Turbine Upgrade Guide

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1. Pre-Upgrade Health Check

Node Status

- Check that all Nodes are in Ready state

```
kubectl get nodes -owide
```

- If any nodes are in NotReady, SchedulingDisabled, etc then it would be recommended to review and fix them before upgrading.

Pod Status

- Check that all pods are in Running state and the pod values are matching 1/1, 3/3, etc.

```
kubectl get pods -A
```

- If any pods are not running i.e, 0/1, 2/3, CrashLoopBackoff, Error, etc then it would be advised to review the issue and fix it prior to upgrading

Cluster Status

- Check that Kubernetes is up and running and healthy.

```
kubectl cluster-info
```

- If Kubernetes indicates that it is not healthy then review and establish where the issue is prior to upgrading.

etcd health

- etcd needs to be in a stable state prior to upgrading any issues

```
for pod in $(kubectl get pods -l component=etcd -n kube-system \
                    -o jsonpath='{.items[*].metadata.name}')
do
    echo "### etcd pod : ${pod} ###"
    kubectl -n kube-system exec ${pod} -- /bin/sh \
            -c "ETCDCTL_API=3 etcdctl \
            --cert=/etc/kubernetes/pki/etcd/server.crt \
            --key=/etc/kubernetes/pki/etcd/server.key \
            --cacert=/etc/kubernetes/pki/etcd/ca.crt \
```

11. Turbine 25.4.2 Upgrade Instructions

Use these upgrade instructions to upgrade your instance of Turbine 25.4.2 The instructions are organized by subsections of this document that will help you upgrade by specific installation type, whether you have an embedded or existing cluster installation.

Upgrade Turbine on Embedded Cluster Installations

Use the following instructions to upgrade this version of Swimlane on an embedded cluster installation.

Prerequisites:

- Turbine version 25.3.1
- MongoDB 7.0.24

Important! Swimlane recommends that you perform a MongoDB backup prior to starting this update. For more information, see Backup and Restore on an Embedded Cluster with Snapshots.

Upgrade Instructions

1. SSH into any node in your deployment.
2. Scale down EKCO and kotsadm-rqlite.**Note**: EKCO and Kotsadm-rqlite will automatically scale back up after the script in Step 3 has completed.
   `kubectl -n kurl scale deployment ekc-operator --replicas=0`
   `kubectl -n default scale statefulsets kotsadm-rqlite --replicas=0`
3. Execute the following command to begin the Turbine Platform Installer component upgrade: `curl -sSL https://kurl.sh/turbine-turbine-25-4-2 | sudo bash -s ha`
   Note: If you have configured SELinux, firewall, or proxy add this to the end of the command above:installer-spec-file=se.yaml. The se.yml is the installer patch file created by you as described in:https://docs.swimlane.com/turbine-installer/overriding-installer-settings.
4. After the install script has completed, log in to the Turbine Platform Installer dashboard (https://<SwimlaneDNS>:8800).
5. Go to the Version History tab and click **Check For Updates**.

21. Turbine 25.1.3 Upgrade Instructions

Turbine Upgrade Instructions

Use these upgrade instructions to upgrade your instance of Turbine 25.1.3 The instructions are organized by subsections of this document that will help you upgrade by specific installation type, whether you have an embedded or existing cluster installation.

Upgrade Turbine on Embedded Cluster Installations

Use the following instructions to upgrade this version of Swimlane on an embedded cluster installation.

Prerequisites:

- Turbine version 25.0.8
- MongoDB 7.0.19

Note: If you are already on version 25.1.2, no infrastructure upgrade is required. Proceed to step 4

Important! Swimlane recommends that you perform a MongoDB backup prior to starting this update. For more information, see Backup and Restore on an Embedded Cluster with Snapshots.

Upgrade Instructions

1. SSH into any node in your deployment.
2. Scale down EKCO and kotsadm-rqlite.

   Note: EKCO and Kotsadm-rqlite will automatically scale back up after the script in Step 3 has completed.

   ```
   kubectl -n kurl scale deployment ekc-operator --replicas=0
   kubectl -n default scale statefulsets kotsadm-rqlite --replicas=0
   ```

3. Execute the following command to begin the Turbine Platform Installer component upgrade:

31. Turbine 24.3.2 Upgrade Instructions

Turbine Upgrade Instructions

Use these upgrade instructions to upgrade your instance of Turbine 24.x. The instructions are organized by subsections of this document that will help you upgrade by specific installation type, whether you have an embedded or existing cluster installation.

For version 24.3.2 of the Turbine platform, if you encounter any issues with Swimlane tenant pods related to the database during a new installation, redeploy the application. No action is required if you are upgrading.

Upgrade Turbine on Embedded Cluster Installations

Use the following instructions to upgrade this version of Swimlane on an embedded cluster installation.

Prerequisites:

- Turbine version 23.5.x+
- MongoDB 5.0.24

Important! Swimlane recommends that you perform a MongoDB backup prior to starting this update. For more information, see Backup and Restore on an Embedded Cluster with Snapshots.

Upgrade Instructions

1. SSH into any node in your deployment.
2. Scale down EKCO and kotsadm-rqlite.
   Note: EKCO and Kotsadm-rqlite will automatically scale back up after the script in Step 3 has completed.

   ```
   kubectl scale deployment ekc-operator --replicas=0 -n kurl
   kubectl scale statefulsets kotsadm-rqlite --replicas=0 -n default
   ```

   NOTE: If you have configured SELinux, add this to the end of the command above:

   ```
   installer-spec-file=ec.yaml
   ```

41. Download and Push New Velero Images

Use these commands to download and push new Velero images.

```
$ docker pull velero/velero:v1.10.2

$ docker tag velero/velero:v1.10.2 <my-registry>/<my-
namespace>/velero/velero:v1.10.2

$ docker push <my-registry>/<my-namespace>/velero/velero:v1.10.2

$ docker pull velero/velero-restic-restore-helper:v1.10.2

$ docker tag velero/velero-restic-restore-helper:v1.10.2 <my-registry>/<my-
namespace>/velero/velero-restic-restore-helper:v1.10.2

$ docker push <my-registry>/<my-namespace>/velero/velero-restic-restore-
helper:v1.10.2

$ docker pull velero/velero-plugin-for-aws:v1.5.0

$ docker tag velero/velero-plugin-for-aws:v1.5.0 <my-registry>/<my-
namespace>/velero/velero-plugin-for-aws:v1.5.0

$ docker push <my-registry>/<my-namespace>/velero/velero-plugin-for-
aws:v1.5.0

$ docker pull velero/velero-plugin-for-gcp:v1.5.0

$ docker tag velero/velero-plugin-for-gcp:v1.5.0 <my-registry>/<my-
namespace>/velero/velero-plugin-for-gcp:v1.5.0

$ docker push <my-registry>/<my-namespace>/velero/velero-plugin-for-
gcp:v1.5.0

$ docker pull velero/velero-plugin-for-microsoft-azure:v1.5.0

$ docker tag velero/velero-plugin-for-microsoft-azure:v1.5.0 <my-
registry>/<my-namespace>/velero/velero-plugin-for-microsoft-azure:v1.5.0

$ docker push <my-registry>/<my-namespace>/velero/velero-plugin-for-
microsoft-azure:v1.5.0
```