidance for Red Hat OpenShift registry users:</b> <ul style="list-style-type: none"><li>To determine the external route to the registry, run the appropriate command for your environment:<ul style="list-style-type: none"><li>OpenShift 3.11:<pre>\$(oc get route -n default docker-registry -o jsonpath="{.spec.host}")</pre></li><li>OpenShift 4.5:<pre>\$(oc get route -n openshift-image-registry   grep image-registry   awk '{print \$2}')</pre></li></ul></li></ul>
<i>Registry_from_cluster</i>	The location from which pods on the cluster can <i>pull</i> images. <b>Guidance for Red Hat OpenShift registry users:</b> <ul style="list-style-type: none"><li>This is the internal name of the registry service. The default service name is:<ul style="list-style-type: none"><li>OpenShift 3.11:<pre>docker-registry.default.svc:5000</pre></li><li>OpenShift 4.5:<pre>image-registry.openshift-image-registry.svc:5000</pre></li></ul></li></ul>

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
<i>Patch_name</i>	Specify the name of the patch that you want to install. This information is included in the patch description. <b>Value:</b> v1.5.0.0-270

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
<i>Project</i>	Specify the project (namespace) where the software that you want to patch is deployed.
<i>Image_directory_location</i>	The location of the cpd-cli-workspace directory.
<i>Patch_name</i>	Specify the name of the patch that you want to install. This information is included in the patch description. <b>Value:</b> v1.5.0.0-270
<i>Registry_location</i>	The location to store the images in the registry server.

Variable	Replace with
	<ul style="list-style-type: none"> <li>To determine the external route to the registry, run the appropriate command for your environment: <ul style="list-style-type: none"> <li>OpenShift 3.11: <pre>\$(oc get route -n default docker-registry -o jsonpath="{.spec.host}")</pre> </li> <li>OpenShift 4.5: <pre>\$(oc get route -n openshift-image-registry   grep image-registry   awk '{print \$2}')</pre> </li> </ul> </li> </ul>
<i>Registry_from_cluster</i>	<p>The location from which pods on the cluster can <i>pull</i> images.</p> <p><b>Guidance for Red Hat OpenShift registry users:</b></p> <ul style="list-style-type: none"> <li>This is the internal name of the registry service. The default service name is: <ul style="list-style-type: none"> <li>OpenShift 3.11: <pre>docker-registry.default.svc:5000</pre> </li> <li>OpenShift 4.5: <pre>image-registry.openshift-image-registry.svc:5000</pre> </li> </ul> </li> </ul>

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
<i>Patch_name</i>	<p>Specify the name of the patch that you want to install. This information is included in the patch description.</p> <p><b>Value:</b> v1.5.0.0-270</p>

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

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If you complete all steps to install the Data Virtualization service patch v1.5.0.0-270 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 v1.5.0.0-270, 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](#)





