



Red Hat OpenShift Data Science self-managed 2.4

Managing users

Learn to manage user permissions and environments in Red Hat OpenShift Data Science

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Abstract

Learn to manage user permissions and environments in Red Hat OpenShift Data Science.

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PREFACE

Users with administrator access to OpenShift Container Platform can add, modify, and remove user permissions for Red Hat OpenShift Data Science.

CHAPTER 1. ADDING USERS

1.1. OVERVIEW OF USER TYPES AND PERMISSIONS

Table 1 describes the Red Hat OpenShift Data Science user types.

Table 1.1. User types

User Type	Permissions
Data scientists	Data scientists can access and use individual components of Red Hat OpenShift Data Science, such as Jupyter. See also Accessing the OpenShift Data Science dashboard
Administrators	In addition to the actions permitted to a data scientist, administrators can perform these actions: <ul style="list-style-type: none"> • Configure Red Hat OpenShift Data Science settings. • Access and manage notebook servers. See also OpenShift Container Platform Authentication and authorization

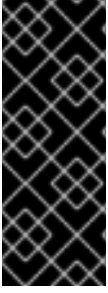
By default, all OpenShift users have access to Red Hat OpenShift Data Science. In addition, users with the **cluster-admin** role, automatically have administrator access in OpenShift Data Science.

Optionally, if you want to restrict access to your OpenShift Data Science deployment, you can create specialized user groups for users and administrators.

If you decide to restrict access, and you already have user groups defined in your configured identity provider, you can add these user groups to your OpenShift Data Science deployment. If you decide to use specialized user groups without adding these groups from an identity provider, you must create the groups in OpenShift Container Platform and then add users to them.

There are some operations relevant to OpenShift Data Science that require the **cluster-admin** role. Those operations include:

- Adding users to the OpenShift Data Science user and administrator groups, if you are using specialized groups.
- Removing users from the OpenShift Data Science user and administrator groups, if you are using specialized groups.
- Managing custom environment and storage configuration for users in OpenShift, such as Jupyter notebook resources, ConfigMaps, and persistent volume claims (PVCs).



IMPORTANT

Although users of OpenShift Data Science and its components are authenticated through OpenShift, session management is separate from authentication. This means that logging out of OpenShift or OpenShift Data Science does not affect a logged in Jupyter session running on those platforms. This means that when a user's permissions change, that user must log out of all current sessions in order for the changes to take effect.

1.2. DEFINING OPENSIFT DATA SCIENCE ADMINISTRATOR AND USER GROUPS

By default, all users authenticated in OpenShift can access OpenShift Data Science.

Also by default, users with the **cluster-admin** role are OpenShift Data Science administrators, but all users authenticated in OpenShift can access OpenShift Data Science. A cluster admin is a superuser that can perform any action in any project in the OpenShift cluster. When bound to a user with a local binding, they have full control over quota and every action on every resource in the project.

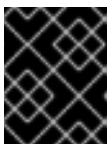
You can define additional OpenShift Data Science administrator and user groups by using the OpenShift Data Science dashboard.

Prerequisites

- You have logged in to Red Hat OpenShift Data Science as described in [Logging in to OpenShift Data Science](#).
- You have the **cluster-admin** role in OpenShift Container Platform.
- The groups that you want to define as administrator and user groups for OpenShift Data Science already exist in OpenShift Container Platform.

Procedure

1. From the OpenShift Data Science dashboard, click **Settings → User management**.
2. Define your OpenShift Data Science admin groups: Under **Data science administrator groups**, click the text box and select an OpenShift group. Repeat this process to define multiple admin groups.
3. Define your OpenShift Data Science user groups: Under **Data science user groups**, click the text box and select an OpenShift group. Repeat this process to define multiple user groups.



IMPORTANT

The **system:authenticated** setting allows all users authenticated in OpenShift to access OpenShift Data Science.

4. Click **Save changes**.

Verification

- Administrator users can successfully log in to OpenShift Data Science and perform administrative functions.

- Non-administrator users can successfully log in to OpenShift Data Science. They can also access and use individual components, such as Jupyter.

1.3. ADDING USERS TO SPECIALIZED OPENSIFT DATA SCIENCE USER GROUPS

By default, all OpenShift users have access to Red Hat OpenShift Data Science.

Optionally, you can restrict user access to your OpenShift Data Science instance by defining specialized user groups. You must grant users permission to access Red Hat OpenShift Data Science by adding user accounts to the Red Hat OpenShift Data Science user group, administrator group, or both. You can either use the default group name, or specify a group name that already exists in your identity provider.

The **user group** provides the user with access to developer functions in the Red Hat OpenShift Data Science dashboard, and associated services, such as Jupyter.

The **administrator group** provides the user with access to developer and administrator functions in the Red Hat OpenShift Data Science dashboard and associated services, such as Jupyter.

If you restrict access by using specialized user groups, users that are not in the OpenShift Data Science user group or administrator group can still view the dashboard, but are unable to use associated services, such as Jupyter. They are also unable to access the **Cluster settings** page.

Follow the steps in this section to add users to your specialized OpenShift Data Science administrator and user groups.

Note: You can add users in OpenShift Data Science but you must manage the user lists in the OpenShift Container Platform web console.

Prerequisites

- You have configured a supported identity provider for OpenShift Container Platform.
- You are assigned the **cluster-admin** role in OpenShift Container Platform.
- You have defined an OpenShift Data Science administrator group and user group.

Procedure

1. In the OpenShift Container Platform web console, click **User Management** → **Groups**.
2. Click the name of the group you want to add users to.
 - For administrative users, click the administrator group, for example, **rhods-admins**.
 - For normal users, click the user group, for example, **rhods-users**.
The **Group details** page for that group appears.
3. Click **Actions** → **Add Users**.
The **Add Users** dialog appears.
4. In the **Users** field, enter the relevant user name to add to the group.
5. Click **Save**.

Verification

- Click the **Details** tab for each group and confirm that the **Users** section contains the user names that you added.

1.4. VIEWING OPENSIFT DATA SCIENCE USERS

If you have defined specialized OpenShift Data Science user groups, you can view the users that belong to these groups.

Prerequisites

- The Red Hat OpenShift Data Science user group, administrator group, or both exist.
- You have the **cluster-admin** role in OpenShift Container Platform.
- You have configured a supported identity provider for OpenShift Container Platform.

Procedure

1. In the OpenShift Container Platform web console, click **User Management** → **Groups**.
2. Click the name of the group containing the users that you want to view.
 - For administrative users, click the name of your administrator group. for example, **rhods-admins**.
 - For normal users, click the name of your user group, for example, **rhods-users**. The **Group details** page for the group appears.

Verification

- In the **Users** section for the relevant group, you can view the users who have permission to access Red Hat OpenShift Data Science.

CHAPTER 2. DELETING USERS

2.1. ABOUT DELETING USERS AND THEIR RESOURCES

If you have administrator access to OpenShift Container Platform, you can revoke a user's access to Jupyter and delete the user's resources from Red Hat OpenShift Data Science.

Deleting a user and the user's resources involves the following tasks:

- Before you delete a user from OpenShift Data Science, it is good practice to back up the data on your persistent volume claims (PVCs).
- Stop notebook servers owned by the user.
- Revoke user access to Jupyter.
- Remove the user from the allowed group in your OpenShift identity provider.
- After you delete a users, delete their associated configuration files from OpenShift Container Platform.

2.2. BACKING UP STORAGE DATA

It is a best practice to back up the data on your persistent volume claims (PVCs) regularly.

Backing up your data is particularly important before you delete a user and before you uninstall OpenShift Data Science, as all PVCs are deleted when OpenShift Data Science is uninstalled.

See the documentation for your cluster platform for more information about backing up your PVCs.

Additional resources

- [Understanding persistent storage](#)


2.3. STOPPING NOTEBOOK SERVERS OWNED BY OTHER USERS

Administrators can stop notebook servers that are owned by other users to reduce resource consumption on the cluster, or as part of removing a user and their resources from the cluster.

Prerequisites

- If you are using specialized OpenShift Data Science groups, you are part of the administrator group (for example, **rhods-admins**). If you are not using specialized groups, you are part of the OpenShift Container Platform administrator group.
- See [Adding administrative users for OpenShift Container Platform](#) for more information.
- You have launched the Jupyter application, as described in [Launching Jupyter and starting a notebook server](#).
- The notebook server that you want to stop is running.

Procedure

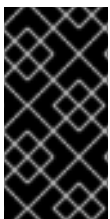
1. On the page that opens when you launch Jupyter, click the **Administration** tab.
2. Stop one or more servers.
 - If you want to stop one or more specific servers, perform the following actions:
 - i. In the **Users** section, locate the user that the notebook server belongs to.
 - ii. To stop the notebook server, perform one of the following actions:
 - Click the action menu () beside the relevant user and select **Stop server**.
 - Click **View server** beside the relevant user and then click **Stop notebook server**. The **Stop server** dialog box appears.
 - iii. Click **Stop server**.
 - If you want to stop all servers, perform the following actions:
 - i. Click the **Stop all servers** button.
 - ii. Click **OK** to confirm stopping all servers.

Verification

- The **Stop server** link beside each server changes to a **Start server** link when the notebook server has stopped.

2.4. REVOKING USER ACCESS TO JUPYTER

You can revoke a user's access to Jupyter to prevent them from running notebook servers and consuming resources in your cluster through Jupyter, while still allowing them access to OpenShift Data Science and other services that use OpenShift's identity provider for authentication.



IMPORTANT

Follow these steps only if you have implemented specialized user groups to restricted access to OpenShift Data Science. To completely remove a user from OpenShift Data Science, you must remove them from the allowed group in your OpenShift identity provider.

Prerequisites

- You have stopped any notebook servers owned by the user you want to delete.
- You are assigned the **cluster-admin** role in OpenShift Container Platform.
- If you are using specialized OpenShift Data Science user groups, the user is part of the OpenShift Data Science user group, administrator group, or both.


Procedure

1. In the OpenShift Container Platform web console, click **User Management → Groups**.
2. Click the name of the group that you want to remove the user from.
 - For administrative users, click the name of your administrator group, for example **rhods-**

For administrative users, click the name of your administrator group, for example, **rhods-admins**.

- For normal users, click the name of your user group, for example, **rhods-users**.

The **Group details** page for the group appears.

3. In the **Users** section on the **Details** tab, locate the user that you want to remove.
4. Click the action menu () beside the user that you want to remove and click **Remove user**.

Verification

- Check the **Users** section on the **Details** tab and confirm that the user that you removed is not visible.
- In the **rhods-notebooks** project, check under **Workload** → **Pods** and ensure that there is no notebook server pod for this user. If you can see a pod named **jupyter-nb-`<username>`-*** for the user that you have removed, delete that pod to ensure that the deleted user is not consuming resources on the cluster.
- In the OpenShift Data Science dashboard, check the list of data science projects. Delete any projects that belong to the user.

2.5. CLEANING UP AFTER DELETING USERS

After removing a user's access to Red Hat OpenShift Data Science or Jupyter, you must also delete their associated configuration files from OpenShift Container Platform.

It is recommended that you back up the user's data before removing their configuration files.

Prerequisites

- (Optional) If you want to completely remove the user's access to OpenShift Data Science, you have removed their credentials from your identity provider.
- You have revoked the user's access to Jupyter.
- You have backed up the user's storage data.
- If you are using specialized OpenShift Data Science groups, you are part of the administrator group (for example, **rhods-admins**). If you are not using specialized groups, you are part of the OpenShift Container Platform administrator group. See [Adding administrative users for OpenShift Container Platform](#) for more information.
- You have logged in to the OpenShift Container Platform web console.
- You have logged in to OpenShift Data Science.

Procedure

1. Delete the user's persistent volume claim (PVC).
 - a. Click **Storage** → **PersistentVolumeClaims**.
 - b. If it is not already selected, select the **rhods-notebooks** project from the project list.

- c. Locate the **jupyter-nb-<username>** PVC.
Replace **<username>** with the relevant user name.
 - d. Click the action menu (:) and select **Delete PersistentVolumeClaim** from the list.
The **Delete PersistentVolumeClaim** dialog appears.
 - e. Inspect the dialog and confirm that you are deleting the correct PVC.
 - f. Click **Delete**.
2. Delete the user's ConfigMap.
 - a. Click **Workloads → ConfigMaps**.
 - b. If it is not already selected, select the **rhods-notebooks** project from the project list.
 - c. Locate the **jupyterhub-singleuser-profile-<username>** ConfigMap.
Replace **<username>** with the relevant user name.
 - d. Click the action menu (:) and select **Delete ConfigMap** from the list.
The **Delete ConfigMap** dialog appears.
 - e. Inspect the dialog and confirm that you are deleting the correct ConfigMap.
 - f. Click **Delete**.

Verification

- The user cannot access Jupyter any more, and sees an "Access permission needed" message if they try.
- The user's single-user profile, persistent volume claim (PVC), and ConfigMap are not visible in OpenShift Container Platform.