OZONE Widget Framework

Administrator's Guide

July 31, 2013

Publication/Revision History

Release	Date
Revised – OWF 7.3	July 31, 2013
Revised – OWF 7.2	June 11, 2013
Revised – OWF 7	December 21, 2012
Revised – OWF 6	September 28, 2012
Revised – OWF 5	June 29, 2012
Initial Document – OWF 4.0	March 30, 2012

Contents

Tables

Figures

1 Introduction

1.1 Objectives

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

1.2 Document Scope

This guide is intended for administrators of an OWF instance. An administrator can, for the purpose of this guide, be defined as someone who maintains OWF, as well as handles user, OZONE Application and application component settings. In this document, the term **"Store" refers both Marketplace and AppsMall**. 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 Web applications (application components) in a single browser window known as an OZONE Application.

1.4 Supported Browsers

OWF supports Internet Explorer 7 and higher and Firefox 176 and higher. OWF is tested against the following browsers:

Table 1: Tested Browsers

Browsers	Versions
Internet Explorer	7 & 9
Firefox	17
Chrome	25

1.5 Related Documents

Table 2: Related Documents

Document	Purpose
User's Guide	Understanding the **OWF user interface**; adding, deleting, modifying **applications** and using application component **intents**; accessing and using the **Store**; creating, deleting, adding, switching, modifying **applications**; defining accessibility features such as **high-contrast themes and keyboard navigation**
Administrator's Guide	Understanding **administrative tools**: adding, deleting, and editing app components, users, groups, applications and pages; **creating default content** for users, groups and group dashboards
Developer's Guide	**Creating applications and integrating existing applications into OWF**; application component upgrade instructions; walkthroughs for creating application components; adding the following features to application components: intents, descriptor URLs, preference API; logging and launching API
Configuration Guide	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
Quick Start Guide	Walkthrough of **basic OWF functions** such as using OZONE Applications; instructions for **setting up a local instance of OWF**, unpacking the OWF Bundle and installing **security certificates**; Truststore/Keystore changes

2 Administrator Tools

Administration tools, located by clicking the Administration link in the drop-down User Menu (section 2.4: User Menu), allow an administrator to manage applications, application component, users, groups and system configurations. The Configuration tool allows administrators to change select OWF configuration settings from within the user interface. If administrators use the Store Approvals Manager, it will appear here by default.

Figure 1: Administrator Tools

2.1 Administrative Managers

The administration managers are used to create, edit and delete users, groups, applications and application components as well as approve listings imported from the Store(s). While each manager has specific fields that relate to the manager's specific purpose, some of the functions operate identically in each manager. For example, the search feature in the User Manager functions exactly like the search feature in the App 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.

The manager information is broken into sub-sections:

- Panel
- Management buttons
- Search bar and pagination toolbar

2.1.1 Manager Panel

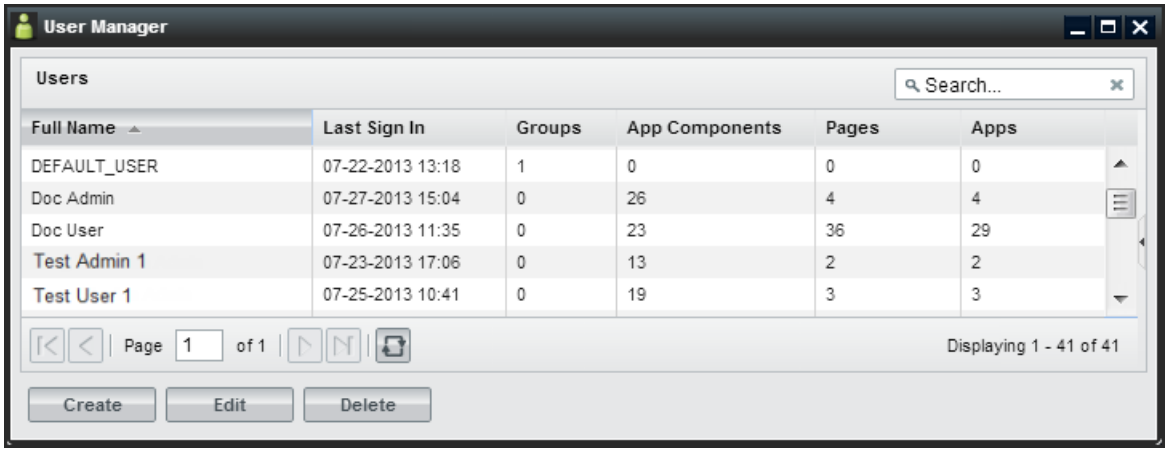

Figure 2: Users Manager Panel

The users, applications, application components 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/applications/application components associated with the specific entry.

  Note: When viewing the application component count, only the application components that a user requests or receives from an administrator appear in the overall count. Application components associated through groups will NOT appear in the application component count.

- Offers a view of the first 50 results in alphabetical order. Additional results can be viewed using the pagination as described in section 2.1.3: Administrative Managers—Pagination. To reduce the number of displayed results: Use the search bar, described in section 2.1.2: Administrative Managers—Search.

From the panel, an administrator can:

- **Sort -** Most of the columns in the panel can be sorted in ascending or descending order by clicking on the triangle to the right of the column header and selecting a sorting option.
- **Hide/Show columns -** Columns can be hidden or shown by hovering over a column header, clicking the triangle that will appear, hovering over the columns menu option, and un-checking the columns to be hidden.
- **Reorder columns -** Columns can be reordered by clicking (and holding) a column header down and then dragging it to the desired position.

- **Multiple selection** - Entries can be selected for bulk operations by holding down the CTRL button while clicking multiple entries. The delete, edit, activate and deactivate buttons will perform bulk operations on all selected entries.
- **View the information panel -** To display more information about the entry, single-click the row to open the information panel on the right.

2.1.1.1 Management Buttons: Create/Delete

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

- Opens the manager's editor. From the editor, an administrator can create a new user/group/application component (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/application component via the Apply button.
- Administrators cannot create an Application using the App Manager and editor. From the App Manager, administrators can only edit and delete Applications using the App Manager. To create an application open My Apps on the toolbar.

- Deletes selected entries. Some user/group/application/application component rules apply:

- Deleting a **group** does not delete the users or application components assigned to the group. It only deletes the *pairing* of users with application components in the group.
- Deleting an **application** removes it from the users and groups. Pages and application components that are associated with the application will also be deleted.
- Deleting an **application component** removes it from a user's App Components Menu as well as the groups and applications to which it was assigned.

2.1.1.2 Management Buttons: Edit

- Clicking Edit on any administrative manager will open the respective user/group/application/application component editor, allowing an administrator to edit the entry.

Note: If an administrator starts a manager in a fit pane, its editor will "float" on top of the application. Additional application layout information is found in the OWF User's Guide.

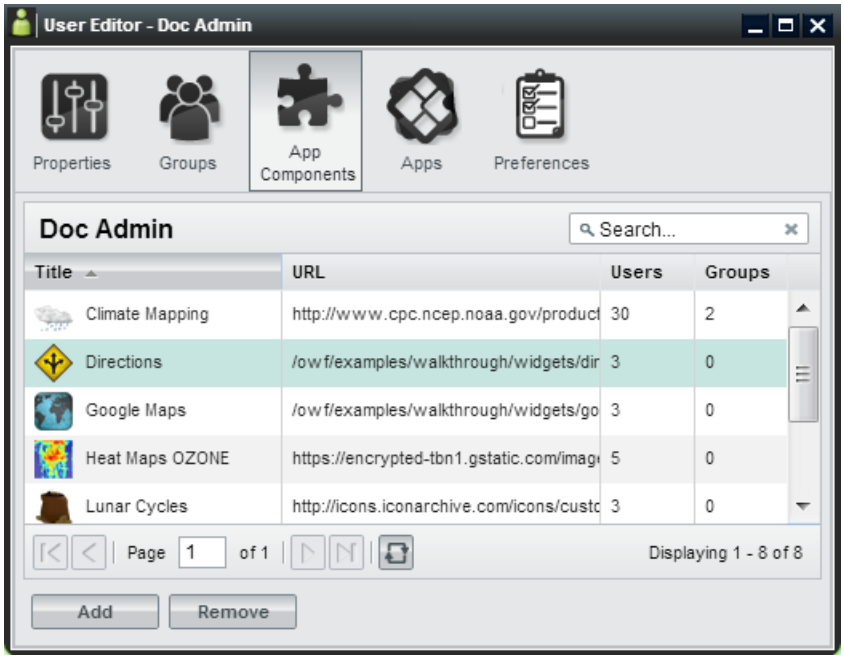

Figure 3: App Component Tab on the User Editor

From the editor, administrators can create, edit and delete data assigned to users/group/applications/application components. 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 3: Edit Button and Editor Application Component Fields

Field	Purpose	Location
Activate/Deactivate	Users in active groups have full access to their group-assigned app components. Users in a deactivated group will not have access to any of the app components which are assigned to them via the deactivated group. When a group becomes deactivated it will appear gray. *Note: If a user is in Group A and Group B and each group has App Component 1 assigned to it, the user will still have access to App Component 1 if Group A is deactivated and Group B is activated. Additionally, if the user has App Component access outside of a group's distribution, the user will not lose access to the App Component, even if they lose group access.*	Group Manager (under the split Edit button); "Active" checkbox in the Group Editor, Properties Tab

Field	Purpose	Location
App Component Type	A drop-down menu that determines where the application component will be located. • Only standard application components appear in the App Component Menu. • Administration components will appear under the Administration button on the toolbar. • Application components set to type "Marketplace" will appear under the Store button on the toolbar. • Metric app components appear under the Metrics in the drop-down User Menu. • Setting an app component to "fullscreen" in OWF does nothing to the component. This field is used by the Store to send Web apps to OWF as separate applications. *Note: Instructions explaining how to associate OWF with a Metrics Service are found in the OWF Configuration Guide.*	App Components Editor, Properties Tab
Assign To Me	This field reassigns ownership of an application to the person that clicked the button. Only an application owner can share it with the Store. If its owner is removed from the system, the application owner defaults to "null." This button allows an administrator to claim ownership of the app.	App Manager
Background	Some application components do not have user interfaces. These application components are often used to cache or log data. If an app component is set to run in the background, it will not appear in the application foreground. Also, it will appear on the user's App Component Menu if the "visible" menu flag (described in this table) is turned on. Users can close background components by selecting Alt + Shift + Q.	App Component Editor, Properties Tab
Container Icon URL	Defines the location of the icon which appears	App Component

Field	Purpose	Location
	in app component chrome at 24x24 pixels.	Editor, Properties Tab
Display Name	The group name which will appear in grids and tables throughout administrator views.	Group Editor, Properties Tab
GUID	A unique 32-character alpha-numeric code for a particular named app component. If "App Component A" is launched 5 times, all 5 app components will share the same GUID property.	All Editors, Properties Tab
Height	Defines the launch height of the application component in pixels. Up and down arrows to the right of the field can be used to modify the overall height.	App Component Editor, Properties Tab
Intents	Application component intents build on OWF's publish/subscribe functionality by allowing users to choose the application component that will use its data. Intents explain the intention for the app component. This binding capability enables two application components to enhance each other's functionality. *Note: Only developers can modify intents via the app component's descriptor file; instructions are available in the OWF Developer's Guide.*	App Component Editor, Intents Tab
Large Icon URL	Defines the location of the icon which appears in the App Components Menu (at 128 x 128 pixels), provided the "visible" menu flag (mentioned below) is checked.	App Components Editor, Properties Tab
Remove	Separates the selected user/group/application/application component from the selected entry. This does not delete the user/group/application/application component from the system. It only removes the assignment to the selected entry.	All Editors
Singleton	Designates whether an application component can only have one instance opened per application.	App Component Editor, Properties Tab
Small Icon URL	Defines the location of the icon which appears as a favicon in the corner of the app	App Components Editor, Properties

Field	Purpose	Location
	component when it is minimized, provided the "visible" menu flag (mentioned below) is checked.	Tab
Universal Name	A value that can be used as a application component's global identifier across all instances of OWF. This differs from an application component GUID which is unique to a specific installation.	App Components Editor, Properties Tab
URL	Defines the location of the web application to which the application component icon will link. This is a required field.	App Components Editor, Properties Tab
User Management	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.	Group Editor, Properties Tab
Version	Displays the version number of the listing. This is completely user-driven and is for informational purposes.	App Components Editor, Properties Tab
Visible	Dictates whether a listing will show in a user's App Component Menu. This cannot be overridden by the user.	App Components Editor, Properties Tab
Width	Defines the launch width of the application component in pixels. Up and down arrows to the right of the field can be used to modify the overall width.	App Components Editor, Properties Tab

2.1.2 Administrative Managers—Search

 - Reduces the entries displayed in the panel to entries containing the specified word or characters entered in the search bar. Clicking the X button will clear the filter and display all entries in the panel. Clicking the search magnifying glass button will apply the search and display the filtered results in the panel.

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

2.1.3 Administrative Managers—Pagination

Figure 4: Pagination Toolbar on Managers

-  - Navigates between pages of results displayed in the search results panel.
-  - Refreshes the results in the search results panel, maintaining the current filtering and sorting options.
-  - Displays the number of results being shown against the overall total in the system.

2.2 Administration Configurations

Administrators can configure auditing records, manage user accounts and customize certain branding features through the user interface of the Configuration Console. To locate the console:

1) Click the Administration link in the drop-down User Menu:

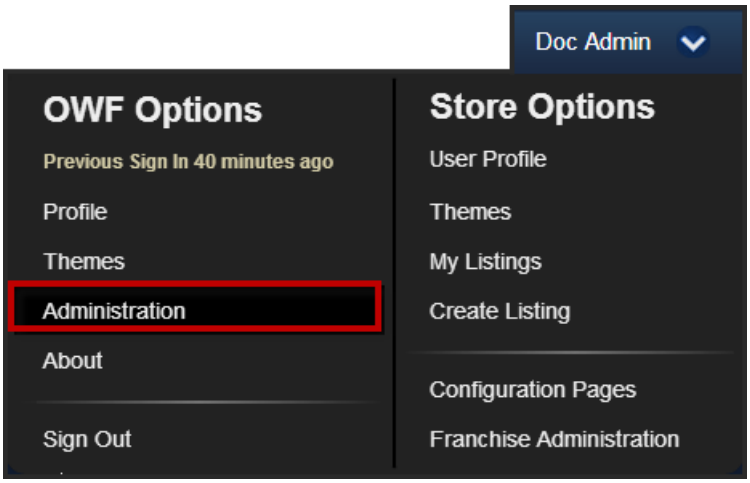

Figure 5: Administration on drop-down User Menu

2) This opens the Administration Manger. Select Configuration to open the Configuration Console.

Currently, the Configuration Console has three sections accessible to administrators: Auditing, User Account Settings and Branding. The following sections explain the options:

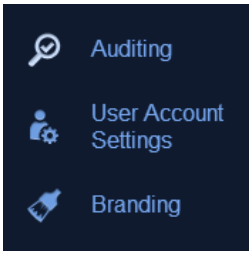

Figure 6: Configuration Console

2.2.1 Auditing

To access the auditing configuration settings in the Configuration Console, click Auditing on the left-side navigation. Each option is described below:

- **Common Event Format (CEF) Auditing** – Enabled by default, this records users actions such as sign in/out, create, edit, delete, search, import and export. Click OFF to disable.
  Note: For more information about CEF Auditing, see the OWF Configuration Guide.
- **Object Access Auditing** – Click ON to enable, this records most user actions such as viewing an application, clicking a button, etc.
  Note: Object Access Auditing records an abundance of information whereas CEF Auditing records less information.
- **Relocate CEF Logs** – Enabled by default, this feature allows the system to relocate the CEF logs from their original location to a different location. Click OFF to disable.
- **CEF Log Source Location** – The directory location where the CEF logs are generated. The default location is the Tomcat directory: /usr/share/tomcat6
- **CEF Log Destination Location** – The directory location where the CEF logs will be relocated.
  Note: Developers may need to grant permission for the software container to write to this location.
- **Application Security Level** – The maximum security level permitted in the logs.

2.2.2 User Account Settings

After selecting Configuration from the Administration Manager, the Configuration Console will open to the Auditing section. Click User Account Settings on the left panel to open the user account configurations. These configuration settings are used to control a user's account:

- **Inactive Accounts**
    - "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:
    - Application component ownership for the disabled account transitions to "System" so that any application components the disabled user created will not be removed from the instance of OWF.
    - The disabled user's "last sign in" will be removed. Also removed are the user's preferences and any reference to that user.
    - If a user signs in after their account is disabled, any of their previous application components, preferences, etc. will not be recoverable.
- **Session Control**
    - "Session Control" – When set to ON, allows the administrator to set a maximum number of concurrent, active OWF sessions a user can have.
    - "Maximum OWF Sessions per User" – Click on the text field and type in the maximum number of active OWF sessions a user is permitted 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.

2.2.3 Branding

Like the other configuration functions, to access the branding options: open the OWF Options from the drop-down User Menu and click Administration. When the Administration Manager opens, click Configuration to open the Configuration Console. From the left-side navigation panel, click Branding. Each option is described below:

- **Custom Background**
    - **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.jsp`**

- **Custom Header and Footer**
    - **Custom Header URL** – File name (including extension and location in the system) for the header that will replace the default OWF header; the URL must be valid for it to appear. If it is not, a black box displays in its place.
    - **Custom Header Height** –Height of the custom header (the height must be greater than zero and less than 150 pixels).
    - **Custom Footer URL** – File name (including extension and location in the system) for the footer that will replace the default OWF footer; 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 (the height must be greater than zero and less than 150 pixels).
    - **Custom Header/Footer CSS Imports** – Location(s) of CSS files needed by the custom header and footer.
    - **Custom Header/Footer JavaScript Imports** – Location(s) of JavaScript files needed by the custom header and footer.

2.3 Application Component Approval

By default, application components are automatically added to a user's App Components Menu when the user adds them from the Store. The application components will be available for use immediately. However, administrators can configure OWF to store application components in a pending state until they are approved by an administrator. In that case, application components will not be available to users until an administrator approves them.

Note: Find instructions for enabling the Application Component Approvals feature and adding the Approvals Manager in the OWF Configuration Guide.

To approve pending application components, an administrator must navigate to the Approvals Manager by clicking the Administration link in the drop-down User Menu. In the Administration window, click Approvals:

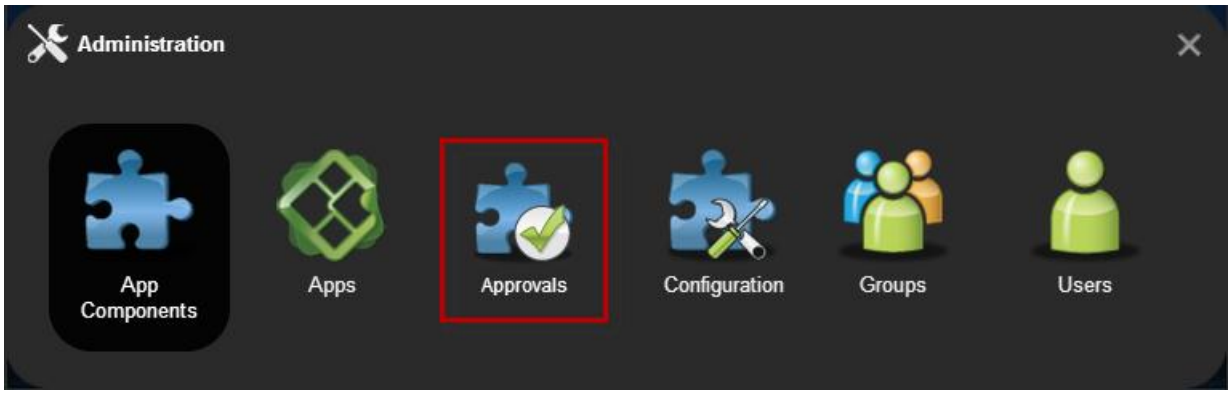

Figure 7: Store Approvals

The Approvals Manager lists all the app components pending approval. The list can be sorted by App Component or Requesting User.

To approve or reject app components:

1) Check the checkbox to the left of a pending application component(s).
   Note: Application components must be approved or rejected for each user. Approving an application component for one user will not approve it for another.
2) Click Approve or Reject at the bottom of the window.
3) After approving the application component, it will appear in the requesting user's App Component Menu. If an application component is rejected, it will be removed from the Approvals Manager.

2.3.1 Approving Required Application Components

A Store listing can require other Store listings. For example, if a user requests application component A and it requires application component B, the user automatically requests application components A and B. This relationship is further explained in the OWF User's Guide.

If the instance of OWF allows users to bypass the pending approval process, those users will immediately receive all requested Store application components along with any required application components that they need.

In the Approvals Manager, an administrator has two ways to identify that a Store listing requires other Store listings. When a listing is selected:

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

Both identifiers are highlighted in the following example:

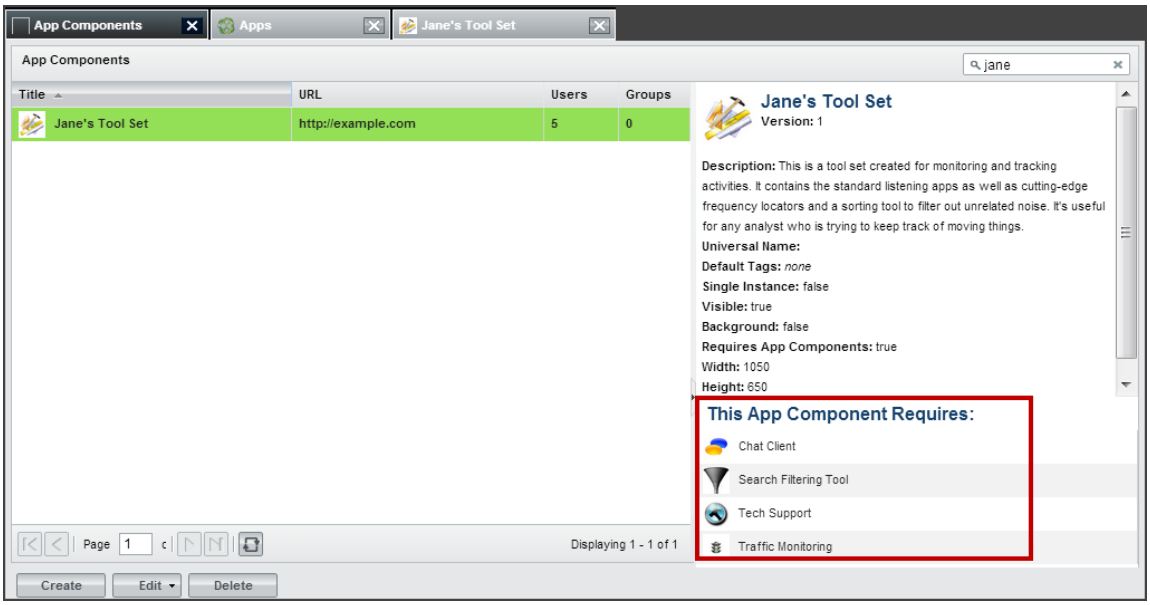

Figure 8: Required Application Component Identifiers

If an administrator approves an application component that requires other application components, the required application components are automatically approved.

2.4 User Menu

The drop-down User Menu is located on the right-side of the OWF toolbar. When OWF is configured to a Store, the administrator User Menu contains additional Store tools than what is found in a user's User Menu.

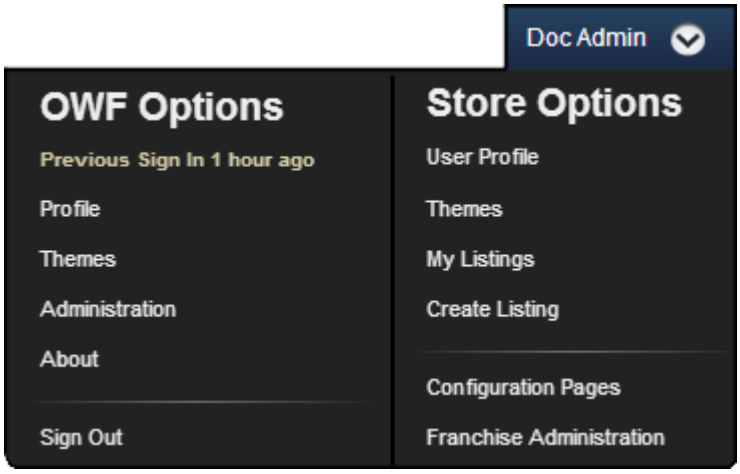

Figure 9: Administrator Drop-down User Menu

OWF and Store Options are described in the OWF User's Guide (section 2.3 Drop-down User Menu). Additional Store tools an administrator can access are described below:

- **Configuration Pages –** Opens the Store's configurations. From here, an administrator can change configuration data through the user interface. More information about the Store configurations is found in the OZONE Store Administrator's Guide.
- **Franchise Administration –** Opens a list of Affiliated Stores. Administrators can add or remove Affiliated Stores using this feature. See the OZONE Store Administrator's Guide for more information.

3 Default Content

OWF ships with a default user profile and default user group. Administrators can use the default profile and default group to add applications and application components to a user or several users' instance of OWF.

DEFAULT_USER – A default *user* profile that ships with OWF. The DEFAULT_USER data will automatically be assigned to every new user of a particular OWF installation.

When a new user enters OWF for the first time, the DEFAULT_USER data will be applied and copied to that user's profile. After the initial login, any changes that the user makes will only impact their data from that point on. The DEFAULT_USER data remains unchanged and will continue to be applied to all new users.

Note: If an administrator makes changes to the DEFAULT_USER data set, it will only impact the users who log in for the first time, following the change. Any users who received the data prior to the change will not be affected.

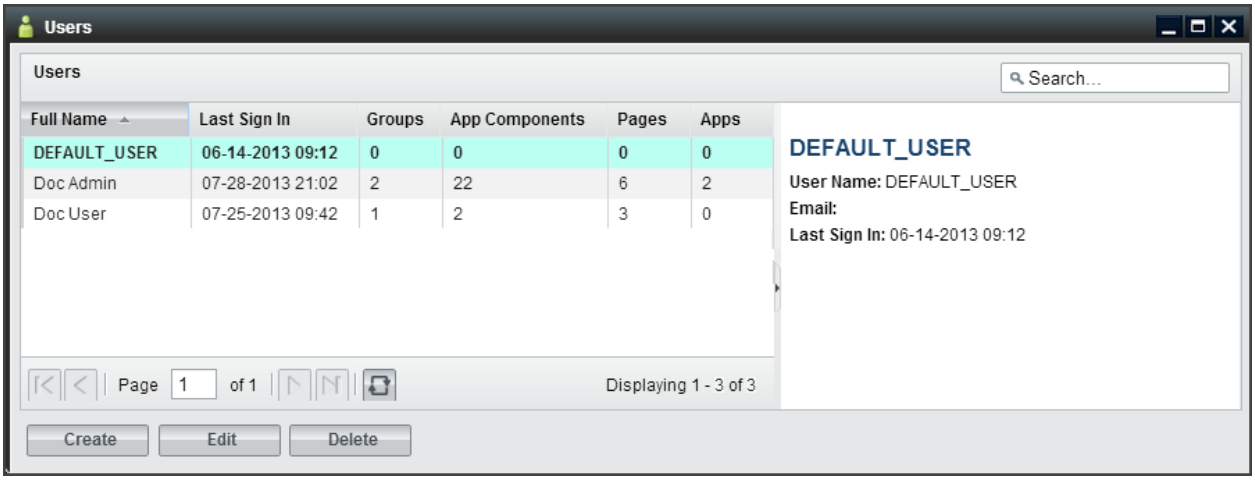

Figure 10: User Dialog/DEFAULT_USER

OWF Users – A default *group* that ships with OWF. Every new user is automatically assigned to it.

When a new user enters OWF for the first time, the OWF Users group data will be applied and copied to that user's profile. After the initial login, any changes that the user makes will only impact their data from that point on. However, if an administrator changes the OWF Users Group, the change will be applied to all users who have access to the group.

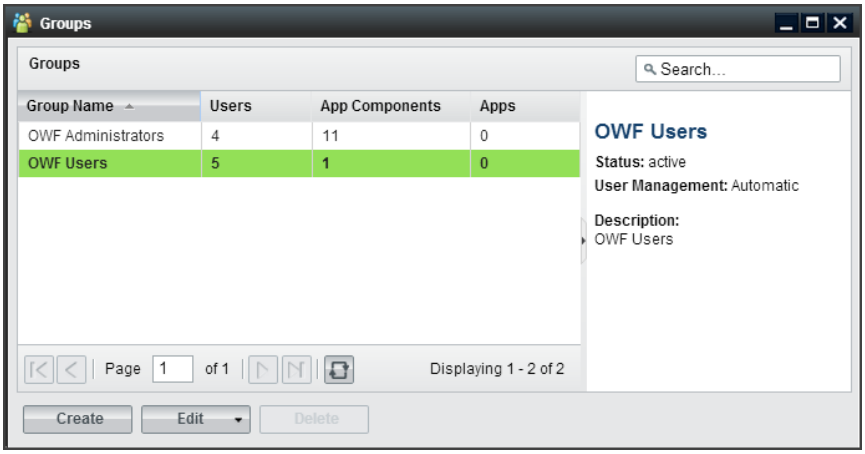

Figure 11: Default OWF Users Group

OWF Administrators - A default *group* that ships with OWF. Every new administrator is assigned to this group.

Data from the OWF Administrators group is automatically applied to the administrator's profile. Users cannot be assigned to this group and administrators cannot delete the Editors and Managers populating this group.

Note: 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 applications or application components.

4 Creating and Editing User Content

Creating and editing users, groups, applications and application components is explained in this section. This includes adding groups/applications/application components to user profiles through the User Editor. OWF also allows administrators to add users to groups/application/application components through the Users tab on the respective Editors. These examples are described in sections 4.1.1: Adding Application Components to a User Profile and 4.1.2: Adding Users to a.

4.1 Creating Users

Administrators have the ability to create new user profiles, edit existing user information and add groups/applications/application components 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 Editor.
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 Application Component Fields.
5) When complete, click Apply. This will activate the additional tabs in the User editor.
6) To add groups, applications or application components to a user account, proceed to the instructions in sections 4.1.1: Adding Application Components to a User Profile or 4.1.2: Adding Users to a.

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

4.1.1 Adding Application Components to a User Profile

The following instructions describe how to add application components to a user account using the App Components tab found in the User Manager. Administrators can follow this basic formula to add groups, application and application components to user profiles via the Groups, Applications and App Components tabs in the User Editor. When assignments are complete, all of the data applied to the user profile will be instantly available.

To add application components 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 Editor.
4) Click the App Components tab at the top of the editor. Application components that are already associated with the user will display in the window.
5) To add application components, click the Add button. A modal window will display all application components available to that user. Select an application component, then, click the OK button. The application component is automatically added to the list of components on the user's App Component tab.

4.1.2 Adding Users to an Application Component

Another way to give users access to application components is to add users to the application component's profile via the App Component Editor. Again, administrators can use this general procedure to add users to groups and applications 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 application component profiles:

1) Click the Administration link in the drop-down User Menu.
2) Click the App Components button to open the App Component Manager.
3) From the manager, select an application component. Then, click Edit to open the App Component Editor.
4) Click the Users tab at the top of the editor. Users that are already associated with the application component will display in the window.
5) To add users, click the Add button. A modal window will display all users available to that application component. Select a user, then, click the OK button. The user is automatically added to the list of users on the application component's Users tab and the application component is available to the user's instance of OWF.

4.1.3 Editing User Properties

To edit existing user content:

1) Click the Administration link in the drop-down User Menu.
2) Click Users to open the User Manager.
3) From the manager, select a user account to update and click Edit.
4) Update data on the Properties tab and click Apply. Update each field, then click Apply. For definitions of less common fields, see section Table 3: Edit Button and Editor Application Component Fields.

This procedure is also used when editing the properties of groups, applications and application components. 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.

4.1.4 User Preferences

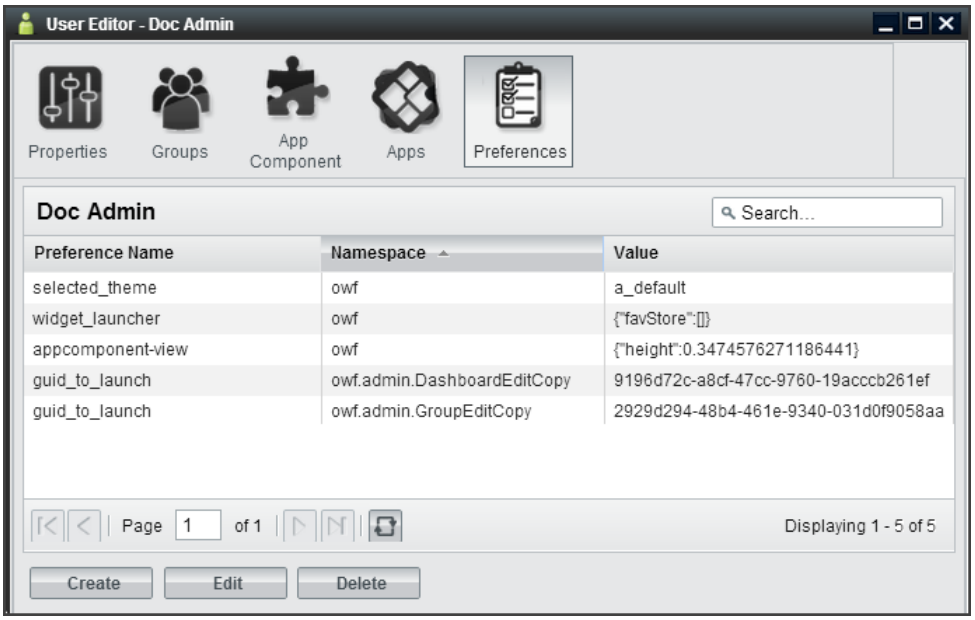

Figure 12: Preferences Tab

Application components use preferences to store data. Preferences include the application component's location on the screen, instructions to open it, etc. A preference value can be created and saved any time an application component performs an action. Once that preference is saved to the database, it will appear on the Preferences tab in the User Editor. 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 an application component to use a preference. For an application component to respond to preferences, the application component must be configured via the Preference API.

If an application component is configured to use preferences, they can be used to define screen location, application component interaction, etc. For example, the **`guid_to_launch`** preference is a useful eventing tool. Administrators can use it to make a Tracking application component open a Map application component. For example, in Figure 12: Preferences Tab, the **`guid_to_launch`** preference causes the User Manager to open a copy of the App Component Editor.

The Preferences tab includes the following fields:

- **Preference Name -** The preference name is referred to as the "key" for the preference item. It lists the name of the preference as dictated by the application component or OWF. If the application component 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 identifier for the application component or system category. Generally these identifiers will describe general functionality for an application component or set of application components.
- **Value -** Stored inside of the preference, values house the data that the preference uses. An example could be the actual application component GUID value that the preference will use to open an application component. This is a string value but developers can use **`JSON`** or REST URIs as the preference value.

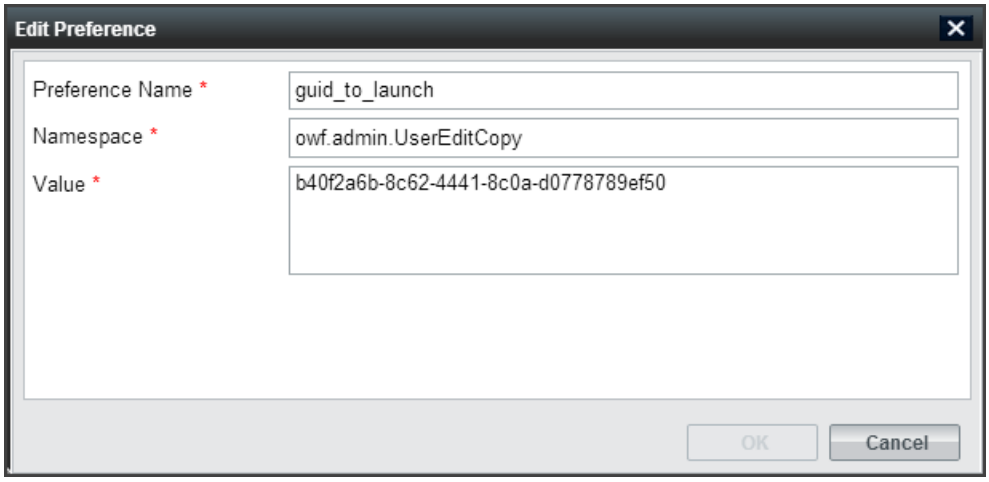

Figure 13: Preferences Dialog

4.2 Creating and Editing Applications

Any user can create an Application. Administrators have the following additional abilities: **edit, delete** and **Assign to Me**. This section will explain each function.

4.2.1 Creating an Application

To create a new application:

1) Click 

in the toolbar to open the My Apps.
2) Click "Create New App" at the bottom of the screen to open the Create New App window.
3) Give the application:
    a) A title (required)

b) An image URL (optional) that appears in the My Apps window

c) A description (optional)

Note: The application cannot be saved without a title.

4) Choose a layout for the application. 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 App** – Clicking this causes a drop-down menu to appear below the selection title. Choose an application from this menu. The new application will adopt the layout of the selected application. However, it will not copy the app components associated with that layout.

   c) **Create a new layout** – Opens the Application Builder allowing the user to create a new layout. More information on creating a new layout is found in the OWF User's Guide.

5) Click OK. The application will automatically start unless you selected "Create a new layout," if that is the case instructions for the Application Builder are found in the OWF User's Guide.

6) To add application components to the App, click the App Component button on the OZONE Toolbar and select components by clicking them. If the App has more than one pane, click the pane where the component will start.

Next time the My Apps menu is opened, it will contain this app. This app belongs to the user who created it and it cannot be shared with other OWF users until it is shared with the Store. To do this, open My Apps and click the Details button on the App, then, select Push to Store.

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

- If an administrator deletes an app, the user will retain a copy of the app and the pages and components included in the app. However, they will lose the ability to restore it.
- If an administrator changed the app and its contents *after* it was added to a user's instance of OWF, the *current state* of the app may be different than the one that originally appeared on the user's My Apps window.

4.2.2 Editing Applications

Administrators have limited editing ability for Applications. They cannot edit the Apps properties (name, layout, etc.) or App Components from the Application Manager. Those changes must occur in the actual App, find instructions in the OWF User's Guide. From the App Manager, administrators can add or remove users and groups:

1) Click the Administration link in the drop-down User Menu.
2) Click Apps to open the App Manager.
3) From the manager, select an App and click Edit, the App Editor will start.
4) From the App Editor, you'll see:
    a. A list of the App's Components will appear for informational purposes only. To add App Components, open the actual Application and add components from the App Component Menu.
    b. Groups associated with the App.
    c. Users associated with the App.
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 Application will be automatically added to the group members' My Apps Window.
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 Application will be automatically added to the user's members' My Apps Window.

4.2.2.1 Application: Assign To Me feature

If an administrator selects an Application and clicks "Assign To Me," the system reassigns ownership of an application to the person that clicked the button. This feature was included because applications must have owners in order to be share with the Store. Only an owner can push an application to the Store. If its owner is removed from the system, the "Assign To Me" button allows an administrator to claim ownership of the app. If an administrator reassigns ownership, all users in the system will retain their copies of the Application.

4.3 Creating Application Components

Administrators can **create**, **edit**, **delete**, **import** and **export** application components. There are two ways to create an application component: importing application component data with a descriptor URL or manually entering application component data. Imported application component data is editable through the App Component Editor (see 4.3.3: Editing Existing Application Component Content).

To create an application component, the administrator must complete several mandatory fields in the App Component Editor. Information about each application component data field is found in Table 3: Edit Button and Editor Application Component Fields. For example, the App Component Type field is useful for separating application components on a user's toolbar. Only "Standard" type application components will appear in the App Components Menu. "Administration" application components will appear when the Administration link is clicked in the drop-down User Menu. Application components set to type "Marketplace" will appear under the Store button on the toolbar. "Metric" type application components will appear when the Metric link is clicked in the drop-down User Menu. Setting an app component to "fullscreen" in OWF does nothing to the component. This field is used by the Store to send Web apps to OWF as separate applications.

To create an application component:

1) Click the Administration link in the drop-down User Menu.
2) Click the App Components button to open the App Component Manager.
3) From the manager, click the Create button to open the App Component Editor.
4) From here, there are two ways to create application components:
    a) **Import a descriptor URL**—Enter a descriptor URL and click Load. For more information about descriptor URLs see section 4.3.2: Application Component Descriptor URL.
    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 application component Type will dictate the location of the application component. For more information about specific entry fields, see Table 3: Edit Button and Editor Application Component Fields.
5) Click Apply. This will unlock the Users, Groups and Intents tabs on the App Component Editor. Select each tab and click the Add button to add users, groups and intents to the application component. Information about adding Intents to an app component is in section 4.3.1: Creating Application Component Intents.
6) Refresh OWF. The new application component will appear under the respective toolbar button. For more details about connecting to the Store(s), see 4.6: Connecting to the Store.

4.3.1 Creating Application Component Intents

Application component intents are the instructions for carrying out an application component'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 an app component**,

see the OWF Developer's Guide for instructions.
When intent functionality is coded into app component, the components that have identical Action and Data Types can communicate. For example, the New York Stock Exchange (NYSE) application component sends an intent to graph (Action) daily stock data (Data Type). The Stock Chart application component, having an intent with the same Action and Data Type, receives this request and graphs the data. This binding capability enables the two application components to enhance each other's functionality. Administrators can add, edit and delete application component intents, however, a developer or someone with experience using intents is more likely to perform these tasks.

Note: Find instructions about using intents in the OWF User's Guide and instructions about creating intents in the OWF Developer's Guide. OWF follows standard Web Intent specifications documented at Webintents.org.

The Store ships with several default intents Actions, DataTypes and directions. It will NOT function as expected until a developer establishes a relationship between the intent and the app component 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 an application component:

1) Click the Administration link in the drop-down User Menu.
2) Select App Components to open the App Component Manager.
3) From the manager, select an application component 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 application component to application component (ex. text/html).
    c) **Send/Receive** — This tells the application component to send or receive the application component intent.
6) Click OK. The intent has been added to the application component and will be displayed in the Intents tab in the App Component Editor.

4.3.2 Application Component Descriptor URL

Descriptor URLs allow an administrator to create application components without entering the application component's information manually. The administrator simply enters a URL and the application component's information is automatically retrieved

from a descriptor file from a Web-accessible location. Application components created with a descriptor URL are editable in the App Component Editor.

Descriptor URLs offer several benefits. They reduce the risk of typing errors when entering application component data. They allow for several installations of OWF to easily share application component information via the descriptor file.

4.3.3 Editing Existing Application Component Content

To edit existing application component content:

1) Click the Administration link in the drop-down User Menu.
2) Select App Components to open the App Component Manager.
3) From the manager, select an application component and click Edit.
4) Edit the application component data on the Properties tab and click Apply. For definitions of less common application component data fields, see Table 3: Edit Button and Editor Application Component Fields.

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

4.3.3.1 Updating and Editing Application Component Descriptor Data

Starting in OWF 7, administrators can update and edit the application component descriptor data within the OWF interface. Updating the application component descriptor data retrieves the latest data in the application component's descriptor file which is saved in a Web-accessible location. Changes made to the application component prior to the update are lost once the update is performed.

To update the application component descriptor data:

1) Click the Administration link in the drop-down User Menu.
2) Select App Components to open the App Component Manager.
3) From the manager, select an application component and click Edit.
4) Click Load. The App Component Editor will automatically refresh and display the most recent application component descriptor data.
5) Click Apply.

Administrators can edit their copy of the application component descriptor data by following the steps outlined in section 4.3.3: Editing Existing Application Component Content. Descriptor data changes are sharable after the administrator exports the application component and saves the descriptor file in a Web-accessible location. Individuals who already have access to this application component will have to update

their copy of the application component's descriptor data in order to see the application component changes in their OWF instance.

4.3.3.2 Editing Application Component Intents

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

To edit application component intents:

1) Click the Administration link in the drop-down User Menu.
2) Select App Components to open the App Component Manager.
3) From the manager, select an application component 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 application component data.
6) Close the App Component Editor.

Users assigned to this app component will see the changes automatically.

To delete application component intents:

1) Click the Administration link in the drop-down User Menu.
2) Select App Components to open the App Component Manager.
3) From the manager, select an application component and click Edit.
4) Click the Intents tab, select an intent and click Delete.
5) OWF will automatically update the application component data.

4.3.4 Exporting Application Components

Administrators can export and save application component data as a descriptor file. An administrator needs to host the application component descriptor file in a Web-accessible location to make the file sharable 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/receive identical application component s.

To export an application component:

1) Click the Administration link in the drop-down User Menu.
2) Select App Components to open the App Components Manager.
3) Select the application component to export. Click the arrow on the right of the split Edit button and choose Export.

4) Enter a File Name that describes the application component, this will become the title of the HTML descriptor file. Then click OK.

   Note: If the application component was created by a descriptior file, the File Name field will be prepopulated with the descriptor file name.

5) Save the application component descriptor HTML file on a Web-accessible server.

4.4 Creating Groups

Groups allow administrators to easily add or remove application and application components to and from multiple users' instances of OWF. For example, by putting 10 employees into a group, the administrator can send 1 application or 1 application component to the group, rather than having to individually add the application component to ten employees.

The following serves as a walkthrough 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 Applications and App Components tabs behave the same way and can be used to populate groups accordingly.

4.5 Grouping Application Components

The group application and group application component functions allow administrators to quickly and easily give a group of users access to several application components at one time. Application components can be added to a group (see section 4.5.1: Adding Application Components to a Group) and any user added to the group automatically receives access to the group application components.

4.5.1 Adding Application Components to a Group

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

To add application components 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 App Components tab.
5) Click Add and select application components to assign to the group. Click OK.
6) Close the Group Editor.

4.6 Connecting to the Store

The Store, similar to a commercial application store, operates as a thin-client registry of applications and services. Users can connect to multiple Stores from the toolbar, as described in the following instructions. To enable the **Store** button on the toolbar, an administrator has to create a "Marketplace" app component. To do this, follow these instructions:

1) Sign in to OWF as an administrator.
2) Click the Administration link in the drop-down User Menu.
3) Choose the App Component button to open the App Component Manager.
4) Click Create and complete all the fields, **change the App Component Type field to "Marketplace**."
5) Click Apply.
6) When you refresh OWF, the **Store** button will appear on the toolbar. Repeat the process for each different Store connection.

*Note: If your OWF connects to only one Store, when a user clicks **Store** the Store will automatically open. If OWF connects to more than one store, a window will open and users will have to select which store they want to enter.*

Appendix A Object Reference

A.1 Application Objects

Applications and their pages used to be called "stacks" and "dashboards" in older versions of OWF. While the OWF Team updated the user interface, some portions of the underlying code use the old terms.

Table 4: Application Objects

Property	Sample Value	Description
guid	1d789781-e4e5-5acb-f9c5-eae28adf7699 (A unique 32-character alpha-numeric code)	A unique identifier for the dashboard. *Note: The guid is only required to be unique within the dashboard table.*
columnCount	0	Deprecated
isdefault	True/False	Legacy Code. This is no longer applicable.
layoutConfig	{ "xtype": "desktoppane", "flex": 1, "height": "100%", "items": [], "paneType": "desktoppane", "widgets": [] }	Holds the various panes on a dashboard and the widgets inside of the panes, including the widget states. *Note: Appendix A.2: App Component* Object *describes the content of "`widgets`".*
layout	N/A	Deprecated
EDashboardLayoutList	N/A	Deprecated
name	Customizable	This is a User-driven field. Even if a Dashboard loads a default name, the User can modify it at will.
state	N/A	Deprecated
groups	Customizable	When a group is associated with the dashboard, it becomes the value for the "Groups" attribute.
isGroupDashboard	True/False	Identifies if the dashboard is associated with

Property	Sample Value	Description
		a group.
description	Customizable	A description of the dashboard.
defaultSettings	N/A	Deprecated
createdDate	02/09/2012 11:48 AM EST	Date when the dashboard was created.
editedDate	02/09/2012 11:48 AM EST	Date when the dashboard was last edited.
createdBy	userId: "" userRealName: ""	The user name and id of the dashboard creator.
user	Customizable	When a name is used to validate a security protocol, it becomes the value for the "User" attribute.
alteredByAdmin	True/False	If a user's dashboard has been modified via the Administration UI, this value will appear as true.

A.2 App Component Objects

Applications and their pages used to be called "stacks" and "dashboards" in older versions of OWF. While the OWF Team updated the user interface, some portions of the underlying code use the old terms.

Table 5: App Component Objects

Property	Sample Value	Description	Dashboard Layout Type: Accordion, Tabbed, Desktop, Portal, Fit
uniqueId	1d789781-b4a5-512b-ea59-eae28adf7699	A unique 32-character alpha-numeric code. representing a widget's state as it exists on a dashboard instance	All dashboards which contain widgets *Note: This value is not associated with a widget's state within a dashboard until the widget is launched – then the `uniqueId` is created.*
widgetGuid	1a718777-b4a5-	A unique 32-character	All Widgets

Property	Sample Value	Description	Dashboard Layout Type: Accordion, Tabbed, Desktop, Portal, Fit
	512b-ea59-eae28adf7699 (A unique per widget 32-character alpha-numeric code)	alpha-numeric code for a particular named widget. If "Widget A" is launched five times, all five widgets will share the same widgetGuid.	
universalName	Ozone.OWF.ChannelShouter	A user-generated, custom identifier which is a permanent element of the widget across multiple instances. This differs from a widgetGuid which is unique to a specific installation.	All Widgets
widgetVersion	1.0	A string which indicates the software version of the Widget.	All Widgets
name	"Widget B"	Up to 50 alpha numeric characters.	All Widgets
active	True/False	Dictates which particular Widget on a dashboard is active upon launch.	Tabbed Desktop
width	225	Widget width in pixels.	All Widgets
height	400	Widget height in pixels.	All Widgets
minimized	True/False	Dictates whether a Widget is at its minimized size.	Tabbed Desktop Floating Widgets
maximized	True/False	Dictates whether a Widget is at its maximized size.	Tabbed Desktop Floating Widgets
pinned	True/False	Denotes whether a Widget is pinned in place or not.	Accordion
collapsed	True/False	Denotes whether a Widget is collapsed to its chrome. Dashboard types (on right) are what differentiate this	Portal Accordion

Property	Sample Value	Description	Dashboard Layout Type: Accordion, Tabbed, Desktop, Portal, Fit
		attribute from the minimized definition.	
floatingWidget	True/False	Denotes whether a Widget is floating over an entire dashboard and not constrained to a single layout type. Example: Widgets launched from a widget in a fit pane open as floating widgets.	Fit
Column	N/A	Deprecated	N/A
buttonID	N/A	Deprecated	N/A
buttonOpened	N/A	Deprecated	N/A
region	N/A	Deprecated	N/A

The following three values are stored in the database for stateful purposes but are not part of the app component definition or app component creation process. They are used to determine app component placement on a page.

Table 6: App Component Object Placement

Property	Sample Value	Description	Dashboard Layout Type :Accordion, Tabbed, Desktop, Portal, Fit
X	200	The 'X' value represents the physical location (from the upper left-hand corner of OWF) in which the widget will spawn.	Tabbed Desktop Floating Widgets
y	500	The 'Y' value represents the physical location (from the upper left corner of OWF) in which the widget will spawn.	Tabbed Desktop Floating Widgets
zIndex	Variable number	A relative number representing which widget is "on top" of an overlapping cluster of widgets – thus making it the visible widget.	Tabbed Desktop Floating Widgets

A.3 User Preference Object

Applications and their pages used to be called "stacks" and "dashboards" in older versions of OWF. While the OWF Team updated the user interface, some portions of the underlying code use the old terms.

Table 7: Preference Object

Property	Sample Value	Purpose
Preference Name	ClockWidgetSettings	User driven – defines the overall preference description. This is the effective key of the preference object that identifies the specific preference.
namespace	TimeType	Used to uniquely identify a widget preference. The OWF team recommends using namespaces similar to java packages, i.e. com.mycompany.widgetname.
value	24hrMilitary	This value is used to store individual preferences that will be recalled by widget developers. It may consist of any value from a string to a JSON object or REST URI.
userId	testUser1	The unique identifier of the user to whom this preference belongs.

Appendix B Implementing Security Banners

OWF is bundled with a custom header/footer plugin that provides the necessary functionality to display CAPCO classification 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.
3. Click "Branding" from the left-navigation panel.
4. Enter the following data in the corresponding fields:
    a. Custom Header URL: /owf/banner
    b. Custom Footer URL: /owf/banner
    c. Custom Header/Footer CSS Imports: /owf/banner/css

    Note: The paths listed in Step 4 might be different if you've configured a different application context (e.g. /myapp/banner and /myapp/banner/css)

Please remember that in order to display a valid classification banner, it must have a valid CAPCO marking (reference the CAPCO classification marking guide) for the Application Security Level which can be configured under the "Auditing" section of the app config. The JBlocks plugin will validate the field to ensure it is an acceptable CAPCO marking (if examples are called for, use U for unclassified and/or U//FOUO for unclassified for official use only).

Appendix C Known Issues

C.1 Browser Issues

Launching any of the Editors (as well as many JavaScript-heavy widgets) in certain versions of Internet Explorer consumes system memory that won't be flushed or released until Internet Explorer is exited and restarted. Again, this is currently only an Internet Explorer issue.

C.2 User Interface Issues

Changes in screen resolution may render app components unviewable.

The positioning of the widgets is absolute. This means that when changing from a larger monitor to a smaller monitor, or when changing from a higher screen resolution to a lower screen resolution, some floating windows may be either partially or fully off the viewable region of the screen. Currently there is no remedy for this issue.

Internet Explorer users may experience degraded performance.

The latest release of Sencha's ExtJS 4 JavaScript framework is known to have performance issues in Internet Explorer browsers. The Sencha team is actively working to release a patch to address these issues. Once the patch is released, the OWF team will integrate it into the codebase.

Appendix D Contact Information

For information about OZONE or access to its resources, please open a ticket regarding the AppsMall Service at http://www.intelink.ic.gov/ticket/secure/CreateIssue!default.jspa and then, email the team at AppsMall@intelink.gov.