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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 25.4.1 Upgrade Instructions

Notice

We recommend pausing any upgrade plans to TP 25.4.1 at this time. Our team is currently investigating a potential issue that may require a workaround or an emergency hotfix.

<https://support.swimlane.com/en/support/solutions/articles/8000125907-turbine-25-4-1-published-output-not-returned-in-canvas-and-classic-playbooks>

Published Output

We will update this page as soon as more information is available. Thank you for your patience.

Use these upgrade instructions to upgrade your instance of Turbine 25.4.1 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 kur1 scale deployment ekc-operator --replicas=0
```

21. Turbine 25.1.2 Upgrade Instructions

Turbine Upgrade Instructions

Use these upgrade instructions to upgrade your instance of Turbine 25.1.2. 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.

Mandatory Prerequisites to Upgrade to MongoDB to Version 7.0

Before upgrading MongoDB to **version 7.0**, perform the following steps to check the current configuration and update it if needed.

Verify MongoDB Compatibility

1. **Connect to MongoDB as Admin**(replace <namespace> with your actual namespace):

```
kubectl exec -it -n <namespace> mongo-0 -- mongosh -u Admin -p --  
authenticationDatabase admin --tls --tlsAllowInvalidCertificates admin
```

NOTE: You'll be prompted to enter your mongo Admin password.

1. **Check the Current MongoDB Version** (should display 6.0.x):

```
db.version()
```

```
use admin  
db.system.version.find()
```

Verify the Feature Compatibility Version:

1. **Update the Feature Compatibility Version (if required)**: If the version does not include **6.0**, update it:

```
db.adminCommand({ setFeatureCompatibilityVersion: '6.0' })
```

Prerequisite for Upgrading from Other 24.3.x Versions:

Note: This step is not required for fresh installations.

31. Turbine 24.2.8 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.

Pre-Upgrade Tasks

The following tasks are only necessary in some cases; however, it is more simple to run these for all environments. Enabling feature flags that are already enabled will not affect the environment. The Kubernetes jobs will also be recreated once the update is initiated. Make sure to include the namespace if applicable.

- Releases that include a RabbitMQ Upgrade may require manual steps before deploying the new version of Turbine:

```
kubectl exec rabbitmq-server-0 -- rabbitmqctl enable_feature_flag all
```

- Depending on which version you are upgrading from, you may be required to delete some immutable jobs. You can delete these jobs using this command:

```
kubectl delete jobs --all
```

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

Turbine – Restarting Services in Swimlane

41. Using Kubernetes Rollout Restart Commands

For restarting different services in Swimlane, use the Kubernetes commands as listed below. This guide will demonstrate how to restart the following services:

1. Turbine-engine
2. Turbine-api
3. Turbine-agent
4. Swimlane-api
5. Swimlane-tasks
6. Coredns (In case your DNS server has been modified and playbooks doesn't get these DNS modifications)
7. Rabbitmq-server (STS)

Step-by-Step Instructions

Restarting Deployments

The first five services (turbine-engine, turbine-API, turbine-agent, Swimlane-API, and swimlane-tasks) are managed as Kubernetes deployments. To restart these services, follow these steps:

1. List All Deployments in the Namespace

First, list all the deployments in the swimlane namespace to ensure they are correctly mapped:

```
kubectl get deployments -A ### this command will list all the deployments in the cluster.  
kubectl get deployments -n <namespace> ### this command will give only the deployments that are under in the specific namespace.
```

The above Command will display the following output:

```
root@qa-kc2-ubu22:~# kubectl get deployments -A  
NAMESPACE          NAME          READY   UP-TO-DATE   AVAILABLE   AGE
```