

# KNIME Edge Release Notes and Update Guide

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Version 1.2 (last updated on 2024-07-10)



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# KNIME Edge Release Notes and Update Guide

This guide outlines the latest changes to KNIME Edge as well as steps for updating from prior versions.

## Release history

Version	Release Date
v1.2.0	2023-04-27
v1.1.0	2022-05-14
v1.0.0	2021-09-29

## What's new in KNIME Edge 1.2

### Enhancements

#### KNIME Edge Values File Configuration Options

- **Additional images are now configurable.**
  - Busybox
  - Minio and Minio Client
  - Rclone
- **Fluentd can now be disabled.**
- **Resource requests and limits are now configurable for all pods.**
  - Parameters for memory and cpu have been added to multiple sections.
- **A default PodSecurityContext can now be specified.**
  - Parameters can be found in the podSecurityContext section:
    - RunAsUser
    - RunAsGroup
    - FsGroup

- **RunAsNonRoot**
- **Inference deployment emptyDir volumes can now be specified.**
- **The host field for ingresses can now be specified**

#### Server Adapter

- **Mounted necessary volumes as emptyDirs to conform to a PodSecurityPolicy with readOnlyRootFilesystem=true.**

#### Minio

- **Mounted necessary volumes as emptyDirs to conform to a PodSecurityPolicy with readOnlyRootFilesystem=true.**

#### Inference Agent

- **Mounted configured volumes as emptyDirs to conform to a PodSecurityPolicy with readOnlyRootFilesystem=true.**

#### KNIME Server Control Plane and Initialization Workflows

- **The PostgreSQL Connector connects via SSL to the database if possible.**
- **Removed the maximum limit of the cpu and memory prompts when creating or updating Inference Deployments.**
- **Increased the timeout of all REST request nodes from two to ten seconds.**
- **The KNIME Edge Initialization workflow can now be successfully executed without internet access.**
- **Added the Delete Execution Image workflow to the KNIME Server Control Plane**

#### Bugfixes

##### Inference Agent

- **The KNIME Inference Agent no longer encodes the workflow URL and now requires an encoded URL. This fixed a bug in which the workflow URL is encoded twice.**

## Server Adapter

- **The KNIME Edge Server Adapter no longer logs the KNIME Server password and the Minio store secret**

## KNIME Edge 1.2 Update Guide

This section outlines the steps needed to upgrade an existing KNIME Edge installation from version 1.1 to 1.2.

You will find a complete guide to installing KNIME Edge in the [KNIME Edge Installation Guide](#).

If you have any questions or need assistance with the update process, please contact your dedicated KNIME support specialist.

## Update KNIME Server Control Plane Workflows

\*1. Download the latest "Initialize Edge Server" workflow from KNIME Hub: [KNIME Edge Initialization Workflow](#) \*

**2. Upload the "Initialize Edge Server" workflow to KNIME Server.**

**3. Execute the "Initialize Edge Server" workflow from WebPortal on KNIME Server.**

### **Initialize Edge Server**

This workflow is used to setup a KNIME Server to be used as the orchestration piece for a KNIME Edge cluster.

Further information can be found at <https://docs.knime.com>

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Notify me when workflow has run

 Run

**4. Select the Edge root path. Optionally override the automatic detection of KNIME Server URL and credentials by deselecting "Use current KNIME Server login details for requests".**

### KNIME Edge

#### Edge Root Path

/Edge

Use current KNIME Server login details for requests

**5. If "Use current KNIME Server login details for requests" was deselected in the prior step, fill out the KNIME Server credentials as appropriate before moving on.**

### KNIME Edge

#### KNIME Server Information

The field below should be filled out automatically. Please double-check if the input is correct and change it accordingly. The KNIME Server URL has to include the context root at the end (e.g. /knime/).

#### KNIME Server Address

http://localhost:8080/knime/

#### KNIME Server Credentials

User

Password

**6. When selecting the KNIME Edge version to initialize, ensure that 1.2.0-experimental or 1.2.0 is selected.**

### KNIME Edge

#### Edge Version - Default is latest

1.1.0-experimental

**7. Ensure that "Update Database Schema to latest version" is *selected* and "Reset Database Schema before Updating" is *deselected* before proceeding. This configuration will update the PostgreSQL database schema without truncating the existing tables.**

# KNIME Edge

**Update Database Schema to latest version**

**Reset Database Schema Before Updating**

## Uninstall existing Edge Deployment

**1. Run `helm list --all-namespaces` in terminal to see all Helm releases for the current Kubernetes context.**

```
user@computer ~ % helm list --all-namespaces
```

NAME	NAMESPACE	REVISION	UPDATED	STATUS
CHART		APP VERSION		
edge-current	edge	1	2022-03-03 11:56:06.615987 -0500 EST	deployed
knime-edge-operator-1.0.0		1.16.0		

**2. Once the existing KNIME Edge release has been identified, run `helm uninstall [-n namespace] <release_name>` to uninstall KNIME Edge. A successful uninstallation will look similar to the output below.**

```
user@computer ~ % helm uninstall -n edge edge-current
```

```
W0303 13:55:47.802827 92191 warnings.go:70] rbac.authorization.k8s.io/v1beta1
RoleBinding is deprecated in v1.17+, unavailable in v1.22+; use
rbac.authorization.k8s.io/v1 RoleBinding
W0303 13:55:47.825723 92191 warnings.go:70] rbac.authorization.k8s.io/v1beta1 Role is
deprecated in v1.17+, unavailable in v1.22+; use rbac.authorization.k8s.io/v1 Role
W0303 13:55:47.867231 92191 warnings.go:70] rbac.authorization.k8s.io/v1beta1
ClusterRoleBinding is deprecated in v1.17+, unavailable in v1.22+; use
rbac.authorization.k8s.io/v1 ClusterRoleBinding
W0303 13:55:47.913994 92191 warnings.go:70] rbac.authorization.k8s.io/v1beta1
ClusterRole is deprecated in v1.17+, unavailable in v1.22+; use
rbac.authorization.k8s.io/v1 ClusterRole
release "edge-current" uninstalled
```

## Update KNIME Edge Custom Resource Definitions (CRDs)

**1. Run `kubectl get crds` to see a full list of Custom Resource Definitions (CRDs) that are installed to the cluster.**

```
user@computer ~ % kubectl get crds
```

NAME	CREATED AT
edgedeployments.edge.knime.com	2022-03-03T16:56:02Z
inferreddeployments.edge.knime.com	2022-03-03T16:56:02Z
kongclusterplugins.configuration.konghq.com	2022-03-03T16:56:02Z
kongconsumers.configuration.konghq.com	2022-03-03T16:56:02Z
kongingresses.configuration.konghq.com	2022-03-03T16:56:02Z
kongplugins.configuration.konghq.com	2022-03-03T16:56:02Z
tcpingresses.configuration.konghq.com	2022-03-03T16:56:02Z
tensorflowservingdeployments.edge.knime.com	2022-03-03T16:56:02Z

**2. Run the following command to delete all KNIME Edge CRDs.**

```
kubectl delete crd \  
  edgedeployments.edge.knime.com \  
  inferreddeployments.edge.knime.com \  
  tensorflow-servingdeployments.edge.knime.com
```

**3. Run `kubectl get crds` to confirm successful deletion.**

```
user@computer ~ % kubectl get crds
```

NAME	CREATED AT
kongclusterplugins.configuration.konghq.com	2022-03-03T16:56:02Z
kongconsumers.configuration.konghq.com	2022-03-03T16:56:02Z
kongingresses.configuration.konghq.com	2022-03-03T16:56:02Z
kongplugins.configuration.konghq.com	2022-03-03T16:56:02Z
tcpingresses.configuration.konghq.com	2022-03-03T16:56:02Z

**4. Run through the "Install new Edge Deployment" section below to reinstall Edge, which will in turn reinstall the CRDs to your cluster.**

### Install new Edge Deployment

**1. Run `helm repo ls` to confirm that the KNIME Edge chart repository is available in Helm. If not, see the [KNIME Edge documentation](#) for details on how to add the repository.**



```
user@computer ~ % helm repo ls
```

```
NAME          URL
knime-edge    https://registry.hub.knime.com/chartrepo/knime-edge
```

## 2. Run `helm repo update` to retrieve the latest updates to the KNIME Edge Helm Chart.

```
user@computer ~ % helm repo update
```

```
Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "knime-edge" chart repository
Update Complete. Happy Helming!
```

## 3. Run the following command to retrieve the updated values file definition for KNIME Edge v1.2.0 and save it as a local `values.yaml` file.

```
helm show values knime-edge/knime-edge-operator --version 1.2.0 > values.yaml
```

## 4. Review the `values.yaml` file and update configuration as needed. All values in `<brackets>` are placeholders intended to be replaced with actual configuration.

## 5. Optionally verify the configuration that will be applied to the Kubernetes cluster in the next step.

```
helm template -n edge knime-edge knime-edge/knime-edge-operator \
  --version 1.2.0 \
  -f values.yaml
```

## 6. When ready, run the following command to install KNIME Edge v1.2.0 into your cluster.

```
helm install -n edge knime-edge knime-edge/knime-edge-operator \
  --version 1.2.0 \
  -f values.yaml
```

## 7. See the [Verify Installation of KNIME Edge Cluster](#) docs for verifying that the cluster is operational. If you have any questions or need assistance with the update process, please contact your dedicated KNIME support specialist.

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