

# LDOS 1.1.1 update and config

This article outlines the update and configuration process of the Lumada DataOps Suite 1.1.1 (GA).

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## Before You Start


Prior to installing LDOS 1.1.1 you need to check the following requirements:

- Cluster with LDOS 1.1.0 previously successfully installed.

This guide will cover the update of:

- Foundry 2.2.1
- Metrics Add-On 1.0.0 for Foundry
- LDOS 1.1.1

You can find everything you need in: <https://hcpanywhere.hitachivantara.com/a/PWPVYtZj1UovY9VO/e52a0db2-ad14-4673-941b-c304c2b108b2?l>

 You'll need your Hitachi Vantara credentials or ask Customer Success.

## Kubernetes Management

To properly access the kubernetes cluster, you need to configure your `kubeconfig`.

Know where your `kubeconfig` is located - this is a YAML file that determines which cluster your `kubectl` will talk to. It is usually located under `.kube/config` at your home user folder. **You will need the path later.**

Double check that your `kubectl` is talking to the correct kubernetes cluster by running:

```
kubectl config view --minify | grep 'server\|current-context'
```

Read more at: <https://kubernetes.io/docs/tasks/access-application-cluster/configure-access-multiple-clusters/>

## Upgrade Foundry

**i** *To upgrade to 2.2.1 from 2.2.0 previous versions, please check Foundry documentation: <http://docs.foundry.wal.hds.com/>*

**Foundry Control Plane 2.2.1** is available in <https://hcpanywhere.hitachivantara.com/a/PWPVYtZj1UovY9VO/e52a0db2-ad14-4673-941b-c304c2b108b2?l>:

- Foundry-Control-Plane-2.2.1.tgz

### Follow the official installation guide for Foundry

Please refer to the official Foundry documentation for details on how to upgrade the Solution Control Plane:

<http://docs.foundry.wal.hds.com/docs/AdministeringSolutions/UpgradingTheControlPlane>

For a standard 2.2.0 2.2.1 upgrade process, execute the following steps:

- Upgrade cluster services

```
(Having current context in ~/.kube/config pointing to this cluster)
$ ./bin/upgrade-cluster-services.sh
```

- Apply new CRDs

```
$ ./bin/apply-crds.sh -r <REGISTRY_URL>:<REGISTRY_PORT>[/optional
/registry/sub/path] -e
```

- Install Solution Control Plane

```
$ ./bin/install-control-plane.sh -r <REGISTRY_URL>:<REGISTRY_PORT>[
/optional/registry/sub/path] -c <HOSTNAME> -n <namespace_name> -s true -
U
```

- Upgrade the Solution Control Plane from the Admin UI

To upgrade Metadata Store, log to **Foundry Solution Management UI** and select **Solution Control Plane** card.

## Solution Control Plane



v2.2.0 | Last updated: a month ago

### Solution name

hscp-hitachi-solutions

### Description

Set of Applications for deploying and managing Hitachi...

In the solution details, at the right top corner, you can find a menu with the “Upgrade” option that should be selected.

< Solution Control Plane

Save

Upgrade

Uninstall

Solution name	Version	Status	Description
hscp-hitachi-solutions	2.2.0	Healthy	Set of Applications for deploying and managing Hitachi Solutions

A new window is presented to allow the user to select the Upgrade Version to apply. Select version 2.2.1 and click **Confirm button** to trigger the upgrade.

Upgrade Solution

Current Version

2.2.0

Latest Version

2.2.1

Upgrade Version

Select...

▼

Show incompatible versions

Confirm

Cancel

Select 2.2.1 version, click **Confirm button** and then **Upgrade button** to finish.

Finished the upgrade process, solution card is now with the **Deployed** green mark and ready to be used.

Solution Control Plane

v2.2.1 | Last updated: 3 minutes ago

Solution name

hscp-hitachi-solutions

Description

Set of Applications for deploying and managing Hitachi...

Upload LDOS solutions

Download and unpack the LDOS package

All packages required for LDOS 1.1.1 upgrade are available at <https://hccpanywhere.hitachivantara.com/a/PWPVYtZj1UovY9VO/e52a0db2-ad14-4673-941b-c304c2b108b2?l:>

Download and unpack the content of /Lumada DataOps Suite Package 1.1.1/Lumada-DataOps-Suite-1.1.1.gz:

```
7z e Lumada-DataOps-Suite-1.1.1.gz
tar -xf lumada-dataops-suite.tar
```

Download and unpack LDOS Installer /Lumada DataOps Suite Package 1.1.1/Lumada-DataOps-Suite-1.1.1-installer-1.1.1.zip

```
unzip Lumada-DataOps-Suite-1.1.1-installer.zip
```

At the end you will have two directories: /lumada-dataops-suite and /installer folders:

- /lumada-dataops-suite Includes
  - /images
  - /charts with all the solution artifacts, and
  - /control-plane folder with scripts for uploading solutions to Foundry.
- /installer - Includes scripts required to prepare the upload and install LDOS solutions.

### Patch the LDOS solutions charts

Some LDOS Solutions need to be patched to inject the hostname in the helm charts prior to be uploaded to Foundry.



Have caution with this step because it will modify helm charts and it will only work once. If for some reason, the hostname is not correct, you will have to go back, unpack the lumada-dataops-suite.tar to restore default helm charts and only then run update-hostname.sh again.

Run the following command replacing <HOSTNAME> with the cluster hostname:

```
./installer/update-hostname.sh -c=lumada-dataops-suite/charts -h=<HOSTNAME>
```

### Upload LDOS solutions packages to Foundry

Upload the charts and images to the registry using upload-solutions.sh, replacing KUBECONFIG by the kubeconfig for the cluster:

```
./lumada-dataops-suite/control-plane/bin/upload-solutions.sh -C lumada-dataops-suite/charts/ -I lumada-dataops-suite/images/ -k <KUBECONFIG> -n <NAMESPACE>
```

After running this command, you can validate that you have the solutions available in the **Solution management UI**:

Solutions

Installed

Available

Configuration

Storage

Certificates

Networking

Registry

Search

Q

Name	Description	Version	Compatible
<a href="#">control-plane</a>	A control plane that provides navigation, app switching, user management and notifications	1.1.7	✓
<a href="#">data-processing-service</a>	Data Processing Service for Kubernetes	1.2.3	✓
<a href="#">data-transformation-editor</a>	Data Transformation Editor	0.9.3	✓
<a href="#">data-transformation-editor</a>	Data Transformation Editor	0.9.4	✓
<a href="#">dataflow-engine</a>	Execution of dataflows	1.2.0	✓
<a href="#">dataflow-engine-broker</a>	Broker for Dataflow Engine	1.1.0	✓
<a href="#">dataflow-engine-broker</a>	Broker for Dataflow Engine	1.1.2	✓
<a href="#">dataflow-importer</a>	Importer for existing Pentaho Data Integration transformations	1.1.1	✓
<a href="#">dataflow-importer</a>	Importer for existing Pentaho Data Integration transformations	1.1.2	✓
<a href="#">dataflow-studio</a>	Pipelines to simplify data delivery	1.1.0	✓
<a href="#">dataflow-studio</a>	Pipelines to simplify data delivery	1.1.1	✓
<a href="#">lumada-data-catalog</a>	A Helm chart for Lumada Data Catalog	6.1.1-332	✓
<a href="#">lumada-data-catalog</a>	A Helm chart for Lumada Data Catalog	6.1.1-355	✓
<a href="#">messaging-service</a>	Messaging Service	1.2.1	✓
<a href="#">messaging-service</a>	Messaging Service	1.2.3	✓
<a href="#">metadata-store</a>	Internal database for metadata and configuration data used by LDOS applications.	1.0.1	✓
<a href="#">metadata-store</a>	Internal database for metadata and configuration data used by LDOS applications.	1.0.2	✓
<a href="#">metrics-addon-solution</a>	A Helm chart for Kubernetes deployment of Metrics Addon Operator.	1.0.0	✓
<a href="#">object-storage-service</a>	Object storage service. Not suited for real-world data.	1.2.2	✓
<a href="#">object-storage-service</a>	Object storage service. Not suited for real-world data.	1.2.3	✓
<a href="#">solution-control-plane</a>	Set of Applications for deploying and managing Hitachi Solutions	2.2.0	✓
<a href="#">solution-control-plane</a>	Set of Applications for deploying and managing Hitachi Solutions	2.2.1	✓

## Update Metrics Add-On

To update metrics add-on installed solution, go to solution details, select **Configuration** tab and replace existing values with new values:

```
metricsCollector:
  ...
  extraConfig: |-
    retention: 60d
    retentionSize: 9GB
```


and

```

metricsaddon:
  ...
  clusterMonitoring: >
    kubeStateMetrics:
      enabled: true
      serviceMonitor:
        metricRelabelings:
          - sourceLabels: [ __name__ ]
            action: keep
            regex:
'((kube_pod_container_resource_limits_cpu_cores|kube_pod_container_resour
ce_limits_memory_bytes)')
        kubelet:
          enabled: true
          serviceMonitor:
            probes: false
            cAdvisorMetricRelabelings:
              - sourceLabels: [ __name__ ]
                action: keep
                regex: 'container_memory_usage_bytes'
            metricRelabelings:
              - sourceLabels: [ __name__ ]
                action: drop
                regex: '.*'
            resourceMetricRelabelings:
              - sourceLabels: [ __name__ ]
                action: keep
                regex: 'container_cpu_usage_seconds_total'
        prometheusOperator:
          kubeletService:
            enabled: true
  ...

```

## Upgrade and Configure LDOS

 Solutions upgrade procedure are identical to the one previously executed during the [Foundry Control Plane Upgrade](#) section, selecting the desired solution and version to upgrade (*exception for Dataflow Importer and Data Transformation Editor*).

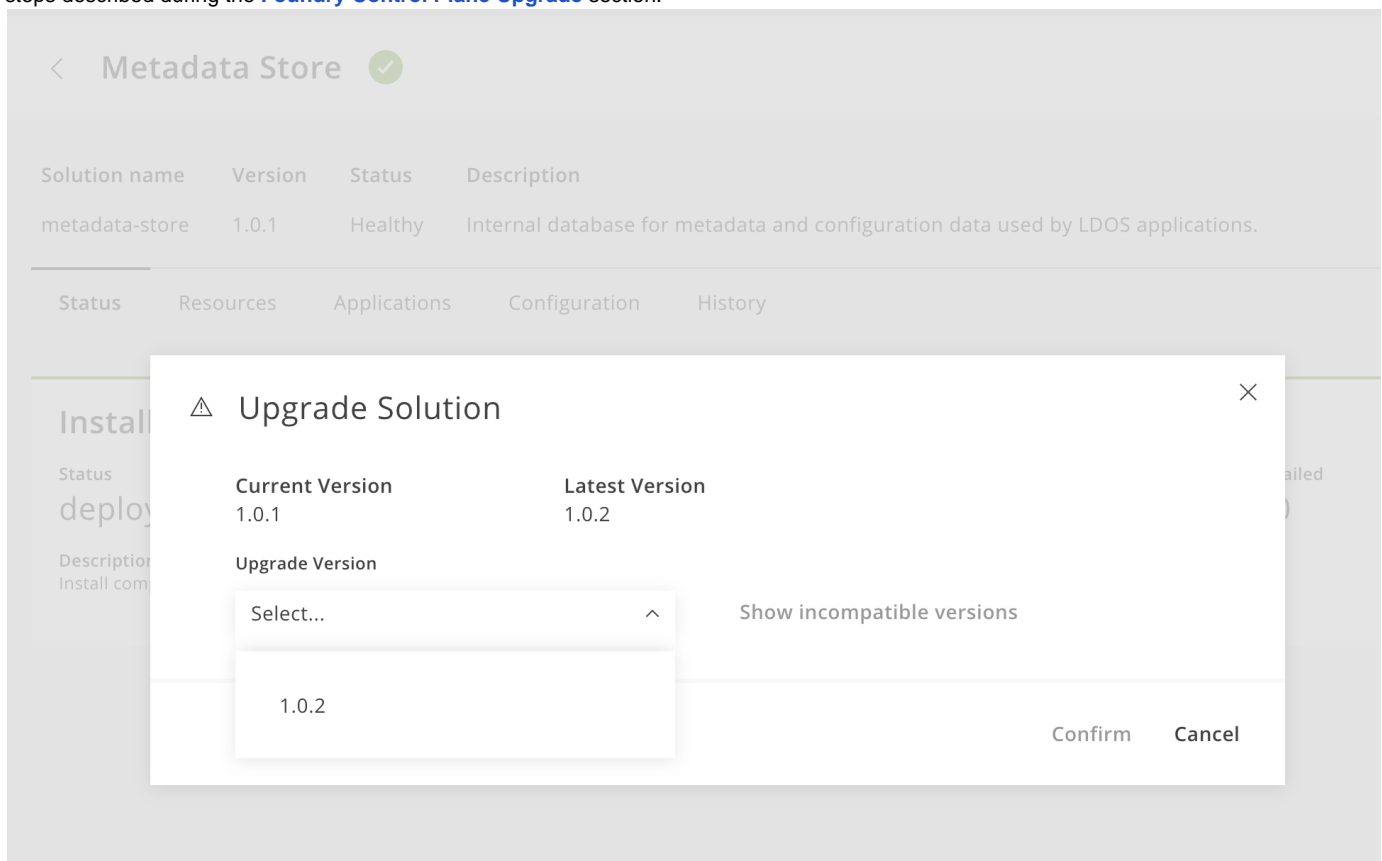
Lumada DataOps Suite 1.1.1 includes newer version of the following solutions:

- Metadata Store
- Messaging Service
- Dataflow Studio
- Dataflow Engine Broker
- Dataflow Importer
- Data Transformation Editor
- Object Storage Service
- Lumada Data Catalog

All the solution upgrade process will be executed using **Foundry Solution Management UI**.

## Upgrade Metadata Store

This LDOS release, includes version 1.0.2 of **Metadata Store** that should be selected as upgrade version. To upgrade the solution, follow the steps described during the [Foundry Control Plane Upgrade](#) section.



The screenshot shows the 'Metadata Store' solution card with a green checkmark icon. Below the card, an 'Upgrade Solution' dialog box is open. The dialog displays the current version (1.0.1) and the latest version (1.0.2). It includes a dropdown menu for selecting the upgrade version, which currently shows '1.0.2'. There is also a 'Show incompatible versions' link and 'Confirm' and 'Cancel' buttons at the bottom right.

Solution name	Version	Status	Description
metadata-store	1.0.1	Healthy	Internal database for metadata and configuration data used by LDOS applications.

Upgrade Solution

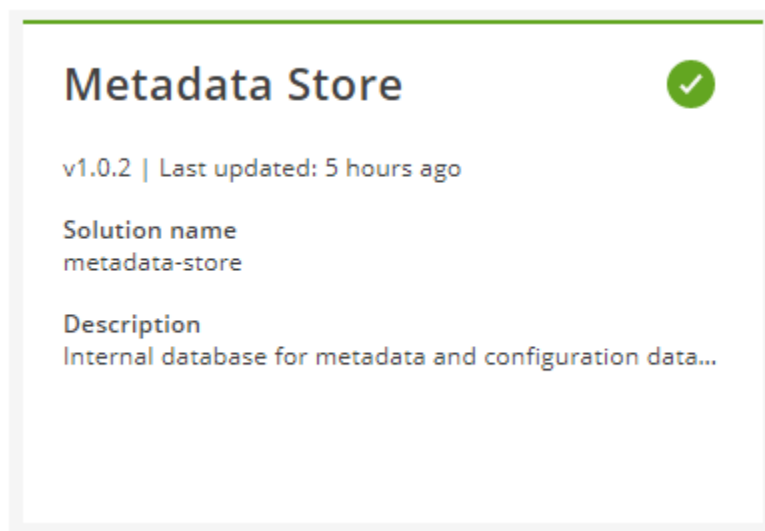
Current Version: 1.0.1, Latest Version: 1.0.2

Upgrade Version: Select... (1.0.2 selected)

Show incompatible versions

Confirm Cancel

Finished the upgrade process, solution card is now with the **Deployed** green mark and ready to be used.



The screenshot shows the updated 'Metadata Store' solution card. It now displays 'v1.0.2 | Last updated: 5 hours ago' and has a green checkmark icon in the top right corner. The solution name is 'metadata-store' and the description is 'Internal database for metadata and configuration data...'.

### Metadata Store

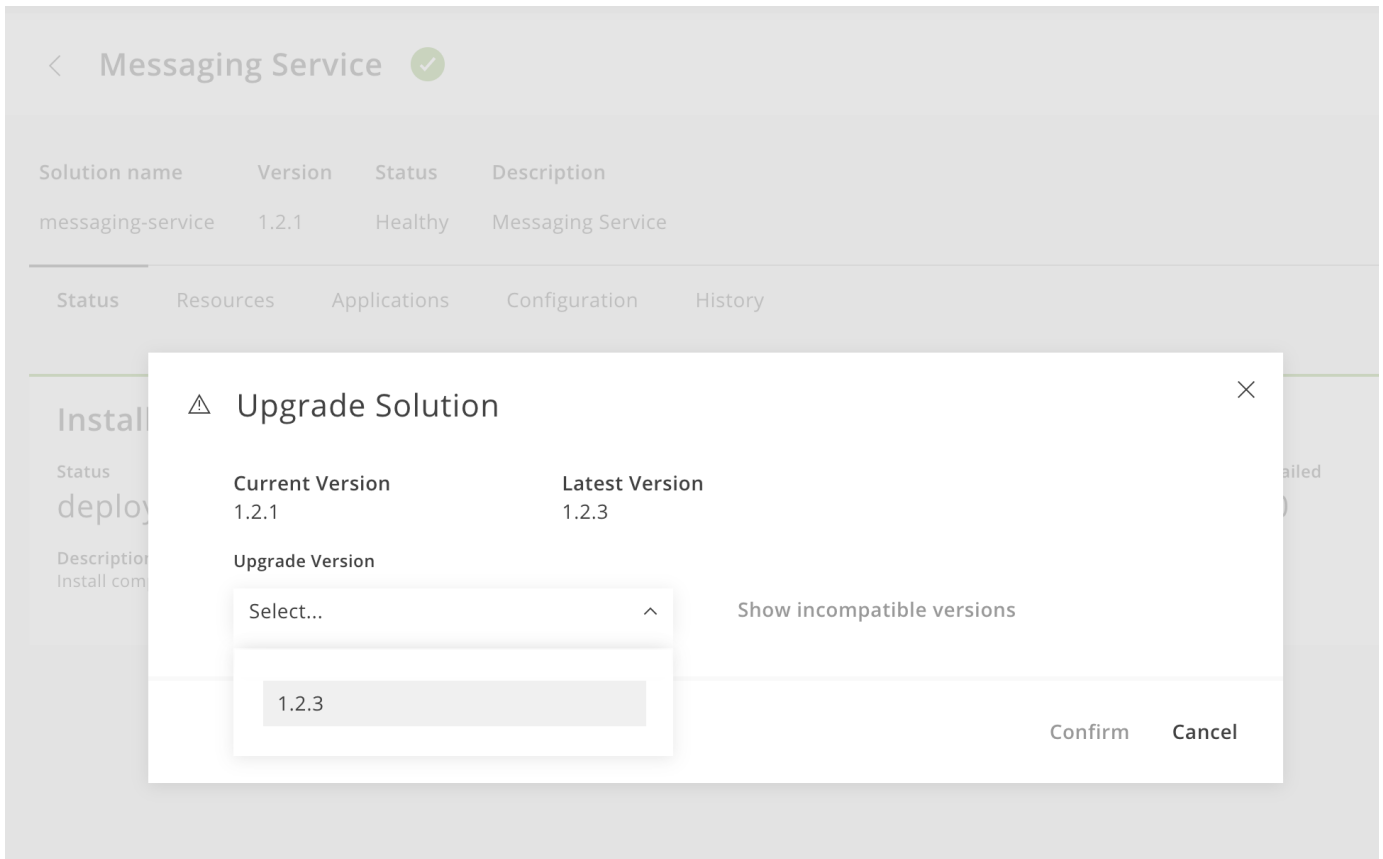
v1.0.2 | Last updated: 5 hours ago

**Solution name**  
metadata-store

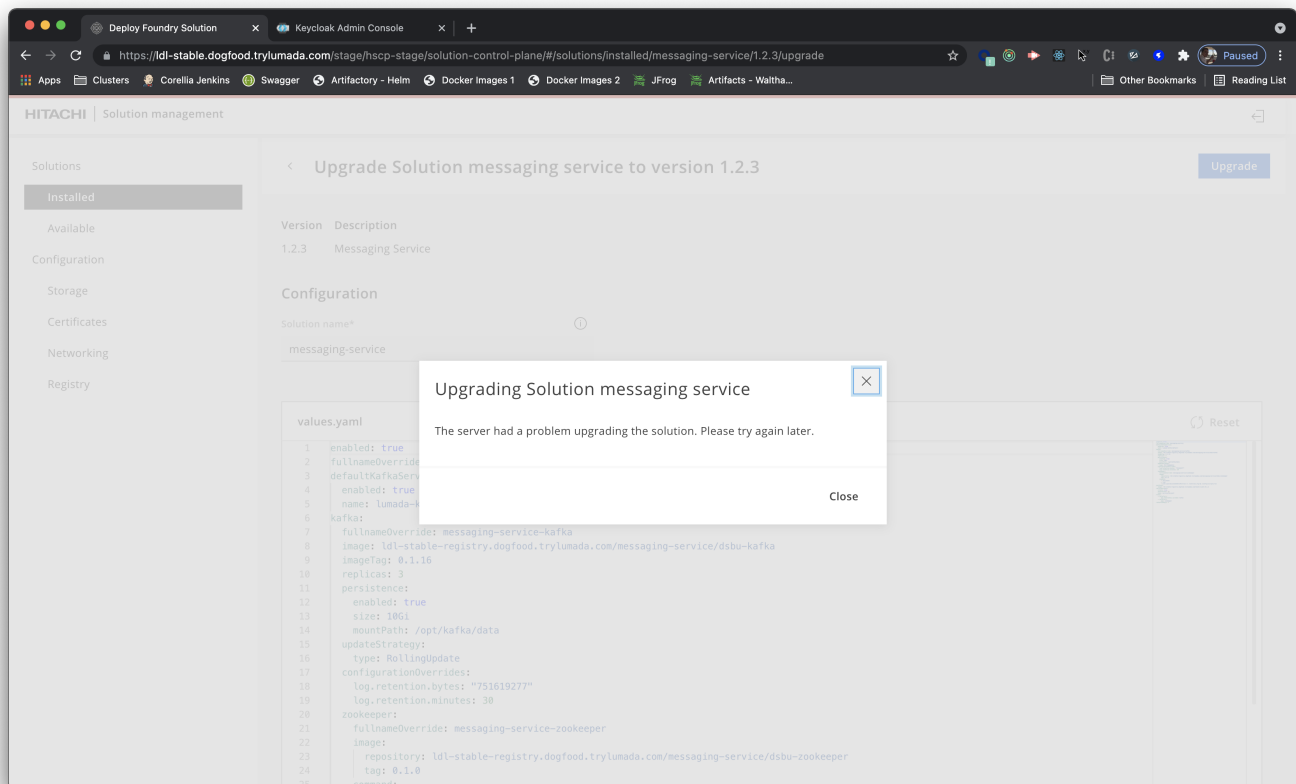
**Description**  
Internal database for metadata and configuration data...

## Upgrade Messaging Service

This LDOS release, includes version 1.2.3 of **Upgrade Messaging Service** that should be selected as upgrade version.



Messaging Service upgrade process might take a longer time to complete. Sometimes, during the process a message window with *server problems* is displayed. Please close it, and wait some moments for the upgrade process to conclude.



At the end of the wait time, the solution card is now with the **Deployed** green mark and ready to be used.



## Messaging Service

✓

v1.2.3 | Last updated: 5 hours ago

**Solution name**  
messaging-service

**Description**  
Messaging Service

### Upgrade Dataflow Studio

This LDOS release, includes version 1.1.1 of **Dataflow Studio** that should be selected as upgrade version.

< Dataflow Studio ✓

Solution name	Version	Status	Description
dataflow-studio	1.1.0	Healthy	Pipelines to simplify data delivery

StatusResourcesApplicationsConfigurationHistory

⚠ Upgrade Solution ×

Current Version  
1.1.0

Latest Version  
1.1.1

Upgrade Version

Select... ^

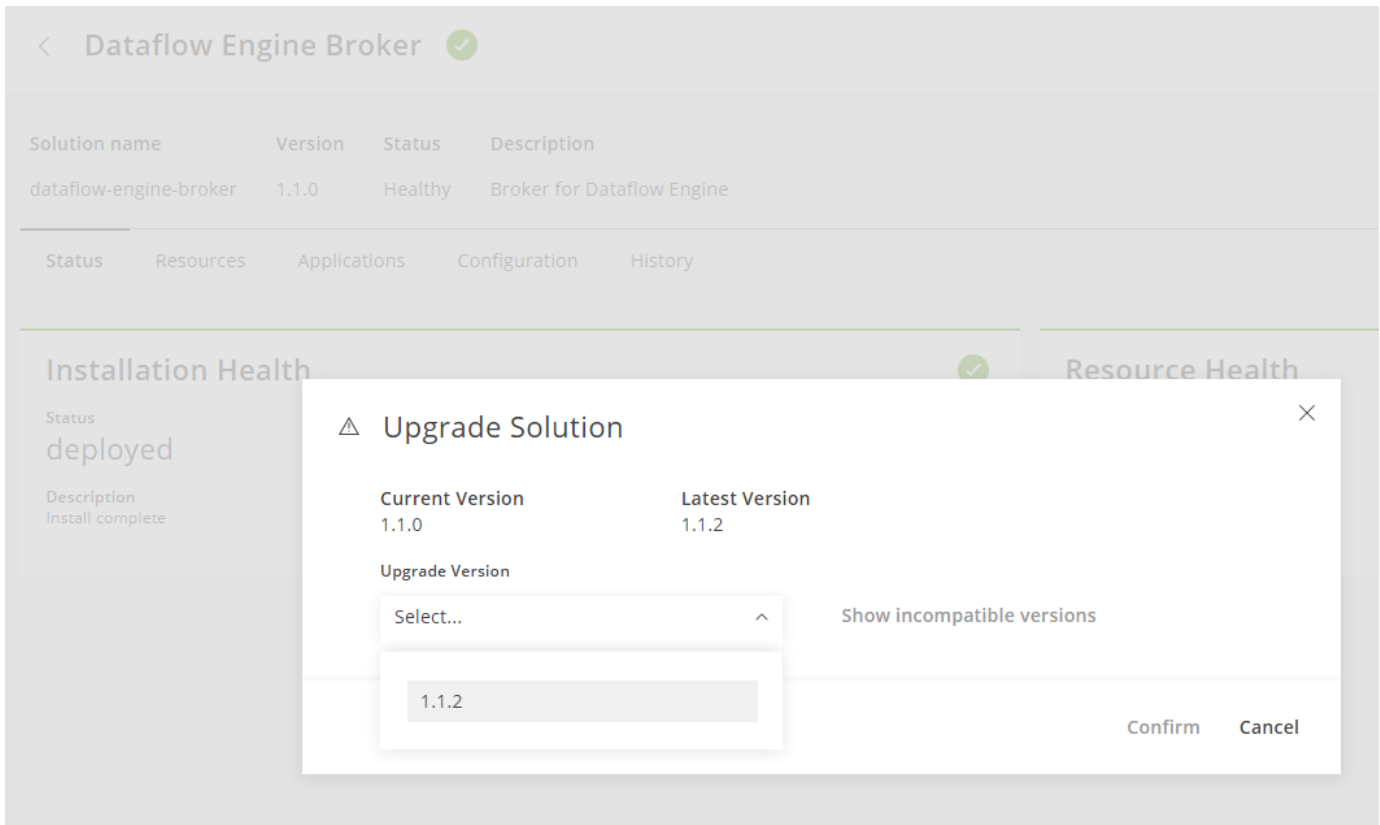
1.1.1

Show incompatible versions

ConfirmCancel

### Upgrade Dataflow Engine Broker

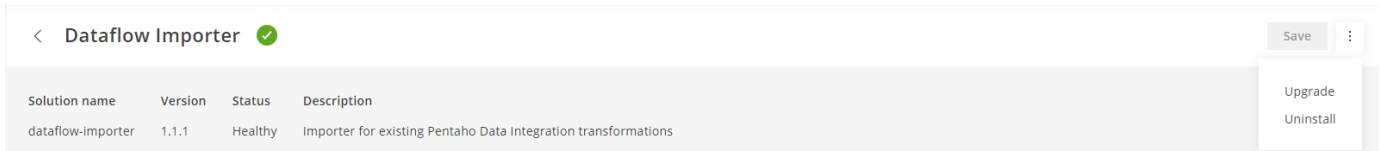
This LDOS release, includes version 1.1.2 of **Dataflow Engine Broker** that should be selected as upgrade version.



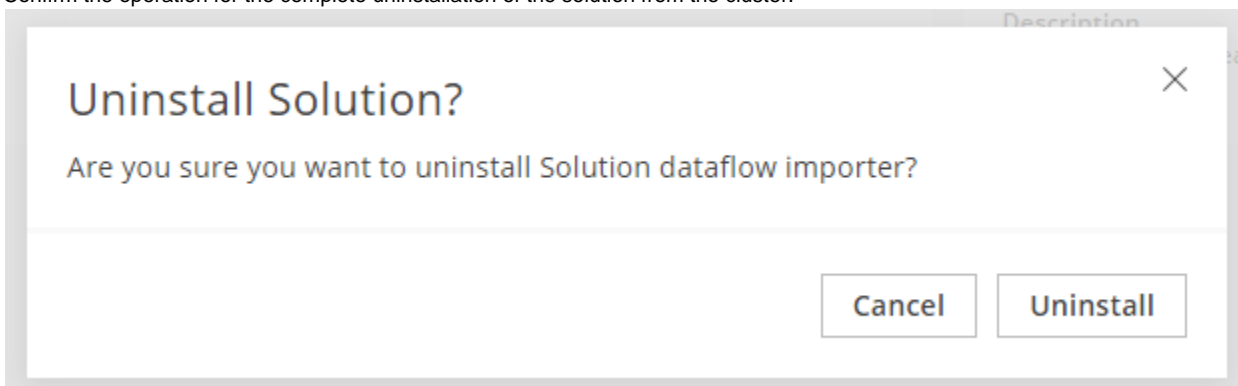
### Upgrade/Reinstall Dataflow Importer

This LDOS release, includes version 1.1.2 of **Dataflow Importer**. However, to upgrade this solution a different process is required: *uninstall and install*.

After selecting the **Dataflow Importer** card, in the solution details, at the right top corner, you can find a menu with the “**Uninstall**” option that should be selected.



Confirm the operation for the complete uninstallation of the solution from the cluster.



At the end, the card should no longer be available at the **Solution Management UI** page.

To install the new version (1.1.2), select the **Available** option at the left menu.

## Solutions

### Installed

### Available

### Configuration

### Storage

### Certificates

### Networking

### Registry

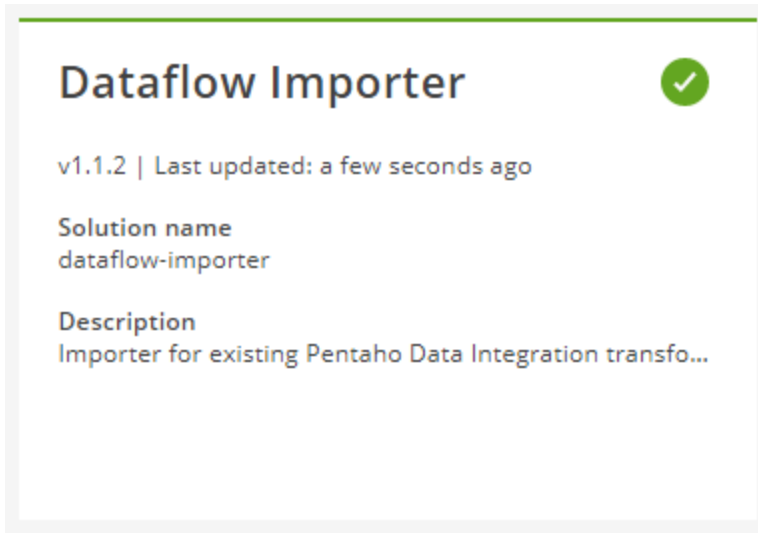
From the list of available solutions, **dataflow-importer 1.1.2** line should be selected.

dataflow-importer	Importer for existing Pentaho Data Integration transformations	1.1.2	✓
-------------------	--	-------	---

You can select a new value for the **Solution name** value (e.g. *dataflow-importer*) and in the **values.yaml** section, modify the **configure host** and **path** with the correct values for the existent NFS server.

```
values.yaml
1 replicaCount: 1
2 image:
3   repository: ldl-stable-registry.dogfood.trylumada.com/dataflow-importer-img
4   pullPolicy: IfNotPresent
5   tag: 1.1.2
6 dataFlowStudio:
7   service: dataflow-studio
8   port: 3000
9   endpoint: /cxf/dataflow-manager
10 volume:
11   pdi:
12     host: ""
13     path: ""
14   mountPath: /home/oi_user/.kettle
15 keycloak:
16   impersonator:
17     username: dataflow-importer-impersonator
18     server: http://keycloak-http:8080/auth
19     realm: default
20 hibernate:
21   server: dataflow-importer-postgres-cluster
22   port: 5432
23   secret: hibernate.dataflow-importer-postgres-cluster.credentials.postgresql.acid.zalan.do
24   schemaVersion: 1
25 comments:
```

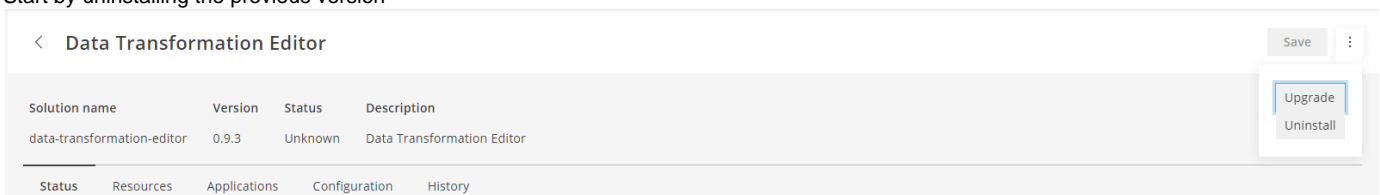
Click **Install** button to confirm the installation of this version. At the end of the process, the solution card is now with the **Deployed** green mark and ready to be used.



### Upgrade/Reinstall Data Transformation Editor

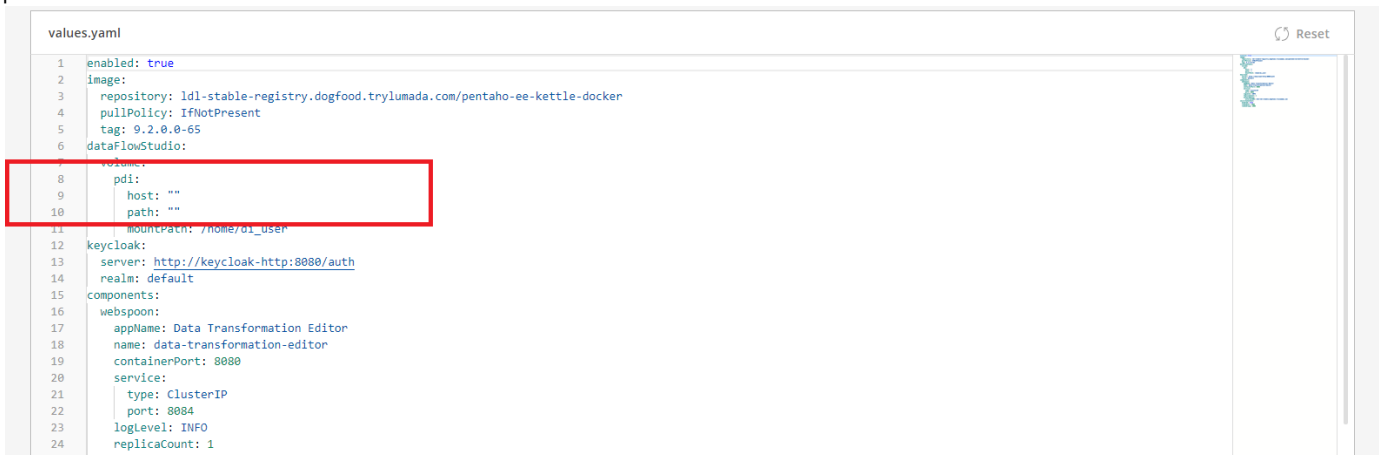
This LDOS release, includes version 0.9.4 of **Data Transformation Editor**. The upgrade process for this solution is similar to the **Dataflow Importer**: *uninstall and install*.

Start by uninstalling the previous version



After the successfully uninstallation, install version **data-transformation-editor 0.9.4** version.

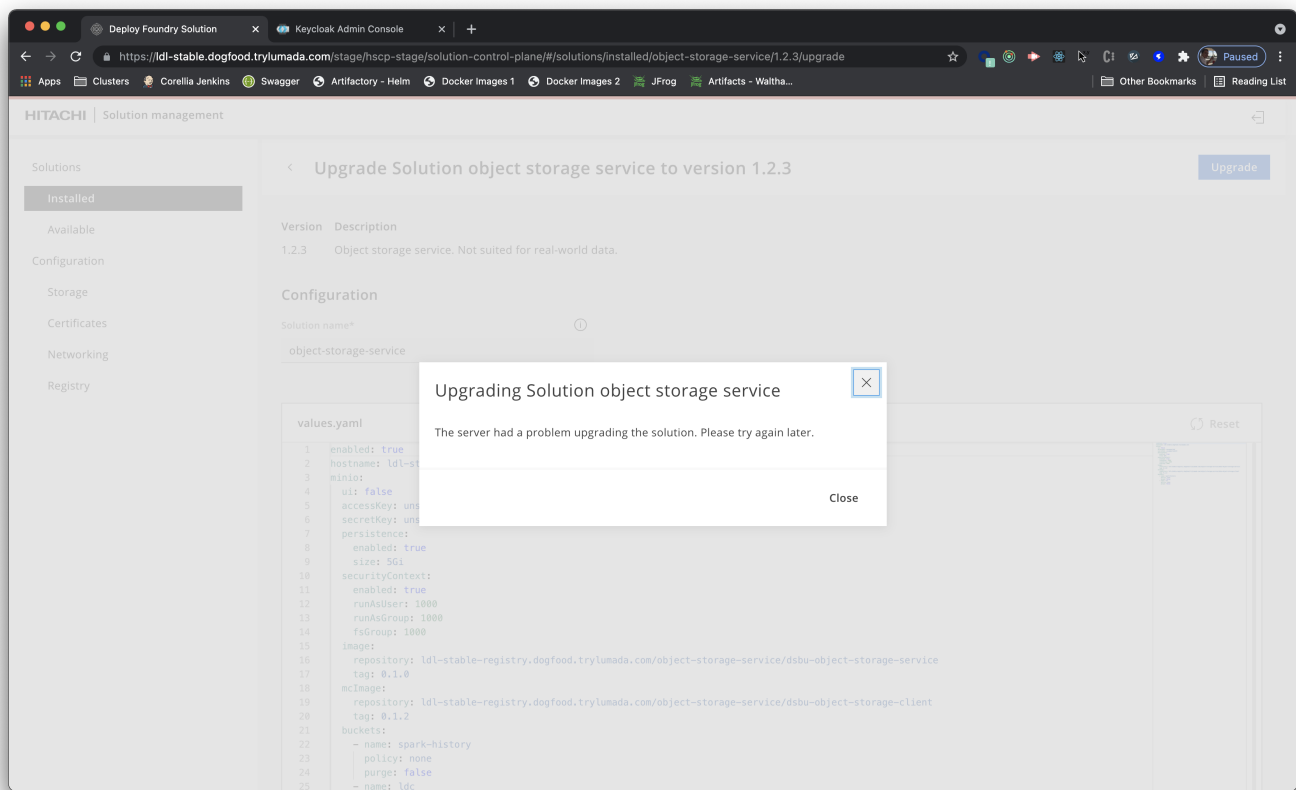
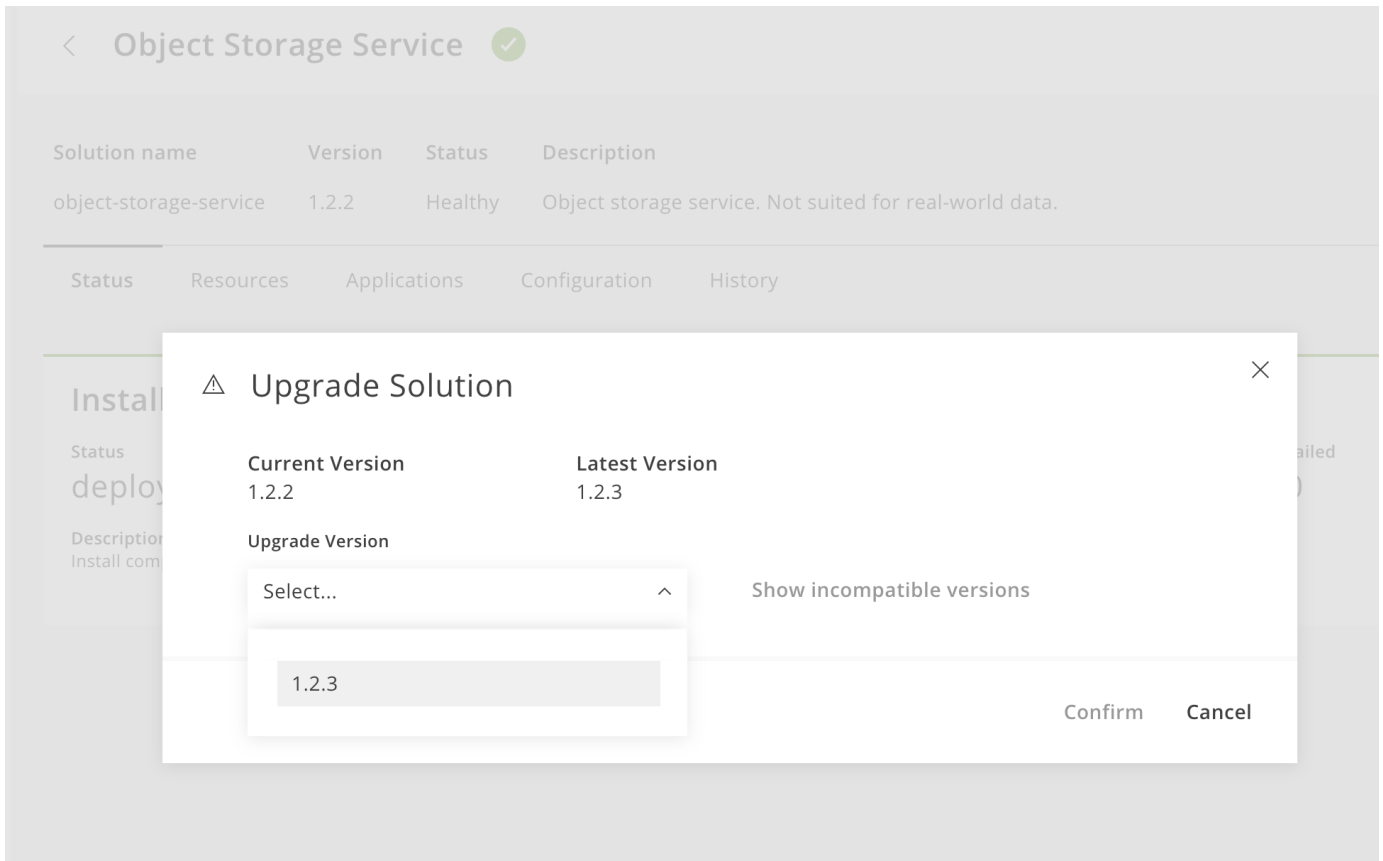
You can select a new name for the solution (e.g. *data-transformation-editor*) and in the **values.yaml** section, add the correctly configure host and path with the correct values for the existent NFS server.



Click **Install button** to confirm the installation of this version.

### Upgrade Object Storage Service

This LDOS release, includes version 1.2.3 of **Object Storage Service** that should be selected as upgrade version.



Similarly to **Messaging Service**, upgrade process for this solution might take a longer time to complete. Wait some extra moments for the upgrade process to conclude.

## Upgrade Lumada Data Catalog

This LDOS release, includes version 6.1.1-355 of **Lumada Data Catalog** that should be selected as upgrade version.

<

Lumada Data Catalog

✓

Solution name	Version	Status	Description
lumada-data-catalog	6.1.1-332	Healthy	A Helm chart for Lumada Data Catalog

Status

Resources

Applications

Configuration

History

Installations

Status

deployed

Description

Upgrade complete

Failed

0

△ Upgrade Solution

Current Version

6.1.1-332

Latest Version

6.1.1-355

Upgrade Version

Select...

6.1.1-355

Show incompatible versions

Confirm

Cancel

< Upgrade Solution lumada data catalog to version 6.1.1-355

Version	Description
6.1.1-355	A Helm chart for Lumada Data Catalog

Configuration

Solution name\*

lumada-data-catalog

values.yaml

```
1 enabled: true
2 hostname: ldos.dogfo
3 global:
4   coreSiteSecret: {}
5   ldc:
6     licenseSecret: {}
7   ldc:
8     controlPlaneAppSwitcherEndpoint: https://ldos.dogfood.trylumada.com/{}
9     .Release.Namespace
10   }}/control-plane/control-plane-lap-app/api/v1/appSwitcherConfig
11 app-server:
12   service:
13     port: 8082
14     scheme: http
15   image:
```

Upgrading Solution lumada data catalog

The server had a problem upgrading the solution. Please try again later.

Close

Lumada Data Catalog upgrade process might also take a longer time to complete. Wait some moments for the upgrade process to conclude successfully.

#### Update keycloak users roles

#### Administrator role

To update Keycloak's *Administrator* and *Data Engineer* roles, go to **Solution management** UI and select the **Solution Control Plane** solution:

Solution Control Plane

v2.2.1 | Last updated: 16 days ago

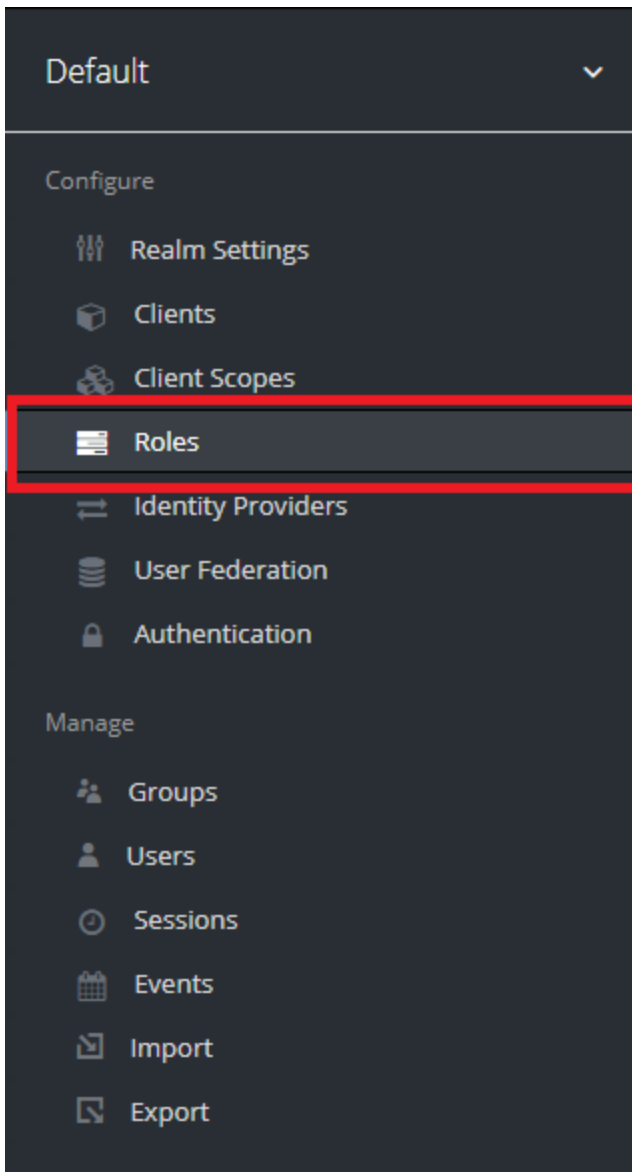
Solution name

hscp-hitachi-solutions

Description

Set of Applications for deploying and managing Hitachi...

Select the **Applications** tab, and click at the **Keycloak Default Realm Console** link, to access Keycloak admin page. In the left menu, click at the **Roles** link and edit **Administrator** role.



Dataflow Engine

In the **Composite Roles** section, select the Dataflow Engine client role (*e.g. pdi-execution-manager-sso-client*) and add the available roles:

- create\_execution
- delete\_execution
- get\_execution\_status
- ping



Keycloak Administrator interface showing the configuration for the 'Administrator' role.

**Role Name:** Administrator

**Description:**

**Composite Roles:** ON

**Composite Roles Section:**

- Realm Roles:**
  - Available Roles: Analyst, Data Engineer, Data Steward, Guest, offline\_access
  - Associated Roles: (Empty)
- Client Roles:**
  - Client: pdi-execution-manager-ssso-client
  - Available Roles: create\_execution, delete\_execution, get\_execution\_status, ping
  - Associated Roles: (Empty)

#### Dataflow Studio

Following the previous step, select the Dataflow Studio client role (e.g. *dataflow-studio-ssso-client*) and add the available roles:

- cancel\_execution
- create\_data\_flow
- edit\_schedule
- execute\_data\_flow
- pause\_schedule
- remove\_data\_flow
- remove\_schedule
- resume\_schedule
- schedule\_data\_flow
- update\_data\_flow

#### Data Transformation Editor

Following the previous step, select the Data Transformation Editor client role (e.g. *data-transformation-editor-ssso-client*) and add the available roles:

- api
- executespoon

**i** All the associations are immediately applied, and because of that, it is not needed to click at **Save** button to apply role changes.

### Data Engineer role

For *Data Engineer* roles, repeat the previous steps to select the role.

#### Data Transformation Editor

Select the Data Transformation Editor client role (e.g. *data-transformation-editor-ssso-client*) and add the available roles:

- api
- executespoon

### Login

After the installation is completed, you can log into the **Lumada DataOps Suite** using a browser, replacing <HOSTNAME> and <NAMESPACE> by the cluster hostname and Foundry namespace respectively:

**https://<HOSTNAME>/<NAMESPACE>/control-plane/control-plane-lcp-app/**

HITACHI | Solution Login

Welcome

Username or email

cmoore

Password

\*\*\*\*\*

Log In

Hitachi Vantara

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LUMADA | DataOps Suite

HomeDataflow

Welcome to Lumada DataOps Suite

Accelerate digital innovation through advanced insights based on trusted data. Deliver AI-driven automation and collaboration, across multicloud, core, and edge.

Lumada Data Integration

Ingest, blend, cleanse and prepare all data, orchestrate data flows anywhere.

Lumada Data Catalog

Secure sensitive data, infer hidden relationships, and accelerate data self-service.

Do you want to learn more?

[Explore the Lumada DataOps Suite homepage](#)

Applications

DS

DataOps Suite1

DC

Data Catalog1

DT

Data Transformation Editor1

Sm

Solution management1

KD

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