Reference Guide / Social Functions

The intended readers of this document are developers who want to develop and build social networking features in the Social function of eXo Platform.

The document consists of the following main contents:

- **Applications**

  Details of 2 main applications (including Portlets and Gadgets) included in Social.

- **Configuration**

  A comprehensive knowledge of the configuration with a large range of configuration parameters declared in Social.

- **Developer References**

  Many useful information for developers to refer, including: UI extensions, overridable components, public Java APIs, Java APIs sample code/tutorial, Public REST APIs, Rest Service APIs, Public Javascript APIs, Social JCR Structure, Spaces Template configuration, and steps to configure the 2-legged OAuth scenario.

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Applications

This chapter provides you with a comprehensive view about applications in Social, including:

- **Portlets**

  Functions of all porlets used in Social.

- **Gadgets**

  Functions and Used REST services of all gadgets used in Social.

These applications are packaged as Web application archives (WARs).

Also, you can specify the package of each portlet and gadget and its available preferences that allow you to extend the configuration choices for standard preferences.

1.1. Portlets

All the portlets are in the *social-portlet.war* file.

Portlet name	Description
Members Portlet	Enable users to search for Space members or list Space members in the alphabetical order.
My Spaces Portlet	Display the spaces that user is member or manager.
Space Activity Stream Portlet	Share Spaces activities.
Invitations Portlet	List all people that invite users.
Requests Portlet	List all invitations requested by users.
Invitation Spaces Portlet	Display the spaces that user is invited.
Pending Spaces Portlet	Display the **Space requests to join** page.
Public Spaces Portlet	Display the **Public Spaces** page.
User Activity Stream Portlet	Update and share the user's activities and/or status.
People Portlet	Display the **People** page.
Connections Portlet	Display the **Connections** page.
User Profile Portlet	Display the **User profile** page.

See also

- List of Gadgets in Social

1.2. Gadgets

All Social gadgets are packaged in the *opensocial.war* file.

Gadgets name	Used RestService	Description	Description of user preferences
Activity Stream	ActivitiesRestServices	Manage activities of users: update status, like/	N/A

Gadgets name	Used RestService	Description	Description of user preferences
		unlike activities, comment activities, delete activities and delete comments	
Social RSS Reader	N/A	Fetch, parse and display RSS from a specific URL.	There are 2 preference fields: URL input box (default value is http://blog.exoplatform.org/feed/) and Number of RSS per page selector (default value is 10).
My Connections	N/A	Get and display information of the current viewer and his connections.	The number of connections displayed per page. It is set to '5' by default.
My Spaces	SpacesRestService	Display all spaces that a user has the "member" role.	N/A

See also

- List of Portlets in Social

Configuration

This chapter describes configurations used in Social. It consists of the following main sections:

- **Components**

  Description of the services which provide low-level functionality for UI components, including:

  - SpaceService
  - LifeCycleCompletionService
  - RestPortalContainerNameConfig
  - LinkProvider
- **External component plugins**

  Usage, sample configurations and its details of the main component plugins used in Social, including:

  - ActivityResourceBundlePlugin
  - IdentityProviderPlugin
  - MentionsProcessor
  - OSHtmlSanitizerProcessor
  - PortletPreferenceRequiredPlugin
  - SpaceApplicationConfigPlugin
  - SocialChromatticLifeCycle
  - TemplateParamsProcessor
  - URLConverterFilterPlugin
  - and RestPortalContainerNameConfig

2.1. Component

- SpaceService

  This service is used for spaces management, including creating spaces, and installing applications.
- LifeCycleCompletionService

  This component is used to process the callable request out of the HTTP request.
- RestPortalContainerNameConfig

  This plugin is used to set the portal container name used for REST service.
- LinkProvider

  This service is used to provide the utility to get the URLs of the activities, profiles, spaces, avatars and more.

Note

This section describes services which provide low-level functionality for UI components.

See also

- External Component Plugin

2.1.1. SpaceService

The service is used for spaces management, including creating spaces, and installing applications.
`sjfdfksa kjhdkgoeri ksh oie iudshg iogidsg iusd iudfg dg ierj dfs idfg eriudf sriuf idf er iudf sdfsdaasd -asd -asdf -as sadth-sa afsdf sdf assfd asg-r adf asdf asfd`

Sample configuration:

```
<component>
  <key>org.exoplatform.social.core.space.spi.SpaceService</key>
  <type>org.exoplatform.social.core.space.impl.SpaceServiceImpl</type>
  <!--Deprecated, Use external-component-plugins instead
  <init-params>
    <values-param>
      <name>space.homeNodeApp</name>
      <value>SpaceActivityStreamPortlet</value>
    </values-param>
    <values-param>
      <name>space.apps</name>
      <value>DashboardPortlet:true</value>
      <value>SpaceSettingPortlet:false</value>
      <value>MembersPortlet:true</value>
    </values-param>
  </init-params>
  -->
</component>
```

- **Init-params**:

Name	Type	Value	Description
space.homeNodeApp	`String`	`SpaceActivityStreamPortlet`	The home application for a space.
space.apps	`String list`	`DashboardPortlet:true`, `SpaceSettingPortlet:false`, `MembersPortlet:true`	The applications that are used for initializing the application when the space is created.

Note

Deprecated: Use external-component-plugins instead: org.exoplatform.social.core.space.SpaceApplicationConfigPlugin.

2.1.2. LifeCycleCompletionService

This component is used to process the callable request out of the HTTP request.

Sample configuration:

```
<component>
   <key>org.exoplatform.social.common.lifecycle.LifeCycleCompletionService</key>
   <type>org.exoplatform.social.common.lifecycle.LifeCycleCompletionService</type>
   <init-params>
     <value-param>
       <name>thread-number</name>
       <value>10</value>
     </value-param>
     <value-param>
```

```
      <name>async-execution</name>
      <value>false</value>
    </value-param>
  </init-params>
</component>
```

- **Init-params**:

Name	Type	Value	Description
thread-number	`integer`	`10`	The maximum number of threads parallel executed.
async-execution	`boolean`	`false`	Specify the running mode of service is synchronous or asynchronous.

2.1.3. RestPortalContainerNameConfig

This plugin is used to set the portal container name used for REST service.

Sample configuration:

```
<component>
  <key>org.exoplatform.social.opensocial.auth.RestPortalContainerNameConfig</key>
  <type>org.exoplatform.social.opensocial.auth.RestPortalContainerNameConfig</type>
  <init-params>
    <value-param>
      <name>rest-container-name</name>
      <value>portal</value>
    </value-param>
  </init-params>
</component>
```

- **Init-params**:

Name	Type	Value	Description
rest-container-name	`any valid container name`	`portal`	The name of the container.

2.1.4. LinkProvider

This service is used to provide the utility to get the URLs of the activities, profiles, spaces, avatars and more.

Sample configuration:

```
<component>
  <key>org.exoplatform.social.core.service.LinkProvider</key>
  <type>org.exoplatform.social.core.service.LinkProvider</type>
  <init-params>
    <value-param>
      <name>predefinedOwner</name>
      <description>this for generate profile link</description>
      <value>classic</value>
    </value-param>
  </init-params>
</component>
```

- **Init-params**:

Name	Type	Value	Description
predefinedOwner	`String`	`classic`	The default portal owner name.

2.2. External Component Plugin

- ActivityResourceBundlePlugin

  This plugin is used to register the external resource bundle for the internationalized activity type.
- IdentityProviderPlugin

  This plugin provides the identity for a space.
- MentionsProcessor

  This plugin allows creating a link to a user profile when the user is mentioned in the activity content.
- OSHtmlSanitizerProcessor

  This plugin renders valid HTML tags appearing in the Activity body (content).
- PortletPreferenceRequiredPlugin

  This plugin is used to configure the list of portlet names which will have portlet preference of space context.
- SpaceApplicationConfigPlugin

  This plugin is used to configure the default applications when creating a new space.
- SocialChromatticLifeCycle

  This plugin is used to manage *ChromatticSession* in the Social project.
- TemplateParamsProcessor

  This plugin uses the value in the *template* parameter of the activity and replaces the title and body of the activity with the *template* parameter of this activity.
- URLConverterFilterPlugin

  This plugin converts all the URLs in the activity into the hyperlinks.
- RestPortalContainerNameConfig

  This plugin is used to set the portal container name used for REST service.

Note

This section only describes the main component plugins used in Social. Each part supplies an sample configuration with the explanation about init-params so you can know how to use these plugins.

See also

- Component

2.2.1. ActivityResourceBundlePlugin

This plugin is used to register the external resource bundle for the internationalized activity type.

Sample configuration:

```
<component-plugin>
```

```
<name>exosocial:spaces</name> <!-- activity type -->
<set-method>addActivityResourceBundlePlugin</set-method>
<type>org.exoplatform.social.core.processor.ActivityResourceBundlePlugin</type>
<init-params>
 <object-param>
  <name>locale.social.Core</name> <!-- resource bundle key file -->
  <description>activity key type resource bundle mapping for exosocial:spaces</description>
  <object type="org.exoplatform.social.core.processor.ActivityResourceBundlePlugin">
   <field name="activityKeyTypeMapping">
    <map type="java.util.HashMap">
     <entry>
      <key><string>space_created</string></key>
      <value><string>SpaceActivityPublisher.space_created</string></value>
     </entry>
     <entry>
      <key><string>manager_role_granted</string></key>
      <value><string>SpaceActivityPublisher.manager_role_granted</string></value>
     </entry>
     <entry>
      <key><string>user_joined</string></key>
      <value><string>SpaceActivityPublisher.user_joined</string></value>
     </entry>
     <entry>
      <key><string>member_left</string></key>
      <value><string>SpaceActivityPublisher.member_left</string></value>
     </entry>
    </map>
   </field>
  </object>
 </object-param>
</init-params>
</component-plugin>
```

In which:

- **Name**: *exosocial:spaces*
- **Set-method**: *addActivityResourceBundlePlugin*
- **Type**: *org.exoplatform.social.core.processor.ActivityResourceBundlePlugin*
- **Init-params**:

Object-param	Description
locale.social.Core	The resource bundle key file.

2.2.2. IdentityProviderPlugin

The plugin provides the identity for a space.

Sample configuration:

```
<component-plugins>
 <component-plugin>
  <name>SpaceIdentityProvider plugin</name>
  <set-method>registerIdentityProviders</set-method>
  <type>org.exoplatform.social.core.identity.IdentityProviderPlugin</type>
  <init-params>
   <values-param>
    <name>providers</name>
    <description>Identity Providers</description>
    <value>org.exoplatform.social.core.identity.provider.SpaceIdentityProvider</value>
   </values-param>
  </init-params>
 </component-plugin>
</component-plugins>
```

In which:

- **Name**: *SpaceIdentityProvider plugin*
- **Set-method**: *registerIdentityProviders*
- **Type**: *org.exoplatform.social.core.identity.IdentityProviderPlugin*
- **Init-params**:

Name	Possible value	Default value	Description
providers	`Every other identity providers`	`org.exoplatform.social.core.identity.provider.SpaceIdentityProvider`	Identity Provider instances for managing identities.

2.2.3. MentionsProcessor

This plugin allows creating a link to a user profile when the user is mentioned in the activity content.

To use the plugin in the component configuration, you must use the following target-component:

```
<target-component>org.exoplatform.social.core.manager.ActivityManager</target-component>
```

Sample Configuration:

```
<component-plugin>
  <name>MentionsProcessor</name>
  <set-method>addProcessorPlugin</set-method>
  <type>org.exoplatform.social.core.processor.MentionsProcessor</type>
  <init-params>
    <value-param>
      <name>priority</name>
      <description>priority of this processor (lower are executed first)</description>
      <value>2</value>
    </value-param>
  </init-params>
</component-plugin>
```

In which:

- **Name**: *MentionsProcessor*
- **Set-method**: *addProcessorPlugin*
- **Type**: *org.exoplatform.social.core.processor.MentionsProcessor*
- **Init-params**:

Name	Possible value	Default value	Description
priority	`integer`	2	The priority of this processor. The lower priority level is executed first.

2.2.4. OSHtmlSanitizerProcessor

The plugin renders valid HTML tags appearing in the Activity body (content).

Sample configuration:

```
<component>
  <key>org.exoplatform.social.core.manager.ActivityManager</key>
  <type>org.exoplatform.social.core.manager.ActivityManagerImpl</type>
  <component-plugins>
    <component-plugin>
      <name>OSHtmlSanitizer</name>
      <set-method>addProcessorPlugin</set-method>
      <type>org.exoplatform.social.core.processor.OSHtmlSanitizerProcessor</type>
    </component-plugin>
  </component-plugins>
</component>
```

In which:

- **Name**: *OSHtmlSanitizer*
- **Set-method**: *addProcessorPluginn*
- **Type**: *org.exoplatform.social.core.processor.OSHtmlSanitizerProcessor*

2.2.5. PortletPreferenceRequiredPlugin

This plugin is used to configure the list of portlet names which will have portlet preference of space context.

To use the plugin in the component configuration, you must use the following target-component:

```
<target-component>org.exoplatform.social.core.space.spi.SpaceService</target-component>
```

Sample configuration:

```
<component-plugin>
  <name>portlets.prefs.required</name>
  <set-method>setPortletsPrefsRequired</set-method>
  <type>org.exoplatform.social.core.application.PortletPreferenceRequiredPlugin</type>
  <init-params>
    <values-param>
      <name>portletsPrefsRequired</name>
      <value>SpaceActivityStreamPortlet</value>
      <value>SpaceSettingPortlet</value>
      <value>MembersPortlet</value>
    </values-param>
  </init-params>
</component-plugin>
```

In which:

- **Name**: *portlets.prefs.required*
- **Set-method**: *setPortletsPrefsRequired*
- **Type**: *org.exoplatform.social.core.application.PortletPreferenceRequiredPlugin*
- **Init-params**:

Name	Possible value	Default value	Description
portletsPrefsRequired	`Portlet names`	`SpaceActivityStreamPortlet; SpaceSettingPortlet; MembersPortlet`	The list of portlets which need to be saved and get the space context name.

2.2.6. SpaceApplicationConfigPlugin

This plugin is used to configure the default applications when creating a new space.

Sample configuration:

```
<component-plugin>
  <name>Space Application Configuration</name>
  <set-method>setSpaceApplicationConfigPlugin</set-method>
  <type>org.exoplatform.social.core.space.SpaceApplicationConfigPlugin</type>
  <init-params>
    <object-param>
      <name>spaceHomeApplication</name>
      <description>Space Home Application</description>
      <object type="org.exoplatform.social.core.space.SpaceApplicationConfigPlugin$SpaceApplication">
        <field name="portletApp"><string>social-portlet</string></field>
        <field name="portletName"><string>SpaceActivityStreamPortlet</string></field>
        <field name="appTitle"><string>Home</string></field>
        <!--<field name="icon"><string>SpaceHomeIcon</string></field>-->
      </object>
    </object-param>

    <object-param>
      <name>spaceApplicationListConfig</name>
      <description>space application list configuration</description>
      <object type="org.exoplatform.social.core.space.SpaceApplicationConfigPlugin">
        <field name="spaceApplicationList">
          <collection type="java.util.ArrayList">
            <value>
              <object type="org.exoplatform.social.core.space.SpaceApplicationConfigPlugin$SpaceApplication">
                <field name="portletApp"><string>dashboard</string></field>
                <field name="portletName"><string>DashboardPortlet</string></field>
                <field name="appTitle"><string>Dashboard</string></field>
                <field name="removable"><boolean>true</boolean></field>
                <field name="order"><int>1</int></field>
                <field name="uri"><string>dashboard</string></field>
                <!--<field name="icon"><string>SpaceDashboardIcon</string></field>-->
              </object>
            </value>
            <value>
              <object type="org.exoplatform.social.core.space.SpaceApplicationConfigPlugin$SpaceApplication">
                <field name="portletApp"><string>social-portlet</string></field>
                <field name="portletName"><string>SpaceSettingPortlet</string></field>
                <field name="appTitle"><string>Space Settings</string></field>
                <field name="removable"><boolean>false</boolean></field>
                <field name="order"><int>2</int></field>
                <field name="uri"><string>settings</string></field>
                <!--<field name="icon"><string>SpaceSettingsIcon</string></field>-->
              </object>
            </value>
            <value>
              <object type="org.exoplatform.social.core.space.SpaceApplicationConfigPlugin$SpaceApplication">
                <field name="portletApp"><string>social-portlet</string></field>
                <field name="portletName"><string>MembersPortlet</string></field>
                <field name="appTitle"><string>Members</string></field>
                <field name="removable"><boolean>true</boolean></field>
                <field name="order"><int>3</int></field>
                <field name="uri"><string>members</string></field>
                <!--<field name="icon"><string>SpaceMembersIcon</string></field>-->
              </object>
            </value>
          </collection>
        </field>
      </object>
    </object-param>
  </init-params>
</component-plugin>
```

In which:

- **Name**: *Space Application Configuration*
- **Set-method**: *setSpaceApplicationConfigPlugin*
- **Type**: *org.exoplatform.social.core.space.SpaceApplicationConfigPlugin*
- **Init-params**:

Object-param	Description
spaceHomeApplication	Set the *Application* portlet to be the home page of a space.
spaceApplicationListConfig	The list of the applications that are installed by default to a new space.

Field name	Possible value	Description
portletAp	`string`	The .war name file which has the portlet.
portletName	`string`	The name of portlet which is registered in the system.
appTitle	`string`	The display name of the application.
removable	`boolean`	Specify if the application is removed from the space or not.
order	`integer`	The order of the application in the space navigation.
uri	`string`	The URI of the application in the page node.
icon	`string`	The icon of the application.

2.2.7. SocialChromatticLifeCycle

This plugin is used to manage *ChromatticSession* in the Social project.

To use the plugin in the component configuration, you must use the following target-component:

```
<target-component>org.exoplatform.commons.chromattic.ChromatticManager</target-component>
```

Sample configuration:

```
<component-plugin>
  <name>chromattic</name>
  <set-method>addLifeCycle</set-method>
  <type>org.exoplatform.social.common.lifecycle.SocialChromatticLifeCycle</type>
  <init-params>
    <value-param>
      <name>domain-name</name>
      <value>soc</value>
    </value-param>
    <value-param>
      <name>workspace-name</name>
      <value>social</value>
    </value-param>
    <value-param profiles="all,default,minimal">
      <name>workspace-name</name>
      <value>social</value>
    </value-param>
    <values-param>
```

```
      <name>entities</name>
      <value>org.exoplatform.social.core.chromattic.entity.ProviderRootEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ProviderEntity</value>

      <value>org.exoplatform.social.core.chromattic.entity.IdentityEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ProfileEntity</value>

      <value>org.exoplatform.social.core.chromattic.entity.RelationshipEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.RelationshipListEntity</value>

      <value>org.exoplatform.social.core.chromattic.entity.ActivityEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ActivityListEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ActivityDayEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ActivityMonthEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ActivityYearEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.ActivityParameters</value>

      <value>org.exoplatform.social.core.chromattic.entity.SpaceRootEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.SpaceEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.SpaceListEntity</value>
      <value>org.exoplatform.social.core.chromattic.entity.SpaceRef</value>
    </values-param>
    <properties-param>
      <name>options</name>
      <property name="org.chromattic.api.Option.root_node.path" value="/production"/>
      <property name="org.chromattic.api.Option.root_node.create" value="true"/>
    </properties-param>
  </init-params>
</component-plugin>
```

In which:

- **Name**: *chromattic*
- **Set-method**: *addLifeCycle*
- **Type**: *org.exoplatform.social.common.lifecycle.SocialChromatticLifeCycle*
- **Init-params**:

Value-param	Possible value	Description
domain-name	`String`	The life cycle domain name.
workspace-name	`String`	The repository workspace name that is associated with this life cycle.
entities	`List<String>`	The list of chromatic entities that will be registered against the chromatic builder.

Properties-param: *option*

Property name	Possible value	Default value	Description
org.chromattic.api.Option.ro	`String` **path**	`/production`	The path of the root node.
org.chromattic.api.Option.ro	`Boolean` **reate**	`true`	Specify whether or not the root node is created by the *ROOT_NODE_PATH* option when it does not exist.

2.2.8. TemplateParamsProcessor

This plugin uses the value in the *template* parameter of the activity and replaces the title and body of the activity with the *template* parameter of this activity.

To use the plugin in the component configuration, you must use the following target-component:

```
<target-component>org.exoplatform.social.core.manager.ActivityManager</target-component>
```

Sample configuration:

```
<component-plugin>
  <name>TemplateParamsProcessor</name>
  <set-method>addProcessorPlugin</set-method>
  <type>org.exoplatform.social.core.processor.TemplateParamsProcessor</type>
  <init-params>
    <value-param>
      <name>priority</name>
      <value>1</value>
    </value-param>
  </init-params>
</component-plugin>
```

In which:

- **Name**: *TemplateParamsProcessor*
- **Set-method**: *addProcessorPlugin*
- **Type**: *org.exoplatform.social.core.processor.TemplateParamsProcessor*
- **Init-params**:

Name	Possible value	Default value	Description
priority	`integer`	1	The priority of this processor. The lower priority level is executed first.

2.2.9. URLConverterFilterPlugin

This plugin converts all the URLs in the activity into the hyperlinks.

To use the plugin in the component configuration, you must use the following target-component:

```
<target-component>org.exoplatform.social.common.xmlprocessor.XMLProcessor</target-component>
```

Sample configuration:

```
<component-plugin>
  <name>URLConverterFilterPlugin</name>
  <set-method>addFilterPlugin</set-method>
  <type>org.exoplatform.social.common.xmlprocessor.filters.URLConverterFilterPlugin</type>
  <init-params>
    <value-param>
      <name>urlMaxLength</name>
      <description>the max length of URL</description>
      <value>-1</value>
    </value-param>
  </init-params>
</component-plugin>
```

In which:

- **Name**: *URLConverterFilterPlugin*
- **Set-method**: *addFilterPlugin*
- **Type**: *org.exoplatform.social.common.xmlprocessor.filters.URLConverterFilterPlugin*
- **Init-params**:

Value-param	Possible value	Default value	Description
urlMaxLength	`integer`	-1	The maximum length of the URL. If the URL is exceeding the maximum length, the URL will be shorten. If the value is -1, it means the URL is not be shortened.

2.2.10. RestPortalContainerNameConfig

This plugin is used to set the portal container name used for REST service.

To use the plugin in the component configuration, you must use the following target-component:

```
<target-component>org.exoplatform.social.opensocial.auth.RestPortalContainerNameConfig</target-component>
```

Sample configuration:

```
<component-plugin>
  <name>set portal container name used for REST service</name>
  <set-method>setRestContainerName</set-method>
  <type>org.exoplatform.social.opensocial.auth.RestPortalContainerNameConfig</type>
    <init-params>
     <value-param>
       <name>rest-container-name</name>
       <value>socialdemo</value>
     </value-param>
   </init-params>
</component-plugin>
```

In which:

- **Set-method**: *setRestContainerName*
- **Type**: *org.exoplatform.social.opensocial.auth.RestPortalContainerNameConfig*
- **Init-params**:

Value-param	Possible value	Default value	Description
rest-container-name	`String`	`socialdemo`	The portal container name.

Developers References

This chapter supplies you with the basic knowledge of the following topics:

- **UI Extensions**

  Knowledge of Activity Plugin which allows using the activity composer extension and the custom UI component for displaying activity by its type.
- **Overridable Components**

  Description of 2 overridable components in Social: Space Application Handler and Space Service.
- **Public Java APIs**

  Details of public Java APIs used in Social, including: ActivityManager, IdentityManager, RelationshipManager, SpaceService, I18NActivityProcessor, and LinkProvider.
- **Java APIs sample code/ tutorial**

  The sample code and tutorial of using Java APIs in Social, including: Activity Stream, OpenSocial, People, Spaces, Space widget, Activities rendering, XMLProcessor component, and Internationalized activities.
- **Public REST APIs**

  Information (such as name, service URL, service URL endpoint, location, parameter, and description) of Public REST APIs used in Social, including: Activities, Apps, Identity, Linkshare, People, Spaces, and Widgets.
- **Rest Service APIs**

  Knowledge of Rest Service APIs which allow the third parties to write any applications (desktop apps, mobile apps, web apps) to integrate with Social services and business, including: Activity Resources, Activity Stream Resources, Identity Resources, and Version Resources.
- **Public Javascript APIs**

  Introduction to a link which contains all references for Opensocial Javascript APIs.
- **Social JCR Structure**

  A comprehensive knowledge of the Social JCR Structure that is organized to conform to the data storage for the individual purpose of Social.
- **Spaces Template configuration**

  Simple and explicit examples of the spaces template configuration in Social.
- **Configure the 2-legged OAuth scenario**

  Instructions on how to configure the 2-legged OAuth scenario in OpenSocial that allows you to extend more functions for Social, or customize them as you want.

3.1. UI Extensions

- Create a custom UI component

  How to display an activity based on its type with its own UI component instead of the default one.
- Create a composer extension

How to write your own activity composer by the available *UIActivityComposer* extended class of UIContainer in Social. This class is used to display inputs for users to create their own activities.

This section helps you further understand about Activity Plugin which is used to allow using the activity composer extension and the custom UI component for displaying activity by its type.

Also, you also know how to create an activity plugin via the ways described later.

Note

You should first have an idea about the UI Extensions framework as described in Extend eXo applications. If you have already worked with the UI Extensions framework, it is really easy to create an activity plugin. If not, you have chance to work with it now.

See also

- Overridable Components
- Public Java APIs
- Java APIs sample code/ tutorial
- Public REST APIs
- Rest Service APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the 2-legged OAuth scenario]

3.1.1. Create a custom UI component

Creating a custom UI component allows you to display the activity based on its type. When an activity is displayed, UIActivityFactory will look for its registered custom activity display by activity's type. If not found, UIDefaultActivity will be called for displaying that activity.

For example, in Social, there is an activity of type "exosocial:spaces" created by SpaceActivityPublisher, but now, you want to display it without own UI component instead of the default one. To do that, follow these steps.

1. Create a sample project:

```
mvn archetype:generate
[INFO] Scanning for projects...
[INFO] Searching repository for plugin with prefix: 'archetype'.
[INFO] artifact org.apache.maven.plugins:maven-archetype-plugin: checking for updates from central
[INFO] snapshot org.apache.maven.plugins:maven-archetype-plugin:2.0-alpha-6-SNAPSHOT: checking for updates from central
[INFO] snapshot org.apache.maven.archetype:maven-archetype:2.0-alpha-6-SNAPSHOT: checking for updates from central
[INFO] ------------------------------------------------------------------------
[INFO] Building Maven Default Project
[INFO]    task-segment: [archetype:generate] (aggregator-style)
[INFO] ------------------------------------------------------------------------
[INFO] Preparing archetype:generate
[INFO] No goals needed for project - skipping
[INFO] snapshot org.apache.maven.archetype:archetype-common:2.0-alpha-6-SNAPSHOT: checking for updates from central
[INFO] snapshot org.apache.maven.archetype:archetype-common:2.0-alpha-6-SNAPSHOT: checking for updates from apache.snapshots
[INFO] [archetype:generate {execution: default-cli}]
[INFO] Generating project in Interactive mode
[INFO] No archetype defined. Using maven-archetype-quickstart (org.apache.maven.archetypes:maven-archetype-quickstart:1.0)
Choose archetype:
1: remote -> docbkx-quickstart-archetype (null)
2: remote -> gquery-archetype (null)
```

```
3: remote -> gquery-plugin-archetype (null)
//....

285: remote -> wicket-scala-archetype (Basic setup for a project that combines Scala and Wicket,
  depending on the Wicket-Scala project. Includes an example Specs
  test.)
286: remote -> circumflex-archetype (null)
Choose a number: 76: 76
Choose version:
1: 1.0
2: 1.0-alpha-1
3: 1.0-alpha-2
4: 1.0-alpha-3
5: 1.0-alpha-4
6: 1.1
Choose a number: : 1
Define value for property 'groupId': : org.exoplatform.social.samples
Define value for property 'artifactId': : exo.social.samples.activity-plugin
Define value for property 'version': 1.0-SNAPSHOT: 1.0.0-SNAPSHOT
Define value for property 'package': org.exoplatform.social.samples: org.exoplatform.social.samples.activityPlugin
Confirm properties configuration:
groupId: org.exoplatform.social.samples
artifactId: exo.social.samples.activity-plugin
version: 1.0.0-SNAPSHOT
package: org.exoplatform.social.samples.activityPlugin
Y: y
```

2. Edit the *pom.xml* file as below.

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/
POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <parent>
    <groupId>org.exoplatform.social</groupId>
    <artifactId>social-project</artifactId>
    <version>1.1.0-GA</version>
  </parent>
  <groupId>org.exoplatform.social.samples</groupId>
  <artifactId>exo.social.samples.activity-plugin</artifactId>
  <packaging>jar</packaging>
  <version>1.1.0-GA</version>
  <name>exo.social.samples.activity-plugin</name>
  <build>
    <sourceDirectory>src/main/java</sourceDirectory>
    <outputDirectory>target/classes</outputDirectory>
    <resources>
      <resource>
        <directory>src/main/resources</directory>
        <includes>
          <include>**/*.gtmpl</include>
        </includes>
      </resource>
      <resource>
        <directory>src/main/java</directory>
        <includes>
          <include>**/*.xml</include>
        </includes>
      </resource>
    </resources>
  </build>
  <dependencies>
    <dependency>
      <groupId>org.exoplatform.portal</groupId>
      <artifactId>exo.portal.webui.core</artifactId>
      <scope>provided</scope>
    </dependency>
    <dependency>
      <groupId>org.exoplatform.portal</groupId>
      <artifactId>exo.portal.webui.portal</artifactId>
      <scope>provided</scope>
    </dependency>
```

```
    <dependency>
      <groupId>org.exoplatform.social</groupId>
      <artifactId>exo.social.component.core</artifactId>
      <scope>provided</scope>
    </dependency>
    <dependency>
      <groupId>org.exoplatform.social</groupId>
      <artifactId>exo.social.component.webui</artifactId>
      <scope>provided</scope>
    </dependency>
    <dependency>
      <groupId>org.exoplatform.social</groupId>
      <artifactId>exo.social.component.service</artifactId>
      <scope>provided</scope>
    </dependency>
  </dependencies>
</project>
```

To use the custom UI component for displaying its activity, you need a class that must be a subclass of *BaseUIActivity*.

3. Call *UISpaceSimpleActivity*

```
package org.exoplatform.social.samples.activityplugin;

import org.exoplatform.social.webui.activity.BaseUIActivity;
import org.exoplatform.webui.config.annotation.ComponentConfig;
import org.exoplatform.webui.core.lifecycle.UIFormLifecycle;

@ComponentConfig(
  lifecycle = UIFormLifecycle.class,
  template = "classpath:groovy/social/plugin/space/UISpaceSimpleActivity.gtmpl"
)
public class UISpaceSimpleActivity extends BaseUIActivity {

}
```

The *UISpaceSimpleActivity.gtmpl* template should be created under *main/resources/groovy/social/plugin/space*:

```
<div>This is a space activity UI component displayed for type "exosocial:spaces"</div>
```

An activity builder as explained later [25] is also needed.

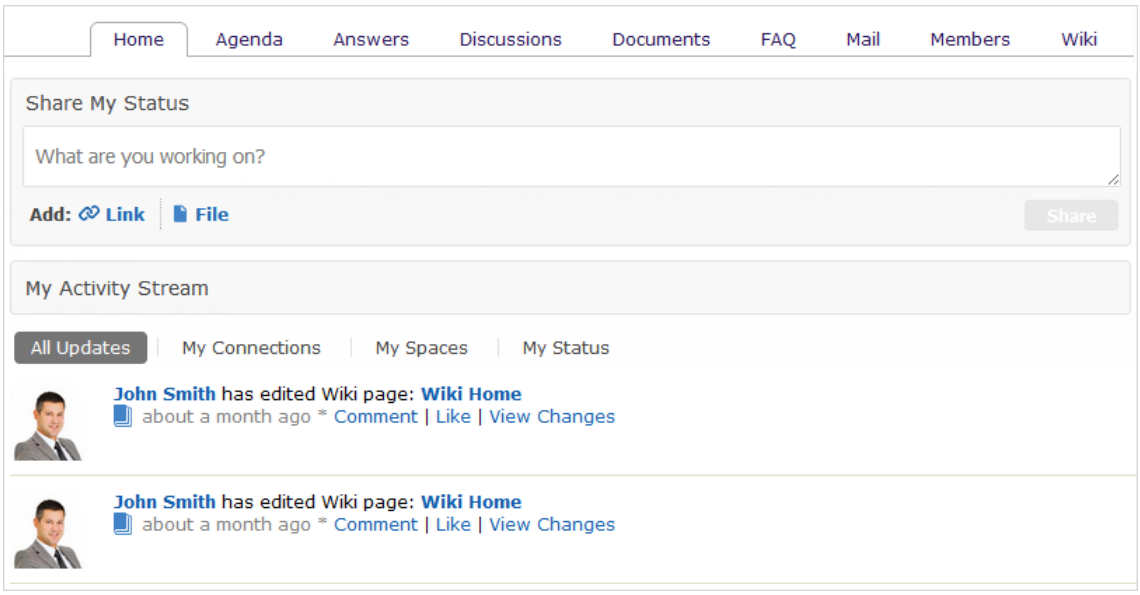
```
package org.exoplatform.social.samples.activityplugin;

import org.exoplatform.social.core.activity.model.Activity;
import org.exoplatform.social.webui.activity.BaseUIActivity;
import org.exoplatform.social.webui.activity.BaseUIActivityBuilder;

public class SimpleSpaceUIActivityBuilder extends BaseUIActivityBuilder {

  @Override
  protected void extendUIActivity(BaseUIActivity uiActivity, Activity activity) {
    // TODO Auto-generated method stub

  }

}
```

4. Create the *configuration.xml* file under *conf/portal*:

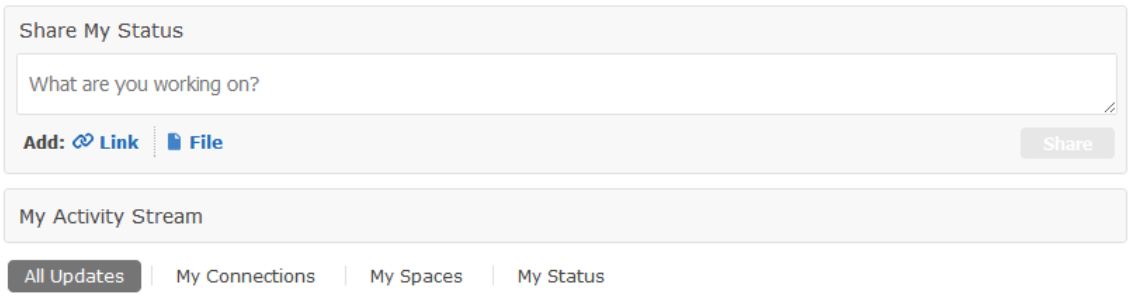
```
<configuration xmlns="http://www.exoplaform.org/xml/ns/kernel_1_1.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://
www.exoplaform.org/xml/ns/kernel_1_1.xsd http://www.exoplaform.org/xml/ns/kernel_1_1.xsd">
  <external-component-plugins>
    <target-component>org.exoplatform.webui.ext.UIExtensionManager</target-component>
    <component-plugin>
      <name>add.action</name>
      <set-method>registerUIExtensionPlugin</set-method>
      <type>org.exoplatform.webui.ext.UIExtensionPlugin</type>
      <init-params>
        <object-param>
          <name>Simple Space Activity</name>
          <object type="org.exoplatform.social.webui.activity.UIActivityExtension">
            <field name="type">
              <string>org.exoplatform.social.webui.activity.BaseUIActivity</string>
            </field>
            <field name="name">
              <string>exosocial:spaces</string>
            </field>
            <field name="component">
              <string>org.exoplatform.social.samples.activityplugin.UISpaceSimpleActivity</string>
            </field>
            <field name="activityBuiderClass">
              <string>org.exoplatform.social.samples.activityplugin.SimpleSpaceUIActivityBuilder</string>
            </field>
          </object>
        </object-param>
      </init-params>
    </component-plugin>
  </external-component-plugins>
</configuration>
```

Note that *exosocial:spaces* must have its value matching with the activity's type that you want to display with your UI component.

Assume that you have already built the Social project with version 1.1. If you do not know how to, have a look at building from sources with Social 1.1.0-CR01. Next, build a sample project and copy the jar file to /tomcat/lib. Then, run Social, create a space and access it, you can see the space's activity of type "exosocial:spaces" is displayed by default in Social:



The custom UI component for displaying activity of type "exosocial:spaces" is like below:



5. Make the custom UI activity display have the look, feel and function like the default one.

When displaying an activity, you should make sure that the look and feel of the custom UI component is consistent and match with other activities and have the full functions of **Like**, **Comments**. To create another UI component to display, call *UISpaceLookAndFeelActivity*:

```
package org.exoplatform.social.samples.activityplugin;
import org.exoplatform.social.webui.activity.BaseUIActivity;
import org.exoplatform.webui.config.annotation.ComponentConfig;
import org.exoplatform.webui.config.annotation.EventConfig;
import org.exoplatform.webui.core.lifecycle.UIFormLifecycle;
@ComponentConfig(
  lifecycle = UIFormLifecycle.class,
  template = "classpath:groovy/social/plugin/space/UISpaceLookAndFeelActivity.gtmpl",
  events = {
    @EventConfig(listeners = BaseUIActivity.ToggleDisplayLikesActionListener.class),
    @EventConfig(listeners = BaseUIActivity.ToggleDisplayCommentFormActionListener.class),
    @EventConfig(listeners = BaseUIActivity.LikeActivityActionListener.class),
    @EventConfig(listeners = BaseUIActivity.SetCommentListStatusActionListener.class),
    @EventConfig(listeners = BaseUIActivity.PostCommentActionListener.class),
    @EventConfig(listeners = BaseUIActivity.DeleteActivityActionListener.class, confirm = "UIActivity.msg.Are_You_Sure_To_Delete_This_Activity"),
    @EventConfig(listeners = BaseUIActivity.DeleteCommentActionListener.class, confirm = "UIActivity.msg.Are_You_Sure_To_Delete_This_Comment")
  }
)
public class UISpaceLookAndFeelActivity extends BaseUIActivity {
}
```

6. Create the *UISpaceLookAndFeelActivity* template. The easiest way is to copy the content of *UIDefaultActivity.gtmpl* to this template file:

```
<%
  import org.exoplatform.portal.webui.util.Util;
  import org.exoplatform.webui.form.UIFormTextAreaInput;

  def pcontext = Util.getPortalRequestContext();
  def jsManager = pcontext.getJavascriptManager();
  def labelActivityHasBeenDeleted = _ctx.appRes("UIActivity.label.Activity_Has_Been_Deleted");
  def activity = uicomponent.getActivity();
  def activityDeletable = uicomponent.isActivityDeletable();
%>

<% if (activity) { //process if not null

  jsManager.importJavascript("eXo.social.Util", "/social-resources/javascript");
  jsManager.importJavascript("eXo.social.PortalHttpRequest", "/social-resources/javascript");
  jsManager.importJavascript("eXo.social.webui.UIForm", "/social-resources/javascript");
  jsManager.importJavascript("eXo.social.webui.UIActivity", "/social-resources/javascript");

  def labelComment = _ctx.appRes("UIActivity.label.Comment");
  def labelLike = _ctx.appRes("UIActivity.label.Like");
  def labelUnlike = _ctx.appRes("UIActivity.label.Unlike");
  def labelSource = _ctx.appRes("UIActivity.label.Source");
  def inputWriteAComment = _ctx.appRes("UIActivity.input.Write_A_Comment");
  def labelShowAllComments = _ctx.appRes("UIActivity.label.Show_All_Comments");
  def labelHideAllComments = _ctx.appRes("UIActivity.label.Hide_All_Comments");
```

```
def labelOnePersonLikeThis = _ctx.appRes("UIActivity.label.One_Person_Like_This");
def labelPeopleLikeThis = _ctx.appRes("UIActivity.label.People_Like_This");
def labelYouLikeThis = _ctx.appRes("UIActivity.label.You_Like_This");
def labelYouAndOnePersonLikeThis = _ctx.appRes("UIActivity.label.You_And_One_Person_Like_This");
def labelYouAndPeopleLikeThis = _ctx.appRes("UIActivity.label.You_And_People_Like_This");

def likeActivityAction = uicomponent.event("LikeActivity", "true");
def unlikeActivityAction = uicomponent.event("LikeActivity", "false");

def commentList = uicomponent.getComments();
def allComments = uicomponent.getAllComments();
if (allComments) {
  labelShowAllComments = labelShowAllComments.replace("{0}", allComments.size() + "");
  labelHideAllComments = labelHideAllComments.replace("{0}", allComments.size() + "");

}
def displayedIdentityLikes = uicomponent.getDisplayedIdentityLikes();
def identityLikesNum = 0;
def labelLikes = null;
def toggleDisplayLikesAction = uicomponent.event("ToggleDisplayLikes");
                def         startTag         =         "<a         onclick={{{"}}}$toggleDisplayLikesAction{{{"}}}         id={{{"}}}ToggleDisplayListPeopleLikes${activity.id}{{{"}}}
href={{{"}}}#ToggleDisplayListPeopleLikes{{{"}}}>";
def endTag = "</a>";
if (displayedIdentityLikes != null) {
  identityLikesNum = displayedIdentityLikes.length;
}
def commentListStatus = uicomponent.getCommentListStatus();
def commentFormDisplayed = uicomponent.isCommentFormDisplayed();
def likesDisplayed = uicomponent.isLikesDisplayed();
//params for init UIActivity javascript object
def params = """
  {activityId: '${activity.id}',
   inputWriteAComment: '$inputWriteAComment',
   commentMinCharactersAllowed: ${uicomponent.getCommentMinCharactersAllowed()},
   commentMaxCharactersAllowed: ${uicomponent.getCommentMaxCharactersAllowed()},
   commentFormDisplayed: $commentFormDisplayed,
   commentFormFocused: ${uicomponent.isCommentFormFocused()}
  }
""";
jsManager.addOnLoadJavascript("initUIActivity${activity.id}");
//make sures commentFormFocused is set to false to prevent any refresh to focus, only focus after post a comment
uicomponent.setCommentFormFocused(false);
def activityUserName, activityUserProfileUri, activityImageSource, activityContentBody, activityPostedTime;
def commentFormBlockClass = "", listPeopleLikeBlockClass = "", listPeopleBGClass = "";
if (!commentFormDisplayed) {
  commentFormBlockClass = "DisplayNone";
}

if (!likesDisplayed) {
  listPeopleLikeBlockClass = "DisplayNone";
}

if (uicomponent.isLiked()) {
  if (identityLikesNum > 1) {
    labelLikes = labelYouAndPeopleLikeThis.replace("{start}", startTag).replace("{end}", endTag).replace("{0}", identityLikesNum + "");
  } else if (identityLikesNum == 1) {
    labelLikes = labelYouAndOnePersonLikeThis.replace("{start}", startTag).replace("{end}", endTag);
  } else {
    labelLikes = labelYouLikeThis;
  }
} else {
  if (identityLikesNum > 1) {
     labelLikes = labelPeopleLikeThis.replace("{start}", startTag).replace("{end}", endTag).replace("{0}", identityLikesNum + "");
  } else if (identityLikesNum == 1) {
     labelLikes = labelOnePersonLikeThis.replace("{start}", startTag).replace("{end}", endTag);
  }
}

if (!labelLikes) {
 //hides diplayPeopleBG
 listPeopleBGClass = "DisplayNone";
}

activityContentTitle = activity.title;
activityPostedTime = uicomponent.getPostedTimeString(activity.postedTime);
```

```
  activityUserName = uicomponent.getUserFullName(activity.userId);
  activityUserProfileUri = uicomponent.getUserProfileUri(activity.userId);

  activityImageSource = uicomponent.getUserAvatarImageSource(activity.userId);
  if (!activityImageSource)  {
    activityImageSource = "/social-resources/skin/ShareImages/SpaceImages/SpaceLogoDefault_61x61.gif";
  }

%>

<div class="UIActivity">
  <script type="text/javascript">
    function initUIActivity${activity.id}() {
      new eXo.social.webui.UIActivity($params);
    }
  </script>

  <% uiform.begin() %>
  <div class="NormalBox clearfix">
    <a class="Avatar" title="$activityUserName" href="$activityUserProfileUri">
      <img title="$activityUserName" src="$activityImageSource" alt="$activityUserName" height="54px" width="56px">
    </a>
    <div class="ContentBox" id="ContextBox${activity.id}">
      <div class="TitleContent clearfix">
        <div class="Text">
          <a title="$activityUserName" href="$activityUserProfileUri">$activityUserName</a>
        </div>
      <% if (activityDeletable) {%>
                                    <div     onclick="<%=     uicomponent.event("DeleteActivity",     uicomponent.getId(),     "");     %>"     class="CloseContentBoxNormal"
 id="DeleteActivityButton${activity.id}"><span></span></div>
      <%}%>
      </div>
      <div class="Content">
        $activityContentTitle (from custom UI component)<br>
      </div>
      <div class="LinkCM">
        <span class="DateTime">$activityPostedTime *</span>
      <% def toggleDisplayCommentAction = uicomponent.event('ToggleDisplayCommentForm', null, false);
        def commentLink = "";
      %>
        <a class="LinkCM $commentLink" onclick="$toggleDisplayCommentAction" id="CommentLink${activity.id}" href="#comment">
          $labelComment
        </a> |
      <% if (uicomponent.isLiked()) { %>
        <a onclick="$unlikeActivityAction" class="LinkCM" id="UnLikeLink${activity.id}" href="#unlike">
          $labelUnlike
        </a>
      <% } else { %>
        <a onclick="$likeActivityAction" class="LinkCM" id="LikeLink${activity.id}" href="#like">
          $labelLike
        </a>
      <% }%>
      </div>
    </div>

    <div class="ListPeopleLikeBG $listPeopleBGClass">
      <div class="ListPeopleLike">
        <div class="ListPeopleContent">
        <% if (!labelLikes) labelLikes = ""; %>
          <div class="Title">$labelLikes</div>
          <div class="$listPeopleLikeBlockClass">
          <%
          //def personLikeFullName, personLikeProfileUri, personLikeAvatarImageSource;

          displayedIdentityLikes.each({
            personLikeFullName = uicomponent.getUserFullName(it);
            personLikeProfileUri = uicomponent.getUserProfileUri(it);
            personLikeAvatarImageSource = uicomponent.getUserAvatarImageSource(it);
            if (!personLikeAvatarImageSource) {
              personLikeAvatarImageSource = "/social-resources/skin/ShareImages/activity/AvatarPeople.gif";
            }
            %>
              <a class="AvatarPeopleBG" title="$personLikeFullName" href="$personLikeProfileUri">
                <img width="47px" height="47px" src="$personLikeAvatarImageSource" alt="$personLikeFullName" title="$personLikeFullName" />
              </a>
```

```
        <% })%>
       </div>
       <div class="ClearLeft">
        <span></span>
       </div>
      </div>
     </div>
    </div>

    <div class="CommentListInfo">
    <% if (uicomponent.commentListToggleable()) {
    def showAllCommentsAction = uicomponent.event("SetCommentListStatus", "all");
    def hideAllCommentsAction = uicomponent.event("SetCommentListStatus", "none");
    %>
     <div class="CommentBlock">
      <div class="CommentContent">
       <div class="CommentBorder">
       <% if (commentListStatus.getStatus().equals("latest") || commentListStatus.getStatus().equals("none")) { %>
        <a onclick="$showAllCommentsAction" href="#show-all-comments">
         $labelShowAllComments
        </a>
       <% } else if (commentListStatus.getStatus().equals("all")) { %>
        <a onclick="$hideAllCommentsAction" href="#hide-all-comments">
         $labelHideAllComments
        </a>
       <% } %>
       </div>
      </div>
     </div>
    <% } %>
    </div>
<% if (allComments.size() > 0) { %>
    <div class="DownIconCM"><span></span></div>
<% }%>

<%
def commenterFullName, commenterProfileUri, commenterImageSource, commentMessage, commentPostedTime;
def first = true, commentContentClass;
commentList.each({
  if (first & !uicomponent.commentListToggleable()) {
    commentContentClass = "CommentContent";
    first = false;
  } else {
    commentContentClass = "";
  }
  commenterFullName = uicomponent.getUserFullName(it.userId);
  commenterProfileUri = uicomponent.getUserProfileUri(it.userId);
  commenterImageSource = uicomponent.getUserAvatarImageSource(it.userId);
  if (!commenterImageSource) {
    commenterImageSource = "/social-resources/skin/ShareImages/activity/AvatarPeople.gif";
  }
  commentMessage = it.title;
  commentPostedTime = uicomponent.getPostedTimeString(it.postedTime);
%>
  <div id="CommentBlock${activity.id}" class="CommentBox clearfix">
    <a class="AvatarCM" title="$commenterFullName" href="$commenterProfileUri">
      <img src="$commenterImageSource" alt="$commenterFullName" height="36px" width="38px">
    </a>
    <div class="ContentBox">
      <div class="Content">
        <a href="$commenterProfileUri"><span class="Commenter">$commenterFullName<span></a><br />
         $commentMessage
        <br/>
      </div>
      <div class="LinkCM">
        <span class="DateTime">$commentPostedTime</span>
      </div>
    </div>
  <%
    if (uicomponent.isCommentDeletable(it.userId)) {
  %>
    <div onclick="<%= uicomponent.event("DeleteComment", uicomponent.id, it.id); %>" class="CloseCMContentHilight"><span></span></div>
  <% } %>
  </div>
<% }) %>
```

```
    <div class="CommentBox $commentFormBlockClass clearfix" id="CommentFormBlock${activity.id}">
      <% uicomponent.renderChild(UIFormTextAreaInput.class); %>
                <input type="button" onclick="<%= uicomponent.event("PostComment") %>" value="$labelComment" class="CommentButton DisplayNone"
 id="CommentButton${activity.id}" />
    </div>

  </div>
  <% uiform.end() %>
</div>
<% } else { %> <!-- activity deleted -->
<div class="UIActivity Deleted">$labelActivityHasBeenDeleted</div>
<% }%>
```

And you should make needed modifications for this template:

```
<div class="Content">
  $activityContentTitle (from custom UI component)<br>
</div>
```

7. Reconfigure the *configuration.xml* file:

```
<configuration xmlns="http://www.exoplaform.org/xml/ns/kernel_1_1.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://
www.exoplaform.org/xml/ns/kernel_1_1.xsd http://www.exoplaform.org/xml/ns/kernel_1_1.xsd">
  <external-component-plugins>
    <target-component>org.exoplatform.webui.ext.UIExtensionManager</target-component>
    <component-plugin>
      <name>add.action</name>
      <set-method>registerUIExtensionPlugin</set-method>
      <type>org.exoplatform.webui.ext.UIExtensionPlugin</type>
      <init-params>
        <object-param>
          <name>Look And Feel Space Activity</name>
          <object type="org.exoplatform.social.webui.activity.UIActivityExtension">
            <field name="type">
              <string>org.exoplatform.social.webui.activity.BaseUIActivity</string>
            </field>
            <field name="name">
              <string>exosocial:spaces</string>
            </field>
            <field name="component">
              <string>org.exoplatform.social.samples.activityplugin.UISpaceLookAndFeelActivity</string>
            </field>
            <field name="activityBuiderClass">
              <string>org.exoplatform.social.samples.activityplugin.SimpleSpaceUIActivityBuilder</string>
            </field>
          </object>
        </object-param>
      </init-params>
    </component-plugin>
  </external-component-plugins>
</configuration>
```

8. Rebuild the sample project, copy the **.jar** file to tomcat/lib. Run the server again and see the result:

Note

Currently, you have to copy and paste in the template file. By this way, you have full control of the UI but it is not a good way when there are changes in UIDefaultActivity. This will be improved soon so that no copy/paste is needed.

What is ActivityBuilder?

ActivityBuilder is one class which is used to get values of *ExoSocialActivity* to set to UIActivity for displaying. Social provides the BaseUIActivityBuilder class for developers to extend and customize their own activity builder easily and properly.

For example, to write your own UILinkActivityBuilder, you just need to extend BaseUIActivityBuilder and then customize attributes and behaviors of the activity builder as below.

```
public class UILinkActivityBuilder extends BaseUIActivityBuilder {
  private static final Log LOG = ExoLogger.getLogger(UILinkActivityBuilder.class);
  @Override
  protected void extendUIActivity(BaseUIActivity uiActivity, ExoSocialActivity activity) {
    UILinkActivity uiLinkActivity = (UILinkActivity) uiActivity;
    Map<String, String> templateParams = activity.getTemplateParams();
    uiLinkActivity.setLinkSource(templateParams.get(UILinkActivityComposer.LINK_PARAM));
    uiLinkActivity.setLinkTitle(templateParams.get(UILinkActivityComposer.TITLE_PARAM));
    uiLinkActivity.setLinkImage(templateParams.get(UILinkActivityComposer.IMAGE_PARAM));
    uiLinkActivity.setLinkDescription(templateParams.get(UILinkActivityComposer.DESCRIPTION_PARAM));
    uiLinkActivity.setLinkComment(templateParams.get(UILinkActivityComposer.COMMENT_PARAM));
  }
}
```

Note

To learn more about ActivityBuilder, refer to the BaseUIActivity class.

3.1.2. Create a composer extension

Creating a composer extension allows you to compose activity on the UI composer and display it on the activity stream. The UIActivityComposer is an extended class of UIContainer that is used to display inputs for users to create their own activities. To write your own activity composer, it is recommended that you use the UIActivityComposer available in Social.

For example, to create an input component for inserting video links into your activity, do the following steps:

1. Write UIVideoActivityComposer which extends UIActivityComposer. The UIActivityComposer allows you to input extended activities (for example, adding videos, links or documents) on the UI composer.

```
package org.exoplatform.social.plugin.videolink;

import org.exoplatform.social.plugin.videolink.util.VideoEmbedTool;
@ComponentConfig(
      template = "classpath:groovy/social/plugin/videolink/UIVideoActivityComposer.gtmpl",
      events = {
            @EventConfig(listeners = UIVideoActivityComposer.SearchVideo.class),
            @EventConfig(listeners = UIVideoActivityComposer.SelectVideoFromResultList.class),
            @EventConfig(listeners = UIVideoActivityComposer.AttachActionListener.class),
            @EventConfig(listeners = UIVideoActivityComposer.ChangeLinkContentActionListener.class),
            @EventConfig(listeners = UIActivityComposer.CloseActionListener.class),
            @EventConfig(listeners = UIActivityComposer.SubmitContentActionListener.class),
            @EventConfig(listeners = UIActivityComposer.ActivateActionListener.class)
      }
)
```

```
public class UIVideoActivityComposer extends UIActivityComposer {

  public static final String LINK_PARAM = "link";
  public static final String IMAGE_PARAM = "image";
  public static final String TITLE_PARAM = "title";
  public static final String HTML_PARAM = "htmlembed";
  public static final String COMMENT_PARAM = "comment";

  private static final String HTTP = "http://";
  private static final String HTTPS = "https://";
  private JSONObject videoJson;
  private boolean linkInfoDisplayed_ = false;
  private Map<String, String> templateParams;

  /**
   * The constructor.
   */
  public UIVideoActivityComposer() {
    setReadyForPostingActivity(false);
    addChild(new UIFormStringInput("InputLink", "InputLink", null));
  }
  /**
   * Set the link info to be displayed.
   *
   * @param displayed
   */
  public void setLinkInfoDisplayed(boolean displayed) {
    linkInfoDisplayed_ = displayed;
  }

  /**
   * Set the template params.
   *
   * @param templateParams
   */
  public void setTemplateParams(Map<String, String> templateParams) {
    this.templateParams = templateParams;
  }

  /**
   * Get the template params.
   */
  public Map<String, String> getTemplateParams() {
    return templateParams;
  }

  /**
   * Clear the video json.
   */
  public void clearVideoJson() {
    videoJson = null;
  }

  /**
   * Get the video json.
   */
  public JSONObject getVideoJson() {
    return videoJson;
  }

  /**
   * Set the link.

   * @param url
   * @throws Exception
   */
  private void setLink(String url) throws Exception {
    if (!(url.contains(HTTP) || url.contains(HTTPS))) {
      url = HTTP + url;
    }

    videoJson = VideoEmbedTool.getoembedData(url);
    templateParams = new HashMap<String, String>();
    templateParams.put(LINK_PARAM, url);
    templateParams.put(TITLE_PARAM, videoJson.getString(VideoEmbedTool.OEMBED_TITLE));
```

```
  templateParams.put(HTML_PARAM, videoJson.getString(VideoEmbedTool.OEMBED_HTML));
  setLinkInfoDisplayed(true);
 }

 static public class AttachActionListener extends EventListener<UIVideoActivityComposer> {

  @Override
  public void execute(Event<UIVideoActivityComposer> event) throws Exception {
   WebuiRequestContext requestContext = event.getRequestContext();
   UIVideoActivityComposer uiComposerLinkExtension = event.getSource();
   String url = requestContext.getRequestParameter(OBJECTID);
   try {
    uiComposerLinkExtension.setLink(url.trim());
   } catch (Exception e) {
    uiComposerLinkExtension.setReadyForPostingActivity(false);
    return;
   }
   requestContext.addUIComponentToUpdateByAjax(uiComposerLinkExtension);
   event.getSource().setReadyForPostingActivity(true);
  }
 }

 static public class ChangeLinkContentActionListener extends EventListener<UIVideoActivityComposer> {
  @Override
  public void execute(Event<UIVideoActivityComposer> event) throws Exception {
   WebuiRequestContext requestContext = event.getRequestContext();
   UIVideoActivityComposer uiComposerLinkExtension = event.getSource();

   Map<String, String> tempParams = new HashMap<String, String>();

   uiComposerLinkExtension.setTemplateParams(tempParams);
   requestContext.addUIComponentToUpdateByAjax(uiComposerLinkExtension);
   UIComponent uiParent = uiComposerLinkExtension.getParent();
   if (uiParent != null) {
    uiParent.broadcast(event, event.getExecutionPhase());
   }
  }
 }

 public static class SelectVideoFromResultList extends EventListener<UIVideoActivityComposer>{
  @Override
  public void execute(Event<UIVideoActivityComposer> event) throws Exception {
   WebuiRequestContext requestContext = event.getRequestContext();
   UIVideoActivityComposer uiComposerLinkExtension = event.getSource();

  }
 }

 public static class SearchVideo extends EventListener<UIVideoActivityComposer>{

  @Override
  public void execute(Event<UIVideoActivityComposer> event) throws Exception {
   WebuiRequestContext requestContext = event.getRequestContext();
   UIVideoActivityComposer uiComposerLinkExtension = event.getSource();


  }
 }

 @Override
 public void onPostActivity(PostContext postContext, UIComponent source,
                            WebuiRequestContext requestContext, String postedMessage) throws Exception {

  templateParams.put(COMMENT_PARAM, postedMessage);
  setTemplateParams(templateParams);
  if (templateParams.size() == 0) {
   uiApplication.addMessage(new ApplicationMessage("UIComposer.msg.error.Empty_Message",
           null,
           ApplicationMessage.WARNING));
   return;
  }
  String title = "Shared a video: <a href={{{"}}}${" + LINK_PARAM + "}{{{"}}}>${" + TITLE_PARAM + "} </a>";
  ExoSocialActivity activity = new ExoSocialActivityImpl(userIdentity.getId(),
        UIVideoActivity.ACTIVITY_TYPE,
        title,
```

```
          null);
    activity.setTemplateParams(templateParams);

    if (postContext == UIComposer.PostContext.SPACE) {

     UIActivitiesContainer activitiesContainer = uiDisplaySpaceActivities.getActivitiesLoader().getActivitiesContainer();
     activitiesContainer.addActivity(activity);
     requestContext.addUIComponentToUpdateByAjax(activitiesContainer);
     requestContext.addUIComponentToUpdateByAjax(uiComposer);
    } else if (postContext == PostContext.USER) {
     UIUserActivitiesDisplay uiUserActivitiesDisplay = (UIUserActivitiesDisplay) getActivityDisplay();
     String ownerName = uiUserActivitiesDisplay.getOwnerName();
     Identity ownerIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME,
           ownerName, false);

     activityManager.saveActivity(ownerIdentity, activity);

     if (uiUserActivitiesDisplay.getSelectedDisplayMode() == UIUserActivitiesDisplay.DisplayMode.MY_STATUS) {
      UIActivitiesContainer activitiesContainer = uiUserActivitiesDisplay.getActivitiesLoader().getActivitiesContainer();
      if (activitiesContainer.getChildren().size() == 1) {
       uiUserActivitiesDisplay.setSelectedDisplayMode(UIUserActivitiesDisplay.DisplayMode.MY_STATUS);
      } else {
       activitiesContainer.addActivity(activity);
       requestContext.addUIComponentToUpdateByAjax(activitiesContainer);
       requestContext.addUIComponentToUpdateByAjax(uiComposer);
      }
     } else{
      uiUserActivitiesDisplay.setSelectedDisplayMode(UIUserActivitiesDisplay.DisplayMode.MY_STATUS);
     }
    }
   }
  }
```

2. Use the BaseUIActivity class to write and customize the UIActivity display as below:

```
package org.exoplatform.social.plugin.videolink;
import org.exoplatform.social.webui.activity.BaseUIActivity;
import org.exoplatform.webui.config.annotation.ComponentConfig;
import org.exoplatform.webui.core.lifecycle.UIFormLifecycle;
import org.exoplatform.webui.config.annotation.EventConfig;
@ComponentConfig(lifecycle = UIFormLifecycle.class, template = "classpath:groovy/social/plugin/videolink/UIVideoActivity.gtmpl", events = {
  @EventConfig(listeners = BaseUIActivity.ToggleDisplayLikesActionListener.class),
  @EventConfig(listeners = BaseUIActivity.ToggleDisplayCommentFormActionListener.class),
  @EventConfig(listeners = BaseUIActivity.LikeActivityActionListener.class),
  @EventConfig(listeners = BaseUIActivity.SetCommentListStatusActionListener.class),
  @EventConfig(listeners = BaseUIActivity.PostCommentActionListener.class),
  @EventConfig(listeners = BaseUIActivity.DeleteActivityActionListener.class, confirm = "UIActivity.msg.Are_You_Sure_To_Delete_This_Activity"),
  @EventConfig(listeners = BaseUIActivity.DeleteCommentActionListener.class, confirm = "UIActivity.msg.Are_You_Sure_To_Delete_This_Comment")
 }
)
public class UIVideoActivity extends BaseUIActivity {
  public static final String ACTIVITY_TYPE = "VIDEO_ACTIVITY";
  private String linkSource = "";
  private String linkTitle = "";
  private String linkHTML = "";
  private String linkComment = "";

  /**
   * Get the link comment.
   */
  public String getLinkComment() {
    return linkComment;
  }

  /**
   * Set the link comment.
   *
   * @param linkComment
   */
  public void setLinkComment(String linkComment) {
    this.linkComment = linkComment;
```

```
  }

  /**
   * Get the link html.
   */
  public String getLinkHTML() {
    return linkHTML;
  }

  /**
   * Set the link html.
   *
   * @param linkHTML
   */
  public void setLinkHTML(String linkHTML) {
    this.linkHTML = linkHTML;
  }

  /**
   * Get the link source.
   */
  public String getLinkSource() {
    return linkSource;
  }

  /**
   * Set the link source.
   *
   * @param linkSource
   */
  public void setLinkSource(String linkSource) {
    this.linkSource = linkSource;
  }

  /**
   * Get the link title.
   */
  public String getLinkTitle() {
    return linkTitle;
  }

  /**
   * Set the link title.
   *
   * @param linkTitle
   */
  public void setLinkTitle(String linkTitle) {
    this.linkTitle = linkTitle;
  }
}
```

3. Use the *UIVideoActivityBuilder* class to get values of *ExoSocialActivity* that are set to UIVideoActivity for displaying.

```
package org.exoplatform.social.plugin.videolink;
import java.util.Map;
import org.exoplatform.social.core.activity.model.ExoSocialActivity;

public class UIVideoActivityBuilder extends BaseUIActivityBuilder {
  private static final Log LOG = ExoLogger.getLogger(UIVideoActivityBuilder.class);
  @Override
  protected void extendUIActivity(BaseUIActivity uiActivity, ExoSocialActivity activity) {
  UIVideoActivity uiVideoActivity = (UIVideoActivity) uiActivity;
  Map<String, String> templateParams = activity.getTemplateParams();
    uiVideoActivity.setLinkSource(templateParams.get(UIVideoActivityComposer.LINK_PARAM));
    uiVideoActivity.setLinkTitle(templateParams.get(UIVideoActivityComposer.TITLE_PARAM));
    uiVideoActivity.setLinkImage(templateParams.get(UIVideoActivityComposer.IMAGE_PARAM));
    uiVideoActivity.setLinkHTML(templateParams.get(UIVideoActivityComposer.HTML_PARAM));
    uiVideoActivity.setLinkComment(templateParams.get(UIVideoActivityComposer.COMMENT_PARAM));
  }
}
```

Note

You can check out the source code to get more details.

3.2. Overridable Components

There are 2 components in Social that can be overridden: Space Application Handler & Space Service.

- **Space Application Handler**

```
<component>
  <key>org.exoplatform.social.core.space.spi.SpaceApplicationHandler</key>
  <type>org.exoplatform.social.core.space.impl.DefaultSpaceApplicationHandler</type>
</component>
```

- **Space Service**

```
<component>
  <key>org.exoplatform.social.core.space.spi.SpaceService</key>
  <type>org.exoplatform.social.core.space.impl.SpaceServiceImpl</type>
  <init-params>
    <!-- Configure the applications to install in a space -->
    <values-param>
      <name>space.homeNodeApp</name>
      <value>SpaceActivityStreamPortlet</value>
    </values-param>
    <!-- Configure removable application or not <value>Application:removable</value> -->
    <values-param>
      <name>space.apps</name>
      <value>DashboardPortlet:true</value>
      <value>SpaceSettingPortlet:false</value>
      <value>MembersPortlet:true</value>
    </values-param>
  </init-params>
</component>
```

See also

- UI Extensions
- Public Java APIs
- Java APIs sample code/ tutorial
- Public REST APIs
- Rest Service APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the 2-legged OAuth scenario

3.3. Public Java APIs

- ActivityManager

Details of methods which manage activities (for example, saveActivity, getActivity, deleteActivity, and more).

- IdentityManager

  Details of methods which manage identities (for example, registerIdentityProviders, getIdentity, getOrCreateIdentity, and more).

- RelationshipManager

  Details of methods which manage relationships in Social (for example, getRelationshipById, saveRelationship, getRequireValidationRelationships, and more).

- SpaceService

  Details of methods which work with spaces in Social (for example, getSpaceByDisplayName, getSpaceByPrettyName, getSpaceByGroupId, and more).

- I18NActivityProcessor

  Details of methods which process any internationalized activities to new dynamic ones with the internationalized title (including: addActivityResourceBundlePlugin, removeActivityResourceBundlePlugin, process and setResourceBundleService.

- LinkProvider

  Details of methods which get the URLs of the activities, profiles, spaces, avatars (for example, getSpaceUri, getProfileUri, getUserActivityUri, and more).

See also

- UI Extensions
- Overridable Components
- Java APIs sample code/ tutorial
- Public REST APIs
- Rest Service APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the oauth 2 legged scenario

3.3.1. ActivityManager

Method	Param	Return	Description
saveActivity(Identity owner, ExoSocialActivity activity) throws ActivityStorageException	`owner` - the owner of activity stream, `activity` - the activity which needs to be saved	ExoSocialActivity	Save an activity to the stream of an owner. Note that the Activity.userId will be set to the owner's identity if it has not been already set.
getActivity(String activityId) throws ActivityStorageException	`activityId` - the id of activity	ExoSocialActivity	Get an activity by its id.
deleteActivity(String activityId) throws ActivityStorageException	`activityId` - the id of activity	void	Delete an activity by its id.
	`activity`	void	

Method	Param	Return	Description
deleteActivity(ExoSocialActivity activity) throws ActivityStorageException			Delete a stored activity (id != null). (Since 1.1.1).
deleteComment(String activityId, String commentId) throws ActivityStorageException	`activityId` - the id of activity, `commentId` - the id of comment	void	Delete a comment by its id.
getActivities(Identity identity) throws ActivityStorageException	`identity`	List<ExoSocialActivity>	Get the latest activities by an identity with the default limit of 20 latest activities.
getActivities(Identity identity, long start, long limit) throws ActivityStorageException	`identity`, `start` , `limit`	List<ExoSocialActivity>	Get the latest activities by an identity, specifying **start** that is an offset index and **limit**.
getActivitiesOfConnections(ownerIdentity) throws ActivityStorageException	`ownerIdentity`	List<ExoSocialActivity>	Get activities of connections from an identity. The activities are returned as a list that is sorted descending by activity posted time. (Since 1.1.1).
getActivitiesOfConnections(ownerIdentity, int offset, int limit) throws ActivityStorageException;	`ownerIdentity, offset, limit`	List<ExoSocialActivity>	Get the activities of connections from an identity by specifying offset and limit. The activities are returned as a list that is sorted starting from the most recent activity.(Since 1.2.0-GA).
getActivitiesOfUserSpaces(ownerIdentity)	`ownerIdentity`	List<ExoSocialActivity>	Get the activities from all spaces of a user. By default, the activity list is composed of all spaces' activities. Each activity list of the space contains maximum 20 activities and are sorted by time. (Since 1.1.1).
getActivityFeed(Identity identity) throws ActivityStorageException	`identity`	List<ExoSocialActivity>	Get the activity feed of an identity. This feed is the combination of all the activities of his own activities, his connections' activities and spaces' activities which are returned as a list that is sorted starting from the most recent activity.(Since 1.1.2).
saveActivity(ExoSocialActivity activity) throws ActivityStorageException	`activity` - the activity to save	ExoSocialActivity	Save an activity into the stream for the activity's userId. The userId must be

Method	Param	Return	Description
			set and this field is used to indicate the owner stream.
saveComment(ExoSocialActiv activity, ExoSocialActivity comment) throws ActivityStorageException	`activity, comment`	void	Save a new comment or updates an existing comment that is an instance of activity with mandatory fields: userId, title.
saveLike(ExoSocialActivity activity, Identity identity) throws ActivityStorageException	`activity, identity`	void	Save an identity who likes an activity.
removeLike(ExoSocialActivity activity, Identity identity) throws ActivityStorageException	`activity`, `identity` - a user who dislikes an activity	void	Remove an identity who likes an activity, if this activity is liked, it will be removed.
getComments(ExoSocialActiv activity) throws ActivityStorageException	`activity`	List<ExoSocialActivity>	Get the comment list of an activity.
recordActivity(Identity owner, String type, String title) throws ActivityStorageException	`owner, type, title`	ExoSocialActivity	Record an activity. (Since 1.2.0-GA).
recordActivity(Identity owner, ExoSocialActivity activity) throws Exception	`owner, activity`	ExoSocialActivity	Save an activity. You should use ActivityManager#saveActivity(org.exoplatfo org.exoplatform.social.core.activity.model.E instead. It will be removed in Social 1.3.x.
recordActivity(Identity owner, String type, String title, String body) throws ActivityStorageException	`owner` - the owner of the target stream for this activity, `type` - the type of an activity which will be used to render a custom UI, `title` - the title, `body` - the body	ExoSocialActivity	Record an activity.
addProcessor(ActivityProces processor)	`processor`	void	Add a new processor.
addProcessorPlugin(BaseAc plugin)	`plugin`cessorPlugin	void	Add a new processor plugin.
getActivitiesCount(Identity owner) throws ActivityStorageException	`owner`	int	Get the number of activities from a stream owner.
processActivitiy(ExoSocialAc activity)	`activity`	void	Pass an activity through the chain of processors.

3.3.2. IdentityManager

Method	Param	Return	Description
registerIdentityProviders(IdeviderPlugin plugin)	`plugin`	void	Register one or more IdentityProvider through an IdentityProviderPlugin.
getIdentity(String id)	`id` can be a social GlobalId or a raw identity such as in Identity.getId()	Identity - null if nothing is found, or the Identity object	Get the identity by ID and loads his profile.
getIdentity(String id, boolean loadProfile)	`id` can be a social GlobalId or a raw identity such as in Identity.getId(), `loadProfile` - the value is true if the profile is loaded and false if not loaded	null if nothing is found, or the Identity object	Get the identity by loading id of the profile optionally.
deleteIdentity(Identity identity)	`identiy`	void	Delete an identity.
addIdentityProvider(IdentityFidProvider)	`idProvider` - the id of provider	void	Add the identity provider.
getOrCreateIdentity(String providerId, String remoteId)	`providerId` - the id of provider, `remoteId` - the remote id	Identity	Get the identity by remoteId. If the provider can not find any identity by remoteId, the return value is null. If no identity found by identity provider and that identity is still stored on JCR, the stored identity will be deleted and the return value is null.
getOrCreateIdentity(String providerId, String remoteId, boolean loadProfile)	`providerId` - referring to the name of the Identity provider, `remoteId` - the identifier that identify the identity in the specific identity provider, `loadProfile` - true when the profile is loaded	null if nothing is found, or the Identity object improves the performance by specifying what needs to be loaded	This function returns an Identity object that is specific to a special type. For example, if the type is Linked'In, the identifier will be the URL of profile or if it is a CS contact manager, it will be the UID of the contact. A new identity is created if it does not exist.
getIdentitiesByProfileFilter(S providerId, ProfileFilter profileFilter) throws Exception	`providerId` - the id of provider, `profileFilter` - the filter of provider	Identity	Get the identities by a profile filter.
getIdentitiesByProfileFilter(S providerId, ProfileFilter profileFilter, long offset, long limit) throws Exception	`providerId, profileFilter, offset, limit`	List<Identity>	Get the identities by a profile filter.
getIdentitiesByProfileFilter(F profileFilter) throws Exception	`profileFilter` - the profile filter	List<Identity>	Get the identities by a profile filter.

Method	Param	Return	Description
getIdentitiesByProfileFilter(P profileFilter, long offset, long limit) throws Exception	`providerId, profileFilter, offset, limit`	List<Identity>	Get the identities by a profile filter.
getIdentitiesFilterByAlphaBe providerId, ProfileFilter profileFilter) throws Exception	`providerId` - the id of provider, `profileFilter` - the profile filter	List<Identity>	Get the identities filter by alphabet.
getIdentitiesFilterByAlphaBe providerId, ProfileFilter profileFilter, long offset,long limit) throws Exception	`providerId, profileFilter, offset, limit`	List<Identity>	Get the identities filter by alphabet with offset and limit.
getIdentitiesFilterByAlphaBe profileFilter) throws Exception	`profileFilter` - the profile filter	List<Identity>	Get the identities filter by alphabet.
getIdentity(String providerId, String remoteId, boolean loadProfile)	`providerId`, `remoteId`, `loadProfile`	Identity	Get the identity.
getIdentitiesCount(String providerId)	`providerId`	long	Get the number of identities.
identityExisted(String providerId, String remoteId)	`providerId`, `remoteId`	boolean	Check if the identity is already existed or not.
saveIdentity(Identity identity)	`identity` - the identity	void	Save the identity.
saveProfile(Profile profile)	`profile`	void	Save a profile.
addOrModifyProfilePropertie profile) throws Exception	`profile`	void	Add or modify properties of profile. Profile parameter is a lightweight that contains only the property that you want to add or modify. NOTE: The method will not delete the properties of an old profile when the param profile does not have those keys.
updateAvatar(Profile p)	`profile`	void	Update the avatar.
updateBasicInfo(Profile p) throws Exception	`profile`	void	Update the basic information.
updateContactSection(Profil p) throws Exception	`profile`	void	Update the contact section of the profile.
updateExperienceSection(Pr p)throws Exception	`profile`	void	Update the experience section of the profile.
updateHeaderSection(Profile p) throws Exception	`profile`	void	Update the header section of the profile.
getIdentities(String providerId) throws Exception	`providerId` - the id of provider	List<Identity>	Get the identities by the provider id.

Method	Param	Return	Description
getIdentities(String providerId, boolean loadProfile)	`providerId` - the id of provider, `loadProfile` - the loaded profile.	List<Identity>	Get the identities by the provider id. If loadProvider is true, loading the profile will be performed.
getConnections(Identity ownerIdentity) throws Exception	`ownerIdentity`	List<Identity>	Get connections of an identity. (Since 1.1.1).
getIdentityStorage()	`N/A`	IdentityStorage	Get the identity storage.
getStorage()	`N/A`	IdentityStorage	Get the storage. Deprecated: should use method getIdentityStorage().
registerProfileListener(Profil listener)	`listener`	void	Register the profile listener.
unregisterProfileListener(Pr listener)	`listenerr`	void	Unregister the profile listener.
addProfileListener(ProfileList plugin)	`plugin`in	void	Register a profile listener component plug-in.

3.3.3. RelationshipManager

Method	Param	Return	Description
getRelationshipById(String id) throws Exception	`id`	Relationship	Get the relationship by id. You should use get(String) instead. It will be removed at 1.2.x.
invite(Identity sender, Identity receiver) throws RelationshipStorageException	`sender` `receiver`	Relationship	Create a connection invitation between two identities.
saveRelationship(Relationshi relationship) throws RelationshipStorageException	`relationship` - a relationship	void	Save a relationship.
confirm(Relationship relationship) throws RelationshipStorageException	`relationship` - a pending relationship	void	Mark a relationship as confirmed.
deny(Relationship relationship) throws RelationshipStorageException	`relationship` - a pending relationship	void	Deny a relationship.
remove(Relationship relationship) throws RelationshipStorageException	`relationship` - a pending relationship	void	Remove a relationship.
ignore(Relationship relationship) throws RelationshipStorageException	`relationship` - a pending relationship	void	Mark a relationship as ignored
getPendingRelationships(Ide sender) throws Exception	`sender` - an identity	List<Relationship>	Get all the pending relationship of sender.

Method	Param	Return	Description
getPendingRelationships(Ide sender, List<Identity> identities) throws Exception	`sender` - an identity, `identities` - a list of identity	List<Relationship>	Get pending relationships of sender that match with identities.
getRequireValidationRelatio receiver) throws Exception	`receiver` - an identity	List<Relationship>	Get list of required validation relationship of receiver.
getRequireValidationRelatio receiver, List<Identity> identities)	`receiver` - an identity, `identities` - a list of identity	List<Relationship>	Get list of required validation relationship of receiver that match with identities.
getConfirmedRelationships(identity)	`identity` - an identity	List<Relationship>	Get list of confirmed relationship of identity.
getConfirmedRelationships(identity, List<Identity> identities)	`identity` - an identity, `identities` - a list of identity	List<Relationship>	Get list of confirmed relationship of identity that match with identities.
getAllRelationships(Identity identity)	`identity` - an identity	List<Relationship>	Return all the relationship of a given identity with other identity.
getAllRelationships(Identity identity, List<Identity> identities)	`identity` - an identity, `identities` - a list of identity	List<Relationship>	Return all the relationship of a given identity with other identity in identities.
getAllRelationships(Identity identity)	`identity` - an identity	List<Relationship>	Return all the relationship of a given identity with other identity.
getAllRelationships(Identity identity, Relationship.Type type, List<Identity> identities)	`identity` - an identity, `type` - a Relationship.Type, `identities` - a list of identity <Relationship>		Return all the relationship of a given identity with other identity in identities in type.
getRelationship(Identity identity1, Identity identity2)	`identity1` and `identity2` - identities	Relationship	Get the relationship of two identities.

3.3.4. SpaceService

Method	Param	Return	Description
getSpaceByDisplayName(St spaceDisplayName)	`spaceDisplayName`	Space	Get a space whose display name matches the string input. (Since 1.2.0-GA).
getSpaceByPrettyName(Strir spaceName)	`spaceName`	Space	Get a space whose pretty name matches the string input. (Since 1.2.0-GA).
getSpaceByGroupId(String groupId)	`groupId`	Space	Get a space that has group Id matching the string input.
getSpaceById(String spaceId)	`spaceId`	Space	Get a space by its Id.
getSpaceByUrl(String spaceUrl)	`spaceUrl`	Space	Get a space whose URL matches the string input.
getAllSpaces()	`N/A`	ListAccess<Space>	

Method	Param	Return	Description
			Get a list of spaces with the type of a space list access. (Since 1.3.0-GA).
getAllSpacesWithListAccess()	`N/A`	ListAccess<Space>	Get a list of spaces with the type of a space list access. (Since 1.2.0-GA).
getAllSpacesByFilter(SpaceFilter spaceFilter)	`spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. These spaces matches the space filter. (Since 1.2.0-GA).
getMemberSpaces(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of list access that contains all the spaces in which a user has the "member" role. (Since 1.2.0-GA).
getMemberSpacesByFilter(String userId, SpaceFilter spaceFilter)	`userId`, `spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains the spaces which a user has the "member" role and match the provided space filter. (Since 1.2.0-GA).
getAccessibleSpaces(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user has the access permission.(Since 1.3.0-GA).
getAccessibleSpacesWithListAccess(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with a space list access. The list contains all the spaces that a user has the access permission. (Since 1.2.0-GA).
getAccessibleSpacesByFilter(String userId, SpaceFilter spaceFilter)	`userId`, `spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user has the access permission and match the provided space filter. (Since 1.2.0-GA).
getSettingableSpaces(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user

Method	Param	Return	Description
			has the setting permission. (Since 1.2.0-GA).
getSettingabledSpacesByFil(String userId, SpaceFilter spaceFilter)	`userId, spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user has the setting permission and match the provided space filter. (Since 1.2.0-GA).
getInvitedSpaces(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user is invited to join. (Since 1.3.0-GA).
getInvitedSpacesWithListAc(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user is invited to join. (Since 1.2.0-GA).
getInvitedSpacesByFilter(Str(String userId, SpaceFilter spaceFilter)	`userId`, `spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user is invited to join and match the provided space filter. (Since 1.2.0-GA).
getPublicSpaces(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user can request to join. (Since 1.3.0-GA).
getPublicSpacesWithListAc(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user can request to join. (Since 1.2.0-GA).
getPublicSpacesByFilter(Str(String userId, SpaceFilter spaceFilter)	`userId`, `spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user can request to join and match the provided space filter. (Since 1.2.0-GA).

Method	Param	Return	Description
getPendingSpaces(String userId)	`userId`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user sent join-request to a space. (Since 1.3.0-GA).
getPendingSpacesWithListA userId)	`userId` tring	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user sent a request for joining a space. (Since 1.2.0-GA).
getPendingSpacesByFilter(userId, SpaceFilter spaceFilter)	`userId`, `spaceFilter`	ListAccess<Space>	Get a list of spaces with the type of a space list access. The list contains all the spaces that a user sent join-request to a space and match the provided space filter. (Since 1.2.0-GA).
createSpace(Space space, String creatorUserId)	`space, creatorUserId`	Space	Create a new space: create a group, its group navigation with pages for installing space applications.
updateSpace(Space existingSpace)	`existingSpace`	Space	Update information of a space. (Since 1.2.0-GA).
deleteSpace(Space space)	`space`	void	Delete a space. When deleting a space, all of its page navigation bars and its group will be deleted.
addPendingUser(Space space, String userId)	`space, userId`	void	Add a user to the pending list to request to join a space. (Since 1.2.0-GA).
removePendingUser(Space space, String userId)	`space, userId`	void	Remove a user from the pending list to request to join a space. (Since 1.2.0-GA).
isPendingUser(Space space, String userId)	`space, userId`	void	Check if a user is in the pending list to request to join a space or not. (Since 1.2.0-GA).
addInvitedUser(Space space, String userId)	`space, userId`	void	Add a user, who is invited to a space, to the invited list. (Since 1.2.0-GA).
removeInvitedUser(Space space, String userId)	`space, userId`	void	Remove a user, who is invited to a space, from the invited list. (Since 1.2.0-GA).

Method	Param	Return	Description
isInvitedUser(Space space, String userId)	`space, userId`	void	Check if a user invited to join a space is in the invited list or not. (Since 1.2.0-GA).
addMember(Space space, String userId)	`space, userId`	void	Add a user to a space. The user will get the "member" role in that space.
removeMember(Space space, String userId)	`space, userId`	void	Remove a member from a space.
isMember(Space space, String userId)	`space, userId`	boolean	Check whether a user is a space's member or not.
setManager(Space space, String userId, boolean isManager)	`space, userId, isManager`	void	Add a user to have the "manager" role in a space. If *isManager* is set to "true", a user will get the "manager" role. If false, that user will get the "member" role. (Since 1.2.0-GA).
isManager(Space space, String userId)	`space, userId`	void	Check if a user has the "manager" role in a space or not. (Since 1.2.0-GA).
isOnlyManager(Space space, String userId)	`space, userId`	boolean	Check if a user is the only one who has the "manager" role in a space. True if the user Id is the only one who has "manager" role in a space. Otherwise, return false. (Since 1.2.0-GA).
hasAccessPermission(Space space, String userId)	`space, userId`	boolean	Check if a user can access a space or not. If the user is root or the space's member, return true.
hasSettingPermission(Space space, String userId)	`space, userId`	boolean	Check if a user can have the setting permission to a space or not. If the user is root or the space's member, return true. (Since 1.2.0-GA).
registerSpaceListenerPlugin(SpaceListenerPlugin spaceListenerPlugin)	`spaceListenerPlugin`	void	Register a space listener plugin to listen to space lifecyle events: creating, removing space, activating, deactiving, adding, removing application, promoting, joining, leaving, and revoking. (Since 1.2.0-GA).

Method	Param	Return	Description
unregisterSpaceListenerPluspaceListenerPlugin)	`spaceListenerPlugin`	void	Unregister an existing space listener plugin. (Since 1.2.0-GA).
setSpaceApplicationConfigFspaceApplicationConfigPlugin)	`spaceApplicationConfigPlugin`	Void	Set a space application configuration plugin to configure the home and space applications. By configuring this, the space service will know how to create a new page node with title, URL, and portlet to use. (Since 1.2.0-GA).
getSpaceApplicationConfigF	`N/A`	SpaceApplicationConfigPlugin	Get the configuration of applications to be initialized when creating a new space. (Since 1.2.0-GA).
getAllSpaces() throws SpaceException	`N/A`	List<Space>	Get all spaces in Social. You should use method getAllSpaceWithListAccess instead of getAllSpaces. It will be removed in Social 1.3.x.
getSpaceByName(String spaceName) throws SpaceException	`spaceName`	Space	Get a space by its name. You should use SpaceService#getSpaceByPrettyName instead. It will be removed version 1.3.x.
getSpacesByFirstCharacter(firstCharacterOfName) throws SpaceException	`firstCharacterOfName`	List<Space>	Get all spaces whose name starting with the input character.
getSpacesBySearchConditic condition) throws Exception	`condition`	List<Space>	Get all spaces which has the name or the description that matches the input condition.
getSpaces(String userId) throws SpaceException	`userId`	List<Space>	Get spaces of a user in which that user is a member. You should use getMemberSpaces(String) instead. It will be removed in Social 1.3.x
getAccessibleSpaces(String userId) throws SpaceException	`userId`	List<Space>	Get spaces of a user which that user has the access permission. You should use getAccessibleSpacesWithListAccess(String instead. It will be removed in Social 1.3.x.

Method	Param	Return	Description
getEditableSpaces(String userId) throws SpaceException	`userId`	List<Space>	Get spaces of a user which that user has the edit permission. You should use getSettingableSpaces(String) instead. It will be removed in Social 1.3.x.
getInvitedSpaces(String userId) throws SpaceException	`userId`	List<Space>	Get invited spaces of a user and that user can accept or deny the request. You should use getInvitedSpacesWithListAccess(String) instead. It will be removed in Social 1.3.x.
getPublicSpaces(String userId) throws SpaceException	`userId - Id of user`	List<Space>	Get invited spaces of a user that can be accepted or denied by the user. You should use getPublicSpacesWithListAccess(String) instead. It will be removed in Social 1.3.x.
getPendingSpaces(String userId) throws SpaceException	`userId`	List<Space>	Get pending spaces of a user and spaces which the user can revoke that request. You should use getPendingSpacesWithListAccess(String) instead. It will be removed in Social 1.3.x.
createSpace(Space space, String creator, String invitedGroupId) throws SpaceException	`space, creator, invitedGroupId`	Space	Create a new space and invite all users from invitedGroupId to join this newly created space.
saveSpace(Space space, boolean isNew) throws SpaceException	`space`, `isNew`	void	Save a new space or update a space. You should use updateSpace(org.exoplatform.social.core.sp instead. It will be removed in Social 1.3.x.
deleteSpace(String spaceId) throws SpaceException	`spaceId`	void	Delete a space by its id. You should use deleteSpace(org.exoplatform.social.core.sp instead. It will be removed in Social 1.3.x.
initApp(Space space) throws SpaceException	`space`	void	It is just for compatibility. Deprecated: it will be removed in Social 1.3.x.

Method	Param	Return	Description
initApps(Space space) throws SpaceException	`space`	void	It is just for compatibility. Deprecated: it will be removed in Social 1.3.x.
deInitApps(Space space) throws SpaceException	`space`	void	It is just for compatibility. Deprecated: it will be removed in Social 1.3.x.
addMember(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Add a user to a space, the user will get the "member" role in a space. You should use addMember(org.exoplatform.social.core.spa String) instead. It will be removed in Social 1.3.x.
removeMember(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Remove a member from a space. You should use removeMember(org.exoplatform.social.core String) instead. It will be removed in Social 1.3.x.
getMembers(Space space) throws SpaceException	`space`	List<String>	Get a list of the space members from a space. You should use Space#getMembers() instead. It will be removed in Social 1.3.x.
getMembers(String spaceId) throws SpaceException	`spaceId`	List<String>	Get a list of the space members from a space. You should use Space#getMembers() instead. It will be removed in Social 1.3.x.
setLeader(Space space, String userId, boolean isLeader) throws SpaceException	`space, userId, isLeader`	void	Set a member of a space as a manager. You should use setManager(org.exoplatform.social.core.spa String, boolean) instead. It will be removed in Social 1.3.x.
setLeader(String spaceId, String userId, boolean isLeader) throws SpaceException	`spaceId, userId, isLeader`	void	Set a member of a space as a manager. You should use setManager(org.exoplatform.social.core.spa String, boolean) instead. It will be removed in Social 1.3.x.
isLeader(Space space, String userId) throws SpaceException	`space, userId`	boolean	Check whether a user is a space's leader or not. You should use

Method	Param	Return	Description
			isManager(org.exoplatform.social.core.spac String) instead. It will be removed in Social 1.3.x.
isLeader(String spaceId, String userId) throws SpaceException	`spaceId, userId`	boolean	Check whether a user is a space's leader or not. You should use isManager(org.exoplatform.social.core.spac String) instead. It will be removed in Social 1.3.x.
isOnlyLeader(Space space, String userId) throws SpaceException	`space, userId`	boolean	Check whether a user is the only leader of a space or not. You should use isOnlyManager(org.exoplatform.social.core String) instead. It will be removed in Social 1.3.x.
isOnlyLeader(String spaceId, String userId) throws SpaceException	`spaceId, userId`	boolean	Check whether a user is the only leader of a space or not. You should use isOnlyManager(org.exoplatform.social.core String) instead. It will be removed in Social 1.3.x.
isMember(String spaceId, String userId) throws SpaceException	`spaceId, userId,`	boolean	Check whether a user is a space's member or not. You should use isMember(org.exoplatform.social.core.spac String) instead. It will be removed in Social 1.3.x.
hasAccessPermission(String spaceId, String userId) throws SpaceException	`spaceId, userId`	boolean	Check if a user can access a space or not. You should use hasAccessPermission(org.exoplatform.soci String) instead. It will be removed in Social 1.3.x.
hasEditPermission(Space space, String userId) throws SpaceException	`space, userId`	Boolean	Check if a user can have the edit permission of a space or not. You should use hasSettingPermission(org.exoplatform.soci String) instead. It will be removed in Social 1.3.x.
hasEditPermission(String spaceId, String userId) throws SpaceException	`spaceId, userId`	Boolean	Check if a user can have the edit permission of a space or not. You should use hasSettingPermission(org.exoplatform.soci

Method	Param	Return	Description
			String) instead. It will be removed in Social 1.3.x.
isInvited(Space space, String userId) throws SpaceException	`space, userId`	Boolean	Check if a user is in the invited list of a space or not. You should use isInvitedUser(org.exoplatform.social.core.sp String) instead. It will be removed in Social 1.3.x.
isInvited(String spaceId, String userId) throws SpaceException	`spaceId, userId`	Boolean	Check if a user is in the invited list of a space or not. You should use isInvitedUser(org.exoplatform.social.core.sp String) instead. It will be removed in Social 1.3.x.
isPending(Space space, String userId) throws SpaceException	`space, userId`	Boolean	Check if a user is in the pending list of a space or not.You should use isPendingUser(org.exoplatform.social.core. String) instead. It will be removed in Social 1.3.x.
isPending(String spaceId, String userId) throws SpaceException	`spaceId, userId`	Boolean	Check if a user is in the pending list of a space or not. You should use isPendingUser(org.exoplatform.social.core. String) instead. It will be removed in Social 1.3.x.
installApplication(String spaceId, String appId) throws SpaceException	`spaceId, appId`	void	Install an application to a space.
installApplication(Space space, String appId) throws SpaceException	`space, appId`	void	Install an application to a space.
activateApplication(Space space, String appId) throws SpaceException	`space, appId`	void	Activate an installed application in a space.
activateApplication(String spaceId, String appId) throws SpaceException	`spaceId, appId`	void	Activate an installed application in a space.
deactivateApplication(Space space, String appId) throws SpaceException	`space, appId`	void	Deactivate an installed application in a space.

Method	Param	Return	Description
deactivateApplication(String spaceId, String appId) throws SpaceException	`spaceId, appId`	void	Deactivate an installed application in a space.
removeApplication(Space space, String appId, String appName) throws SpaceException	`space, appId, appName`	void	Remove an installed application from a space.
removeApplication(String spaceId, String appId, String appName) throws SpaceException	`space, appId, appName`	void	Remove an installed application from a space.
requestJoin(Space space, String userId) throws SpaceException	`space, userId`	void	Request users to join a space. The invited users are then added to the pending list of the space. You should use addPendingUser(org.exoplatform.social.cor String) instead. It will be removed in Social 1.3.x.
requestJoin(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Request users to join a space. The invited users are then added to the pending list of the space.. You should use addPendingUser(org.exoplatform.social.cor String) instead. It will be removed in Social 1.3.x.
revokeRequestJoin(Space space, String userId) throws SpaceException	`space, userId`	void	Revoke a join request after users request to join a group and is in the pending status. You should use removePendingUser(org.exoplatform.social String) instead. It will be removed in Social 1.3.x.
revokeRequestJoin(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Revoke a request to join a space. You should use removePendingUser(org.exoplatform.social String) instead. It will be removed in Social 1.3.x.
inviteMember(Space space, String userId) throws SpaceException	`space, userId`	void	Invite a userId to become a member of a space. You should use addInvitedUser(org.exoplatform.social.core

Method	Param	Return	Description
			String) instead. It will be removed in Social 1.3.x.
inviteMember(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Invite a userId to a be member of a space. You should use addInvitedUser(org.exoplatform.social.core String) instead. It will be removed in Social 1.3.x.
revokeInvitation(Space space, String userId) throws SpaceException	`space, userId`	void	Revoke an invitation. Remove a user from the invited member list of the space. You should use removeInvitedUser(org.exoplatform.social.c String) instead. It will be removed in Social 1.3.x.
revokeInvitation(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Revoke an invitation. Remove a user from the invited member list of the space. You should use removeInvitedUser(org.exoplatform.social.c String) instead. It will be removed in Social 1.3.x.
acceptInvitation(Space space, String userId) throws SpaceException	`space, userId`	void	Accept an invitation and move a user from the invited list to the member list. You should use addMember(org.exoplatform.social.core.spa String) instead. It will be removed in Social 1.3.x.
acceptInvitation(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Accept an invitation and move a user from the invited list to the member list. You should use addMember(org.exoplatform.social.core.spa String) instead. It will be removed in Social 1.3.x.
denyInvitation(Space space, String userId) throws SpaceException	`space, userId`	void	Deny an invitation and remove a user from the invited list. You should use removeInvitedUser(org.exoplatform.social.c String) instead. It will be removed in Social 1.3.x.
denyInvitation(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Deny an invitation and remove a user from the invited list.

Method	Param	Return	Description
			You should use removeInvitedUser(org.exoplatform.social.c String) instead. It will be removed in Social 1.3.x.
validateRequest(Space space, String userId) throws SpaceException	`space, userId`	void	Validate a request and move a user from the pending list to the member list. You should use addMember(org.exoplatform.social.core.spa String) instead. It will be removed in Social 1.3.x.
validateRequest(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Validate a request and move a user from the pending list to the member list. You should use addMember(org.exoplatform.social.core.spa String) instead. It will be removed in Social 1.3.x.
declineRequest(Space space, String userId) throws SpaceException	`space, userId`	void	Decline a request and remove a user from the pending list. You should use removePendingUser(org.exoplatform.social String) instead. It will be removed in Social 1.3.x.
declineRequest(String spaceId, String userId) throws SpaceException	`spaceId, userId`	void	Decline a request and remove a user from the pending list. You should use removePendingUser(org.exoplatform.social String) instead. It will be removed in Social 1.3.x.
registerSpaceLifeCycleListe listener	`listener`ifeCycleListener	void	Register a space lifecycle listener. Deprecated: it will be removed in Social 1.3.x.
unregisterSpaceLifeCycleLi listener)	`listener`ceLifeCycleListener	void	Unregister a space lifecycle listener. Deprecated: it will be removed in Social 1.3.x.
setPortletsPrefsRequired(Po portletPrefsRequiredPlugin)	`portletPrefsRequiredPlugin`	void	Set the portlet preferences got from the plug-in configuration. You should use SpaceApplicationConfigPlugin(org.exoplatf String) instead. It will be removed in Social 1.3.x.

Method	Param	Return	Description
getPortletsPrefsRequired()	`N/A`	String	Get the portlet preferences required to use in creating the portlet application. Deprecated: it will be removed in Social 1.3.x.

3.3.5. I18NActivityProcessor

Method	Param	Return	Description
addActivityResourceBundle activityResourceBundlePlugin)	`activityResourceBundlePlugin`	Void	Register an activity resource bundle plugin.
removeActivityResourceBur activityResourceBundlePlugin)	`activityResourceBundlePlugin`	Void	Unregister an existing registered resource bundle plugin.
process(ExoSocialActivity i18nActivity, Locale selectedLocale)	`i18nActivity, selectedLocale`	ExoSocialActivity	Process the internationalized activity `activity.getTitleId() != null`.
setResourceBundleService(I resourceBundleService)	`resourceBundleService`	void	Set the external resource bundle service.

3.3.6. LinkProvider

Method	Param	Return	Description
getSpaceUri(final String prettyName)	`prettyName`	String	Return the URI link to the space profile. (Since 1.2.0-GA).
getProfileUri(final String username)	`username`	String	Return the URI link to the user profile.
getProfileUri(final String username, final String portalOwner)	`username, portalOwner`	String	Return the URI link to the user profile in a *portalOwner*.
getProfileLink(final String username)	`username`	String	Return the *<a>* tag with a link to the profile of *userName*.
getProfileLink(final String username, final String portalOwner)	`username, portalOwner`	String	Return the *<a>* tag with a link to the profile of *userName* on a *portalName*.
getAbsoluteProfileUrl(final String userName, final String portalName, final String portalOwner, final String host)	`userName, portalName, portalOwner, host`	String	Get the absolute profile URI of the *userName*.
getUserActivityUri(final String remoteId)	`remoteId`	String	Get an activity link of a user. The *remoteId* parameter should be the Id name. For example: *root*.

Method	Param	Return	Description
getUserConnectionsUri(final String remoteId)	`remoteId`	String	Get a connection link of a user. The *remoteId* parameter should be the Id name. For example: *root*.
getUserConnectionsYoursUri(final String remoteId)	`remoteId`	String	Get a connection link of a user. The *remoteId* parameter should be the Id name. For example: *root*.
getUserProfileUri(final String remoteId)	`remoteId`	String	Get a profile link of a user. The *remoteId* parameter should be the Id name.For example: *root*.
getActivityUri(final String providerId, final String remoteId)	`providerId, remoteId`	String	Get an activity link of a space or a user. The *remoteId* parameter should be the Id name. For example: *organization:root* or *space:abc_def*.
getActivityUriForSpace(final String remoteId, final String groupId)	`remoteId, groupId`	String	Get an activity link of the space. (Since 1.2.8).
buildAvatarImageUri(final AvatarAttachment avatarAttachment)	`avatarAttachment`	String	Build an avatar image URI from *avatarAttachment*.
buildAvatarImageUri(final Space space)	`space`	String	Get the URI link of the avatar. (Since 1.2.0-GA).
buildAvatarImageUri(final String identityName)	`identityName`	String	Get the URI link of the avatar from the identity name. (Since 1.2.0-GA).
buildAvatarImageUri(final PortalContainer container, final AvatarAttachment avatarAttachment)	`container, avatarAttachment`	String	Build an avatar image URI from *avatarAttachment*. (Sine 1.2.0-GA).
getAvatarImageSource(final PortalContainer portalContainer, final Profile profile)	`portalContainer, profile`	String	Get an avatar image URI of a profile in a *portalContainer*. Deprecated: You should use *Profile#getAvatarUrl()* instead. It will be removed in eXo Social 1.3.x.
getAvatarImageSource(final Profile profile)	`profile`	String	Get an avatar image URI of the profile. Deprecated: You should use *Profile#getAvatarUrl()* instead. It will be removed in eXo Social 1.3.x.
escapeJCRSpecialCharacter(string)	`string`	String	Escape the JCR special characters.

3.4. Java APIs sample code/ tutorial

- Activity Stream

  Introduction to 2 types of activities and ways to publish them, instructions on how to configure an activity processor, to publish an RSS feed with feedmash and sample code.

- OpenSocial

  Introduction to the OpenSocial standard, supported APIs, REST/RPC API, and instructions on how to configure the security and publish an activity into a space.

- People

  Details of Identity (IdentityProvider and IdentityManager), ProfileListener, Connections, Users connection, and RelationshipListener.

- Spaces

  Instructions on how to create a space, to add/remove an application from a space, to add a new member to a space, and details of SpaceListenerPlugin.

- Space widget tutorial

  Introduction to the Space widget, its versions (basic and advanced) and configurations.

- Activities rendering

  Introduction to Activities rendering, instructions on how to extend the activities.

- XMLProcessor component

  Instructions on how to change the content of input texts by using and extending the XMLProcessor component and its plugins.

- Internationalized activities

  Information and detailed steps to internationalize an activity as well to get an internationalized message.

See also

- UI Extensions
- Overridable Components
- Public Java APIs
- Public REST APIs
- Rest Service APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the 2-legged OAuth scenario

3.4.1. Activity Stream

Social provides users with a way to share their activity information (also known as Activity Stream) and collaborate in spaces (also known as group work). With the API, you can customize the way to display activities or publish new ones. To manipulate activities, you need to use the *AtivityManager* service.

There are 2 types of activities: activities for a user and activities for a space. The following examples will show you how to publish an activity for each type.

Publish an activity for a user

```
package org.exoplatform.publish.user;

import org.exoplatform.services.log.ExoLogger;
import org.exoplatform.services.log.Log;

import org.exoplatform.container.PortalContainer;
import org.exoplatform.social.core.manager.ActivityManager;
import org.exoplatform.social.core.manager.IdentityManager;
import org.exoplatform.social.core.identity.model.Identity;
import org.exoplatform.social.core.activity.model.ExoSocialActivity;
import org.exoplatform.social.core.activity.model.ExoSocialActivityImpl;
import org.exoplatform.social.core.identity.provider.OrganizationIdentityProvider;

public class PublishActivityForUser {
 // Exo Log.
 private final Log LOG = ExoLogger.getLogger(PublishActivityForUser.class);

 // Portal container.
 private PortalContainer container;

 // identityManager manages identities.
 private IdentityManager identityManager;

 // activityManager manages activities.
 private ActivityManager activityManager;

 private final static String DEFAULT_USER_NAME = "zun";
 private final static String DEFAULT_ACTIVITY_TITLE = "Hello World!";

 /**
  * Constructor.
  */
 public PublishActivityForUser() {
  // Gets the current container.
  container = PortalContainer.getInstance();

  // Gets identityManager to handle an identity operation.
  identityManager = (IdentityManager) container.getComponentInstance(IdentityManager.class);

  // Gets activityManager to handle an activity operation.
  activityManager = (ActivityManager) container.getComponentInstanceOfType(ActivityManager.class);
 }

 public void createActivityForUser() {
  try {
   // Gets an existing identity or creates a new one.
   Identity userIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, DEFAULT_USER_NAME, false);

   // Creates a new activity for this user.
   ExoSocialActivity activity = new ExoSocialActivityImpl();
   activity.setUserId(userIdentity.getId());
   activity.setTitle(DEFAULT_ACTIVITY_TITLE);
   // Saves an activity into JCR by using ActivityManager.
   activityManager.saveActivity(activity);
  } catch (Exception e) {
   LOG.error("can not save activity.", e);
  }
 }
}
```

Publish an activity for a space

```
package org.exoplatform.publish.space;
```

```
import org.exoplatform.services.log.ExoLogger;
import org.exoplatform.services.log.Log;

import org.exoplatform.container.PortalContainer;
import org.exoplatform.social.core.manager.ActivityManager;
import org.exoplatform.social.core.manager.IdentityManager;
import org.exoplatform.social.core.identity.provider.OrganizationIdentityProvider;
import org.exoplatform.social.core.identity.model.Identity;
import org.exoplatform.social.core.activity.model.ExoSocialActivity;
import org.exoplatform.social.core.activity.model.ExoSocialActivityImpl;

import org.exoplatform.social.core.space.model.Space;
import org.exoplatform.social.core.space.SpaceException;
import org.exoplatform.social.core.space.spi.SpaceService;
import org.exoplatform.social.core.identity.provider.SpaceIdentityProvider;

public class PublishActivityForSpace {
 // Exo Log.
 private final Log LOG = ExoLogger.getLogger(PublishActivityForSpace.class);

 // Portal container.
 private PortalContainer container;

 // identityManager manages identities.
 private IdentityManager identityManager;

 // activityManager manages activities.
 private ActivityManager activityManager;

 // spaceService manages spaces.
 private SpaceService spaceService;

 private final static String DEFAULT_NAME_SPACE = "mySpace";
 private final static String DEFAULT_USER_NAME = "zun";
 private final static String DEFAULT_ACTIVITY_TITLE = "An activity for space";

 /**
  * Constructor method.
  */
 public PublishActivityForSpace() {
  // Gets the current container.
  container = PortalContainer.getInstance();

  // Gets identityManager to manage identities.
  identityManager = (IdentityManager) container.getComponentInstance(IdentityManager.class);

  // Gets activityManager to manage activities.
  activityManager = (ActivityManager) container.getComponentInstanceOfType(ActivityManager.class);

  // Gets spaceService to handle the operation of a space.
  spaceService = (SpaceService) container.getComponentInstanceOfType(SpaceService.class);
 }

 public void createActivityForSpace() {
  try {
   // make sure that a space with the name "mySpace" is created.
   Space space = spaceService.getSpaceByDisplayName(DEFAULT_NAME_SPACE);
   if (space != null) {
    // Gets spaceIdentity if it already exists. If not, a new one is created.
    Identity spaceIdentity = identityManager.getOrCreateIdentity(SpaceIdentityProvider.NAME, DEFAULT_NAME_SPACE, false);
    // Gets an identity if it already exists. If not, a new one is created.
    Identity userIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, DEFAULT_USER_NAME, false);
    // Creates a new activity for this space.
    ExoSocialActivity activity =  new ExoSocialActivityImpl();
    activity.setUserId(userIdentity.getId());
    activity.setTitle(DEFAULT_ACTIVITY_TITLE);
    activityManager.saveActivity(spaceIdentity, activity);
   }
  } catch (SpaceException e) {
   LOG.error("Can not save activity.", e);
  } catch (Exception e) {
   LOG.error("Can not save activity.", e);
  }
 }
```

```
}
```

3.4.1.1. Configure an activity processor

An activity processor is used to modify the content of activities before they are returned from an activity manager. For example, to create an activity processor to replace all the texts representing the smile face ":-)" in the activity title by the smiley icons, do as follows:

Firstly, create the *SmileyProcessor* class by extending the *BaseActivityProcessorPlugin*.

```
package org.exoplatform.social.core.activitystream;

import org.exoplatform.social.core.BaseActivityProcessorPlugin;
import org.exoplatform.container.xml.InitParams;
import org.exoplatform.social.core.activity.model.ExoSocialActivity;

public class SmileyProcessor extends BaseActivityProcessorPlugin {
  private String smiley;

  public SmileyProcessor(InitParams params) {
    super(params);
    this.smiley = "<img src={{{"}}}http://www.tombraider4u.com/pictures/smiley.gif{{{"}}}/>";
  }

  @Override
  public void processActivity(ExoSocialActivity activity) {
    String title = activity.getTitle();
    activity.setTitle(title.replaceAll(":-)", this.smiley));
  }
}
```

Then, register this processor by editing the *configuration.xml* file:

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.manager.ActivityManager</target-component>
  <component-plugin>
    <name>SmileyProcessor</name>
    <set-method>addProcessorPlugin</set-method>
    <type>org.exoplatform.social.core.activitystream.SmileyProcessor</type>
    <description/>
    <init-params>
      <values-param>
        <name>priority</name>
        <value>1</value>
      </values-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

The "init-params" contains all the key-value data which a processor will use to initialize. In the above configuration, the **priority** value indicates the order in which this processor is executed. If the value is 1, this processor will be used before all the remaining processors with the lower priority.

3.4.1.2. Publish an RSS feed with feedmash

It is really easy to publish an RSS feed to a space's activity stream. Social provides *FeedmashJobPlugin* to publish the RSS feeds. As you can see in the project "*exo.social.extras.feedmash*", there are the *JiraFeedConsumer* and *HudsonFeedConsumer* samples to post Social project's feeds (jira and hudson) to a pre-defined space named *exosocial* in a specific portal container named *socialdemo* as in the configuration file:

```
<external-component-plugins>
  <target-component>org.exoplatform.services.scheduler.JobSchedulerService</target-component>
  <component-plugin>
    <name>RepubSocialJiraActivityJob</name>
    <set-method>addPeriodJob</set-method>
    <type>org.exoplatform.social.extras.feedmash.FeedmashJobPlugin</type>
    <description/>
    <init-params>
      <properties-param>
        <name>mash.info</name>
        <property name="feedURL" value="http://jira.exoplatform.org/plugins/servlet/streams?key=SOC"/>
        <property name="categoryMatch" value="resolved|created"/>
        <property name="targetActivityStream" value="space:exosocial"/>
        <property name="portalContainer" value="socialdemo"/>
      </properties-param>
      <properties-param>
        <name>job.info</name>
        <description>save the monitor data periodically</description>
        <property name="jobName" value="JIRAFeedConsumer"/>
        <property name="groupName" value="Feedmash"/>
        <property name="job" value="org.exoplatform.social.feedmash.JiraFeedConsumer"/>
        <property name="repeatCount" value="0"/>
        <property name="period" value="60000"/>
        <property name="startTime" value="+45"/>
        <property name="endTime" value=""/>
      </properties-param>
    </init-params>
  </component-plugin>
  <component-plugin>
    <name>WatchSocialBuildStatus</name>
    <set-method>addPeriodJob</set-method>
    <type>org.exoplatform.social.extras.feedmash.FeedmashJobPlugin</type>
    <description/>
    <init-params>
      <properties-param>
        <name>mash.info</name>
        <property name="feedURL" value="http://builder.exoplatform.org/hudson/view/social/job/social-trunk-ci/rssAll"/>
        <property name="targetActivityStream" value="space:exosocial"/>
        <property name="portalContainer" value="socialdemo"/>
      </properties-param>
      <properties-param>
        <name>job.info</name>
        <description>save the monitor data periodically</description>
        <property name="jobName" value="HudsonFeedConsumer"/>
        <property name="groupName" value="Feedmash"/>
        <property name="job" value="org.exoplatform.social.feedmash.HudsonFeedConsumer"/>
        <property name="repeatCount" value="0"/>
        <property name="period" value="60000"/>
        <property name="startTime" value="+100"/>
        <property name="endTime" value=""/>
      </properties-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

Run Social with the URL: http://localhost:8080/socialdemo, then log in and create a space named "exosocial". After creating the "exosocial" space, all the feeds of the Social project on Jira and Hudson will be automatically published to the *exosocial* space.

3.4.1.3. Sample Code

See the following code snippet to know more details about how to publish an activity and add comments to an activity:

```
package org.exoplatform.social.introduction.activitystreamandexosocialactivity;

import org.exoplatform.services.log.ExoLogger;
import org.exoplatform.services.log.Log;
```

```
import org.exoplatform.container.PortalContainer;
import org.exoplatform.social.core.activity.model.ActivityStream;
import org.exoplatform.social.core.activity.model.ExoSocialActivity;
import org.exoplatform.social.core.activity.model.ExoSocialActivityImpl;
import org.exoplatform.social.core.manager.ActivityManager;
import org.exoplatform.social.core.manager.IdentityManager;
import org.exoplatform.social.core.identity.model.Identity;
import org.exoplatform.social.core.identity.provider.OrganizationIdentityProvider;

public class IntroduceActivityStreamAndExoSocialActivity {
 // Exo Log.
 private final Log LOG = ExoLogger.getLogger(IntroduceActivityStreamAndExoSocialActivity.class);

 // Demo identity.
 private Identity demoIdentity;

 // John identity.
 private Identity johnIdentity;

 // identityManager manages identities.
 private IdentityManager identityManager;

 // activityManager manages activities.
 private ActivityManager activityManager;

 // Portal container.
 private PortalContainer container;

 private final static String DEMO_NAME = "demo";
 private final static String JOHN_NAME = "john";
 private final static String DEFAULT_ACTIVITY_TITLE = "blabla";
 private final static String DEFAULT_COMMENT_TITLE = "comment blah blah";

 /**
  * Constructor.
  */
 public IntroduceActivityStreamAndExoSocialActivity() {
  // Gets the current container.
  container = PortalContainer.getInstance();

  // Gets IdentityManager to handle an identity operation.
  identityManager = (IdentityManager) container.getComponentInstanceOfType(IdentityManager.class);

  // Gets ActivityManager to handle activity operation.
  ActivityManager activityManager = (ActivityManager) container.getComponentInstanceOfType(ActivityManager.class);

 // Gets or create demo's identity
 demoIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, DEMO_NAME, false);

  // Gets or creates the identity "john".
  johnIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, JOHN_NAME, false);
 }

 /**
  * Posts activity to activity stream
  */
 public void introduceActivityStreamAndExoSocialActivity {

   // Sets a string that specifies the primary text of an activity. This field is REQUIRED by ActivityManager. The title field may only have the following HTML tags:
<b> <i>, <a>, <span>.
  activity.setTitle(DEFAULT_ACTIVITY_TITLE);

  // Sets this activity for demo.
 activity.setUserId(demoIdentity.getId());

  // Saves the activity.
  activityManager.saveActivity(johnIdentity, activity);

  // Gets activity stream.
  ActivityStream activityStream = activity.getActivityStream();

  // Type of the activity stream. It can be organization or space.
  LOG.info("activity stream type: " + activityStream.getType());

  LOG.info("activity stream id: " + activityStream.getId());
```

```
    LOG.info("activity stream pretty id: " + activityStream.getPrettyId());
    LOG.info("activity stream perma link: " + activityStream.getPermaLink());

    LOG.info("activity stream id: " + activity.getStreamId());
    LOG.info("activity stream owner: " + activity.getStreamOwner());

    // Comment in Social
    ExoSocialActivity demoActivity = new ExoSocialActivityImpl();;
    activity.setTitle(DEFAULT_ACTIVITY_TITLE);
    activityManager.saveActivity(demoIdentity, demoActivity);

    ExoSocialActivity comment = new ExoSocialActivityImpl();;
    comment.setTitle(DEFAULT_COMMENT_TITLE);

    //Sets comment of demo
   comment.setUserId(demoIdentity.getId());

    //Saves a comment.
    activityManager.saveComment(activity, comment);
  }
 }
```

3.4.2. OpenSocial

Social supports the OpenSocial standard. So you can integrate OpenSocial gadgets in your dashboard and use the RPC or REST service to view or publish the social data. With the support for the OpenSocial standard, Social provides a framework for developers to build gadgets that can display and mash up activity information for contacts, social networks, applications and services.

Gadgets are web-based software components based on HTML, CSS, JavaScript; defined by using an XML declaration syntax. They allow developers to easily write social applications that work on the social networks supporting OpenSocial APIs without modification. See the following links for detailed information:

- Gadgets Specification v1.1
- OpenSocial Core Gadget Specification v1.1

To know how to create an OpenSocial gadget, see here.

Note

Gadgets will work out of the box on Dashboard. In eXo, gadgets are wrapped by GadgetWrapperPortlet so they can work as any other portlet applications. At present, Social supports OpenSocial Specification v1.1.

3.4.2.1. Supported APIs

Social leverages Apache Shindig - an OpenSocial reference implementation to provide and extend OpenSocial APIs which is compatible with the common OpenSocial APIs which is supported by other big social networks like Ning, Hi5, Orkut and more.

To get more details about Supported APIs, refer to OpenSocial Specification.

REST/RPC API

Suppose that you are running the local host at port 8080 (http://localhost:8080/), the path of the API will be:

- REST API: http://localhost:8080/social/social/rest
- RPC API: http://localhost:8080/social/social/rpc

To learn what you can do with the APIs, have a look at the specification. If you are developing in Java, you can use the opensocial-java-client.

Configure the security

If you are using OpenSocial, you need to configure the OAuth authentication. With the case of eXo Platform, you need to edit the file: *gatein/conf/portal/portal/configuration.xml* and add the following configuration:

```
<component>
  <key>org.exoplatform.social.opensocial.oauth.ServiceProviderStore</key>
  <type>org.exoplatform.social.opensocial.oauth.ServiceProviderStore</type>
  <init-params>
    <properties-param>
      <name>grails-book-flow</name>
      <description>consumer key and secret for sample oauth provider. </description>
      <property name="consumerKey" value="YOUR_KEY_HERE"/>
      <property name="sharedSecret" value="YOUR_SECRET_KEY_HERE"/>
    </properties-param>
  </init-params>
</component>
```

consumerKey and *sharedSecret* are keys that need to be shared with the application which is doing the request.

Publish an activity into a space

This functionality is not available in the standard OpenSocial APIs.

Instead of publishing your activities to the group @self as usual, you will publish them to the group "space:spaceId" or "space:spacePrettyName".

After using the OpenSocial Java library and Groovy, your code will look like this:

```
def client = getOpenSocialClient()

//create your new activity
Activity activity = new Activity()
activity.body = "xx purchased the book xxx"
activity.title = "BookFlow Purchased"

//prepare the request that will create the activity
Request request = ActivitiesService.createActivity(activity);
//specify that the creation of this new activity is for the space bookflow
request.groupId = "space:bookflow";

client.send(request);
```

In the example above, the groupId is set to "space:bookflow" and bookflow is the name of the space.

See also

- See Grails + Social tutorial.

3.4.3. People

Social provides a way to manage profile information, and connections between users. With the APIs provided, you can easily add, manage and customize information and relationships of users.

Identity

The identity allows identifying a unique social object. The Social objects can be person, group, application, or whatever related to social interactions, such as connecting, publishing an activity stream or holding a user profile.

- **IdentityProvider**

Social provides IdentityProvider as an identiy mechanism for the third parties to extend Social's identity system without any limitation. Here is an example:

```
class SampleIdentityProvider extends OrganizationIdentityProvider{
  public SampleIdentityProvider(OrganizationService organizationService) {
    super(organizationService);
  }

  @Override
  public void populateProfile(Profile profile, User user) {
    profile.setProperty(Profile.FIRST_NAME, "this is first name");
    profile.setProperty(Profile.LAST_NAME, "this is last name");
    profile.setProperty(Profile.USERNAME, "this is user name");
    profile.setUrl("/path/to/profile/");
  }
}
```

In this example, the *SampleIdentityProvider* class extends *OrganizationIdentityProvider* which is the IdentityProvider used to connect to the portal user's base. In this class, the *populateProfile* method is overridden and some dummy data are added to the profile fields.

- **IdentityManager**

IdentityManager is the service used to manipulate the identity operations, such as creating, getting, deleting or finding a profile. You can get the IdentityManager via the ExoContainer. The following code will show how to get an IdentityManager instance and create a basic identity instance:

```
import org.exoplatform.container.ExoContainer;
import org.exoplatform.container.ExoContainerContext;
import org.exoplatform.social.core.identity.IdentityManager;
import org.exoplatform.social.core.identity.impl.organization.OrganizationIdentityProvider;
import org.exoplatform.social.core.identity.model.Identity;

//.....

String containerName = "portal";
String username = "zun";

//get container to get other registered components
ExoContainer container = ExoContainerContext.getContainerByName(containerName);

//get IdentityManager to handle identity operation
IdentityManager identityManager = (IdentityManager) container.getComponentInstanceOfType(IdentityManager.class);

//get ActivityManager to handle activity operation
ActivityManager activityManager = (ActivityManager) container.getComponentInstanceOfType(ActivityManager.class);

//create new user with name Zun
Identity userIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, username);
```

ProfileListener

APIs provide notification interfaces which you can implement to create your own handlers for notification when having the profile modifications by extending the *ProfileListenerPlugin* class, or relationship changes by extending *RelationshipListenerPlugin*. [62]

1. Create the *ProfileLoggerListener* class to log all profile modifications of the systems. The abstract class named *ProfileListenerPlugin* provides the interface to implement this method.

```
import org.exoplatform.services.log.ExoLogger;
import org.exoplatform.services.log.Log;
import org.exoplatform.social.core.identity.lifecycle.ProfileListenerPlugin;
import org.exoplatform.social.core.identity.spi.ProfileLifeCycleEvent;


public class ProfileLoggerListener extends ProfileListenerPlugin{
```

```
  private static final Log logger = ExoLogger.getExoLogger(ProfileLoggerListener.class);
  @Override
  public void avatarUpdated(ProfileLifeCycleEvent event) {
    logger.info("@" + event.getUsername() + " profile has updated his basic profile info.");
  }

  @Override
  public void basicInfoUpdated(ProfileLifeCycleEvent event) {
    logger.info("@" + event.getUsername() + " profile has updated his basic profile info.");
  }

  @Override
  public void contactSectionUpdated(ProfileLifeCycleEvent event) {
    logger.info("@" + event.getUsername() + " profile has updated his contact info.");
  }

  @Override
  public void experienceSectionUpdated(ProfileLifeCycleEvent event) {
    logger.info("@" + event.getUsername() + " profile has an updated experience section.");
  }

  @Override
  public void headerSectionUpdated(ProfileLifeCycleEvent event) {
    logger.info("@" + event.getUsername() + " has updated his header info.");
  }
}
```

2. Add some configurations to this class to the configuration.xml:

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.identity.IdentityManager</target-component>
  <component-plugin>
    <name>ProfileLoggerListener</name>
    <set-method>addProfileListener</set-method>
    <type>path.to.ProfileLoggerListener</type>
  </component-plugin>
</external-component-plugins>
```

Connections

Similarly, you can apply the above steps to implement *RelationshipListenerPlugin* for relationship notifications.

Relationship is the bridge between two identities in Social. There are many types of relationships defined in the Relationship class. With these types, a user can invite another user, confirm invitations or remove relationship.

Users connection

The following code will show you how to invite a user to connect with another:

```
import org.exoplatform.container.ExoContainer;
import org.exoplatform.container.ExoContainerContext;
import org.exoplatform.social.core.identity.IdentityManager;
import org.exoplatform.social.core.identity.impl.organization.OrganizationIdentityProvider;
import org.exoplatform.social.core.identity.model.Identity;
import org.exoplatform.social.core.relationship.Relationship;
import org.exoplatform.social.core.relationship.RelationshipManager;

public void inviteUser() throws Exception {
  String containerName = "portal";
  ExoContainer container = ExoContainerContext.getContainerByName(containerName);

  IdentityManager identityManager = (IdentityManager) container.getComponentInstanceOfType(IdentityManager.class);

  Identity invitedIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, "Hoat");
  String invitedUserId = invitedIdentity.getId();

  String currUserId = "Zun";
```

```
  Identity currentIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME,  currUserId);

  RelationshipManager relationshipManager = (RelationshipManager) container.getComponentInstanceOfType(RelationshipManager.class);
  Relationship relationship = relationshipManager.invite( currentIdentity, invitedIdentity);
 }
```

RelationshipListener

The following example will show you how to implement one of these interfaces and how to configure this plugin. The following step is similar to the Profile notifications implementation.

1. Create the *RelationshipLoggerListener* class:

```
import org.exoplatform.social.core.relationship.Relationship;
import org.exoplatform.social.core.relationship.lifecycle.RelationshipListenerPlugin;
import org.exoplatform.social.relationship.spi.RelationshipEvent;

public class RelationshipLoggerListener extends RelationshipListenerPlugin{
  private static final Log logger = ExoLogger.getExoLogger(RelationshipLoggerListener.class);

  @Override
  public void confirmed(RelationshipEvent event) {
    String[] names = getUserNamesFromEvent(event);
    logger.info(names[0] +" confirmed the invitation of "+ names[1]);
  }

  @Override
  public void ignored(RelationshipEvent event) {
    String[] names = getUserNamesFromEvent(event);
    logger.info(names[0] +" ignored the invitation of "+ names[1]);
  }

  @Override
  public void removed(RelationshipEvent event) {
    String[] names = getUserNamesFromEvent(event);
    logger.info(names[0] +" removed the relationship with "+ names[1]);
  }

  private String[] getUserNamesFromEvent(RelationshipEvent event){
    Relationship relationship = event.getPayload();

    Identity id1 = relationship.getIdentity1();
    Identity id2 = relationship.getIdentity2();

    String user1 = "@" + id1.getRemoteId();
    String user2 = "@" + id2.getRemoteId();

    return new String[]{user1, user2 };
  }
}
```

2. Add some configurations for this class in the *configuration.xml* file:

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.relationship.RelationshipManager</target-component>
  <component-plugin>
    <name>RelationshipLoggerListener</name>
    <set-method>addListenerPlugin</set-method>
    <type>classpath.of.your.RelationshipLoggerListener</type>
  </component-plugin>
</external-component-plugins>
```

3.4.4. Spaces

Social provides a way to create groups and to share data and applications by spaces. A space has its own activity stream in which applications or members can publish information. In each space, members use applications together with shared data.

To manipulate the spaces, you will use the SpaceService. To get an instance of this class, you need to get the current *PortalContainer* instance.

Create a space

The following example will show how to create a space:

```
javapackage org.exoplatform.social.sample;

import org.exoplatform.container.PortalContainer;
import org.exoplatform.social.application.impl.DefaultSpaceApplicationHandler;
import org.exoplatform.social.space.Space;
import org.exoplatform.social.space.SpaceException;
import org.exoplatform.social.space.SpaceService;

public class SpaceCreationSample {

  public void createSpace() throws SpaceException {
    String spaceName = "mySpace";
    String creator = "jeremi";
    PortalContainer container = PortalContainer.getInstance();
    SpaceService spaceService = (SpaceService) container.getComponentInstanceOfType(SpaceService.class);
    // verify if there is no space already created
    Space space = spaceService.getSpaceByDisplayName(spaceName);
    if (space == null) {
      space = new Space();
      space.setDisplayName(spaceName);
      space.setRegistration(Space.OPEN);
      space.setDescription("space description");
     //DefaultSpaceApplicationHander is the default implementation of SpaceApplicationHandler. You can create your own by extending SpaceApplicationHandler. The
 default type is "classic" (DefaultSpaceApplicationHandler.NAME = clasic)
      space.setType(DefaultSpaceApplicationHandler.NAME);
      //create the space
      space = spaceService.createSpace(space, creator);
      //initialize the applications
      spaceService.initApps(space);

    }
  }
}
```

3.4.4.1. Space's applications management

Add an application to a space

You can add portlet or gadget applications to spaces. Once added, all members of the space can use that application. The following code shows you how to add an application to a space:

```
public void addApplicationToSpace() throws SpaceException {
  //Your portlet name
  String appId = "SocialBannerPortlet";
  String spaceId = "zunSpace";

  //get container to get other registered components
  PortalContainer container = PortalContainer.getInstance();

  //get space service for installing operations
  SpaceService spaceService = (SpaceService) container.getComponentInstanceOfType(SpaceService.class);

  //install application for the space
  spaceService.installApplication(spaceId, appId);
```

```
  //you must activate installed application to be able to use it
  spaceService.activateApplication(spaceId, appId);
}
```

Note

appId is the portlet or gadget name as defined in *portlet.xml* or *gadget.xml* in the web-app. You can find it in *social-portlet.war* and *social.war*.

Remove an application from a space

You can remove portlet or gadget applications from a space and the members of this space will not see them anymore. The following code shows you how to remove an application from a space:

```
public void removeApplicationFromSpace() throws SpaceException {
  //Your portlet name
  String appId = "SocialBannerPortlet";
  String appName = "SocialBannerPortlet1"
  String spaceId = "zunSpace";

  //get container to get other registered components
  PortalContainer container = PortalContainer.getInstance();

  //get space service for installing operations
  SpaceService spaceService = (SpaceService) container.getComponentInstanceOfType(SpaceService.class);

  //install application for the space
  spaceService.removeApplication(spaceId, appId, appName);
}
```

3.4.4.2. Space's members management

SpaceService allows you to manage the spaces' members. Here is the way to add a new member to a space:

```
String spacePrettyName = "mySpace";

PortalContainer container = PortalContainer.getInstance();
SpaceService spaceService = (SpaceService) container.getComponentInstanceOfType(SpaceService.class);

Space space = service.getSpaceByPrettyName(spacePrettyName);
if (space != null) {
   spaceService.addMember(space, "mary");
}
```

3.4.4.3. Listener to a space lifecycle

To receive notifications of what are happening in spaces, you need to extend *SpaceListenerPlugin* and register it. Every method takes a *SpaceLifeCycleEvent* object as a parameter that contains the information about the event and its context.

The available events are:

- *spaceCreated*: This event is called right after a space is created successfully with its applications.
- *spaceRemoved*: This event is called right after the space is removed. It means all the applications of the space are removed, its group and group navigation are removed.
- *applicationAdded*: This event is called right after an application is added (installed) to the space.
- *applicationActivated*: This event is called right after an application is activated in the space.

- *applicationDeactivated*: This event is called right after an application is deactivated.
- *applicationRemoved*: This event is called right after an application is removed from the space.
- *joined*: This event is called right after a user joins the space.
- *left*: This event is called right after a space member leaves its space.
- *grantedLead*: This event is called right after a user is granted the space's manager role.
- *revokedLead*: This event is called right after the space's manager is revoked his role to be a space member.

```
import org.exoplatform.social.space.lifecycle.SpaceListenerPlugin;

public class MySpaceListenerPlugin extends SpaceListenerPlugin {
...
}
```

As an example, see SpaceActivityPublisher that publishes an activity based on an event that happened in a space.

To register your listener, configure it as a plugin to the SpaceService like this:

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.space.spi.SpaceService</target-component>
  <component-plugin>
    <name>SpaceActivityPublisher</name>
    <set-method>addSpaceListener</set-method>
    <type>org.mycompany.MySpaceListenerPlugin</type>
  </component-plugin>
</external-component-plugins>
```

3.4.5. Space widget tutorial

The Social widget enables developers to add capabilities of Social to external applications. Since the widget is hosted on your Social server, it can display personalized information. An activity stream of the most recent user actions will display to the group's members.

There are two options of the Social widget that provide different levels of integration and information.

- The basic version [65] of this widget is an iFrame.
- The more advanced version [66] is a button you can insert in a page; this will display a small pop-up with information about the space.

Basic version

To insert the basic version, you need to have an iFrame to insert on your site.

```
<iframe  scrolling="no" height="180" frameborder="no" width="220" src="http://URL_OF_YOUR_EXO_INSTALLATION.COM/rest/private/spaces/portal/space_info?
spaceName=NAME_OF_YOUR_SPACE&description=DESCRIPTION_OF_THE_SPACE"></iframe>
```

To install this version in your application, replace all the uppercase text below:

- *URL_OF_YOUR_EXO_INSTALLATION.COM*: This is the URL of your Social installation. If you are testing on your local computer, the URL may be *localhost:8080*.
- *NAME_OF_YOUR_SPACE*: This is the title of your space in Social. In the URL, it is necessary to avoid special characters. For the space name, you can only use alphanumeric characters and "_", ".", "-" or ".".
- *DESCRIPTION_OF_THE_SPACE*: This will be displayed in the list of spaces.

Advanced version

To install an advanced version of the widget, you need to insert a code snippet in your page. This includes some HTMLs plus some JavaScript. The necessary CSS will be added dynamically.

Next, insert the following code at the position you want the button to be displayed:

```
<div class="exoSpacesContainer"><a href="javascript:void(0);" id="exoSpacesLink" class="exoSpacesLink" target="_blank">Space</a></div>
<script src="/socialWidgetResources/javascript/space.js"></script>
<script>spaces.createPopup("exoSpacesLink", "MyAppName - my social object", "my cool description");</script>
```

The important function here is:

```
spaces.createPopup(link, spaceName, description)
```

In which:

- *link* is the ID or the HTMLElement where the pop-up will be placed. If you copy and paste the code snippet provided above, you do not need to change this value.
- *spaceName* is the name of space. It is also used to identify the space. You should use the following format: "MyAppName - my social object".
- *description* is a brief introduction about your space.

Configurations

- serverURL (Default: *"http://127.0.0.1:8080"*): The address of your eXo installation. To change it, use *spaces.setServerURL(...)*.
- spaceServicePath (Default: *"/rest/private/spaces/"*): The path to the spaces service. It is rare you have to change it; but if needed, use *spaces.setSpaceServicePath(...).*
- portalName (Default: *"socialdemo"*): The name of portal you are using. To change it, use *spaces.setPortalName(...)*.

If you want to change any part of this configuration, the best way is to change before creating the pop-up. For example:

```
<div class="exoSpacesContainer"><a href="#" id="exoSpacesLink" class="exoSpacesLink" target="_blank">Space</a></div>
<script src="/socialWidgetResources/javascript/space.js"></script>
<script>
  spaces.setServerURL("http://192.168.2.100:8080");
  spaces.createPopup("exoSpacesLink", "My cool new space", "my cool description");
</script>
```

You can see an example of integration at: http://localhost:8080/socialWidgetResources/test.html

3.4.6. Activities rendering

A simple activity is made of simple text. An extension point has been created at the level of activities rendering for two cases:

- support more HTML tags.
- support @mentions.

But you may want to support a special syntax, for example:

- #hashtags to feel like Twitter.
- smileys to look like Skype.
- Markdown to experience Buzz.

You can have more sophisticated cases to process, such as parsing the link that include in the activity's content. Because a process actually has the full access to the Activity, you can very well process based on the owner, app, and media item.

After reading this section, you will know how to extend the activities rendering via 2 topics:

- Write an ActivityProcessor [67]
- Configure the processor [67]

Note

To understand this section, the knowledge of Java and eXo Kernel (component model and its XML configuration) is prerequisite.

Write an ActivityProcessor

Social lets you pre-process an activity before it is returned by the ActivityManager. To do this, you simply need to implement the interface ActivityProcessor:

```
/**
 * An activity processor is responsible to pre-process an activity before it is returned by the {@link ActivityManager}
 */
public interface ActivityProcessor {

  /**
   * Process an activity
   * @param activity the activity. It can be modified
   */
  void processActivity(Activity activity);

  /**
   * Priority of this processor.
   * All activity processors will be executed in ascending priority order
   * @return
   */
  int getPriority();

}
```

For example, the following shows you how to implement a *SmileyProcessor* that will replace text smileys by icons:

```
public class SmileyProcessor implements ActivityProcessor {

  String smiley =  "<img src='/images/smiley.gif'/>";

  public void processActivity(Activity activity) {
    String title = activity.getTitle();
    activity.setTitle(title.replaceAll(":-\)", smiley));
  }

  public int getPriority() {
    return 100;
  }

}
```

Configure the processor

Now, you have a nice procesor, so need to hook it to the system. At runtime, the processors can be attached to *ActivityManager* via the *addProcessor(ActivityProcessor)* method.

But there is also a component plugin hooked for it: *public void addProcessorPlugin(BaseActivityProcessorPlugin plugin)*.

So, to make your processor easy to hook, you simply need to let him extend the BaseActivityProcessorPlugin.

```
public class SmileyProcessor extends BaseActivityProcessorPlugin {

  String smiley =  "<img src='/images/smiley.gif'/>";

  public SmileyProcessor(InitParams params) {
    super(params);
  }

  public void processActivity(Activity activity) {
    String title = activity.getTitle();
      activity.setTitle(title.replaceAll(":-\)", smiley));
  }
}
```

It will have the additional benefit to make the priority field configurable, so you do not need to implement *getPriorty()*.

Then your processor can be configured as a component plugin like this:

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.activitystream.ActivityManager</target-component>
  <component-plugin>
    <name>SmileyProcessor</name>
    <set-method>addProcessorPlugin</set-method>
    <type>org.example.SmileyProcessor</type>
    <init-params>
      <value-param>
        <name>priority</name>
        <description>priority of this processor (lower are executed first)</description>
        <value>2</value>
      </value-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

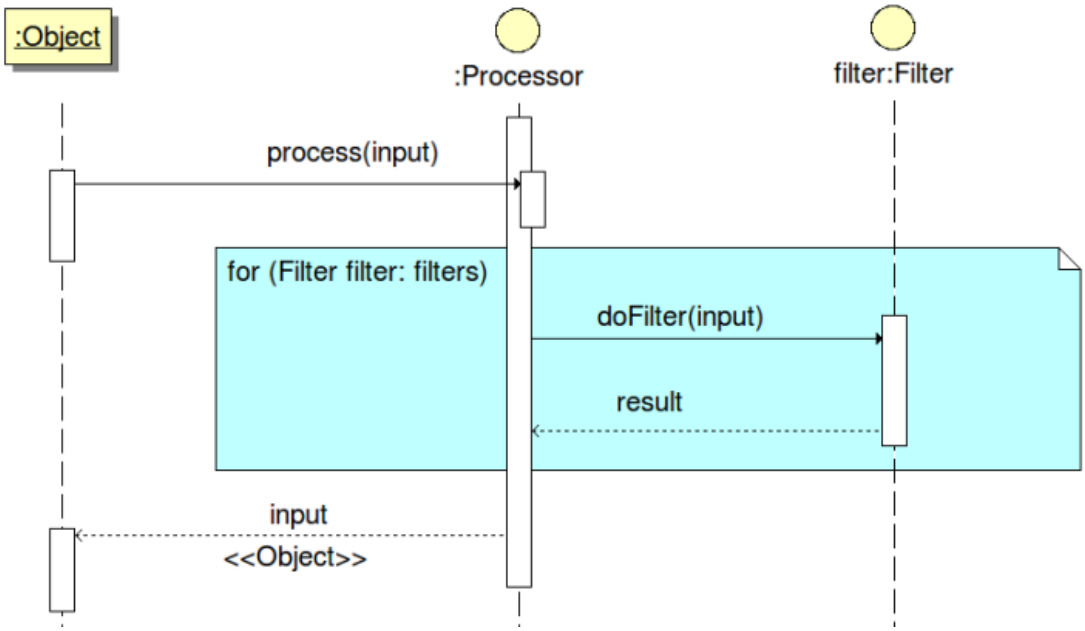
Restart, then place the smiley images on the server.

3.4.7. XMLProcessor component

This section shows you the way to change the content of input texts by using and extending the XMLProcessor component [68] and its plugins [69].

XMLProccessor Component

This service processes the input texts in the system by pushing it through a filter (plugin) chain and returns a result as the diagram below:



Each filter is responsible for enriching the content of the input texts. For example, highlight usernames existing in a user's connection or remove the forbidden HTML tags.

The XMLProcessor component is configured in the *config/src/main/java/conf/social/common-configuration.xml* file:

```
<component>
  <key>org.exoplatform.social.common.xmlprocessor.XMLProcessor</key>
  <type>org.exoplatform.social.common.xmlprocessor.XMLProcessorImpl</type>
</component>
```

To manage the chain of the filters in XMLProcessor, you can use the *addFilterPlugin()* and *removeFilterPlugin()* methods. XMLProcessor is initialized by IOC (Invesion of Control) via the configuration files defined in the */demo/war/src/main/webapp/WEB-INF/conf/socialdemo/social/component-plugins-configuration.xml* path.

Sample code:

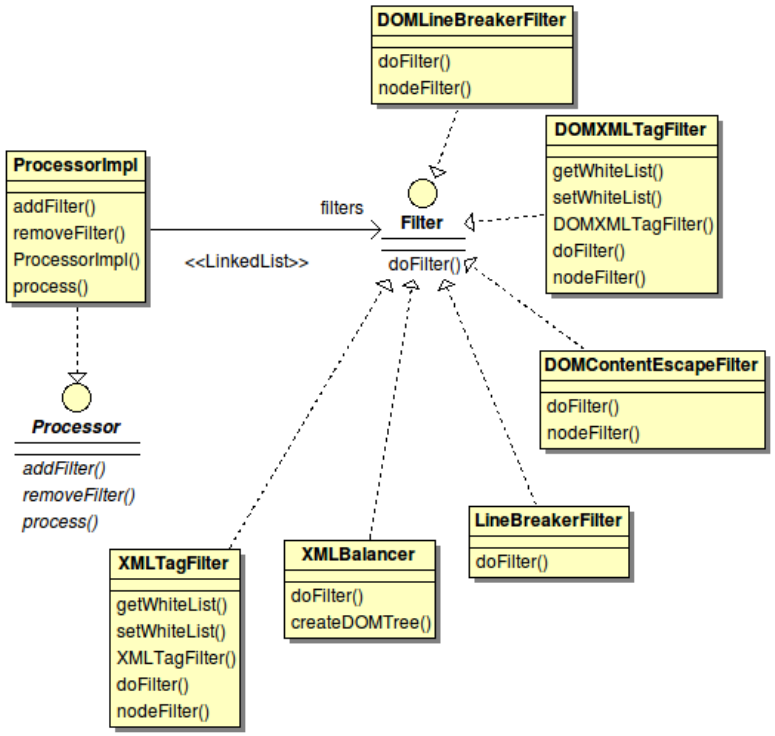
```
<external-component-plugins>
 <target-component>org.exoplatform.social.common.xmlprocessor.XMLProcessor</target-component>
 <component-plugin>
  <name>URLConverterFilterPlugin</name>
  <set-method>addFilterPlugin</set-method>
  <type>org.exoplatform.social.common.xmlprocessor.filters.URLConverterFilterPlugin</type>
  <init-params>
   <value-param>
    <name>urlMaxLength</name>
    <description>the max length of URL</description>
    <value>-1</value>
   </value-param>
  </init-params>
 </component-plugin>
</external-component-plugins>
```

Built-in XMLProcessor Plugins

In Social, there are the following built-in XMLProcessor plugins (also known as **filters**) that filter the input texts of users.

Filters	Description
DOMContentEscapeFilter	Process the **DOM tree** input and escape all **text nodes**.
DOMLineBreakerFilter	Process the **DOM tree** input and add to all **text nodes** which contain \n.
DOMXMLTagFilter	Process the **DOM tree** input and convert all **tag nodes** which do not exist in the allowed tags list into **text Node**.
LineBreakerFilter	Process the String input and replace \n to .
XMLBalancer	Process the String input and add missing close tags to input.
XMLTagFilter	Process the String input and convert all tags which do not exist in the allowed tags list into the escapsed String.

The following is the general Class diagram of XMLProcesscor in Social:



All of these filters implements the Filter interface as follows:

```
package org.exoplatform.social.common.xmlprocessor;
public interface Filter {
  /**
   * Filters the input data.
   *
   * @param input the input data
   * @return an Object with the result after filtered
   */
  public Object doFilter(Object input);
}
```

These filters will process the input texts in the *doFilter(Object input)* method and return the result to XMLProcessor. They are declared in the configuration files found in the */demo/war/src/main/webapp/WEB-INF/conf/socialdemo/social/component-plugins-configuration.xml* path.

```
<external-component-plugins>
  <target-component>org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy</target-component>
   <component-plugin>
    <name>setAllowedTagPlugin</name>
    <set-method>setAllowedTagPlugin</set-method>
    <type>org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTagPlugin</type>
    <init-params>
     <object-param>
      <name>b tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>b</string></field>
      </object>
     </object-param>
     <object-param>
      <name>i tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>i</string></field>
      </object>
     </object-param>
     <object-param>
      <name>a tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>a</string></field>
       <field name="tagAttributes">
        <collection item-type="java.lang.String" type="java.util.HashSet">
         <value><string>href</string></value>
        </collection>
       </field>
      </object>
     </object-param>
     <object-param>
      <name>span tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>span</string></field>
      </object>
     </object-param>
     <object-param>
      <name>em tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>em</string></field>
      </object>
     </object-param>
     <object-param>
      <name>strong tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>strong</string></field>
      </object>
     </object-param>
     <object-param>
      <name>p tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>p</string></field>
      </object>
     </object-param>
     <object-param>
      <name>ol tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>ol</string></field>
      </object>
     </object-param>
     <object-param>
      <name>ul tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>ul</string></field>
      </object>
     </object-param>
     <object-param>
      <name>li tag</name>
      <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
       <field name="tagName"><string>li</string></field>
      </object>
     </object-param>
     <object-param>
```

```
        <name>br tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
          <field name="tagName"><string>br</string></field>
        </object>
      </object-param>
      <object-param>
        <name>img tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
          <field name="tagName"><string>img</string></field>
          <field name="tagAttributes">
            <collection item-type="java.lang.String" type="java.util.HashSet">
              <value><string>src</string></value>
            </collection>
          </field>
        </object>
      </object-param>
      <object-param>
        <name>blockquote tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
          <field name="tagName"><string>blockquote</string></field>
        </object>
      </object-param>
      <object-param>
        <name>q tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPolicy$AllowedTag">
          <field name="tagName"><string>q</string></field>
        </object>
      </object-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

You can write your own filter by implementing the Filter interface and add it to XMLProcessor as the sample code in the **XMLProccessor Component** section.

3.4.8. Internationalized activities

This section will show you how to internationalize activities in Social via the following topics:

- Internationalize an activity [72]
- Get an internationalized message [74]

Internationalize an activity

In the previous versions, Social had hard-coded messages for activities, such as creating spaces, granting the "manager" role to a member, sending connection request to another user, updating a user's profile/avatar, and more. And now, to internationalize these types of messages, you can use resource bundles and *I18NActivityProcessor*.

For example, to internationalize an activity of the **exosocial:spaces** type that is for space creation message, do as follows:

1. Set *titleId* for the *ExoSocialActivity* model.

```
ActivityType = exosocial:spaces, titleId = space_created, resource bundle key file: locale.social.Core, and associated message bundle key:SpaceActivityPublisher.space_created
```

The *titleId* is used to map with a corresponding message bundle key via the configuration.

Sample code for saving internationalized activities

```
public void saveActivity() {
  ActivityManager activityManager = (ActivityManager) PortalContainer.getInstance().getComponentInstanceOfType(ActivityManager.class);
  ExoSocialActivity activity = new ExoSocialActivityImpl();
  activity.setType("exosocial:spaces"); // the associated activity type
```

```
    activity.setTitleId("space_created"); // to indicate this is i18n activity type
    // this is the fallback activity title when it's not i18n-ized.
    // This must be required.
    activity.setTitle("Test was created by @john");
    //template params are used to for compound messages
    // with message bundle key:
    // SpaceActivityPublisher.space_created={0} was created by {1}.
    Map<String, String> templateParams = new LinkedHashMap<String, String>();
    templateParams.put("space_name", "Test");
    templateParams.put("user", "@john");

    //must indicate this param if you want a template value is processed by activity processors
    templateParams.put(BaseActivityProcessorPlugin.TEMPLATE_PARAM_TO_PROCESS, "user");
    activity.setTemplateParams(templateParams);

    //gets the target stream to post

    IdentityManager identityManager = (IdentityManager) PortalContainer.getInstance().getComponentInstanceOfType(IdentityManager.class);
    Identity spaceIdentity = identityManager.getOrCreateIdentity(SpaceIdentityProvider.NAME, "test", false);

    activity.setUserId(spaceIdentity.getId()); // the actor is the space identity

    //posts this activity to space's activity stream
    activityManager.saveActivityNoReturn(spaceIdentity, activity);
}
```

The sample code above is enough for creating an internationalized activity that will be displayed on the space activity stream portlet after all the configurations below are done. The returned result will be displayed in English like this: "*Test was created by John*".

2. Register the *ActivityResourceBundlePlugin* plugin to the *I18NActivityProcessor* component in the configuration file as the example below:

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.processor.I18NActivityProcessor</target-component>
  <component-plugin>
    <name>exosocial:spaces</name> <!-- activity type -->
    <set-method>addActivityResourceBundlePlugin</set-method>
    <type>org.exoplatform.social.core.processor.ActivityResourceBundlePlugin</type>
    <init-params>
      <object-param>
        <name>locale.social.Core</name> <!-- resource bundle key file -->
        <description>activity key type resource bundle mapping for exosocial:spaces</description>
        <object type="org.exoplatform.social.core.processor.ActivityResourceBundlePlugin">
          <field name="activityKeyTypeMapping">
            <map type="java.util.HashMap">
              <entry>
                <key><string>space_created</string></key>
                <value><string>SpaceActivityPublisher.space_created</string></value>
              </entry>
            </map>
          </field>
        </object>
      </object-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

If the resource bundle message is compound, you must provide *templateParams*. The argument number will be counted as it appears on the map. For example:

```
templateParams = {"key1": "value1", "key2": "value2"} => arguments = ["value1", "value2"]
```

Note

To reserve this order, *LinkedHashMap* must be used to create *templateParams* instead of *HashMap*.

3. Register an external resource bundle for that activity type to get an associated resource bundle as follow:

```
<external-component-plugins>
  <target-component>org.exoplatform.services.resources.ResourceBundleService</target-component>
  <component-plugin>
    <name>Social Core Component Resource Bundle</name>
    <set-method>addResourceBundle</set-method>
    <type>org.exoplatform.services.resources.impl.BaseResourceBundlePlugin</type>
    <init-params>
      <values-param>
        <name>classpath.resources</name>
        <description>The resources that start with the following package name should be loaded from file system</description>
        <value>locale.social.Core</value>
      </values-param>
      <values-param>
        <name>portal.resource.names</name>
        <description>The resources that start with the following package name should be loaded from file system</description>
        <value>locale.social.Core</value>
      </values-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

Get an internationalized message

- If you do not have registered UI activity plugins, your activity messages will be internationalized and displayed by the default UI activity.
- If you have registered ui activity plugins, you just need to display *activity.getTitle()* as it is already internationalized by *BaseUIActivity*.
- In other cases, base on a provided locale as the code below:

```
I18NActivityProcessor i18NActivityProcessor = (I18NActivityProcessor) PortalContainer.getInstance().getComponentInstanceOfType(I18NActivityProcessor.class);
ExoSocialActivity processedActivity =  i18NActivityProcessor.process(unprocessedActivity, chosenLocale);
```

3.5. Public REST APIs

- Activities REST service

  Details of REST service for activity applications (like/unlike, comment, delete activity) and its APIs (destroyActivity, showLikes, updateLike, destroyLike, showComments, updateComment and destroyComment).
- Apps REST service

  Details of REST service for the application registry gadget and its API (showApps).
- Identity REST service

  Details of REST service that gets identityId by the username and its API (UserId getId).
- Linkshare REST service

  Details of REST service that gets information from a provided link and its API (getLink).
- People Rest Service

Details of REST service that manipulates jobs related to people and its API (suggestUsernames).

- Spaces REST service

  Details of REST service for space gadget that displays users' spaces and pending spaces and its APIs (showMySpaceList, showPendingSpaceList and suggestSpacenames).

- Widget Rest Service

  Details of REST service that creates spaces or gets spaces' information and its API (spaceInfo).

See also

- UI Extensions
- Overridable Components
- Public Java APIs
- Java APIs sample code/ tutorial
- Rest Service APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the 2-legged OAuth scenario

3.5.1. Activities REST service

Name	Service URL	Location	Description
ActivitiesRestService	{restContextName}/{portalName}/social/activities	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.component.service	Provide REST services for activity applications: like/unlike; comment; delete activity.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
destroyActivity	{restContextName}/{portalName}/social/activities/destroy/{activityId}.{format}	portalName activityId format	String String String: json or xml	Destroy activity and get the JSON/XML format.
showLikes	{restContextName}/{portalName}/social/activities/{activityId}/likes/show.{format}	portalName activityId format	String String String: json or xml	Show the list of likes by activityId and return the JSON/XML format.
updateLike	{restContextName}/{portalName}/social/	portalName	String	

Name	Service URL Endpoint	Parameters	Expected Values	Description
	activities/{activityId}/likes/update.{format}	activityId format	String String: json or xml	Update the list of likes by the JSON/XML format.
destroyLike	{restContextName}/{portalName}/social/activities/{activityId}/likes/destroy/{identity}.{format}	portalName activityId identityId format	String String String String: json or xml	Destroy **like** by identityId and get the JSON/XML format return format.
showComments	{restContextName}/{portalName}/social/activities/{activityId}/likes/show.{format}	portalName activityId format	String String String: json or xml	Show the comment list by the JSON/XML format.
updateComment	{restContextName}/{portalName}/social/activities/{activityId}/likes/update.{format}	portalName activityId format	String String String: json or xml	Update the comment by the JSON/XML format.
destroyComment	{restContextName}/{portalName}/social/activities/{activityId}/comments/destroy/{commentId}.{format}	portalName activityId commentId format	String String String String: json or xml	Destroy comments and return the JSON/XML format.

Example:

http://localhost:8080/rest-socialdemo/socialdemo/social/activities/s08d397dg6/likes/destroy/abc.json

3.5.2. Apps REST service

Name	Service URL	Location	Description
AppsRestService	{restContextName}/social/apps/	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.component.service	Provide REST services for the application registry gadget: shows application list.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
showApps	{restContextName}/social/apps/show.{format}	format	String: json or xml	Show applications by the JSON/XML format.

Example:

http://localhost:8080/rest-socialdemo/social/apps/show.json

3.5.3. Identity REST service

Name	Serive URL	Location	Description
IdentityRestService	restContextName}/{portalName}/social/identity/{username}/id	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.component.service	Get identityId by the username.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
UserId getId	{restContextName}/{portalName}/social/identity/{username}/id/show.json	username portalName	String String	Get the identity by username and return by the JSON format.

Example:

http://localhost:8080/rest-socialdemo/socialdemo/social/identity/john/id/show.json

3.5.4. Linkshare REST service

Name	Service URL	Location	Description
LinkshareRestService	{restContextName}/social/linkshare	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.component.service	Get information from a provided link.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
getLink	{restContextName}/social/linkshare/show.{format}	format	String: json or xml	Get the link content by posting a linkShare request.

Example:

http://localhost:8080/rest-socialdemo/social/linkshare/show.json

3.5.5. People Rest Service

Name	Service URL	Location	Description
PeopleRestService	{restContextName}/social/people	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.component.service	Provide REST services for manipulating jobs related to people.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
suggestUsernames	{restContextName}/social/people/suggest.{format}	nameToSearch currentUser typeOfRelation spaceURL format	String String String String String: json or xml	Get and return a list of usernames which match the input string for suggest.

Example: http://localhost:8080/rest-socialdemo/social/people/suggest.json

3.5.6. Spaces REST service

Name	Service URL	Location	Description
SpacesRestService	{restContextName}/{portalName}/social/spaces	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.component.service	Provide REST services for space gadget to display users' spaces and pending spaces.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
showMySpaceList	{restContextName}/social/spaces/mySpaces/show.{format}	portalName format	String String: json or xml	Show mySpaceList by the JSON/XML format.
showPendingSpaceList	{restContextName}/social/spaces/	portalName format	String String: json or xml	Show pendingSpaceList by

Name	Service URL Endpoint	Parameters	Expected Values	Description
	pendingSpaces/ show.{format}			the JSON/XML format.
suggestSpacenames	{restContextName}/ social/spaces/ spaceNames/ suggest.{format}	portalName conditionToSearch typeOfRelation currentUser format	String String String String String: json or xml	Get and return space's names that match the input string for suggest.

Example:

http://localhost:8080/rest-socialdemo/social/spaces/mySpaces/show.xml

3.5.7. Widget Rest Service

Name	Service URL	Location	Description
WidgetRestService	{restContextName}/spaces/ {containerName}	**Maven groupId**: org.exoplatform.social **ArtifactId**: exo.social.extras.widget.rest	Provide REST services for creating spaces or getting spaces' information.

- **API**:

Name	Service URL Endpoint	Parameters	Expected Values	Description
spaceInfo	{restContextName}/ spaces/ {containerName}/ space_info	containerName portalName spacePrettyName description	String String (default value: classic) String String	Return the HTML page for displaying the information of the space. Two query parameters needed: *spaceName* and *description*.

Example:

http://localhost:8080/rest-socialdemo/spaces/socialdemo/space_info?name=Social&description=Social

3.6. Rest Service APIs

Social REST Services APIs are dedicated for third parties to complete integrating and extending the Social capability and features. By using these REST APIs, the third parties can write any applications (desktop apps, mobile apps, web apps) to integrate with Social services and business.

Conventions

The entry point for Social Rest service must be: */{rest_context_name}/private/api/social/{version}/{portalContainerName}/{social_resources}/*. An example of activities resources: */rest/private/api/social/v1-alpha3/portal/activity/*.

There are 3 types of parameters on each URL:

- **{server_params}**: this is the unchanged parameter for a specified server.
- **:id**: this param is for a specified data object, for example, activity Id and identity Id.
- **format**: this is the supported data format. It can be JSON, XML, RSS, or ATOM.

Note

- Currently, only the basic authentication is supported. See here for more details.
- The JSON support is mandatory. The other format SHOULD be supported too (XML, RSS, ATOM). The supported formats will be specified by the detailed documentation for the REST resources.
- The *rest_context_name* and *portal_container_name* parameters are used as follows:
  - In Social standalone: *rest_context_name*: *rest-socialdemo*; *portal_container_name*: *socialdemo*
  - In eXo Platform: *rest_context_name*: *rest*; *portal_container_name*: *portal*

See also

- UI Extensions
- Overridable Components
- Public Java APIs
- Java APIs sample code/ tutorial
- Public REST APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the 2-legged OAuth scenario

3.6.1. Activity Resources

Resource	Description
GET activity/{activityId}.{format}	Get an activity object from a specified activity Id.
POST activity.{format}	Create an activity to an identity's activity stream. If no *identity_id* is specified, the activity will be created to the authenticated identity's activity stream.
DELETE activity/{activityId}.{format}	Delete an existing activity by its Id using the DELETE method. The deleted activity information will be returned in the JSON format.
POST activity/destroy/{activityId}.{format}	Delete an existing activity by its Id using the POST method. The deleted activity information will be returned in the JSON format. It is recommended to use the DELETE method, except the case that clients cannot make request via this method.

Resource	Description
GET activity/{activityId}/comments.{format}	Get the comments on an activity.
POST activity/{activityId}/comment.{format}	Post a new comment on an existing activity. The poster of this comment is an authenticated identity.
DELETE activity/{activityId}/comment/{commentId}.{format}	Delete an existing comment by its Id.
POST activity/{activityId}/comment/destroy/{commentId}.{format}	Delete an existing comment by its Id using the POST method. The deleted activity information will be returned in the JSON format. It is recommended to use the POST method, except the case that clients cannot make request via this method.
GET activity/{activityId}/likes.{format}	Get all the identities who like an existing activity.
POST activity/{activityId}/like.{format}	Allow an authenticated identity to do the "like" action on an existing activity.
DELETE activity/{activityId}/like.{format}	Allow an identity to remove his "like" action on an activity.
POST activity/{activityId}/like/destroy.{format}	Allow an identity to remove his "like" action on an activity. It is recommended to use the DELETE method, except the case that clients cannot make request via this method.

3.6.1.1. GET activity/{activityId}.{format}

Get an activity object from a specified activity Id.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**:

Parameter	Description
poster_identity	When this parameter is set to true, t or 1, the returned activity will provide more information for the user who posted this activity.
number_of_comments	Specify the number of comments to be displayed along with this activity. By default, *number_of_comments=0*. If *numberofcomments* is a positive number, this number is considered as a limit number that must be equal or less

Parameter	Description
	than 100. If the actual number of comments is less than the provided positive number, the number of actual comments must be returned. If the total number of comments is more than 100, it is recommended to use *activity/:id/comments.format* instead.
activity_stream	When this parameter is set to true, t or 1, the returned activity will provide more information for the activity stream that this activity belongs to.
number_of_likes	Specify the number of latest detailed likes to be returned along with this activity. By default, *number_of_likes=0*. If *number_of_likes* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the total number of likes is less than the provided positive number, the number of actual likes must be returned. If the total number of likes is more than 100, it is recommended to use *activity/:activityId/likes.format* instead.

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e6f7g8h9i.json
```

Response:

```
{
  "id": "1a2b3c4d5e6f7g8h9j",
  "title": "Hello World!!!",
  "appId": "",
  "type": "exosocial:core",
  "postedTime": 123456789, //timestamp
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011", //The Date follows ISO 8601
  "priority": 0.5, //between 0.0 and 1.0, higher value => higher priority.
  "templateParams": {},
  "titleId": "",
  "identityId": "123456789abcdefghi", //the identity id of the user who created this activity
  "liked": true, //is liked (favorites) by this authenticated identity
  "likedByIdentities": ["identityId1", "identityId2"],
  "posterIdentity": {}, //optional
  "comments": [{}, {}, {}], //optional
  "totalNumberOfComments": 1234,
  "activityStream": {
  "type": "user", // or "space"
  "prettyId": "root", // or space_abcde
  "faviconURL": "http://demo3.exoplatform.org/favicons/exo-default.jpg",
  "title": "Activity Stream of Root Root",
  "permaLink": "http://localhost:8080/profile/root"
} //optional
}
```

3.6.1.2. POST activity.{format}

Create an activity to an identity's activity stream. If no *identity_id* is specified, the activity will be created to the authenticated identity's activity stream.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
format	The expected returned format.

- **Optional (query parameters)**:

Parameter	Description
identity_id	The optional identity stream to post this new activity to.

Request:

```
POST: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity.json
BODY: {"title": "Hello World!!!"}
```

Response:

```
{
  "id": "1a2b3c4d5e6f7g8h9j",
  "title": "Hello World!!!",
  "appId": "",
  "type": "exosocial:core",
  "postedTime": 123456789, //timestamp
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011",
  "priority": 0.5, //between 0.0 and 1.0, higher value => higher priority.
  "templateParams": {},
  "titleId": "",
  "identityId": "123456789abcdefghi" //the identity id of the user who created this activity
}
```

3.6.1.3. DELETE activity/{activityId}.{format}

Delete an existing activity by its Id using the DELETE method. The deleted activity information will be returned in the JSON format.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
DELETE: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e6f7g8h9i.json
```

Response:

```
{
  "id": "1a2b3c4d5e6f7g8h9j",
  "title": "Hello World!!!",
  "appId": "",
  "type": "exosocial:core",
  "postedTime": 123456789, //timestamp
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011", //The Date follows ISO 8601
  "priority": 0.5, //between 0.0 and 1.0, higher value => higher priority.
  "templateParams": {},
  "titleId": "",
  "identityId": "123456789abcdefghi", //the identity id of the user who created this activity
  "liked": true, //is liked (favorites) by this authenticated identity
  "likedByIdentities": ["identityId1", "identityId2"],
  "posterIdentity": {}, //optional
  "comments": [{}, {}, {}], //optional
  "totalNumberOfComments": 1234, //if comments is required, the total number of comments
  "activityStream": {
    "type": "user", // or "space"
    "prettyId": "root", // or space_abcde
    "faviconURL": "http://demo3.exoplatform.org/favicons/exo-default.jpg",
    "title": "Activity Stream of Root Root",
    "permaLink": "http://localhost:8080/profile/root"
  } //optional
}
```

3.6.1.4. POST activity/destroy/{activityId}.{format}

Delete an existing activity by its Id using the POST method. The deleted activity information will be returned in the JSON format. It is recommended to use the DELETE method, except the case that clients cannot make request via this method.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/destroy/{activityId}.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
POST: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/destroy/1a2b3c4d5e6f7g8h9i.json
```

Response:

```
{
  "id": "1a2b3c4d5e6f7g8h9j",
  "title": "Hello World!!!",
  "appId": "",
  "type": "exosocial:core",
  "postedTime": 123456789, //timestamp
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011", //The Date follows ISO 8601
  "priority": 0.5, //between 0.0 and 1.0, higher value => higher priority.
  "templateParams": {},
  "titleId": "",
  "identityId": "123456789abcdefghi", //the identity id of the user who created this activity
  "liked": true, //is liked (favorites) by this authenticated identity
  "likedByIdentities": ["identityId1", "identityId2"],
  "posterIdentity": {}, //optional
  "comments": [{}, {}, {}], //optional
  "totalNumberOfComments": 1234, //if comments is required, the total number of comments
  "activityStream": {
    "type": "user", // or "space"
    "prettyId": "root", // or space_abcde
    "faviconURL": "http://demo3.exoplatform.org/favicons/exo-default.jpg",
    "title": "Activity Stream of Root Root",
    "permaLink": "http://localhost:8080/profile/root"
  } //optional
}
```

3.6.1.5. GET activity/{activityId}/comments.{format}

Get the comments on an activity.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/comments.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.

Parameter	Description
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/comments.json
```

Response:

```
{
  total: 10,
  comments: [
  {
    "id": "123456"
    "identityId": "12345abcde",
    "text": "Comment there!",
    "postedTime": 123456789,
    "createdAt": "Fri Jun 17 06:42:26 +0000 2011"
  },
  {
    "id" : "234567"
    "identityId": "12345abcde",
    "text": "Comment there 2!",
    "postedTime": 123456789,
    "createdAt": "Fri Jun 17 06:42:26 +0000 2011"
  }
  ]
}
```

3.6.1.6. POST activity/{activityId}/comment.{format}

Post a new comment on an existing activity. The poster of this comment is an authenticated identity.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/comment.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
POST: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/comment.json
BODY: {"text": "My comment here!!!"}
```

Response:

```
{
  "id": "123456"
  "identityId": "12345abcde",
  "text": "My comment here!!!",
  "postedTime": 123456789,
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011"
}
```

3.6.1.7. DELETE activity/{activityId}/comment/{commentId}.{format}

Delete an existing comment by its Id.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/comment/{commentId}.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.
commentId	The specified comment Id.

- **Optional (query parameters)**: No

Request:

```
DELETE: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/comment/123456.json
```

Response:

```
{
  "id": "123456"
  "identityId": "12345abcde",
  "text": "My comment here!!!",
  "postedTime": 123456789,
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011"
```

```
}
```

3.6.1.8. POST activity/{activityId}/comment/destroy/{commentId}.{format}

Delete an existing comment by its Id using the POST method. The deleted activity information will be returned in the JSON format. It is recommended to use the POST method, except the case that clients cannot make request via this method.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/comment/destroy/{commentId}.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.
commentId	The specified comment Id.

- **Optional (query parameters)**: No

Request:

```
POST: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/comment/destroy/123456.json
```

Response:

```
{
  "id": "123456"
  "identityId": "12345abcde",
  "text": "My comment here!!!",
  "postedTime": 123456789,
  "createdAt": "Fri Jun 17 06:42:26 +0000 2011"
}
```

3.6.1.9. GET activity/{activityId}/likes.{format}

Get all the identities who like an existing activity.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/likes.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/likes.json
```

Response:

```
{
  totalNumberOfLikes: 2,
  likesByIdentities: [
    {
      "id":1234567,
      "providerId":"organization",
      "remoteId":"demo",
      "profile": {
        "fullName":"Demo GTN",
        "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
      }
    },
    {
      "id":23456,
      "providerId":"organization",
      "remoteId":"root",
      "profile": {
        "fullName":"Root GTN",
        "avatarUrl":"http://localhost:8080/profile/u/root/avatar.jpg?u=12345"
      }
    },
  ]
}
```

3.6.1.10. POST activity/{activityId}/like.{format}

Allow an authenticated identity to do the "like" action on an existing activity.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/like.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.

Parameter	Description
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
POST: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/like.json
```

Response:

```
{
  "liked": true
}
```

3.6.1.11. DELETE activity/{activityId}/like.{format}

Allow an identity to remove his "like" action on an activity.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/like.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
DELETE: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/like.json
```

Response:

```
{
  "liked": false
```

```
}
```

3.6.1.12. POST activity/{activityId}/like/destroy.{format}

Allow an identity to remove his "like" action on an activity. It is recommended to use the DELETE method, except the case that clients cannot make request via this method.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/like/destroy.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
activityId	The specified activity Id.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
POST: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity/1a2b3c4d5e/like/destroy.json
```

Response:

```
{
  "liked": false
}
```

3.6.2. Activity Stream Resources

Resource	Description
GET {identityId}.{format}	Get activities of a defined identity which can be a user identity, a space identity, or any type of identities. There is one special *identityId* called "me" which stands for the authenticated user who makes this request.
GET feed.{format}	Get the activity stream feed of the authenticated user identity who makes this request.
GET spaces.{format}	Get activities of spaces in which the authenticated user identity is space member that makes this request.
GET connections.{format}	Get activities of connections of a specified identity.

3.6.2.1. GET {identityId}.{format}

Get activities of a defined identity which can be a user identity, a space identity, or any type of identities. There is one special *identityId* called "me" which stands for the authenticated user who makes this request.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity_stream/{identityId}.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The portal container name.
identityId	The identity id. There is one special *identityId*: "me" standing for the authenticated user who make this request.
format	The response format type, for example: JSON, or XML.

- **Optional (query parameters)**:

Parameter	Description
limit	The number of activities retrieved with the default value of 100. This input value must be less than or equal to its default value (100). The number of the returned results is actually less than or equal to the *limit* value. If no specified, 100 will be the default value.
since_id	Return the activities having the created timestamps greater than the specified *since_id*'s created timestamp.
max_id	Return the activities having the created timestamps less than the specified *max_id*'s created timestamp. Note that *since_id* and *max_id* must not be defined in one request, if they are, the *since_id* query param is chosen.
number_of_comments	Specify the number of latest comments to be displayed along with each activity. By default, *number_of_comments=0*. If *number_of_comments* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the total number of comments is less than the provided positive number, the number of actual comments must be returned. If the total number of comments is more than 100, it is recommended to use *activity/:activityId/comments.format* instead.
number_of_likes	Specify the number of latest detailed likes to be returned along with this activity. By default, *number_of_likes=0*. If *number_of_likes* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the total number of likes is less than the

Parameter	Description
	provided positive number, the number of actual likes must be returned. If the total number of likes is more than 100, it is recommended to use *activity/:activityId/likes.format* instead.

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity_stream/f92cd6f0c0a80137102696ac26430766.json?limit=30&since_id=12345&number_of_likes=5
```

Response:


```
{
 "activities":[
 {
      "id":"1a2b3c4d5e6f7g8h9j",
      "title":"Hello World!!!",
      "appId":"",
      "type":"DEFAULT_ACTIVITY",
      "postedTime":123456789,
      "createdAt":"Fri Jun 17 06:42:26 +0000 2011",
      "priority":0.5,
      "templateParams":{

      },
      "titleId": "",
      "body": "",
      "identityId":"123456789abcdefghi",
      "liked":true,
      "likedByIdentities":[
       {
         "id":"123456313efghi",
         "providerId":"organization",
         "remoteId":"demo",
         "profile":{
           "fullName":"Demo GTN",
           "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
         }
       }
      ],
      "totalNumberOfLikes":20,
      "posterIdentity":{
       "id":"123456313efghi",
       "providerId":"organization",
       "remoteId":"demo",
       "profile":{
         "fullName":"Demo GTN",
         "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
       }
      },
      "comments":[
       {

       }
      ],
      "totalNumberOfComments":1234,
      "activityStream":{
       "type":"user",
       "prettyId":"root",
       "fullName": "Root Root",
       "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
       "title":"Activity Stream of Root Root",
       "permaLink":"http://localhost:8080/profile/root"
      }
 },
```

```
{
    "id":"1a210983123f7g8h9j",
    "title":"Hello World 1!!!",
    "appId":"",
    "type":"DEFAULT_ACTIVITY",
    "postedTime":123456789,
    "createdAt":"Fri Jun 19 06:42:26 +0000 2011",
    "priority":0.5,
    "templateParams":{

    },
    "titleId":"",
    "body": "",
    "identityId":"123456789abcdefghi",
    "liked":true,
    "likedByIdentities":[
     {
      "id":"123456313efghi",
      "providerId":"organization",
      "remoteId":"demo",
      "profile":{
       "fullName":"Demo GTN",
       "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
      }
     }
    ],
    "totalNumberOfLikes":20,
    "posterIdentity":{
     "id":"123456313efghi",
     "providerId":"organization",
     "remoteId":"demo",
     "profile":{
      "fullName":"Demo GTN",
      "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
     }
    },
    "comments":[
     {

     }
    ],
    "totalNumberOfComments":1234,
    "activityStream":{
     "type":"user",
     "prettyId":"root",
     "fullName": "Root Root",
     "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
     "title":"Activity Stream of Root Root",
     "permaLink":"http://localhost:8080/profile/root"
    }
   }
  ]
}
```


3.6.2.2. GET feed.{format}

Get the activity stream feed of the authenticated user identity who makes this request.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity_stream/feed.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The portal container name.
format	The response format type, for example: JSON, or XML.

- **Optional (query parameters)**:

Parameter	Description
limit	Specify the number of activities to retrieve. It must be less than or equal to 100. The value you pass as limit is a maximum number of activities to be returned. The actual number of activities you receive maybe less than limit. If no specified, 100 will be the default value.
since_id	Return the activities having the created timestamps greater than the specified sinceId's created timestamp.
max_id	Return the activities having the created timestamp less than the specified *maxId*'s created timestamp. Note that *sinceId* and *maxId* must not be defined in one request, if they are, the sinceId query param is chosen.
number_of_comments	Specify the latest number of comments to be displayed along with each activity. By default, *number_of_comments=0*. If *number_of_comments* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the actual number of comments is less than the provided positive number, the number of actual comments must be returned. If the total number of comments is more than 100, it is recommended to use: "*activity/:activityId/comments.format*" instead.
number_of_likes	Specify the latest number of detailed likes to be returned along with this activity. By default, *number_of_likes=0*. If *number_of_likes* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the actual number of likes is less than the provided positive number, the number of actual likes must be returned. If the total number of likes is more than 100, it is recommended to use: "*activity/:activityId/likes.format*" instead.

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity_stream/feed.json?limit=30&since_id=12345&number_of_comments=5&number_of_likes=5
```

Response:

```
{
  "activities":[
    {
      "id":"1a2b3c4d5e6f7g8h9j",
      "title":"Hello World!!!",
```

```
  "appId":"",
  "type":"DEFAULT_ACTIVITY",
  "postedTime":123456789,
  "createdAt":"Fri Jun 17 06:42:26 +0000 2011",
  "priority":0.5,
  "templateParams":{

  },
  "titleId":"",
  "body": "",
  "identityId":"123456789abcdefghi",
  "liked":true,
  "likedByIdentities":[
   {
    "id":"123456313efghi",
    "providerId":"organization",
    "remoteId":"demo",
    "profile":{
     "fullName":"Demo GTN",
     "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
    }
   }
  ],
  "totalNumberOfLikes":20,
  "posterIdentity":{
   "id":"123456313efghi",
   "providerId":"organization",
   "remoteId":"demo",
   "profile":{
    "fullName":"Demo GTN",
    "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
   }
  },
  "comments":[
   {

   }
  ],
  "totalNumberOfComments":1234,
  "activityStream":{
   "type":"user",
   "prettyId":"root",
   "fullName": "Root Root",
   "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
   "title":"Activity Stream of Root Root",
   "permaLink":"http://localhost:8080/profile/root"
  }
 },
 {
  "id":"1a210983123f7g8h9j",
  "title":"Hello World 1!!!",
  "appId":"",
  "type":"DEFAULT_ACTIVITY",
  "postedTime":123456789,
  "createdAt":"Fri Jun 19 06:42:26 +0000 2011",
  "priority":0.5,
  "templateParams":{

  },
  "titleId":"",
  "body": "",
  "identityId":"123456789abcdefghi",
  "liked":true,
  "likedByIdentities":[
   {
    "id":"123456313efghi",
    "providerId":"organization",
    "remoteId":"demo",
    "profile":{
     "fullName":"Demo GTN",
     "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
    }
   }
  ],
  "totalNumberOfLikes":20,
```

```
      "posterIdentity":{
        "id":"123456313efghi",
        "providerId":"organization",
        "remoteId":"demo",
        "profile":{
          "fullName":"Demo GTN",
          "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
        }
      },
      "comments":[
        {

        }
      ],
      "totalNumberOfComments":1234,
      "activityStream":{
        "type":"user",
        "prettyId":"root",
        "fullName": "Root Root",
        "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
        "title":"Activity Stream of Root Root",
        "permaLink":"http://localhost:8080/profile/root"
      }
    }
  ]
}
```


3.6.2.3. GET spaces.{format}

Get activities of spaces in which the authenticated user identity is space member that makes this request.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity_stream/spaces.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The portal container name.
format	The response format type, for example: JSON, or XML.

- **Optional (query parameters)**:

Parameter	Description
limit	Specify the number of activities to retrieve. Must be less than or equal to 100. The value you pass as limit is a maximum number of activities to be returned. The actual number of activities you receive maybe less than limit. If no specified, 100 will be the default value.
since_id	Return the activities having the created timestamps greater than the specified sinceId's created timestamp.
max_id	Return the activities having the created timestamp less than the specified maxId's created timestamp. Note that *sinceId* and *maxId* must not be defined in one request, if they are, the sinceId query param is chosen.

Parameter	Description
number_of_comments	Specify the latest number of comments to be displayed along with each activity. By default, *number_of_comments=0*. If *number_of_comments* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the actual number of comments is less than the provided positive number, the number of actual comments must be returned. If the total number of comments is more than 100, it is recommended to use: "*activity/:activityId/comments.format*" instead.
number_of_likes	Specify the latest number of detailed likes to be returned along with this activity. By default, *number_of_likes=0*. If *number_of_likes* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the actual number of likes is less than the provided positive number, the number of actual likes must be returned. If the total number of likes is more than 100, it is recommended to use: "*activity/:activityId/likes.format*" instead.

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity_stream/spaces.json?limit=30&since_id=12345&number_of_comments=5&number_of_likes=5
```

Response:

```
{
  "activities":[
    {
      "id":"1a2b3c4d5e6f7g8h9j",
      "title":"Hello World!!!",
      "appId":"",
      "type":"DEFAULT_ACTIVITY",
      "postedTime":123456789,
      "createdAt":"Fri Jun 17 06:42:26 +0000 2011",
      "priority":0.5,
      "templateParams":{

      },
      "titleId":"",
      "body": "",
      "identityId":"123456789abcdefghi",
      "liked":true,
      "likedByIdentities":[
        {
          "id":"123456313efghi",
          "providerId":"organization",
          "remoteId":"demo",
          "profile":{
            "fullName":"Demo GTN",
            "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
          }
        }
      ],
      "totalNumberOfLikes":20,
```

```
    "posterIdentity":{
     "id":"123456313efghi",
     "providerId":"organization",
     "remoteId":"demo",
     "profile":{
      "fullName":"Demo GTN",
      "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
     }
    },
    "comments":[
     {

     }
    ],
    "totalNumberOfComments":1234,
    "activityStream":{
     "type":"user",
     "prettyId":"root",
     "fullName": "Root Root",
     "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
     "title":"Activity Stream of Root Root",
     "permaLink":"http://localhost:8080/profile/root"
    }
   },
   {
    "id":"1a210983123f7g8h9j",
    "title":"Hello World 1!!!",
    "appId":"",
    "type":"DEFAULT_ACTIVITY",
    "postedTime":123456789,
    "createdAt":"Fri Jun 19 06:42:26 +0000 2011",
    "priority":0.5,
    "templateParams":{

    },
    "titleId":"",
    "body": "",
    "identityId":"123456789abcdefghi",
    "liked":true,
    "likedByIdentities":[
     {
      "id":"123456313efghi",
      "providerId":"organization",
      "remoteId":"demo",
      "profile":{
       "fullName":"Demo GTN",
       "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
      }
     }
    ],
    "totalNumberOfLikes":20,
    "posterIdentity":{
     "id":"123456313efghi",
     "providerId":"organization",
     "remoteId":"demo",
     "profile":{
      "fullName":"Demo GTN",
      "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
     }
    },
    "comments":[
     {

     }
    ],
    "totalNumberOfComments":1234,
    "activityStream":{
     "type":"user",
     "prettyId":"root",
     "fullName": "Root Root",
     "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
     "title":"Activity Stream of Root Root",
     "permaLink":"http://localhost:8080/profile/root"
    }
   }
```

```
  ]
}
```

3.6.2.4. GET connections.{format}

Get activities of connections of a specified identity.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/activity_stream/connections.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The portal container name.
format	The response format type, for example: JSON, or XML.

- **Optional (query parameters)**:

Parameter	Description
limit	Specify the number of activities to retrieve. Must be less than or equal to 100. The value you pass as limit is a maximum number of activities to be returned. The actual number of activities you receive maybe less than limit. If no specified, 100 will be the default value.
since_id	Return the activities having the created timestamps greater than the specified sinceId's created timestamp.
max_id	Return the activities having the created timestamp less than the specified maxId's created timestamp. Note that *sinceId* and *maxId* must not be defined in one request, if they are, the sinceId query param is chosen.
number_of_comments	Specify the latest number of comments to be displayed along with each activity. By default, *number_of_comments=0*. If *number_of_comments* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the actual number of comments is less than the provided positive number, the number of actual comments must be returned. If the total number of comments is more than 100, it is recommended you use "*activity/:activityId/comments.format*" instead.
number_of_likes	Specify the latest number of detailed likes to be returned along with this activity. By default, *number_of_likes=0*. If *number_of_likes* is a positive number, this number is considered as a limit number that must be equal or less than 100. If the actual number of likes is less than the provided positive number, the number of actual likes must be returned. If the total number of likes is more than 100,

Parameter	Description
	it is recommended to use: "*activity/:activityId/likes.format*" instead.

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/activity_stream/connections.json?limit=30&since_id=12345&number_of_comments=5&number_of_likes=5
```

Response:

```
{
{
  "activities":[
    {
      "id":"1a2b3c4d5e6f7g8h9j",
      "title":"Hello World!!!",
      "appId":"",
      "type":"DEFAULT_ACTIVITY",
      "postedTime":123456789,
      "createdAt":"Fri Jun 17 06:42:26 +0000 2011",
      "priority":0.5,
      "templateParams":{

      },
      "titleId":"",
      "body": "",
      "identityId":"123456789abcdefghi",
      "liked":true,
      "likedByIdentities":[
        {
          "id":"123456313efghi",
          "providerId":"organization",
          "remoteId":"demo",
          "profile":{
            "fullName":"Demo GTN",
            "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
          }
        }
      ],
      "totalNumberOfLikes":20,
      "posterIdentity":{
        "id":"123456313efghi",
        "providerId":"organization",
        "remoteId":"demo",
        "profile":{
          "fullName":"Demo GTN",
          "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
        }
      },
      "comments":[
        {

        }
      ],
      "totalNumberOfComments":1234,
      "activityStream":{
        "type":"user",
        "prettyId":"root",
        "fullName": "Root Root",
        "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
        "title":"Activity Stream of Root Root",
        "permaLink":"http://localhost:8080/profile/root"
      }
    },
```

```
    {
      "id":"1a210983123f7g8h9j",
      "title":"Hello World 1!!!",
      "appId":"",
      "type":"DEFAULT_ACTIVITY",
      "postedTime":123456789,
      "createdAt":"Fri Jun 19 06:42:26 +0000 2011",
      "priority":0.5,
      "templateParams":{

      },
      "titleId":"",
      "body": "",
      "identityId":"123456789abcdefghi",
      "liked":true,
      "likedByIdentities":[
       {
        "id":"123456313efghi",
        "providerId":"organization",
        "remoteId":"demo",
        "profile":{
         "fullName":"Demo GTN",
         "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
        }
       }
      ],
      "totalNumberOfLikes":20,
      "posterIdentity":{
       "id":"123456313efghi",
       "providerId":"organization",
       "remoteId":"demo",
       "profile":{
        "fullName":"Demo GTN",
        "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=12345"
       }
      },
      "comments":[
       {

       }
      ],
      "totalNumberOfComments":1234,
      "activityStream":{
       "type":"user",
       "prettyId":"root",
       "fullName": "Root Root",
       "faviconUrl":"http://demo3.exoplatform.org/favicons/exo-default.jpg",
       "title":"Activity Stream of Root Root",
       "permaLink":"http://localhost:8080/profile/root"
      }
     }
    ]
  }
```


3.6.3. Identity Resources

Resource	Description
GET {identityId}.{format}	Get the identity and its associated profile by the activity ID.
GET {providerId}/{remoteId}.{format}	Get the identity and its associated profile by specifying its *providerId* and *remoteId*. Every identity has its providerId and remoteId. There could be as many identities as possible. Currently, there are 2 built-in types of identities (user identities and space identities) in Social.

3.6.3.1. GET {identityId}.{format}

Get the identity and its associated profile by the activity ID.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/identity/{identityId}.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
identityId	The specified ID of identity.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/identity/123456789.json
```

Response:

```
{
  "id" : "123456789",
  "providerId": "organization",
  "remoteId": "demo",
  "profile": {
    "fullName": "Demo Gtn",
    "avatarUrl": "http://localhost:8080/profile/avatar/demo.jpg"
  }
}
```

3.6.3.2. GET {providerId}/{remoteId}.{format}

Get the identity and its associated profile by specifying its *providerId* and *remoteId*. Every identity has its providerId and remoteId. There could be as many identities as possible. Currently, there are 2 built-in types of identities (user identities and space identities) in Social.

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/v1-alpha3/{portalContainerName}/identity/{providerId}/{remoteId}.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters)**:

Parameter	Description
portalContainerName	The associated portal container name.
providerId	The providerId of Identity.
remoteId	The remoteId of Identity.
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
GET: http://localhost:8080/rest/private/api/social/v1-alpha3/portal/identity/organization/demo.json
```

user identities: *providerId* = organization; *remoteId* = portal user name.

space identities: *providerId* = space; *remoteId* = space's pretty name.

Response:

```
{
  "id" : "123456789",
  "providerId": "organization",
  "remoteId": "demo",
  "profile": {
    "fullName": "Demo Gtn",
    "avatarUrl": "http://localhost:8080/portal/demo/profile/avatar/demo.jpg"
  }
}
```

3.6.4. Version Resources

Resource	Description
GET latest.{format}	Get the latest eXo Social REST API version. This version number should be used as the latest and stable version that is considered to include all new features and updates of eXo Social REST services.
GET supported.{format}	Get eXo Social REST service versions that are supported. This is for backward compatibility. If a client application is using an older eXo Social REST APIs version, all APIs of the version still can work. The array MUST have the latest to oldest order. For example, [v2, v1, v1-beta3], but not [v1, v2, v1-beta3].

3.6.4.1. GET latest.{format}

Get the latest eXo Social REST API version. This version number should be used as the latest and stable version that is considered to include all new features and updates of eXo Social REST services.

URL:

```
```

```
http://{domain_name}/{rest_context_name}/private/api/social/versionlatest.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
GET: http://localhost:8080/rest/api/social/version/latest.json
or
GET: http://localhost:8080/rest/api/social/version/latest.xml
```

Response:

```
{"version": "v1-alpha3"}
```

or

```
<version>v1-alpha3</version>
```

3.6.4.2. GET supported.{format}

Get eXo Social REST service versions that are supported. This is for backward compatibility. If a client application is using an older eXo Social REST APIs version, all APIs of the version still can work. The array MUST have the latest to oldest order. For example, [v2, v1, v1-beta3], but not [v1, v2, v1-beta3].

URL:

```
http://{domain_name}/{rest_context_name}/private/api/social/versionsupported.{format}
```

Parameters:

- **Required (path parameters)**:

Parameter	Description
format	The expected returned format.

- **Optional (query parameters)**: No

Request:

```
```

```
GET: http://localhost:8080/rest/api/social/version/supported.json
or
GET: http://localhost:8080/rest/api/social/version/supported.xml
```

Response:

```
{"versions": ["v1-alpha3"]}
```

or

```
<versions>
  <version>v1-alpha3</version>
</versions>
```

3.7. Public Javascript APIs

All references for Opensocial Javascript APIs can be viewed here.

See also

- UI Extensions
- Overridable Components
- Public Java APIs
- Java APIs sample code/ tutorial
- Public REST APIs
- Rest Service APIs
- Social JCR Structure
- Spaces Template configuration
- Configure the 2-legged OAuth scenario

3.8. Social JCR Structure

- soc:providers

  Information of the *soc:providers* node that stores the provider entities.
- Identity

  Details of properties and child nodes of the *soc:identitydefinition* node type.
- Relationship

  Details of properties of the *soc:relationshipdefinition* node type.
- Profile

  Details of properties and child nodes of the *soc:profiledefinition* node type and a list of residual properties which can be set by Social.
- Profile experience

Details of properties of the *soc:profilexp* node type.

- Activity list

  Details of properties, and child node of the *soc:activitylist* node type.

- Activity year

  Details of properties, and child node of the *soc:activityyear* node type.

- Activity month

  Details of properties, and child node of the *soc:activitymonth* node type.

- Activity day

  Details of properties, and child node of the *soc:activityday* node type.

- Activity

  Details of properties, and child nodes of the *soc:activity* node type.

- Activity parameters

  Details of properties of the *soc:activityparam* node type.

- Space list

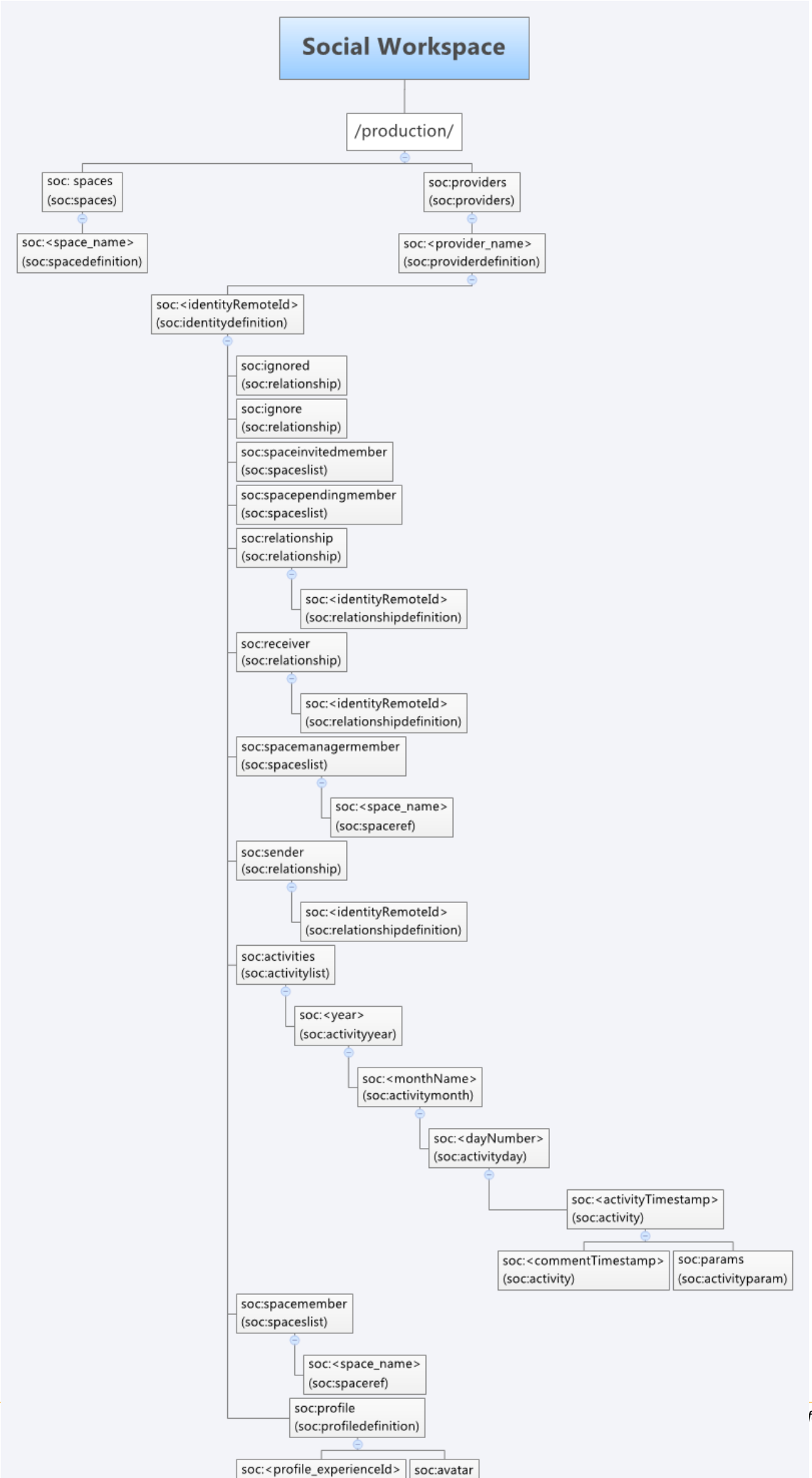
  Details of child node of the *soc:spaceslist* node type.

- Space

  Details of properties of the *soc:spacedefinition* node type.

Like any other eXo's products, Social fully complies the JCR standard to store data (identity, profile, activity, space and relationship). The Social JCR structure is organized to conform to the data storage for the individual purpose of Social. With this structure, it is easy for you to manage and access the data properly.

See the Social JCR structure in the chart below:


Social Workspace
/production/
soc: spaces (soc:spaces)
soc:providers (soc:providers)
soc:<space_name> (soc:spacedefinition)
soc:<provider_name> (soc:providerdefinition)
soc:<identityRemoteId> (soc:identitydefinition)
soc:ignored (soc:relationship)
soc:ignore (soc:relationship)
soc:spaceinvitedmember (soc:spaceslist)
soc:spacependingmember (soc:spaceslist)
soc:relationship (soc:relationship)
soc:<identityRemoteId> (soc:relationshipdefinition)
soc:receiver (soc:relationship)
soc:<identityRemoteId> (soc:relationshipdefinition)
soc:spacemanagermember (soc:spaceslist)
soc:<space_name> (soc:spaceref)
soc:sender (soc:relationship)
soc:<identityRemoteId> (soc:relationshipdefinition)
soc:activities (soc:activitylist)
soc:<year> (soc:activityyear)
soc:<monthName> (soc:activitymonth)
soc:<dayNumber> (soc:activityday)
soc:<activityTimestamp> (soc:activity)
soc:<commentTimestamp> (soc:activity)
soc:params (soc:activityparam)
soc:spacemember (soc:spaceslist)
soc:<space_name> (soc:spaceref)
soc:profile (soc:profiledefinition)
soc:<profile_experienceId>
soc:avatar

The root node of Social workspace is */production/* which consists of two child nodes named *soc:providers*, and *soc:spaces*.

See also

- UI Extensions
- Overridable Components
- Public Java APIs
- Java APIs sample code/ tutorial
- Public REST APIs
- Rest Service APIs
- Public Javascript APIs
- Spaces Template configuration
- Configure the 2-legged OAuth scenario

3.8.1. soc:providers

The *soc:providers* node is used to store the provider entities. In Social, there are two built-in provider entities, including *organization*, and *space*. Its type is *soc:providers* that has the *soc:<provider_name>* child node of the *soc:providerdefinition* type.

soc:<provider_name>

The *<provider_name>* parameter in the *soc:<provider_name>* node depends on the identity providers. Social has two identity providers, including *OrgarnizationIdentityProvider*, and *SpaceIdentityProvider* that contain organization identities (users) and space identities respectively.

The *soc:<provider_name>* node of the *soc:providerdefinition* type has the *soc:<identityRemoteId>* child nodes that have the *soc:identitydefinition* type.

3.8.2. Identity

The *soc:identitydefinition* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:providerId	String	false	The provider Id is considered as a namespace for the remote Id.
soc:remoteId	String	false	The local Id from a provider Id.
soc:isDeleted	Boolean	false	Show that if the provider Id is deleted or not via the provider.

The *soc:identitydefinition* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
soc:profile	soc:profiledefinition	Store the detailed information of an identity.
soc:activities	soc:activitylist	Store all activities in the activity stream of an identity.

Child Nodes	Default Primary Type	Description
soc:sender	soc:relationship	Store all the relationships which contain an identity inviting other identities to connect with himself.
soc:receiver	soc:relationship	Store all the relationships which contain an identity invited to connect by other identities.
soc:relationship	soc:relationship	Store all the relationships of an identity that is in connection with other identities.
soc:ignored	soc:relationship	Store all the relationships which contain an identity ignored by other identities.
soc:ignore	soc:relationship	Store all the relationships which contain an identity ignoring other identities.
soc:spacemember	soc:spaceslist	Store all spaces of which an identity is a member.
soc:spacependingmember	soc:spaceslist	Store all spaces which an identity is pending for validation to join.
soc:spaceinvitedmember	soc:spaceslist	Store all spaces which an identity is invited to join.
soc:spacemanagermember	soc:spaceslist	Store all spaces of which an identity is a manager.

3.8.3. Relationship

The *soc:relationshipdefinition* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:status	String	false	The status of the relationship, including three values: PENDING, CONFIRMED, and IGNORED.
soc:from	Reference	false	The receiver identity. It refers to the soc:identity node type.
soc:to	Reference	false	The sender identity. It refers to the soc:identity node type.
soc:reciprocal	Reference	false	Denote if the relationship is one way or two ways. It refers to the *soc:relationshipdefinition* node type.
soc:createdTime	Long	false	The time when the relationship is created.

3.8.4. Profile

The *soc:profiledefinition* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:externalUrl	String	false	The external URL of an identity who does not exist in the identities list of the Social providers, (*OrganizationIdentityProvider* and *SpaceIdentityProvider*).
soc:externalAvatarUrl	String	false	The external avatar URL of an identity who does not exist in the identities list of the Social providers, (*OrganizationIdentityProvider* and *SpaceIdentityProvider*).
soc:parentId	String	false	The parent Id is the identity Id. It is used for queries.

The *soc:profiledefinition* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
soc:avatar	nt:file	The users's avatar.
childName	soc:profilexp	All the experiences stored in the profile.

Some residual properties can be set and will be used by Social:

Property Name	Required Type	Multiple	Description
void-Url	undefined	true	The URL to access the profile of an identity.
void-email	undefined	true	The email of an identity in the profile.
void-firstName	undefined	true	The first name of an identity in his profile.
void-fullName	undefined	true	The full name of an identity in his profile.
void-lastName	undefined	true	The last name of an identity in his profile.
void-username	undefined	true	The username of an identity in his profile.

3.8.5. Profile experience

The *soc:profilexp* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:skills	String	false	The work skills of an identity.

Property Name	Required Type	Mutiple	Description
soc:position	String	false	The job position of an identity at an organization.
soc:startDate	String	false	The date when an identity starts working at an organization.
soc:endDate	String	false	The date when an identity stops working at an organization.
soc:description	String	false	The description of an identity's position at an organization.
soc:company	String	false	The company where an identity works.

3.8.6. Activity list

The *soc:activitylist* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:number	Integer	false	The number of activities in the activities list. The default value is set to 0.

The *soc:activitylist* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
childName	soc:activityyear	All the years containing activities in the list.

3.8.7. Activity year

The *soc:activityyear* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:number	Integer	false	The number of activities in the year. The default value is set to 0.

The *soc:activityyear* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
childName	soc:activitymonth	All the months containing activities in the year.

3.8.8. Activity month

The *soc:activitymonth* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:number	Integer	false	The number of activities in the month. The default value is set to 0.

The *soc:activitymonth* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
childName	soc:activityday	All the days containing activities in the month.

3.8.9. Activity day

The *soc:activityday* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:number	Integer	false	The number of activities in the day. The default value is set to 0.

The *soc:activityday* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
childName	soc:activity	All the activities in the day.

3.8.10. Activity

The *soc:activity* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:identity	Reference	false	The identity whose activity stream contains an activity.
soc:posterIdentity	Reference	false	The identity of the user who creates an activity.
soc:title	String	false	The string which specifies the primary text of an activity.
soc:titleId	String	false	The title Id of an activity.
soc:appId	String	false	The application Id which creates an activity.
soc:body	String	false	The string which specifies the body template message Id in the gadget specification. The body is an optional extended version of an activity.
soc:bodyId	String	false	The body Id of an activity.
soc:type	String	false	The application Id which creates an activity.

Property Name	Required Type	Mutiple	Description
soc:externalId	String	false	An optional string Id which is generated by the posting application.
soc:url	String	false	The URL to access an activity.
soc:priority	Float	false	A float number between '0' and '1' which represents the relative priority level of an activity in relation to other activities from the same source.
soc:likes	String	true	The list of identity Ids who like the activity.
soc:isComment	Boolean	false	Specify if an activity is a comment or not. The default value is false, meaning that it is a normal activity.
soc:postedTime	Long	false	The number which specifies the time at which an activity took place in milliseconds since the epoch.

The *soc:activity* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
childName	soc:activity	All comments of the identity. The child is the posted time stamp.
soc:params	soc:activityparam	The activity parameters.

3.8.11. Activity parameters

The *soc:activityparam* node type has the following property:

Property Name	Required Type	Multiple	Description
*	String	false	A map of key-values.

3.8.12. Space list

The *soc:spaceslist* node type has the following child nodes:

Child Nodes	Default Primary Type	Description
soc:refs	soc:spaceref	List of *soc:spaceref* as child node.

3.8.13. Space

The *soc:spacedefinition* node type has the following properties:

Property Name	Required Type	Mutiple	Description
soc:app	String	false	The list of applications with portlet Id, application name,

Property Name	Required Type	Mutiple	Description
			and its state (installed, activated, deactivated).
soc:name	String	false	The space name.
soc:displayName	String	false	The display name of a space.
soc:registration	String	false	The space registration status: open, validation, and close.
soc:description	String	false	The description of a space.
soc:avatarLastUpdated	Long	false	The last time when the avatar is updated.
soc:type	String	false	The type of space which is used to run in the Classic or WebOS mode.
soc:visibility	String	false	The space visibility: public, private, and hidden.
soc:priority	String	false	The space priority level that is used to sort spaces in the spaces list. It contains three values: 1, 2 and 3. The smaller value has the higher priority level.
soc:groupId	String	false	The group associated with the corresponding space.
soc:url	String	false	The link to access a space.
soc:membersId	String	true	The list of users which are members of a space.
soc:pendingMembersId	String	true	The list of users who are pending for validation to join a space.
soc:invitedMembersId	String	true	The list of users who are invited to join a space.
soc:managerMembersId	String	true	The list of users who are managers of a space.

3.9. Spaces Template configuration

In Social, you may have two space types (classic and webos spaces).

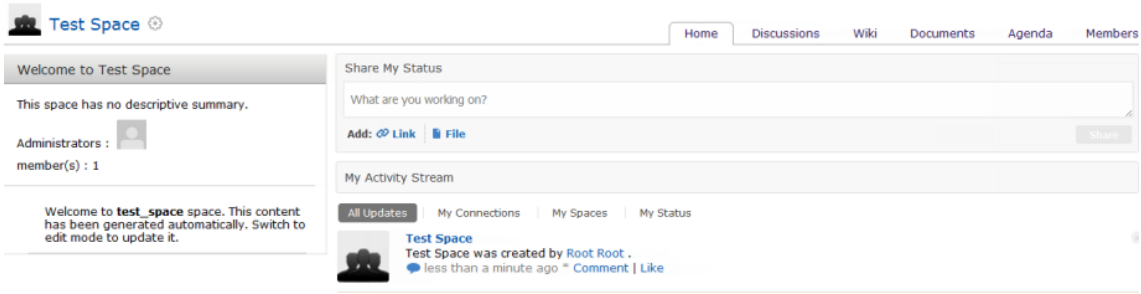
For the classic space, you can pre-configure the template. You can configure the layout to select where to display the applications (for example, the application's menu on the left, the selected application is displayed on the right, and more).

Here is an example of the configuration file that displays the menu on the left. The application will be inserted in the container with the Id **Application**:

```
<page>
  <owner-type/>
```

```
  <owner-id/>
  <name/>
  <container id="SpacePage" template="system:/groovy/portal/webui/container/UITableColumnContainer.gtmpl">
   <container id="Menu" template="system:/groovy/portal/webui/container/UIContainer.gtmpl">
    <portlet-application>
     <portlet>
      <application-ref>space</application-ref>
      <portlet-ref>SpaceMenuPortlet</portlet-ref>
     </portlet>
     <access-permissions>*:/platform/users</access-permissions>
     <show-info-bar>false</show-info-bar>
    </portlet-application>
   </container>
   <container id="Application" template="system:/groovy/portal/webui/container/UIContainer.gtmpl">
   </container>
  </container>
</page>
```

In this example, the outer container contains two inner containers: one container has Id as **Menu** for your Menu and another has Id as **Application** containing your applications.



If you want to put the menu on the right and the application on the left, you can swap the declared position of these two containers:

```
<page>
  <owner-type/>
  <owner-id/>
  <name/>
  <container id="SpacePage" template="system:/groovy/portal/webui/container/UITableColumnContainer.gtmpl">
   <container id="Application" template="system:/groovy/portal/webui/container/UIContainer.gtmpl">
   <container id="Menu" template="system:/groovy/portal/webui/container/UIContainer.gtmpl">
    <portlet-application>
     <portlet>
      <application-ref>space</application-ref>
      <portlet-ref>SpaceMenuPortlet</portlet-ref>
     </portlet>
     <access-permissions>*:/platform/users</access-permissions>
     <show-info-bar>false</show-info-bar>
    </portlet-application>
   </container>
   </container>
  </container>
</page>
```

In Social standalone, this configuration file is at:

- *$EXO_TOMCAT/webapps/socialdemo/WEB-INF/conf/portal/template/pages/space/page.xml* In eXo Platform, this configuration file is at:
- *$EXO_TOMCAT/webapps/{portal-name}/WEB-INF/conf/portal/template/pages/space/page.xml*

See also

- UI Extensions

3.10. Configure the 2-legged OAuth scenario

This section is about configuring the 2-legged OAuth scenario in OpenSocial. (Reference: OpenSocial.org)

For more information, visit 2-legged OAuth for the OpenSocial REST API.

Generate the key

```
$ openssl req -newkey rsa:1024 -days 365 -nodes -x509 -keyout testkey.pem \
    -out testkey.pem -subj '/CN=mytestkey'
$ openssl pkcs8 -in testkey.pem -out oauthkey.pem -topk8 -nocrypt -outform PEM
```

Configure the property file

Edit *container.js* and change the following parameter to point to your private key and key name.

```
"gadgets.signingKeyFile" : "oauth.pem",
"gadgets.signingKeyName" : "oauthKey",
```

See also

- UI Extensions
- Overridable Components
- Public Java APIs
- Java APIs sample code/ tutorial
- Public REST APIs
- Rest Service APIs
- Public Javascript APIs
- Social JCR Structure
- Spaces Template configuration