

Gaia-X Hackathon #3

Service Portability with VMware Tanzu

Install Tanzu

Download VMware Tanzu Community Edition from

<https://tanzucommunityedition.io/download/>
V0.10.0

2022-02-18 [Release Notes](#) | [License](#) | [Getting Started Guide](#)

Installer/CLI	Download File	Checksum	Size
MacOS/amd64	tce-darwin-amd64-v0.10.0.tar.gz	1c40861e693ac99aa787d6de3ef6e07b7134446d9987a8ffea155cb1c945d90	247 MB
Linux/amd64	tce-linux-amd64-v0.10.0.tar.gz	7b246bb22f2fabd1cd2ea07ce533f10a5c5955670827e734d8c549595d106e6f	227 MB
Windows/amd64	tce-windows-amd64-v0.10.0.zip	b4f868c9bef84c8824287c54424a603ea05f84b7894a45ba0a44d0ee7d7f1ed9	230 MB

After downloading, check if the checksums are matching.

```
cat tce-checksum.txt
1c40861e693ac99aa787d6de3ef6e07b7134446d9987a8ffea155cb1c945d90 tce-checksum.txt tce-darwin-amd64-
v0.10.0.tar.gz
shasum --check tce-checksum.txt tce-darwin-amd64-v0.10.0.tar.gz: OK
```

```
tar xzvf tce-OS-amd64-v0.10.0.tar.gz
```

After successfully unpacking the files, go into the directory *tce-OS-amd64-v0.10.0* and execute the *install.sh* file.

```
./install.sh
```



Once the installation is finished, check if it was installed correctly.

```
tanzu version
version: v0. 10.1
buildDate:2022-02-14
sha: 401d55b
```

Install Carvel Kapp Controller

Now we need to install the Carvel Kapp Controller into our K8s cluster, which will manage the package installation.

```
kubectl apply -f https://github.com/vmware-tanzu/carvel-kapp-controller/releases/download/v0.32.0/release.yml
```

Install MVG Catalog Repository

To install the MVG Catalog, we need to add the MVG Catalog repository to our K8s cluster.

```
tanzu package repository add mvg-catalog-repo --url mvg-catalog-repo.delta-dao.com/packages/mvg-catalog-repo:1.0.0 --namespace catalog-session
```

Now we can list all repositories installed in our K8s cluster.

```
tanzu package repository list -A
\ Retrieving repositories..
```

NAME	REPOSITORY	TAG	STATUS	DETAILS	NAMESPACE
mvg-catalog-repo	mvg-catalog-repo.delta-dao.com/packages/mvg-catalog-repo	1.0.0	Reconcile succeeded		catalog-session

To list all available package inside the *mvg-catalog-repo*, run the following command.

```
tanzu package available list --namespace catalog-session
- Retrieving available packages.
```

NAME	DISPLAY-NAME	SHORT-DESCRIPTION	LATEST-VERSION
mvg-catalog-events.delta-dao.com	MVG Catalog Events	MVG Catalog Events Demo	1.0.0
mvg-catalog-events.delta-dao.com	MVG Catalog	MVG Catalog Demo	1.0.0

We can see the *MVG Catalog*, which is the API endpoint to query assets from the MVG Catalog cache. *MVG Catalog Events* will crawl the ledger for “metadata create” and “metadata update” events and write them to the MVG Catalog cache.



Install MVG Catalog

First, we check the values schema. It holds environment variables to customize the MVG Catalog.

```
tanzu package available get mvv-catalog.delta-dao.com/1.0.0 --values-schema --namespace catalog-session
I Retrieving package details for mvv-catalog.delta-dao.com/1.0.0...
```

KEY	DEFAULT	TYPE	DESCRIPTION
app_port	5000	integer	Target port for the application.
db_hostname	elasticsearch-master.ocean.svc.cluster.local:9200	string	DB hostname.
Image	oceanprotocol/aquarius:v3.1.2	string	Image of the application.
storageClassName	standard	string	Storage class name.
svc_port	80	integer	Port number for the service.

We can change all these values with a values file.

```
cat example-catalog-values.yml
svc port: 80
app_port: 5000
db_hostname: "elasticsearch-master.catalog-session.svc.cluster.local:9200"
image: "oceanprotocol/aquarius:v3.1.2"
storageClassName: "default"
```

We change the *db_hostname* to connect to our Elasticsearch DB in the namespace *catalog-session*. We also change the *storageClassName* to *default*. This depends on your K8s service provider.

Now we use following command to install the MVG Catalog into the *catalog-session* namespace.

```
tanzu package install mvv-catalog --package-name mvv-catalog.delta-dao.com --version 1.0.0 --namespace catalog-session --
values-file example-catalog-values.yml
```

This can take up to two minutes. If the MVG Catalog was installed successfully, you can install the MVG Catalog Events listener.

Install MVG Catalog Events

First, we check *values-schema*, which will show environment variables to customize the MVG Catalog Events.

```
tanzu package available get mvg-catalog.delta-dao.com/1.0.0 --values-schema --namespace catalog-session
| Retrieving package details for mvg-catalog.delta-dao.com/1.0.0...
```

KEY	DEFAULT	TYPE	DESCRIPTION
app_port	5000	integer	Target port for the application.
db_hostname	elasticsearch-master.ocean.svc.cluster.local:9200	string	DB hostname.
image	oceanprotocol/aquarius:v3.1.2	string	Image of the application.
storageClassName	standard	string	Storage class name.
metadata_contract_block	4600000	integer	metadata contract block
svc_port	80	integer	Port number for the service.

Again, we can change all these values with a *values.yaml* files.

```
cat example-catalog-events-values.yaml
app_port: 5000
db_hostname: „elasticsearch-master.catalog-session.svc.cluster.local:9200"
image: "oceanprotocol/aquarius:v3.1.2"
svc_port: 80
metadata_contract_block: "4600000"
```

We change the *db_hostname* to connect to the Elasticsearch DB in the namespace *catalog-session*.

Now we use the following command to install the MVG Catalog into the *catalog-session* namespace.

```
tanzu package install mvg-catalog-events --package-name mvg-catalog-events.delta-dao.com --version 1.0.0 --namespace catalog-session --values-file example-catalog-events-values.yml
```

After successful installation we port-forward the mvg-catalog pod.

```
kubect! port-forward -n NAMESPACE mvg-catalog-{ID} 5000:5000
```

Now you can access the MVG Catalog at <http://localhost:5000>