

Environment Creation for Workshop

We will be using Techzone to reserve Cloud Pak for Data environment. Follow the steps below to reserve and environment.

1. Open link below and login with your IBM Id.

<https://techzone.ibm.com/collection/PakInstaller>

2. Switch to Cloud Pak for Data vertical tab

Pak Installer: Automated environments for OpenShift, IBM Cloud Paks, and Cartridges
Cloud Pak for Data

★★★★★ (4.4) Rate this resource

OpenShift and cloud pak environments built by DAFFY (Pak Installer is the TechZone Interface to DAFFY)

The following environments allow you to provision an OpenShift Cluster + Cloud Pak of choice within a few hours provided Techzone infrastructure resources are available for your Pak configuration. Below are the general timelines and steps that will occur:

Cloud Pak for Data

Will take 2 to 3 hours to install OpenShift, Cloud Pak base and start the services install. You will get email at this point with how to connect to your cluster. From the Guacamole console, you can connect to the Desktop or get the status of your cloud pak. Once you get the email, it can take 3-6 hours for the CP4D services to be ready, depending which ones you deployed. During that time you may see failed deployment, this is normal as the operator will self heal. (Do not watch the paint dry, get a coffee and come back in a few hours)

TechZone Cloud Pak For Data							
Title Reservation	Create VPN (Optional)	Create Bastion	Install OpenShift (Daffy Step 1)	Install Cloud Pak (Daffy Step 2)	Install Services (Daffy Step 3)	Email Sent To Requester	Operations Finish services
1 Min	10 Min	10 Min	45 Min	75+ Min	75+ Min	1 Min	300+ Min

3. Click on Reserve for the second tile "Cloud Pak for Data 4.6.6 – Vmware Public (Powered by PakInstaller)"

Jun 25, 2023

Ibmcloud 2: us-east, jp-tok, eu-de, eu-gb

Cloud Pak for Data 4.6.6 - VMWare Public (Powered by PakInstaller)

If you want to have TechZone install OpenShift and CP4D for you, use this tile.

Public Cluster - Internet facing(VPN not required)

OpenShift 4.12

CP4D 4.6.6

Trusted Public SSL Certs

New connection portal for connection and status info(Single Pane for all things Cluster)

Includes the following services you can choose:

(please size your cluster accordingly before selecting services)

Watson Knowledge Studio

Watson Knowledge Catalog

Data Virtualization

Watson Studio

SPSS

Watson Machine Learning


DataStage Enterprise

Decision Optimization

Cognos Dashboards

Data Management Console

- Click on “Reserve Now” and choose options as can be seen in the below screenshot



Create a reservation

Pak Installer: Automated environments for OpenShift, IBM Cloud Paks, and Cartridges

✔ Select a environment/infrastructure

✔ Select a reservation type

⬢ Fill out your reservation

⋮ Complete

Name

Cloud Pak for Data 4.6.4 - VMWare Public (Powered by PakInstaller)

Name this reservation. This will help identify it in your reservation list.

Purpose ⓘ

Practice / Self-Education

Please select the purpose for this reservation request and review the [Reservation Duration Policy](#) to understand default durations allowed for specific infrastructures based on purpose.

Sales Opportunity number

Enter an opportunity number

Providing an [IBM Sales Cloud opportunity number](#) or a [Gainsite Relationship ID](#) will allow you to extend your reservation date.

Purpose description

This is for self education

What are you doing? Why do you need this? What are you trying to accomplish?

Preferred Geography

AMERICAS - us-south region - dal10 datacenter

End date and time

End date and time

Select a date

05/19/2023

Select a time

11:53 AM

Asia/Kolkata

Reservation policy: Recommended 3 days, but can be reserved up to 3 days on this reservation form. Extend later for 5 days increments up to 5 days total. Max time 2 weeks total.

Install Analytics Engine (required)

No

Install Cognos Dashboards (required)

No

Install Cognos Analytics (required)

No

Install DataStage Enterprise (required)

Yes

Install DB2 (required)

No

Install DB2 Warehouse (required)

No

Install Data Management Console (required)

No

Install Decision Optimization (required)

No

- By default you will get the environment for 3 days only. Hence we will extend the reservation so that we can use the environment till the end of workshop. Click on Extend and choose date maximum allowed.

My reservations / Collection

Cloud Pak for Data 4.6.4 - VMWare Public (Powered by PakInstaller)

Date: May 16, 2023 11:53 AM May 19, 2023 11:53 AM Expires in: 20 hours, 25 minutes Extend limit: 1

Status: Ready

Purpose
Purpose: Practice / Self-Education
Opportunity Product(s):
Customer(s):

Notes
This is for self education

Opportunity ID(s):
Opportunity description:

Update reservation View collection Support Extend Delete

Enjoy your reservation experience. Let us know by [submitting a survey](#). All feedback is appreciated.

minutes Extend limit: 1

Reservation

Extend reservation

How long do you need to extend "Cloud Pak for Data 4.6.4 - VMWare Public (Powered by PakInstaller)"?

You have 1 extensions remaining.

Extension date and time

Select a date

05/19/2023

< May 2023 >

S	M	T	W	Th	F	S
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Extend

5-b826-d44021c41b8f

- Wait for 6-7 hours for the installation to complete.
- Goto the email that you received for the Ready environment and click on the URL as highlighted below

Status Update: **Ready**

Your environment is now available. Please use the following information to access the environment.

Environment Name:

Cloud Pak for Data 4.6.6 - VMWare Public (Powered by PakInstaller)

Reservation Details:

<https://techzone.ibm.com/my/reservations/ibmcloud-2/649af16c8f968c0017c93430>

Collection URL:

<https://techzone.ibm.com/collection/63457fcba311ed0018ca2442>

End Date :

2023-06-29 19:16:10 (UTC Time)

- PakInstaller Portal Admin: [pakinstaller](#)
- PakInstaller Portal Password: [DTArJlsO](#)
- PakInstaller Portal


URL: <https://pakinstaller:DTArJlsO@bastion.apps.daffy-vg5wvyl4.cloud.techzone.ibm.com:32443/>

- Environment ID: [daffy-vg5wvyl4](#)

If you would like to share access to this environment with someone, learn more by referencing the [How to share access to a reservation runbook](#).

If you have any questions, please visit our [Runbooks](#) or email our support team at techzone.help@ibm.com

9. Switch to Bastion tab

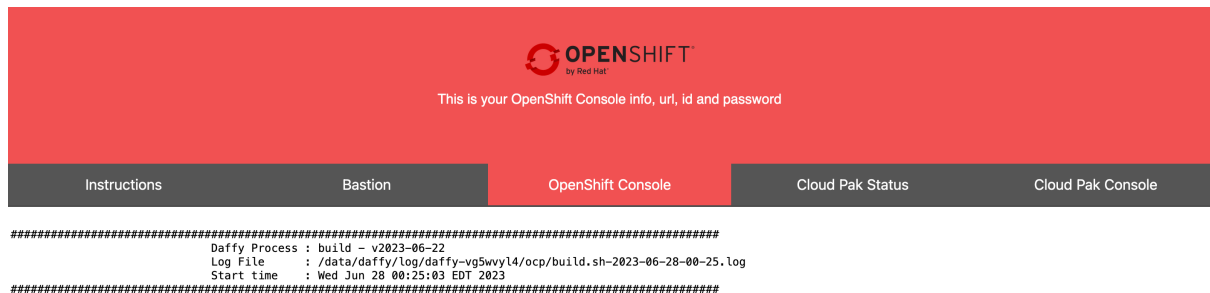


Here is info you can use to connect to the local bastion Red Hat Enterprise linux server

Instructions	Bastion	OpenShift Console	Cloud Pak Status	Cloud Pak Console
User ID: Password host Port: To become root SSH Client(Will open with your favorite SSH client)	admin DTArJlsO bastion.apps.daffy-vg5wvyl4.cloud.techzone.ibm.com 40222 sudo su - bastion.apps.daffy-vg5wvyl4.cloud.techzone.ibm.com:40222			

Click on the SSH Client link and use admin Password mention above to login to bastion host.

10. Switch to OpenShift Console tab



You should find oc login command and ocpadmin password here as can be seen below

```
Login via oc(ocpadmin)
#####
oc login https://api.daffy-vg5wvyl4.cloud.techzone.ibm.com:6443 -u ocpadmin -p ***** --insecure-skip-tls-verify
admin user - ocpadmin

Validate OCP Access
#####
✓ PASSED Access to cluster via oc command

Here is the login info you can use for all services and console
#####
Super User      : kubeadmin
Password       : DTiZj-GZKvk-KpJjj-2RPJT
Admin User     : ocpadmin
Password       : P9sItiXftsL3FjdR0Srd
OpenShift Web Console : https://console-openshift-console.apps.daffy-vg5wvyl4.cloud.techzone.ibm.com
OC Commandline  : export KUBECONFIG=/var/ibm-ocp/daffy-vg5wvyl4/kubeconfig
OC Login Command : oc login https://api.daffy-vg5wvyl4.cloud.techzone.ibm.com:6443 -u ocpadmin -p P9sItiXftsL3FjdR0Srd --insecure-skip-tls-verify
OC Client Download : https://mirror.openshift.com/pub/openshift-v4/clients/ocp/4.12.16
Install Temp Files : /data/daffy/tmp/daffy-vg5wvyl4/ocp
openshift-install Dir : /data/daffy/tmp/daffy-vg5wvyl4/ocp/ocp-install
```

Run above oc login command from bastion host to login to installed OpenShift instance.

11. We need to enable Manta feature in WKC to track lineage as a part of our lab. It is not enabled by default. To enable it, you should follow next steps.

12. To download cpd cli from : <https://github.com/IBM/cpd-cli/releases/download/v13.0.0/cpd-cli-linux-EE-13.0.0.tgz> on bastion host

Run below commands on bastion host

```
wget https://github.com/IBM/cpd-cli/releases/download/v13.0.0/cpd-cli-linux-EE-13.0.0.tgz
tar -xvf cpd-cli-linux-EE-13.0.0.tgz
cd cpd-cli-linux-EE-13.0.0-9/
```

13. Execute below command to login to cluster

```
./cpd-cli manage login-to-ocp --username=${OCP_USERNAME} --password=${OCP_PASSWORD} --server=${OCP_URL}
```

Replace \${OCP_USERNAME}, \${OCP_PASSWORD} and \${OCP_URL} with values obtained in Step 10 above.

14. Execute below command to enable optional features of WKC

```
./cpd-cli manage update-cr --component=wkc --cpd_instance_ns=cpd-instance --cpd_operator_ns=ibm-common-services --
```

```
patch="{\"enableKnowledgeGraph\":True,\"enableDataQuality\":True,\"enableMANTA\":True}"
```

15. Check the status of the manta pods

```
oc get pods -n cpd-instance | grep manta
```

16. If all manta pods are up and running, next step is to enable Metadata Import Lineage by adding license keys. We will provide license key during the session. Create license.key file and copy given license key to that file.

17. Run below commands to add license key to the environment

```
oc set data secret/manta-keys -n cmd-instance --from-file=license.key=./license.key
```

18. Run below commands to restart pods to take the effect

```
oc get po -n cpd-instance | grep manta-dataflow
oc delete po <pod name obtained in above command>
oc get po -n cpd-instance | grep metadata-discovery
oc delete po <pod name obtained in above command>
oc get po -n cpd-instance | grep wkc-metadata-imports-ui
oc delete po <pod name obtained in above command>
```