Updating a cluster by using the web console

1. From the web console, click **Administration** → **Cluster Settings** and review the contents of the **Details** tab.
2. For production clusters, ensure that the **Channel** is set to the correct channel for the version that you want to update to, such as `stable-4.8`.
   - **Select channel** indicates the cluster version that your cluster is running or is updating to.
3. Select a version to update to, and click **Save**.

The Input channel **Update status** changes to **Update to <product-version> in progress**, and you can review the progress of the cluster update by watching the progress bars for the Operators and nodes.

Prerequisites

· Have access to the cluster as a user with <mark>admin</mark> privileges.

· Have a recent etcd backup in case your upgrade fails and you must restore your cluster to a previous state.

· Ensure all Operators are True in Available and False in Progressing and Degraded States.

· Ensure all installed Operators version through Operator Lifecycle Manager (OLM).

· Ensure that all machine config pools (MCPs) are running and not paused.

```
[root@bastion ~]# oc get co
NAME                      VERSION   AVAILABLE   PROGRESSING   DEGRADED   SINCE
authentication            4.7.41    True        False         False      128m
baremetal                 4.7.41    True        False         False      4h
cloud-credential          4.7.41    True        False         False      4h4m
cluster-autoscaler        4.7.41    True        False         False      3h59m
config-operator           4.7.41    True        False         False      4h
console                   4.7.41    True        False         False      130m
```

Path for upgrading OCP 4.7.12 to OCP 4.9.15

From the web console, click **Administration > Cluster Settings** and review the contents of the Details tab.

Step 1: Set the Channel to stable-4.7 and Select version 4.7.41 to update to, and click Update.

Update Path From Version 4.7.12 To 4.9.15

4.7.12	4.7.41	4.8.27	4.9.15
stable-4.7	stable-4.7	stable-4.8	stable-4.9

```
[root@bastion ~]# oc get clusterversion
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.7.13    True        False         35m     Cluster version is 4.7.13
[root@bastion ~]#
```

Update cluster

Current version

4.7.13

Select new version

4.7.41 ▾

Cancel   Update

Cluster Settings

Details   ClusterOperators   Global configuration

Current version
4.7.13
View release notes ↗

Update status
⬆ Available updates

Channel
stable-4.7 ✎

Update

4.7.13   4.7.41
──────●────(+ More)────○────▶ stable-4.7 channel
         ╲
          ╲──────────────────▶ stable-4.8 channel

```
[root@bastion ~]# oc get clusterversion
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.7.13    True        False         35m     Cluster version is 4.7.13
[root@bastion ~]# oc get clusterversion
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.7.13    True        True          28s     Working towards 4.7.41: 7 of 668 done (1% complete)
[root@bastion ~]#
```

```
[root@bastion ~]# oc get clusterversion
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.7.41    True        False         113m    Cluster version is 4.7.41
[root@bastion ~]#
```

```
[root@bastion ~]# oc get co
NAME                                          VERSION   AVAILABLE   PROGRESSING   DEGRADED   SINCE
authentication                                4.7.41    True        False         False      128m
baremetal                                     4.7.41    True        False         False      4h
cloud-credential                              4.7.41    True        False         False      4h4m
cluster-autoscaler                            4.7.41    True        False         False      3h59m
config-operator                               4.7.41    True        False         False      4h
console                                       4.7.41    True        False         False      130m
csi-snapshot-controller                       4.7.41    True        False         False      135m
dns                                           4.7.41    True        False         False      3h57m
etcd                                          4.7.41    True        False         False      3h58m
image-registry                                4.7.41    True        False         False      3h52m
ingress                                       4.7.41    True        False         False      3h53m
insights                                      4.7.41    True        False         False      3h53m
kube-apiserver                                4.7.41    True        False         False      3h56m
kube-controller-manager                       4.7.41    True        False         False      3h57m
kube-scheduler                                4.7.41    True        False         False      3h57m
kube-storage-version-migrator                 4.7.41    True        False         False      134m
machine-api                                   4.7.41    True        False         False      3h53m
machine-approver                              4.7.41    True        False         False      3h59m
machine-config                                4.7.41    True        False         False      126m
marketplace                                   4.7.41    True        False         False      130m
monitoring                                    4.7.41    True        False         False      129m
network                                       4.7.41    True        False         False      3h59m
node-tuning                                   4.7.41    True        False         False      158m
openshift-apiserver                           4.7.41    True        False         False      128m
openshift-controller-manager                  4.7.41    True        False         False      3h53m
openshift-samples                             4.7.41    True        False         False      158m
operator-lifecycle-manager                    4.7.41    True        False         False      3h59m
operator-lifecycle-manager-catalog            4.7.41    True        False         False      3h59m
operator-lifecycle-manager-packageserver      4.7.41    True        False         False      158m
service-ca                                    4.7.41    True        False         False      4h
storage                                       4.7.41    True        False         False      130m
```

Step 2: Set the Channel to stable-4.8 and Select version 4.8.27 to update to, and click Update

Set the **Channel** to **stable-4.8** .

Select version **4.8.27** to update to, and click **Update** .

```
[root@bastion ~]# oc get clusterversion
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.7.41    True        True          10m     Working towards 4.8.29: 95 of 681 done (13% complete)
[root@bastion ~]#
```

```
[root@bastion ~]# oc get clusterversion
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.8.29    True        False         78m     Cluster version is 4.8.29
[root@bastion ~]#
```
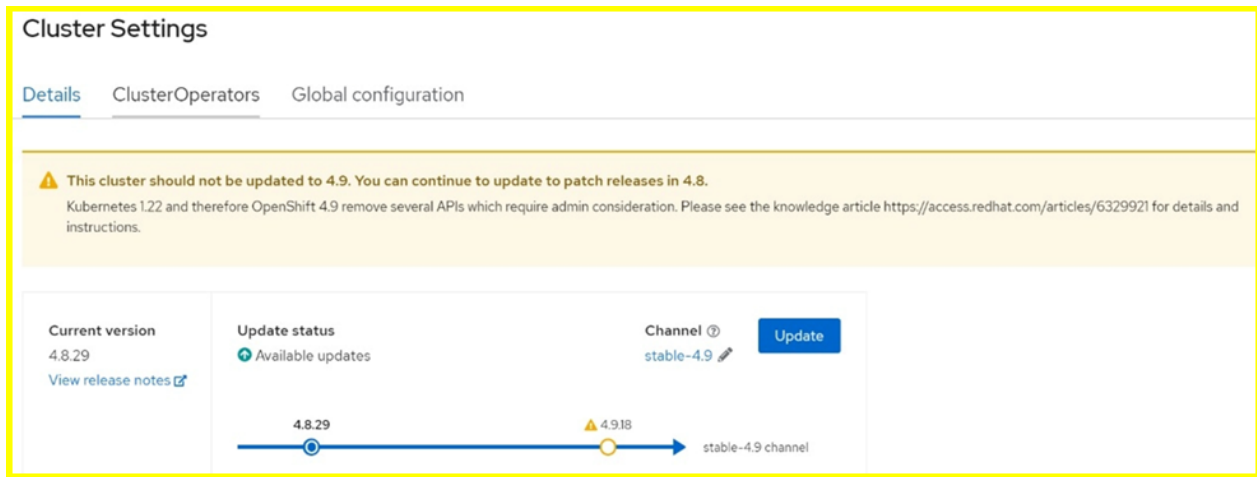
Step 3: Set the Channel to stable-4.9 and Select version 4.9.15 to update to, and click Update.

Set the **Channel** to **stable-4.9**.

Select version **4.9.15** to update to, and click **Update**.

<mark>While upgrading from 4.8 to 4.9 it displays a warning</mark>

Preparing to upgrade to OpenShift Container Platform 4.9

OpenShift Container Platform 4.9 uses Kubernetes 1.22, which removed a significant number of deprecated `v1beta1` APIs. OpenShift Container Platform 4.8.14 introduced a requirement that an administrator must provide a manual acknowledgment before the cluster can be upgraded from OpenShift Container Platform 4.8 to 4.9. This is to help prevent issues after upgrading to OpenShift Container Platform 4.9, where APIs that have been removed are still in use by workloads, tools, or other components running on or interacting with the cluster.

Important Notes: Please go through below article in order to upgrade to 4.9.

https://access.redhat.com/articles/6329921.

In Short, Here are some key point which needs to be checked before proceeding to upgrade to OCP 4.9.

Evaluating your cluster for removed APIs

There are several methods to help administrators identify where APIs that will be removed are in use. However, OpenShift Container Platform 4.8 introduced two new alerts that fire when an API is in use that will be removed in the next release:

- APIRemovedInNextReleaseInUse - for APIs that will be removed in the next OpenShift Container Platform release.
- APIRemovedInNextEUSReleaseInUse - for APIs that will be removed in the next OpenShift Container Platform Extended Update Support (EUS) release.

· You can use the APIRequestCount API to track API requests and review whether any of them are using one of the removed APIs.

```
$ oc get apirequestcounts
```

Example output:

```
NAME                                      REMOVEDINRELEASE   REQUESTSINCURRENTHOUR   REQUESTSINLAST24H
cloudcredentials.v1.operator.openshift.io                    32                      111
ingresses.v1.networking.k8s.io                               28                      110
ingresses.v1beta1.extensions              1.22               16                      66
ingresses.v1beta1.networking.k8s.io       1.22               0                       1
installplans.v1alpha1.operators.coreos.com                   93                      167
```

Providing the administrator acknowledgement

After you have evaluated your cluster for any removed APIs and have migrated any removed APIs, you can acknowledge that your cluster is ready to upgrade to OpenShift Container Platform 4.9.

WARNING: Be aware that all responsibility falls on the administrator to ensure that all uses of removed APIs have been resolved and migrated as necessary before providing this administrator acknowledgment.

To acknowledge that you have completed the evaluation and your cluster is ready to upgrade to OpenShift Container Platform 4.9, run the following command:

```
[root@bastion ~]# oc -n openshift-config patch cm admin-acks --patch '{"data":{"ack-4.8-kube-1.22-api-removals-in-4.9":"true"}}' --type=merge
configmap/admin-acks patched
```

Once this has been acknowledged, you would be able to see available updates and could proceed with the upgrade from OCP 4.8 to OCP 4.9.

Cluster Settings

Details ClusterOperators Global configuration

Current version
4.8.29
View release notes ☒

Update status
⬆ Available updates

Channel ⓘ
stable-4.9 ✎

[Update]

4.8.29 ——●—————————————————○——————➤ stable-4.9 channel
                                    4.9.18

```
[root@bastion ~]# oc get clusterversions.config.openshift.io
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.8.29    True        True          114m    Working towards 4.9.18: 577 of 738 done (78% complete)
[root@bastion ~]# oc get clusterversions.config.openshift.io
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.8.29    True        True          114m    Working towards 4.9.18: 577 of 738 done (78% complete)
```

```
[root@bastion ~]# oc get clusterversions.config.openshift.io
NAME      VERSION   AVAILABLE   PROGRESSING   SINCE   STATUS
version   4.9.18    True        False         43m     Cluster version is 4.9.18
[root@bastion ~]#
```

```
[root@bastion ~]# oc get co
NAME                                         VERSION   AVAILABLE   PROGRESSING   DEGRADED   SINCE   MESSA
authentication                               4.9.18    True        False         False      19m
baremetal                                    4.9.18    True        False         False      9d
cloud-controller-manager                     4.9.18    True        False         False      28h
cloud-credential                             4.9.18    True        False         False      9d
cluster-autoscaler                           4.9.18    True        False         False      9d
config-operator                              4.9.18    True        False         False      9d
console                                      4.9.18    True        False         False      28h
csi-snapshot-controller                      4.9.18    True        False         False      2d11h
dns                                          4.9.18    True        False         False      3d1h
etcd                                         4.9.18    True        False         False      9d
image-registry                               4.9.18    True        False         False      3d1h
ingress                                      4.9.18    True        False         False      27h
insights                                     4.9.18    True        False         False      9d
kube-apiserver                               4.9.18    True        False         False      9d
kube-controller-manager                      4.9.18    True        False         False      9d
kube-scheduler                               4.9.18    True        False         False      9d
kube-storage-version-migrator                4.9.18    True        False         False      27h
machine-api                                  4.9.18    True        False         False      9d
machine-approver                             4.9.18    True        False         False      9d
machine-config                               4.9.18    True        False         False      26h
marketplace                                  4.9.18    True        False         False      9d
monitoring                                   4.9.18    True        False         False      9d
network                                      4.9.18    True        False         False      9d
node-tuning                                  4.9.18    True        False         False      27h
openshift-apiserver                          4.9.18    True        False         False      29h
openshift-controller-manager                 4.9.18    True        False         False      2d17h
openshift-samples                            4.9.18    True        False         False      28h
operator-lifecycle-manager                   4.9.18    True        False         False      9d
operator-lifecycle-manager-catalog           4.9.18    True        False         False      9d
operator-lifecycle-manager-packageserver     4.9.18    True        False         False      28h
service-ca                                   4.9.18    True        False         False      9d
storage                                      4.9.18    True        False         False      9d
[root@bastion ~]#
```

Note: This upgrading OCP 4.8 to 4.9 performed on the test environment.

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