General information

An **Upgrade** button appears on the **Dashboard** screen whenever a new Harvester version that you can upgrade to becomes available. For more information, see <u>Start an upgrade</u>.

For air-gapped environments, see <u>Prepare an air-gapped upgrade</u>.

Update Harvester UI Extension on Rancher v2.11.0

To import Harvester v1.5.0 clusters on Rancher v2.11.0, you must use **v1.5.0** of the Rancher UI extension for Harvester.

- 1. On the Rancher UI, go to local > Apps > Repositories.
- 2. Locate the repository named **harvester**, and then select : > **Refresh**.
- 3. Go to the Extensions screen.
- 4. Locate the extension named Harvester, and then click Update.
- 5. Select version **1.5.0**, and then click **Update**.
- 6. Allow some time for the extension to be updated, and then refresh the screen.

Known issues

1. Management URL status is "NotReady" during upgrade

The Harvester console on some nodes may display Status: NotReady while the upgrade is in progress.

The correct status is displayed after the upgrade to v1.5.0 is completed.

Related issues:

• [BUG] Harvester cluster status keep in NotReady on the second joined node from iso installation

2. Air-gapped upgrade stuck with ImagePullBackOff error in Fluentd and Fluent Bit pods

The upgrade may become stuck at the very beginning of the process, as indicated by 0% progress and items marked **Pending** in the **Upgrade** dialog of the Harvester UI.

Specifically, Fluentd and Fluent Bit pods may become stuck in the ImagePullBackOff status. To check the status of the pods, run the following commands:

\$ kubectl -n harvester-system get upgradelogs -l harvesterhci.io/upgrade=hvst-

```
upgrade-x2hz8
NAME
                                UPGRADE
hvst-upgrade-x2hz8-upgradelog
                               hvst-upgrade-x2hz8
$ kubectl -n harvester-system get pods -l harvesterhci.io/upgradeLog=hvst-upgrade-
x2hz8-upgradelog
NAME
                                                            READY
                                                                    STATUS
RESTARTS
          AGE
hvst-upgrade-x2hz8-upgradelog-downloader-6cdb864dd9-6bw98
                                                            1/1
                                                                    Running
           7m7s
                                                                    ImagePullBackOff
hvst-upgrade-x2hz8-upgradelog-infra-fluentbit-2ng7g
                                                            0/1
hvst-upgrade-x2hz8-upgradelog-infra-fluentbit-697wf
                                                            0/1
                                                                    ImagePullBackOff
hvst-upgrade-x2hz8-upgradelog-infra-fluentbit-kd8kl
                                                                    ImagePullBackOff
                                                            0/1
hvst-upgrade-x2hz8-upgradelog-infra-fluentd-0
                                                            0/2
                                                                    ImagePullBackOff
```

This occurs because the following container images are neither preloaded in the cluster nodes nor pulled from the internet:

- ghcr.io/kube-logging/fluentd:v1.15-ruby3
- ghcr.io/kube-logging/config-reloader:v0.0.5
- fluent/fluent-bit:2.1.8

To fix the issue, perform any of the following actions:

• Update the Logging CR to use the images that are already preloaded in the cluster nodes. To do this, run the following commands against the cluster:

```
# Get the Logging CR names
OPERATOR_LOGGING_NAME=$(kubectl get loggings -l
app.kubernetes.io/name=rancher-logging -o jsonpath="
{.items[0].metadata.name}")
INFRA_LOGGING_NAME=$(kubectl get loggings -l
harvesterhci.io/upgradeLogComponent=infra -o jsonpath="
{.items[0].metadata.name}")
# Gather image info from operator's Logging CR
FLUENTD_IMAGE_REPO=$(kubectl get loggings $OPERATOR_LOGGING_NAME -o
jsonpath="{.spec.fluentd.image.repository}")
FLUENTD_IMAGE_TAG=$(kubectl get loggings $OPERATOR_LOGGING_NAME -o jsonpath="
{.spec.fluentd.image.tag}")
FLUENTBIT_IMAGE_REPO=$(kubectl get loggings $OPERATOR_LOGGING_NAME -o
jsonpath="{.spec.fluentbit.image.repository}")
FLUENTBIT_IMAGE_TAG=$(kubectl get loggings $OPERATOR_LOGGING_NAME -o
jsonpath="{.spec.fluentbit.image.tag}")
CONFIG_RELOADER_IMAGE_REPO=$(kubectl get loggings $OPERATOR_LOGGING_NAME -o
jsonpath="{.spec.fluentd.configReloaderImage.repository}")
```

```
CONFIG_RELOADER_IMAGE_TAG=$(kubectl get loggings $0PERATOR_LOGGING_NAME -o
jsonpath="{.spec.fluentd.configReloaderImage.tag}")

# Patch the Logging CR
kubectl patch logging $INFRA_LOGGING_NAME --type=json -p="
[{\"op\":\"replace\",\"path\":\"/spec/fluentbit/image\",\"value\":
{\"repository\":\"$FLUENTBIT_IMAGE_REPO\",\"tag\":\"$FLUENTBIT_IMAGE_TAG\"}}]"
kubectl patch logging $INFRA_LOGGING_NAME --type=json -p="
[{\"op\":\"replace\",\"path\":\"/spec/fluentd/image\",\"value\":
{\"repository\":\"$FLUENTD_IMAGE_REPO\",\"tag\":\"$FLUENTD_IMAGE_TAG\"}}]"
kubectl patch logging $INFRA_LOGGING_NAME --type=json -p="
[{\"op\":\"replace\",\"path\":\"/spec/fluentd/configReloaderImage\",\"value\":
{\"repository\":\"$CONFIG_RELOADER_IMAGE_REPO\",\"tag\":\"$CONFIG_RELOADER_IMAGE
```

The status of the Fluentd and Fluent Bit pods should change to Running in a moment and the upgrade process should continue after the Logging CR is updated. If the Fluentd pod is still in the ImagePullBackOff status, try deleting it with the following command to force it to restart:

```
UPGRADE_NAME=$(kubectl -n harvester-system get upgrades -l
harvesterhci.io/latestUpgrade=true -o jsonpath='{.items[0].metadata.name}')
UPGRADELOG_NAME=$(kubectl -n harvester-system get upgradelogs -l
harvesterhci.io/upgrade=$UPGRADE_NAME -o
jsonpath='{.items[0].metadata.name}')
kubectl -n harvester-system delete pods -l
harvesterhci.io/upgradeLog=$UPGRADELOG_NAME,harvesterhci.io/upgradeLogComponent=
```

• On a computer with internet access, pull the required container images and then export them to a TAR file. Next, transfer the TAR file to the cluster nodes and then import the images by running the following commands on each node:

```
# Pull down the three container images
docker pull ghcr.io/kube-logging/fluentd:v1.15-ruby3
docker pull ghcr.io/kube-logging/config-reloader:v0.0.5
docker pull fluent/fluent-bit:2.1.8

# Export the images to a tar file
docker save \
    ghcr.io/kube-logging/fluentd:v1.15-ruby3 \
    ghcr.io/kube-logging/config-reloader:v0.0.5 \
    fluent/fluent-bit:2.1.8 > upgradelog-images.tar

# After transferring the tar file to the cluster nodes, import the images
(need to be run on each node)
ctr -n k8s.io images import upgradelog-images.tar
```

The upgrade process should continue after the images are preloaded.

 (Not recommended) Restart the upgrade process with logging disabled. Ensure that the Enable Logging checkbox in the Upgrade dialog is not selected.

Related issues:

• [BUG] AirGap Upgrades Seem Blocked with Fluentbit/FluentD