

# Apache NiFi Registry User Guide

Date published:

Date modified:

**CLOUDBERA**

# Legal Notice

© Cloudera Inc. 2024. All rights reserved.

The documentation is and contains Cloudera proprietary information protected by copyright and other intellectual property rights. No license under copyright or any other intellectual property right is granted herein.

Unless otherwise noted, scripts and sample code are licensed under the Apache License, Version 2.0.

Copyright information for Cloudera software may be found within the documentation accompanying each component in a particular release.

Cloudera software includes software from various open source or other third party projects, and may be released under the Apache Software License 2.0 (“ASLv2”), the Affero General Public License version 3 (AGPLv3), or other license terms. Other software included may be released under the terms of alternative open source licenses. Please review the license and notice files accompanying the software for additional licensing information.

Please visit the Cloudera software product page for more information on Cloudera software. For more information on Cloudera support services, please visit either the Support or Sales page. Feel free to contact us directly to discuss your specific needs.

Cloudera reserves the right to change any products at any time, and without notice. Cloudera assumes no responsibility nor liability arising from the use of products, except as expressly agreed to in writing by Cloudera.

Cloudera, Cloudera Altus, HUE, Impala, Cloudera Impala, and other Cloudera marks are registered or unregistered trademarks in the United States and other countries. All other trademarks are the property of their respective owners.

Disclaimer: EXCEPT AS EXPRESSLY PROVIDED IN A WRITTEN AGREEMENT WITH CLOUDERA, CLOUDERA DOES NOT MAKE NOR GIVE ANY REPRESENTATION, WARRANTY, NOR COVENANT OF ANY KIND, WHETHER EXPRESS OR IMPLIED, IN CONNECTION WITH CLOUDERA TECHNOLOGY OR RELATED SUPPORT PROVIDED IN CONNECTION THEREWITH. CLOUDERA DOES NOT WARRANT THAT CLOUDERA PRODUCTS NOR SOFTWARE WILL OPERATE UNINTERRUPTED NOR THAT IT WILL BE FREE FROM DEFECTS NOR ERRORS, THAT IT WILL PROTECT YOUR DATA FROM LOSS, CORRUPTION NOR UNAVAILABILITY, NOR THAT IT WILL MEET ALL OF CUSTOMER’S BUSINESS REQUIREMENTS. WITHOUT LIMITING THE FOREGOING, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CLOUDERA EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, NON-INFRINGEMENT, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION, WARRANTY, OR COVENANT BASED ON COURSE OF DEALING OR USAGE IN TRADE.

# Contents

<b>Introduction.....</b>	<b>5</b>
<b>Browser Support.....</b>	<b>5</b>
Unsupported Browsers.....	5
Viewing the UI in Variably Sized Browsers.....	5
<b>Terminology.....</b>	<b>5</b>
<b>NiFi Registry User Interface.....</b>	<b>6</b>
<b>Logging In.....</b>	<b>6</b>
<b>Manage Flows.....</b>	<b>7</b>
View a Flow.....	7
Sorting & Filtering Flows.....	9
Import a Flow.....	10
Import New Version of a Flow.....	11
Export a Flow Version.....	12
Delete a Flow.....	13
<b>Manage Buckets.....</b>	<b>15</b>
Sorting & Filtering Buckets.....	15
Create a Bucket.....	16
Delete a Bucket.....	17
Delete Multiple Buckets.....	18
Edit a Bucket Name.....	20
Make a Bucket Publicly Visible.....	21
Allow Bundles in a Bucket to be Overwritten.....	21
Bucket Policies.....	22
Create a Bucket Policy.....	22
Delete a Bucket Policy.....	25
<b>Manage Users &amp; Groups.....</b>	<b>26</b>
Sorting & Filtering Users/Groups.....	26
Add a User.....	27
Delete a User.....	28
Delete Multiple Users.....	29
Edit a User Name.....	31
Special Privileges.....	32
Grant Special Privileges to a User.....	32

<b>Manage Groups.....</b>	<b>34</b>
Add an Empty Group.....	34
Add User to a Group.....	35
Create a New Group with Selected Users.....	38
Remove a User from a Group.....	40
User Window.....	40
Group Window.....	41
Other Group Level Actions.....	42
<b>Manage Bundles.....</b>	<b>42</b>
Upload Bundle.....	42
Download Bundle.....	43
Bundle Coordinates.....	43
Bundle Id.....	43
Additional Actions.....	44

## Introduction

Apache NiFi Registry-a subproject of Apache NiFi-is a complementary application that provides a central location for storage and management of shared resources across one or more instances of NiFi and/or MiNiFi.

The first implementation of the Registry supports versioned flows. Process group level dataflows created in NiFi can be placed under version control and stored in a registry. The registry organizes where flows are stored and manages the permissions to access, create, modify or delete them.

Once NiFi Registry is installed, use a supported web browser to view the UI.

## Browser Support

Browser	Version
Chrome	Current and Current - 1
FireFox	Current and Current - 1
Safari	Current and Current - 1

Current and Current - 1 indicates that the UI is supported in the current stable release of that browser and the preceding one. For instance, if the current stable release is 62.X then the officially supported versions will be 62.X and 61.X.

For Safari, which releases major versions much less frequently, Current and Current - 1 simply represent the two latest releases.

The supported browser versions are driven by the capabilities the UI employs and the dependencies it uses. UI features will be developed and tested against the supported browsers. Any problem using a supported browser should be reported to Apache NiFi.

## Unsupported Browsers

While the UI may run successfully in unsupported browsers, it is not actively tested against them. Additionally, the UI is designed as a desktop experience and is not currently supported in mobile browsers.

## Viewing the UI in Variably Sized Browsers

In most environments, all of the UI is visible in your browser. However, the UI has a responsive design that allows you to scroll through screens as needed, in smaller sized browsers or tablet environments.



**Note:** The minimum recommended screen size is 1080px X 445px.

## Terminology

Flow: A process group level NiFi dataflow that has been placed under version control and saved to the Registry.

**Bundle:** A binary artifact containing one or more extensions that can be run in NiFi or MiNiFi.

**Bucket:** A container that stores and organizes versioned items, such as flows and bundles.

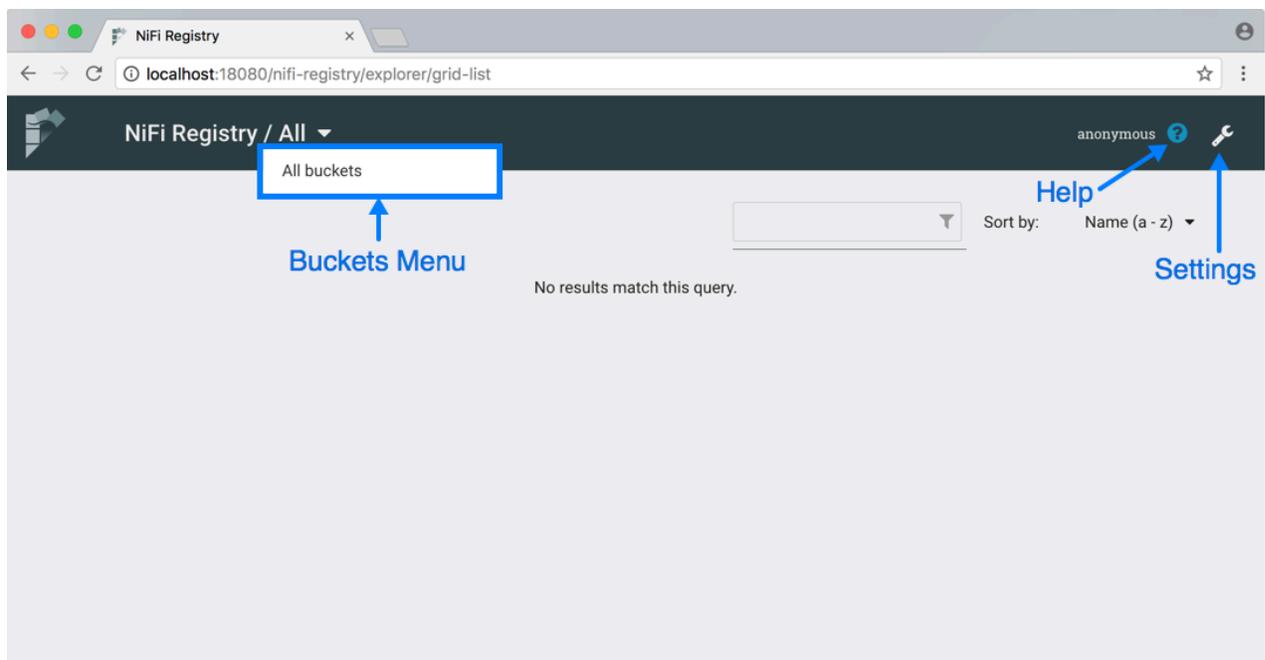
**Policy:** Defines a user or group's ability to perform a given action.

## NiFi Registry User Interface

The NiFi Registry UI displays the shared resources available and provides mechanisms for creating and administering users/groups, buckets and policies.

When the application is started, the user is able to navigate to the UI by going to the default address of `http://<host name>:18080/nifi-registry` in a web browser. There are no permissions configured by default, so anyone is able to view and modify the flows and buckets.

When an administrator navigates to the UI for the first time, the registry is empty as there are no flow resources available to share yet:



The Buckets menu is available at the top left of the screen. It allows the user to display flows based on which bucket they are contained in. On the top right of the screen is the Settings button (



) which accesses functionality for managing users, groups, buckets and policies. Next to the Settings button is the Help button (

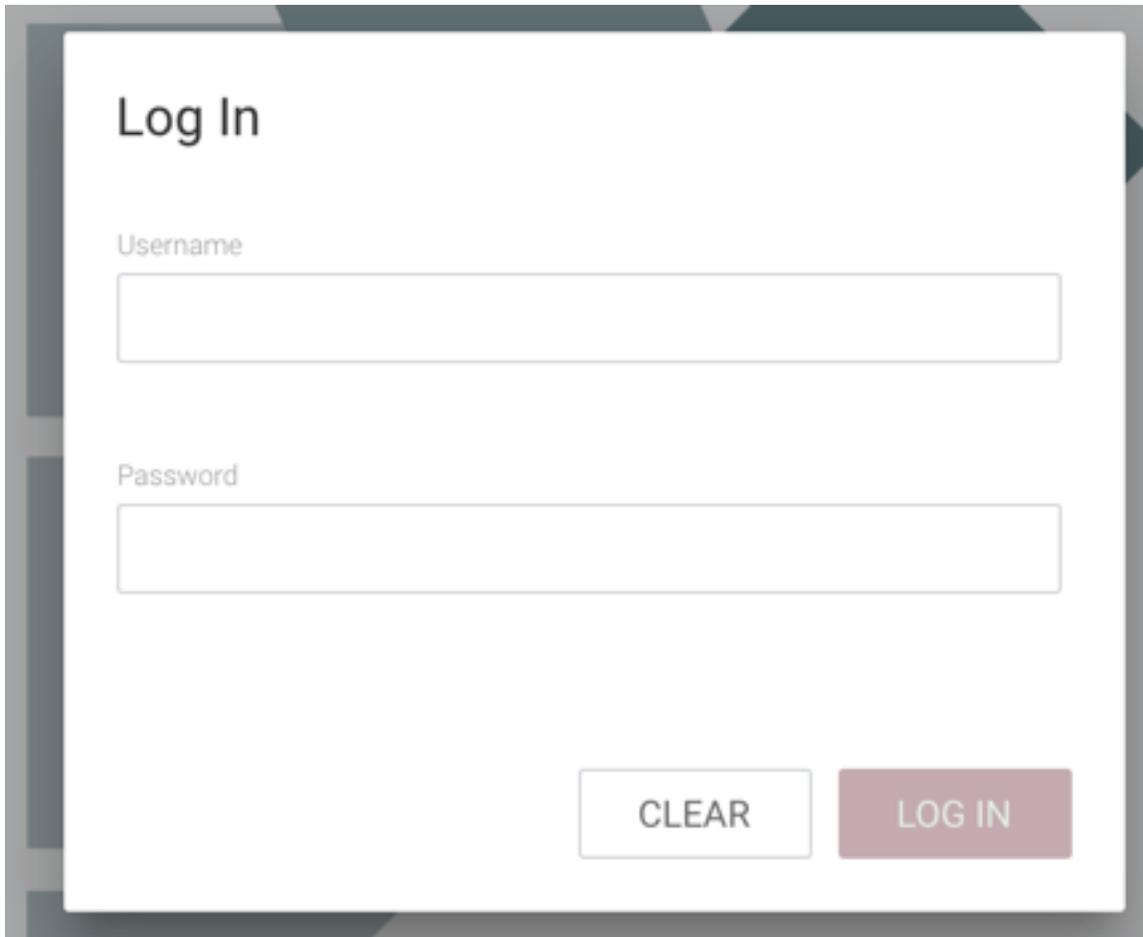


) which accesses the NiFi Registry Documentation.

## Logging In

If NiFi Registry is configured to run securely, users will have to be granted permissions to buckets by an administrator.

If the user is logging in with their username/password they will be presented with a screen to do so.



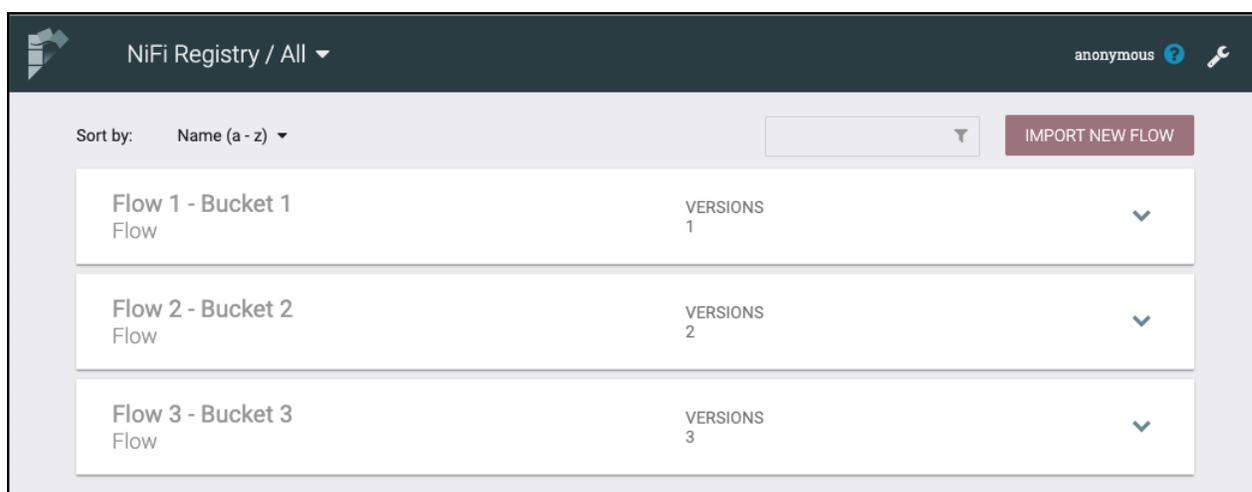
The image shows a login form with the following elements:

- Title:** "Log In" in a large, bold, black font.
- Username Field:** A text input field with the label "Username" above it.
- Password Field:** A text input field with the label "Password" above it.
- Buttons:** Two buttons at the bottom right: a "CLEAR" button (white with a grey border) and a "LOG IN" button (solid maroon).

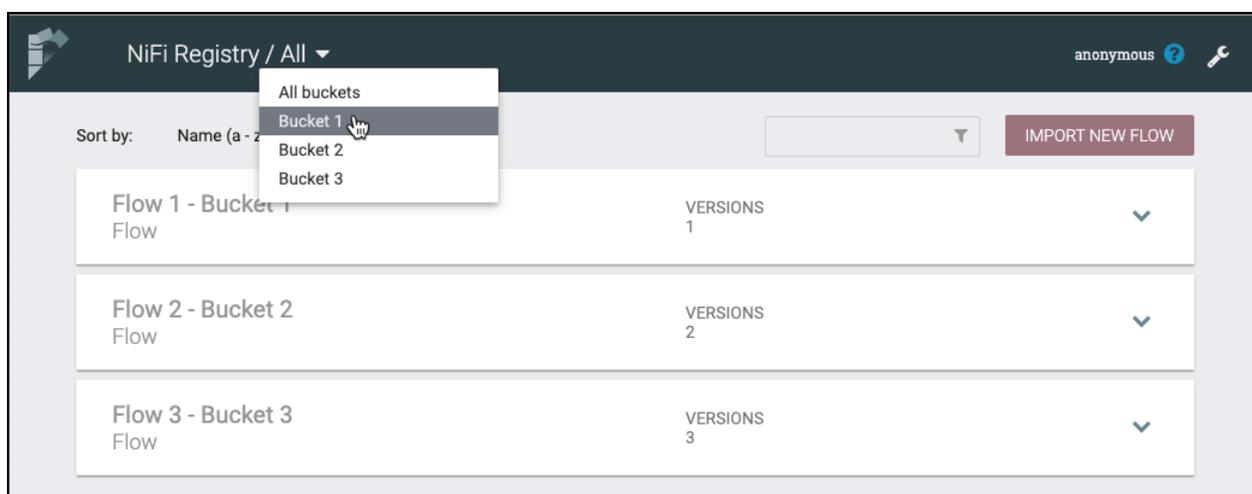
## Manage Flows

### View a Flow

Flows in all buckets are listed in the main window of the UI by default. If the registry is secured, only the flows in the buckets that the user has access to are listed.



To see the flows in a particular bucket, select that bucket from the drop-down menu at the top left of the UI.



Click on a flow to see its Bucket Identifier, Flow Identifier, Description and Change Log:

The screenshot shows the NiFi Registry interface. At the top, it says "NiFi Registry / All" and "anonymous". Below the header, there's a "Sort by:" dropdown set to "Name (a - z)" and an "IMPORT NEW FLOW" button. The main content area displays a list of flows:

- Flow 1 - Bucket 1 (Flow) with 1 VERSION
- Flow 2 - Bucket 2 (Flow) with 2 VERSIONS
- Flow 3 - Bucket 3 (Flow) with 3 VERSIONS

Below the list, a detailed view for a flow is shown. It includes a "CHANGE LOG" section with a refresh icon. The log shows two versions:

- Version 2 - 23 minutes ago** by anonymous: Add processors (Oct-19-2021 at 4:14 PM)
- Version 1 - an hour ago** by anonymous

Other details include a "BUCKET IDENTIFIER" (871c70c7-2125-4463-95e4-be8c...), a "FLOW IDENTIFIER" (762e98f4-30c4-4eca-932b-bb6e7...), and a "DESCRIPTION" (Description 2). An "ACTIONS" dropdown is also visible.

The Change Log includes all versions that were saved for a flow. Clicking on the version reveals details about when the version was saved, which user committed the save, and any comments entered by the user.

## Sorting & Filtering Flows

Flows can be sorted alphabetically by Name (ascending or descending), by Update (newest or oldest) or by Type (ascending or descending) using the Sort By drop-down.

This screenshot shows the same NiFi Registry interface as the previous one, but with the "Sort by:" dropdown menu open. The menu options are:

- Name (z - a)
- Oldest (update)
- Type (z - a)

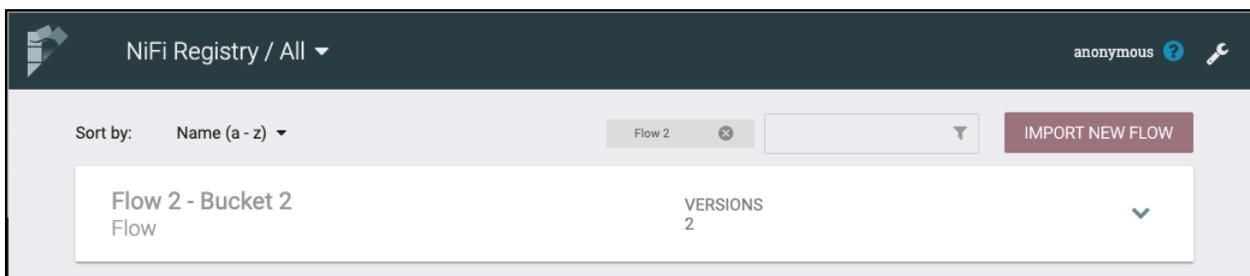
The background shows the same list of flows as in the previous screenshot.

The flow list can be filtered by:

- flow name
- flow description
- flow ID

- bucket name
- bucket ID
- type

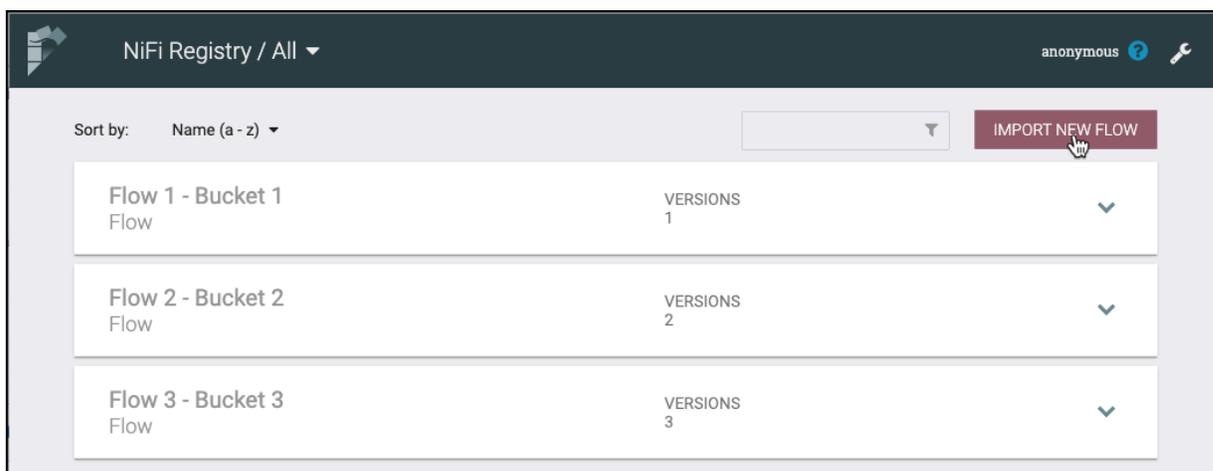
Here is an example filtering by flow name:



## Import a Flow

To import a flow into the registry:

1. Click on the "Import New Flow" button. A bucket must exist for this button to be visible.



2. Enter a unique flow name and a flow description if desired.
3. Select the destination bucket.

- Drop or select a flow definition file.

The screenshot shows a modal dialog titled "Import New Flow". It has a close button (X) in the top right corner. The form includes:

- Flow Name:** A text input field containing "Flow 4" and a version tag "v.1".
- Flow Description:** A large empty text area.
- Bucket:** A dropdown menu currently showing "Bucket 4".
- Flow Definition:** A text input field containing "flow-4-version-1" and a "SELECT FILE" button with a download icon.
- Validation:** A green checkmark icon with the text "Looks good!" next to the Flow Definition field.
- Buttons:** "CANCEL" and "IMPORT" buttons at the bottom.

- Select "Import".

## Import New Version of a Flow

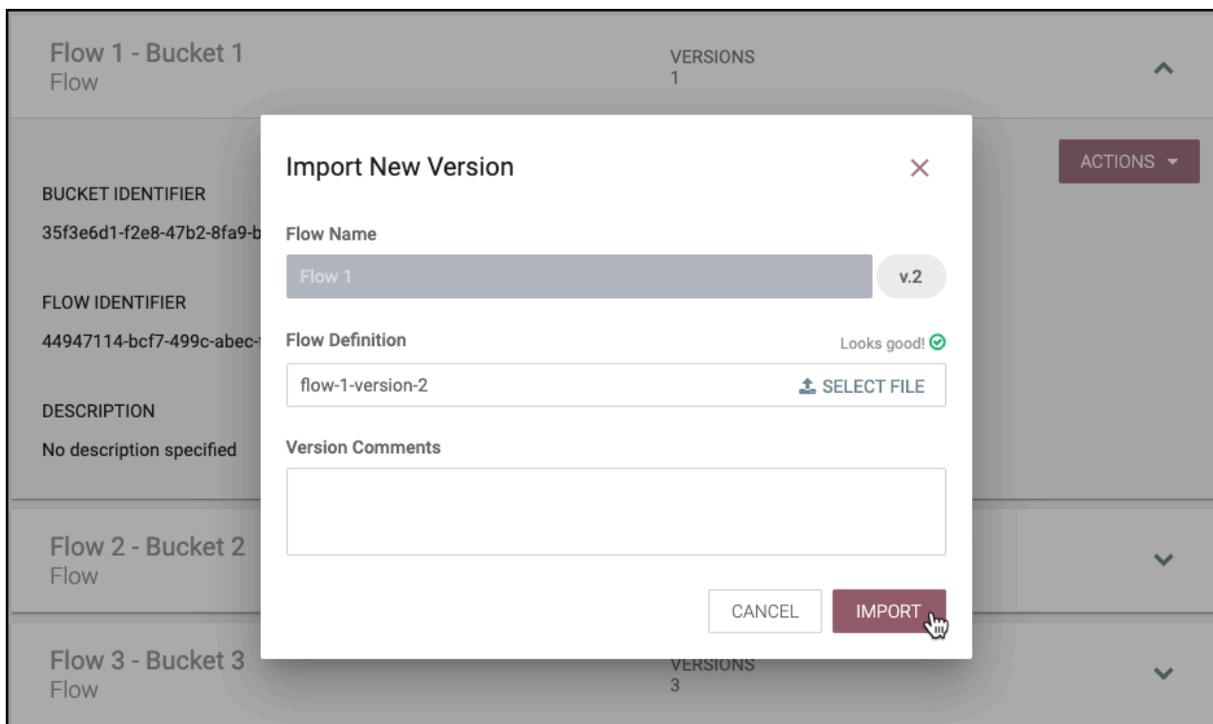
To import a new version of a flow:

- Click on the flow to see its details.
- Select the "Actions" drop-down and click the "Import new flow" menu option.

The screenshot shows the NiFi Registry interface for a flow named "Flow 1 - Bucket 1". The page includes:

- Sort by:** Name (a - z)
- IMPORT NEW FLOW** button
- Flow Details:**
  - BUCKET IDENTIFIER:** 35f3e6d1-f2e8-47b2-8fa9-b4a85...
  - CHANGE LOG:** Version 1 - 6 hours ago by anonymous
  - FLOW IDENTIFIER:** 44947114-bcf7-499c-abec-ffd93c...
  - DESCRIPTION:** No description specified
- ACTIONS** dropdown menu with options:
  - Import new version (highlighted)
  - Export version
  - Delete flow

- Drop or select a flow definition file.

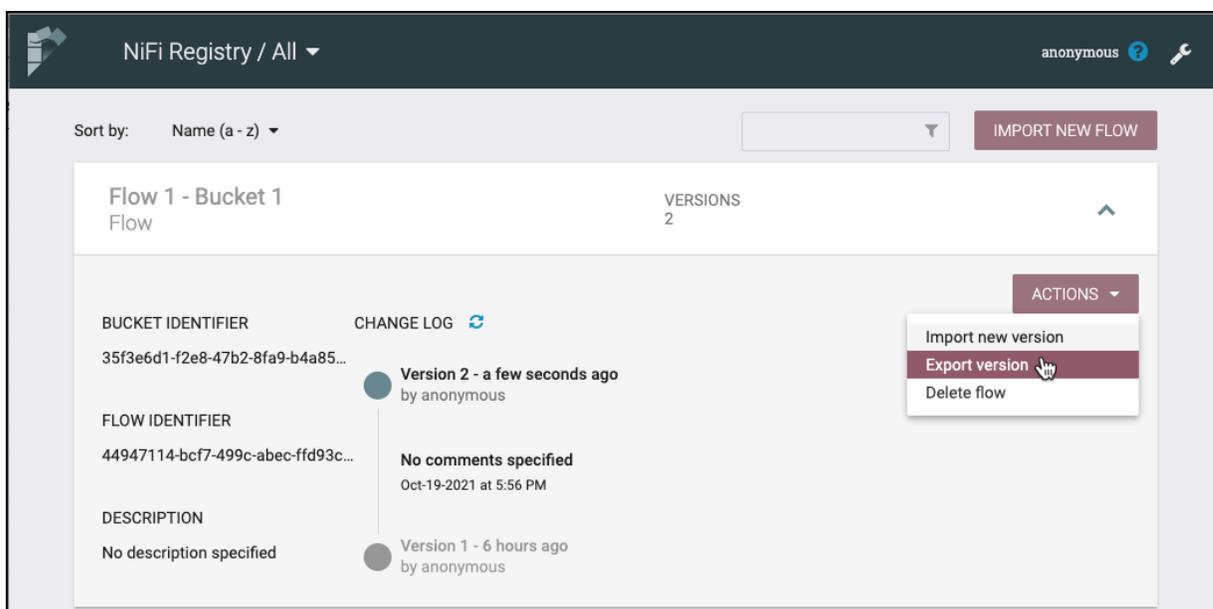


- Select "Import".

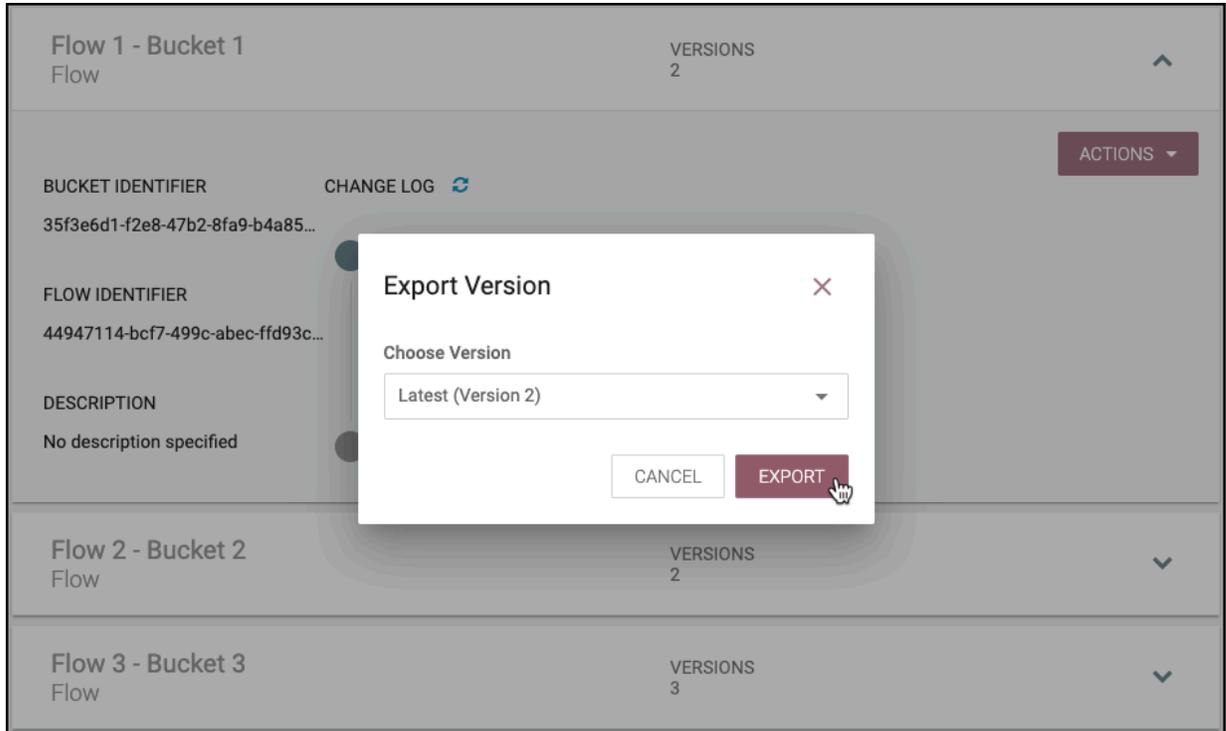
## Export a Flow Version

To export a version of a flow:

- Click on the flow to see its details.
- Select the "Actions" drop-down and click the "Export version" menu option.



3. Choose the version of the flow to export. By default, the latest version is selected.



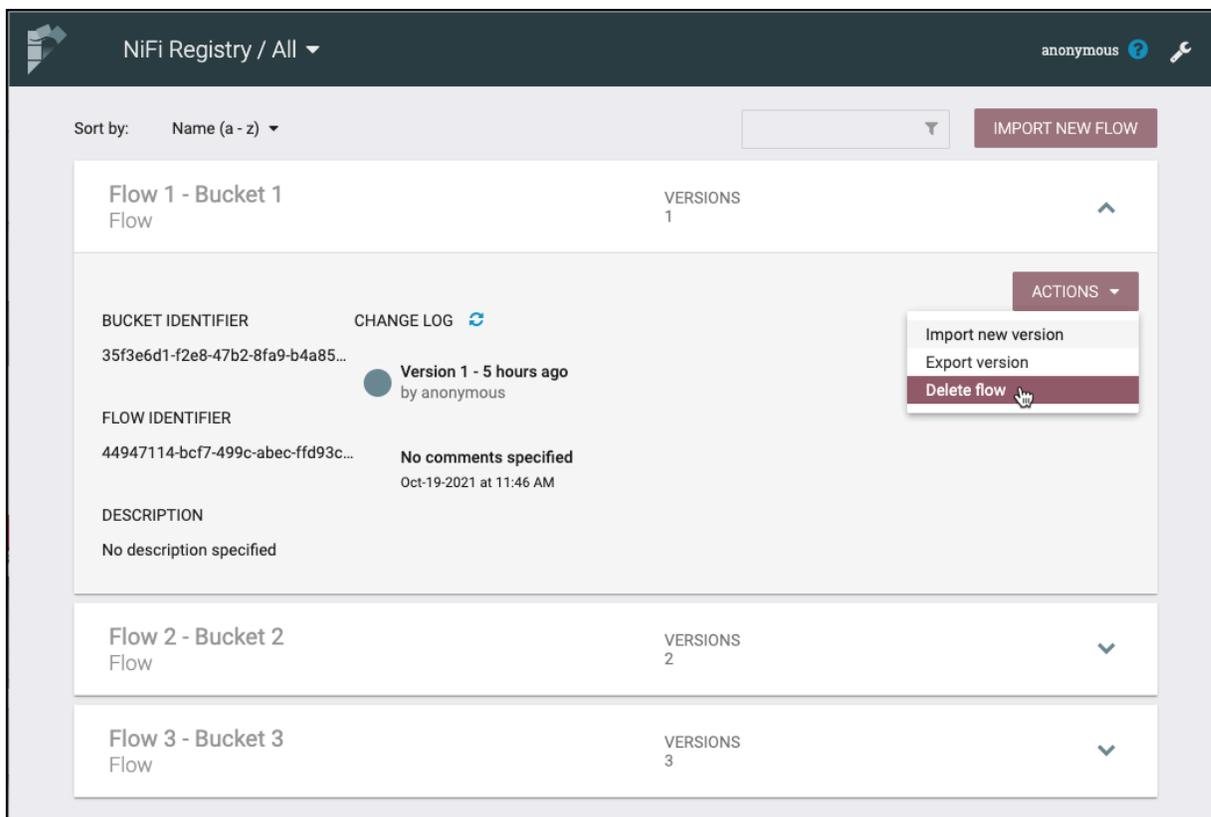
4. Select "Export".

## Delete a Flow

To delete a flow from the registry:

1. Click on the flow to see its details.

2. Select the "Actions" drop-down and click the "Delete flow" menu option.



NiFi Registry / All

Sort by: Name (a - z)

IMPORT NEW FLOW

Flow	VERSIONS
Flow 1 - Bucket 1	1
Flow 2 - Bucket 2	2
Flow 3 - Bucket 3	3

**Flow 1 - Bucket 1**

BUCKET IDENTIFIER: 35f3e6d1-f2e8-47b2-8fa9-b4a85...

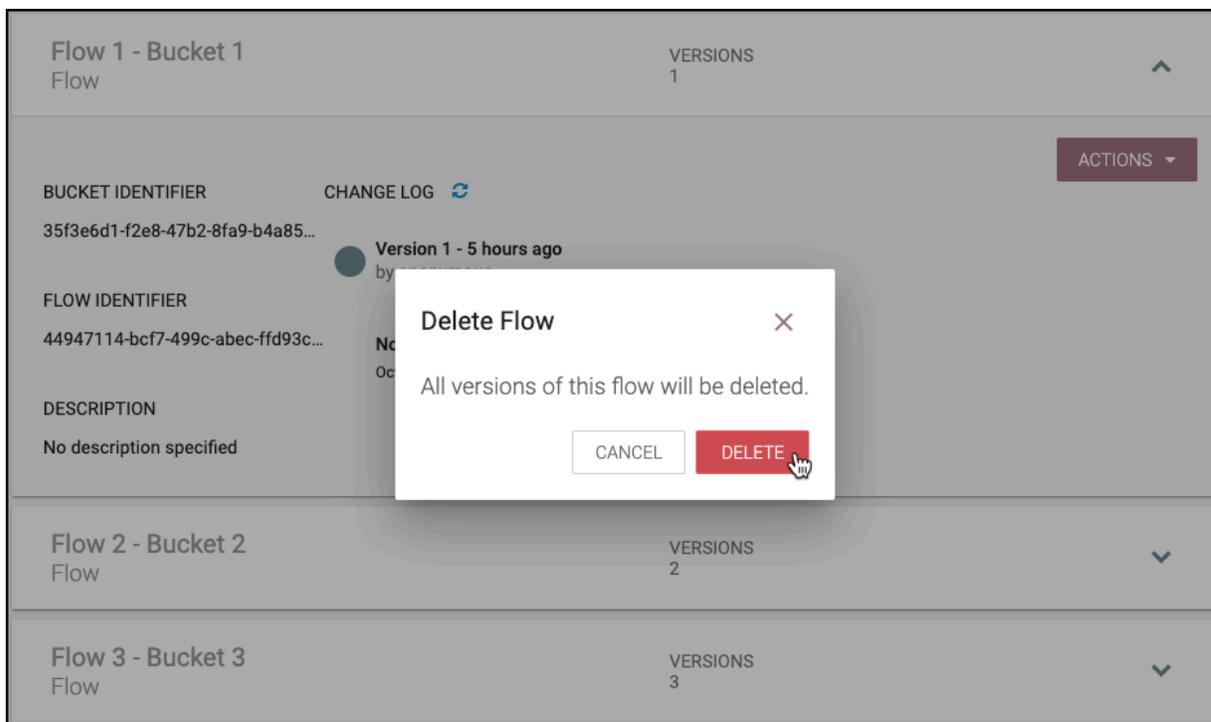
CHANGE LOG: Version 1 - 5 hours ago by anonymous

FLOW IDENTIFIER: 44947114-bcf7-499c-abec-ffd93c...

DESCRIPTION: No description specified

ACTIONS: Import new version, Export version, Delete flow

3. Select "Delete" to confirm.



Flow 1 - Bucket 1

VERSIONS 1

BUCKET IDENTIFIER: 35f3e6d1-f2e8-47b2-8fa9-b4a85...

CHANGE LOG: Version 1 - 5 hours ago by anonymous

FLOW IDENTIFIER: 44947114-bcf7-499c-abec-ffd93c...

DESCRIPTION: No description specified

ACTIONS: DELETE

**Delete Flow**

All versions of this flow will be deleted.

CANCEL DELETE



**Warning:** It is possible to delete a flow that is actively being used in NiFi.

## Manage Buckets

To manage buckets, enter the Administration section of the Registry by clicking the Settings button (



) on the top right of the UI. The Buckets window appears by default.

## Sorting & Filtering Buckets

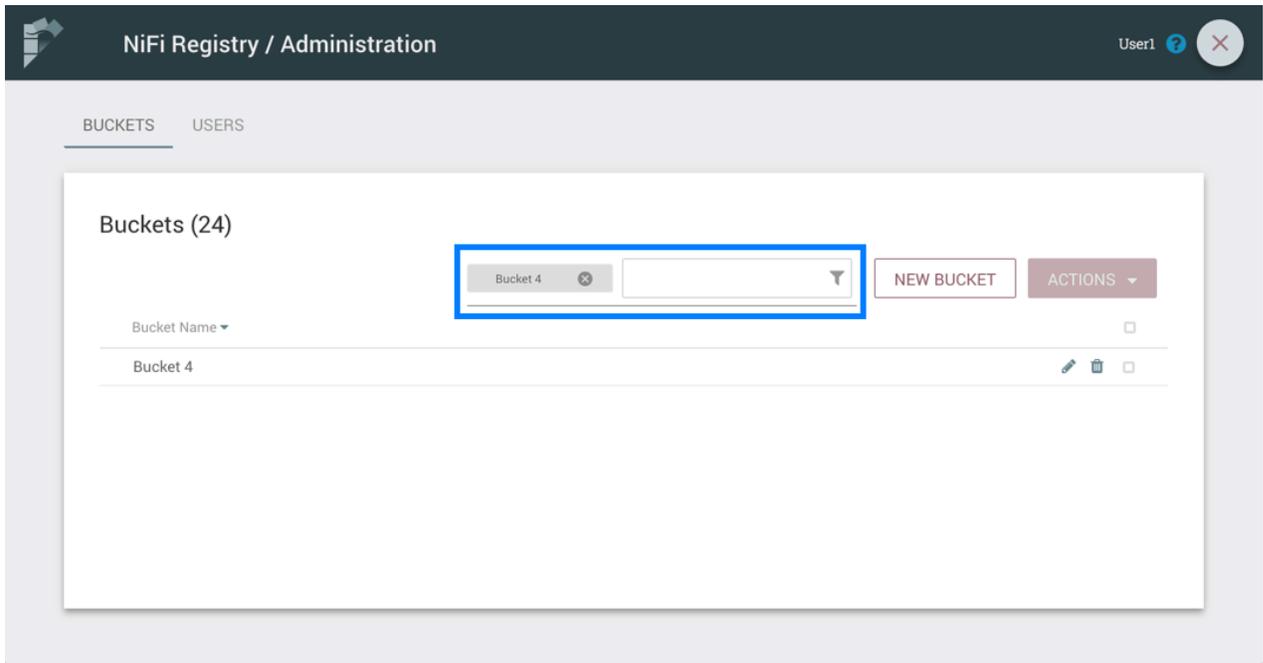
Buckets can be sorted alphabetically by Name (ascending or descending) using the up/down arrows.

The screenshot shows the NiFi Registry Administration interface. The top navigation bar includes the NiFi logo, the text 'NiFi Registry / Administration', and a user profile 'User1' with a help icon and a close button. Below the navigation bar, there are two tabs: 'BUCKETS' (selected) and 'USERS'. The main content area is titled 'Buckets (24)'. It features a search input field, a 'NEW BUCKET' button, and an 'ACTIONS' dropdown menu. A table lists six buckets: Bucket 1 through Bucket 6. Each bucket has edit, delete, and refresh icons. A blue arrow points to the 'Bucket Name' column header, indicating it is the current sort criterion.

The buckets listed can be filtered by:

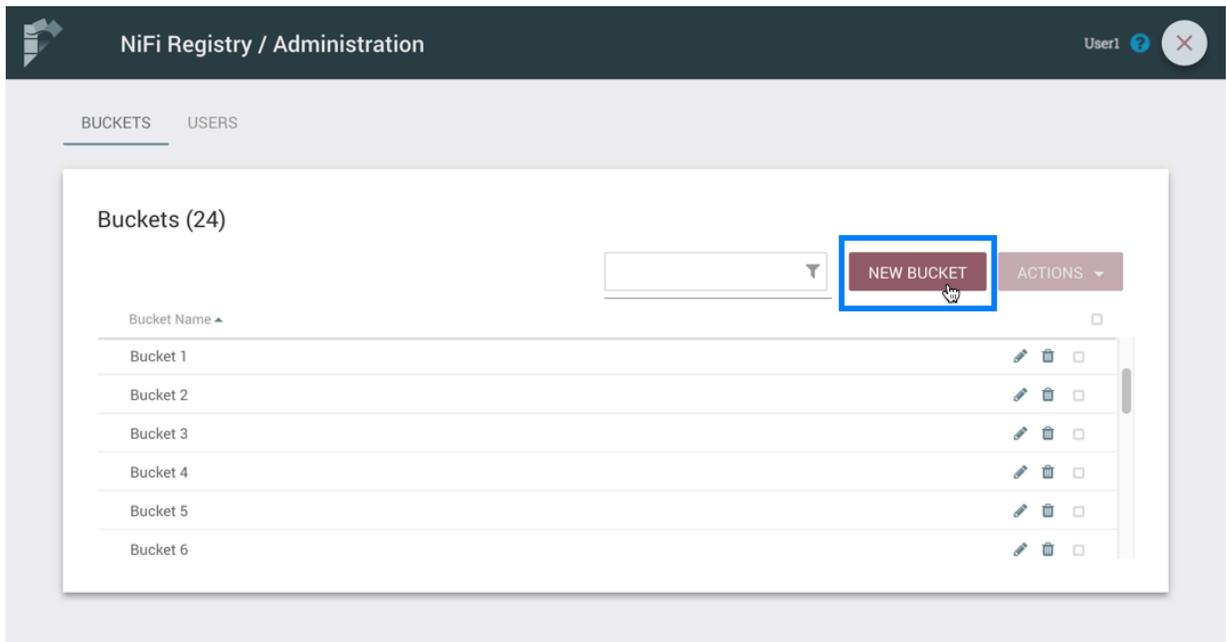
- bucket name
- bucket description
- bucket ID

Here is an example filtering by bucket name:

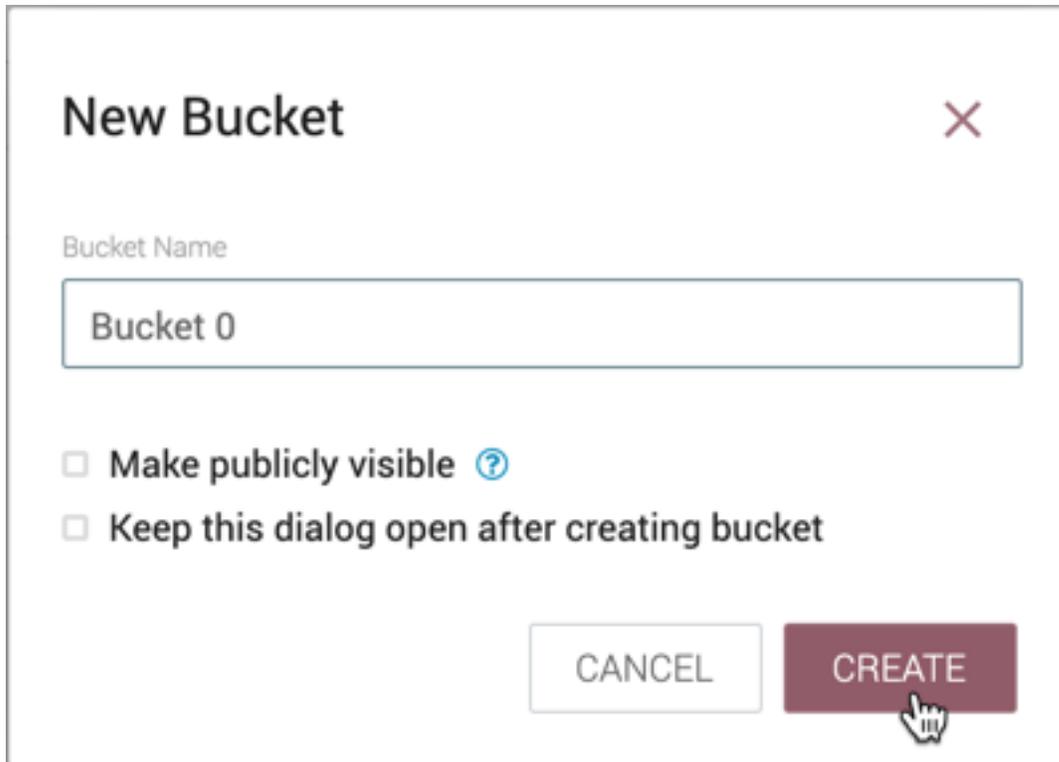


## Create a Bucket

1. Select the "New Bucket" button.



2. Enter the desired bucket name and select the "Create" button.



**New Bucket** ✕

Bucket Name

Bucket 0

Make publicly visible ?

Keep this dialog open after creating bucket

CANCEL CREATE



**Note:** Check "Make publicly available" to allow read access to items in the bucket by unauthenticated users. This will override any specific bucket policies granting read access.



**Note:** To quickly create multiple buckets, check "Keep this dialog open after creating bucket".

## Delete a Bucket

1. Select the Delete button (



) in the row of the bucket.

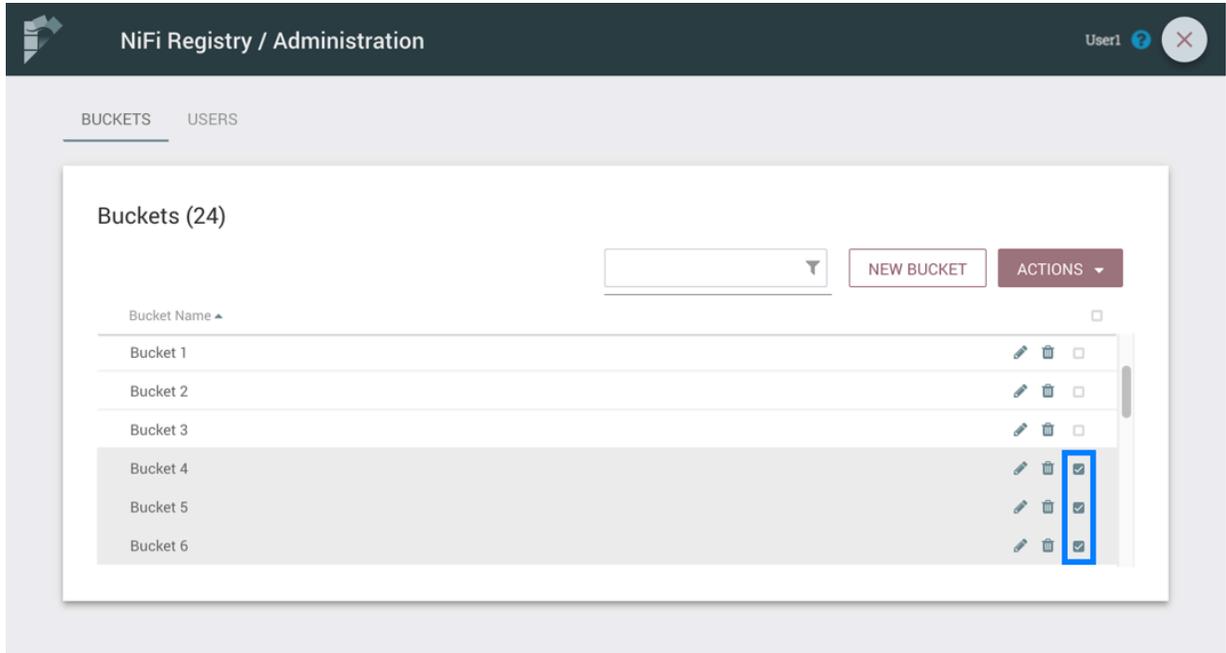
The screenshot shows the NiFi Registry Administration interface. At the top, there is a header with the NiFi logo, the text "NiFi Registry / Administration", and a user profile "User1" with a close button. Below the header, there are two tabs: "BUCKETS" and "USERS". The main content area is titled "Buckets (25)". It features a search bar, a "NEW BUCKET" button, and an "ACTIONS" dropdown menu. A table lists buckets from "Bucket 0" to "Bucket 5". Each row has three icons: a pencil (edit), a trash can (delete), and a square (toggle). The trash can icon for "Bucket 0" is highlighted, and a "Delete Bucket" dialog box is overlaid on the table.

2. From the Delete Bucket dialog, select "Delete".

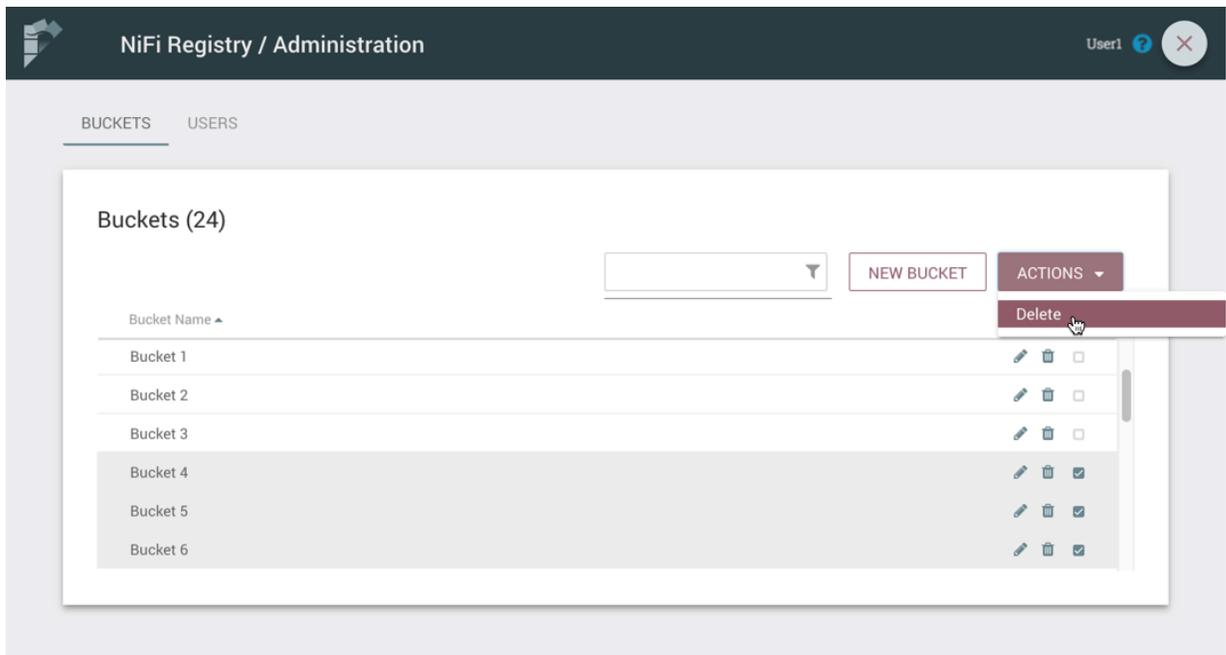
The screenshot shows a "Delete Bucket" dialog box. The title is "Delete Bucket" with a close button (X) in the top right corner. The main text reads: "All items stored in this bucket will be deleted as well." At the bottom, there are two buttons: "CANCEL" and "DELETE". The "DELETE" button is highlighted with a mouse cursor.

## Delete Multiple Buckets

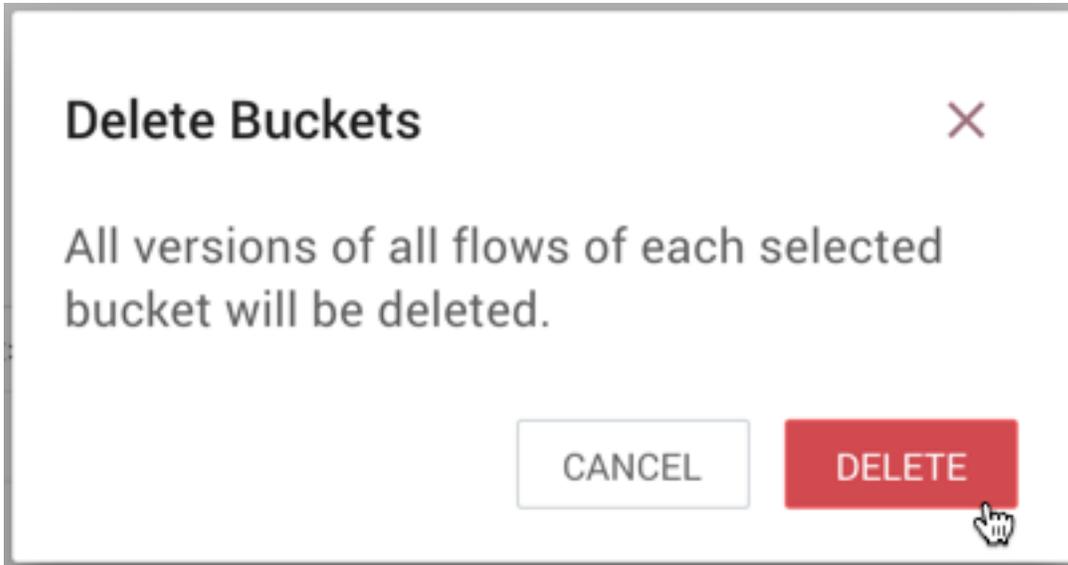
1. Select the checkboxes in the rows of the desired buckets to delete.



2. Select the "Actions" drop-down and click the "Delete" option.



3. From the Delete Buckets dialog, select "Delete".

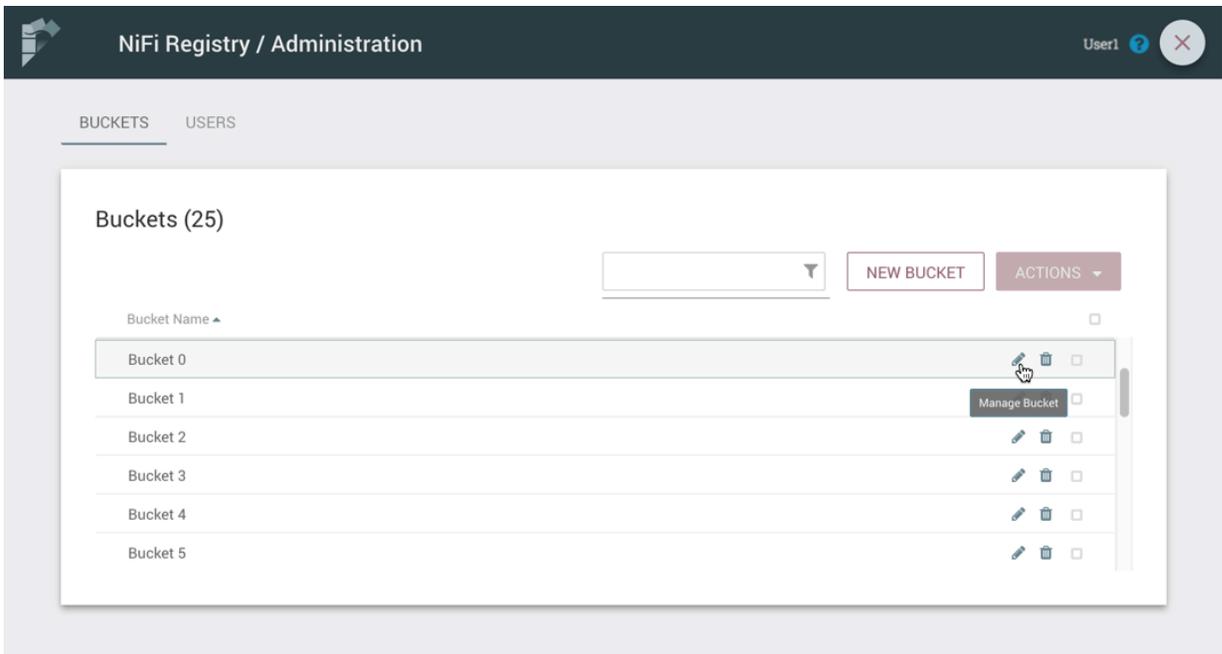


## Edit a Bucket Name

1. Select the Manage button (



) in the row of the bucket.



2. Enter a new name for the bucket and select the "Save" button.

The screenshot shows the NiFi Registry Administration interface. On the left, there is a sidebar with 'BUCKETS' and 'USERS' tabs. Below the sidebar, a list of buckets is shown, with 'Buckets (9)' at the top. The main content area displays the configuration for 'Bucket 0'. A modal window is open, showing the 'Identity/Bucket Name' field with the value 'Bucket 1234' and a 'SAVE' button. The 'Make publicly visible' checkbox is unchecked. Below this, there are sections for 'Bundle Settings' (with 'Allow bundle overwrite' unchecked) and 'Policies (0)'. A 'NEW POLICY' button is visible. At the bottom of the modal, there is a 'CLOSE' button.

## Make a Bucket Publicly Visible

To allow read access to items in a bucket by unauthenticated users, select the "Make publicly visible" checkbox.

The screenshot shows the NiFi Registry Administration interface. On the left, there is a sidebar with 'BUCKETS' and 'USERS' tabs. Below the sidebar, a list of buckets is shown, with 'Buckets (10)' at the top. The main content area displays the configuration for 'Bucket 0'. A modal window is open, showing the 'Identity/Bucket Name' field with the value 'Bucket 0' and a 'SAVE' button. The 'Make publicly visible' checkbox is checked and highlighted with a blue box. Below this, there are sections for 'Bundle Settings' (with 'Allow bundle overwrite' unchecked) and 'Policies (0)'. A 'NEW POLICY' button is visible. At the bottom of the modal, there is a 'CLOSE' button.

This setting will override any specific policies granting read access to the bucket.

## Allow Bundles in a Bucket to be Overwritten

To allow released bundles in a bucket to be overwritten, select the "Allow bundle overwrite" checkbox.

The screenshot shows the NiFi Registry Administration interface. On the left, there is a sidebar with 'BUCKETS' and 'USERS' tabs. The 'BUCKETS' tab is active, showing a list of buckets (Bucket 0 to Bucket 6). A modal window titled 'Bucket 1' is open on the right. The modal has a close button (X) in the top right corner. Below the title, there is a text input field for 'Identity/Bucket Name' containing 'Bucket 1' and a 'SAVE' button. Below that is a checkbox for 'Make publicly visible'. A blue box highlights the 'Bundle Settings' section, which contains a checkbox for 'Allow bundle overwrite' that is checked. Below this is a 'Policies (0)' section with a 'NEW POLICY' button. The policies section shows a table with columns for 'Display Name' and 'Permissions', but it is empty with the message 'No results to display.' and a 'CLOSE' button at the bottom right.

Currently, the only supported bundle type is a <https://nifi.apache.org/docs/nifi-docs/html/developer-guide.html#nars>. By default, buckets do not allow the re-release of released NARs. This setting explicitly allows the same version of a NAR to be uploaded to a bucket.

For more information on bundles, see the [Manage Bundles](#) on page 42 section.

## Bucket Policies

Bucket policies define user privileges on buckets/flows in the Registry and in NiFi. The available permissions are:

- All - In the Registry, the assigned user is able to view and delete flows in the bucket. In NiFi, the selected user is able to import flows from the bucket and commit changes to flows in the bucket.
- Read - In the Registry, the assigned user is able to view flows in the bucket. In NiFi, the selected user is able to import flows from the bucket.
- Write - In NiFi, the assigned user is able to commit changes to flows in the bucket.
- Delete - In the Registry, the assigned user is able to delete flows in the bucket.



**Note:** Users would typically have Read permissions at a minimum. A user with Write permission would not commit changes to a flow if they were not able to import it initially. A user with Delete permission would not delete a flow if they could not view it.



**Note:** If a user has a bucket policy and the group that the user is in also has a policy, all policies are used to determine access. For example, assume User1 is in Group1, User1 has READ privileges on Bucket1 and Group1 has READ privileges on Bucket2. In this scenario, User1 will have READ privileges on both Bucket1 and Bucket2.

## Create a Bucket Policy

1. Select the Manage button (



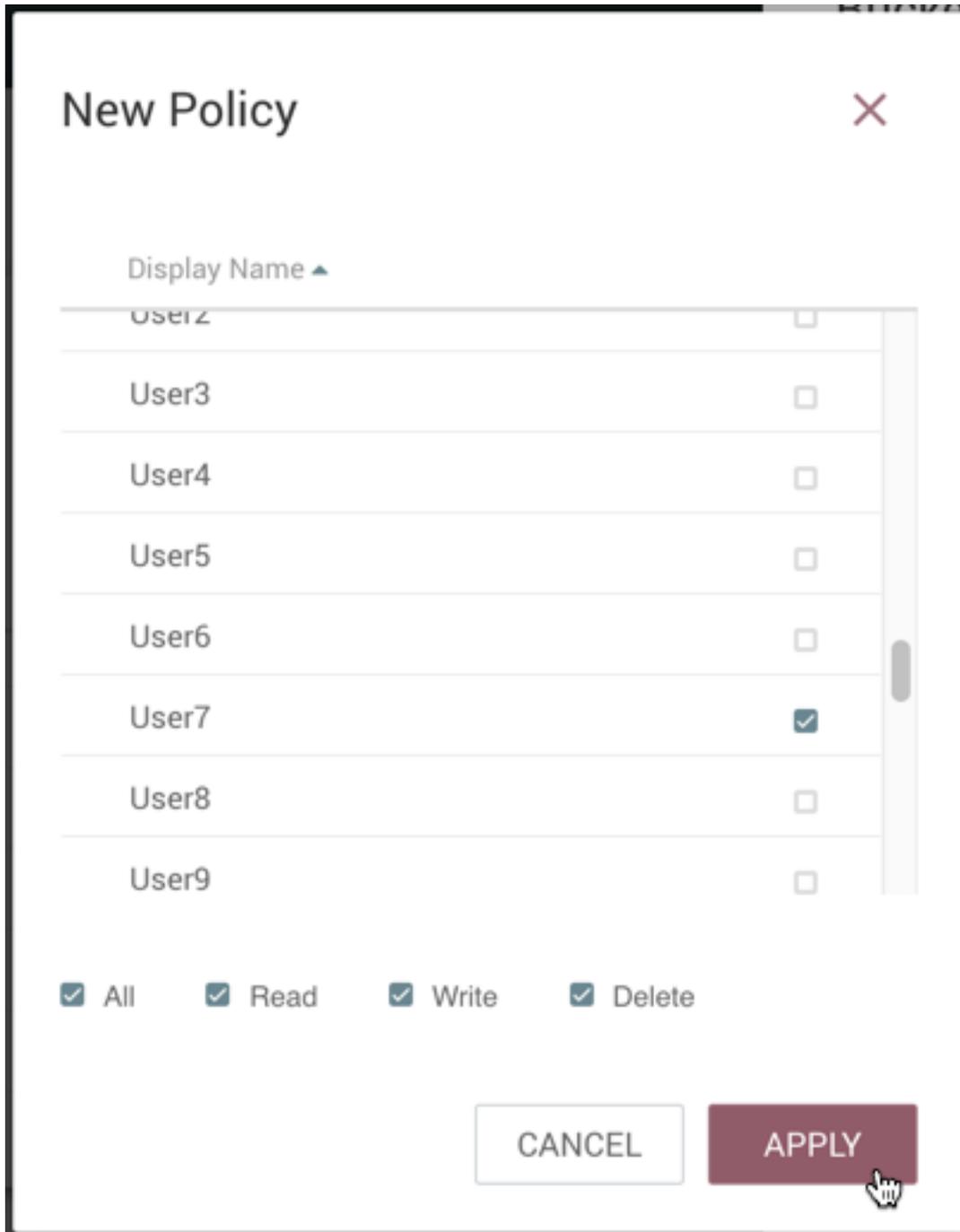
) in the row of the bucket.

2. Select the "New Policy" button.

The screenshot displays the NiFi Registry Administration interface. On the left, a sidebar shows the 'Buckets (10)' section with a list of buckets: Bucket 3, Bucket 4, Bucket 5, Bucket 6, and Bucket 7. The main content area is titled 'Bucket 7' and contains the following elements:

- An input field for 'Identity/Bucket Name' with the value 'Bucket 7' and a 'SAVE' button.
- A checkbox labeled 'Make publicly visible' with a help icon.
- A section titled 'Bundle Settings' with a checkbox labeled 'Allow bundle overwrite' and a help icon.
- A section titled 'Policies (0)' with a 'NEW POLICY' button highlighted by a blue box and a mouse cursor.
- A message 'No results to display.' below the policies section.
- A 'CLOSE' button at the bottom right.

3. Select a user, check the desired permissions and select the "Apply" button:

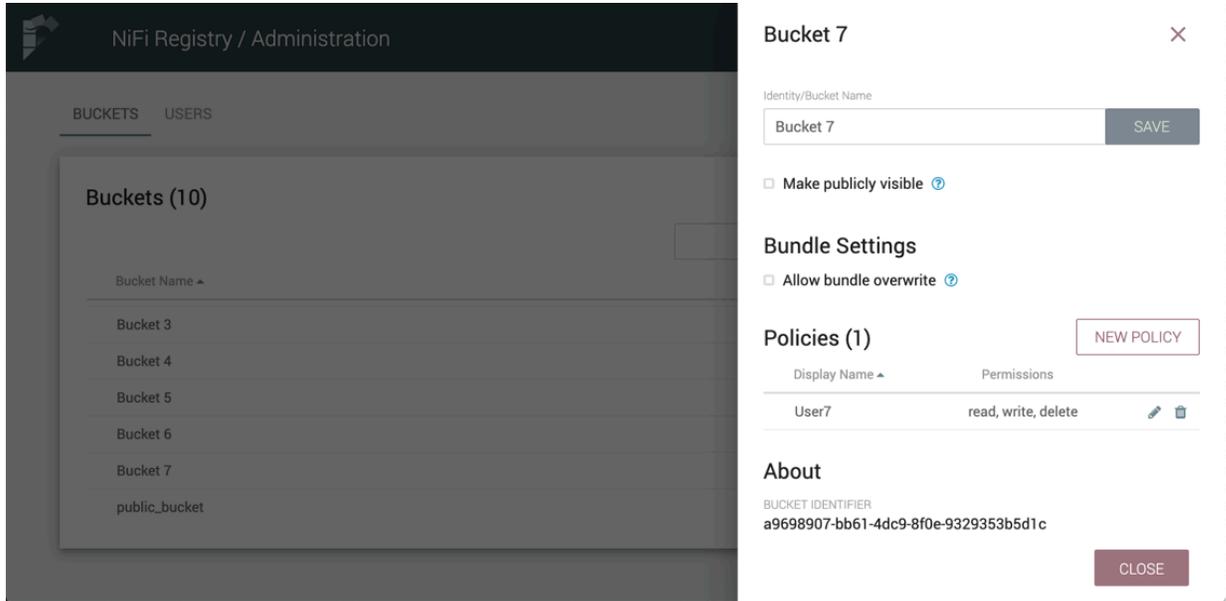


The screenshot shows a 'New Policy' dialog box with a close button (X) in the top right corner. Below the title, there is a 'Display Name' label with a dropdown arrow. A list of users is displayed, each with a checkbox to its right. 'User7' is selected, indicated by a checked checkbox. Below the list, there are four permission options, each with a checked checkbox: 'All', 'Read', 'Write', and 'Delete'. At the bottom, there are two buttons: 'CANCEL' and 'APPLY'. A mouse cursor is pointing at the 'APPLY' button.

Display Name	Selected
User2	<input type="checkbox"/>
User3	<input type="checkbox"/>
User4	<input type="checkbox"/>
User5	<input type="checkbox"/>
User6	<input type="checkbox"/>
User7	<input checked="" type="checkbox"/>
User8	<input type="checkbox"/>
User9	<input type="checkbox"/>

All    Read    Write    Delete

4. The policy is added to the bucket:



### Delete a Bucket Policy

1. Select the Manage button (

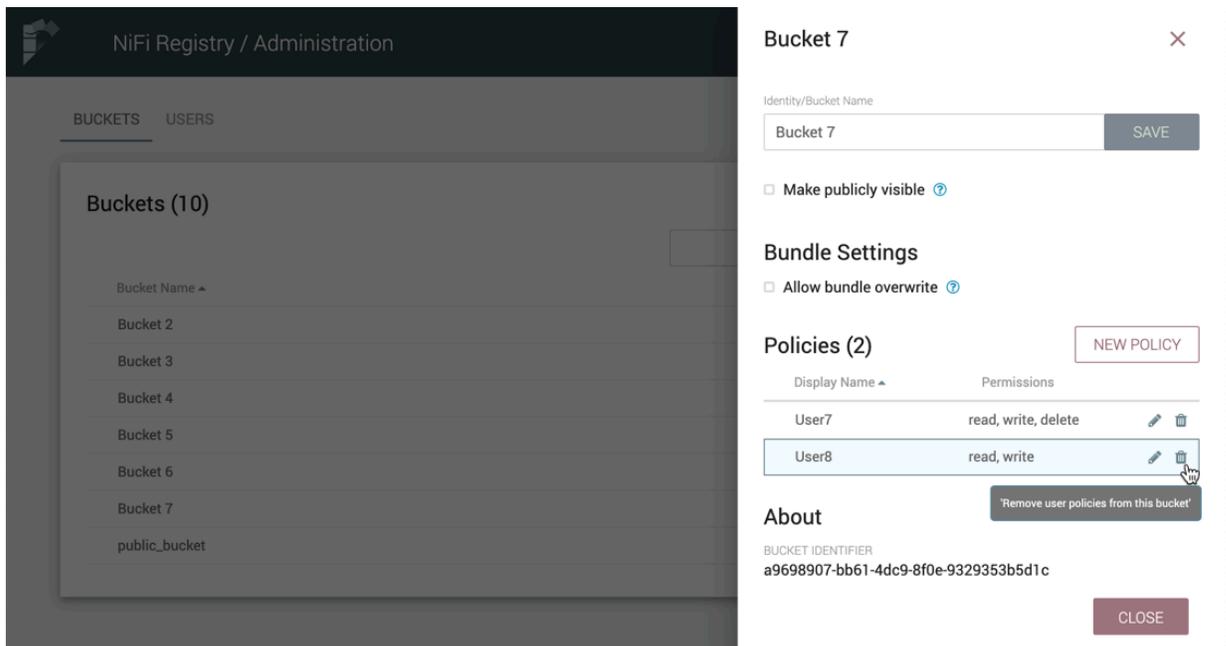


) in the row of the bucket.

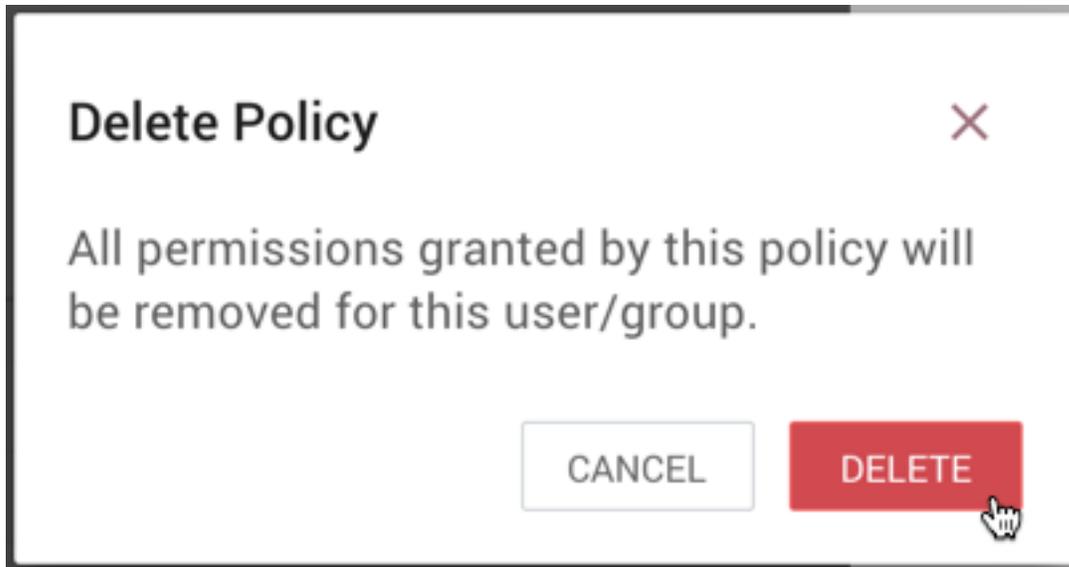
2. Select the Delete button (



) in the row of the policy.



3. From the Delete Policy dialog, select "Delete".



## Manage Users & Groups

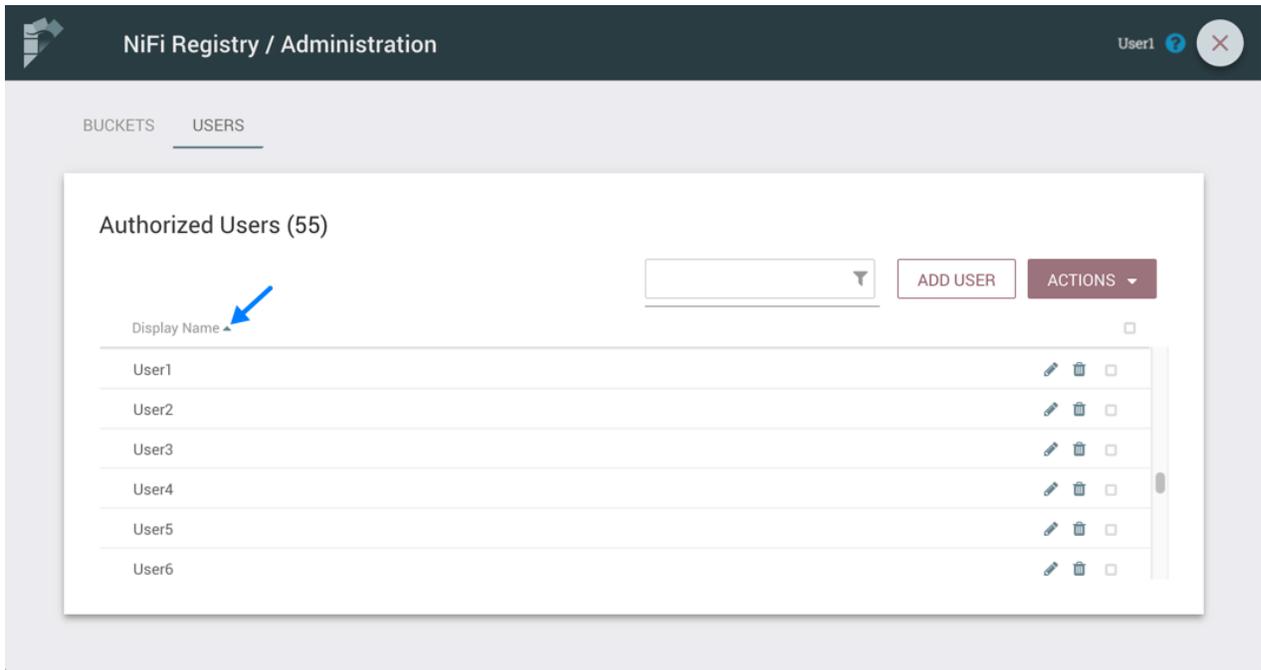
To manage users/groups, enter the Administration section of the Registry by clicking the Settings button (



) on the top right of the UI. Select Users from the top menu to open the Users window.

## Sorting & Filtering Users/Groups

Users/groups can be sorted alphabetically by Name (ascending or descending) using the up/down arrows.

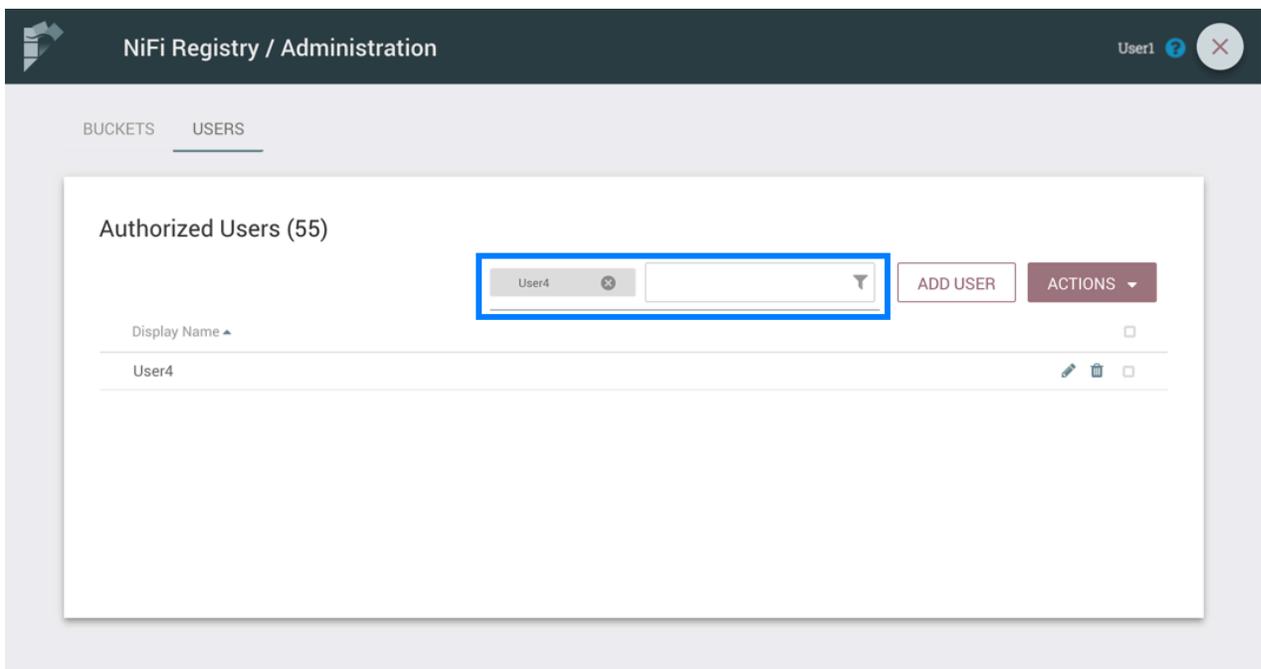


The screenshot shows the NiFi Registry Administration interface. At the top, there is a header with the NiFi logo and the text "NiFi Registry / Administration". On the right side of the header, there is a user profile for "User1" with a help icon and a close button. Below the header, there are two tabs: "BUCKETS" and "USERS", with "USERS" being the active tab. The main content area is titled "Authorized Users (55)". It features a search bar with a dropdown arrow, an "ADD USER" button, and an "ACTIONS" dropdown menu. Below the search bar, there is a table with the following columns: "Display Name" (indicated by a blue arrow), and three action columns (edit, delete, and a square icon). The table lists six users: User1, User2, User3, User4, User5, and User6.

The Users/groups listed can be filtered by:

- user name
- user ID
- group name
- group ID

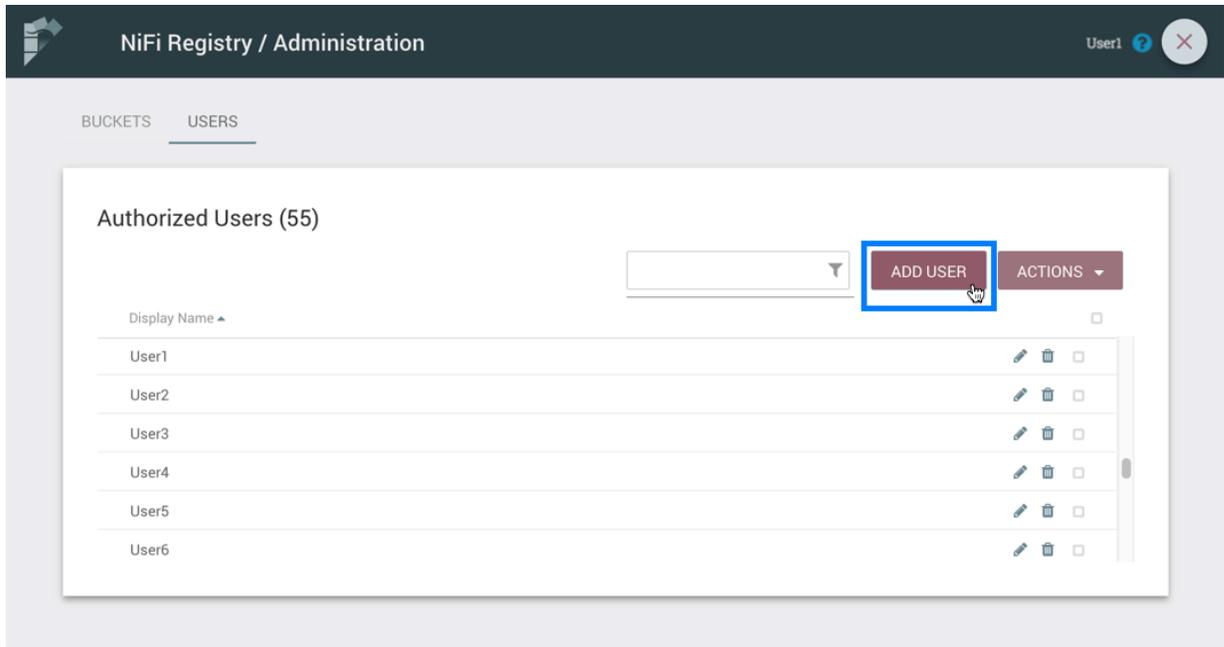
Here is an example of filtering by user name:



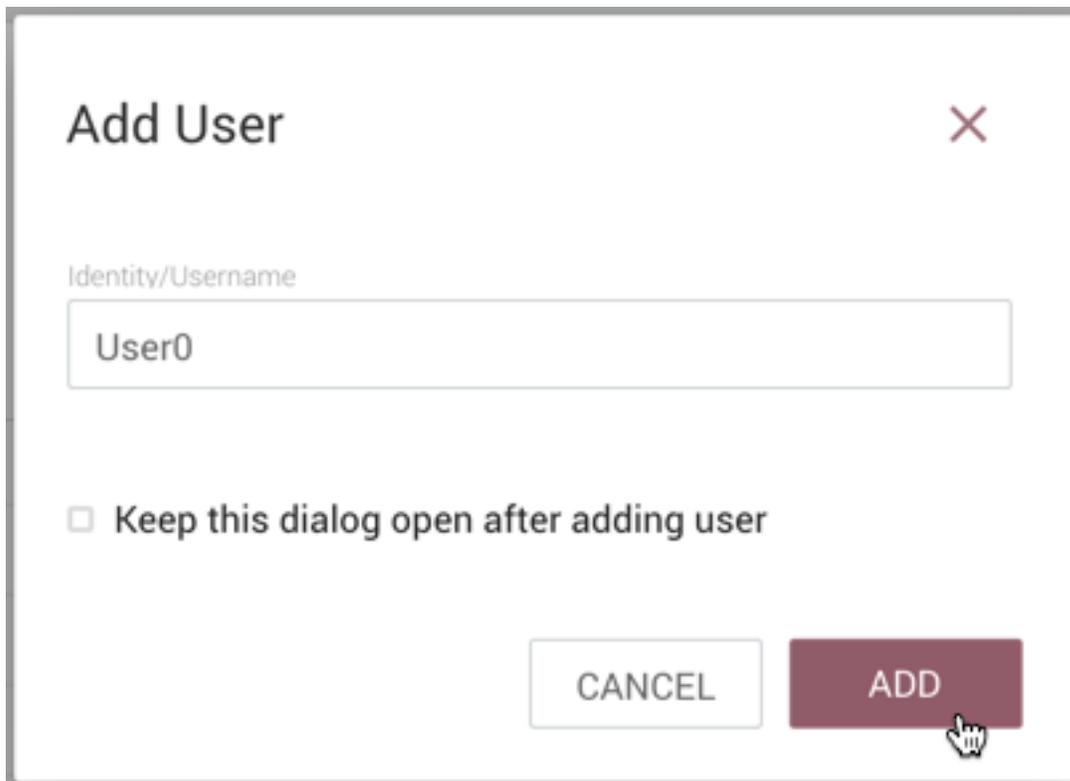
The screenshot shows the NiFi Registry Administration interface with the "Authorized Users (55)" list filtered. The search bar now contains the text "User4" and is highlighted with a blue box. The table below the search bar now only displays one user: "User4". The "ACTIONS" dropdown menu is also visible.

## Add a User

1. Select the "Add User" button.



2. Enter the desired username or appropriate Identity information. Select the "Add" button.



**Note:** To quickly create multiple users, check "Keep this dialog open after adding user".

## Delete a User

1. Select the Delete button (



) in the row of the user.

NiFi Registry / Administration

User1

BUCKETS USERS

Authorized Users (56)

ADD USER ACTIONS

Display Name	Actions
User0	 Delete User
User1	
User2	
User3	
User4	
User5	

2. From the Delete User dialog, select "Delete".

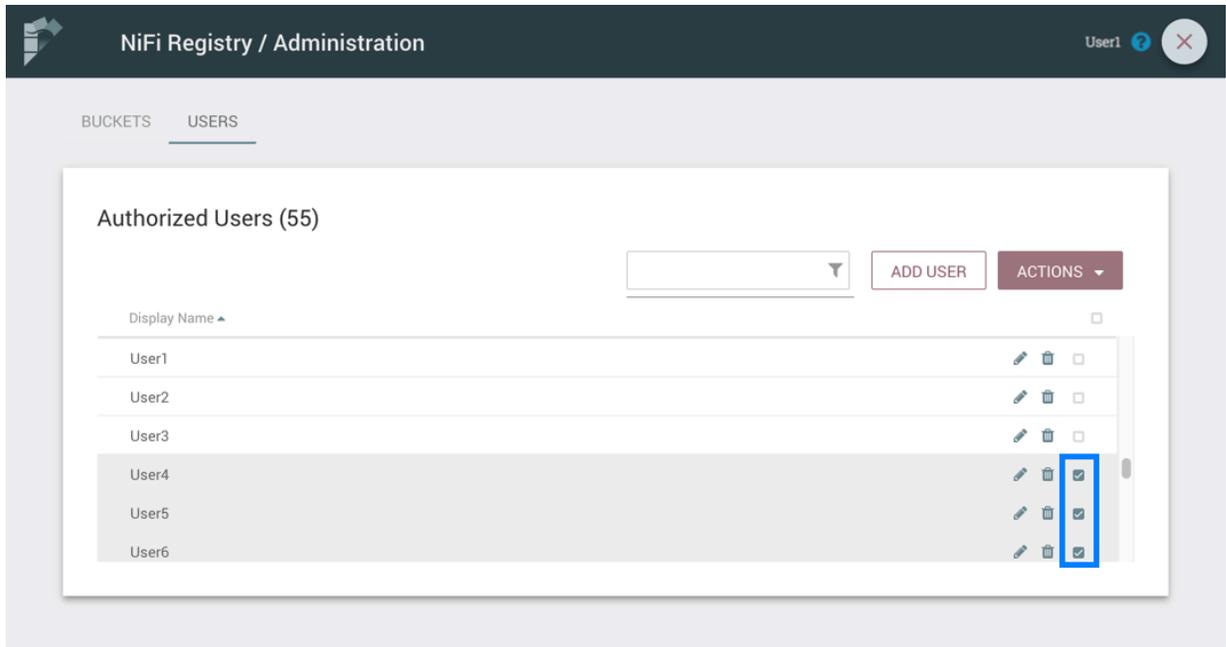
Delete User

This user will lose all access to the registry.

CANCEL DELETE

## Delete Multiple Users

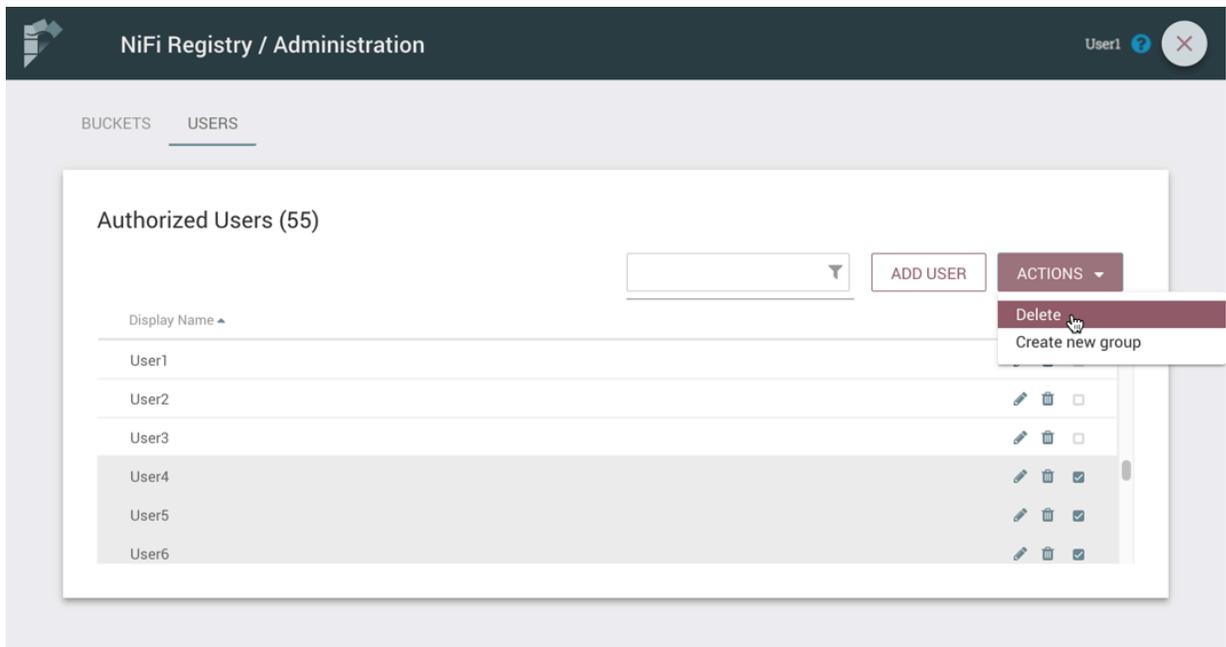
1. Select the checkboxes in the rows of the desired users to delete.



The screenshot shows the NiFi Registry Administration interface. The 'USERS' tab is active. The 'Authorized Users (55)' section contains a table with columns for 'Display Name' and actions. The 'User4' row is highlighted, and its 'Delete' checkbox is checked. A blue box highlights the 'Delete' checkbox for 'User4'.

Display Name	Actions
User1	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User2	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User3	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User4	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User5	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User6	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

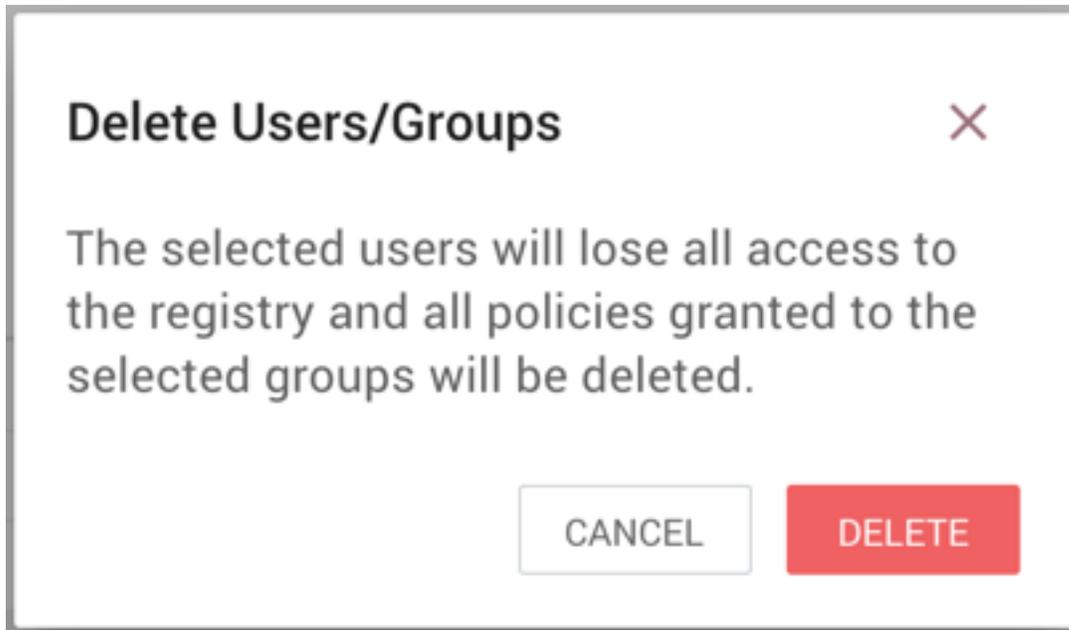
2. Select the "Actions" drop-down and click the "Delete" option.



The screenshot shows the NiFi Registry Administration interface. The 'USERS' tab is active. The 'Authorized Users (55)' section contains a table with columns for 'Display Name' and actions. The 'User4' row is highlighted. The 'ACTIONS' drop-down menu is open, and the 'Delete' option is selected.

Display Name	Actions
User1	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User2	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User3	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User4	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User5	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
User6	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

- From the Delete Users dialog, select "Delete".

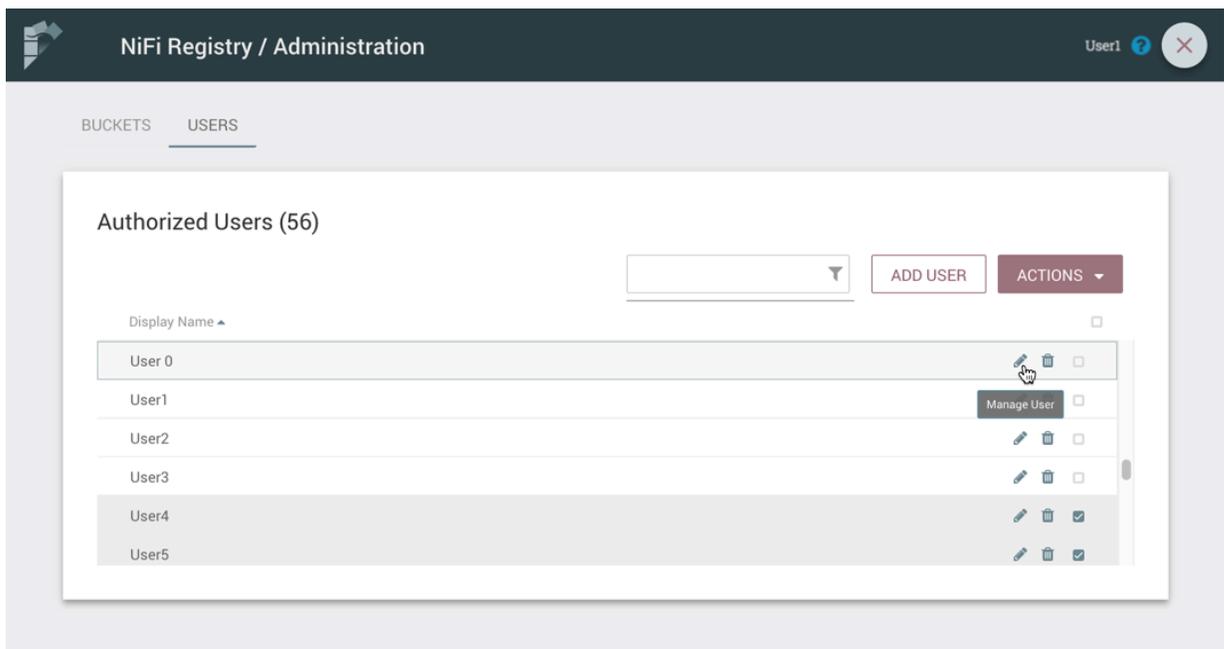


## Edit a User Name

- Select the Manage button (



) in the row of the user.



The image shows the NiFi Registry Administration interface. The top navigation bar includes the NiFi logo, "NiFi Registry / Administration", and a user profile for "User1". Below the navigation bar, there are tabs for "BUCKETS" and "USERS". The "USERS" tab is active, showing a list of "Authorized Users (56)". The list includes a search bar, an "ADD USER" button, and an "ACTIONS" dropdown menu. The user list contains rows for "User 0" through "User 5". Each row has a "Manage User" button (pencil icon) and a trash icon. A mouse cursor is hovering over the "Manage User" button for "User 1".

2. Enter a new user name and select the "Save" button.



**Warning:** Some users cannot have their names edited. For example, those defined by LDAP. These users will be specially highlighted in the list.

## Special Privileges

Special privileges are additional permissions that allow a user to manage or access certain aspects of the Registry. The special privileges are:

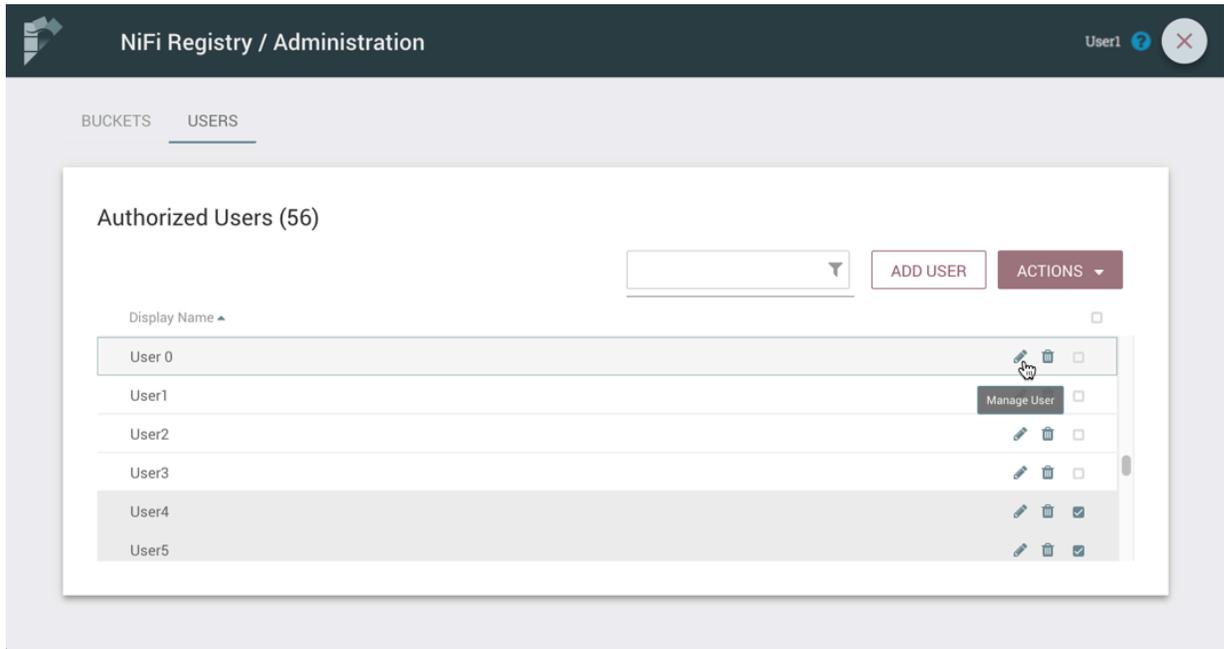
- Can manage buckets - Allow a user to manage all buckets in the registry, as well as provide the user access to all buckets from a connected system (e.g., NiFi).
- Can manage users - Allow a user to manage all registry users and groups.
- Can manage policies - Allow a user to grant all registry users read, write, and delete permission to a bucket.
- Can proxy user requests - Allow a connected system (e.g., NiFi) to process requests of authorized users of that system. For example, if dev and prod NiFi clusters are connected to the same NiFi Registry instance, privileges can be set to allow the dev NiFi cluster to only update versioned flows while limiting the prod NiFi to only download flows.

## Grant Special Privileges to a User

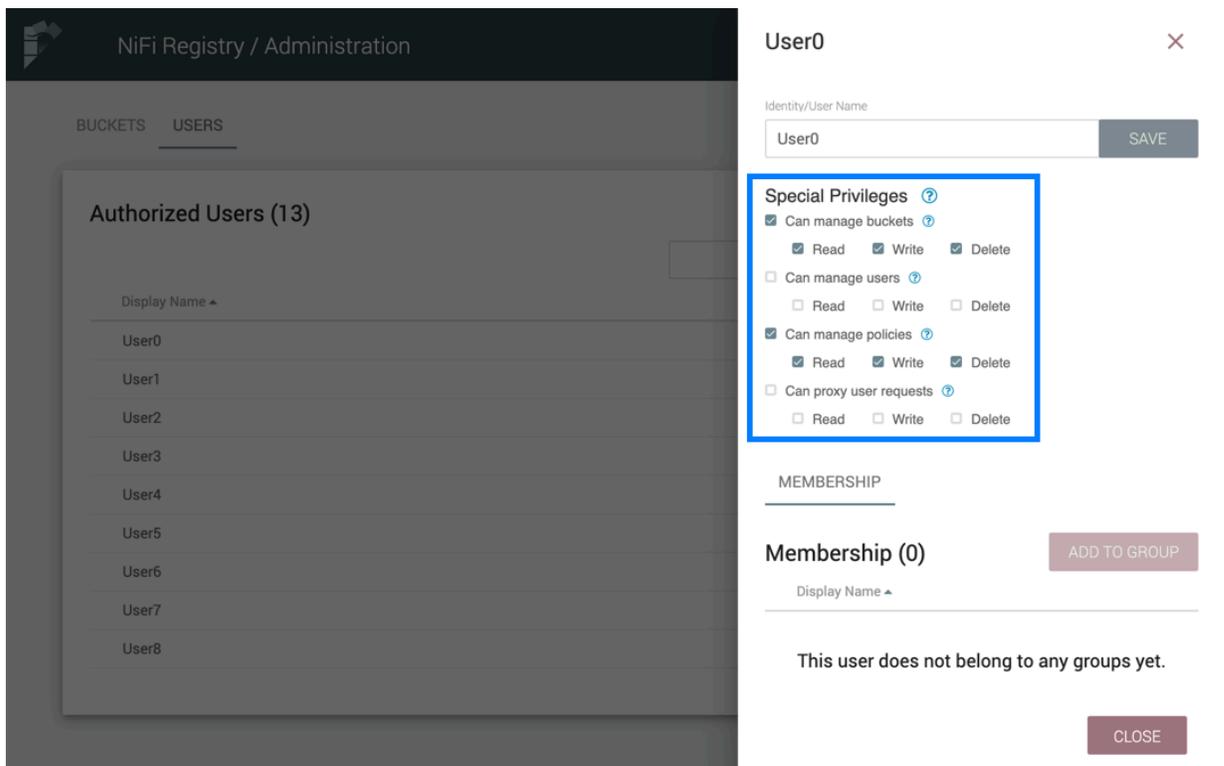
1. Select the Manage button (



) in the row of the user.



2. Check the desired privileges:

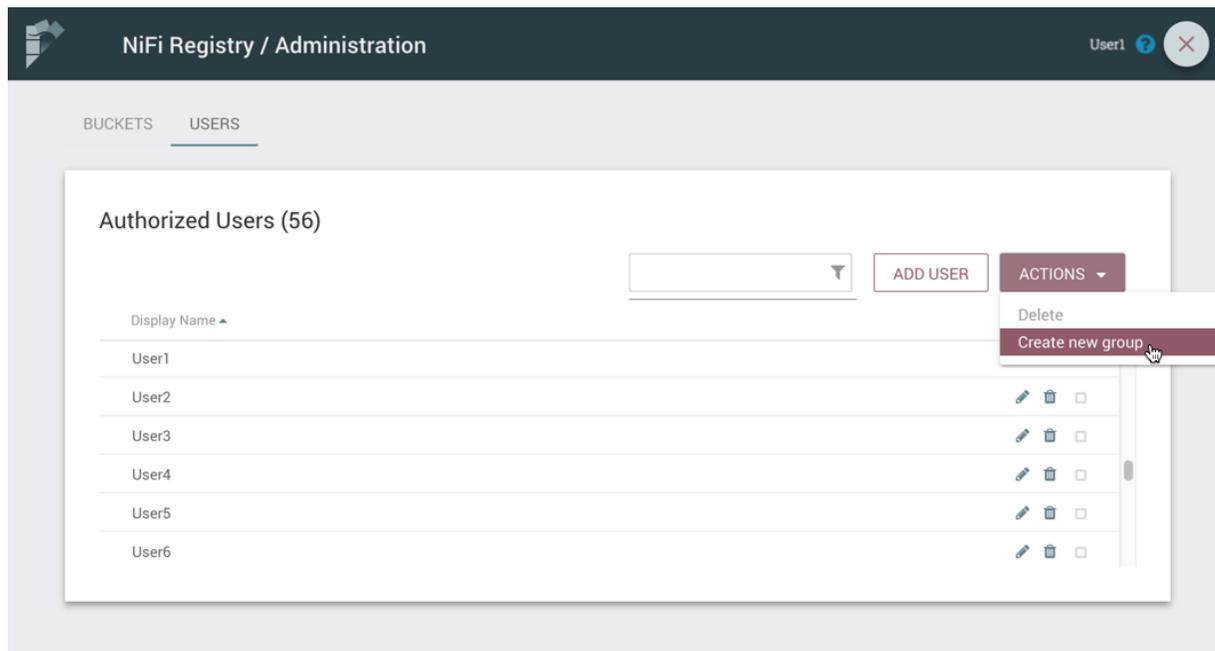


3. Changes made to special privileges are automatically saved.

# Manage Groups

## Add an Empty Group

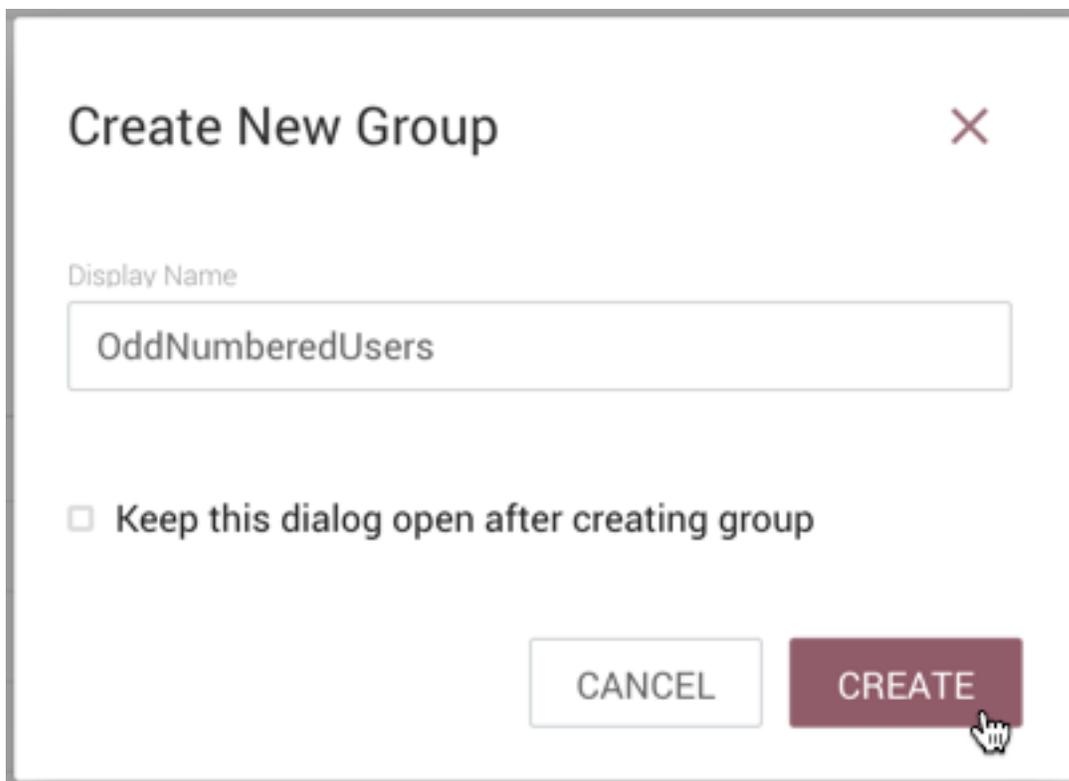
1. With no users checked, select the "Actions" drop-down and click the "Create new group" option.



The screenshot shows the NiFi Registry Administration interface. The top navigation bar includes the NiFi logo, the text "NiFi Registry / Administration", and a user profile for "User1". Below the navigation bar, there are tabs for "BUCKETS" and "USERS". The main content area is titled "Authorized Users (56)". It features a search input field, an "ADD USER" button, and an "ACTIONS" dropdown menu. The "ACTIONS" menu is open, showing options for "Delete" and "Create new group". A table of users is visible below, with columns for "Display Name" and action icons (edit, delete, and a square icon).

Display Name	Action 1	Action 2	Action 3
User1			
User2			
User3			
User4			
User5			
User6			

2. Enter a name for the Group and select the "Create" button.



Create New Group

Display Name

OddNumberedUsers

Keep this dialog open after creating group

CANCEL CREATE



**Note:** To quickly create multiple empty groups, check "Keep this dialog open after creating group".

## Add User to a Group

1. Select the Manage button (

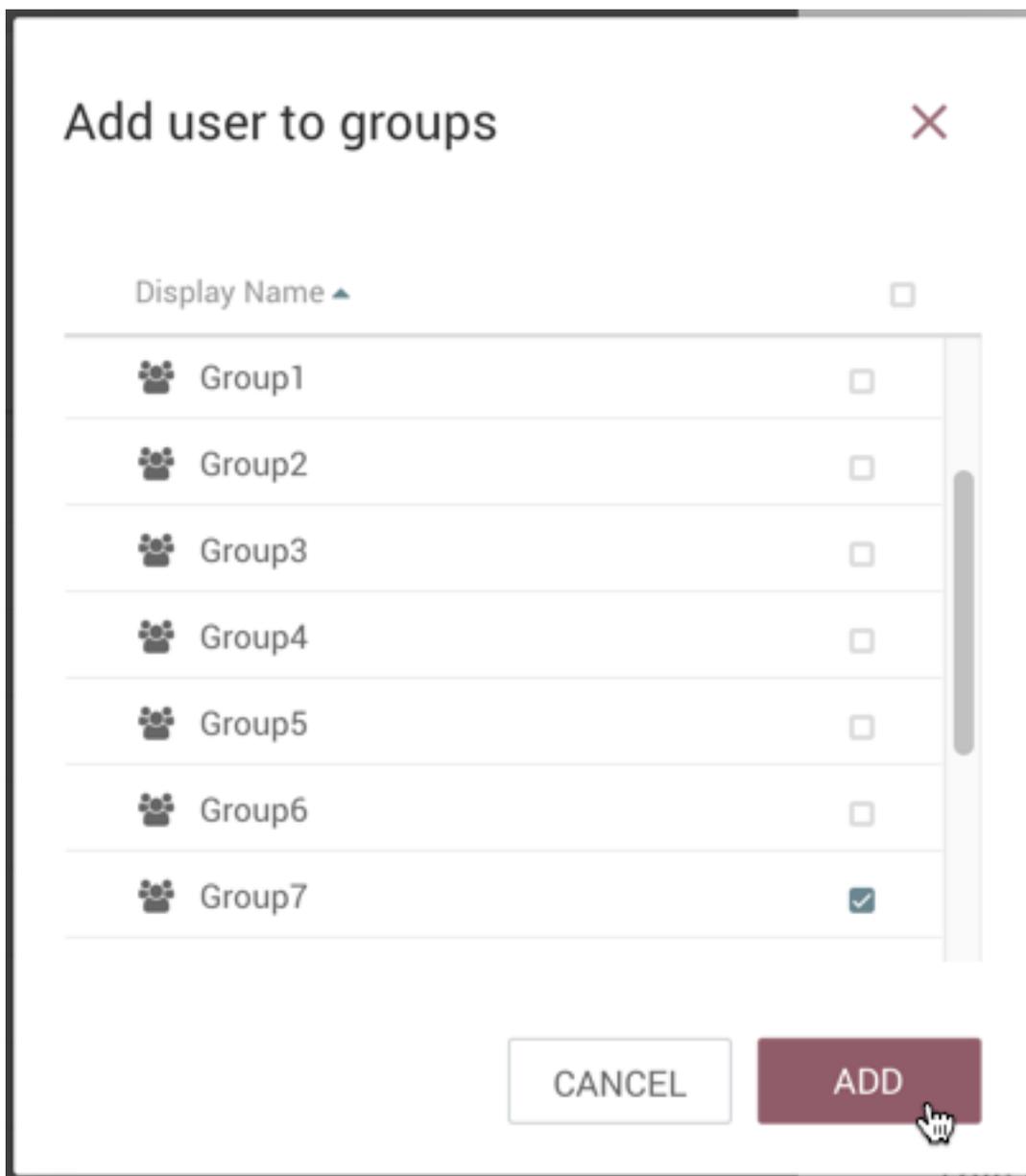


) in the row of the user.

2. Select the "Add To Group" button.

The screenshot displays the NiFi Registry Administration interface. On the left, a modal window titled "Authorized Users (14)" is open, showing a list of users from User0 to User8. The main interface shows the "USERS" tab with a search field containing "User7" and a "SAVE" button. Below this, the "Special Privileges" section includes checkboxes for "Can manage buckets", "Can manage users", "Can manage policies", and "Can proxy user requests", each with sub-options for Read, Write, and Delete. The "MEMBERSHIP" section shows "Membership (0)" and an "ADD TO GROUP" button. A message states "This user does not belong to any groups yet." and a "CLOSE" button is at the bottom right.

3. In the "Add User to Groups" dialog, select the group(s) to add the user to. Select the "Add" button when all desired groups have been selected.



4. The user is added to the group:

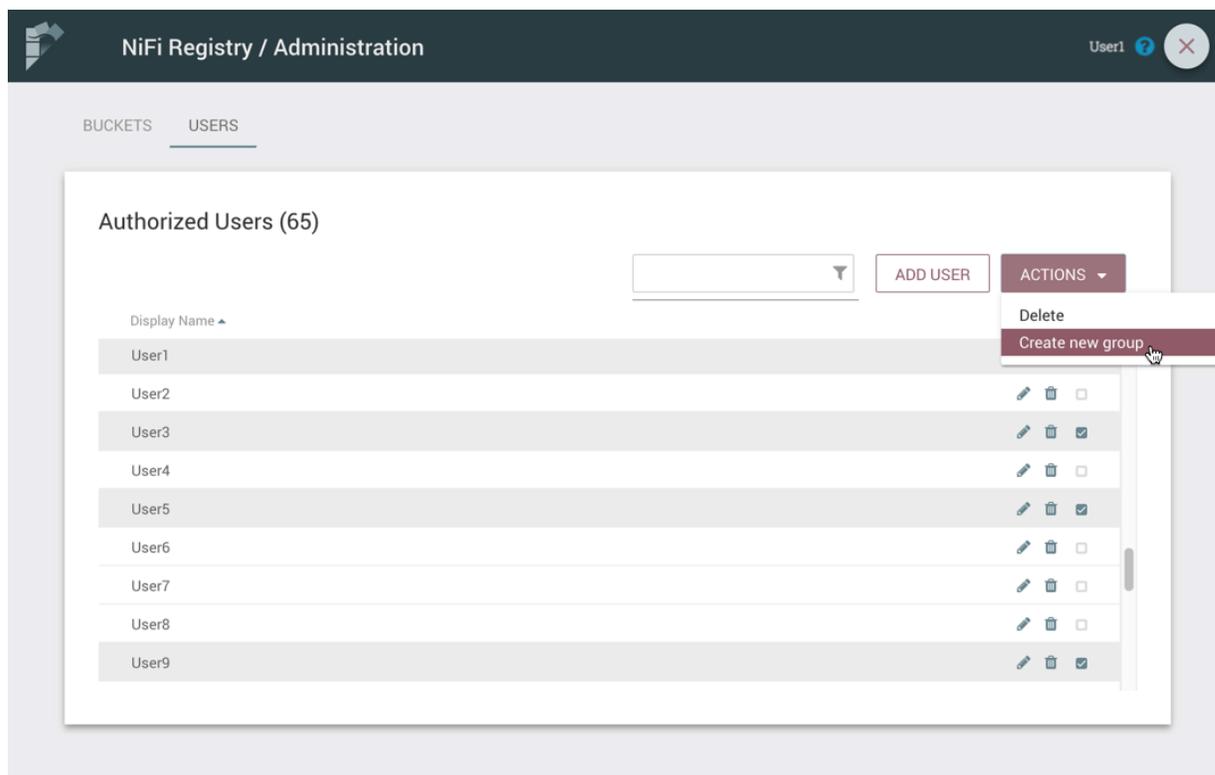
The screenshot shows the NiFi Registry Administration interface. On the left, the 'USERS' tab is active, displaying a list of 'Authorized Users (14)' with entries from User0 to User8. On the right, a modal window for 'User7' is open. It includes a 'SAVE' button, a 'Special Privileges' section with checkboxes for 'Can manage buckets', 'Can manage users', 'Can manage policies', and 'Can proxy user requests', each with sub-options for Read, Write, and Delete. Below this is a 'MEMBERSHIP' section with an 'ADD TO GROUP' button and a list showing 'Group7' as a member. A 'CLOSE' button is at the bottom right of the modal.



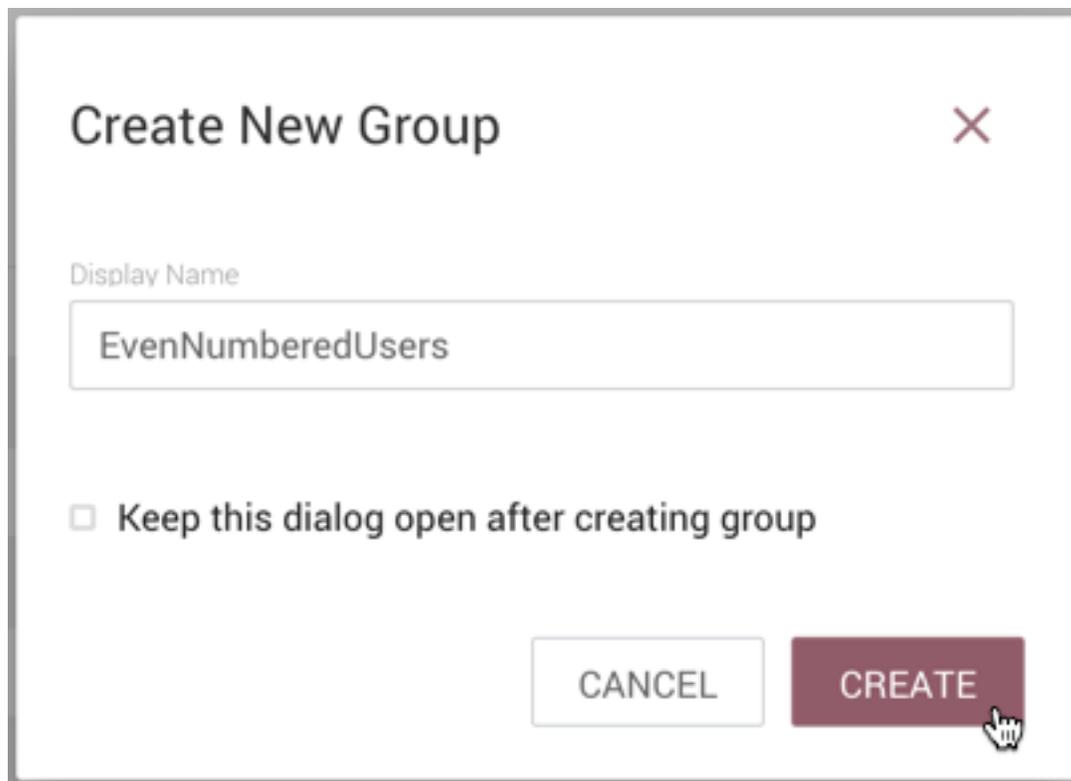
**Note:** Groups cannot contain other groups.

## Create a New Group with Selected Users

1. Select the checkboxes in the rows of the desired users. From the "Actions" drop-down, click the "Create new group" option.



2. Enter a name for the Group and select the "Create" button.



- The new group is created with the selected users as members:

The screenshot displays the NiFi Registry Administration interface. On the left, the 'Authorized Users (15)' list is visible, showing the newly created 'EvenNumberedUsers' group and several individual users. On the right, the configuration for the 'EvenNumberedUsers' group is shown, including its name, special privileges (such as 'Can manage buckets', 'Can manage users', 'Can manage policies', and 'Can proxy user requests'), and a list of its members: 'User2', 'User4', 'User6', and 'User8'. A 'CLOSE' button is located at the bottom right of the configuration panel.

## Remove a User from a Group

There are two ways to remove a user from a group.

### User Window

- Select the Manage button (



) in the row of the user.

2. In the Membership section of the window, select the Remove button (



) in the row of the group.

The screenshot shows the NiFi Registry Administration interface. On the left, there is a list of 'Authorized Users (15)' with a 'Display Name' dropdown menu. The users listed are User0 through User9. On the right, the 'User2' configuration window is open. It has a 'Identity/User Name' field with 'User2' and a 'SAVE' button. Below that is the 'Special Privileges' section with four categories: 'Can manage buckets', 'Can manage users', 'Can manage policies', and 'Can proxy user requests'. Each category has 'Read', 'Write', and 'Delete' checkboxes. At the bottom, the 'MEMBERSHIP' section shows 'Membership (1)' with an 'ADD TO GROUP' button. Below that is a 'Display Name' dropdown menu with 'EvenNumberedUsers' selected. A blue box highlights the 'Remove user from group' button, which has a trash can icon. A 'CLOSE' button is at the bottom right.

## Group Window

1. Select the Manage button (



) in the row of the group. The Members tab is selected by default.

2. In the Membership section of the window, select the Remove button (



) in the row of the user.

## Other Group Level Actions

Editing group names, deleting groups, adding policies to/deleting policies from groups and granting special privileges to groups follow similar procedures described earlier for corresponding user level actions.

## Manage Bundles

Bundles can be managed through the REST API.

### Upload Bundle

A bundle can be uploaded to a bucket by making a POST request to the following REST end-point:

```
/nifi-registry-api/buckets/<bucketId>/bundles/<bundleType>
```

Replace `bucketId` with the id of the bucket where the bundle is being uploaded to and `bundleType` with the type of bundle being uploaded. Currently, the only supported bundle type is a <https://nifi.apache.org/docs/nifi-docs/html/developer-guide.html#nars> which can be specified as `nifi-nar`.

The Content-Type of the request is expected to be `multipart/form-data`. An example of using `curl` to upload `my-processors-1.0.0.nar` would be the following:

```
curl -v -F file=@/path/to/my-processors-1.0.0.nar http://localhost:18080/nifi-registry-api/buckets/de8e08c9-592d-4e10-affe-b3752698f1d9/bundles/nifi-nar
```



**Note:** In order to upload a NAR to NiFi Registry, it must contain the file `META-INF/docs/extension-manifest.xml` which is produced by the NAR Maven plugin, starting with version 1.3.0.

## Download Bundle

There are two ways to download a bundle.

### Bundle Coordinates

A bundle can be downloaded by using the combination of the bucket name and bundle coordinates, where bundle coordinates are the group, artifact, and version of the bundle.

To download a bundle by its coordinates, a GET request can be made to the following end-point:

```
/nifi-registry-api/extension-repository/{bucketName}/{groupId}/{artifactId}/{version}/content
```

The Content-Type of the response is `application/octet-stream`.

An example of using `curl` to download `my-processors-1.0.0.nar` from the Test bucket would be the following:

```
curl http://localhost:18080/nifi-registry-api/extension-repository/Test/com.test/my-processors/1.0.0/content > my-processors-1.0.0.nar
```

### Bundle Id

A bundle can be downloaded by using the combination of its unique id and version. The unique id is an id assigned to the bundle when the first version of the bundle is uploaded to NiFi Registry. This id is returned in the response of a successful upload.

To download a bundle by its id and version, a GET request can be made to the following end-point:

```
/nifi-registry-api/bundles/{bundleId}/versions/{version}/content
```

The Content-Type of the response is `application/octet-stream`.

An example of using `curl` to download `my-processors-1.0.0.nar` by id and version would be the following:

```
curl http://localhost:18080/nifi-registry-api/bundles/3db78035-e3ba-4cbf-820e-022f292bd68c/versions/1.0.0/content > my-processors-1.0.0.nar
```

## Additional Actions

For additional actions that can be performed related to bundles, please consult the [NiFi Registry REST API Overview](#).