CSI Driver for Dell EMC Unity

Version 1.2.1

Release Notes

July 2020

These release notes contain supplemental information about the CSI Driver for Dell EMC Unity. Topics include:

D∕LLEMC

Revision history

The following table presents the revision history of this document.

Table 1. Revision history

Revision	Date	Description
05	July 2020	Updated for version 1.2.1.
04	June 2020	Updated for version 1.2.
03	May 2020	Updated the following sections for 1.1.0.1 release: · New features and changes · Resolved issues
02	April 2020	Updated for version 1.1.
01	November 2019	First release of the product.

Product description

This section describes the CSI Driver for Dell EMC Unity.

The CSI Driver for Dell EMC Unity is a plug-in that is installed into Kubernetes to provide persistent storage using Dell EMC Unity storage systems.

The CSI Driver adheres to the Container Storage Interface (CSI) specification v1.1. It is compatible with Kubernetes versions 1.14 and 1.16. The Red Hat Enterprise Linux 7.6 and 7.7, and CentOS 7.6 and 7.7, host operating systems are supported.

New features and changes

The CSI Driver for Dell EMC Unity supports the following features:

· Support for Unity OE version 5.0.3

Resolved issues

This section contains the issues that were fixed in this release.

The following issue is resolved as part of the version 1.2.1 release:

· Support for Unity OE version 5.0.3.

> (i) **NOTE:** To use the CSI Driver for Dell EMC Unity (OE version 5.0.3), all users must upgrade to version 1.2.1, regardless of the current version (1.0, 1.1.0.1, or 1.2) in use.

The procedure to upgrade is as follows:

1. Get the latest code from `https://eos2git.cec.lab.emc.com/DevCon/csi-unity/tree/Release-V1.2.1`.
2. Prepare *myvalues.yaml* by following the V1.2 standards.
3. Run the following command to not delete the `unity-creds` secret by Helm:

   `kubectl annotate secret unity-creds -n unity "helm.sh/resource-policy"=keep`
4. Make sure `unity-certs-*` secrets are created properly before upgrading the driver.
5. Run the `sh upgrade.unity` command to proceed with the upgrading process.

A successful upgrade should receive messages that look similar to the following:

```
```
$ ./upgrade.unity
Kubernetes version v1.16.8
Kubernetes master nodes: 10.*.*.*
Kubernetes minion nodes:
Verifying the feature gates.
node-1's password:
```

```
lifecycle present :2
Removing lifecycle hooks from daemonset
daemonset.extensions/unity-node patched
daemonset.extensions/unity-node patched
daemonset.extensions/unity-node patched
warning: Immediate deletion does not wait for confirmation that the running resource has been
terminated. The resource may continue to run on the cluster indefinitely.
pod "unity-node-t1j5h" force deleted
Thu Jun 14 05:05:53 EDT 2020
running 2 / 2
NAME   READY   STATUS   RESTARTS   AGE
unity-controller-0   4/4   Running   0   12s
unity-node-n14gj   2/2   Running   0   12s
Upgrading using helm version 3
Release "unity" has been upgraded. Happy Helming!
NAME: unity
LAST DEPLOYED: Thu Jun 14 05:05:53 2020
NAMESPACE: unity
STATUS: deployed
REVISION: 2
TEST SUITE: None
Thu Jun 14 05:06:02 EDT 2020
running 2 / 2
NAME   READY   STATUS   RESTARTS   AGE
unity-controller-0   4/4   Running   0   11s
unity-node-rn6px   2/2   Running   0   11s
CSIDrivers:
NAME   CREATED AT
unity   2020-06-14T09:25:01Z
CSINodes:
NAME   CREATED AT
<nodename>   2020-06-14T20:59:16Z
StorageClasses:
NAME   PROVISIONER   AGE
unity (default)   csi-unity.dellemc.com   11s
unity-iscsi   csi-unity.dellemc.com   11s
unity-nfs   csi-unity.dellemc.com   11s
unity-<array-id>-fc   csi-unity.dellemc.com   11s
unity-<array-id>-iscsi   csi-unity.dellemc.com   11s
unity-<array-id>-nfs   csi-unity.dellemc.com   11s
```
```

Known problems and limitations

This section describes the known problems and limitations associated with this release of the product.

Known problems

Issue	Resolution or workaround, if known
526: Driver is crashing while doing `install.unity` with wrong `unityUsername`, wrong `unityPassword`, or both.	Uninstall the CSI driver installation and re-install using the proper username and password.
603: Volume and snapshot name cannot have more than 63 characters.	All volume names and snapshot names (including prefix) must be less than 63 characters.
670: While creating a new pod, if the multipath driver on Kubernetes nodes is not able to issue the `dm-uuid-mpath` device for a given PVC, the driver picks the `wwn-0x` standard device to perform the mount operation. This may lead to data unavailability.	Restart the multipath driver, and ensure all devices are claimed with `dm-uuid-mpath`.
632: Pod stuck at container creating state for over 1 minute. Pod description shows `Unable to find device after multiple discovery attempts: rpc error: code = NotFound desc = Check for disk path /dev/disk/by-id/wwn-0xxxxxxxxxxxxxxxxxxxxxxxxx not`	1. Check if the zoning is done correctly for the FC channel (if an FC-based volume is used), or that at least 1 iSCSI target is up on the array (if an iSCSI-based volume is used).

Issue	Resolution or workaround, if known

`found readlink /dev/disk/by-id/`
`wwn-0xxxxxxxxxxxxxxxxxxxxxxxx: no such file or`
`directory.`
	2. If the problem persists, execute `/usr/bin/rescan-scsi-`
	`bus.sh -a -r`. The script cleans up any stale devices present on the node. Install the `sg3_utils` package if the script is not present on the node.

659: `unity` namespace got deleted.	1. Re-create the `unity` namespace. 2. Uninstall the controller and node pods, and then re-install the pods. You should be able to continue the creation and deletion of Kubernetes objects as usual.
566: When creating a PVC from a snapshot, the PVC is automatically given the attributes of the default storage class.	Create a new custom storage class. The new custom storage class should have the following properties with the same value as in the default storage class: · storage pool · thin provision · data reduction · size You must provide this storage class when creating a PVC from an existing snapshot.
326: When the same machine has two hosts with different hostnames but with the same IQN, the CSI Driver for Unity (v1.1) gives the following error: `REP 0125: unable to find host`.	Ensure that each host has a unique initiator IQN, and that the correct IQN was added to the corresponding host object on the array.

532: Not able to find storage class with `xfs` filetype.	Create a custom storage class for this type of requirement. An example follows of a custom storage class (in `yaml` format) that can be created in order to mount pvcs as an xfs filesystem.
	
	<pre>apiVersion: storage.k8s.io/v1
	kind: StorageClass
	metadata:
	  name: sc-xfs-iscsi
	parameters:
	  FsType: xfs
	  isDataReductionEnabled: "false"
	  storagepool: pool_1
	  thinProvisioned: "true"
	  tieringPolicy: "3"
	  protocol: "iSCSI"
	provisioner: csi-unity.dellemc.com
	reclaimPolicy: Delete.</pre>

After installing CSI Unity, the username/password of Unisphere changed.	Refer to the *CSI Unity Product Guide* for creating or replacing a new secret.
Make sure that the isDefaultArray parameter matches where necessary.	Make sure that the `isDefaultArray` parameter is set to `true` against the same storage array in both `myvalues.yaml` and `secret.json` files.

Software media, organization, and files

This section provides information about where you can find the software files for this release of the CSI Driver for Dell EMC Unity.

The software package is available for download from the CSI Driver for Dell EMC Unity GitHub page.

Additional resources

This section provides information about the CSI Driver for Dell EMC Unity, how to get support, and provide feedback.

Documentation

This section lists the related documentation for CSI Driver for Dell EMC Unity.

The CSI Driver for Dell EMC Unity is available on the CSI Driver for Dell EMC Unity GitHub page. The documentation includes the following:

- CSI Driver for Dell EMC Unity Release Notes (this document)
- CSI Driver for Dell EMC Unity Product Guide

Troubleshooting and getting help

Use the resources in this section to get help and support.

Product information

For documentation, release notes, software updates, and other information about Dell EMC products, go to Dell EMC Online Support.

Technical support

For any CSI driver configuration, setup issues, or questions, use the Dell EMC container forum. For any issues with Dell EMC Storage, contact Dell EMC Online Support.

Notes, cautions, and warnings

ⓘ **NOTE:** A NOTE indicates important information that helps you make better use of your product.

△ **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

⚠ **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.