



Add CDL Utility to PCF Software Image

Table 1: Feature History

Feature Name	Release Information	Description
Addition of CDL Utility to PCF Software Image	2023.04	PCF supports the <code>pcf-utilities</code> pod to retain the CDL utility scripts on master nodes post force VM redeploy from Cluster Manager. Default Setting: Enable – Always on

- [Feature Summary and Revision History, on page 1](#)
- [Feature Description, on page 2](#)
- [Configuration, on page 2](#)
- [Troubleshooting, on page 2](#)

Feature Summary and Revision History

Summary Data

Table 2: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled - Always-on
Related Documentation	Not Applicable

Revision History

Table 3: Revision Details

Revision Details	Release
First Introduced.	2023.04.0

Feature Description

PCF supports the `pcf-utilities` pod to retain the CDL utility scripts on master nodes post force VM redeploy from Cluster Manager. Only the CDL utility scripts are productized through PCF software image.

The scripts is available on following master node persistent volume path:

```
/data/<pcf-namespace>/ data-pcf-utilities-0/cdl/
```

There is high availability during master node failure where scripts are available. The ouput generated from the utility are available in the same location where scripts are executed.

Configuration

The following configuration confirms the status of `volume-claims` to ensure if the volume is enabled:

```
# show running-config k8s
Tue Oct 3 17:48:44.943 UTC+00:00
k8s name unknown
k8s namespace pcf
k8s nf-name pcf
k8s registry dockerhub.cisco.com/smi-fuse-docker-internal
k8s single-node false
k8s use-volume-claims true
k8s image-pull-secrets regcred
k8s ingress-host-name 10.84.124.37.nip.io
```

Volume storage class is to be `local` in the DB configuration.

```
[unknown] pcf# show running-config db
Tue Oct 3 18:59:36.348 UTC+00:00
db global-settings db-replica 1
db global-settings volume-storage-class local
db spr shard-count 1
[unknown] pcf#
```



Note By default, the volume configurations are enabled.

Troubleshooting

Following are the troubleshooting scenarios:

1. To show persistent volume and volume claims.

Following is an output for the persistent volume and volume claims:

```

user@rid5704583-aneeluru-1-master1:~$ kubectl get pvc -A | grep utilities
pcf data-pcf-utilities-0 Bound data-pcf-utilities-0-pcf 5Gi RWO local-storage 18h
user@rid5704583-aneeluru-1-master1:~$
user@rid5704583-aneeluru-1-master1:~$ kubectl get pvc -A | grep utilities
pcf data-pcf-utilities-0 Bound data-pcf-utilities-0-pcf 5Gi RWO local-storage 18h
user@rid5704583-aneeluru-1-master1:~$

```

2. To display pcf-utilities pod.

Following is an output to show pcf-utilities pod:

```

user@rid5704583-aneeluru-1-master1:~$ kubectl get pod -A | grep utilities

pcf          pcf-utilities-0          1/1      Running 0          18h  192.xxx.xxx.xxx
rid5704583-aneeluru-1-master1      <none>   <none>
user@rid5704583-aneeluru-1-master1:~$

```

3. To display the pcf-utilities volume path and output.

Following example displays the pcf-utilities volume path and output:

```

user@rid5704583-aneeluru-1-master1:~$ getpvs

```

NAMESPACE	NAME	CAPACITY	ACCESS MODES	STORAGECLASS	STATUS	VOLUME
pcf	data-pcf-utilities-0	5Gi	RWO	local-storage	Bound	data-pcf-utilities-0-pcf
pcf	db-etcd-pcf-etcd-cluster-0	10Gi	RWO	local-storage	Bound	db-etcd-pcf-etcd-cluster-0-pcf
pcf	db-etcd-pcf-etcd-cluster-1	10Gi	RWO	local-storage	Bound	db-etcd-pcf-etcd-cluster-1-pcf
pcf	db-etcd-pcf-etcd-cluster-2	10Gi	RWO	local-storage	Bound	db-etcd-pcf-etcd-cluster-2-pcf
pcf	db-local-data-db-admin-0	5Gi	RWO	local-storage	Bound	db-local-data-db-admin-0-pcf
pcf	db-local-data-db-admin-config-0	5Gi	RWO	local-storage	Bound	db-local-data-db-admin-config-0-pcf

```

NAME                                CAPACITY  ACCESS MODES  RECLAIM POLICY  STATUS
CLAIM                                STORAGECLASS  REASON      AGE

```

data-pcf-utilities-0-pcf	5Gi	RWO	Retain	Bound
pcf/data-pcf-utilities-0	local-storage		18h	
db-etcd-pcf-etcd-cluster-0-pcf	10Gi	RWO	Retain	Bound
pcf/db-etcd-pcf-etcd-cluster-0	local-storage		18h	
db-etcd-pcf-etcd-cluster-1-pcf	10Gi	RWO	Retain	Bound
pcf/db-etcd-pcf-etcd-cluster-1	local-storage		18h	
db-etcd-pcf-etcd-cluster-2-pcf	10Gi	RWO	Retain	Bound
pcf/db-etcd-pcf-etcd-cluster-2	local-storage		18h	
db-local-data-db-admin-0-pcf	5Gi	RWO	Retain	Bound
pcf/db-local-data-db-admin-0	local-storage		18h	

