



# Red Hat Hybrid Cloud Console 1-latest

## Configuring notifications on the Red Hat Hybrid Cloud Console with FedRAMP

Configuring Hybrid Cloud Console settings so that account users receive event-triggered notifications



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## Abstract

Use notifications to learn about identified events in the Hybrid Cloud Console with FedRAMP<sup>®</sup> that have occurred and might impact your organization. Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright's message.

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## PREFACE

Use the notifications service on the Red Hat Hybrid Cloud Console so that you do not have to check your user interface for event-triggered notifications. Instead, when events occur, the service automatically sends notifications about the events to you.



### **IMPORTANT**

Groups and roles, including the Notifications administrator role, must be configured by an Organization Administrator in order for events to be reported through email and integrations.

# CHAPTER 1. INTRODUCTION TO RED HAT HYBRID CLOUD CONSOLE NOTIFICATIONS AND INTEGRATIONS

Through the notifications service, Red Hat Hybrid Cloud Console services have a standardized way of notifying users of events. By setting up behavior groups, a Notifications administrator specifies the notification delivery method and whether event notifications are sent to all users on an account, specific users, or only to Organization Administrators.

For example, the Notifications administrator can configure the service to send an email notification for new-recommendation hits on a system.

An Organization Administrator designates Notifications administrators by creating a User Access group with the Notifications administrator role, then adding account members to the group. A Notifications administrator then configures notification behavior groups that define actions taken when service-specific events occur.

The notifications service transmits event-triggered notifications to users' email accounts. Users on the Hybrid Cloud Console account set their own preferences for receiving email notifications. In [Settings > Notifications > Notification preferences](#), each user configures their personal settings to receive event notification emails as an instant notification or daily digest.

## 1.1. HYBRID CLOUD CONSOLE NOTIFICATION AND INTEGRATION CONCEPTS

Review key concepts to understand how the notifications service works:

**Table 1.1. Notifications concepts**

Concept	Description
Actions	Operations are performed in response to an event. Examples include sending an email or forwarding a notification to an integration endpoint. Actions are defined in behavior groups that are configured by a Notifications administrator.
Application bundle	Application bundle refers to an application group within the Hybrid Cloud Console, such as Red Hat Enterprise Linux or OpenShift.
Behavior groups	Behavior groups determine what actions to take when an event occurs, and whether to notify all account users or only designated administrators. After a Notifications administrator creates a behavior group, they associate it with event types which enables Notifications administrators to apply the same actions to all application-specific events.  <b>NOTE:</b> Notifications administrators configure notification behavior groups separately for each application bundle.



Concept	Description
Email preferences	<p>Individual users with access to applications on the Hybrid Cloud Console set their personal email preferences. Users can configure personal email notifications to arrive either instantly, as the event occurs, or consolidated into a daily digest that arrives at midnight, 00:00 Coordinated Universal Time (UTC), for all accounts.</p> <p><b>IMPORTANT:</b> Selecting instant notification for any service can potentially result in the recipient receiving a very large number of emails.</p>
Event type	<p>Event types are application-specific system changes that trigger the application or service to initiate notification actions. Event types are created by application developers at Red Hat and are unique for each application bundle.</p>
Integrations	<p>Integrations define the method of delivery of notifications configured by the Notifications administrator. After integrations are configured, the notifications service sends the HTTP POST messages to endpoints.</p>
User access roles	<p>The following User Access roles interact with notifications:</p> <ul style="list-style-type: none"><li>* Organization Administrator</li><li>* Notifications administrator</li><li>* Notifications viewer</li></ul>

## CHAPTER 2. CONFIGURE USER ACCESS TO MANAGE NOTIFICATIONS

To configure notifications and integrations settings, you must be a member of a group with the Notifications administrator role. This group must be configured in User Access by an Organization Administrator. In the [Red Hat Hybrid Cloud Console > Settings > Identity & Access Management > User Access > Groups](#), an Organization Administrator performs the following high-level steps:

1. Create a User Access group for Notifications administrators.
2. Add the Notifications administrator role to the group.
3. Add members (users with account access) to the group.

### Organization Administrator

The Organization Administrator configures the User Access group for Notifications administrators, then adds the Notifications administrator role and users to the group.

### Notifications administrator

Notifications administrators configure how services interact with notifications. Notifications administrators configure behavior groups to define how services notify users about events. Administrators can configure additional integrations as they become available, as well as edit, disable, and remove existing integrations.

### Notifications viewer

The Notifications viewer role is automatically granted to everyone on the account and limits how a user can interact with notifications service views and configurations. A viewer can view notification configurations, but cannot modify or remove them. A viewer also cannot configure, modify, or remove integrations.

### Additional resources

- To learn more about User Access on the Red Hat Hybrid Cloud Console, see the [User Access Configuration Guide for Role-based Access Control \(RBAC\) with FedRAMP](#).

## 2.1. CREATING AND CONFIGURING A NOTIFICATIONS GROUP IN THE HYBRID CLOUD CONSOLE

An Organization Administrator of a Hybrid Cloud Console account creates a group with the Notifications administrator role and adds members to the group.

### Prerequisites

- You are logged in to the Red Hat Hybrid Cloud Console as an Organization Administrator.

### Procedure

1. Click **Settings > Identity & Access Management**
2. Under **Identity & Access Management**, expand **User Access** if necessary and select **Groups**.
3. Click **Create group**.

4. Enter a group name, for example, *Notifications administrators*, and a description, then click **Next**.
5. Select the role to add to this group, in this case **Notifications administrator**. Click the checkbox for that role, then click **Next**.
6. Add members to the group. Search for individual users or filter by username, email, or status. Check the box next to each intended member's name, then click **Next**.
7. Review the details to make sure everything is correct. Click **Back** if you need to go back and change something.
8. Click **Submit** to finish creating the group.


## 2.2. EDITING OR REMOVING A USER ACCESS GROUP

You can make changes to an existing User Access group in the Red Hat Hybrid Cloud Console and you can delete groups that are no longer needed.

### Prerequisites

- You are logged in to the [Red Hat Hybrid Cloud Console](#) as a user who has Organization Administrator permissions.
- If you are not an Organization Administrator, you must be a member of a group that has the **User Access administrator** role assigned to it.

### Procedure

1. Find the group name in the [Red Hat Hybrid Cloud Console > Settings > Identity & Access Management > User Access > Groups](#).
2. Click the options icon (  ) on the far right of the group name row, and click **Edit** or **Delete**.
3. Make and save changes or delete the group.

## CHAPTER 3. CONFIGURING HYBRID CLOUD CONSOLE NOTIFICATION BEHAVIOR GROUPS

The Notifications administrator configures notifications for the account through behavior groups. A behavior group defines which notifications will be sent to external services such as Microsoft Teams when a specific event is received by the notifications service. The Notifications administrator can link events from any Red Hat Hybrid Cloud Console service to a behavior group.

After creating a behavior group, the Notifications administrator associates it with triggering events, which are unique to each application bundle.

When an event occurs, all users on the account who selected in their user preferences to receive notifications will receive them, as well as all third-party applications specified as integration actions in the behavior group.

### 3.1. CREATING A BEHAVIOR GROUP

Use the **Create behavior group** wizard to create a new behavior group in the Hybrid Cloud Console. The wizard enables you to select notifications, assign notifications to users or groups of users, and associate Hybrid Cloud Console events with behavior groups.



#### NOTE

You can associate events with multiple behavior groups. If a behavior group is not associated with any event, no notifications are sent when an event occurs.

You can create a maximum of 64 behavior groups within an organization.



#### IMPORTANT

If your organization has configured Inventory groups to control user access to systems, review your notifications configuration to ensure that only appropriate groups of users are configured to receive notifications. If you do not review your notifications configuration, users might receive alerts triggered by systems outside of their Inventory group permission scope. See [Viewing and managing system inventory](#) for more information about configuring inventory groups.

#### Prerequisites

- An Organization Administrator has configured notification groups, roles, and members.
- You are logged in to the Hybrid Cloud Console as a Notifications administrator.

#### Procedure

1. In the Hybrid Cloud Console, navigate to [Settings > Notifications](#).
2. Under **Notifications**, select **Configure Events**.
3. Select the application bundle tab you want to configure event notification behavior for: **Red Hat Enterprise Linux, Console**, or **OpenShift**.
4. Click the **Behavior Groups** tab.

- Click **Create new group** to open the **Create behavior group** wizard.

- Enter a group name, and then click **Next**. The **Actions and recipients** page opens.
- From the **Actions** drop-down list, select **Send an email**, or select an integration from the list:

- If you selected **Send an email**, select a recipient from the **Recipient** drop-down list. You can specify that the email notification go to all users in the organization, or you can limit the recipients to administrators in the organization. If User Access groups are configured, you can select a User Access group to receive email notifications.

8. Optional: To add additional actions to notify additional integration endpoints, click **Add action**.
9. When you have finished adding actions, click **Next**. The **Associate event types** page opens.

The screenshot shows the 'Associate event types' step of the 'Create behavior group' wizard. The left sidebar shows the progress: 1 Name, 2 Actions and recipients, 3 Associate event types (current), and 4 Review. The main area is titled 'Associate event types' and contains the instruction: 'Select event types you would like to assign this behavior group to.' Below this is a selection interface with a dropdown showing '4 selected', a filter dropdown for 'Event type', a search box 'Filter by event type', and a pagination indicator '1 - 15 of 15'. A table lists event types and their applications:

Event type	Application
<input type="checkbox"/> Resolved recommendation	Advisor
<input checked="" type="checkbox"/> New recommendation	Advisor
<input type="checkbox"/> Deactivated recommendation	Advisor
<input type="checkbox"/> Policy report failed to upload	Compliance
<input type="checkbox"/> System is non compliant to SCAP policy	Compliance
<input checked="" type="checkbox"/> Drift from baseline detected	Drift
<input checked="" type="checkbox"/> Validation error	Inventory
<input checked="" type="checkbox"/> Detected Malware	Malware
<input type="checkbox"/> New advisory	Patch

At the bottom, there are three buttons: 'Next' (highlighted in blue), 'Back', and 'Cancel'.

10. Select the types of events that you want to include in your notifications, and then click **Next**. The **Review** page opens.

The screenshot shows the 'Review' step of the 'Create behavior group' wizard. The left sidebar shows the progress: 1 Name, 2 Actions and recipients, 3 Associate event types, and 4 Review (current). The main area is titled 'Review' and displays the configuration details:

<b>Name</b>	Email admins	
<b>Actions and recipients</b>	<b>Action</b> ✉ Send an email	<b>Recipient</b> Users: Admins
<b>Associate event types</b>	<b>Event type</b> New recommendation Drift from baseline detected Validation error Detected Malware	<b>Application</b> Advisor Drift Inventory Malware

At the bottom, there are three buttons: 'Finish' (highlighted in blue), 'Back', and 'Cancel'.

11. Review the settings you selected for the behavior group. To modify the settings, click **Back**. To save the settings and create the behavior group, click **Finish**.

### Additional resources

- For more information about how to create User Access groups, see [Managing access with roles and members](#).
- For more information about inventory groups, see [Viewing and managing system inventory](#).

## 3.2. MODIFYING A BEHAVIOR GROUP

Use the **Edit behavior group** wizard to modify settings for an existing behavior group. You can use the wizard to select notifications, assign notifications to users or groups of users, and associate Hybrid Cloud Console events with behavior groups.




### NOTE

Events can be associated with multiple behavior groups. If a behavior group is not associated with an event, no notifications are sent when an event occurs.

### Prerequisites

- An Organization Administrator has configured notification groups, roles, and members.
- You are logged into the Hybrid Cloud Console with Notifications administrator privileges.

### Procedure

1. In the Hybrid Cloud Console, navigate to [Settings > Notifications](#).
2. Under **Notifications**, select **Configure Events**.
3. Select the application bundle tab you want to modify event notification behavior for: **Red Hat Enterprise Linux, Console**, or **OpenShift**.
4. Click the **Behavior Groups** tab to display the available behavior groups.
5. Click the more options icon  on the behavior group you want to modify and click **Edit**. The **Edit behavior group** wizard opens.

**Edit behavior group** [X]

1 Name  
2 Actions and recipients  
3 Associate event types  
4 Review

**Name**

Behavior group name \*

Email Admins

Next Back Cancel

6. Enter a group name, and then click **Next**. The **Actions and recipients** page opens.
7. From the **Actions** drop-down list, select **Send an email**, or select an integration from the list:

**Edit behavior group** [X]

1 Name  
2 Actions and recipients  
3 Associate event types  
4 Review

**Actions and recipients**

Select action and recipient pairs to assign to your notification events.

Actions	Recipient
Send an email	Admins

+ Add action

Next Back Cancel

- If you selected **Send an email**, select a recipient from the **Recipient** drop-down list. You can specify that the email notification go to all users in the organization, or you can limit the recipients to administrators in the organization. If User Access groups are configured, you can select a User Access group to receive email notifications.
8. Optional: To add additional actions to notify additional integration endpoints, click **Add action**.



9. When you have finished adding actions, click **Next**. The **Associate event types** page opens.

Event type	Application
<input checked="" type="checkbox"/> Resolved recommendation	Advisor
<input type="checkbox"/> New recommendation	Advisor
<input type="checkbox"/> Deactivated recommendation	Advisor
<input checked="" type="checkbox"/> Policy report failed to upload	Compliance
<input checked="" type="checkbox"/> System is non compliant to SCAP policy	Compliance
<input type="checkbox"/> Drift from baseline detected	Drift
<input checked="" type="checkbox"/> Validation error	Inventory
<input checked="" type="checkbox"/> Detected Malware	Malware

10. Select the types of events that you want to include in your notifications, and then click **Next**. The **Review** page opens.

Name	Action	Recipient
Email Admins	Send an email	Users: Admins

Associate event types	Event type	Application
	New vulnerability with CVSS >= 7.0	Vulnerability
	Policy report failed to upload	Compliance
	Resolved recommendation	Advisor
	New vulnerability with Critical Severity	Vulnerability
	Detected Malware	Malware
	Validation error	Inventory
	System is non compliant to SCAP policy	Compliance
	New advisory	Patch
	Any vulnerability with known exploit	Vulnerability
	New suggestion	Resource Optimization

11. Review the settings that you selected for the behavior group. To continue to modify the settings, click **Back**. To save the settings for the behavior group, click **Finish**.

## CHAPTER 4. CONFIGURING USER PREFERENCES FOR EMAIL NOTIFICATIONS

Each user in the Red Hat Hybrid Cloud Console must opt in to receive email notifications emails about events. You can select the services from which to receive notifications as well as the frequency.



### IMPORTANT

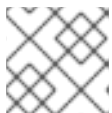
If you select **Instant notification** for any service, you might receive a very large number of emails.

### Prerequisites

- You are logged in to the Red Hat Hybrid Cloud Console.
- You have configured relevant events in the console.
- A Notifications administrator or Organization Administrator has configured behavior groups to receive event notifications.

### Procedure

1. In the Hybrid Cloud Console, navigate to [Settings > Notifications > Notification Preferences](#). On the **My Notifications** page, the available services are grouped by category, for example OpenShift or Red Hat Enterprise Linux.
2. Select the service you want to configure your notifications for, for example Advisor or User Access. A list of the available event notifications for the selected service opens.
3. At the top of the list, click **Select all** to enable all notifications for the service, or select one of the following options for each event listed:



### NOTE

All options are not available for all services.

- **Daily digest:** Receive a daily summary of triggered application events that occur in a 24 hour time frame.
- **Instant notification:** Receive an email immediately for each triggered application event.



### IMPORTANT

If you select **Instant notification** for any service, you might receive a very large number of emails.

- **Weekly report:** Receive an email that contains the Advisor Weekly Report.
4. Update your information and then click **Save**. Email notifications are delivered in the format and frequency that you selected.

**NOTE**

If you decide to stop receiving notifications, select **Deselect all** or uncheck the boxes for the events you do not want to be notified about, and then click **Save**. You will no longer receive any email notifications unless you return to this screen and enable them once again.

## 4.1. CUSTOMIZING THE DAILY DIGEST EMAIL NOTIFICATION TIME

You can choose to receive a summary of triggered application events occurring in your Red Hat Hybrid Cloud Console services in a daily digest email, instead of being notified as events occur.

By default, the daily digest is sent at 00:00 Coordinated Universal Time (UTC).

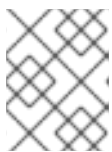
Organization Administrators and Notifications administrators can customize the time the daily digest is sent. The daily digest provides a snapshot of events occurring over a 24-hour time frame, starting from the time you specify in the notifications settings.

**Prerequisites**

- You are logged in to the Hybrid Cloud Console as an Organization Administrator or as a user with Notifications administrator permissions.

**Procedure**

1. In the Hybrid Cloud Console, navigate to [Settings > Notifications > Notification Preferences](#).
2. On the **My Notifications** page, click **Edit time settings**.
3. Select **Custom time** and then specify the time and time zone to send your account's daily digest email.
4. Click **Save**.

**NOTE**

After you save a new time, the Hybrid Cloud Console converts the new time to the UTC time zone.

The daily digest email is sent each day at the time you selected.

## 4.2. UPDATING YOUR EMAIL ADDRESS FOR NOTIFICATIONS

The notifications service sends email notifications to the email address listed in your Red Hat account.

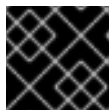
You can update your email address using the steps in this procedure.

**Prerequisites**

- You are logged in to the Hybrid Cloud Console.

**Procedure**

1. Click your user avatar in the upper right of the Red Hat Hybrid Cloud Console window. A drop-down list appears.
2. Click **My profile**.
3. Under **Personal information**, click the **Change** link next to your email address. This opens the Red Hat account management application.
4. In the **Email address** field, enter your new email address and then click **Save**. Red Hat sends a verification to your new email address.



#### **IMPORTANT**

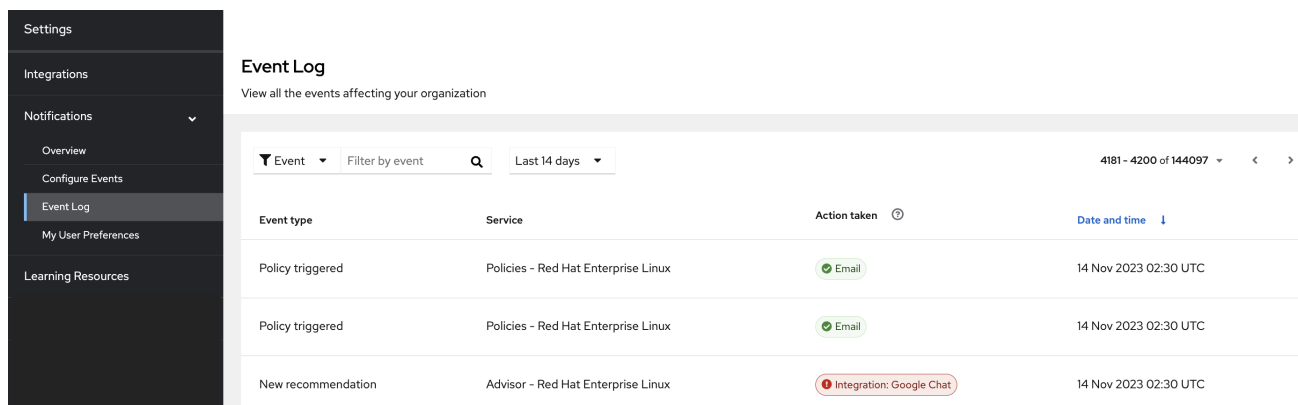
You must verify your new email address within one day to save the change.

5. Open the verification email from Red Hat in your email account and click **Link to e-mail address verification**. This confirms your email address and returns you to the Red Hat account management application.

Your new email address is saved in your Red Hat account. If the change does not show in **My profile** immediately, log out of all Red Hat applications and log back in to view your updated account.

## CHAPTER 5. TROUBLESHOOTING NOTIFICATION FAILURES WITH THE EVENT LOG AND INTEGRATION SETTINGS

The notifications service event log enables Notifications administrators to see when notifications are not working properly. The event log provides a list of all triggered events on the Red Hat Hybrid Cloud Console account, and actions taken (as configured in the associated behavior group) for the past 14 days.



In the **Action taken** column, each event shows the integration type highlighted in green or red to indicate the status of the message transmission. The filterable event log is a useful troubleshooting tool to see a failed notification event and identify potential issues with endpoints. After seeing a failed action in the event log, the Notifications administrator can check the endpoint and the status of the last five connection attempts on the Integrations screen.

In the integrations service, the following connection statuses are reflected by color:

- **Green:** Five previous transmissions were successful.
- **Red:** Five previous transmissions were unsuccessful (timeout, 404 error, etc).
- **Yellow:** Connection is degraded; at least two of the five previous transmissions were unsuccessful.
- **Unknown:** The integration has not yet been called, or is not associated with a behavior group.

The event log can answer questions related to receipt of emails. By showing the email action for an event as green, the event log enables a Notifications administrator to confirm that emails were sent successfully.

Even when notifications and integrations are configured properly, individual users on the Hybrid Cloud Console account must configure their user preferences to receive emails.

### Prerequisites

- You are logged in to the Hybrid Cloud Console as a user with Notifications administrator or Organization Administrator permissions.

### Procedure

1. In the Hybrid Cloud Console, navigate to [Settings > Notifications > Event Log](#).
  - a. Filter the events list by event, application, application bundle, action type, or action status.

- b. Select the time frame to show events from today, yesterday, the last seven days, the last 14 days (default), or set a custom range within the last 14 days.
  - c. Sort the **Date and time** column in ascending or descending order.
2. Navigate to [Settings > Notifications > Configure Events](#), and verify or change settings by event.
3. Ask users to check their user preferences for receiving email notifications. Even when notifications and integrations are configured properly, each user on a Hybrid Cloud Console account must configure their own user preferences to receive emails.

### Additional resources

- For more information about network and firewall configuration, see [Firewall Configuration for accessing Red Hat Insights / Hybrid Cloud Console Integrations & Notifications](#).
- To configure your personal preferences for receiving notifications, see [Configuring user preferences for email notifications](#).

# PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

We appreciate your feedback on our documentation. Provide as much detail as possible so that your request can be addressed.

## Prerequisites

- You have a Red Hat account. If you do not have a Red Hat account, you can create one by clicking **Register** on the [Red Hat Customer Portal](#) home page.
- You are logged in to your Red Hat account.

## Procedure

1. To provide your feedback, click the following link: [Create Issue](#)
2. Describe the issue or enhancement in the **Summary** text box.
3. Provide more details about the issue or enhancement in the **Description** text box.
4. If your Red Hat user name does not automatically appear in the **Reporter** text box, enter it.
5. Scroll to the bottom of the page and then click the **Create** button. A documentation issue is created and routed to the appropriate documentation team.

Thank you for taking the time to provide feedback.