LDOS 1.2.0 Upgrade and Config

This article outlines the update and configuration process of the Lumada DataOps Suite 1.2.0 (GA).

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Before You Start

Before upgrading to LDOS 1.2.0 you need to check the following requirements:

- Cluster with LDOS 1.1.1 previously successfully installed.

This guide will cover the update of:

- LDOS 1.2.0

You can find everything you need at: https://hcpanywhere.hitachivantara.com/a/QDDm7tWw5sBSMObK/4cc9f82c-08a8-4895-93d3-71bb0694374c?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/

Upload LDOS solutions

Download and unpack the LDOS package

> All packages required for LDOS 1.2.0 upgrade are available at https://hcpanywhere.hitachivantara.com/a/QDDm7tWw5sBSMObK/4cc9f82c-08a8-4895-93d3-71bb0694374c?l

Download and unpack the content of `/Lumada DataOps Suite Package 1.2.0/Lumada-DataOps-Suite-1.2.0.gz`:

```
7z e Lumada-DataOps-Suite-1.2.0.gz
tar -xf lumada-dataops-suite.tar
```

Download and unpack LDOS Installer `/Lumada DataOps Suite Package 1.2.0/Lumada-DataOps-Suite-installer-1.2.0.zip`

```
unzip Lumada-DataOps-Suite-installer-1.2.0.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, going to Solution Management > Solutions > Available, or by directly open the following URL in a browser:

https://`<HOSTNAME>`**/**`<NAMESPACE>`**/hscp-**`<NAMESPACE>`**/solution-control-plane/#/solutions/available**

Upgrade and Configure LDOS

Lumada DataOps Suite 1.2.0 includes a newer version of the following solutions:

- App Switcher
- Control Plane
- Data Transformation Editor
- Dataflow Engine
- Dataflow Engine Broker
- Dataflow Importer
- Dataflow Studio
- Messaging Service

The upgrade process will be executed using **LDOS upgrade scripts.**

Configure the properties file

Go to the `/installer` folder and modify the `env.properties` file for the cluster you are using:

```
# Cluster settings
hostname=
namespace=hitachi-solutions
realm=default
tls_mode=SIMPLE
protocol=https

# Foundry credentials used in the installation
foundry_client_name=solution-control-plane-sso-client
foundry_client_secret=
username=
password=

# NFS server settings
volume_host=
volume_path=
```

- *Cluster settings*
  - `hostname` - Hostname where the foundry instance is running, e.g. `dogfood.trylumada.com`
  - `namespace` - Namespace name, if different from the default namespace `hitachi-solutions`
  - `realm` - Keycloak realm, if different from the default Keycloak `default`
  - `tls_mode` - Ingress TLS mode for the cluster's routes. It can either be `SIMPLE`, `MUTUAL` or `NONE`.
  - `protocol` - Cluster's routes protocol. It can either be `http` (when tls mode is `NONE`) or `https` (when tls mode is `SIMPLE` or `MUTUAL`), depending on the Foundry App protocol.
- *Foundry credentials*
  - `foundry_client_name` - Foundry client id in Keycloak, if different from the default `solution-control-plane-sso-client`
  - `foundry_client_secret` - Foundry client secret in Keycloak
  - `username` - Username with admin permissions in Foundry, e.g. `foundry`
  - `password` - Password for the user with admin permissions
- *How to get the* `foundry_client_secret`

```
# get client secret for solution-control-plane-sso-client
echo $(kubectl get secrets/keycloak-client-secret-solution-control-
plane-sso-client -n <NAMESPACE> --template={{.data.CLIENT_SECRET}} |
base64 --decode)
```

- *How to get the* `password` *for the user* `foundry`

```
# get password for foundry user:
echo $(kubectl get keycloakusers -n <NAMESPACE> keycloak-user -o
jsonpath='{.spec.user.credentials[0].value}')
```

- *NFS volume settings*

LDOS needs to point to an NFS server to store files for the Data Transformation Editor, Dataflow Importer, and Dataflow Engine.

`volume_host` - NFS server host, e.g. `my-nfs-server.example.com`
`volume_path` - Path for the volume root folder in the NFS server, e.g. `/ldos-volume`

All these properties are case-sensitive.
The `env.properties` file also includes other properties that control the installation. For more advanced settings see the included `README.md` file.

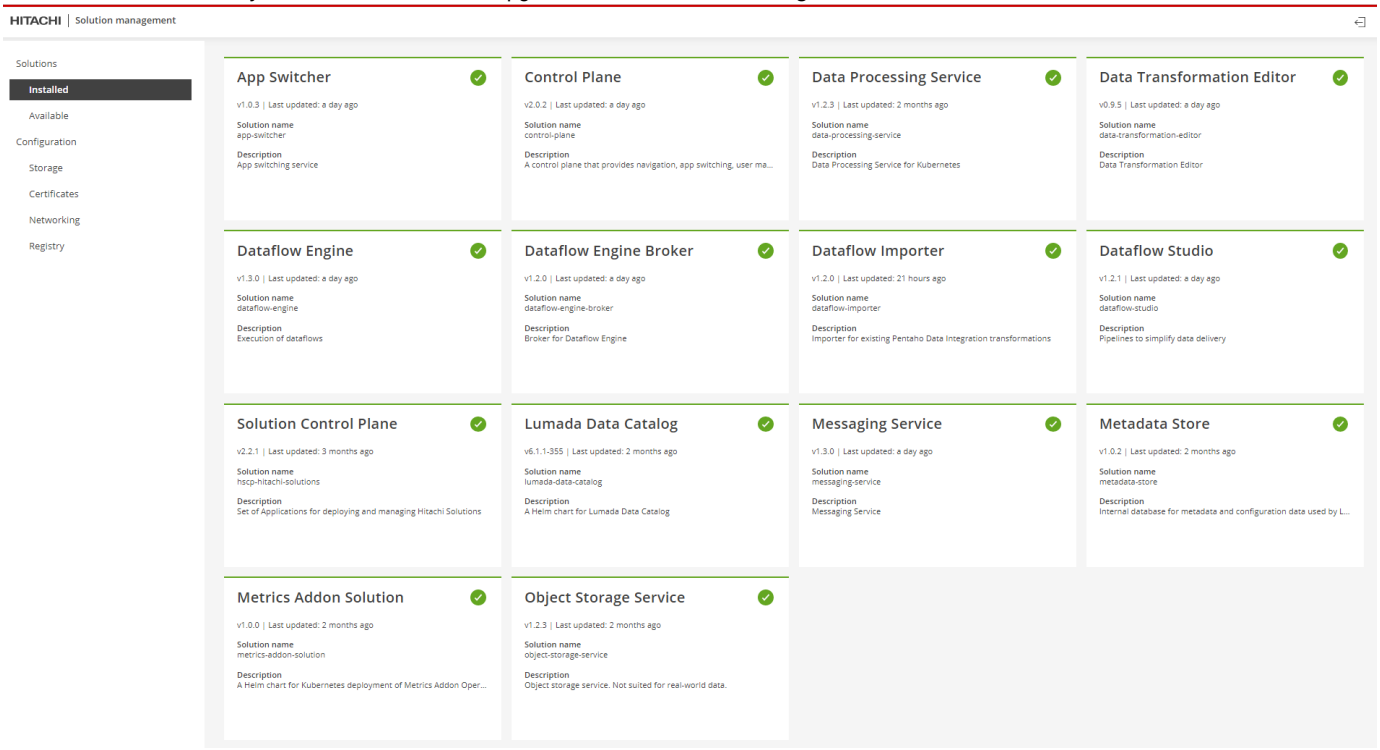
Control Plane and App Switcher configuration will be restored to default values. If configurations were changed in the past and you want to keep them, contact Customer Success.

Run the upgrade script

Go to the `/installer` folder and run the following command:

```
./upgrade.sh
```

You can then confirm that you have all the solutions upgraded in the **Solution management** UI:



Update Catalog app switcher endpoint

After successfully upgrading LDOS, using a browser open **Lumada Data Catalog** and change the app switcher configuration by going to Manage > Configuration > app-server: MISC, and editing the option **"Absolute API endpoint of control plane app switcher to return all app configs"** to the following value, replacing <HOSTNAME> and <NAMESPACE> by the cluster hostname and Foundry namespace respectively:

https://<HOSTNAME>**/**<NAMESPACE>**/app-switcher/app-switcher-lap-app/api/v1/apps**

Save the change and then restart the app-server by going to Manage > Configuration > app-server > Restart app-server.


app-server
Restart app-server
MISC (49)
Manage misc configuration options.
SECURITY (12)
Manage security configuration options.
MetadataService (80)
Manage metadataservice configuration options.
DISCOVERY (55)
Manage discovery configuration options.
JobManager (1)
Manage jobmanager configuration options.
DISCOVERY_PROFILER (37)