

# Ozone Administrator's Guide

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# Table of Contents

<b>1. Introduction</b>	<b>1</b>
1.1. Objectives	1
1.2. Document Scope	1
1.3. OWF Purpose	1
1.4. Related Documents	1
<b>2. Administration Tools</b>	<b>2</b>
2.1. Administration Menu	2
2.2. Administration Management Widgets (Managers)	3
2.2.1. Manager Panels	3
2.2.1.1. Manager Buttons	4
2.2.1.2. Manager Editors	5
2.2.1.3. Manager Search	8
2.2.1.4. Manager Pagination	8
2.3. System Configuration	8
2.3.1. Auditing	9
2.3.2. Branding	10
2.3.2.1. Implementing a Custom Banner	11
2.3.3. User Account Settings	12
2.3.4. Store	12
<b>3. Default Content</b>	<b>14</b>
<b>4. Creating and Editing User Content</b>	<b>16</b>
4.1. Users	16
4.1.1. Create a User	16
4.1.2. Add a Widget to a User	17
4.1.3. Add a User to a Widget	17
4.1.4. Edit a User	18
4.1.5. Edit User Preferences	18
4.2. Stacks	21
4.2.1. Create a Stack	21
4.2.2. Edit a Stack	22
4.2.3. Assign a Stack to Me	23
4.3. Widgets	23
4.3.1. Create a Widget	23
4.3.2. Edit a Widget	24
4.4. Widget Intents	24
4.4.1. Create a Widget Intent	24
4.4.2. Edit a Widget Intent	25
4.4.3. Delete a Widget Intent	25
4.5. Widget Descriptors	26
4.5.1. Widget Descriptor URLs	26
4.6. Edit a Widget Descriptor	26
4.7. Export a Widget Descriptor	27
4.8. Groups	27
4.8.1. Create a Group	27

4.8.2. Add a Widget to a Group .....	28
4.9. Store (Marketplace) .....	28
4.9.1. Connecting to the Store .....	28
4.9.2. Edit a Store .....	29
4.9.3. Required Listings .....	29
<b>Glossary .....</b>	<b>30</b>

# 1. Introduction

## 1.1. Objectives

This guide covers topics relevant to administering the OZONE Widget Framework.

## 1.2. Document Scope

This guide is intended for administrators of an OWF instance. An administrator is, for the purpose of this guide, defined as someone who maintains the OWF application and handles user and widget settings. In this document, the term "Store" refers to OZONE Marketplace (OMP). Both applications share features described in this guide and both may be configured to OWF.

## 1.3. OWF Purpose

OWF is a set of tools, generally delivered in the OWF Bundle. When deployed, OWF is used for organizing and displaying Widgets in a single browser window known as an OZONE Application.

## 1.4. Related Documents

*Table 1. Related Documents*

Document	Purpose
<b>Quick Start Guide</b>	Walkthrough of basic OWF functions such as using widgets; unpacking the OWF bundle; setting up a local instance of OWF; installing security certificates; truststore and keystore configuration.
<b>User's Guide</b>	Understanding the OWF user interface; adding, deleting, modifying widgets and using intents; accessing and using the Store; using dashboards; creating, deleting, adding, switching, modifying dashboard pages; defining accessibility features such as high-contrast themes.
<b>Administrator's Guide</b>	Understanding administrative tools: adding, deleting, and editing users, groups, widgets, and dashboards; creating default content for users, groups and group dashboards.
<b>Configuration Guide</b>	Overview of basic architecture and security; OWF installation instructions; instructions for modifying default settings; database set up and logging guidance; framework and theme customization instructions; OWF upgrade instructions; directions for adding and deleting help content.

## 2. Administration Tools

### 2.1. Administration Menu

The User Menu is a drop-down feature located on the right-side of the OWF toolbar. All users have access to certain OWF Options described in the **OWF User's Guide** (User Profile, About and Sign Out). OWF administrators have access to the Administration OWF Option. Clicking [**Administration**] opens the Administrator Tools.

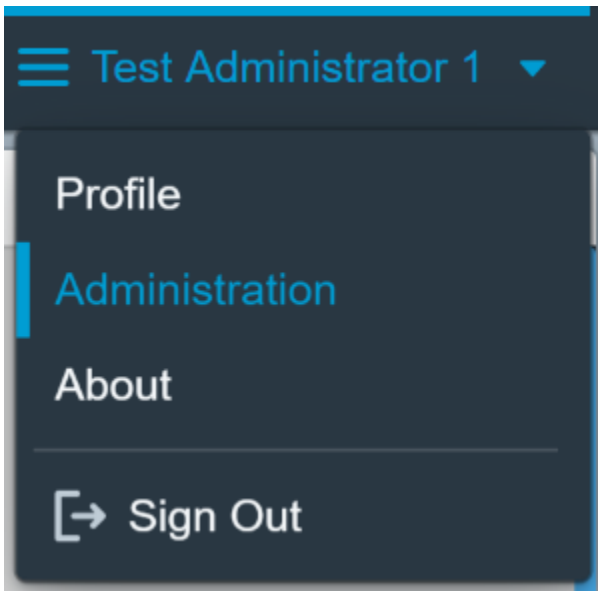


Figure 1. Drop-down User Menu — Administration

Administration Tools allow an administrator to manage stacks, widgets, users, groups and system configurations using the Stacks, Widgets, Users, Groups and Configuration managers respectively. Information on common buttons and functions found in the Stacks, Widgets, Users and Groups managers is in [Section 2.2, "Administration Management Widgets \(Managers\)"](#). The Configuration manager allows administrators to change select OWF configuration settings from within the user interface. More information on the System Configuration manager is in [Section 2.3, "System Configuration"](#).

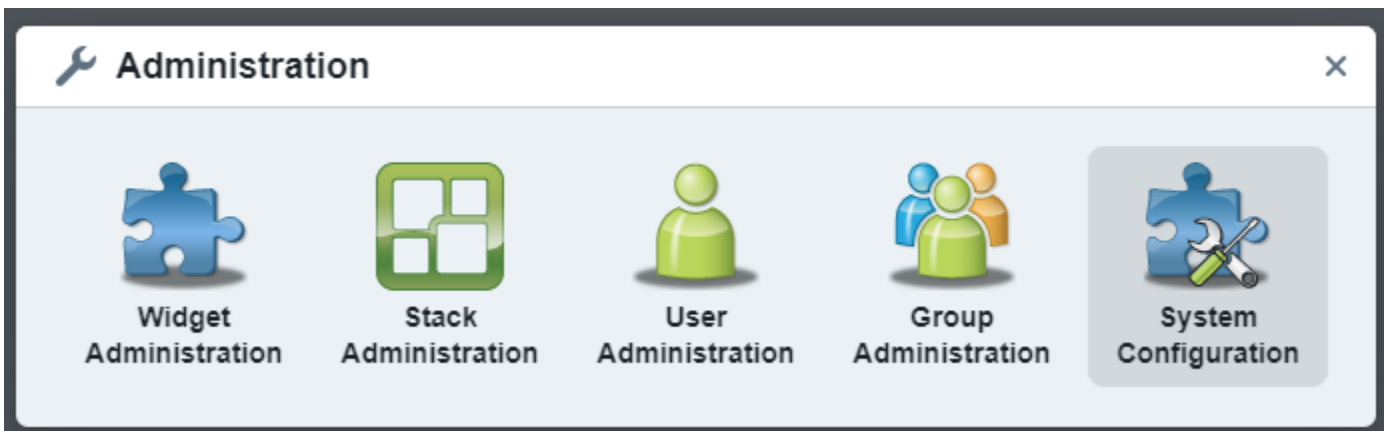
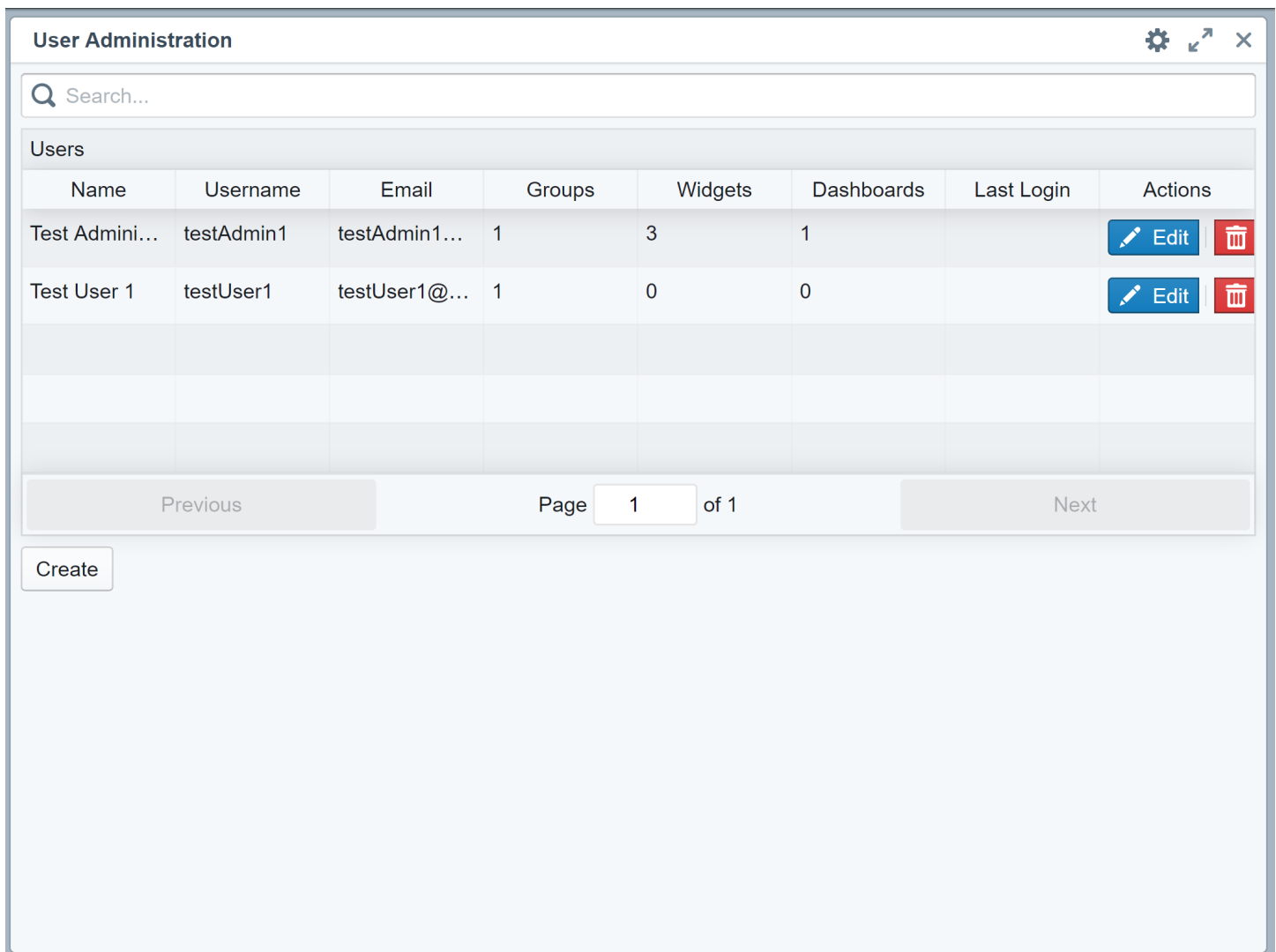


Figure 2. Administration Tools

## 2.2. Administration Management Widgets (Managers)

The administration management widgets (managers) are used to create, edit and delete users, groups, stacks and widgets as well as configure system-wide information. While each manager has specific fields that relate to the manager's specific purpose, some of the functions operate identically. For example, the search feature in the User Manager functions exactly like the search feature in the Stack Manager. Accordingly, search is explained only once in this section. Also, this document no longer contains definitions regarding basic information that general users should understand. If a topic can be easily defined by Google, it has been removed from this guide. The following section offers a general overview of the administrative managers and their use.

### 2.2.1. Manager Panels



The screenshot displays the 'User Administration' panel. At the top, there is a search bar with a magnifying glass icon and the text 'Search...'. Below the search bar is a table titled 'Users'. The table has eight columns: Name, Username, Email, Groups, Widgets, Dashboards, Last Login, and Actions. There are two rows of user data. The first row shows 'Test Admini...' with username 'testAdmin1', email 'testAdmin1...', 1 group, 3 widgets, 1 dashboard, and an empty last login field. The second row shows 'Test User 1' with username 'testUser1', email 'testUser1@...', 1 group, 0 widgets, 0 dashboards, and an empty last login field. Each row has an 'Edit' button (pencil icon) and a delete button (trash can icon). Below the table is a pagination bar with 'Previous', 'Page 1 of 1', and 'Next' buttons. At the bottom left, there is a 'Create' button.

Name	Username	Email	Groups	Widgets	Dashboards	Last Login	Actions
Test Admini...	testAdmin1	testAdmin1...	1	3	1		<a href="#">Edit</a> <a href="#">Delete</a>
Test User 1	testUser1	testUser1@...	1	0	0		<a href="#">Edit</a> <a href="#">Delete</a>

Previous Page 1 of 1 Next

Create

Figure 3. Users Admin Widget — Panel view

The users, stacks, widgets and group managers open to similar panel views. The panel view described in this section applies to all four managers. The panel view:

- Allows the user to create, edit, delete or view an entry.

- Displays the number of users/groups/stacks/widgets associated with the specific entry.



When viewing the widget count, only the widgets that are assigned directly to a user appear in the overall count. Widgets associated by groups will NOT appear in the widget count.

- Offers a view of the first 50 results in alphabetical order. Additional results can be viewed using the pagination as described in [Section 2.2.1.4, “Manager Pagination”](#) To reduce the number of displayed results: Use the search bar, described in [Section 2.2.1.3, “Manager Search”](#).

### 2.2.1.1. Manager Buttons

Administrators use the managers to create and delete users, groups and widgets. Differences between the managers are referenced in sub-bullets.

Create button —

Opens the manager’s editor. From the editor, an administrator can create a new user/group/widget (depending on which editor the administrator opens) and assign related data to the new entry.

- When creating a new entry, only the Properties tab will be active until the administrator saves the user/group/widget via the Apply button.
- Administrators cannot create a Stack using the Stack Manager and editor. From Stack Manager, administrators can only edit and delete Stacks using the Stacks Manager. To create a dashboard, open Stacks from the toolbar.

Delete button —

Deletes selected entries. Some user/group/stacks/widget rules apply:

- Deleting a **group** does not delete the users or widgets assigned to the group. It only deletes the *pairing* of users with widgets in the group.
- Deleting a **stack** removes it from the users and groups. Dashboards and widgets associated with the stack will also be deleted.
- Deleting an **widget** removes it from a user’s Widget’s Menu as well as the groups and stacks to which it was assigned.

Edit button —

Opens the editor for the item, allowing the administrator to edit the user / group / stack / widget.

2.2.1.2. Manager Editors



If an administrator starts a manager in a fit pane, its editor will open in the first available empty pane. If no panes are available, it will "float" on top of the application. Additional application layout information is found in the *Ozone User's Guide*.

User Administration

Properties

Groups

Widgets

Stacks

Preferences

Back

Search...

Widgets				
Title	URL	Users	Groups	
Widget Administration	local:widget_admin	1	1	Delete
Dashboard Administration	local:dashboard_admin	1	1	Delete
User Administration	local:user_admin	1	1	Delete

Previous

Page 1 of 1

Next

Add

Figure 4. User Editor — Widgets tab

From the editor, administrators can create, edit and delete data assigned to users / group / stacks / widgets. The following table alphabetically lists editable fields found in the managers and editors. Split Edit button features, located in the managers, are also listed. The last column of the table describes the location of each field.

Table 2. Editor Fields



Field	Editor	Purpose
<b>Activate / Deactivate</b>	Groups — Properties tab	<p>Users in active groups have full access to their group-assigned widgets. Users in a deactivated group will not have access to any of the widgets which are assigned to them via the deactivated group. When a group becomes deactivated it will appear gray.</p> <div>  <p>If a user is in Group A and Group B and each group has Widget 1 assigned to it, the user will still have access to Widget 1 if Group A is deactivated and Group B is activated. Additionally, if the user has Widget access outside of a group's distribution, the user will not lose access to the Widget, even if they lose group access.</p> </div>
<b>Widget Type</b>	Widgets — Properties tab	<p>A drop-down menu that determines where the widget may be launched.</p> <ul style="list-style-type: none"> <li>• All widgets that are not of type "Store" will appear in the Widgets Menu.</li> <li>• Administration widgets will appear under the Administration link available in the drop-down User Menu.</li> <li>• Widgets set to type "Store" will appear under the Store button on the toolbar.</li> </ul> <div>  <p>Instructions explaining how to associate OWF with a Metrics Service are found in the <i>Ozone Configuration Guide</i>.</p> </div>
<b>Assign to Me</b>	Stacks	This button allows an administrator to claim ownership of a stack. Only a stack owner can share a stack with the Store or with other users, if there is no Store. If the stack owner is removed from the system, the stack owner defaults to "System".
<b>Background</b>	Widgets — Properties tab	Some widgets do not have user interfaces. These widgets are often used to cache or log data on behalf of other widgets. If a widget is set to run in the background, it will not appear in the dashboard. Users can close background widgets by using the Widget Switcher, located in the User Menu.
<b>Container Icon URL</b>	Widgets — Properties tab	Defines the location of the icon which appears in widget chrome at 16x16 pixels.

Field	Editor	Purpose
<b>Display Name</b>	Groups — Proper ties tab	The group name which will appear in grids and tables throughout administrator views.
<b>GUID</b>	All — Properties tab	A unique 32-character alphanumeric code for a particular named widget. If "Widget A" is launched 5 times, all 5 widgets will share the same GUID property.
<b>Height</b>	Widgets — Prope rties tab	Defines the launch height of the widget in pixels. Up and down arrows to the right of the field can be used to modify the overall height. Only desktop panes are affected by this property.
<b>Intents</b>	Widgets — Intent s tab	Widget intents build on OWF's publish/subscribe functionality by allowing users to choose the widget that will receive its data. Intents explain the intention for the widget. This binding capability enables two widgets to enhance each other's functionality.
<b>Medium Icon URL</b>	Widgets — Prope rties tab	Defines the URL of the icon which appears in the Widgets Menu, provided the "visible" menu flag (mentioned below) is checked.
<b>Mobile Ready</b>	Widgets — Prope rties tab	Suggests that a listing can run on a mobile device. This setting only applies to MONO instances. MONO is a mobile project using the Store and OWF. If OWF is running in a MONO instance, only Mobile Ready listings will appear.
<b>Remove</b>	All	Separates the selected user/group/dashboard/widget from the selected entry. This does not delete the user/group/dashboard/widget from the system. It only removes the assignment to the selected entry.
<b>Singleton</b>	Widgets — Prope rties tab	Designates whether an widget can only have one instance opened per application page.
<b>Small Icon URL</b>	Widgets — Prope rties tab	Defines the location of the icon which appears as a favicon in the corner of the widget when it is minimized, provided the "visible" menu flag (mentioned below) is checked.
<b>Universal Name</b>	Widgets — Prope rties tab	A value that can be used as a widget's global identifier across all instances of OWF. This differs from a widget GUID which is unique to a specific installation. The Universal Name should be decided by a Widget's creator.

Field	Editor	Purpose
<b>URL</b>	Widgets — Properties tab	Defines the URL of the Widget web application. This is a required field.
<b>User Management</b>	Groups — Properties tab	Defines whether or not the group is an automatic group, being populated and maintained by external sources. This value cannot be modified once the group has been created.
<b>Version</b>	Widgets — Properties tab	Displays the version number of the Widget. This is completely user-driven and is for informational purposes.
<b>Visible</b>	Widgets — Properties tab	Dictates whether a listing will show in a user's Widget Menu. This cannot be overridden by the user.
<b>Width</b>	Widgets — Properties tab	Defines the launch width of the widget in pixels. Up and down arrows to the right of the field can be used to modify the overall width. Only Desktop panes are affected by this property.

### 2.2.1.3. Manager Search



Figure 5. Manager — Search input field

The search field in each manager reduces the entries displayed in the panel to entries containing the specific word or characters entered in the search bar. The search will filter the results as text is entered into the search bar. Clear the entered text to clear the filter entered in the search bar.



This is a full-text search and it is NOT case-sensitive.

### 2.2.1.4. Manager Pagination



Figure 6. Manager — Pagination toolbar

## 2.3. System Configuration

Administrators have the ability to change OWF configurations quickly and without the need to restart the system. Using the System Configuration, change settings for auditing records, user accounts management, customizing certain branding features, and configuring store associations through the user interface. Use the following instructions to locate the Configuration console:

1. Open the Administration Tools (see [Section 2.1, “Administration Menu”](#)).
2. Select [**system configuration**] to open the System Configuration Console.

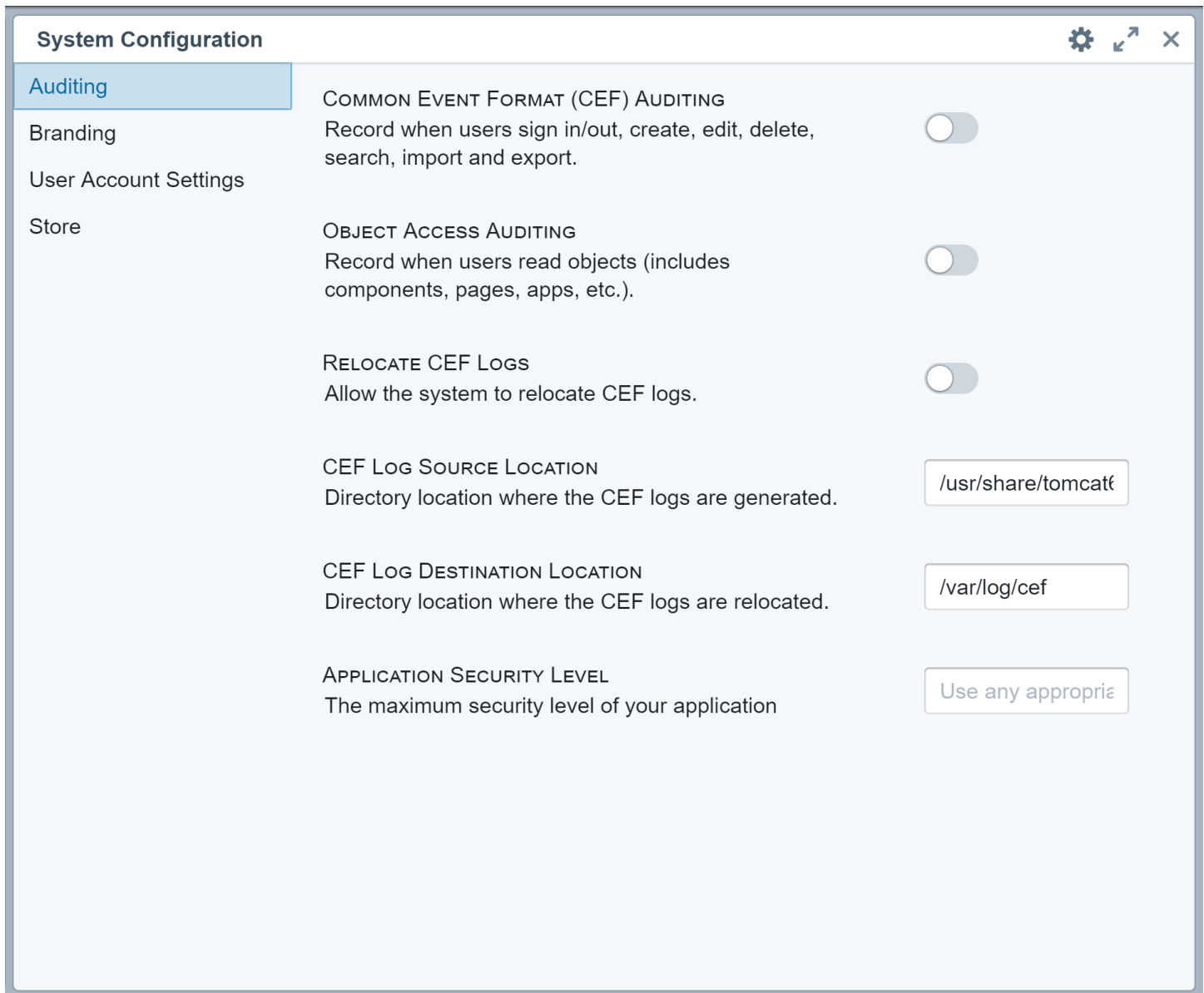


Figure 7. System Configuration Console

The System Configuration Console has four sections accessible to administrators: Auditing, User Account Settings, Branding, and Store. The following sections describe each option:

### 2.3.1. Auditing

The Auditing configuration allows administrators to activate Common Event Format (CEF) logging and specify aspects of this logging feature. To access this setting, click [**Auditing**] on the left-hand navigation of the System Configuration Console. Each Auditing option is described below:

## Common Event Format (CEF) Auditing

Disabled by default, this records user actions such as sign in/out and database modifications (create, edit, delete, search, import and export). Click **[ON]** to enable.



For more information about CEF Auditing, see the OWF Configuration Guide.

## Object Access Auditing

Disabled by default, this records CEF audit logs for all database reads. This includes most user actions such as viewing an application, clicking a button, etc. Click **[ON]** to enable.

## Relocate CEF Logs

Disabled by default, this feature allows the system to relocate the CEF logs from their original location to a different location. Click **[ON]** to enable.

## CEF Log Source Location

The directory location where the CEF logs are generated. The default location is the Tomcat directory: `/usr/share/tomcat/`

## CEF Log Destination Location

The directory location where the CEF logs will be relocated if the "Relocated CEF Logs" option is enabled.



Developers may need to grant permission for the application container to write to this location.

## Application Security Level

The security level of the CEF logs.

## 2.3.2. Branding

The Branding Configuration setting allows administrators to customize the appearance of the OWF background as well as the appearance and content of the OWF header and footer. This feature is accessible by click **[Branding]** from the left-side navigation of the System Configuration Console. Each Branding option is described below:

### Free Text Message

This text displays anywhere a user can enter text.

### Custom Background URL

File name (including extension and location) for the background image that will display on the OWF home screen. For example: `https://example.com/image/yourLogo.png`

### Custom Header URL

File name (including extension and location in the system) for a custom header that appears above the OWF toolbar; the URL must be valid for it to appear.

### Custom Header Height

Height of the custom header . Must be greater than zero and less than 150 pixels.

### Custom Footer URL

File name (including extension and location in the system) for the custom footer that appears above the bottom of the OWF webtop; the URL must be valid for it to appear. If it is not, a black box displays in its place.

### Custom Footer Height

Height of the custom footer. Must be greater than zero and less than 150 pixels.

### Custom Header/Footer CSS Imports

URL(s) of CSS files needed by the custom header and footer. Each location must be separated by a comma (,).

### Custom Header/Footer JavaScript Imports

URL(s) of JavaScript files needed by the custom header and footer. Each location must be separated by a comma (,).

#### 2.3.2.1. Implementing a Custom Banner

OWF is bundled with a custom header/footer plugin that provides the necessary functionality to display custom banners at the top and bottom of each page. To use this custom plugin:

1. Sign in to the application as an administrator.
2. From the drop-down User Menu, click [**Administration**], then click [**System Configuration**].
3. Click [**Branding**] from the left-navigation panel.
4. Enter the following data in the corresponding fields:
  - a. Custom Header URL
  - b. Add a custom header height.
  - c. Custom Footer URL
  - d. Add a custom footer height.
  - e. Path to Custom Header/Footer CSS Imports

### 2.3.3. User Account Settings

The User Account Settings configuration allows administrators to modify global user account settings. Specifically, these settings control the number of active OWF sessions allowed per user and sets the parameters needed to disable a user account. Access these configurations by clicking **[User Account Settings]** from the left panel of the System Configuration Console. Each User Account Setting is explained below:

#### Disable Inactive Accounts

A toggle switch to enable user accounts to be disabled after a period of inactivity.

#### Set Inactivity Period

Click on the text field and type in the number of days that need to elapse since a user last signed in before the account is disabled.

When a user's account is disabled:

- Stack ownership for the disabled account transitions to "System" so that any stacks the disabled user created will not be removed from the instance of OWF.
- Also removed are the user's preferences and any references to that user.
- If a user signs in after their account is disabled, any of their previous widgets, preferences, etc. will not be recoverable.



The Disable Inactive Accounts only removes user data within the OWF application. It does not affect the user's ability to log back into the application. Authentication decisions are handled by the customizable OWF Security Plugin. See the *Ozone Configuration Guide* for more details.

#### Session Control

When set to ON, it allows the administrator to set a maximum number of concurrent, active OWF sessions a user can have.

#### Maximum OWF Sessions per User

The maximum number of active OWF sessions a single user is permitted to have at one time.

If the Session Control function is turned on and the user exceeds the number of maximum open OWF sessions, the oldest session will be disabled. For example, if the maximum number of active OWF sessions is three and a user opens up four sessions of OWF, the first session the user opened will no longer be active.

### 2.3.4. Store

The Store configuration provides an easy-to-use wizard to walk administrators through the process of connecting OWF to a Store. Admins can connect their OWF to one or more Stores. A new Store connection will

not replace existing Stores connections. Instead, when users click the **[Store]** button in the OZONE Toolbar, a prompt appears asking them to select from multiple Stores. Access the Store configuration by clicking Store from the left-side navigation panel on the Configuration console. Each option is described below:

#### Add Store — Add new store

The first button that appears on the Store configuration page. Click this button to start the wizard and add a Store.

#### Store URL

Enter the location for the Store that will be connected to OZONE. This URL is used by OWF to gather details about the Store, including name and icon.

- **Name** — Name that identifies the Store to users in OWF.
- **Icon** — Image that identifies the Store to users in OWF.

#### Edit Store —

Appears on the right of a Store icon when hovering over an added Store entry on the Store configuration page. Click it to change the Store's URL, icon or name.

#### Delete store —

When hovering over a Store entry, a trashcan icon appears to the right of the selection. Click this to delete the Store connection. After a Store has been configured, administrators can edit, add or delete Store settings from the Store configuration page.

Instructions for connecting OWF to a Store are found in [Section 4.9.1, "Connecting to the Store"](#).



### 3. Default Content

OWF ships with a default user profile and default user groups. Administrators can use the default profile and default group to add stacks and widgets to a user or several users' instance of OWF.

Group Administration

Groups				
Group Name	Users	Widgets	Dashboards	Actions
OWF Administrators	1	10		<button>Edit</button> <button>Delete</button>
OWF Users	1	0		<button>Edit</button> <button>Delete</button>
+ Create				

Previous

Page 1 of 1

5 rows ▼

Next

Figure 8. Group Manager — Default groups

## OWF Users

A default group that ships with OWF. Every user is automatically assigned to it.

Like an OWF group, Stacks and Widgets assigned to OWF Users are available to all users in the group. Since all users are automatically members of the OWF Users group, this group can be used to assign Stacks and Widgets to all users.

## OWF Administrators

A default group that ships with OWF. Every administrator is assigned to this group.

Like any OWF group, Stacks and Widgets assigned to OWF Administrators are available to all group members. Since all administrators are automatically members of this group, it can be used to assign Stacks and Widgets to all administrators. Users cannot be assigned to this group and administrators cannot delete the default Editors and Managers populating this group.

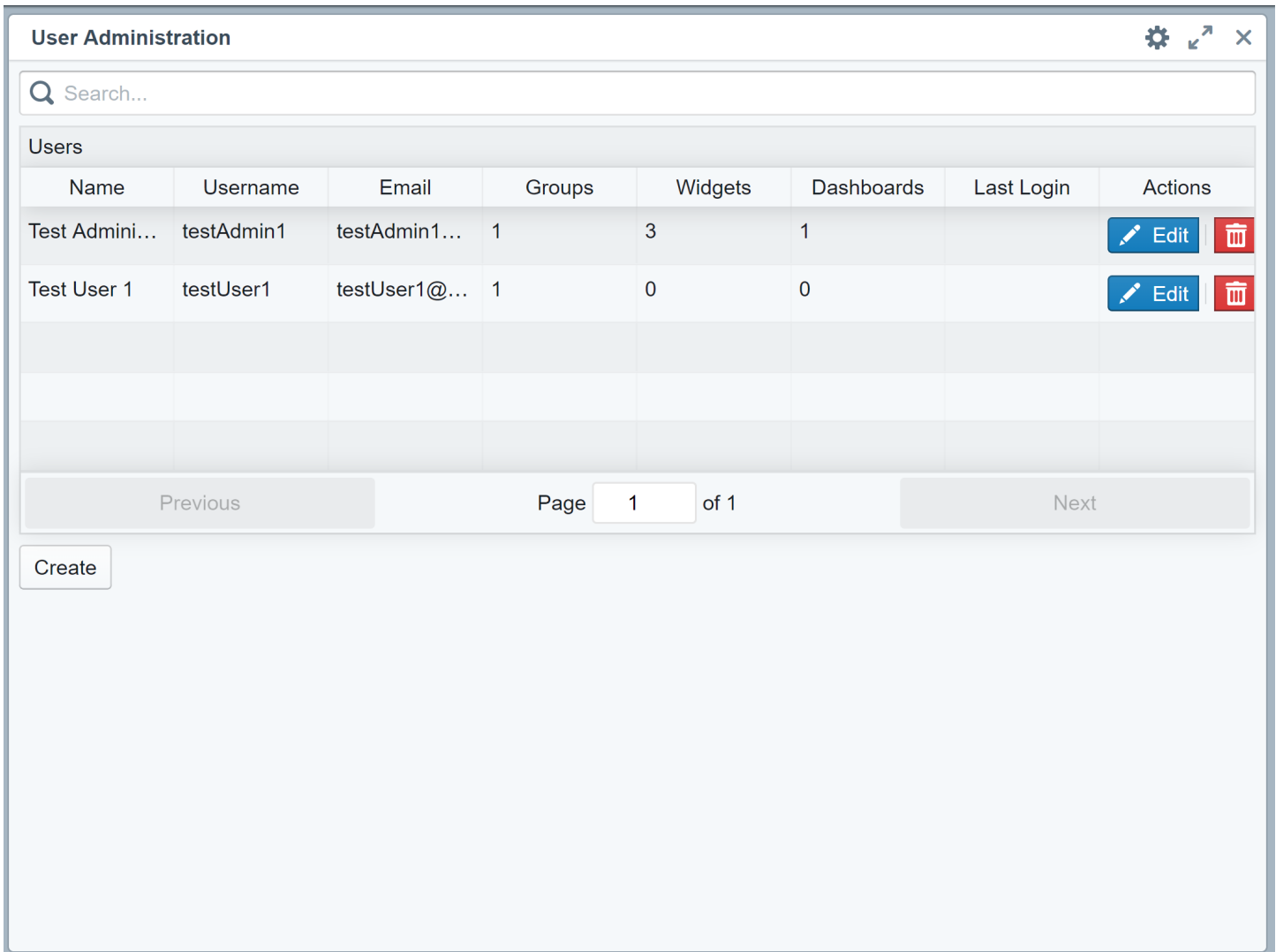


The **OWF Administrators** and **OWF Users** groups cannot be deleted, renamed or deactivated. In the event that either group is single-selected in the Groups manager, the Delete button will be grayed out. If either (or both) groups are selected along with other manual groups, the **[Delete]** button will be active. However, upon clicking **[Delete]**, only the manual groups will be removed from the system. Additionally, the Users tab in the Group Editor is disabled for these groups. Any user with access to OWF will receive **OWF Users** group resources. Any user reported to have an administrative role by the underlying security system will receive OWF Administrators group resources. If these groups are removed from the OWF database, restarting the OWF server will recreate them with no custom stacks or widgets.

## 4. Creating and Editing User Content

Creating and editing users, groups, stacks and widgets is explained in this section. This includes adding groups/stacks/widgets to user profiles through the User Editor. OWF also allows administrators to add users to groups/stacks/widgets through the Users tab on the respective Editors. These examples are described in [Section 4.1.2, “Add a Widget to a User”](#) and [Section 4.1.3, “Add a User to a Widget”](#).

### 4.1. Users



The screenshot shows the 'User Administration' widget interface. At the top, there's a title bar with a settings icon, a maximize icon, and a close icon. Below the title bar is a search bar with a magnifying glass icon and the text 'Search...'. The main content area is titled 'Users' and contains a table with the following columns: Name, Username, Email, Groups, Widgets, Dashboards, Last Login, and Actions. The table lists two users: 'Test Admini...' with username 'testAdmin1' and email 'testAdmin1...', and 'Test User 1' with username 'testUser1' and email 'testUser1@...'. Both users have 1 group, 3 widgets, and 1 dashboard. The 'Actions' column for each user contains an 'Edit' button (blue with a pencil icon) and a delete button (red with a trash icon). Below the table is a pagination bar with 'Previous', 'Page 1 of 1', and 'Next' buttons. At the bottom left, there is a 'Create' button.

Name	Username	Email	Groups	Widgets	Dashboards	Last Login	Actions
Test Admini...	testAdmin1	testAdmin1...	1	3	1		<a href="#">Edit</a> <a href="#">Delete</a>
Test User 1	testUser1	testUser1@...	1	0	0		<a href="#">Edit</a> <a href="#">Delete</a>

Previous Page 1 of 1 Next

Create

Figure 9. User Administration widget

#### 4.1.1. Create a User

Administrators have the ability to create new user profiles, edit existing user information and add groups/stacks/widgets to user profiles.

To create a new user profile:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Choose the **[Users]** button to open the User Manager.
3. Click on the **[Create]** button, opening the User Create Form.
4. Enter the user's information. Mandatory fields (User Name and Full Name) are denoted with a red asterisk. More information about these fields is found in Table 3: Edit Button and Editor Widget Fields.
5. When complete, click **[Apply]**. This will save the user and activate the additional tabs in the User Manager.
6. To add groups, stacks or widgets to a user account, proceed to the instructions in [Section 4.1.2, "Add a Widget to a User"](#) or [Section 4.1.3, "Add a User to a Widget"](#).



Administrators do not create or maintain user passwords in the OWF interface. Security and authentication are addressed in the OWF Configuration Guide.

### 4.1.2. Add a Widget to a User

The following instructions describe how to add Widgets to a user account using the Widgets tab found in the User Manager. Administrators can follow this basic formula to add groups, stacks and widgets to user profiles via the Groups, Stacks and Widgets tabs in the User Editor.

To add widgets to a user's account:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Click the **[Users]** button to open the User Manager.
3. From the manager, select a User. Then, click **[Edit]** to open the User Edit Form.
4. Click the **[Widgets tab]** at the top of the editor. Widgets that are already associated with the user will display in the window.
5. To add widgets, click the **[Add]** button. A modal window will display all widgets available to that user. Select a widget, then, click the **[OK]** button. The widget is automatically added to the list of widgets on the user's Widget tab.

### 4.1.3. Add a User to a Widget

Another way to give users access to widgets is to add users to the widgets's profile via the Widget Editor. Again, administrators can use this general procedure to add users to groups and stacks through the Users tabs in the respective editors. When completed, close the editor window and the data will be updated automatically to the user profile.

To add users to widget profiles:

1. Click the **[Administration]** link in the drop-down User Menu.

2. Click the **[Widgets]** button to open the Widget Manager.
3. From the manager, select a widget. Then, click the **[Edit]** button.
4. Click the **[Users tab]** at the top of the editor. Users that are already associated with the widget will display in the window.
5. To add users, click the **[Add]** button. A modal window will display all users available to that widget. Select a user, then, click the **[OK]** button. The user is automatically added to the list of users on the widgets's Users tab and the widget is available to the user's instance of OWF.

#### 4.1.4. Edit a User

To edit existing user content:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Click the **[Users]** button to open the User Manager.
3. From the manager, select a user account to update and click the **[Edit]** button.
4. Update data on the Properties tab and click **[Apply]**.

This procedure is also used when editing the properties of groups, stacks and widgets. To edit the content, click the **[Administration]** link in the drop-down User Menu and click on the respective manager and click **[Edit]** to open up the editor. Make changes in the Properties tab and click **[Apply]**.

#### 4.1.5. Edit User Preferences

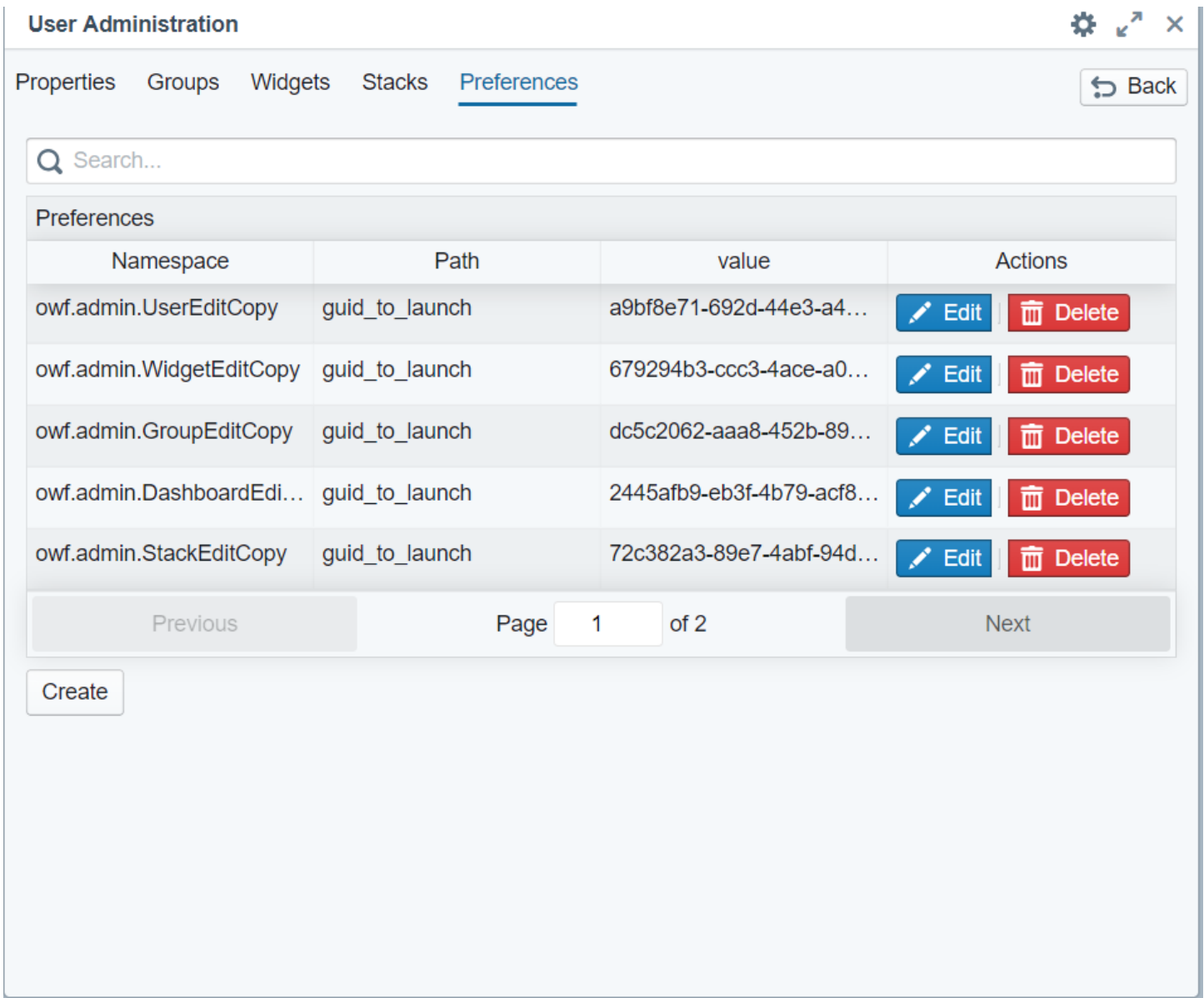


Figure 10. User Administration widget — Preferences tab

Widgets use preferences to store data. Preference data includes the widget's location on the screen, instructions to open it, etc. A preference value can be created and saved at any time by a running widget. Once that preference is saved to the database, it will appear on the Preferences tab in the User Manager. The Preferences tab serves as a table of known preferences. From the tab, administrators can view, create, edit and delete preferences. However, from the Preferences tab, the administrator cannot configure a widget to use a preference. Widgets will only use the preference they are programmed to use defined via the Preference API.

If a widget is configured to use preferences, they can be used to define component states, interaction, etc. For example, the `guid_to_launch` preference is an example of a preference used by the Administration Managers to know which Editor to launch. Other Widgets could use this same preference as an eventing tool. For example, administrators can use this preference to make a Tracking widget open a Map widget. As seen in Figure 10, "User Administration widget — Preferences tab", the `guid_to_launch` preference causes the User Manager to open a copy of the Widget Manager .

The Preferences tab includes the following fields:

## Preference Name

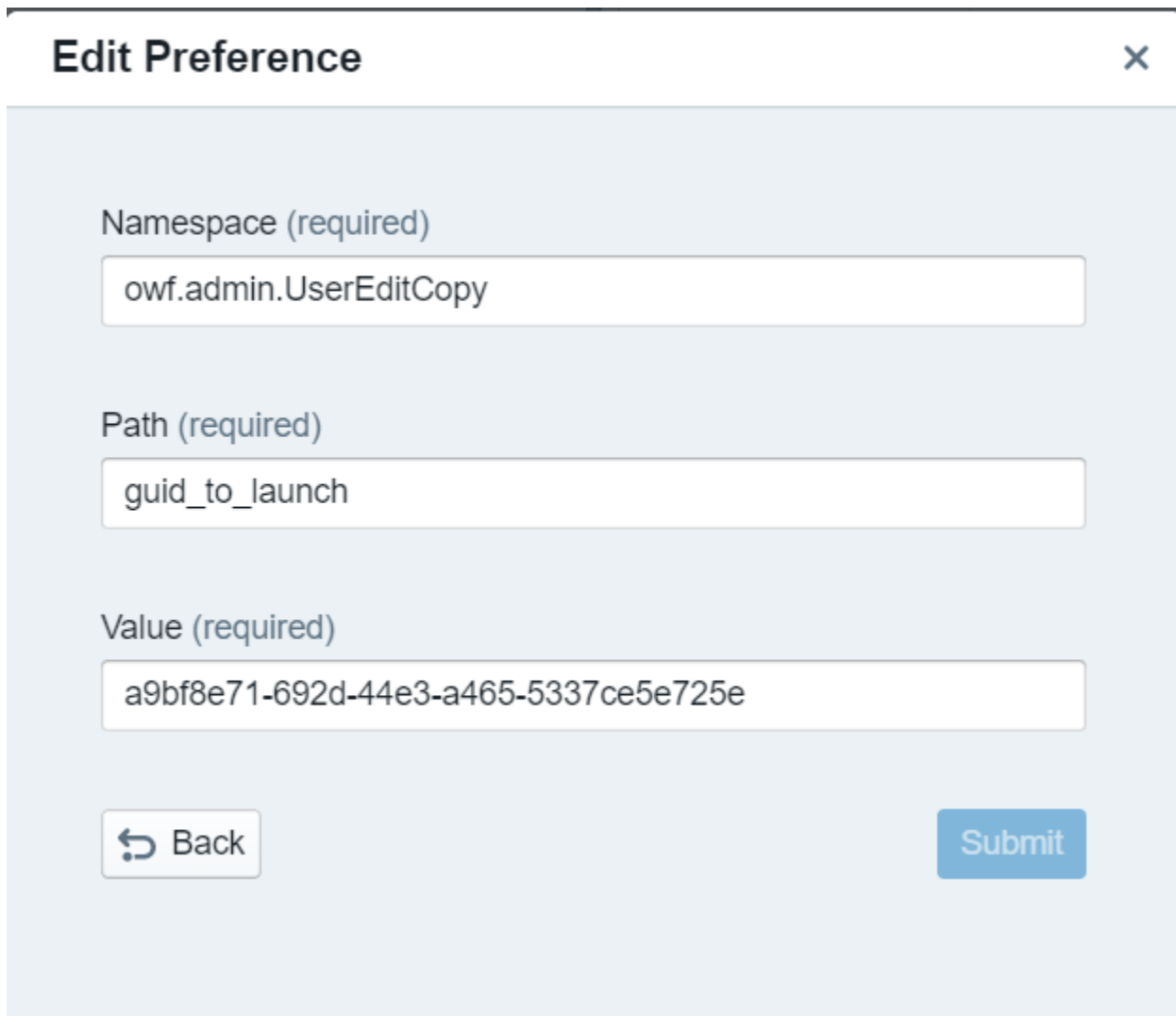
The preference name, along with the Namespace, make up the "key" for the preference item. The Preference Name is the name of the preference as dictated by the widget or OWF. If the widget uses preferences, OWF will add the preference name to the table on the Preference tab whenever the action that is associated with the preference is performed.

## Namespace

The namespace is the other half of the preference's unique identifier. Generally, these identifiers will describe general functionality for a widget or set of widgets. Namespace/Preference Name pairs are unique for each user.

## Value

Stored inside of the preference, values house the data that the preference uses. An example could be the actual widget GUID value that the preference will use to open a widget. This is a string value but developers can use JSON or REST URIs as the preference value.



The image shows a dialog box titled "Edit Preference" with a close button (X) in the top right corner. The dialog has a light blue background. It contains three text input fields, each with a label above it: "Namespace (required)" with the value "owf.admin.UserEditCopy", "Path (required)" with the value "guid\_to\_launch", and "Value (required)" with the value "a9bf8e71-692d-44e3-a465-5337ce5e725e". At the bottom left is a "Back" button with a left-pointing arrow icon, and at the bottom right is a blue "Submit" button.

Field	Value
Namespace (required)	owf.admin.UserEditCopy
Path (required)	guid_to_launch
Value (required)	a9bf8e71-692d-44e3-a465-5337ce5e725e

Figure 11. Edit Preference dialog

## 4.2. Stacks

### 4.2.1. Create a Stack

Creating a stack is not an exclusive administrator function. Stacks are created by users and administrators using the Stacks Menu.

To create a new stack:

1. Click the [**Stacks**] button in the toolbar to open the Stacks Menu.
2. Click [**Create New**] at the bottom of the screen to open the "Create New" window.
3. Give the stack:
  - a. A title (required)



The stack cannot be saved without a title.

- b. An image URL (optional) that appears in the Stacks window
  - c. A description (optional)
4. Choose a layout for the stacks. Click the radio button beside the selected layout method. Layout options include:
    - a. Choose a template – Choose one of twelve premade layouts.
    - b. Copy the layout of an existing Stack– Clicking this causes a drop-down menu to appear below the selection title. Choose a stack from this menu. The new stack will adopt the layout of the selected stack. However, it will not copy the widgets associated with that layout.
    - c. Create a new layout – More information on creating a new layout is found in the OWF User's Guide.
  5. Click [**OK**]. The stack will automatically start unless you selected "Create a new layout".
  6. To add widgets to the Dashboard, click the [**Widget**] button on the OZONE Toolbar and select widgets by clicking them. If the Dashboard has more than one pane, click the pane where the widget will start.

The next time the Stack menu is opened, it will contain this stack. This stack belongs to the user who created it.

- When OWF is connected to a Store, administrators cannot share the stack with other OWF users until the stack is shared with the Store. To do this, open Stacks and click [**Push to Store**].
- When OWF is not connected to a Store, assign the stack to OWF users and groups using the instructions in [Section 4.2.2, "Edit a Stack"](#).
- If an administrator deletes an stack, the user will retain a copy of the stack and the dashboards and widgets included in the dashboard. However, they will lose the ability to restore it.
- If an administrator changed the stack and its contents after it was added to a user's instance of OWF, the current state of the stack may be different than the one that originally appeared on the user's Stack



window.



Creating a new stack, in effect, creates a one-page application. The stack and the single dashboard share the same title, description and icon. The layout assigned to this stack applies to the single dashboard rather than the stack. Users can add additional dashboards, and therefore additional layouts, to this stack. When more than one dashboard is added to a stack, the user has the ability to change the single dashboard's properties. Also each dashboard is edited independent from other dashboards or the parent Stack.

### 4.2.2. Edit a Stack

Only shared stacks or stacks pushed to the Store can be assigned to individual users or groups from the Stacks Manager. That means that a user willingly made available a copy of their stacks for administrators to distribute to other users. For that reason, administrators have limited editing ability for Stacks. They cannot edit the Stack's properties (name, layout, etc.) or Widgets from the Stack Manager. Those edits must occur in the actual Stack, for instructions see the *Ozone User's Guide*. From the Stack Manager, administrators can add or remove users and groups as described below:

1. Click the [**Administration**] link in the drop-down User Menu.
2. Click [**Stacks**] to open the Stack Manager.
3. From the manager, select a Stack and click [**Edit**].
4. From the Stack Edit Form, you'll see:
  - a. A list of the Stack's Widgets will appear for informational purposes only. To add Widgets, open the actual Stack and add widget from the Widget Menu.
  - b. Groups associated with the Stack.
  - c. Users associated with the Stack.
5. To add a group, click the [**Group tab**] and then click the [**Add**] button. A modal window will display all available groups. Select a group, then, click the [**OK**] button. The Stack is automatically added to the group members' Stacks Menu.
6. To add a user, click the [**User tab**] and then click the [**Add**] button. A modal window will display all available users. Select a user, then, click the [**OK**] button. The Stack is automatically added to the user's Stacks Menu.

In order to assign users and groups to a stack that was retrieved from the Store, two actions must occur:

- **The stack must be approved in the Store.** If the stack has not been approved in the Store, the administrator will receive a warning message when they attempt to assign the stack to a user or group.
- **The Store synchronization feature must be enabled and configured to connect OWF to the Store.** For more information on enabling this feature, see the *Ozone Configuration Guide*.

If OWF is not connected to a Store, the owner of the stack must first allow the administrator to share the stack with other users. To do this, the stack owner (who can be an OWF user without administrative privileges) must click the stack's **[Share]** button. Instructions are provided in the *Ozone User's Guide*.



When OWF is not connected to a Store, OWF does not require the synchronization feature to assign applications to users and groups.

### 4.2.3. Assign a Stack to Me

In the Stack Manager, when an administrator selects a Stack and clicks **[Assign To Me]**, the system reassigns ownership of the stack to the person that clicked the button. This feature was included because a stack must have an owner in order to be shared with the Store. Only an owner can push a stack to the Store. If its owner is removed from the system, the **[Assign To Me]** button allows an administrator to claim ownership of the stack. If an administrator reassigns ownership, all users in the system will retain their copies of the Stack.

## 4.3. Widgets

### 4.3.1. Create a Widget

Administrators can create, edit, delete, import and export widgets. There are two ways to create a widget: importing widget data with a descriptor URL or manually entering widget data. Imported widget data is editable through the Widget Editor (see [Section 4.3.2, "Edit a Widget"](#)).

To create a widget, the administrator must complete several mandatory fields in the Widget Manager. For example, the `WidgetType` field is useful for separating widgets on a user's toolbar. Only "Standard" type widgets will appear in the Widgets Menu. "Administration" widgets will appear when the **[Administration]** link is clicked in the drop-down User Menu. Widgets set to type "Store" will appear under the Store button on the toolbar. "Metric" type widgets will appear when the **[Metric]** link is clicked in the drop-down User Menu. Setting a widget to "fullscreen" in OWF does nothing to the widget. This field is used by the Store to send Web apps to OWF as separate stacks.

To create a widget:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Click the **[Widgets]** button to open the Widget Manager.
3. From the manager, click the **[Create]** button.
4. From here, there are two ways to create widgets:
  - a. **Import a descriptor URL** — Enter a descriptor URL and click Load. For more information about descriptor URLs see [section 4.5.1, "Widget Descriptor URLs"](#).
  - b. **Manually enter data** — If a descriptor URL is not available, click the **[Don't have a descriptor URL?]** link and complete the required fields on the Properties tab. Remember that the widget type

will dictate the location of the widget.

5. Click **[Apply]**. This will unlock the Users, Groups and Intents tabs on the Widget Manager. Select each tab and click the **[Add]** button to add users, groups and intents to the widget. Information about adding Intents to a widget is in section [Section 4.4.1, "Create a Widget Intent"](#).
6. Refresh OWF. The new Widget will appear under the respective toolbar button for users to whom the widget has been assigned.

### 4.3.2. Edit a Widget

To edit existing widget content:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Select **[Widgets]** to open the Widget Manager.
3. From the manager, select a widget and click **[Edit]**.
4. Edit the widget data on the Properties tab and click **[Apply]**.

Users and groups assigned to the widget will receive the widget data changes automatically.

## 4.4. Widget Intents

### 4.4.1. Create a Widget Intent

Widget intents are the instructions for carrying out an widget's intentions. Intents comprise an Action (graph, view, edit, etc.), a Data Type (html, text, image, etc.) and a Send/Receive request. For intents to function in OWF, a developer has to code the actual function into a widget, see the *Ozone Developer's Guide* for instructions.

Widgets coded with identical Action and Data Types can communicate with each other. For example, the New York Stock Exchange (NYSE) widget sends an intent to graph (Action) daily stock data (Data Type). The Stock Chart widget, configured and coded to receive the same intent Action and Data Type, is able to receive this request and graphs the data. The intents mechanism allows the user to select which of the available widgets will receive the intent. This binding capability enables the two widgets to enhance each other's functionality. Administrators can add, edit and delete widgets intents, however, a developer or someone with experience using intents is more likely to perform these tasks.



Find instructions about using intents in the *Ozone User's Guide* and instructions about creating intents in the *Ozone Developer's Guide*.

The Store ships with several default intents Actions and Data Types. It will NOT function as expected until a developer establishes a relationship between the intent and the widget as described in the OWF Developer's Guide. The default intents from the Store serve as metadata used as placeholders for OWF developers to create consistent intents. After a developer establishes that relationship, the following instructions will allow administrators to add intents to a widget:

1. Click the [**Administration**] link in the drop-down User Menu.
2. Select [**Widgets**] to open the Widget Manager.
3. From the manager, select a widget and click [**Edit**].
4. Click the [**Intents tab**]. Click [**Create**] to open the Create Intent window.
5. Complete the fields, required fields are marked with an asterisk.
  - a. **Action** — The Action field is the instruction the intent will make (ex. graph or view).
  - b. **Data Type** — The Data Type field indicates the data that the intent is passing from widget to widget (ex. text/html).
  - c. **Send/Receive** — This tells the widget to send or receive the widget intent.
6. Click [**OK**]. The intent has been added to the widget and will be displayed in the Intents tab in the widget manager.



It is recommended that Widgets, which use Intents, provide a Descriptor file containing the Intents configurations instead of relying on administrators following the above procedure.

#### 4.4.2. Edit a Widget Intent

It is recommended that a developer, or an individual experienced with using intents, edits the widget intents.

To edit widget intents:

1. Click the [**Administration**] link in the drop-down User Menu.
2. Select [**Widgets**] to open the Widget Manager.
3. From the manager, select a Widget and click [**Edit**].
4. Click the [**Intents tab**], select an intent and click [**Edit**].
5. Once changes have been made, click [**OK**]. OWF will automatically update the widget data.
6. Close the Widget Manager.

Users assigned to this widget will see the changes automatically.

#### 4.4.3. Delete a Widget Intent

To delete widget intents:

1. Click the [**Administration**] link in the drop-down User Menu.
2. Select [**Widgets**] to open the Widget Manager.
3. From the manager, select a widget and click [**Edit**].

4. Click the [**Intents** tab], select an intent and click [**Delete**].
5. Click [**OK**] on the warning to delete the intent.

## 4.5. Widget Descriptors

### 4.5.1. Widget Descriptor URLs

Descriptor URLs allow an administrator to create widgets without entering the widget's information manually. The administrator simply enters a URL and the widget's information is automatically retrieved from a descriptor file from a Web-accessible location. Widgets created with a descriptor URL are editable in the Widget Manager.

Descriptor URLs:

- Reduce the risk of typing errors when entering widget data.
- Allow several installations of OWF to easily share widget information.
- Allow widget developers to specify important configuration information such as Universal Names and Intents.

## 4.6. Edit a Widget Descriptor

Administrators can update and edit the widget descriptor data within the OWF interface. Updating the widget descriptor data retrieves the latest data in the widget's descriptor file which is saved in a Web-accessible location. Changes made to the widget prior to the update are lost once the update is performed.

To update the widget descriptor data:

1. Click the [**Administration**] link in the drop-down User Menu.
2. Select [**Widgets**] to open the Widget Manager.
3. From the manager, select a widget and click [**Edit**].
4. Click [**Load**]. The Widget manager will automatically refresh and display the most recent widget descriptor data.
5. Click [**Apply**].

Administrators can edit their copy of the widget descriptor data by following the steps outlined in section Editing Existing Widget Content. Descriptor data changes are shareable after the administrator exports the widget and saves the descriptor file in a Web-accessible location. Individuals who already have access to this widget will have to update their copy of the widget's descriptor data in order to see the widget changes in their OWF instance.

## 4.7. Export a Widget Descriptor

Administrators can export and save widget data as a descriptor file. An administrator needs to host the widget descriptor file in a Web-accessible location to make the file shareable with other administrators that have access to this location. This process is intended to provide a means for administrators from different OWF instances to add or receive identical widgets.

To export a widget:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Select **[Widgets]** to open the Widgets.
3. Select the widget to export. Click the arrow on the right of the split **[Edit]** button and choose **[Export]**.
4. Enter a Filename that describes the widget, this will become the title of the HTML descriptor file and then click **[OK]**.



If the widget was created by a descriptor file, the Filename field will be prepopulated with the descriptor file name.

5. Save the widget descriptor HTML file on a Web-accessible server.

## 4.8. Groups

### 4.8.1. Create a Group

Groups allow administrators to easily add or remove stacks and widgets to and from multiple OWF user. For example, by putting 10 employees into a group, the administrator can add one stack to the group, rather than having to individually add the stack to 10 employees. The following serves as a walk through for documentation purposes only.

To create groups in OWF and to add users to that group:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Click the **[Groups]** button to open the Groups Manager.
3. From the manager, click the **[Create]** button. This will open the Group Editor.
4. Fill in the appropriate data on the Properties tab. Once the **[Apply]** button is clicked, the other tabs on the Group Editor will become active. Note the following:
  - a. If the display name field is populated, that is the name which will appear in all administrator panels. The only way for the primary name field to appear is to leave the display name field blank.
  - b. If an administrator checks the automatic box in the User Management field, the following will happen:

- i. The name of the group will not be editable.
  - ii. The users tab will remain grayed out as users can only be added via external sources, such as a security plug-ins.
5. Add users to the group by selecting the **[Users tab]**, clicking the **[Add]** button and selecting users from the grid.
6. The Stacks and Widgets tabs behave the same way and can be used to populate groups accordingly.

### 4.8.2. Add a Widget to a Group

The group dashboard and group widget functions allow administrators to quickly and easily give a group of users access to several widgets at one time. Widgets can be added to a group and any user added to the group automatically receives access to the group widgets.

When a user is part of a group, for example Group A, the user's Widgets Menu will display the widgets assigned to Group A in the main section of the Widgets Menu. Only an administrator can make changes to widgets that are part of a group. Users cannot edit or delete the group or the widgets in it.

To add widgets to a group:

1. Click the **[Administration]** link in the drop-down User Menu.
2. Select **[Groups]** to open the Groups Manager.
3. From the manager, select an existing group and click **[Edit]**.
4. The Group Editor will open. Select the **[Widgets tab]**.
5. Click **[Add]** and select widgets to assign to the group. Click **[OK]**.
6. Close the Group Editor.

## 4.9. Store (Marketplace)

### 4.9.1. Connecting to the Store

The Store, similar to a commercial application store, operates as a thin-client registry of applications and services. Administrators can provide users with access to multiple Stores as described in section Store.

To connect OWF to a Store:

1. Open the OWF drop-down User Menu and click **[Administration]**.
2. This opens the Administration Manager. Click **[Configuration]** to open the Configuration Console.
3. From the left-hand panel, click **[Store]**.
4. Click the **[Add Store]** button.

5. This opens the Store Configuration window. Enter the Store's URL and then, click **[Next]**. OWF will use the URL and automatically gather Store details.
6. The Review or Edit page appears. Review or Edit the Store details:
  - a. Review the icon used to identify the Store to users in OWF.
  - b. Add a name that will identify the Store to users in OWF.
  - c. Click **[Save]**.

The **[Store]** button will appear on the OZONE Toolbar for all OZONE users.



If the Store button does not appear in the toolbar, refresh your browser window.

Once a Store is configured, users can enter the Store to search, discover and add available listings including other OZONE Dashboards and Widgets. Information on how to use the Store is covered in the *Store User's Guide*.

### 4.9.2. Edit a Store

To edit a Store entry, repeat steps one through three from the previous section ([Section 4.9.1, "Connecting to the Store"](#)) to return to the Store configuration page.

To edit a Store, hover over the Store name and click the pencil icon that appears to the right. This opens the Edit Store window, which is populated with the Store's current information. Make changes to the fields, and then click **[Save]**.

### 4.9.3. Required Listings

A Store listing can require other Store listings. For example, if a user requests widget A and it requires widget B, the user automatically requests widgets A and B. This relationship is further explained in the *Ozone User's Guide*.

When a widget, that requires other widgets, is added from the Store, the user will receive the widget along with all other widgets that it needs.

In the Widgets Manager, an administrator has two ways to identify that a Store widget requires other Store widgets:

- The details section of the listing will display: **Requires Widget: true**
- Its requirements will appear below the details

Both identifiers are highlighted in the following example:

Required listings can only be added in the Store. For more information about adding or removing required listings, see the *Ozone Store User's Guide*.



# Glossary

## **Accordion (layout)**

Display widgets in equal, horizontal panes that do not scroll (each individual widget may scroll using its own scroll bar).

## **Affiliated Store**

A store that another organization uses for their system. When a local store is connected to an affiliated store, users in the local store can search for and add listings from the affiliated store (assuming the user has proper authentication for the affiliated store).

## **App**

Deprecated term for a Stack.

## **App Component**

Deprecated term for a widget.

## **Dashboard**

An organized collection of widgets with a customizable layout.

## **Filters**

A feature used to reduce the number of search results by type or category.

## **Fit (layout)**

Allows a user to place a single widget on the screen.

## **Help**

Repository of instructional guides and video tutorials.

## **Intent**

Instructions for carrying out a widget's intentions.

## **Listing**

Any software dashboard or widget that a user enters into the Store is called a "Listing." Listings can be a various types of Web content.

## **Marketplace**

A searchable catalog of shared listings of widgets and dashboards (also referred to as the Store).

## **OWF**

Abbreviation for Ozone Widget Framework.

## **Pages**

Deprecated term for a dashboard.

## **Portal (layout)**

A column-oriented layout that organizes widgets of varying heights. Each new widget loads above the first one on the screen. The user drags a dividing bar to specify widget's height. The widgets and the Ozone window scroll.

## **Required Listings**

An association between Listings. *Example: if Listing A needs Listing B to function, Listing B is a Required Listing.*

## **Stack**

A collection of Dashboards (pages). Allows administrators and users to group Dashboards into folder-like collections that allow for easy transition from one to another.

## **Store**

Commonly used term for the Ozone Marketplace.

## **Tabbed (layout)**

Display one widget per screen, with tabs the top of the screen to switch from one widget to another.

## **Toolbar**

The navigation bar at the top of the application. It links to a user's stacks, widgets, the Store, online Help and options from the drop-down User Menu.

## **User**

A person signed into the Ozone application, usually referring to a person without administrative privileges.

## **Widget**

A light-weight, single-purpose Web application that offers a summary or limited view of a larger Web application and may be configured by the user and displayed within a Dashboard.

## **Widget Menu**

The Widgets Menu displays all available widgets. Use this feature to start or add widgets to a dashboard.