Red Hat OpenShift Service on AWS 4

Upgrading

Understanding upgrading options for Red Hat OpenShift Service on AWS
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Abstract

This document provides information about upgrading Red Hat OpenShift Service on AWS (ROSA) clusters.
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CHAPTER 1. UPGRADING ROSA CLUSTERS WITH STS

1.1. LIFE CYCLE POLICIES AND PLANNING

To plan an upgrade, review the Red Hat OpenShift Service on AWS update life cycle. The life cycle page includes release definitions, support and upgrade requirements, installation policy information and life cycle dates.

1.2. UPGRADING A ROSA CLUSTER THAT USES STS

There are two methods to upgrade Red Hat OpenShift Service on AWS (ROSA) clusters that uses the AWS Security Token Service (STS):

- Manual upgrades through the `rosa` CLI
- Manual upgrades through the OpenShift Cluster Manager console

**NOTE**

For steps to upgrade a ROSA cluster that does not use the AWS Security Token Service (STS), see Upgrading ROSA clusters.

1.2.1. Upgrading with the `rosa` CLI

You can upgrade a Red Hat OpenShift Service on AWS cluster that uses the AWS Security Token Service (STS) manually by using the `rosa` CLI.

This method schedules the cluster for an immediate upgrade, if a more recent version is available.

**Prerequisites**

- You have installed and configured the latest ROSA CLI on your installation host.
- If you are upgrading your cluster from 4.7 to 4.8, you have upgraded the AWS Identity and Access Management (IAM) account-wide roles and policies to version 4.8. You have also updated the `cloudcredential.openshift.io/upgradeable-to` annotation in the `CloudCredential` custom resource.

**Procedure**

1. To verify the current version of your cluster, enter the following command:

   
   ```bash
   $ rosa describe cluster --cluster=<cluster_name|cluster_id>
   ```

2. To verify that an upgrade is available, enter the following command:

   
   ```bash
   $ rosa list upgrade --cluster=<cluster_name|cluster_id>
   ```

   The command returns a list of versions to which the cluster can be upgraded, including a recommended version.
3. To upgrade a cluster to the latest available version, enter the following command:

```
$ rosa upgrade cluster --cluster=<cluster_name|cluster_id>
```

The cluster is scheduled for an immediate upgrade. This action can take an hour or longer, depending on your workload configuration, such as pod disruption budgets.

You will receive an email when the upgrade is complete. You can also check the status by running `rosa describe cluster` again from the `rosa` CLI or view the status in OpenShift Cluster Manager console.

1.2.2. Upgrading using the console

You can upgrade a Red Hat OpenShift Service on AWS cluster that uses the AWS Security Token Service (STS) manually by using OpenShift Cluster Manager console.

Prerequisites

- If you are upgrading your cluster from 4.7 to 4.8, you have upgraded the AWS Identity and Access Management (IAM) account-wide roles and policies to version 4.8. You have also updated the `cloudcredential.openshift.io/upgradeable-to` annotation in the `CloudCredential` custom resource. For more information, see [Preparing an upgrade from 4.7 to 4.8](#).

Procedure

1. Log in to OpenShift Cluster Manager.
2. Select a cluster to upgrade.
3. Click the Settings tab.
4. In the Update strategy pane, click Manual or Individual Updates.
5. In the Node draining pane, select a grace period interval from the list. The grace period enables the nodes to gracefully drain before forcing the pod eviction. The default is 1 hour.
6. In the Update strategy pane, click Save to apply your update strategy.
7. In the Update status pane, review the Update available information and click Update.

   **NOTE**

   The Update button is enabled only when an upgrade is available.

8. In the Select version dialog, choose a target upgrade version and click Next.
9. In the Schedule update dialog, schedule your cluster upgrade.
   - To upgrade within an hour, select Update now and click Next.
   - To upgrade at a later time, select Schedule a different time and set a time and date for your upgrade. Click Next to proceed to the confirmation dialog.
10. After reviewing the version and schedule summary, select Confirm update.
The cluster is scheduled for an upgrade to the target version. This action can take an hour or longer, depending on the selected upgrade schedule and your workload configuration, such as pod disruption budgets.

The status is displayed in the **Update status** pane.
CHAPTER 2. UPGRADING ROSA CLUSTERS

2.1. LIFE CYCLE POLICIES AND PLANNING

To plan an upgrade, review the Red Hat OpenShift Service on AWS update life cycle. The life cycle page includes release definitions, support and upgrade requirements, installation policy information and life cycle dates.

2.2. UPGRADING A ROSA CLUSTER

There are three methods to upgrade Red Hat OpenShift Service on AWS (ROSA) clusters:

- Manual upgrades through the rosa CLI
- Manual upgrades through the OpenShift Cluster Manager console
- Automatic upgrades through the OpenShift Cluster Manager console

NOTE

For steps to upgrade a ROSA cluster that uses the AWS Security Token Service (STS), see Upgrading ROSA clusters with STS.

There are three methods to upgrade Red Hat OpenShift Service on AWS (ROSA) clusters:

- Manual upgrades through the rosa CLI
- Manual upgrades through the OpenShift Cluster Manager console
- Automatic upgrades through the OpenShift Cluster Manager console

2.2.1. Upgrading with the rosa CLI

You can upgrade a Red Hat OpenShift Service on AWS cluster manually by using the rosa CLI.

This method schedules the cluster for an immediate upgrade, if a more recent version is available.

Prerequisites

- You have installed and configured the latest ROSA CLI on your installation host.

Procedure

1. To verify the current version of your cluster, enter the following command:

   $ rosa describe cluster --cluster=<cluster_name|cluster_id>  

   Replace <cluster_name|cluster_id> with the cluster name or the ID of the cluster.

2. To verify that an upgrade is available, enter the following command:
$ rosa list upgrade --cluster=<cluster_name|cluster_id>

The command returns a list of versions to which the cluster can be upgraded, including a recommended version.

3. To upgrade a cluster to the latest available version, enter the following command:

$ rosa upgrade cluster --cluster=<cluster_name|cluster_id>

The cluster is scheduled for an immediate upgrade. This action can take an hour or longer, depending on your workload configuration, such as pod disruption budgets.

You will receive an email when the upgrade is complete. You can also check the status by running **rosa describe cluster** again from the **rosa** CLI or view the status in OpenShift Cluster Manager console.

### 2.2.2. Upgrading using the console

You can upgrade a Red Hat OpenShift Service on AWS cluster manually by using OpenShift Cluster Manager console.

**Procedure**

1. Log in to **OpenShift Cluster Manager**.

2. Select a cluster to upgrade.

3. Click the **Settings** tab.

4. In the **Update strategy** pane, click **Manual** or **Individual Updates**.

5. In the **Node draining** pane, select a grace period interval from the list. The grace period enables the nodes to gracefully drain before forcing the pod eviction. The default is **1 hour**.

6. In the **Update strategy** pane, click **Save** to apply your update strategy.

7. In the **Update status** pane, review the **Update available** information and click **Update**.

**NOTE**

The **Update** button is enabled only when an upgrade is available.

8. In the **Select version** dialog, choose a target upgrade version and click **Next**.

9. In the **Schedule update** dialog, schedule your cluster upgrade.

   - To upgrade within an hour, select **Update now** and click **Next**.
   - To upgrade at a later time, select **Schedule a different time** and set a time and date for your upgrade. Click **Next** to proceed to the confirmation dialog.

10. After reviewing the version and schedule summary, select **Confirm update**.

    The cluster is scheduled for an upgrade to the target version. This action can take an hour or longer, depending on the selected upgrade schedule and your workload configuration, such as pod disruption budgets.
The status is displayed in the **Update status** pane.

### 2.2.3. Scheduling automatic upgrades

You can schedule automatic upgrades for a Red Hat OpenShift Service on AWS cluster through Red Hat OpenShift Cluster Manager console.

**Procedure**

1. Log in to **OpenShift Cluster Manager**.
2. Select a cluster to upgrade.
3. Click the **Settings** tab.
4. In the **Update strategy** pane, click **Automatic** and select a preferred day of the week and start time for the automatic upgrades.
5. In the **Node draining** pane, select a grace period interval from the list. The grace period enables the nodes to gracefully drain before forcing the pod eviction. The default is **1 hour**.
6. In the **Update strategy** pane, click **Save** to apply your update strategy.

When upgrades are available, they are automatically applied to the cluster on the preferred day of the week and start time.