Administration Introduction & Lifecycle

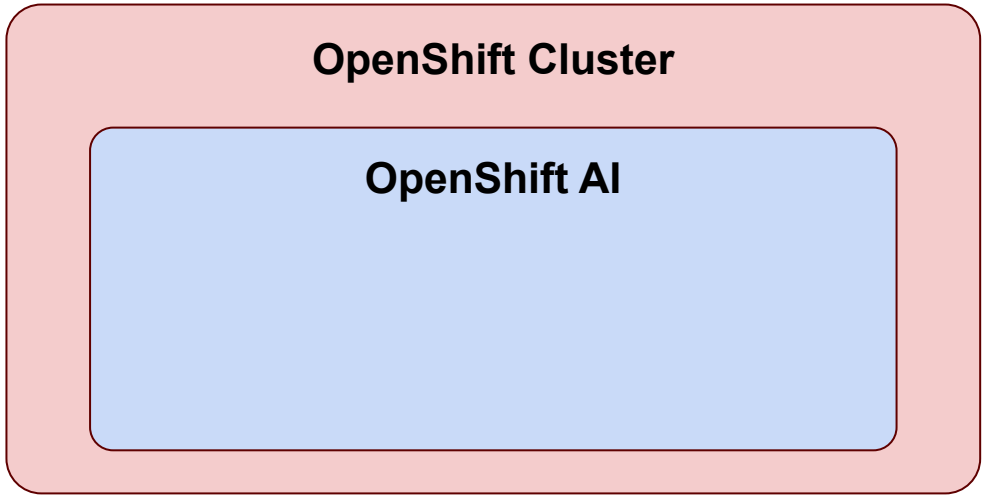
RHOAI Administration Introduction

- RHOAI flavors
- Integrations
- Components and dependencies
- Common patterns
- Install
- Update
- Lifecycle
- Uninstall

Mental Models for OpenShift AI

Red Hat

OpenShift and OpenShift AI

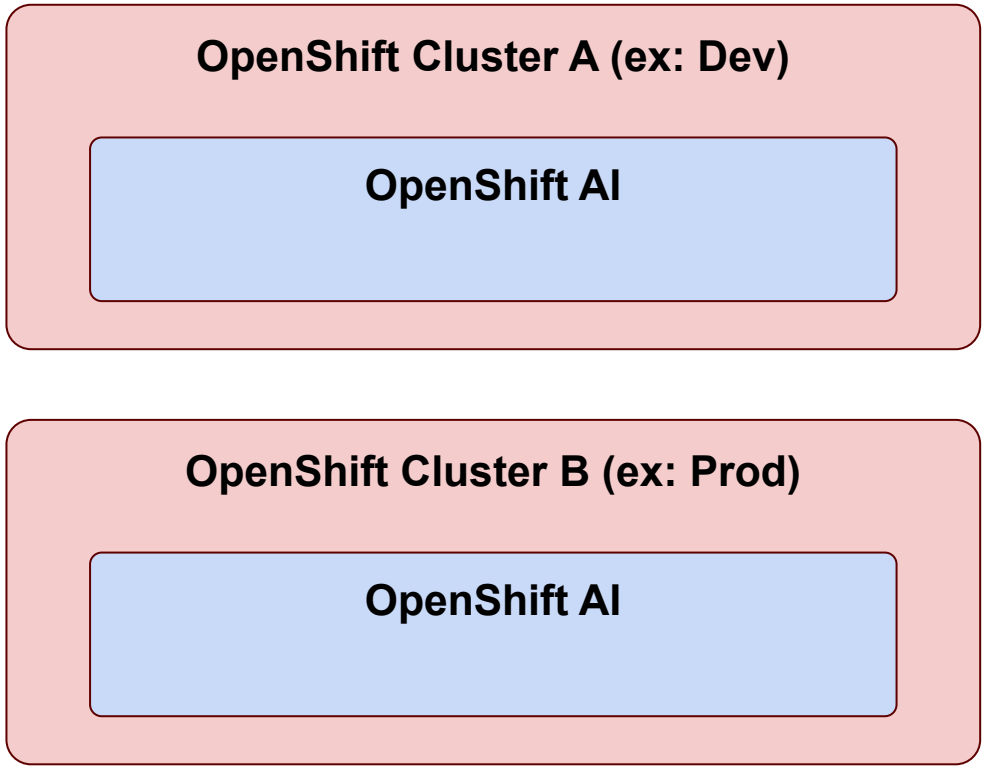


OpenShift is Red Hat's implementation of Kubernetes, along with developments tools and specific features.

OpenShift AI is a set of AI/ML tools and applications deployed into an OpenShift cluster.

There can be only **one instance** of OpenShift AI in a given OpenShift cluster.

Multiple clusters

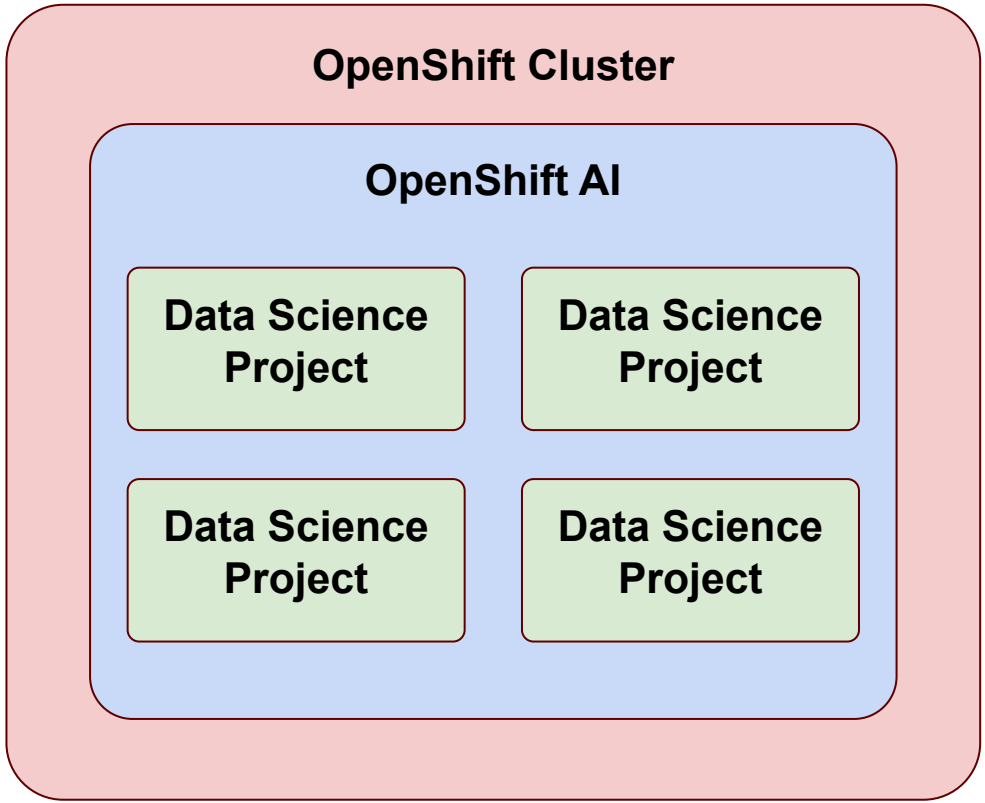


Different instances of **OpenShift AI** deployed in different OpenShift clusters are totally independent.

They have their own settings, workspaces, applications,...

Applications can still communicate through Routes exposed outside of their respective OpenShift clusters.

Data Science Projects



In OpenShift AI, you can have multiple **Data Science Projects (DSP)**.

A **DSP** can be created by administrators, or directly by users if they are allowed to.

Each DSP is **isolated** from the others. Only user with **access privileges** can see what is inside a DSP (applications, data,...).

You can **grant access** to other **users** and **groups** to your DSP.

Flavors of OpenShift AI

Red Hat

Red Hat OpenShift AI

available as **self-managed platform** or **fully managed cloud service**

OpenShift AI runs wherever OpenShift runs

Supported deployment options		
Options available	**Self-managed RHOAI**	**Cloud Service RHOAI**
Bare metal	✓	
Virtual	✓	
Private cloud	✓	
Red Hat OpenShift on AWS (ROSA)	✓	✓
Azure Red Hat OpenShift (ARO)	✓	(future)
IBM Cloud	✓	
OSD/Google Cloud Platform (GCP)	✓	✓
Edge	(future)	

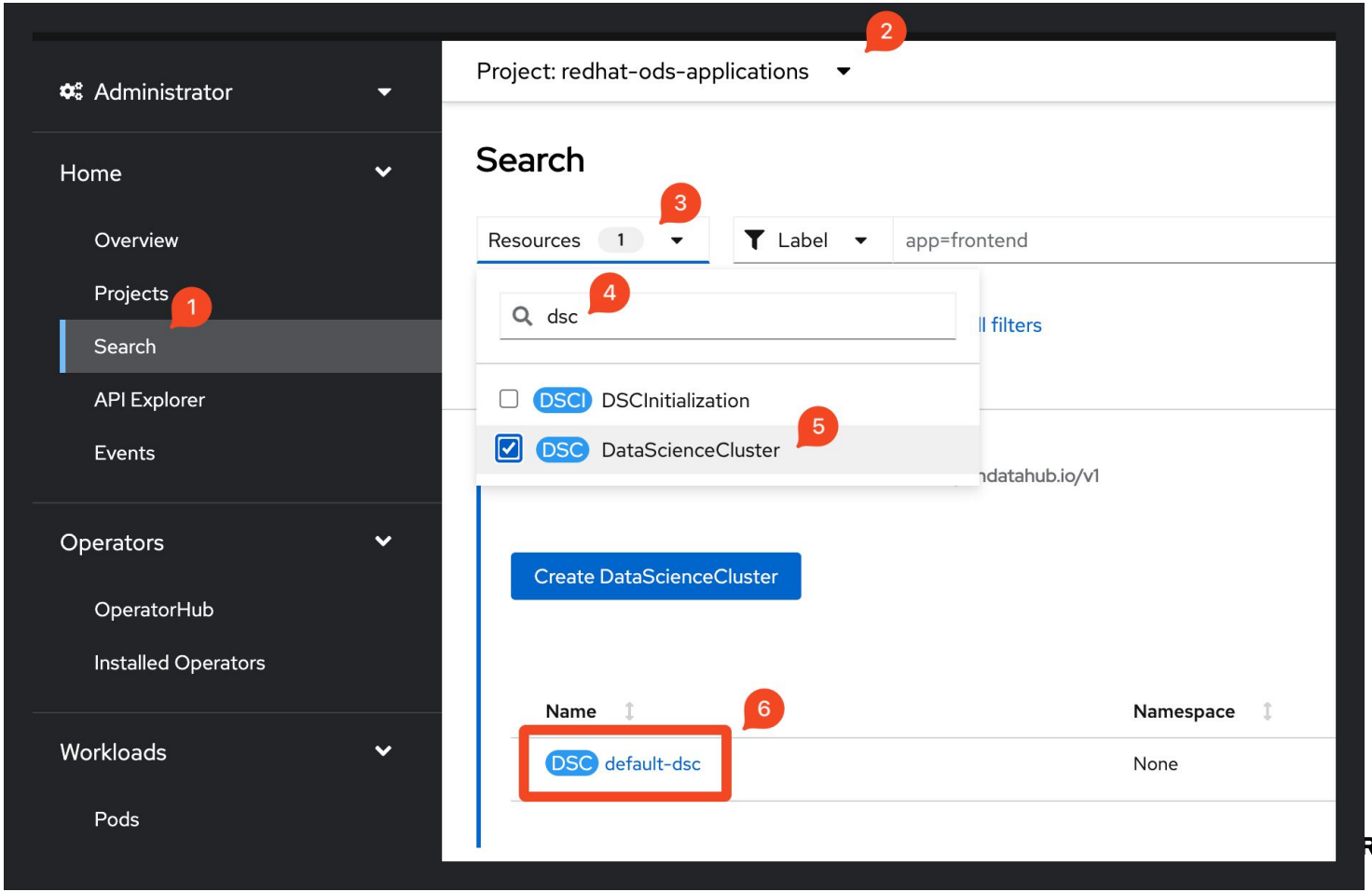
Self-Managed OpenShift AI - Disconnected Support

- The self-managed version of OpenShift AI can also be deployed in "disconnected" clusters
  - Disconnected clusters are clusters configure to have no direct access to the internet.
- Disconnected cluster require more effort to manage and maintain than connected clusters
  - All images and artifacts have to be "mirrored" in a location the cluster can access
- for more information:
  - Product Documentation for Red Hat OpenShift AI Self-Managed 2.7
  - Installing and uninstalling OpenShift AI Self-Managed in a disconnected environment

Discrete Components of OpenShift AI

Red Hat

- OpenShift AI is made up of discrete components that can be turned on and off. For example:
  - Dashboard
  - Workbenches
  - Pipelines
  - Single-Model Serving
- Shutting down a component can save some resources, but makes it unavailable to the users.
- List of components will vary over time


Administrator
Home
Overview
Projects
Search
API Explorer
Events
Operators
OperatorHub
Installed Operators
Workloads
Pods
Project: redhat-ods-applications
Search
Resources 1
Label
app=frontend
dsc
DSCI DSCInitialization
DSC DataScienceCluster
Create DataScienceCluster
Name
Namespace
DSC default-dsc
None
1
2
3
4
5
6

DataScienceClusters > DataScienceCluster details

DSC **default-dsc** Ready

Details YAML

```yaml
apiVersion: datasciencecluster.opendatahub.io/v1
kind: DataScienceCluster
metadata: …
spec:
  components:
    codeflare:
      managementState: Managed
    dashboard:
      managementState: Managed
    datasciencepipelines:
      managementState: Managed
    kserve:
      managementState: Managed
      serving:
        ingressGateway:
          certificate:
            type: SelfSigned
        managementState: Managed
        name: knative-serving
    modelmeshserving:
      managementState: Managed
    ray:
      managementState: Managed
    trustyai:
      managementState: Removed
    workbenches:
      managementState: Managed
status: …
```

Save Reload Cancel

- Each component can be "Managed" or "Removed"

```yaml
apiVersion: datasciencecluster.opendatahub.io/v1
kind:
metada
spec:
  comp
    co
    dashboard:
```

Set to one of the following values:
- "Managed" : the operator is actively managing the component and trying to keep it active. It will only upgrade the component if it is safe to do so
- "Removed" : the operator is actively managing the component and will not install it, or if it is installed, the operator will try to remove it

Red Hat

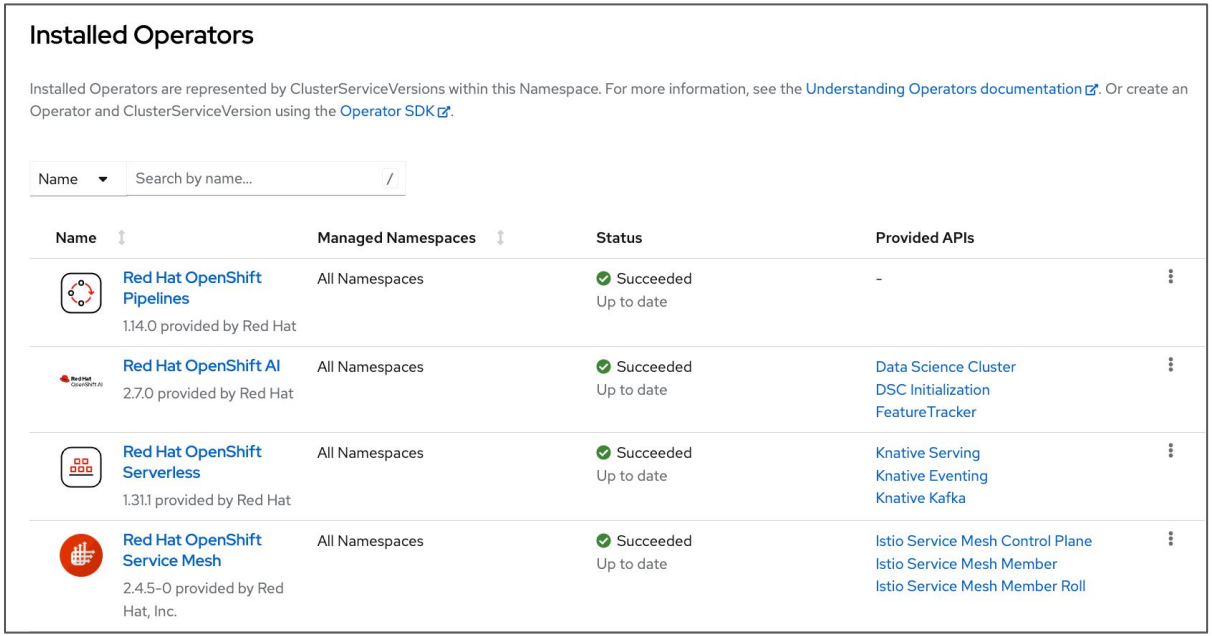
- All GA-level components will be installed and deployed by default
- All components can be removed or enabled at any point in time
- Some components are more critical than others
  - Dashboard/Workbenches
- This can be useful to reduce footprint in production. For example:
  - Single-Model Serving as the only enabled component
  - No UI
  - 100% gitops-controlled.

Operator-related Dependencies

Dependencies (Other Operators)

- Some components of OpenShift AI rely on other Operators being deployed in the cluster

Install Dependencies



Installed Operators

Installed Operators are represented by ClusterServiceVersions within this Namespace. For more information, see the Understanding Operators documentation. Or create an Operator and ClusterServiceVersion using the Operator SDK.

Name | Search by name... /

Name	Managed Namespaces	Status	Provided APIs
Red Hat OpenShift Pipelines 1.14.0 provided by Red Hat	All Namespaces	Succeeded Up to date	-
Red Hat OpenShift AI 2.7.0 provided by Red Hat	All Namespaces	Succeeded Up to date	Data Science Cluster DSC Initialization FeatureTracker
Red Hat OpenShift Serverless 1.31.1 provided by Red Hat	All Namespaces	Succeeded Up to date	Knative Serving Knative Eventing Knative Kafka
Red Hat OpenShift Service Mesh 2.4.5-0 provided by Red Hat, Inc.	All Namespaces	Succeeded Up to date	Istio Service Mesh Control Plane Istio Service Mesh Member Istio Service Mesh Member Roll

for DS Pipelines

for Single-Model model serving (kserve)

Red Hat

Install Dependencies

Name	Namespace	Managed Namespaces	Status	Provided APIs
NVIDIA GPU Operator 23.9.1 provided by NVIDIA Corporation	NS nvidia-gpu-operator	NS nvidia-gpu-operator	Succeeded Up to date	ClusterPolicy NVIDIADriver
Node Feature Discovery Operator 4.14.0-202402081809 provided by Red Hat	NS openshift-nfd	NS openshift-nfd	Succeeded Up to date	NodeFeatureDiscovery NodeFeatureRule

for GPUs.
(workbenches,
serving, pipelines)

Red Hat

Other Dependencies

- Storage classes:
  - Cluster requires a default Storage class
  - With ability to create Persistent Volume Claims (PVCs)
    - Can be Read-Write-Once (RWO), or Read-Write-Many (RWX)
- Object Storage
  - Model Serving and Data Science Pipelines require s3-compatible object storage
  - Model Serving pulls models from object storage (read only)
  - DS Pipelines stores artifacts and intermediary steps in object storage (read and write)

Life Cycle

Check this link

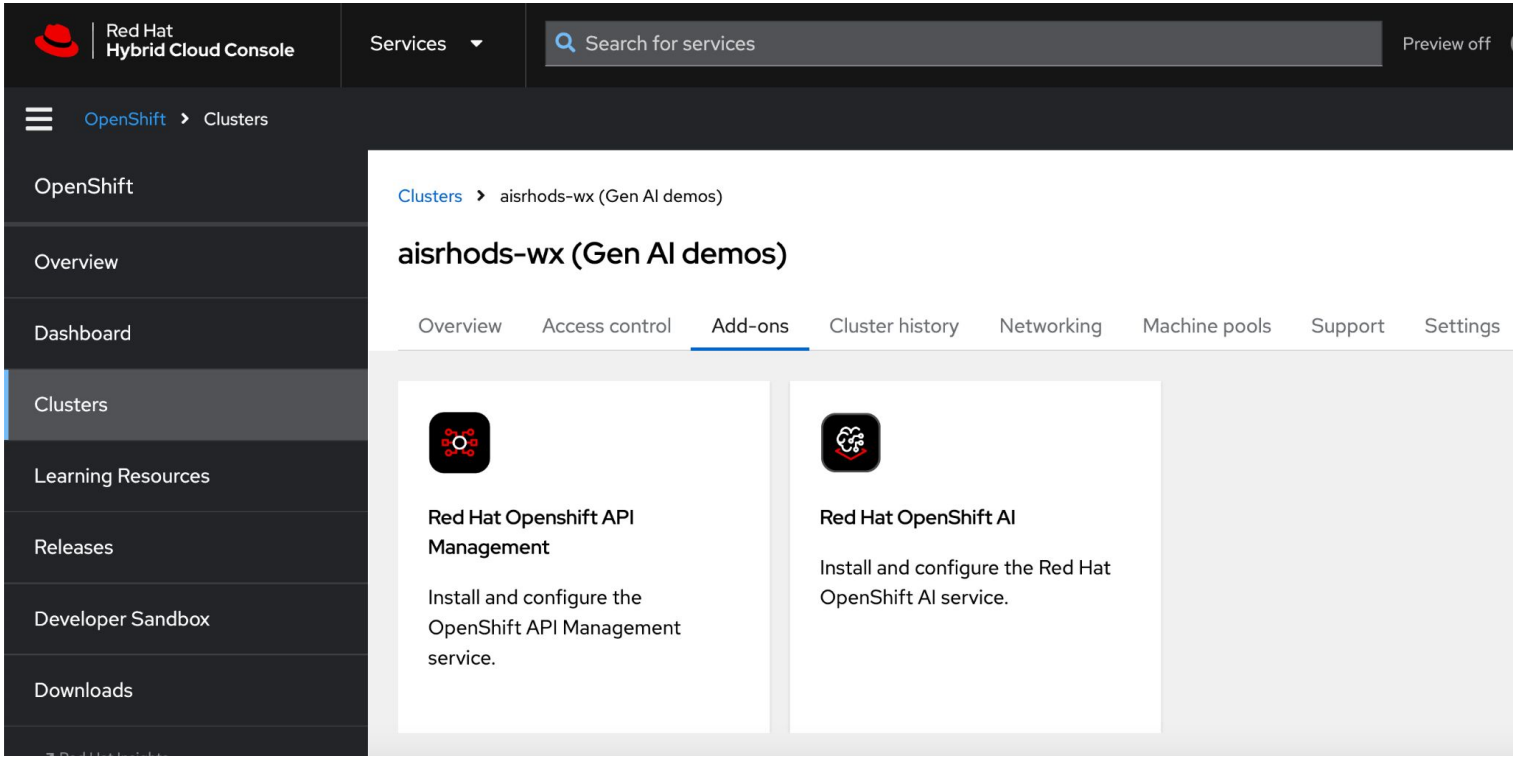
Red Hat

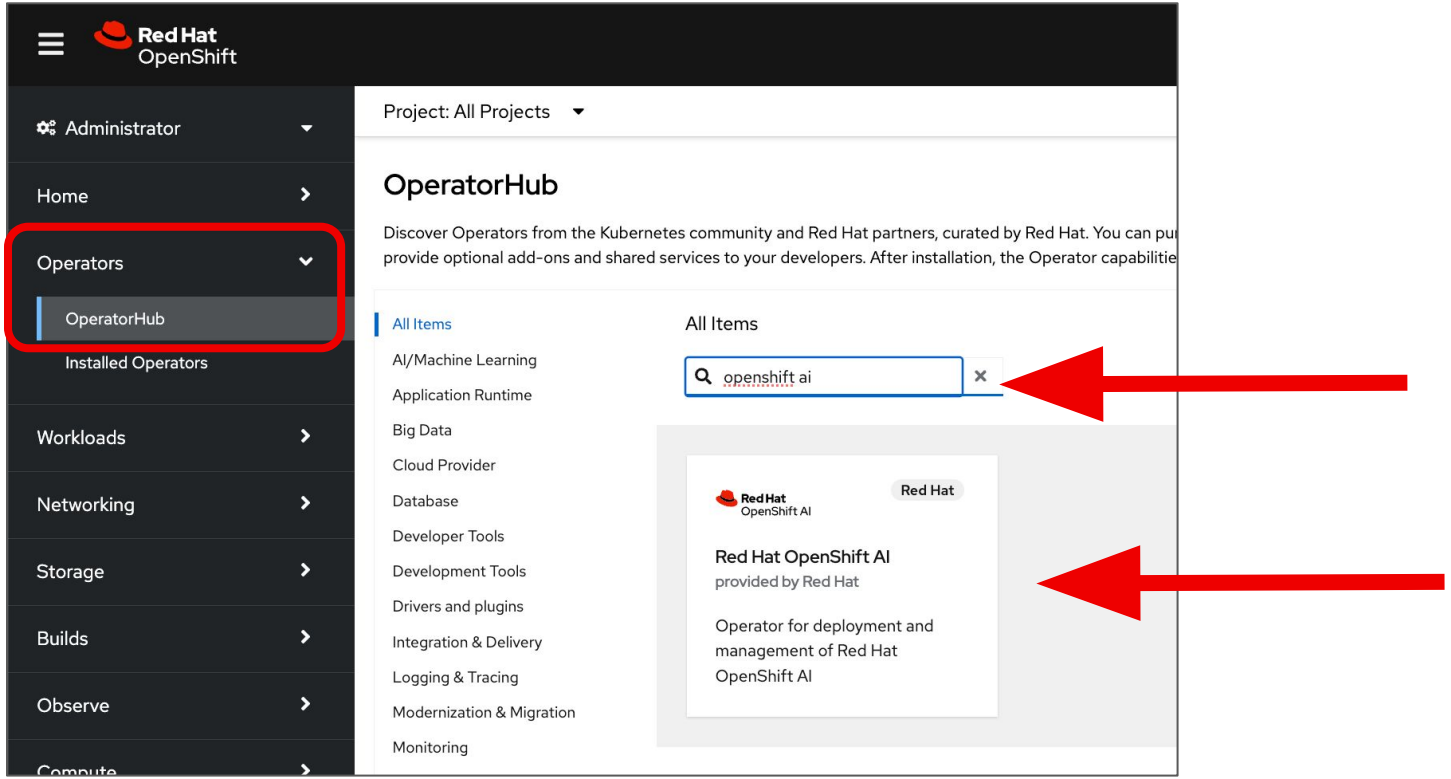
OpenShift AI: Installation

Red Hat

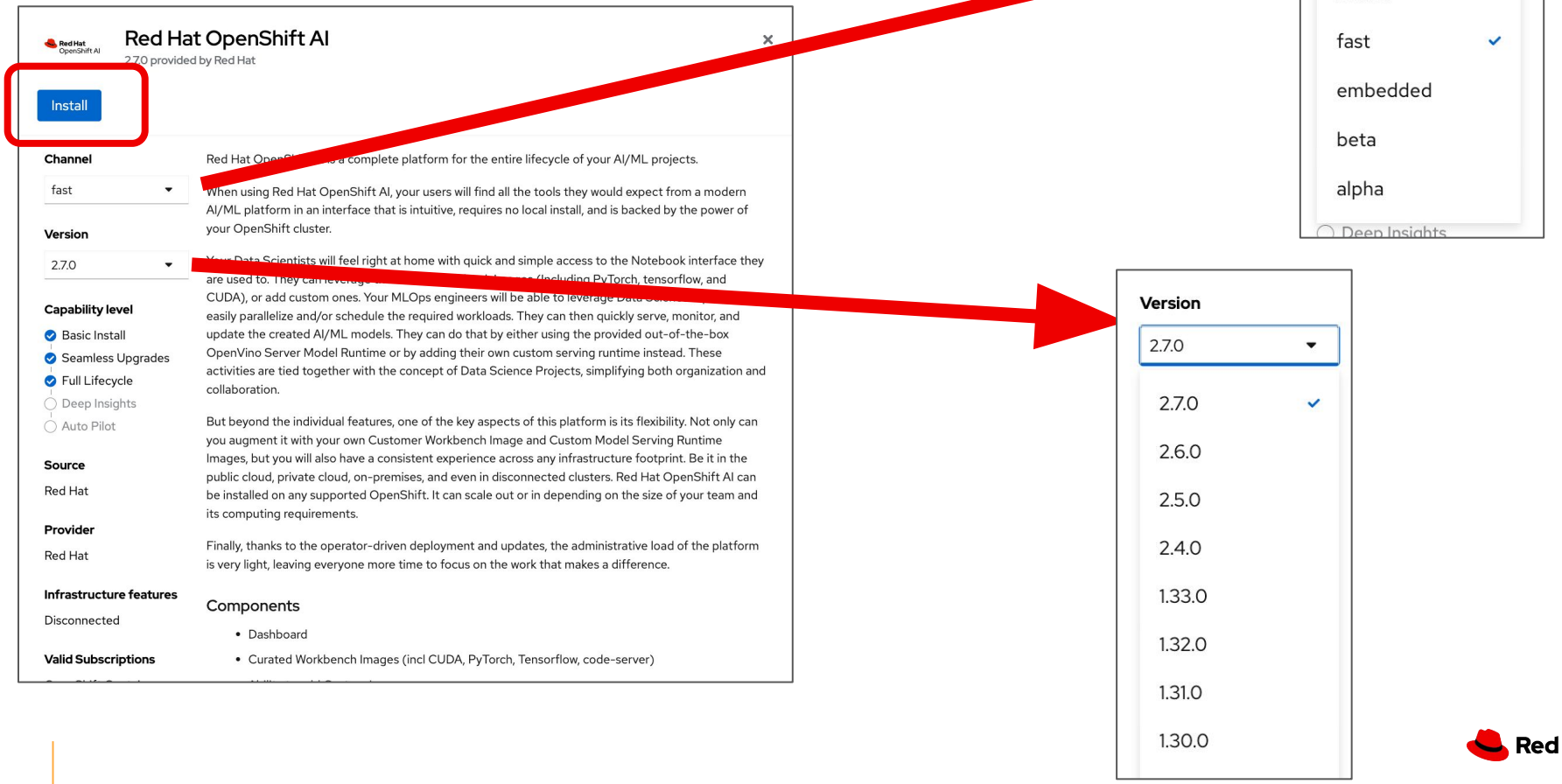
Installation

- Self-Managed:
  - Installed from Operator Hub
  - Install the Operator First
    - choose channels and upgrade mechanisms
  - Deploy DSC (and choose components).
- Managed (Cloud Service)
  - Add-on Install from the Managed Cloud Console


Red Hat
Hybrid Cloud Console
Services
Search for services
Preview off
OpenShift
Clusters
OpenShift
Overview
Dashboard
Clusters
Learning Resources
Releases
Developer Sandbox
Downloads
Clusters
aisrhods-wx (Gen AI demos)
aisrhods-wx (Gen AI demos)
Overview
Access control
Add-ons
Cluster history
Networking
Machine pools
Support
Settings
Red Hat Openshift API Management
Install and configure the OpenShift API Management service.
Red Hat OpenShift AI
Install and configure the Red Hat OpenShift AI service.


Red Hat OpenShift
Administrator
Home
Operators
OperatorHub
Installed Operators
Workloads
Networking
Storage
Builds
Observe
Compute
Project: All Projects
OperatorHub
Discover Operators from the Kubernetes community and Red Hat partners, curated by Red Hat. You can pu
provide optional add-ons and shared services to your developers. After installation, the Operator capabilitie
All Items
AI/Machine Learning
Application Runtime
Big Data
Cloud Provider
Database
Developer Tools
Development Tools
Drivers and plugins
Integration & Delivery
Logging & Tracing
Modernization & Migration
Monitoring
All Items
openshift ai
Red Hat
Red Hat OpenShift AI
Red Hat OpenShift AI
provided by Red Hat
Operator for deployment and management of Red Hat OpenShift AI

Red Hat


Red Hat OpenShift AI
2.7.0 provided by Red Hat
Install
Channel
fast
Version
2.7.0
Capability level
Basic Install
Seamless Upgrades
Full Lifecycle
Deep Insights
Auto Pilot
Source
Red Hat
Provider
Red Hat
Infrastructure features
Disconnected
Valid Subscriptions
Red Hat OpenShift AI is a complete platform for the entire lifecycle of your AI/ML projects.
When using Red Hat OpenShift AI, your users will find all the tools they would expect from a modern AI/ML platform in an interface that is intuitive, requires no local install, and is backed by the power of your OpenShift cluster.
Your Data Scientists will feel right at home with quick and simple access to the Notebook interface they are used to. They can leverage (including PyTorch, tensorflow, and CUDA), or add custom ones. Your MLOps engineers will be able to leverage Data Science Pipelines to easily parallelize and/or schedule the required workloads. They can then quickly serve, monitor, and update the created AI/ML models. They can do that by either using the provided out-of-the-box OpenVino Server Model Runtime or by adding their own custom serving runtime instead. These activities are tied together with the concept of Data Science Projects, simplifying both organization and collaboration.
But beyond the individual features, one of the key aspects of this platform is its flexibility. Not only can you augment it with your own Customer Workbench Image and Custom Model Serving Runtime Images, but you will also have a consistent experience across any infrastructure footprint. Be it in the public cloud, private cloud, on-premises, and even in disconnected clusters. Red Hat OpenShift AI can be installed on any supported OpenShift. It can scale out or in depending on the size of your team and its computing requirements.
Finally, thanks to the operator-driven deployment and updates, the administrative load of the platform is very light, leaving everyone more time to focus on the work that makes a difference.
Components
Dashboard
Curated Workbench Images (incl CUDA, PyTorch, Tensorflow, code-server)
Channel
fast
stable
fast
embedded
beta
alpha
Deep Insights
Version
2.7.0
2.7.0
2.6.0
2.5.0
2.4.0
1.33.0
1.32.0
1.31.0
1.30.0

OperatorHub > Operator Installation

Install Operator

Install your Operator by subscribing to one of the update channels to keep the Operator up to date. The strategy determines either manual or automatic updates.

Update channel *

stable

Version *

2.6.0

Installation mode *

- (•) All namespaces on the cluster (default)
  Operator will be available in all Namespaces.
- ( ) A specific namespace on the cluster
  This mode is not supported by this Operator

Installed Namespace *

- (•) Operator recommended Namespace: PR **redhat-ods-operator**
- ( ) Select a Namespace

Namespace creation

Namespace **redhat-ods-operator** does not exist and will be created.

Update approval *

- (•) Automatic
- ( ) Manual

Red Hat OpenShift AI

provided by Red Hat

Provided APIs

DSC Data Science Cluster — Required

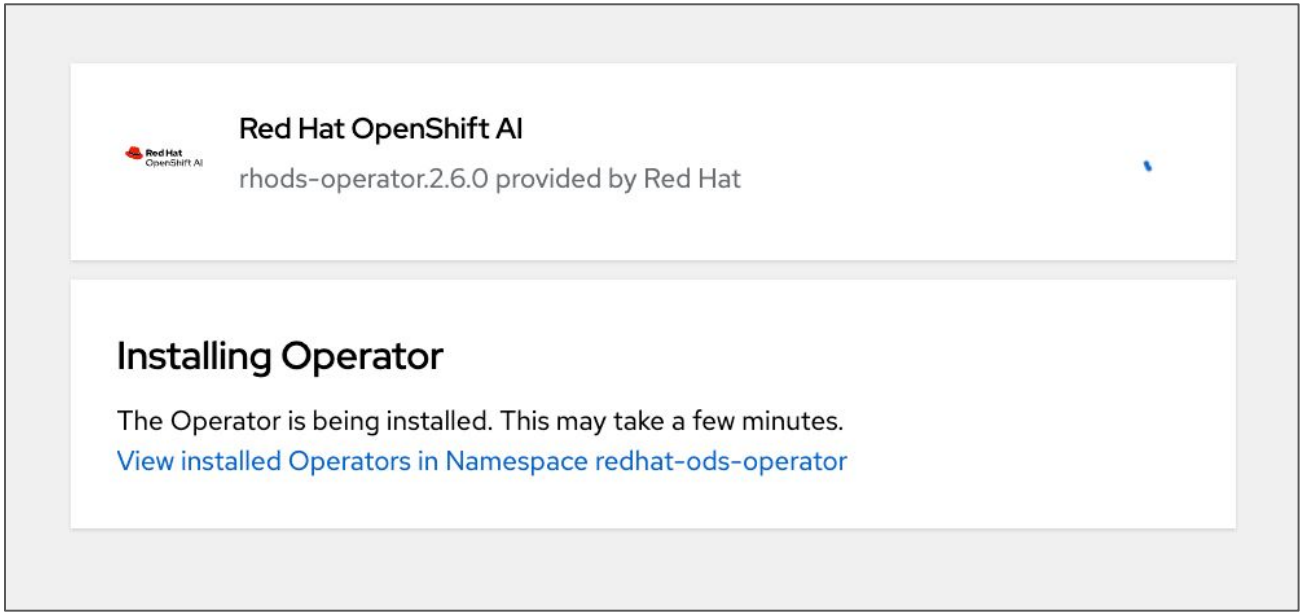
DataScienceCluster is the Schema for the datascienceclusters API.

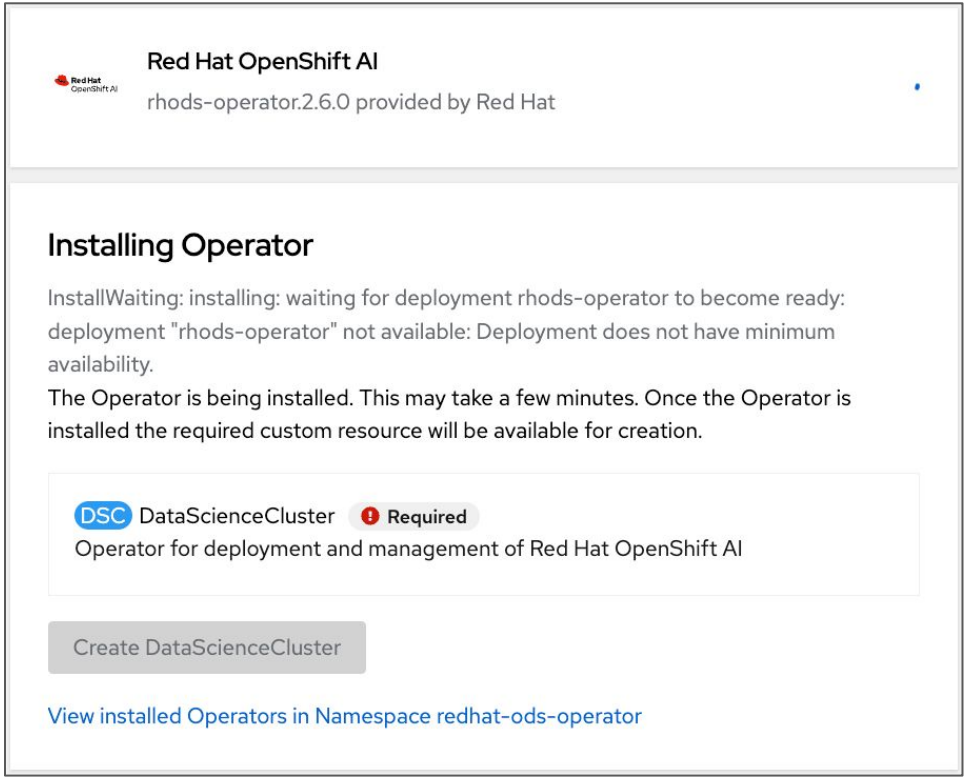
DSCI DSC Initialization

DSCInitialization is the Schema for the dscinitializations API.

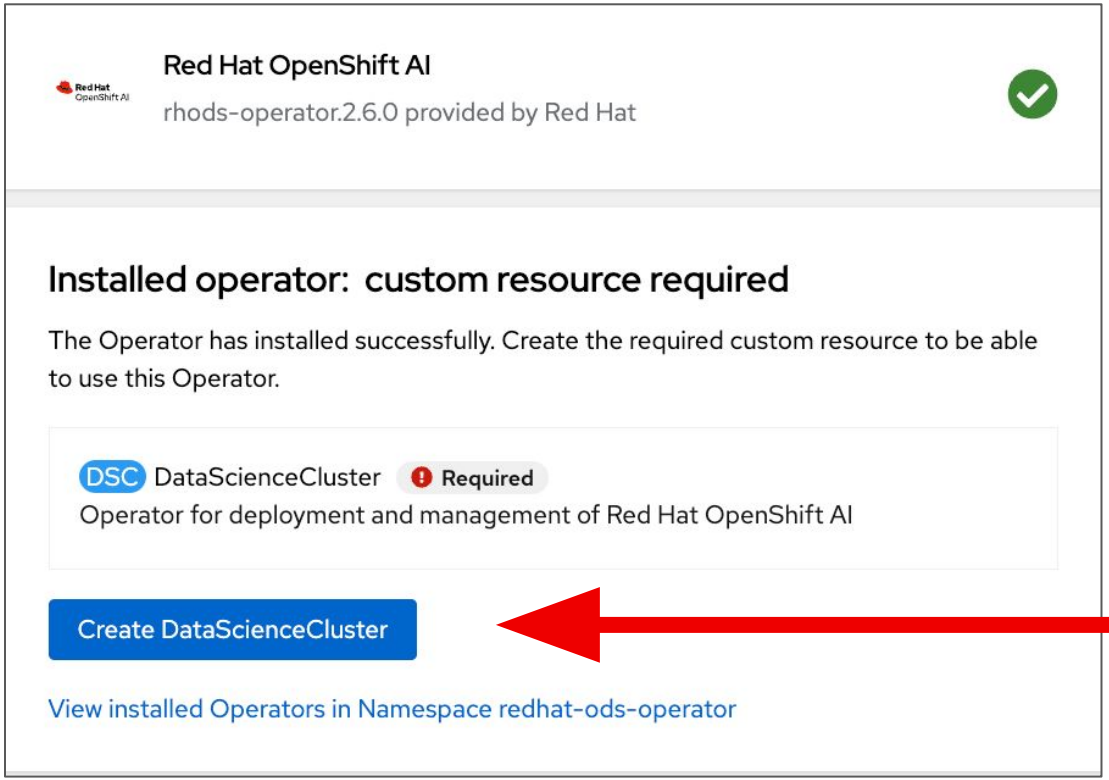
FT FeatureTracker

Not available

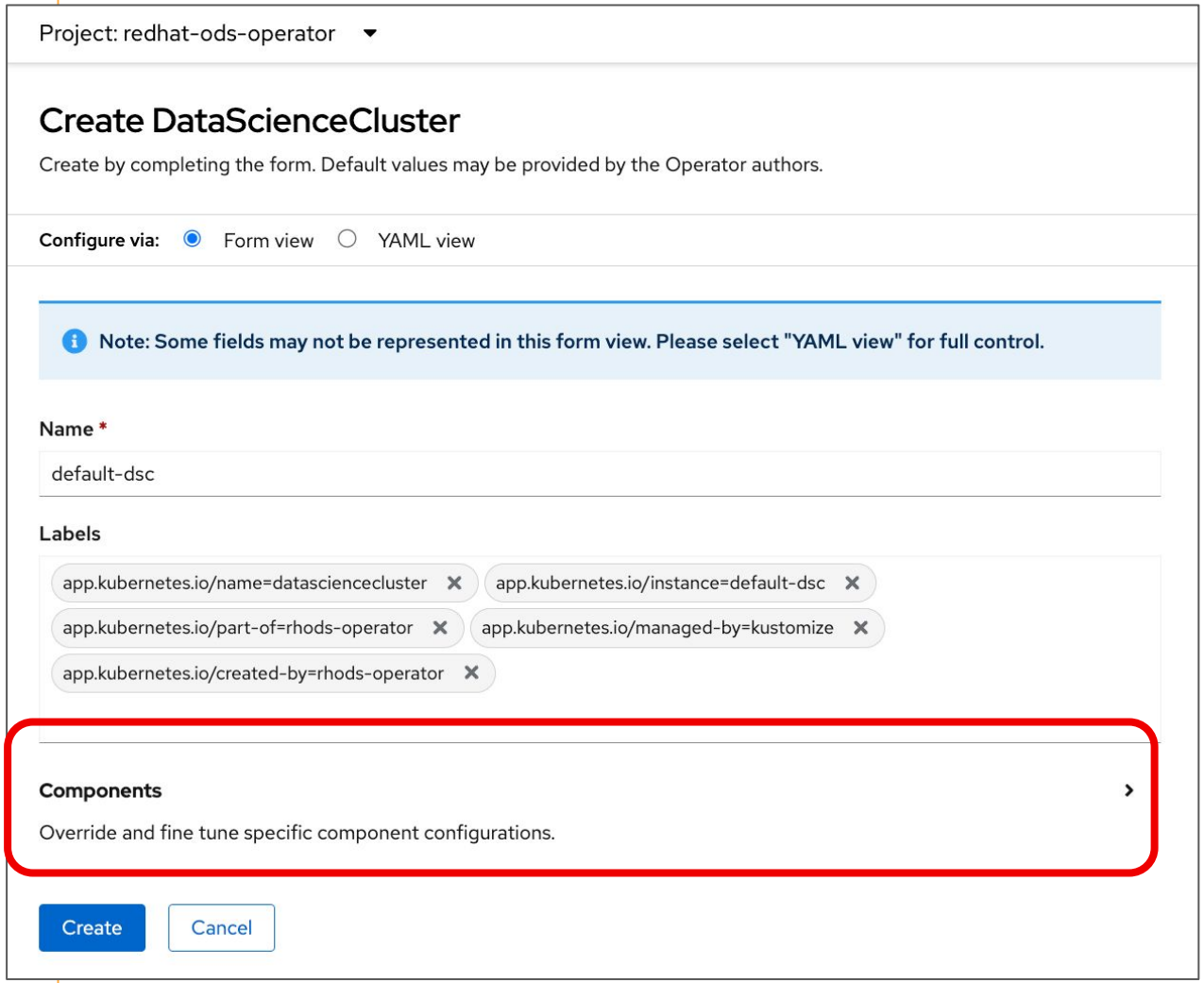

Red Hat OpenShift AI
rhods-operator.2.6.0 provided by Red Hat
Installing Operator
The Operator is being installed. This may take a few minutes.
View installed Operators in Namespace redhat-ods-operator


Red Hat OpenShift AI
rhods-operator.2.6.0 provided by Red Hat
Installing Operator
InstallWaiting: installing: waiting for deployment rhods-operator to become ready: deployment "rhods-operator" not available: Deployment does not have minimum availability.
The Operator is being installed. This may take a few minutes. Once the Operator is installed the required custom resource will be available for creation.
DSC DataScienceCluster
Required
Operator for deployment and management of Red Hat OpenShift AI
Create DataScienceCluster
View installed Operators in Namespace redhat-ods-operator

Red Hat


Red Hat OpenShift AI
rhods-operator.2.6.0 provided by Red Hat
Installed operator: custom resource required
The Operator has installed successfully. Create the required custom resource to be able to use this Operator.
DSC DataScienceCluster
Required
Operator for deployment and management of Red Hat OpenShift AI
Create DataScienceCluster
View installed Operators in Namespace redhat-ods-operator

Red Hat


Project: redhat-ods-operator
Create DataScienceCluster
Create by completing the form. Default values may be provided by the Operator authors.
Configure via:
Form view
YAML view
Note: Some fields may not be represented in this form view. Please select "YAML view" for full control.
Name *
default-dsc
Labels
app.kubernetes.io/name=datasciencecluster
app.kubernetes.io/instance=default-dsc
app.kubernetes.io/part-of=rhods-operator
app.kubernetes.io/managed-by=kustomize
app.kubernetes.io/created-by=rhods-operator
Components
Override and fine tune specific component configurations.
Create
Cancel

Red Hat

Components

Override and fine tune specific component configurations.

codeflare

CodeFlare component configuration. If CodeFlare Operator has been installed in the cluster, it should be uninstalled first before enabled component.

dashboard

Dashboard component configuration.

datasciencepipelines

DataServicePipeline component configuration. Require OpenShift Pipelines Operator to be installed before enable component

kserve

Kserve component configuration. Require OpenShift Serverless and OpenShift Service Mesh Operators to be installed before enable component Does not support enabled ModelMeshServing at the same time

modelmeshserving

ModelMeshServing component configuration. Does not support enabled Kserve at the same time

ray

Ray component configuration.

trustyai

TrustyAI component configuration.

workbenches

Workbenches component configuration.

Create DataScienceCluster

Create by manually entering YAML or JSON definitions, or by dragging and dropp

Configure via: ○ Form view ◉ YAML view

⌥ Opt +

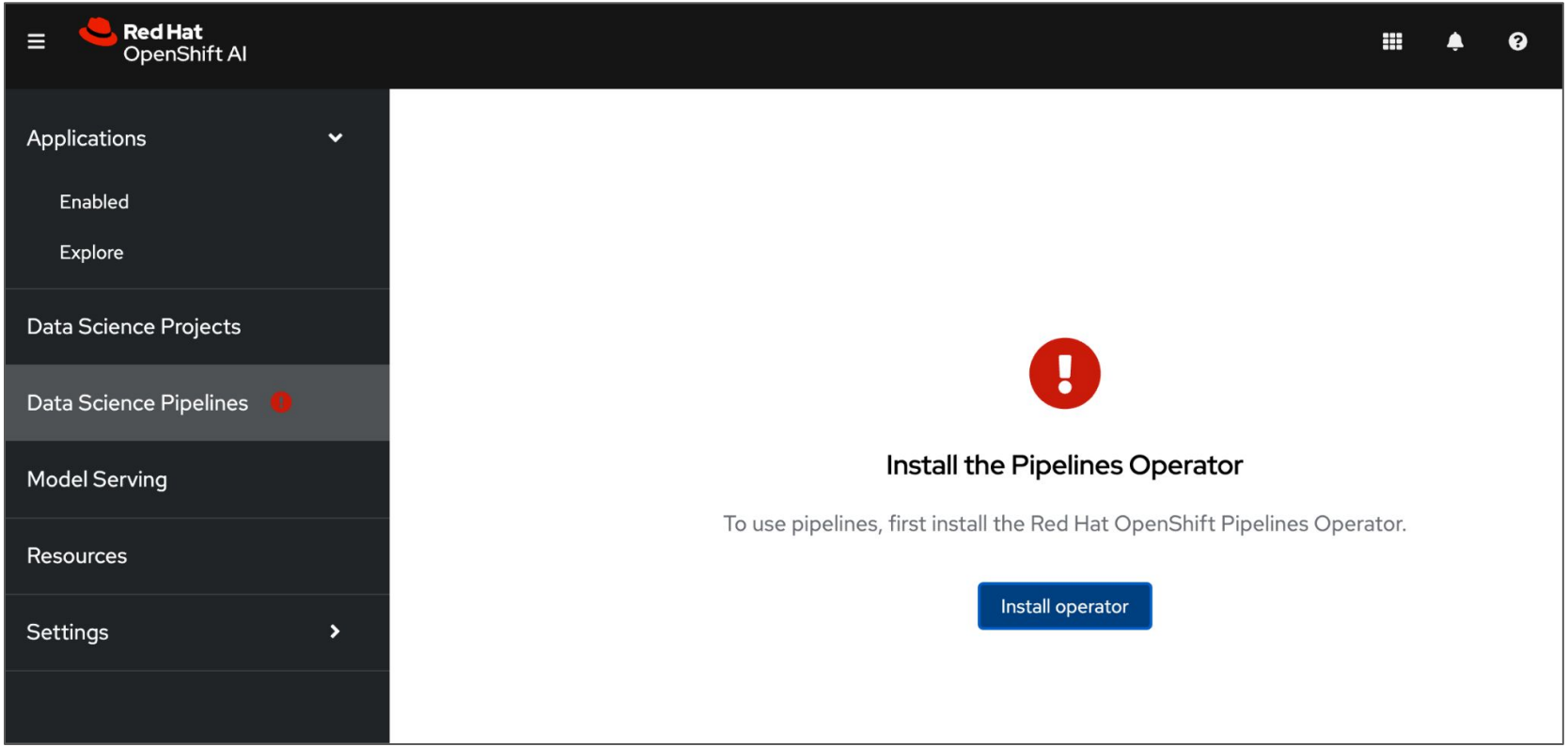
```yaml
  labels:
    app.kubernetes.io/name: datasciencecluster
    app.kubernetes.io/instance: default-dsc
    app.kubernetes.io/part-of: rhods-operator
    app.kubernetes.io/managed-by: kustomize
    app.kubernetes.io/created-by: rhods-operator
spec:
  components:
    codeflare:
      managementState: Managed
    dashboard:
      managementState: Managed
    datasciencepipelines:
      managementState: Managed
    kserve:
      serving:
        ingressGateway:
          certificate:
            type: SelfSigned
        managementState: Managed
        name: knative-serving
      managementState: Managed
    modelmeshserving:
      managementState: Managed
    ray:
      managementState: Managed
```

Create Cancel

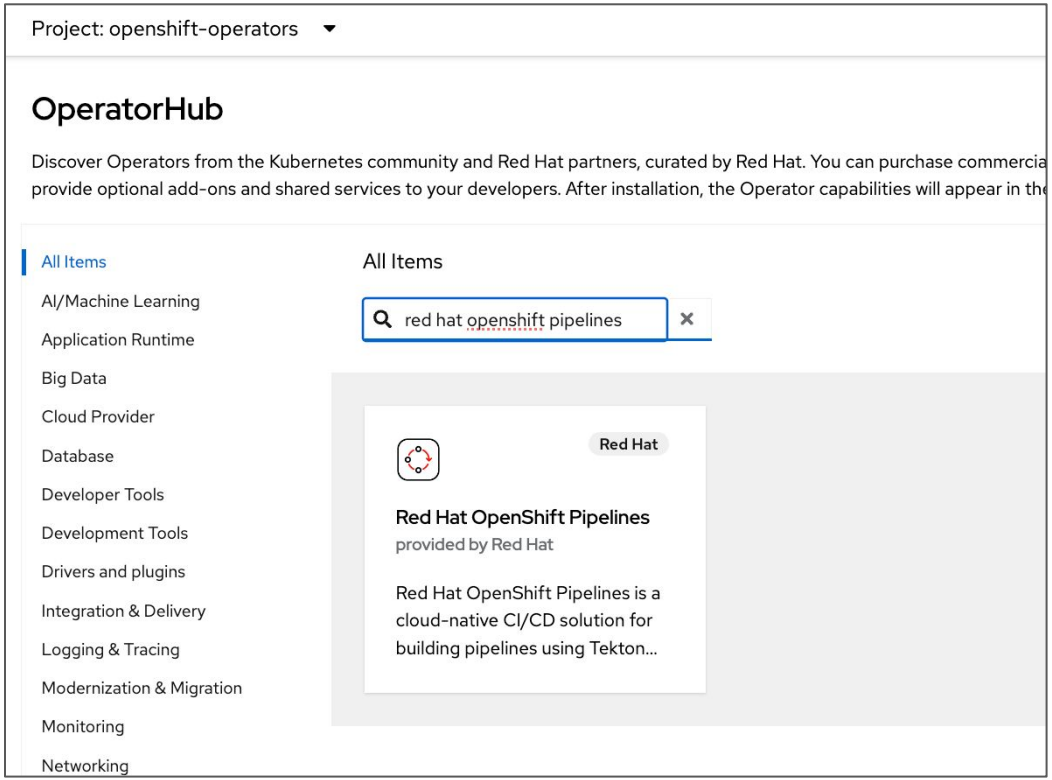
Red Hat

OpenShift AI: Pipelines Operator Dependency

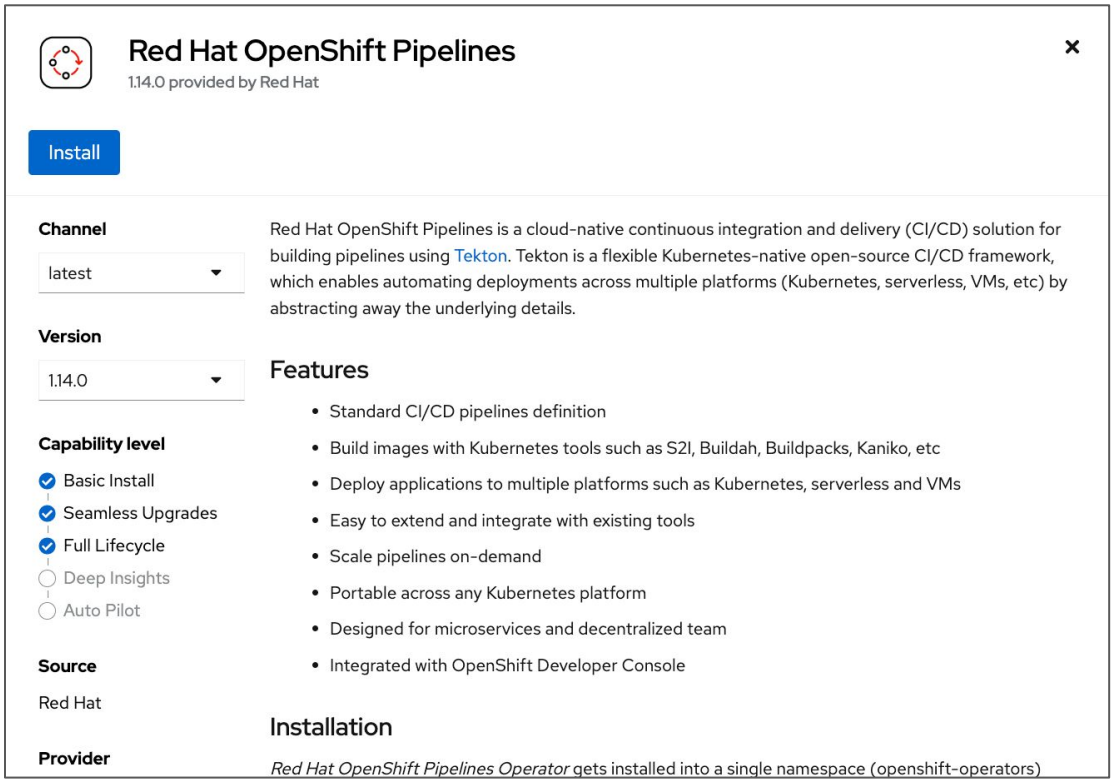
Red Hat

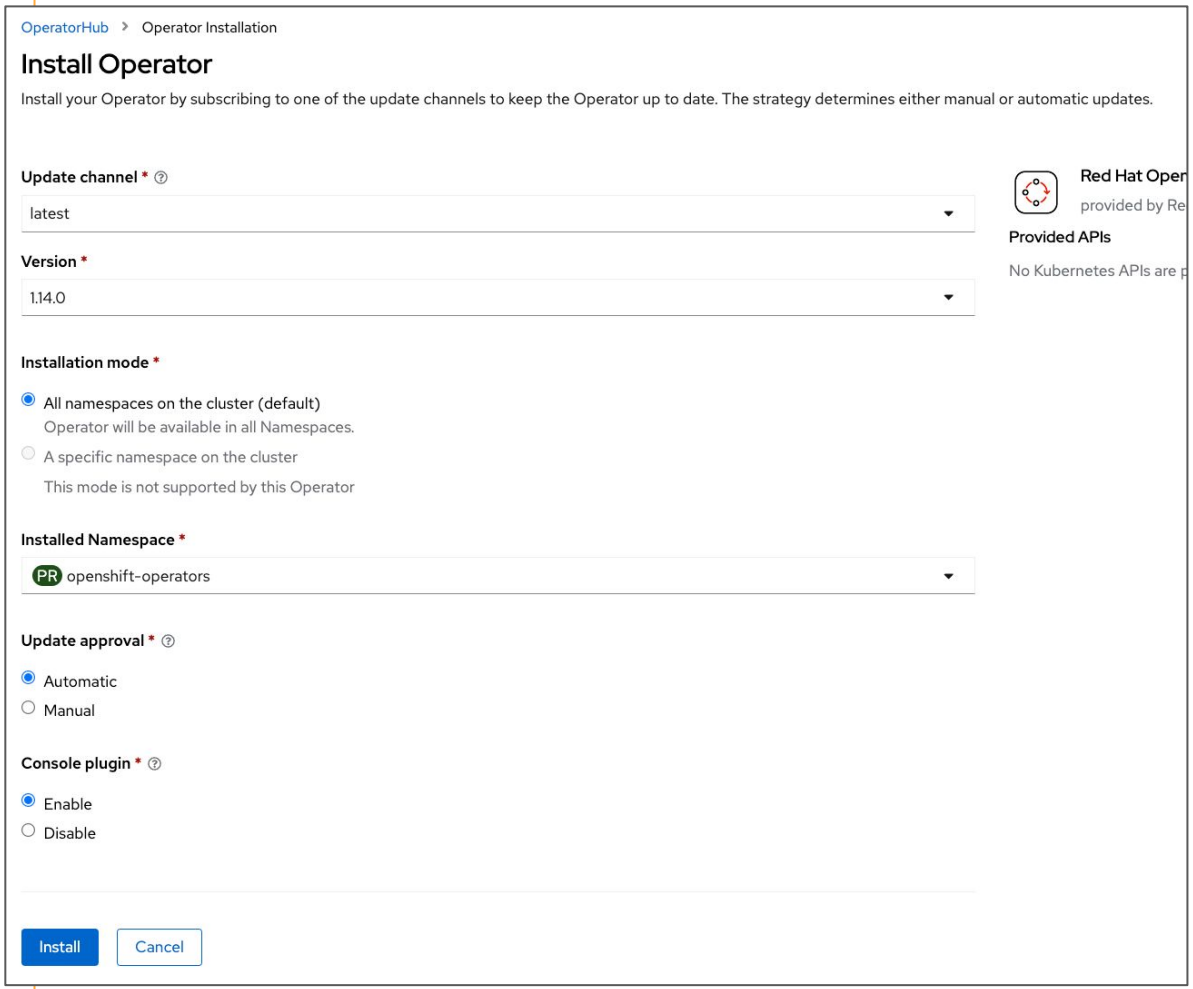

Red Hat
OpenShift AI
Applications
Enabled
Explore
Data Science Projects
Data Science Pipelines
Model Serving
Resources
Settings
Install the Pipelines Operator
To use pipelines, first install the Red Hat OpenShift Pipelines Operator.
Install operator

Red Hat

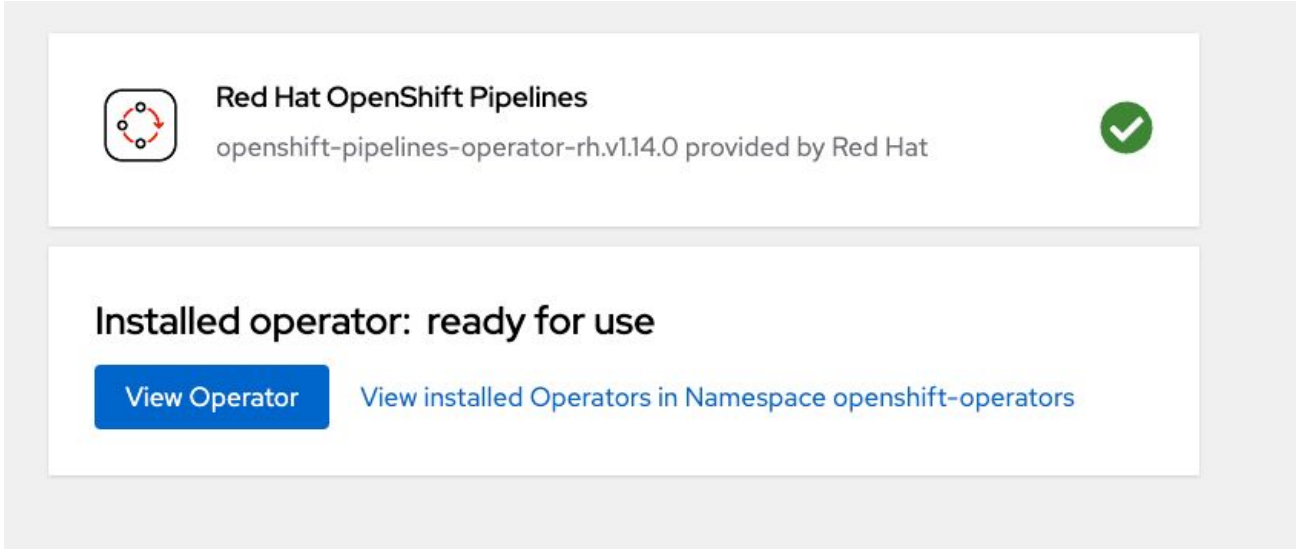

Project: openshift-operators
OperatorHub
Discover Operators from the Kubernetes community and Red Hat partners, curated by Red Hat. You can purchase commercia
provide optional add-ons and shared services to your developers. After installation, the Operator capabilities will appear in th
All Items
AI/Machine Learning
Application Runtime
Big Data
Cloud Provider
Database
Developer Tools
Development Tools
Drivers and plugins
Integration & Delivery
Logging & Tracing
Modernization & Migration
Monitoring
Networking
All Items
red hat openshift pipelines
Red Hat
Red Hat OpenShift Pipelines
provided by Red Hat
Red Hat OpenShift Pipelines is a cloud-native CI/CD solution for building pipelines using Tekton...

Red Hat

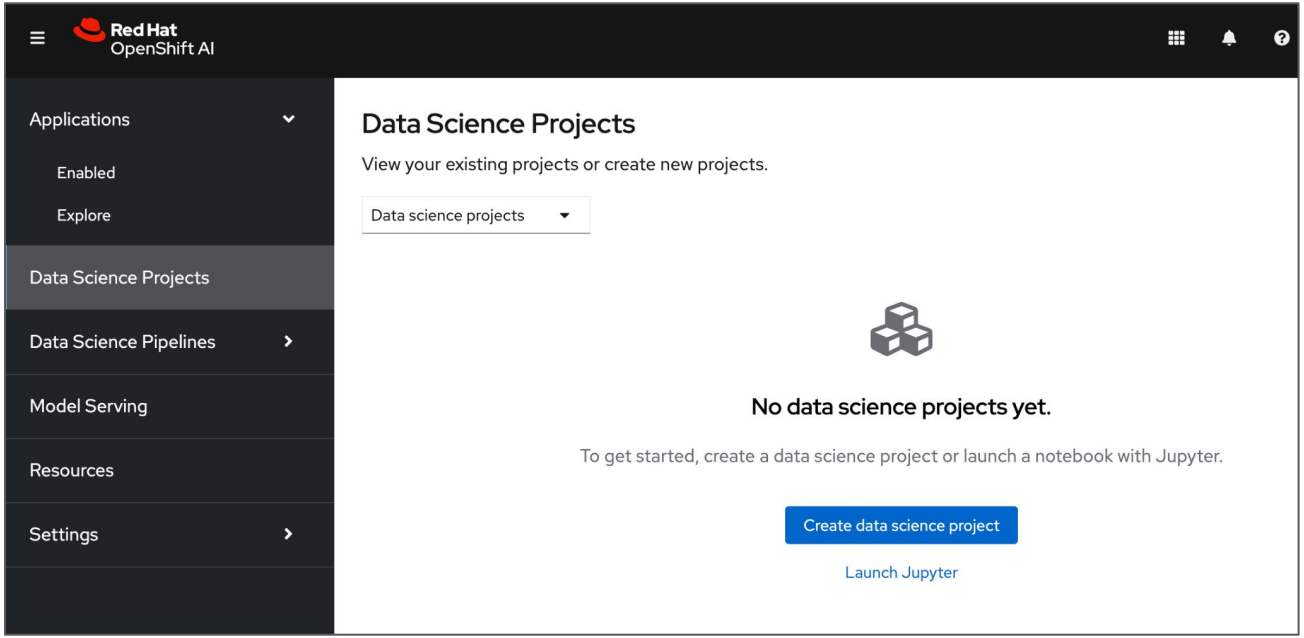

Red Hat OpenShift Pipelines
1.14.0 provided by Red Hat
Install
Channel
latest
Version
1.14.0
Capability level
Basic Install
Seamless Upgrades
Full Lifecycle
Deep Insights
Auto Pilot
Source
Red Hat
Provider
Red Hat OpenShift Pipelines is a cloud-native continuous integration and delivery (CI/CD) solution for building pipelines using Tekton. Tekton is a flexible Kubernetes-native open-source CI/CD framework, which enables automating deployments across multiple platforms (Kubernetes, serverless, VMs, etc) by abstracting away the underlying details.
Features
Standard CI/CD pipelines definition
Build images with Kubernetes tools such as S2I, Buildah, Buildpacks, Kaniko, etc
Deploy applications to multiple platforms such as Kubernetes, serverless and VMs
Easy to extend and integrate with existing tools
Scale pipelines on-demand
Portable across any Kubernetes platform
Designed for microservices and decentralized team
Integrated with OpenShift Developer Console
Installation
Red Hat OpenShift Pipelines Operator gets installed into a single namespace (openshift-operators)


OperatorHub
Operator Installation
Install Operator
Install your Operator by subscribing to one of the update channels to keep the Operator up to date. The strategy determines either manual or automatic updates.
Update channel *
latest
Version *
1.14.0
Installation mode *
All namespaces on the cluster (default)
Operator will be available in all Namespaces.
A specific namespace on the cluster
This mode is not supported by this Operator
Installed Namespace *
PR
openshift-operators
Update approval *
Automatic
Manual
Console plugin *
Enable
Disable
Install
Cancel
Red Hat Oper
provided by Re
Provided APIs
No Kubernetes APIs are p

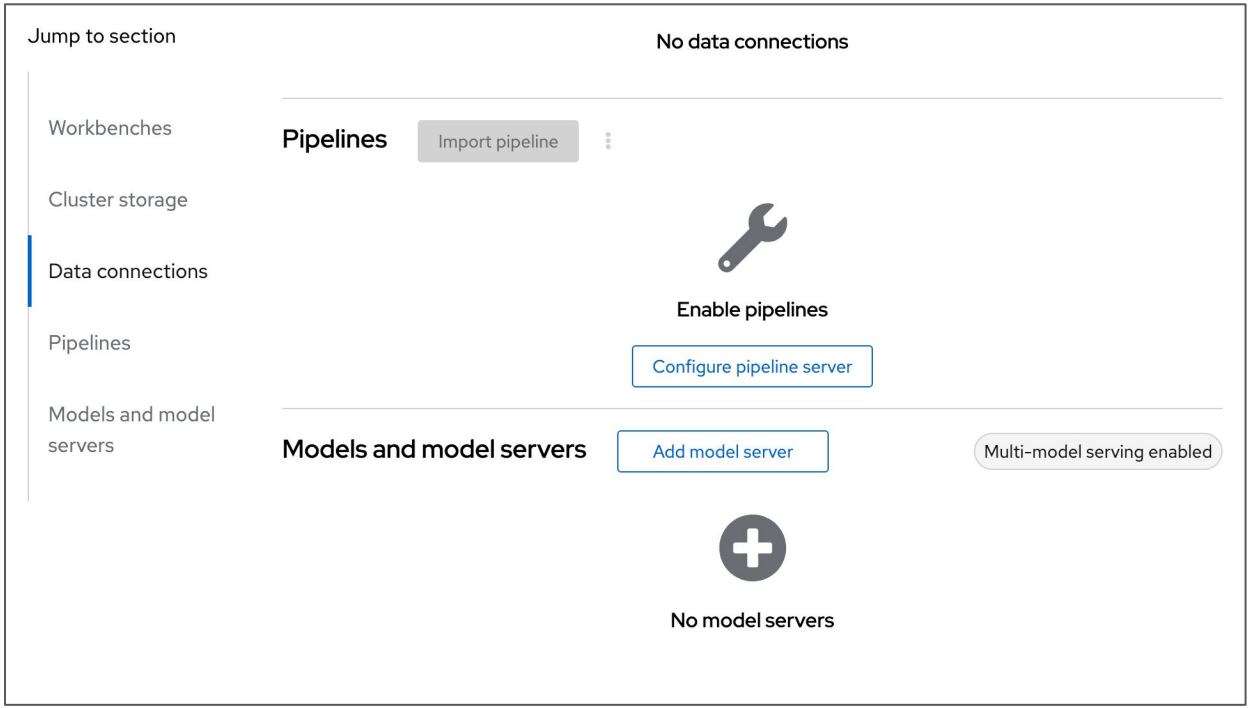
Red Hat


Red Hat OpenShift Pipelines
openshift-pipelines-operator-rh.v1.14.0 provided by Red Hat
Installed operator: ready for use
View Operator
View installed Operators in Namespace openshift-operators

Red Hat


Red Hat
OpenShift AI
Applications
Enabled
Explore
Data Science Projects
Data Science Pipelines
Model Serving
Resources
Settings
Data Science Projects
View your existing projects or create new projects.
Data science projects
No data science projects yet.
To get started, create a data science project or launch a notebook with Jupyter.
Create data science project
Launch Jupyter

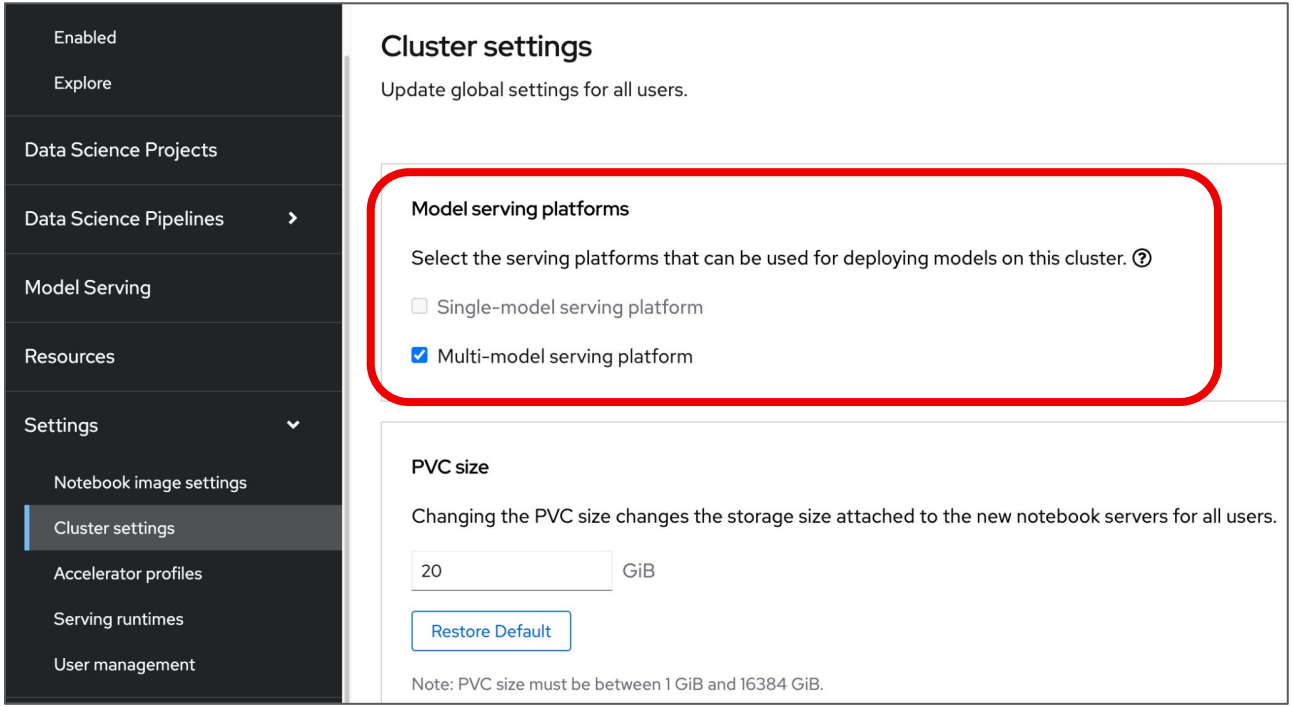
Red Hat


Jump to section
No data connections
Workbenches
Cluster storage
Data connections
Pipelines
Models and model servers
Pipelines
Import pipeline
Enable pipelines
Configure pipeline server
Models and model servers
Add model server
Multi-model serving enabled
No model servers

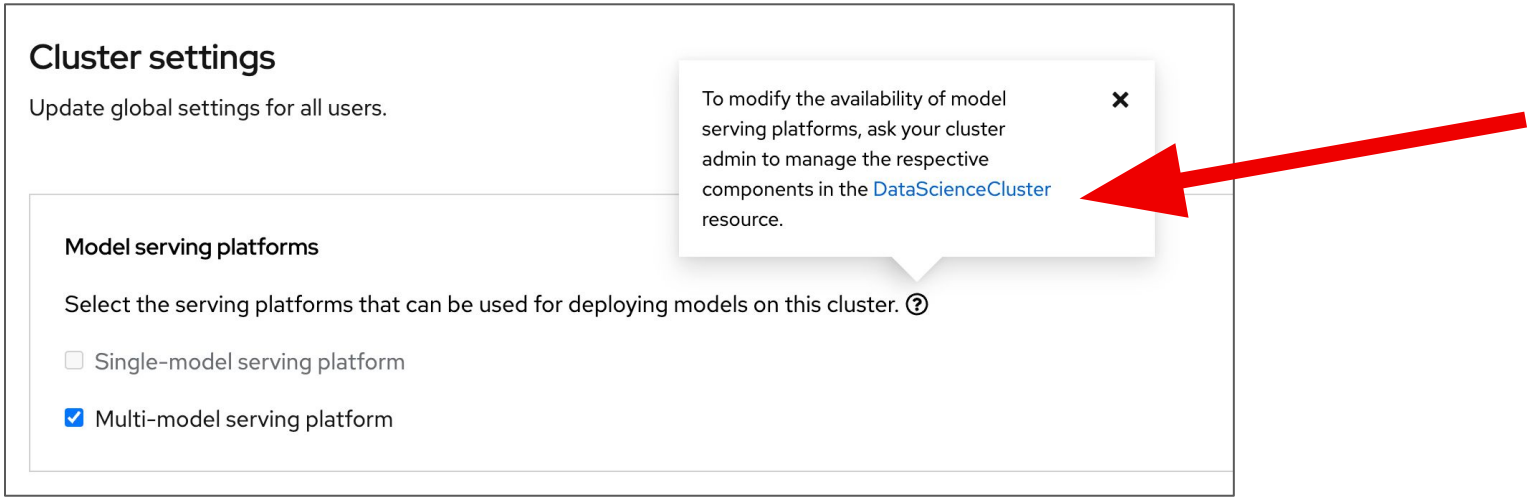
Red Hat

OpenShift AI: ServiceMesh/ServerLess Operator Dependency

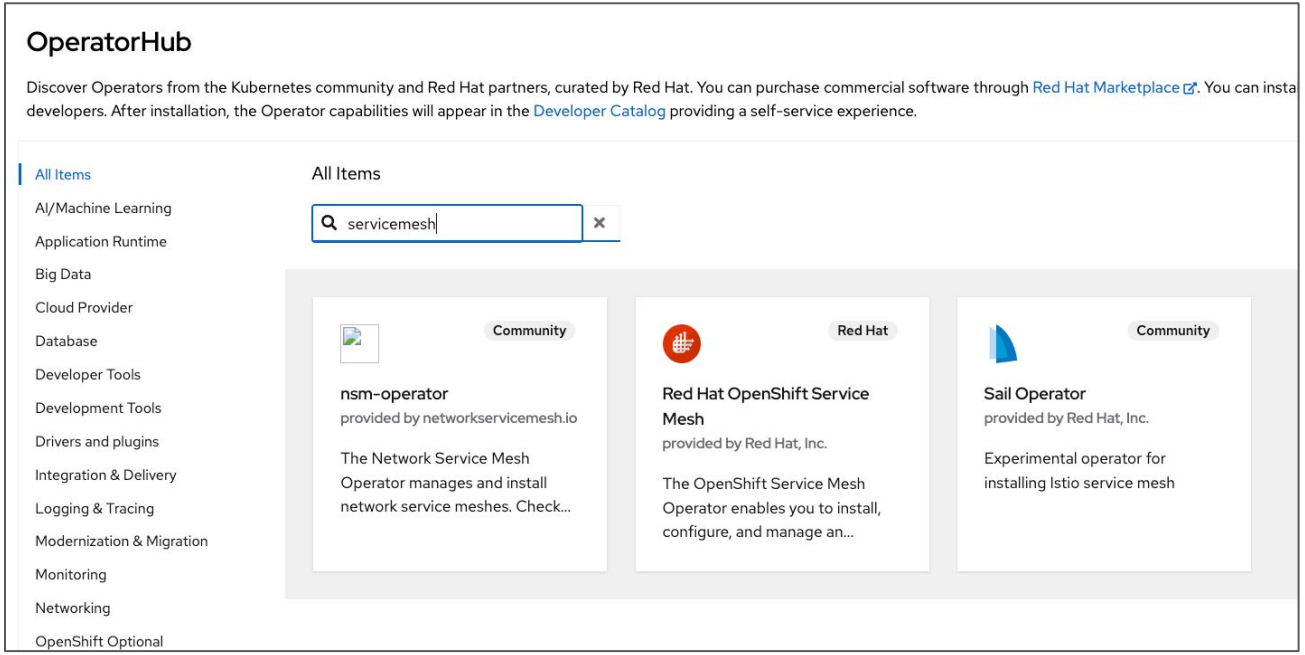
Red Hat


Enabled
Explore
Data Science Projects
Data Science Pipelines
Model Serving
Resources
Settings
Notebook image settings
Cluster settings
Accelerator profiles
Serving runtimes
User management
Cluster settings
Update global settings for all users.
Model serving platforms
Select the serving platforms that can be used for deploying models on this cluster.
Single-model serving platform
Multi-model serving platform
PVC size
Changing the PVC size changes the storage size attached to the new notebook servers for all users.
20
GiB
Restore Default
Note: PVC size must be between 1 GiB and 16384 GiB.

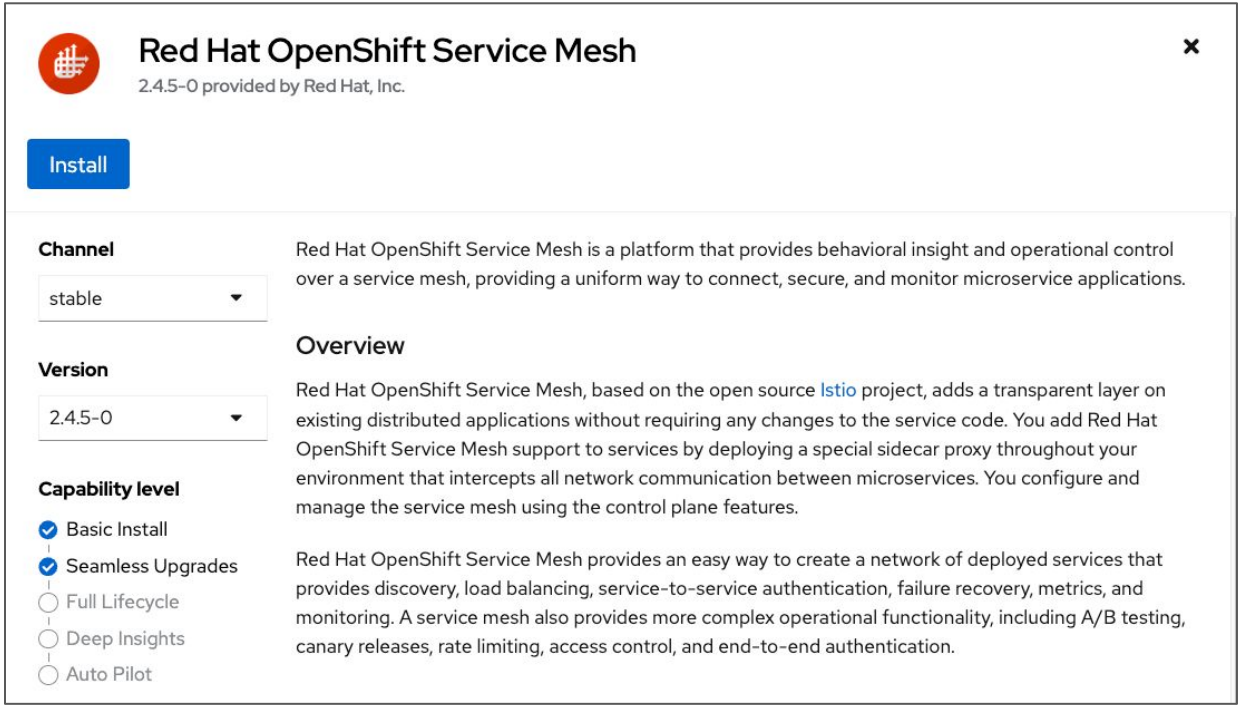
Red Hat


Cluster settings
Update global settings for all users.
To modify the availability of model serving platforms, ask your cluster admin to manage the respective components in the DataScienceCluster resource.
Model serving platforms
Select the serving platforms that can be used for deploying models on this cluster.
Single-model serving platform
Multi-model serving platform

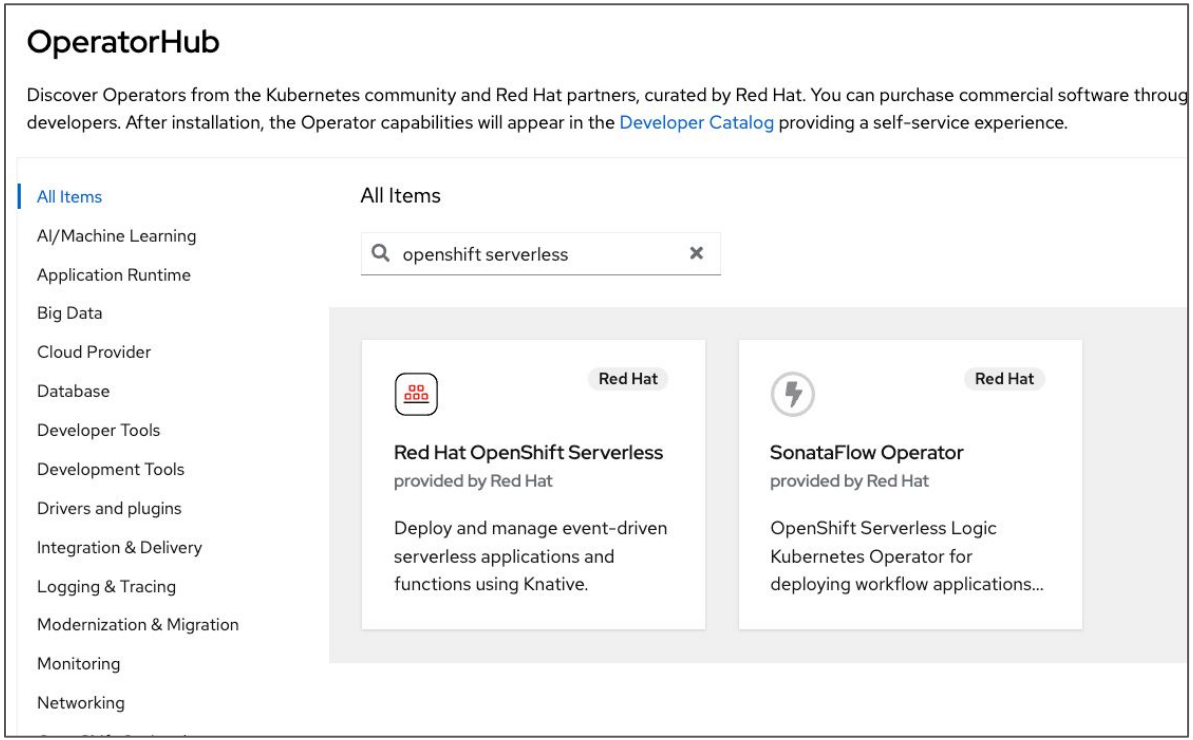
Red Hat

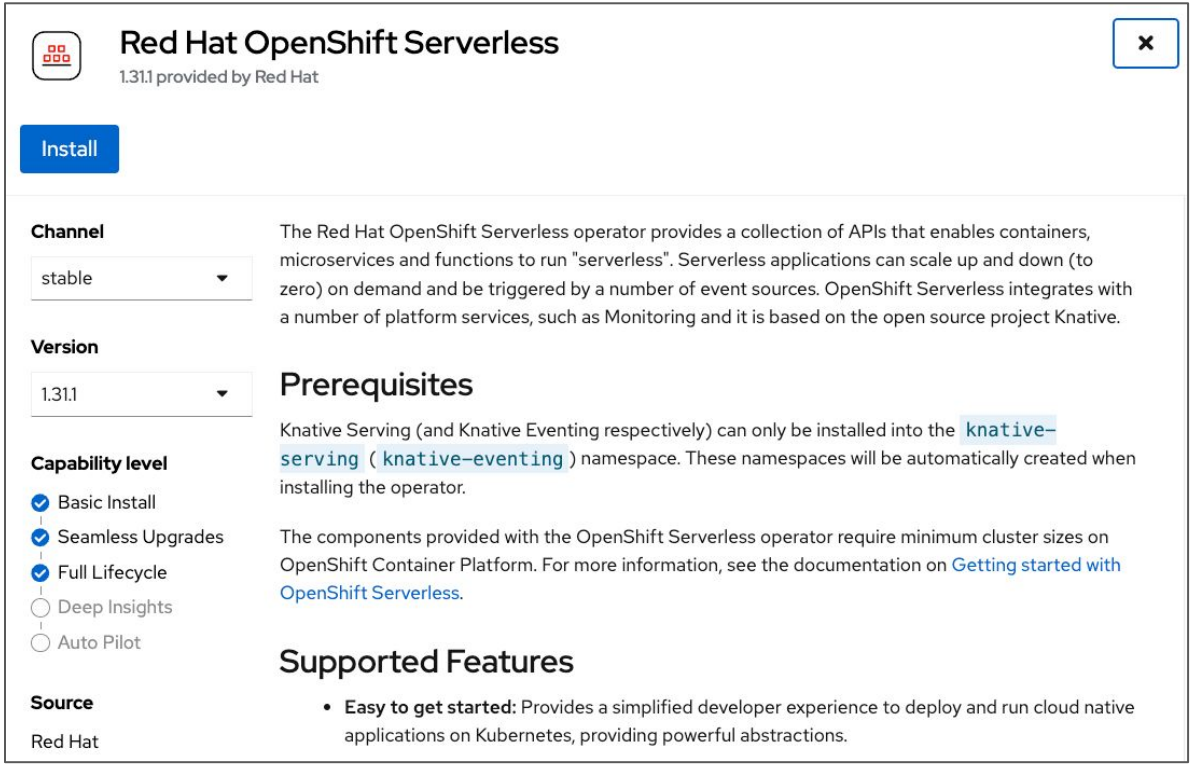

OperatorHub
Discover Operators from the Kubernetes community and Red Hat partners, curated by Red Hat. You can purchase commercial software through Red Hat Marketplace. You can insta
developers. After installation, the Operator capabilities will appear in the Developer Catalog providing a self-service experience.
All Items
AI/Machine Learning
Application Runtime
Big Data
Cloud Provider
Database
Developer Tools
Development Tools
Drivers and plugins
Integration & Delivery
Logging & Tracing
Modernization & Migration
Monitoring
Networking
OpenShift Optional
All Items
servicemesh
Community
nsm-operator
provided by networkservicemesh.io
The Network Service Mesh Operator manages and install network service meshes. Check...
Red Hat
Red Hat OpenShift Service Mesh
provided by Red Hat, Inc.
The OpenShift Service Mesh Operator enables you to install, configure, and manage an...
Community
Sail Operator
provided by Red Hat, Inc.
Experimental operator for installing Istio service mesh

Red Hat

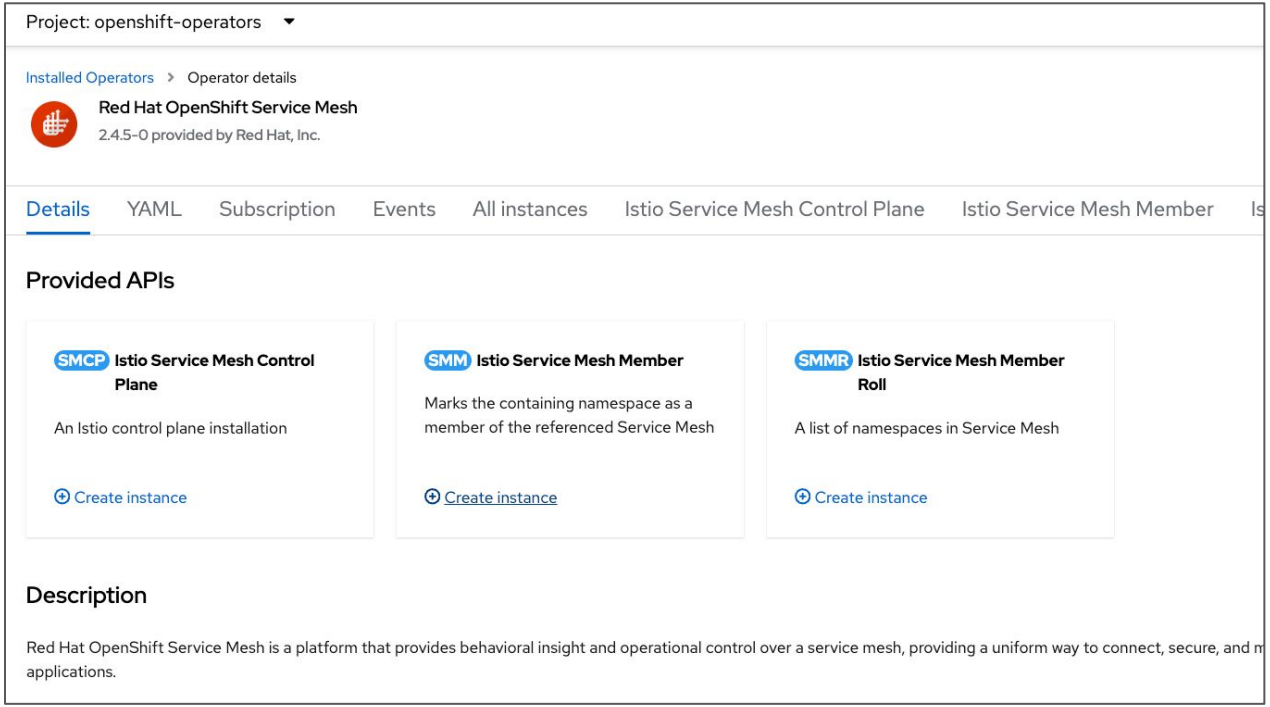

Red Hat OpenShift Service Mesh
2.4.5-0 provided by Red Hat, Inc.
Install
Channel
stable
Version
2.4.5-0
Capability level
Basic Install
Seamless Upgrades
Full Lifecycle
Deep Insights
Auto Pilot
Red Hat OpenShift Service Mesh is a platform that provides behavioral insight and operational control over a service mesh, providing a uniform way to connect, secure, and monitor microservice applications.
Overview
Red Hat OpenShift Service Mesh, based on the open source Istio project, adds a transparent layer on existing distributed applications without requiring any changes to the service code. You add Red Hat OpenShift Service Mesh support to services by deploying a special sidecar proxy throughout your environment that intercepts all network communication between microservices. You configure and manage the service mesh using the control plane features.
Red Hat OpenShift Service Mesh provides an easy way to create a network of deployed services that provides discovery, load balancing, service-to-service authentication, failure recovery, metrics, and monitoring. A service mesh also provides more complex operational functionality, including A/B testing, canary releases, rate limiting, access control, and end-to-end authentication.

Red Hat


OperatorHub
Discover Operators from the Kubernetes community and Red Hat partners, curated by Red Hat. You can purchase commercial software throug
developers. After installation, the Operator capabilities will appear in the Developer Catalog providing a self-service experience.
All Items
AI/Machine Learning
Application Runtime
Big Data
Cloud Provider
Database
Developer Tools
Development Tools
Drivers and plugins
Integration & Delivery
Logging & Tracing
Modernization & Migration
Monitoring
Networking
All Items
openshift serverless
Red Hat
Red Hat OpenShift Serverless
provided by Red Hat
Deploy and manage event-driven serverless applications and functions using Knative.
Red Hat
SonataFlow Operator
provided by Red Hat
OpenShift Serverless Logic Kubernetes Operator for deploying workflow applications...


Red Hat OpenShift Serverless
1.31.1 provided by Red Hat
Install
Channel
stable
Version
1.31.1
Capability level
Basic Install
Seamless Upgrades
Full Lifecycle
Deep Insights
Auto Pilot
Source
Red Hat
The Red Hat OpenShift Serverless operator provides a collection of APIs that enables containers, microservices and functions to run "serverless". Serverless applications can scale up and down (to zero) on demand and be triggered by a number of event sources. OpenShift Serverless integrates with a number of platform services, such as Monitoring and it is based on the open source project Knative.
Prerequisites
Knative Serving (and Knative Eventing respectively) can only be installed into the knative-serving (knative-eventing) namespace. These namespaces will be automatically created when installing the operator.
The components provided with the OpenShift Serverless operator require minimum cluster sizes on OpenShift Container Platform. For more information, see the documentation on Getting started with OpenShift Serverless.
Supported Features
Easy to get started: Provides a simplified developer experience to deploy and run cloud native applications on Kubernetes, providing powerful abstractions.

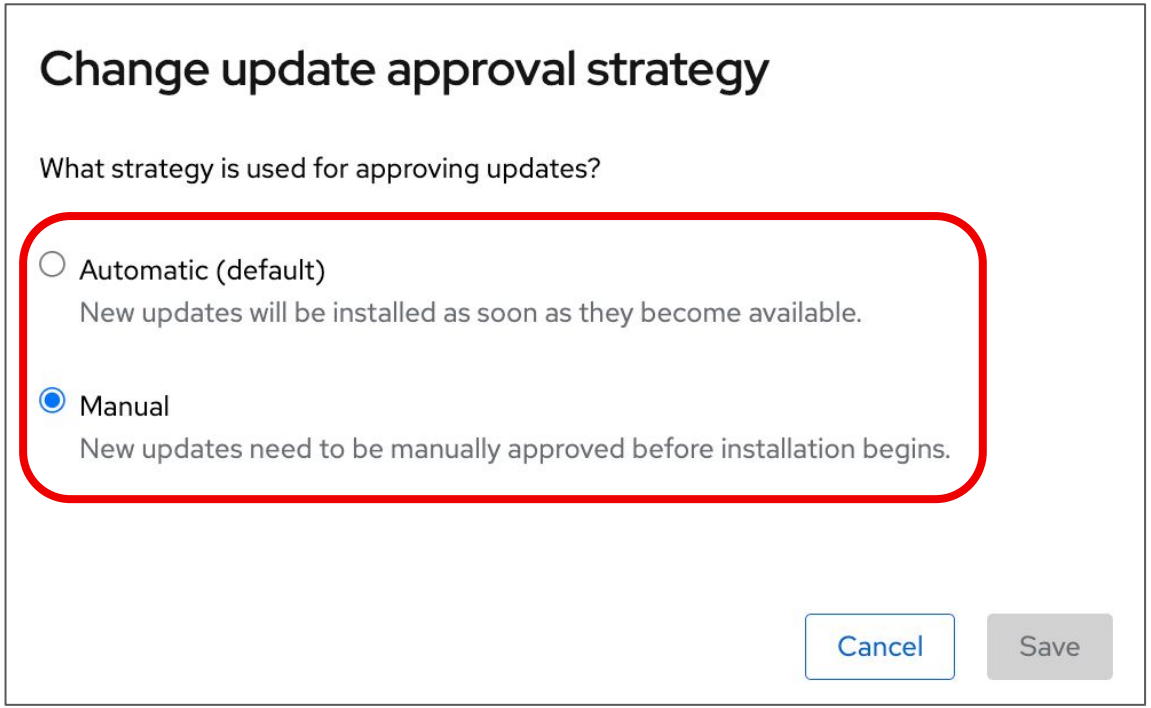
Red Hat


Project: openshift-operators
Installed Operators > Operator details
Red Hat OpenShift Service Mesh
2.4.5-0 provided by Red Hat, Inc.
Details
YAML
Subscription
Events
All instances
Istio Service Mesh Control Plane
Istio Service Mesh Member
Provided APIs
SMCP Istio Service Mesh Control Plane
An Istio control plane installation
Create instance
SMM Istio Service Mesh Member
Marks the containing namespace as a member of the referenced Service Mesh
Create instance
SMMR Istio Service Mesh Member Roll
A list of namespaces in Service Mesh
Create instance
Description
Red Hat OpenShift Service Mesh is a platform that provides behavioral insight and operational control over a service mesh, providing a uniform way to connect, secure, and
applications.

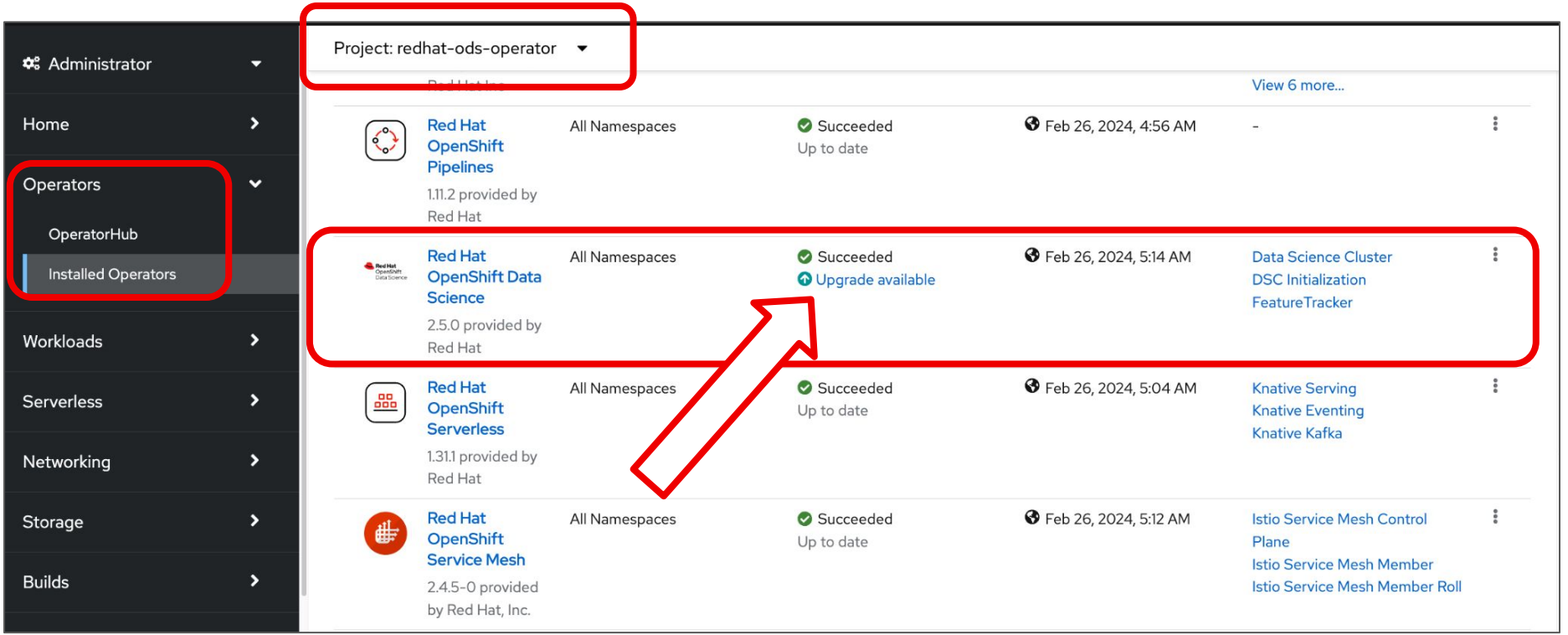
Red Hat

OpenShift AI: Upgrades/Updates

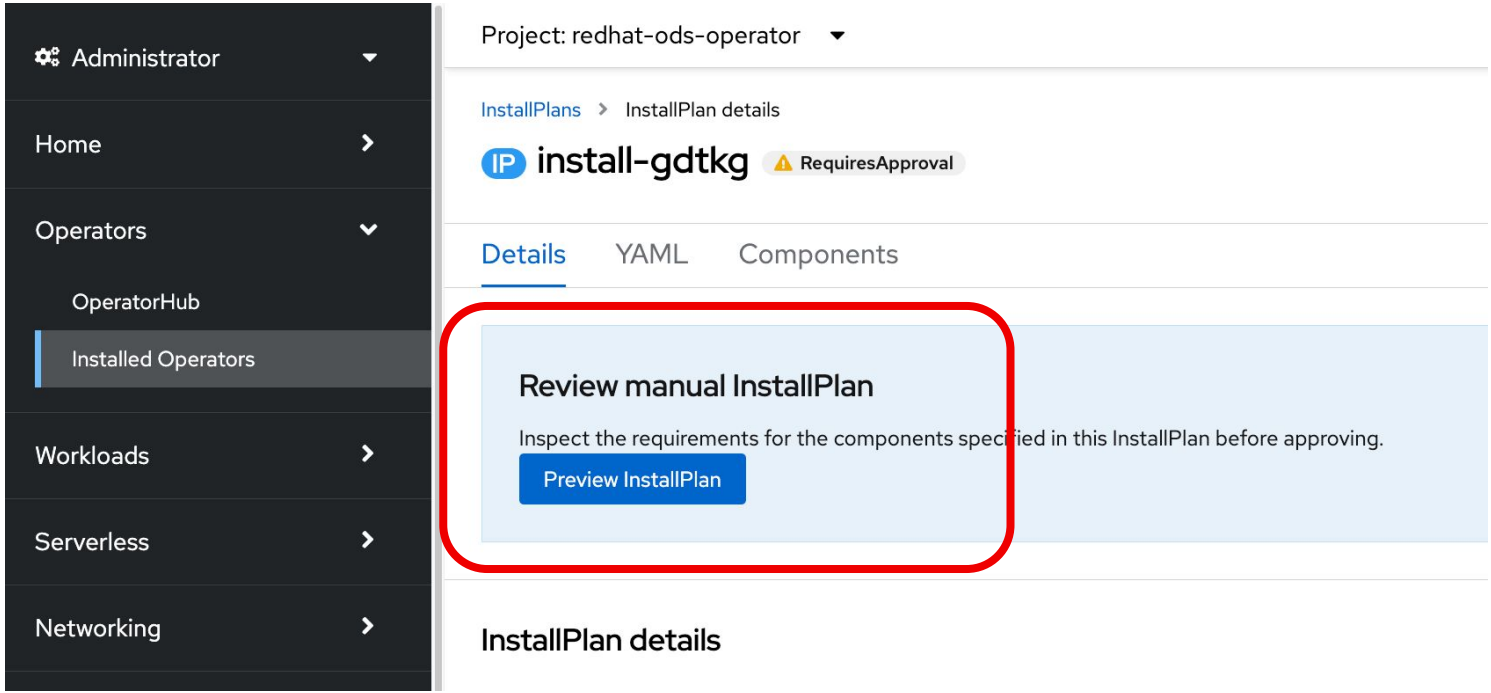
Red Hat


Change update approval strategy
What strategy is used for approving updates?
Automatic (default)
New updates will be installed as soon as they become available.
Manual
New updates need to be manually approved before installation begins.
Cancel
Save

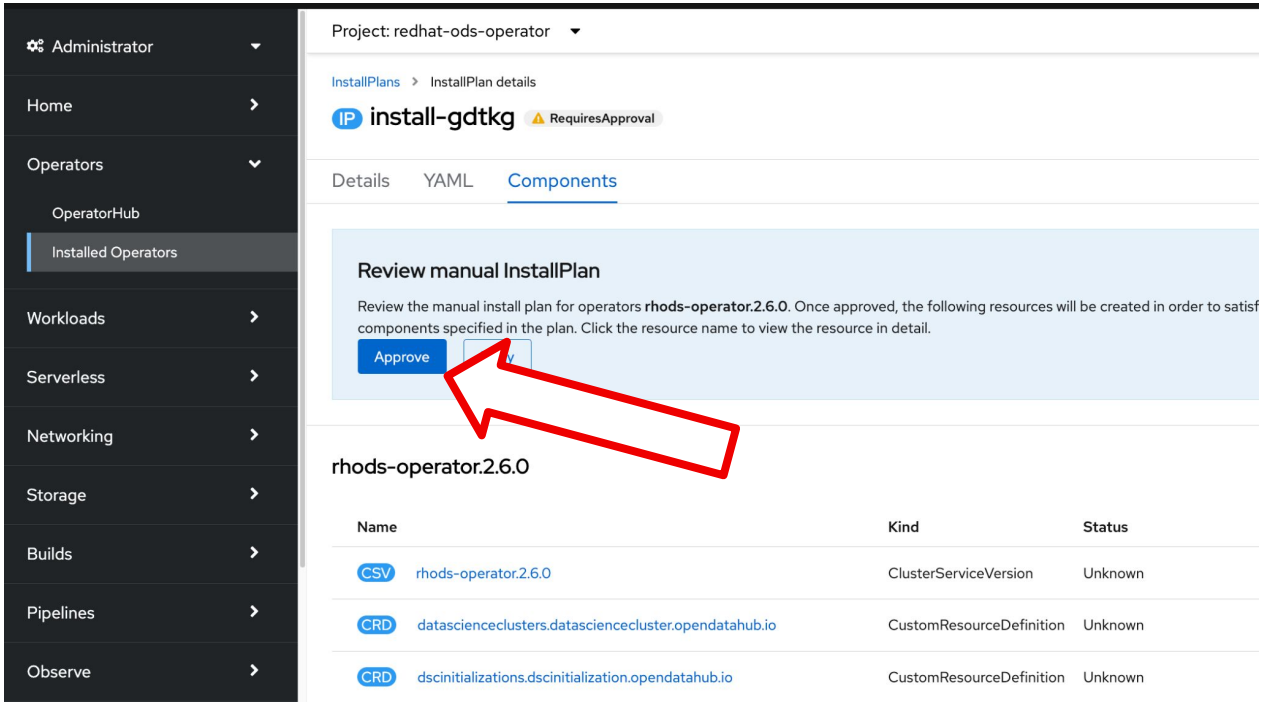
Red Hat


Administrator
Home
Operators
OperatorHub
Installed Operators
Workloads
Serverless
Networking
Storage
Builds
Project: redhat-ods-operator
View 6 more...
Red Hat OpenShift Pipelines
1.11.2 provided by Red Hat
All Namespaces
Succeeded
Up to date
Feb 26, 2024, 4:56 AM
-
Red Hat OpenShift Data Science
2.5.0 provided by Red Hat
All Namespaces
Succeeded
Upgrade available
Feb 26, 2024, 5:14 AM
Data Science Cluster
DSC Initialization
FeatureTracker
Red Hat OpenShift Serverless
1.31.1 provided by Red Hat
All Namespaces
Succeeded
Up to date
Feb 26, 2024, 5:04 AM
Knative Serving
Knative Eventing
Knative Kafka
Red Hat OpenShift Service Mesh
2.4.5-0 provided by Red Hat, Inc.
All Namespaces
Succeeded
Up to date
Feb 26, 2024, 5:12 AM
Istio Service Mesh Control Plane
Istio Service Mesh Member
Istio Service Mesh Member Roll

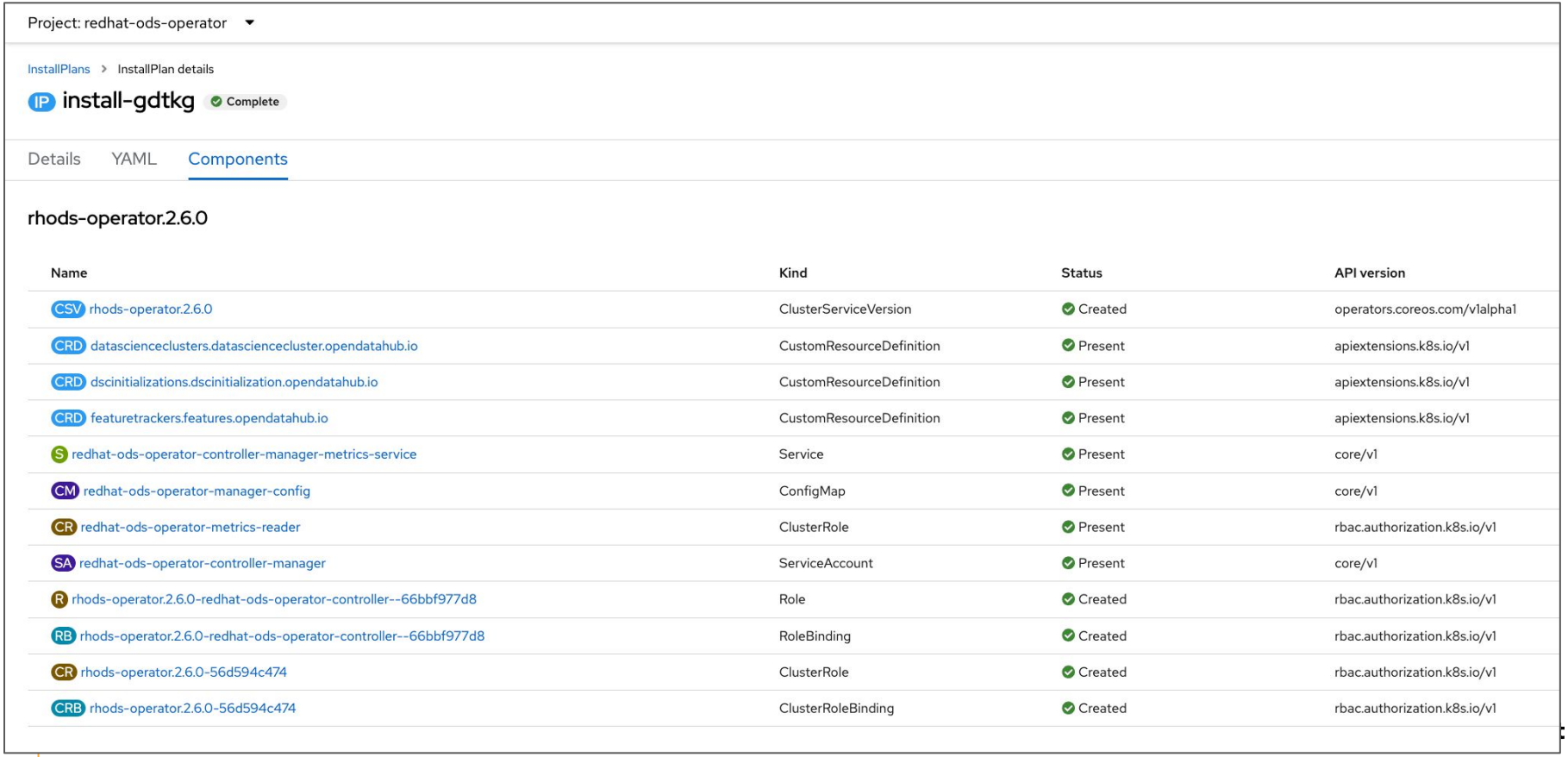
Red Hat

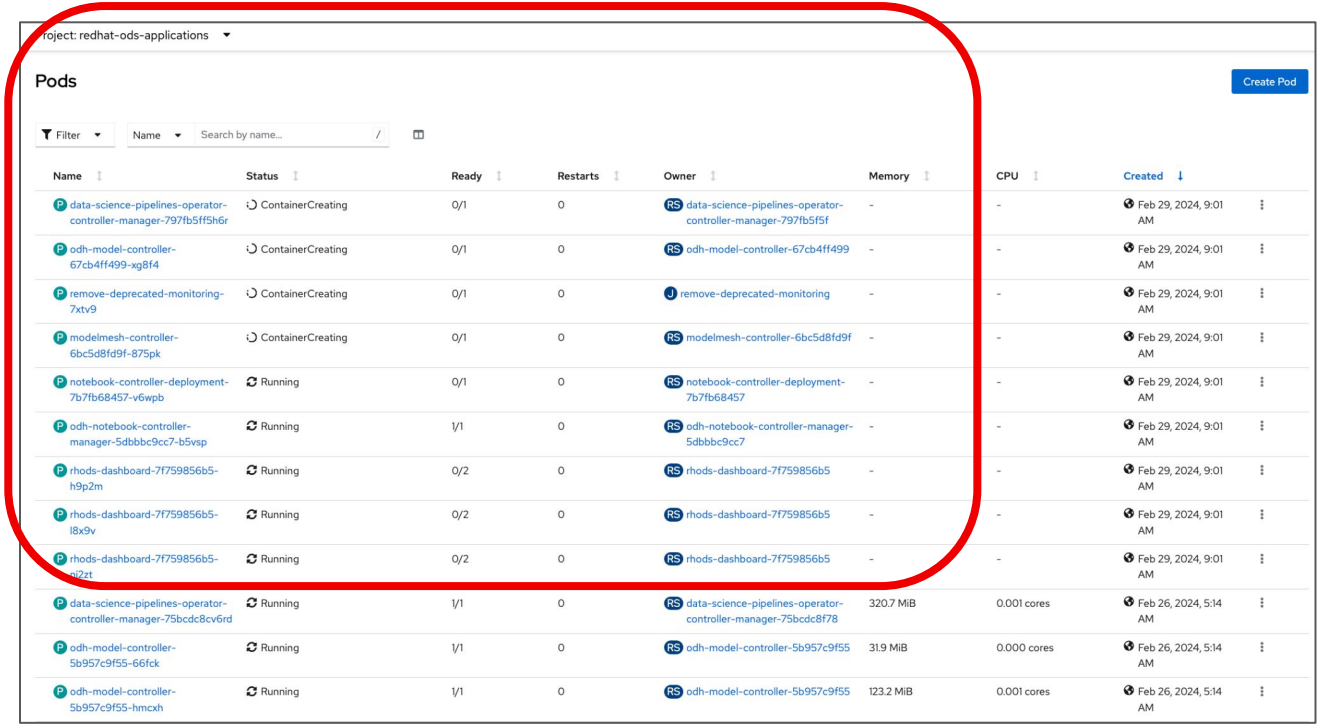

Administrator
Home
Operators
OperatorHub
Installed Operators
Workloads
Serverless
Networking
Project: redhat-ods-operator
InstallPlans
InstallPlan details
IP
install-gdtkg
RequiresApproval
Details
YAML
Components
Review manual InstallPlan
Inspect the requirements for the components specified in this InstallPlan before approving.
Preview InstallPlan
InstallPlan details

Red Hat

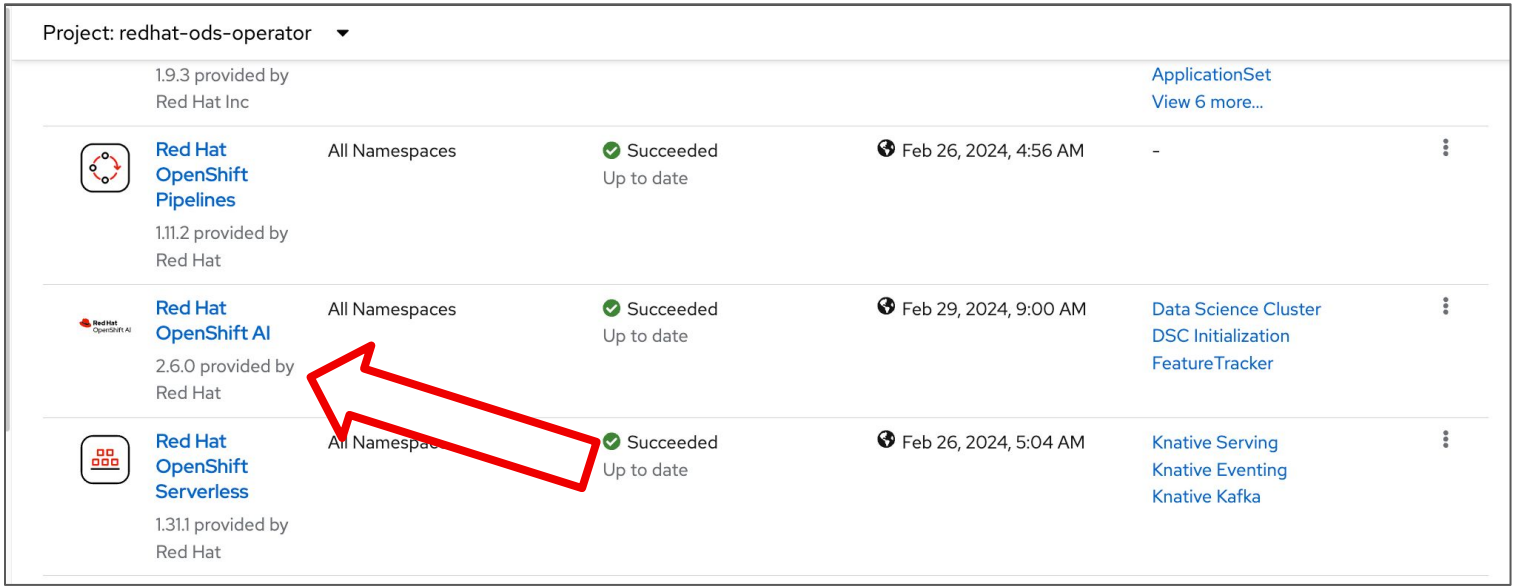

Administrator
Home
Operators
OperatorHub
Installed Operators
Workloads
Serverless
Networking
Storage
Builds
Pipelines
Observe
Project: redhat-ods-operator
InstallPlans > InstallPlan details
IP install-gdtkg
RequiresApproval
Details
YAML
Components
Review manual InstallPlan
Review the manual install plan for operators rhods-operator.2.6.0. Once approved, the following resources will be created in order to satisf
components specified in the plan. Click the resource name to view the resource in detail.
Approve
rhods-operator.2.6.0
Name
Kind
Status
CSV
rhods-operator.2.6.0
ClusterServiceVersion
Unknown
CRD
datascienceclusters.datasciencecluster.opendatahub.io
CustomResourceDefinition
Unknown
CRD
dscinitializations.dscinitialization.opendatahub.io
CustomResourceDefinition
Unknown

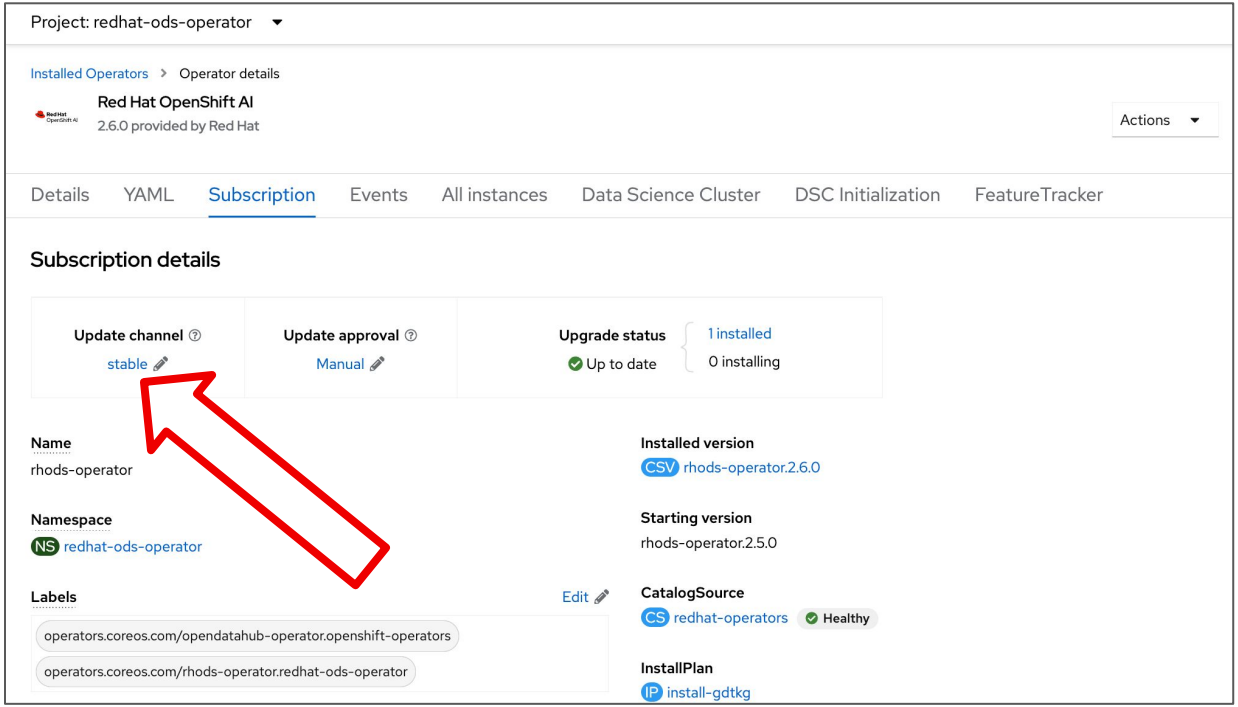
Red Hat

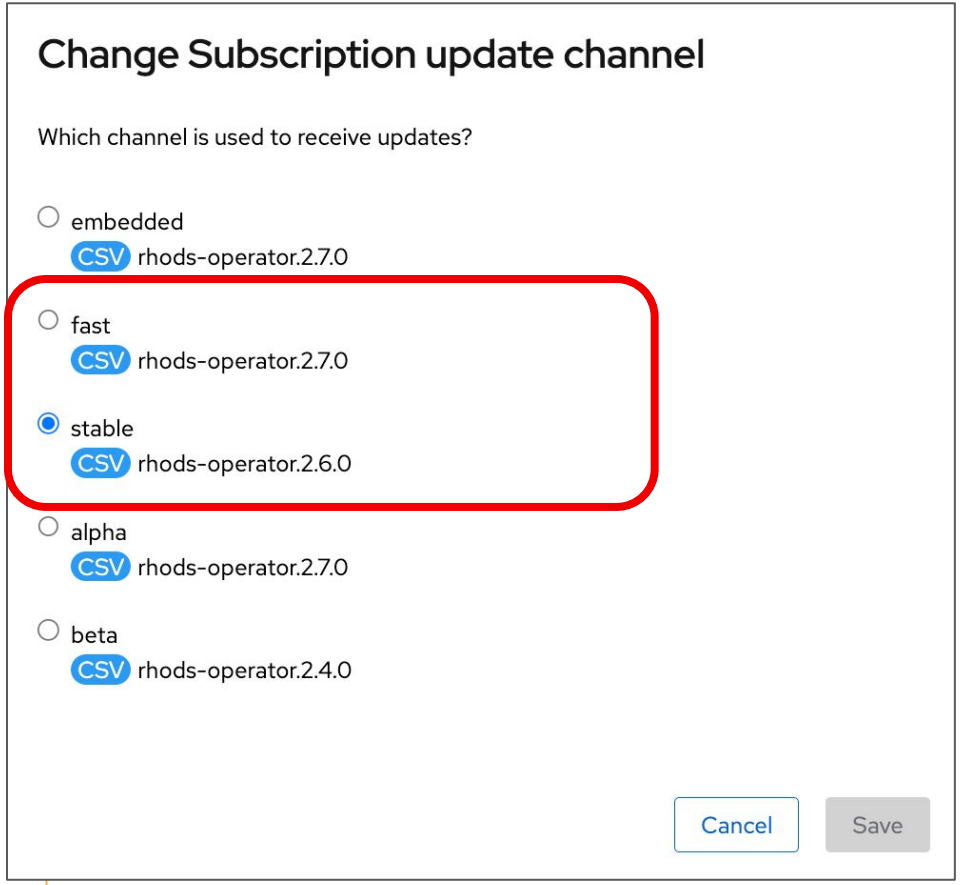

Project: redhat-ods-operator
InstallPlans > InstallPlan details
IP install-gdtkg Complete
Details YAML Components
rhods-operator.2.6.0
Name Kind Status API version
CSV rhods-operator.2.6.0 ClusterServiceVersion Created operators.coreos.com/v1alpha1
CRD datascienceclusters.datasciencecluster.opendatahub.io CustomResourceDefinition Present apiextensions.k8s.io/v1
CRD dscinitializations.dscinitialization.opendatahub.io CustomResourceDefinition Present apiextensions.k8s.io/v1
CRD featuretrackers.features.opendatahub.io CustomResourceDefinition Present apiextensions.k8s.io/v1
S redhat-ods-operator-controller-manager-metrics-service Service Present core/v1
CM redhat-ods-operator-manager-config ConfigMap Present core/v1
CR redhat-ods-operator-metrics-reader ClusterRole Present rbac.authorization.k8s.io/v1
SA redhat-ods-operator-controller-manager ServiceAccount Present core/v1
R rhods-operator.2.6.0-redhat-ods-operator-controller--66bbf977d8 Role Created rbac.authorization.k8s.io/v1
RB rhods-operator.2.6.0-redhat-ods-operator-controller--66bbf977d8 RoleBinding Created rbac.authorization.k8s.io/v1
CR rhods-operator.2.6.0-56d594c474 ClusterRole Created rbac.authorization.k8s.io/v1
CRB rhods-operator.2.6.0-56d594c474 ClusterRoleBinding Created rbac.authorization.k8s.io/v1


Project: redhat-ods-applications
Pods
Create Pod
Filter
Name
Search by name...
/
Name
Status
Ready
Restarts
Owner
Memory
CPU
Created
data-science-pipelines-operator-controller-manager-797fb5ff5h6r
ContainerCreating
0/1
0
data-science-pipelines-operator-controller-manager-797fb5f5f
-
-
Feb 29, 2024, 9:01 AM
odh-model-controller-67cb4ff499-xg8f4
ContainerCreating
0/1
0
odh-model-controller-67cb4ff499
-
-
Feb 29, 2024, 9:01 AM
remove-deprecated-monitoring-7xtv9
ContainerCreating
0/1
0
remove-deprecated-monitoring
-
-
Feb 29, 2024, 9:01 AM
modelmesh-controller-6bc5d8fd9f-875pk
ContainerCreating
0/1
0
modelmesh-controller-6bc5d8fd9f
-
-
Feb 29, 2024, 9:01 AM
notebook-controller-deployment-7b7fb68457-v6wpb
Running
0/1
0
notebook-controller-deployment-7b7fb68457
-
-
Feb 29, 2024, 9:01 AM
odh-notebook-controller-manager-5dbbbc9cc7-b5vsp
Running
1/1
0
odh-notebook-controller-manager-5dbbbc9cc7
-
-
Feb 29, 2024, 9:01 AM
rhods-dashboard-7f759856b5-h9p2m
Running
0/2
0
rhods-dashboard-7f759856b5
-
-
Feb 29, 2024, 9:01 AM
rhods-dashboard-7f759856b5-l8x9v
Running
0/2
0
rhods-dashboard-7f759856b5
-
-
Feb 29, 2024, 9:01 AM
rhods-dashboard-7f759856b5-nj2zt
Running
0/2
0
rhods-dashboard-7f759856b5
-
-
Feb 29, 2024, 9:01 AM
data-science-pipelines-operator-controller-manager-75bcdc8cv6rd
Running
1/1
0
data-science-pipelines-operator-controller-manager-75bcdc8f78
320.7 MiB
0.001 cores
Feb 26, 2024, 5:14 AM
odh-model-controller-5b957c9f55-66fck
Running
1/1
0
odh-model-controller-5b957c9f55
31.9 MiB
0.000 cores
Feb 26, 2024, 5:14 AM
odh-model-controller-5b957c9f55-hmcxh
Running
1/1
0
odh-model-controller-5b957c9f55
123.2 MiB
0.001 cores
Feb 26, 2024, 5:14 AM

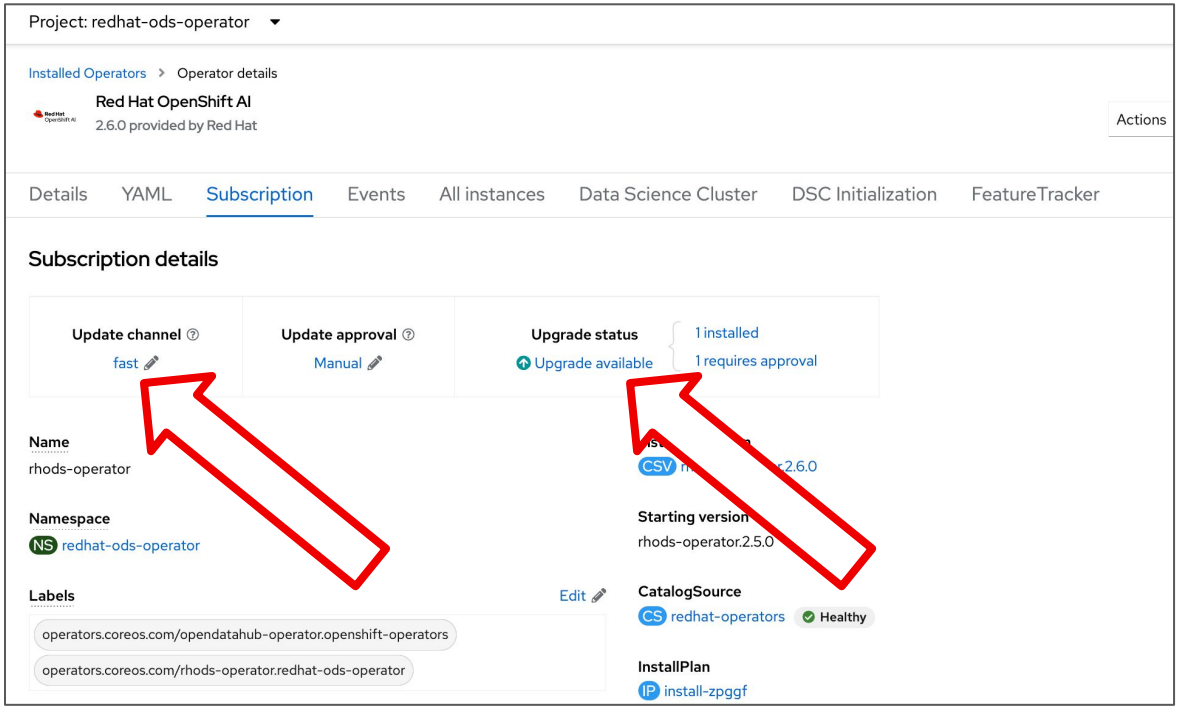
Red Hat


Project: redhat-ods-operator
1.9.3 provided by Red Hat Inc
ApplicationSet
View 6 more...
Red Hat OpenShift Pipelines
1.11.2 provided by Red Hat
All Namespaces
Succeeded
Up to date
Feb 26, 2024, 4:56 AM
-
Red Hat OpenShift AI
2.6.0 provided by Red Hat
All Namespaces
Succeeded
Up to date
Feb 29, 2024, 9:00 AM
Data Science Cluster
DSC Initialization
FeatureTracker
Red Hat OpenShift Serverless
1.31.1 provided by Red Hat
Succeeded
Up to date
Feb 26, 2024, 5:04 AM
Knative Serving
Knative Eventing
Knative Kafka


Project: redhat-ods-operator
Installed Operators
Operator details
Red Hat OpenShift AI
2.6.0 provided by Red Hat
Actions
Details
YAML
Subscription
Events
All instances
Data Science Cluster
DSC Initialization
FeatureTracker
Subscription details
Update channel
stable
Update approval
Manual
Upgrade status
Up to date
1 installed
0 installing
Name
rhods-operator
Namespace
NS redhat-ods-operator
Labels
Edit
operators.coreos.com/opendatahub-operator.openshift-operators
operators.coreos.com/rhods-operator.redhat-ods-operator
Installed version
CSV rhods-operator.2.6.0
Starting version
rhods-operator.2.5.0
CatalogSource
CS redhat-operators
Healthy
InstallPlan
IP install-gdtkg


Change Subscription update channel
Which channel is used to receive updates?
embedded
CSV rhods-operator.2.7.0
fast
CSV rhods-operator.2.7.0
stable
CSV rhods-operator.2.6.0
alpha
CSV rhods-operator.2.7.0
beta
CSV rhods-operator.2.4.0
Cancel
Save

Red Hat


Project: redhat-ods-operator
Installed Operators
Operator details
Red Hat OpenShift AI
2.6.0 provided by Red Hat
Actions
Details
YAML
Subscription
Events
All instances
Data Science Cluster
DSC Initialization
FeatureTracker
Subscription details
Update channel
fast
Update approval
Manual
Upgrade status
Upgrade available
1 installed
1 requires approval
Name
rhods-operator
Namespace
NS redhat-ods-operator
Labels
Edit
operators.coreos.com/opendatahub-operator.openshift-operators
operators.coreos.com/rhods-operator.redhat-ods-operator
Starting version
rhods-operator.2.5.0
CatalogSource
CS redhat-operators
Healthy
InstallPlan
IP install-zpggf

OpenShift AI: Uninstall

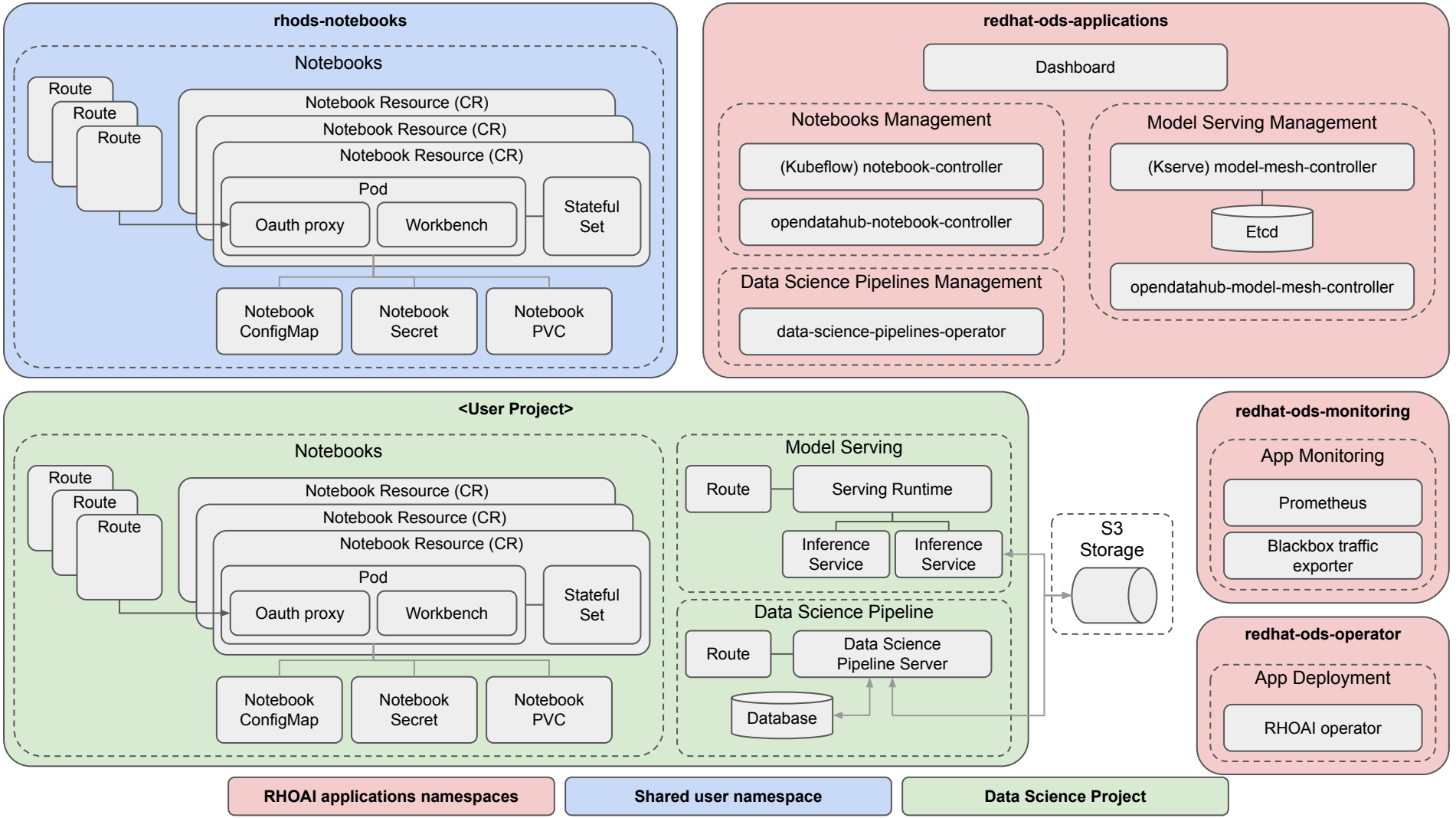
Red Hat

Uninstall

- Uninstalling OpenShift AI will remove the software from the default namespaces (redhat-ods-applications, redhat-ods-operator)
- It will not affect the content of the user-created projects
- Procedure is documented here:
  - Chapter 5. Uninstalling Red Hat OpenShift AI Self-Managed

OpenShift AI: Detailed view of components

Red Hat


rhods-notebooks
Notebooks
Route
Route
Route
Notebook Resource (CR)
Notebook Resource (CR)
Notebook Resource (CR)
Pod
Oauth proxy
Workbench
Stateful Set
Notebook ConfigMap
Notebook Secret
Notebook PVC
redhat-ods-applications
Dashboard
Notebooks Management
(Kubeflow) notebook-controller
opendatahub-notebook-controller
Model Serving Management
(Kserve) model-mesh-controller
Etcd
opendatahub-model-mesh-controller
Data Science Pipelines Management
data-science-pipelines-operator
<User Project>
Notebooks
Route
Route
Route
Notebook Resource (CR)
Notebook Resource (CR)
Notebook Resource (CR)
Pod
Oauth proxy
Workbench
Stateful Set
Notebook ConfigMap
Notebook Secret
Notebook PVC
Model Serving
Route
Serving Runtime
Inference Service
Inference Service
Data Science Pipeline
Route
Data Science Pipeline Server
Database
S3 Storage
redhat-ods-monitoring
App Monitoring
Prometheus
Blackbox traffic exporter
redhat-ods-operator
App Deployment
RHOAI operator
RHOAI applications namespaces
Shared user namespace
Data Science Project

End of Section

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Red Hat