

Reference Guide / Social Functions

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Applications

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

- Portlets
- Gadgets

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

1.1. List of Portlets in Social

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.

1.2. List of Gadgets in Social

All eXo Social gadgets are in *opensocial.war*.

1.2.1. Activity Stream

- **Description:** Manage activities of users: update status, like/unlike activities, comment activities, delete activities and delete comments.
- **Used REST services:** ActivitiesRestServices.

1.2.2. Social RSS Reader

- **Description:** Fetch, parse and display RSS from a specific URL.
- **Description of user preferences:** 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).
- **Used REST services:** N/A.

1.2.3. My Connections

- **Description:** Get and display information of the current viewer and his connections.
- **Description of user preferences:** The number of connections displayed per page. It is set to '5' by default.
- **Used REST services:** N/A.

1.2.4. My Spaces

- **Description:** Display all spaces that a user has the "member" role.
- **Used REST services:** SpacesRestService.

Configuration

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

- [Components](#)
- [External component plugins](#)

2.1. Components

2.1.1. ActivityManager

Configuration name	Data type	Possible value	Description
allowedTags	String list	b, i, a, span, em, strong, p, ol, ul, li, br, img	HTML tags

2.1.2. SpaceService

Configuration name	Data type	Possible 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.

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

2.1.3. IdentityManager

Configuration name	Data type	Possible value
providers	String	org.exoplatform.social.core.identity.provider.SpaceI

2.1.4. ProfileConfig

Configuration name	Data type	Possible value	Description
nodetype.emails	String	exo:profileKeyValue	
nodetype.phones	String	exo:profileKeyValue	
nodetype.ims	String	exo:profileKeyValue	
nodetype.urls	String	exo:profileKeyValue	
nodetype.address	String	exo:profileAddress	
nodetype.experiences	String	exo:profileExperience	
nodetype.education	String	exo:profileEducation	
forceMultiValue	String	xxxxxxxxxxxxx	

2.1.5. ServiceProviderStore

Configuration name	Data type	Possible value	Description
sample-provider	properties-params		Sample service provider.

2.2. External component plugins

2.2.1. MentionsProcessor

Configuration name	Data type	Possible value	Description
priority	String	2	The priority of this processor (the lower is executed first).

2.2.2. PortletPreferenceRequiredPlugin

Configuration name	Data type	Possible value	Description
portletsPrefsRequired	String list	SpaceActivityStreamPortlet, SpaceSettingPortlet, MembersPortlet	The portlet name which requires space URL preference.

2.2.3. SpaceApplicationConfigPlugin

Configuration name	Data type	Description
spaceHomeApplication	SpaceApplicationConfigPlugin\$SpaceApplication	The space application for the home
spaceApplicationList	SpaceApplicationConfigPlugin	Space application list configuration

2.2.4. AddNodeTypePlugin

Configuration name	Data type	Possible value	Description
autoCreatedInNewRepository	String	jar:/conf/portal/core-nodetypes.xml	Node configuration

2.3. RelationshipManager

The Service is used to manipulate user relationships.

2.4. SpaceIdentityProvider

The provider is to give identity space instances.

2.5. SpaceApplicationHandler

The service is to handle all events related to creating and managing all the application spaces.

2.6. ExoPeopleService

The service is to manipulate all data related to people in the Portal.

2.7. Space Service

2.7.1. Description

The service for spaces management includes creating spaces, and installing applications.

2.7.2. Components configuration

Component name	Description
SpaceServiceImpl	Implementation class of Space Service.

```
<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>
```

Configuration name	Data type	Possible value	Possible value
SpaceActivityStreamPortlet	String	N/A	SpaceActivityStreamPortlet
space.apps	String list	Porlets' name: true/false	DashboardPortlet:true; SpaceSettingPortlet:false; MembersPortlet:true

2.7.3. External plug-in configuration

2.7.3.1. PortletPreferenceRequiredPlugin

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

In which:

Name	Set-method	Type
PortletPreferenceRequiredPlugin	setPortletsPrefsRequired	org.exoplatform.social.core.a

- Init-params:

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

2.7.3.2. SpaceApplicationConfigPlugin

Since 1.2.0-GA

```
<external-component-plugins>
  <target-component>org.exoplatform.social.core.space.spi.SpaceService</target-component>
  <!-- Default applications to be installed when creating a new space -->
  <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">
          <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">
                  <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>
            </collection>
          </field>
        </object>
      </object-param>
    </init-params>
  </component-plugin>
</external-component-plugins>
```

```

        </object>
      </value>
    <value>
      <object type="org.exoplatform.social.core.space.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.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>
</external-component-plugins>
```

In which:

Name	Set-method	Type
Space Application Configuration	setSpaceApplicationConfigPlugin	org.exoplatform.social.core.application.Pc

2.8. Activity Manager

2.8.1. Description

The service is to manipulate space and user activities.

2.8.2. Component plug-in configuration

```
<component-plugin>
  <name>OSHtmlSanitizer</name>
  <set-method>addProcessorPlugin</set-method>
  <type>org.exoplatform.social.core.processor.OSHtmlSanitizerProcessor</type>
  <init-params>
    <values-param>
      <name>allowedTags</name>
      <value>b</value>
      <value>i</value>
      <value>span</value>
      <value>a</value>
      <value>em</value>
      <value>strong</value>
      <value>p</value>
      <value>ol</value>
      <value>ul</value>
      <value>li</value>
      <value>br</value>
      <value>img</value>
    </values-param>
  </init-params>
</component-plugin>
```

In which,

Name	Set-method	Type
OSHtmlSanitizerProcessor	addProcessorPlugin	org.exoplatform.social.core.processor.OS

- Init-params:

Name	Possible value	Possible value	Description
allowedTags	html tags	b, i, a, span, em, strong, p, ol, ul, li, br, img	Process and render HTML tags in the activity content (body).

2.8.3. External plug-in 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 number will be executed f
      <value>2</value>
    </value-param>
  </init-params>
</component-plugin>

```

In which:

Name	Set-method	Type
MentionsProcessor	addProcessorPlugin	org.exoplatform.social.core.processor.MentionsF

- Init-params:

Name	Possible value	Possible value	Description
priority	priority number	2	The priority of this processor (The lower level will be executed first).

2.9. Identity Manager

2.9.1. Description

The service is to manipulate the identity operations, such as creating, getting, deleting or finding a profile.

2.9.2. Component plug-in configuration

```
<component>
  <key>org.exoplatform.social.core.manager.IdentityManager</key>
  <type>org.exoplatform.social.core.manager.IdentityManager</type>
  <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.SpaceIdentityPro
        </values-param>
      </init-params>
    </component-plugin>
  </component-plugins>
</component>
```

In which:

Name	Set-method	Type
SpaceIdentityProvider plugin	registerIdentityProviders	org.exoplatform.social.core.identity.Identity

- Init-params:

Name	Possible value	Possible value
providers	Every other identity providers	org.exoplatform.social.core.identity.provider.Space

2.10. OpenSocial Rest Context Configuration

2.10.1. Description

The service is used to configure the portal container name when there is an OpenSocial REST API request. By configuring this service, you can make sure that the right portal container is reached. The default portal container is *portal*.

2.10.2. Component plug-in configuration

This should be used when there is a portal container different than the default *portal* one.

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

In which:

Name	Set-method	Type
set portal container name used for REST service	setRestContainerName	org.exoplatform.social.opensocial.auth.RestPortalContai

- Init-params:

Name	Possible value	Possible value	Description
rest-container-name	any valid portal container name	N/A	Name of the portal container.

2.11. Spaces Template configuration

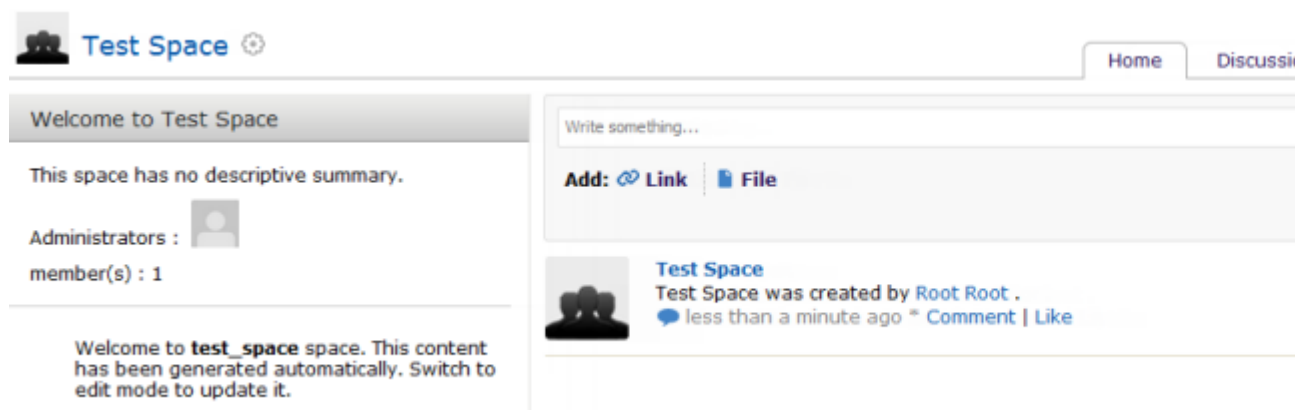
In eXo Social, you may have two space types (classic and webos spaces).

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/UI"
    <container id="Menu" template="system:/groovy/portal/webui/container/UICon
      <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
  </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/UI
    <container id="Application" template="system:/groovy/portal/webui/contain
    <container id="Menu" template="system:/groovy/portal/webui/container/UICon
      <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 eXo 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`

2.12. Configure the oauth 2 legged scenario

This section is about configuring the OAuth 2 legs scenario in OpenSocial. (Reference: [OpenSocial.org](https://www.opensocial.org/))

For more information, visit [2-legged OAuth for the OpenSocial REST API](#).

2.12.1. Generate the certificates

To 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
```

2.12.2. 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",
```

Developers References

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

- [UI Extensions](#)
- [Overridable Components](#)
- [Public Java APIs](#)
- [Java APIs sample code/ tutorial](#)
- [Public REST APIs](#)
- [Rest Service APIs \(v1-alpha3\)](#)
- [Public Javascript APIs](#)
- [Social JCR Structure](#)

With this knowledge, you can extend more functions for eXo Social, or customize them as you want.

3.1. UI Extensions

3.1.1. About Activity Plugin

The activity plugin feature was introduced to allow using the activity composer extension and the custom UI component for displaying activity by its type.

3.1.2. How to create activity plugin

You should have an idea about the UI Extension Framework. If you have already worked with the UI Extension Framework, it is really easy to create an activity plugin. If not, you have chance to work with it now. You should have a look at [UI Extension Framework](#).

3.1.2.1. Create a custom UI component for displaying the activity based on its type

The Project Code is available [here](#).

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 eXo 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 in
[INFO] snapshot org.apache.maven.plugins:maven-archetype-plugin:2.0-alpha-6-SNAPSHOT
[INFO] snapshot org.apache.maven.archetype:maven-archetype:2.0-alpha-6-SNAPSHOT
[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
[INFO] snapshot org.apache.maven.archetype:archetype-common:2.0-alpha-6-SNAPSHOT
[INFO] [archetype:generate {execution: default-cli}]
[INFO] Generating project in Interactive mode
[INFO] No archetype defined. Using maven-archetype-quickstart (org.apache.maven
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
    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
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
<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:space:

```

An activity builder as explained later 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:x
<external-component-plugins>
  <target-component>org.exoplatform.webui.ext.UIExtensionManager</target-comp
  <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.UIActivityExtens:
          <field name="type">
            <string>org.exoplatform.social.webui.activity.BaseUIActivity</str
          </field>
          <field name="name">
            <string>exosocial:spaces</string>
          </field>
          <field name="component">
            <string>org.exoplatform.social.samples.activityplugin.UISpaceSim
          </field>
          <field name="activityBuiderClass">
            <string>org.exoplatform.social.samples.activityplugin.SimpleSpace
          </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:

Home

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Write something...

Add:

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

What are you working on?

Add:

 Link

 File

All Updates

Network Updates

Space Updates

My Status

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),
        @EventConfig(listeners = BaseUIActivity.DeleteCommentActionListener.class),
    }
)
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={{\"\"}}";
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
uicomponent.setCommentFormFocused(false);
def activityUserName, activityUserProfileUri, activityImageSource, activityComment
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);
    } 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);
    } else {
        labelLikes = labelYouLikeThis;
    }
}

```

```

    } else if (identityLikesNum == 1) {
        labelLikes = labelOnePersonLikeThis.replace("{start}", startTag).replace
    }
}

if (!labelLikes) {
    //hides displayPeopleBG
    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/Space
}

%>

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

    <% uiiform.begin() %>
    <div class="NormalBox clearfix">
        <a class="Avatar" title="$activityUserName" href="$activityUserProfileUri":
            
        <div class="ContentBox" id="ContextBox${activity.id}">
            <div class="TitleContent clearfix">
                <div class="Text">
                    <a title="$activityUserName" href="$activityUserProfileUri">$activity
                </div>
                <% if (activityDeletable) {%>
                    <div onclick="<%= uicomponent.event("DeleteActivity", uicomponent.getI
                    <%=}%>
                </div>
                <div class="Content">
                    $activityContentTitle (from custom UI component)<br>
                </div>
                <div class="LinkCM">
                    <span class="DateTime">$activityPostedTime *</span>
                    <% def toggleDisplayCommentAction = uicomponent.event('ToggleDisplayComm
                    def commentLink = "";
                %>
                    <a class="LinkCM $commentLink" onclick="$toggleDisplayCommentAction" id
                    $labelComment
                </a> |
                <% if (uicomponent.isLiked()) { %>
                    <a onclick="$unlikeActivityAction" class="LinkCM" id="UnLikeLink${activ
                    $labelUnlike
                </a>
                <% } else { %>
                    <a onclick="$likeActivityAction" class="LinkCM" id="LikeLink${activity

```

```

        $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/avatar.png";
            }
          })
        %>
        <a class="AvatarPeopleBG" title="$personLikeFullName" href="$personLikeProfileUri">
          
        </a>
      <% }%>
    </div>
    <div class="ClearLeft">
      <span></span>
    </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.equals("latest")) { %>
        <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, commentMes:
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/Avatar
  }
  commentMessage = it.title;
  commentPostedTime = uicomponent.getPostedTimeString(it.postedTime);
%>
<div id="CommentBlock${activity.id}" class="CommentBox clearfix">
  <a class="AvatarCM" title="$commenterFullName" href="$commenterProfileUri"
    
  <div class="ContentBox">
    <div class="Content">
      <a href="$commenterProfileUri"><span class="Commenter">$commenterFull
        $commentMessage
      <br/>
    </div>
    <div class="LinkCM">
      <span class="DateTime">$commentPostedTime</span>
    </div>
  </div>
  <%
    if (uicomponent.isCommentDeletable(it.userId)) {
  %>
  <div onclick="<%= uicomponent.event("DeleteComment", uicomponent.id, it.:
  <% } %>
  </div>
  <% }) %>

  <div class="CommentBox $commentFormBlockClass clearfix" id="CommentFormBlock
    <% uicomponent.renderChild(UIFormTextAreaInput.class); %>
    <input type="button" onclick="<%= uicomponent.event("PostComment") %>" va
  </div>

</div>
<% uiiform.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:x
<external-component-plugins>
  <target-component>org.exoplatform.webui.ext.UIExtensionManager</target-com
  <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.UIActivityExtens
          <field name="type">
            <string>org.exoplatform.social.webui.activity.BaseUIActivity</str
          </field>
          <field name="name">
            <string>exosocial:spaces</string>
          </field>
          <field name="component">
            <string>org.exoplatform.social.samples.activityplugin.UISpaceLo
          </field>
          <field name="activityBuiderClass">
            <string>org.exoplatform.social.samples.activityplugin.SimpleSpace
          </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:



John Smith has edited Wiki page: **Wiki Home**
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Type your comments here

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.

3.1.2.1.1. What is ActivityBuilder?

ActivityBuilder is one class which is used to get values of *ExoSocialActivity* to set to *UIActivity* for displaying. eXo 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_SOURCE));
        uiLinkActivity.setLinkTitle(templateParams.get(UILinkActivityComposer.LINK_TITLE));
        uiLinkActivity.setLinkImage(templateParams.get(UILinkActivityComposer.LINK_IMAGE));
        uiLinkActivity.setLinkDescription(templateParams.get(UILinkActivityComposer.LINK_DESCRIPTION));
        uiLinkActivity.setLinkComment(templateParams.get(UILinkActivityComposer.LINK_COMMENT));
    }
}
```

To learn more about ActivityBuilder, refer to the [BaseUIActivity](#) class.

3.1.2.2. Create a composer extension for composing 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 eXo 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/UIVideoActivityComposerTemplate.groovy",
    events = {
        @EventConfig(listeners = UIVideoActivityComposer.SearchVideoClicked),
        @EventConfig(listeners = UIVideoActivityComposer.SelectVideoFromList),
        @EventConfig(listeners = UIVideoActivityComposer.AttachActionList),
        @EventConfig(listeners = UIVideoActivityComposer.ChangeLinkContent),
        @EventConfig(listeners = UIActivityComposer.CloseActionList),
        @EventConfig(listeners = UIActivityComposer.SubmitContentAction),
        @EventConfig(listeners = UIActivityComposer.ActivateActionList)
    }
)

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_PARAM));
    templateParams.put(HTML_PARAM, videoJson.getString(VideoEmbedTool.OEMBED_HTML_PARAM));
    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) {
    templateParams.put(COMMENT_PARAM, postedMessage);
    setTemplateParams(templateParams);
    if (templateParams.size() == 0) {
        uiApplication.addMessage(new ApplicationMessage("UIComposer.msg.error.EmptyComment",
            null,
            ApplicationMessage.WARNING));
        return;
    }
    String title = "Shared a video: <a href={{{"}}}{{{"}}}" + LINK_PARAM + "{{{"}}}";
    ExoSocialActivity activity = new ExoSocialActivityImpl(userIdentity.getId(),
        UIVideoActivity.ACTIVITY_TYPE,
        title,
        null);
    activity.setTemplateParams(templateParams);

    if (postContext == UIComposer.PostContext.SPACE) {
        UIActivitiesContainer activitiesContainer = uiDisplaySpaceActivities.getActivitiesContainer();
        activitiesContainer.addActivity(activity);
    }
}
```

```

requestContext.addUIComponentToUpdateByAjax(activitiesContainer);
requestContext.addUIComponentToUpdateByAjax(uiComposer);
} else if (postContext == PostContext.USER) {
    UIUserActivitiesDisplay uiUserActivitiesDisplay = (UIUserActivitiesDisplay)
    String ownerName = uiUserActivitiesDisplay.getOwnerName();
    Identity ownerIdentity = identityManager.getOrCreateIdentity(Organization
        ownerName, false);

    activityManager.saveActivity(ownerIdentity, activity);

    if (uiUserActivitiesDisplay.getSelectedDisplayMode() == UIUserActivitiesDisplay.
        UIActivitiesContainer activitiesContainer = uiUserActivitiesDisplay.get
        if (activitiesContainer.getChildren().size() == 1) {
            uiUserActivitiesDisplay.setSelectedDisplayMode(UIUserActivitiesDisplay.
        } else {
            activitiesContainer.addActivity(activity);
            requestContext.addUIComponentToUpdateByAjax(activitiesContainer);
            requestContext.addUIComponentToUpdateByAjax(uiComposer);
        }
    } else{
        uiUserActivitiesDisplay.setSelectedDisplayMode(UIUserActivitiesDisplay
    }
}

```

```
}  
}
```

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/...  
    @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),  
    @EventConfig(listeners = BaseUIActivity.DeleteCommentActionListener.class, co  
    }  
)  
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
    UIVideoActivity uiVideoActivity = (UIVideoActivity) uiActivity;
    Map<String, String> templateParams = activity.getTemplateParams();
    uiVideoActivity.setLinkSource(templateParams.get(UIVideoActivityComposer.LINK_SOURCE));
    uiVideoActivity.setLinkTitle(templateParams.get(UIVideoActivityComposer.TITLE));
    uiVideoActivity.setLinkImage(templateParams.get(UIVideoActivityComposer.IMAGE));
    uiVideoActivity.setLinkHTML(templateParams.get(UIVideoActivityComposer.HTML));
    uiVideoActivity.setLinkComment(templateParams.get(UIVideoActivityComposer.COMMENT));
}
}
```

You can check out the [source code](#) to get more details.

3.2. Overridable Components

There are 2 components in eXo 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>
```

3.3. Public Java APIs

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 set to the owner
getActivity (String activityId) throws ActivityStorageException	activityId - the id of activity	ExoSocialActivity	Get an activity
deleteActivity (String activityId) throws ActivityStorageException	activityId - the id of activity	void	Delete an activity
deleteActivity (ExoSocialActivity activity) throws ActivityStorageException	activity	void	Delete a store
deleteComment (String activityId, String commentId) throws ActivityStorageException	activityId - the id of activity, commentId - the id of comment	void	Delete a comment
getActivities (Identity identity) throws ActivityStorageException	identity	List<ExoSocialActivity>	Get the latest activities
getActivities (Identity identity, long start, long limit) throws ActivityStorageException	identity, start, limit	List<ExoSocialActivity>	Get the latest activities limit .
getActivitiesOfConnections (Identity ownerId) throws ActivityStorageException	ownerIdentity	List<ExoSocialActivity>	Get activities of connections that is sorted by time
getActivitiesOfConnections (Identity ownerId, int offset, int limit) throws ActivityStorageException;	ownerIdentity, offset, limit	List<ExoSocialActivity>	Get the activities of connections. The activities are sorted by time. activity.(Since offset)
getActivitiesOfUserSpaces (Identity ownerId)	ownerIdentity	List<ExoSocialActivity>	Get the activities of user spaces composed of a maximum 20 activities

getActivityFeed (Identity identity) throws ActivityStorageException	identity	List<ExoSocialActivity>	Get the activities of his which are returned by the activity.(Since
saveActivity (ExoSocialActivity activity) throws ActivityStorageException	activity - the activity to save	ExoSocialActivity	Save an activity and this field is
saveComment (ExoSocialActivity activity, ExoSocialActivity comment) throws ActivityStorageException	activity, comment	void	Save a new comment activity with m
saveLike (ExoSocialActivity activity, Identity identity) throws ActivityStorageException	activity, identity	void	Save an identity
removeLike (ExoSocialActivity activity, Identity identity) throws ActivityStorageException	activity, identity - a user who dislikes an activity	void	Remove an identity removed.
getComments (ExoSocialActivity activity) throws ActivityStorageException	activity	List<ExoSocialActivity>	Get the comments
recordActivity (Identity owner, String type, String title) throws ActivityStorageException	owner, type, title	ExoSocialActivity	Record an activity
recordActivity (Identity owner, ExoSocialActivity activity) throws Exception	owner, activity	ExoSocialActivity	Save an activity ActivityManager org.exoplatform removed in ex
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 (ActivityProcessor processor)	processor	void	Add a new pro
addProcessorPlugin (BaseActivityProcessorPlugin plugin)	plugin	void	Add a new pro
getActivitiesCount (Identity owner) throws ActivityStorageException	owner	int	Get the numb
processActivitiy (ExoSocialActivity activity)	activity	void	Pass an activi

3.3.2. IdentityManager

Method	Param	Return	Description
registerIdentityProviders (IdentityProviderPlugin 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)	identity	void	Delete an identity.
addIdentityProvider (IdentityProvider<?> idProvider)	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 specific type. For example, if the type is 'LinkedIn' the identifier will be the URL of the 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 (String providerId, ProfileFilter profileFilter) throws Exception	providerId - the id of provider, profileFilter - the filter of provider	Identity	Get the identities by profile filter.
getIdentitiesByProfileFilter (String providerId, ProfileFilter profileFilter, long offset, long limit) throws Exception	providerId, profileFilter, offset, limit	List<Identity>	Get the identities by profile filter.
getIdentitiesByProfileFilter (ProfileFilter profileFilter) throws Exception	profileFilter - the profile filter	List<Identity>	Get the identities by profile filter.
getIdentitiesByProfileFilter (ProfileFilter profileFilter, long offset, long limit) throws Exception	providerId, profileFilter, offset, limit	List<Identity>	Get the identities by profile filter.
getIdentitiesFilterByAlphaBet (String providerId, ProfileFilter profileFilter) throws Exception	providerId - the id of provider, profileFilter - the profile filter	List<Identity>	Get the identities filtered by alphabet.
getIdentitiesFilterByAlphaBet (String providerId, ProfileFilter profileFilter, long offset, long limit) throws Exception	providerId, profileFilter, offset, limit	List<Identity>	Get the identities filtered by alphabet with offset and limit.
getIdentitiesFilterByAlphaBet (ProfileFilter profileFilter) throws Exception	profileFilter - the profile filter	List<Identity>	Get the identities filtered 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 already existed or not.
saveIdentity (Identity identity)	identity - the identity	void	Save the identity.
saveProfile (Profile profile)	profile	void	Save a profile.
addOrModifyProfileProperties (Profile profile) throws Exception	profile	void	Add or modify properties of profile. Profile parameter is 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 (Profile p) throws Exception	profile	void	Update the contact section of the profile.
updateExperienceSection (Profile 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.
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 the identity. (Since 1.1.0)

getIdentityStorage()	N/A	IdentityStorage	Get the identity storage.
getStorage()	N/A	IdentityStorage	Get the storage. Deprecated: should use method <code>getIdentityStorage()</code>
registerProfileListener (ProfileListener listener)	listener	void	Register the profile listener.
unregisterProfileListener (ProfileListener listener)	listener	void	Unregister the profile listener.
addProfileListener (ProfileListenerPlugin plugin)	plugin	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 <code>get(String)</code> 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 (Relationship 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 (Identity sender) throws Exception	sender - an identity	List<Relationship>	Get all the pending relationship of sender.

getPendingRelationships (Identity sender, List<Identity> identities) throws Exception	sender - an identity, identities - a list of identity	List<Relationship>	Get pending relationship of sender that match with identities.
getRequireValidationRelationships (Identity receiver) throws Exception	receiver - an identity	List<Relationship>	Get list of required validation relationship of receiver.
getRequireValidationRelationships (Identity 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)	identity - an identity	List<Relationship>	Get list of confirmed relationship of identity.
getConfirmedRelationships (Identity 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
getSpaceByDisplayName (String spaceDisplayName)	spaceDisplayName	Space
getSpaceByPrettyName (String spaceName)	spaceName	Space
getSpaceByGroupId (String groupId)	groupId	Space
getSpaceById (String spaceId)	spaceId	Space
getSpaceByUrl (String spaceUrl)	spaceUrl	Space
getAllSpaces ()	N/A	ListAccess<
getAllSpacesWithListAccess ()	N/A	ListAccess<
getAllSpacesByFilter (SpaceFilter spaceFilter)	spaceFilter	ListAccess<
getMemberSpaces (String userId)	userId	ListAccess<
getMemberSpacesByFilter (String userId, SpaceFilter spaceFilter)	userId, spaceFilter	ListAccess<
getAccessibleSpaces (String userId)	userId	ListAccess<
getAccessibleSpacesWithListAccess (String userId)	userId	ListAccess<
getAccessibleSpacesByFilter (String userId, SpaceFilter spaceFilter)	userId, spaceFilter	ListAccess<
getSettingableSpaces (String userId)	userId	ListAccess<
getSettingabledSpacesByFilter (String userId, SpaceFilter spaceFilter)	userId, spaceFilter	ListAccess<
getInvitedSpaces (String userId)	userId	ListAccess<
getInvitedSpacesWithListAccess (String userId)	userId	ListAccess<
getInvitedSpacesByFilter (String userId, SpaceFilter spaceFilter)	userId, spaceFilter	ListAccess<

getPublicSpaces (String userId)	userId	ListAccess<
getPublicSpacesWithListAccess (String userId)	userId	ListAccess<
getPublicSpacesByFilter (String userId, SpaceFilter spaceFilter)	userId, spaceFilter	ListAccess<
getPendingSpaces (String userId)	userId	ListAccess<
getPendingSpacesWithListAccess (String userId)	userId	ListAccess<
getPendingSpacesByFilter (String userId, SpaceFilter spaceFilter)	userId, spaceFilter	ListAccess<
createSpace (Space space, String creatorUserId)	space, creatorUserId	Space
updateSpace (Space existingSpace)	existingSpace	Space
deleteSpace (Space space)	space	void
addPendingUser (Space space, String userId)	space, userId	void
removePendingUser (Space space, String userId)	space, userId	void
isPendingUser (Space space, String userId)	space, userId	void
addInvitedUser (Space space, String userId)	space, userId	void
removeInvitedUser (Space space, String userId)	space, userId	void
isInvitedUser (Space space, String userId)	space, userId	void
addMember (Space space, String userId)	space, userId	void
removeMember (Space space, String userId)	space, userId	void
isMember (Space space, String userId)	space, userId	boolean

setManager (Space space, String userId, boolean isManager)	space, userId, isManager	void
isManager (Space space, String userId)	space, userId	void
isOnlyManager (Space space, String userId)	space, userId	boolean
hasAccessPermission (Space space, String userId)	space, userId	boolean
hasSettingPermission (Space space, String userId)	space, userId	boolean
registerSpaceListenerPlugin (SpaceListenerPlugin spaceListenerPlugin)	spaceListenerPlugin	void
unregisterSpaceListenerPlugin (SpaceListenerPlugin spaceListenerPlugin)	spaceListenerPlugin	void
setSpaceApplicationConfigPlugin (SpaceApplicationConfigPlugin spaceApplicationConfigPlugin)	spaceApplicationConfigPlugin	void
getSpaceApplicationConfigPlugin()	N/A	SpaceApplic
getAllSpaces() throws SpaceException	N/A	List<Space>
getSpaceByName (String spaceName) throws SpaceException	spaceName	Space
getSpacesByFirstCharacterOfName (String firstCharacterOfName) throws SpaceException	firstCharacterOfName	List<Space>
getSpacesBySearchCondition (String condition) throws Exception	condition	List<Space>
getSpaces (String userId) throws SpaceException	userId	List<Space>
getAccessibleSpaces (String userId) throws SpaceException	userId	List<Space>
getEditableSpaces (String userId) throws SpaceException	userId	List<Space>

getInvitedSpaces (String userId) throws SpaceException	userId	List<Space>
getPublicSpaces (String userId) throws SpaceException	userId - Id of user	List<Space>
getPendingSpaces (String userId) throws SpaceException	userId	List<Space>
createSpace (Space space, String creator, String invitedGroupId) throws SpaceException	space, creator, invitedGroupId	Space
saveSpace (Space space, boolean isNew) throws SpaceException	space, isNew	void
deleteSpace (String spaceId) throws SpaceException	spaceId	void
initApp (Space space) throws SpaceException	space	void
initApps (Space space) throws SpaceException	space	void
delInitApps (Space space) throws SpaceException	space	void
addMember (String spaceId, String userId) throws SpaceException	spaceId, userId	void
removeMember (String spaceId, String userId) throws SpaceException	spaceId, userId	void
getMembers (Space space) throws SpaceException	space	List<String>
getMembers (String spaceId) throws SpaceException	spaceId	List<String>
setLeader (Space space, String userId, boolean isLeader) throws SpaceException	space, userId, isLeader	void
setLeader (String spaceId, String userId, boolean isLeader) throws SpaceException	spaceId, userId, isLeader	void

isLeader (Space space, String userId) throws SpaceException	space, userId	boolean
isLeader (String spaceId, String userId) throws SpaceException	spaceId, userId	boolean
isOnlyLeader (Space space, String userId) throws SpaceException	space, userId	boolean
isOnlyLeader (String spaceId, String userId) throws SpaceException	spaceId, userId	boolean
isMember (String spaceId, String userId) throws SpaceException	spaceId, userId,	boolean
hasAccessPermission (String spaceId, String userId) throws SpaceException	spaceId, userId	boolean
hasEditPermission (Space space, String userId) throws SpaceException	space, userId	Boolean
hasEditPermission (String spaceId, String userId) throws SpaceException	spaceId, userId	Boolean
isInvited (Space space, String userId) throws SpaceException	space, userId	Boolean
isInvited (String spaceId, String userId) throws SpaceException	spaceId, userId	Boolean
isPending (Space space, String userId) throws SpaceException	space, userId	Boolean
isPending (String spaceId, String userId) throws SpaceException	spaceId, userId	Boolean
installApplication (String spaceId, String appId) throws SpaceException	spaceId, appId	void
installApplication (Space space, String appId) throws SpaceException	space, appId	void

activateApplication (Space space, String appId) throws SpaceException	space, appId	void
activateApplication (String spaceId, String appId) throws SpaceException	spaceId, appId	void
deactivateApplication (Space space, String appId) throws SpaceException	space, appId	void
deactivateApplication (String spaceId, String appId) throws SpaceException	spaceId, appId	void
removeApplication (Space space, String appId, String appName) throws SpaceException	space, appId, appName	void
removeApplication (String spaceId, String appId, String appName) throws SpaceException	space, appId, appName	void
requestJoin (Space space, String userId) throws SpaceException	space, userId	void
requestJoin (String spaceId, String userId) throws SpaceException	spaceId, userId	void
revokeRequestJoin (Space space, String userId) throws SpaceException	space, userId	void
revokeRequestJoin (String spaceId, String userId) throws SpaceException	spaceId, userId	void
inviteMember (Space space, String userId) throws SpaceException	space, userId	void
inviteMember (String spaceId, String userId) throws SpaceException	spaceId, userId	void
revokeInvitation (Space space, String userId) throws SpaceException	space, userId	void

revokeInvitation (String spaceId, String userId) throws SpaceException	spaceId, userId	void
acceptInvitation (Space space, String userId) throws SpaceException	space, userId	void
acceptInvitation (String spaceId, String userId) throws SpaceException	spaceId, userId	void
denyInvitation (Space space, String userId) throws SpaceException	space, userId	void
denyInvitation (String spaceId, String userId) throws SpaceException	spaceId, userId	void
validateRequest (Space space, String userId) throws SpaceException	space, userId	void
validateRequest (String spaceId, String userId) throws SpaceException	spaceId, userId	void
declineRequest (Space space, String userId) throws SpaceException	space, userId	void
declineRequest (String spaceId, String userId) throws SpaceException	spaceId, userId	void
registerSpaceLifeCycleListener (SpaceLifeCycleListener listener)	listener	void
unregisterSpaceLifeCycleListener (SpaceLifeCycleListener listener)	listener	void
setPortletsPrefsRequired (PortletPreferenceRequiredPlugin portletPrefsRequiredPlugin)	portletPrefsRequiredPlugin	void
getPortletsPrefsRequired()	N/A	String

3.4. Java APIs sample code/ tutorial

3.4.1. Activity Stream

eXo 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.

3.4.1.1. Publish an activity

There are two 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.

3.4.1.1.1. 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, null);

            // 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);  
  }  
}
```

}

3.4.1.2. 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(SpaceIdentity.class, space);
            // Gets an identity if it already exists. If not, a new one is created
            Identity userIdentity = identityManager.getOrCreateIdentity(OrganizationIdentity.class, user);
            // 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);
    }
}

```

```
}  
}
```

3.4.1.2.1. 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  
    }  
  
    @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.

3.4.1.2.2. Publish an RSS feed with feedmash

It is really easy to publish an RSS feed to a space's activity stream. eXo 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 eXo 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/separator" />
        <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/separator" />
        <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 eXo 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 eXo 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) container.getComponentInstanceOfType(ActivityManager.class);
    }
}
```

```

// Gets or create demo's identity
demoIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProv

// Gets or creates the identity "john".
johnIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProv
}

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

    // Sets a string that specifies the primary text of an activity. This field
    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

eXo 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, eXo Social provides a framework for developers to build gadgets that can display and mash up activity information for contacts, social networks, applications and services.

3.4.2.1. Gadget

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](#).

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, eXo Social supports [OpenSocial Specification v1.1](#).

3.4.2.1.1. Supported APIs

eXo 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](#).

3.4.2.1.1.1. 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](#).

3.4.2.1.1.2. 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.

3.4.2.1.1.3. 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.

3.4.2.2. Tutorial

- See [Grails + eXo Social tutorial](#).

3.4.3. People

eXo 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.

3.4.3.1. Identity

The identity allows identifying a unique social object. The eXo 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.

3.4.3.1.1. IdentityProvider

eXo Social provides IdentityProvider as an identity mechanism for the third parties to extend eXo 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.

3.4.3.1.2. 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.OrganizationIdentity;
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.getComponentInstance(IdentityManager.class);

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

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

```

3.4.3.2. 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*.

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");
    }

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

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

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

    @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>

```

3.4.3.3. Connections

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

Relationship is the bridge between two identities in eXo 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.

3.4.3.3.1. 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, null);
    String invitedUserId = invitedIdentity.getId();

    String currUserId = "Zun";
    Identity currentIdentity = identityManager.getOrCreateIdentity(OrganizationIdentityProvider.NAME, null);

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

3.4.3.3.2. 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.RelationshipListener;
import org.exoplatform.social.relationship.spi.RelationshipEvent;

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

    @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

eXo 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.

3.4.4.1. Spaces Management

The following example will show how to create a space:

```
package 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.getComponentInstance("SpaceService");
        // 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");
            //DefaultSpaceApplicationHandler is the default implementation of SpaceApplicationHandler
            space.setType(DefaultSpaceApplicationHandler.NAME);
            //create the space
            space = spaceService.createSpace(space, creator);
            //initialize the applications
            spaceService.initApps(space);
        }
    }
}
```

3.4.4.2. Space's applications management

3.4.4.2.1. 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);
}
```

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*.

3.4.4.2.2. 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);
}
```

3.4.4.3. 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");
}
```

3.4.4.4. 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 eXo Social widget enables developers to add capabilities of eXo Social to external applications. Since the widget is hosted on your eXo 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 eXo Social widget that provide different levels of integration and information.

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

3.4.5.1. 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://localhost:8080/exo/social/widget/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 eXo 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 eXo 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.

3.4.5.2. 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">
<script src="/socialWidgetResources/javascript/space.js"></script>
<script>spaces.createPopup("exoSpacesLink", "MyAppName - my social object", "my
```

The important function here is:

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

In which:

- *link* is the ID or the HTML element 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.

3.4.5.3. Configure

- *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="exoSpace:
<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. How to extend the activities rendering

3.4.6.1. Objective

In this section, you will learn how to implement a preprocessor for activities rendering.

3.4.6.2. Requirements

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

3.4.6.3. Why would you need to do this?

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.

3.4.6.4. Write an ActivityProcessor

eXo 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
 * /
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;
    }
}

```

3.4.6.5. Configure the processor

Now, you have a nice processor, 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 *getPriority()*.

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 and you should see something like that:

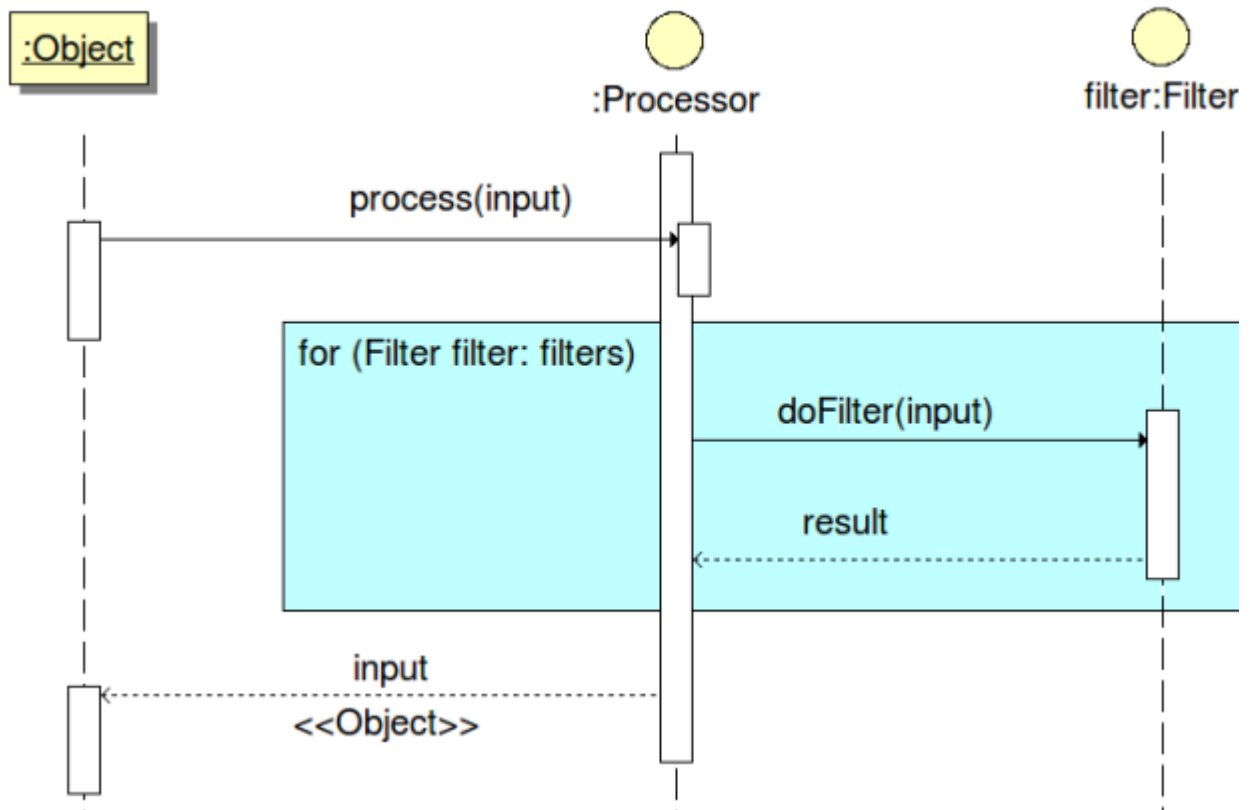
3.4.7. XMLProcessor component

3.4.7.1. Objectives

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

3.4.7.2. XMLProcessor 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<
  <component-plugin>
    <name>URLConverterFilterPlugin</name>
    <set-method>addFilterPlugin</set-method>
    <type>org.exoplatform.social.common.xmlprocessor.filters.URLConverterFilter<
    <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>

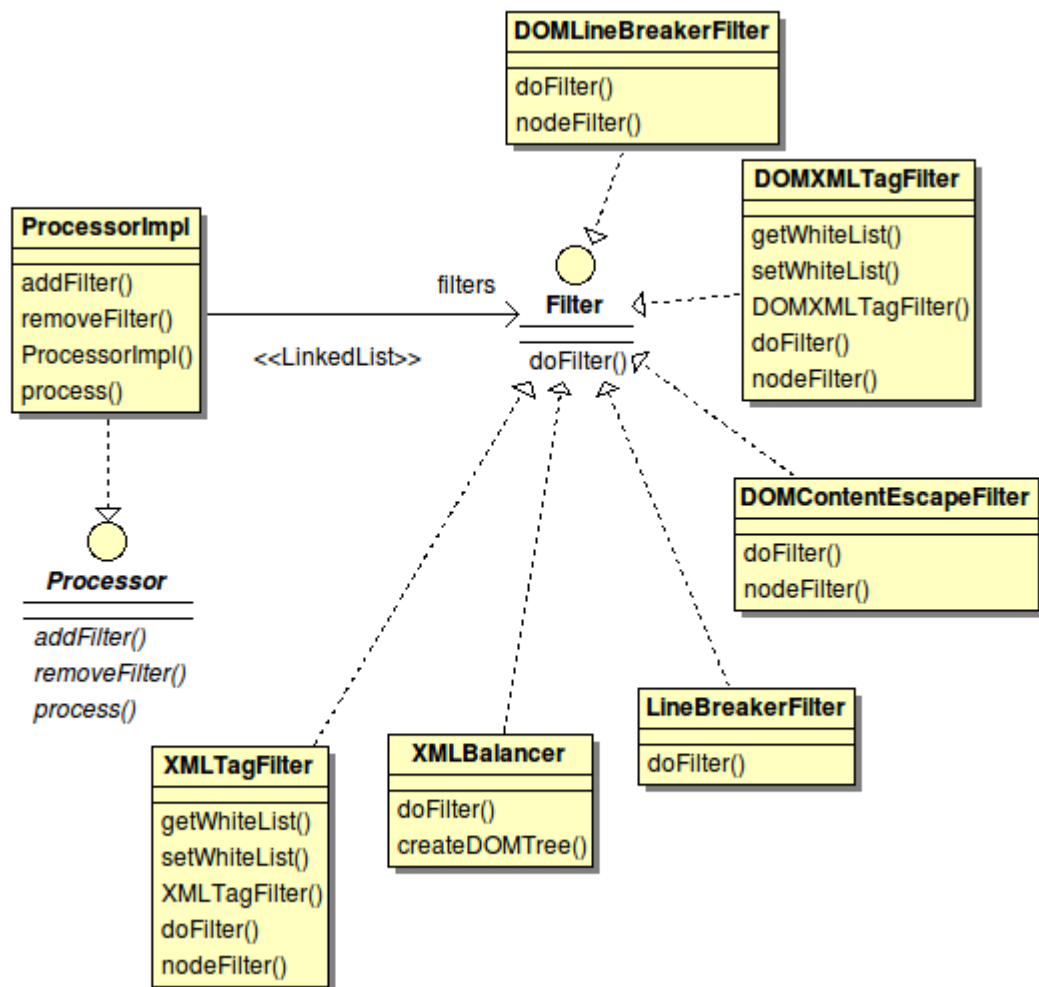
```

3.4.7.3. Built-in XMLProcessor Plugins

In eXo 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 escaped String.

The following is the general Class diagram of XMLProcessor in eXo 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.XMLTagF:
    <component-plugin>
      <name>setAllowedTagPlugin</name>
    </component-plugin>
  </target-component>
</external-component-plugins>

```

```

<set-method>setAllowedTagPlugin</set-method>
<type>org.exoplatform.social.common.xmlprocessor.model.XMLTagFilterPol:
<init-params>
  <object-param>
    <name>b tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>b</string></field>
    </object>
  </object-param>
  <object-param>
    <name>i tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>i</string></field>
    </object>
  </object-param>
  <object-param>
    <name>a tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>a</string></field>
      <field name="tagAttributes">
        <collection item-type="java.lang.String" type="java.util.HashS:
          <value><string>href</string></value>
        </collection>
      </field>
    </object>
  </object-param>
  <object-param>
    <name>span tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>span</string></field>
    </object>
  </object-param>
  <object-param>
    <name>em tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>em</string></field>
    </object>
  </object-param>
  <object-param>
    <name>strong tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>strong</string></field>
    </object>
  </object-param>
  <object-param>
    <name>p tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>p</string></field>
    </object>
  </object-param>
  <object-param>
    <name>ol tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>ol</string></field>
    </object>
  </object-param>
  <object-param>
    <name>ul tag</name>
    <object type="org.exoplatform.social.common.xmlprocessor.model.XML:
      <field name="tagName"><string>ul</string></field>
    </object>
  </object-param>

```

```

        </object>
    </object-param>
    <object-param>
        <name>li tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XML">
            <field name="tagName"><string>li</string></field>
        </object>
    </object-param>
    <object-param>
        <name>br tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XML">
            <field name="tagName"><string>br</string></field>
        </object>
    </object-param>
    <object-param>
        <name>img tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XML">
            <field name="tagName"><string>img</string></field>
            <field name="tagAttributes">
                <collection item-type="java.lang.String" type="java.util.HashS">
                    <value><string>src</string></value>
                </collection>
            </field>
        </object>
    </object-param>
    <object-param>
        <name>blockquote tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XML">
            <field name="tagName"><string>blockquote</string></field>
        </object>
    </object-param>
    <object-param>
        <name>q tag</name>
        <object type="org.exoplatform.social.common.xmlprocessor.model.XML">
            <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 **XMLProcessor Component** section.

3.5. Public REST APIs

3.5.1. Activities REST service

Name	Service URL	Location
ActivitiesRestService	<code>{restContextName}/{portalName}/social/activities</code>	Maven org.exoplatform.sc ArtifactId: exo.social.compor

- **API:**

Name	Service URL Endpoint
destroyActivity	<code>{restContextName}/{portalName}/social/activities/destroy/{activityId}.{format}</code>
showLikes	<code>{restContextName}/{portalName}/social/activities/{activityId}/likes/show.{format}</code>
updateLike	<code>{restContextName}/{portalName}/social/activities/{activityId}/likes/update.{format}</code>

destroyLike	{restContextName}/{portalName}/social/activities/{activityId}/likes/destroy/{i
showComments	{restContextName}/{portalName}/social/activities/{activityId}/likes/show.{for
updateComment	{restContextName}/{portalName}/social/activities/{activityId}/likes/update.{f
destroyComment	{restContextName}/{portalName}/social/activities/{activityId}/comments/des

Example:

<http://localhost:8080/rest-socialdemo/socialdemo/social/activities/s08d397dg6/likes/destroy/abc.jsor>

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	Provides REST service for the application registration. The 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 application by the JSON/XML format.

Example:

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

3.5.3. Identity REST service

Name	Service URL	Location
IdentityRestService	{restContextName}/{portalName}/social/identity/{username}/id	Maven groupId: org.exoplatform.social ArtifactId: exo.social.component.service

- API:

Name	Service URL Endpoint	Parameters
UserId getId	{restContextName}/{portalName}/social/identity/{username}/id/show.json	username portalNam

Example:

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

3.5.4. Linkshare REST service

Name	Service URL	Location
LinkshareRestService	{restContextName}/social/linkshare	Maven groupId: org.exoplatform.social ArtifactId: exo.social.component.service

- **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	Provides REST service to manage people

- API:

Name	Service URL Endpoint	Parameters	Version
suggestUsernames	{restContextName}/social/people/suggest.{format}	nameToSearch currentUser typeOfRelation spaceURL format	

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

3.5.6. Spaces REST service

Name	Service URL	Location
SpacesRestService	{restContextName}/{portalName}/social/spaces	Maven groupId: org.exoplatform.social ArtifactId: exo.social.component

- API:

Name	Service URL Endpoint	Pa
showMySpaceList	{restContextName}/social/spaces/mySpaces/show.{format}	
showPendingSpaceList	{restContextName}/social/spaces/pendingSpaces/show.{format}	
suggestSpacenames	{restContextName}/social/spaces/spaceNames/suggest.{format}	

Example:

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

3.5.7. Widget Rest Service

Name	Service URL	Location
WidgetRestService	{restContextName}/spaces/{containerName}	Maven group org.exoplatform.social ArtifactId: exo.social.extras.widget.i

- API:

Name	Service URL Endpoint	Parameters	Ex Val
spaceInfo	{restContextName}/spaces/{containerName}/space_info	containerName portalName spacePrettyName description	S S (c v cl S S

Example:

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

3.5.8. Location

- **Maven groupId:** org.exoplatform.social
- **ArtifactId:** exo.social.component.service

3.6. Rest Service APIs

Objectives:

The third parties want to integrate and extend the eXo Social capability and features and eXo Social REST Services APIs are dedicated for them to complete that. By using these REST APIs, the third parties can write any applications (desktop apps, mobile apps, web apps) to integrate with eXo 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.

Notes:

Currently, only the basic authentication is supported. Please see more details at http://en.wikipedia.org/wiki/Basic_access_authentication.

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:

- On eXo Social standalone:
 - *rest_context_name*: *rest-socialdemo*;
 - *portal_container_name*: *socialdemo*;
- On eXo Platform:
 - *rest_context_name*: *rest*;
 - *portal_container_name*: *portal*;

3.6.1. Activity Resources

3.6.1.1.1.1. GET activity/activityId.format

Description: Gets an activity object from a specified activity Id.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/act:
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity Id
 - **format:** the expected returned format
- **Optional (query paramters):**
 - **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:** Specifies the number of comments to be displayed along with this activity. By default, numberOfcomments=0. If numberOfcomments 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/: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:** Specifies 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://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/act:
```

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
  "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://cloud-workspaces.com/profile/root"
  } //optional
}
```

3.6.1.1.1.2. POST activity.format

Description: Creates an activity to an identity's activity stream. If no *identityid* is specified, the activity will be created to the authenticated identity's activity stream.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **format:** the expected returned format
- **Optional (query parameters):**
 - **identity_id:** the optional identity stream to post this new activity to

Request:

```
POST: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/ac
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
}
```

3.6.1.1.1.3. DELETE activity/activityId.format

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

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
- **Optional (query parameters):** No

Request:

```
DELETE: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/
```

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
  "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
  "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://cloud-workspaces.com/profile/root"
  } //optional
}
```

3.6.1.1.1.4. POST activity/destroy/activityId.format

Description: Deletes 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://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}/activity/destroy/{activityId}.format
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
- **Optional (query parameters):** No

Request:

POST: <http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/act>

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
  "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
  "activityStream": {
    "type": "user", // or "space"
    "prettyId": "root", // or space_abcd
    "faviconURL": "http://demo3.exoplatform.org/favicons/exo-default.jpg",
    "title": "Activity Stream of Root Root",
    "permalink": "http://cloud-workspaces.com/profile/root"
  } //optional
}
```

3.6.1.1.1.5. GET activity/activityId/comments.format

Description: Gets the comments on an activity.

URL:

<http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/comments.format>

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
- **Optional (query parameters):** No

Request:

```
GET: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/act:
```

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"
    }
  ]
}
```

3.6.1.1.1.6. POST activity/activityId/comment.format

Description: Posts a new comment on an existing activity. The poster of this comment is an authenticated identity.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/comment.{format}
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
- **Optional (query paramters):** No

Request:

```
POST: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/act
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"
}
```

3.6.1.1.1.7. DELETE activity/activityId/comment/commentId.format

Description: Deletes an existing comment by its Id.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/
```

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
 - **commentId:**
- **Optional (query paramters):** No

Request:

```
DELETE: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/
```

Response:

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

3.6.1.1.1.8. POST activity/activityId/comment/destroy/commentId.format

Description: Deletes 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://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/act
```

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
 - **commentId:** the specified comment id
- **Optional (query paramters):** No

Request:

```
POST: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/act
```

Response:

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

3.6.1.1.1.9. GET activity/activityId/likes.format

Description: Gets all the identities who like an existing activity.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}/activity/{activityId}/likes.format
```

Parameters:

- **Required (path parameters):**
 - **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-socialdemo/private/api/social/v1-alpha3/socialdemo/organization/activity/1234567/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"
      }
    }
  ]
}
```

3.6.1.1.1.10. POST activity/activityId/like.format

Description: Allows an authenticated identity to do the "like" action on an existing activity.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/act
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **activityId:** the specified activity id
 - **format:** the expected returned format
- **Optional (query paramters):** No

Request:

```
POST: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/act
```

Response:

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

3.6.1.1.1.11. DELETE activity/activityId/like.format

Description: Allows an identity to remove his "like" action on an activity.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/act
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**

- **portalContainerName**: the associated portal container name
- **activityId**: the specified activity id
- **format**: the expected returned format
- **Optional (query paramters)**: No

Request:

```
DELETE: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/
```

Response:

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

3.6.1.1.12. POST activity/activityId/like/destroy.format

Description: Allows 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://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal/
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName**: the associated portal container name
 - **activityId**: the specified activity id
 - **format**: the expected returned format
- **Optional (query paramters)**: No

Request:

```
POST: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/ac
```

Response:

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

3.6.2. Activity Stream Resources

3.6.2.1.1.1. GET identityId.format

Description: Gets 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://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}/identityId.format
```

Parameters:

- **Required (path parameters):**
 - **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, xml...
- **Optional (query paramters):**
 - **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:** Returns the activities having the created timestamps greater than the specified **since_id** 's *created timestamp*.
 - **max_id:** Returns 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:** Specifies 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:** Specifies 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://cloud-workspaces.com/rest/private/api/social/v1-alpha3/socialdemo,
```

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=123456789"
          }
        }
      ],
      "totalNumberOfLikes": 20,
      "posterIdentity": {
        "id": "123456313efghi",
        "providerId": "organization",
        "remoteId": "demo",
        "profile": {
          "fullName": "Demo GTN",
          "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
        }
      },
      "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=123456789"
            }
        }
    ],
    "totalNumberOfLikes": 20,
    "posterIdentity": {
        "id": "123456313efghi",
        "providerId": "organization",
        "remoteId": "demo",
        "profile": {
            "fullName": "Demo GTN",
            "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
        }
    },
    "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"
    }
}
}

```

```
]
}
```

3.6.2.1.1.2. GET feed.format

Description: Gets the activity stream feed of the authenticated user identity who makes this request.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalName}/feed.format
```

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** The portal container name
 - **format:** The response format type, for example: json, xml...
- **Optional (query parameters):**
 - **limit:** Specifies 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:** Returns the activities having the created timestamps greater than the specified sinceId's created timestamp
 - **max_id:** Returns 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:** Specifies the latest number of comments to be displayed along with each activity. By default, numberOfComments=0. If numberOfComments 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's recommended to use: "activity/:activityId/comments.format" instead
 - **number_of_likes:** Specifies the latest number of detailed likes to be returned along with this activity. By default, numberOfLikes=0. If numberOfLikes 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's recommended to use: "activity/:activityId/likes.format" instead.

Request:

```
GET: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/socialdemo,
```

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=123456789"
          }
        }
      ],
      "totalNumberOfLikes": 20,
      "posterIdentity": {
        "id": "123456313efghi",
        "providerId": "organization",
        "remoteId": "demo",
        "profile": {
          "fullName": "Demo GTN",
          "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
        }
      },
      "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=123456789"
            }
        }
    ],
    "totalNumberOfLikes": 20,
    "posterIdentity": {
        "id": "123456313efghi",
        "providerId": "organization",
        "remoteId": "demo",
        "profile": {
            "fullName": "Demo GTN",
            "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
        }
    },
    "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"
    }
}
}

```

```
]
}
```

3.6.2.1.1.3. GET spaces.format

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

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portal}
```

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** The portal container name
 - **format:** The response format type, for example: json, xml...
- **Optional (query parameters):**
 - **limit:** Specifies 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:** Returns the activities having the created timestamps greater than the specified sinceId's created timestamp
 - **max_id:** Returns 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:** Specifies the latest number of comments to be displayed along with each activity. By default, numberOfComments=0. If numberOfComments 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's recommended to use: "activity/:activityId/comments.format" instead
 - **number_of_likes:** Specifies the latest number of detailed likes to be returned along with this activity. By default, numberOfLikes=0. If numberOfLikes 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's recommended to use: "activity/:activityId/likes.format" instead.

Request:

```
GET: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/socialdemo,
```

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=123456789"
          }
        }
      ],
      "totalNumberOfLikes": 20,
      "posterIdentity": {
        "id": "123456313efghi",
        "providerId": "organization",
        "remoteId": "demo",
        "profile": {
          "fullName": "Demo GTN",
          "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
        }
      },
      "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=123456789"
            }
        }
    ],
    "totalNumberOfLikes": 20,
    "posterIdentity": {
        "id": "123456313efghi",
        "providerId": "organization",
        "remoteId": "demo",
        "profile": {
            "fullName": "Demo GTN",
            "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
        }
    },
    "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"
    }
}
}

```

```
]
}
```

3.6.2.1.1.4. GET connections.format

Description: Gets activities of connections of a specified identity.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalContainerName}/connections.format
```

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** The portal container name
 - **format:** The response format type, for example: json, xml...
- **Optional (query parameters):**
 - **limit:** Specifies 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:** Returns the activities having the created timestamps greater than the specified sinceId's created timestamp
 - **max_id:** Returns 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:** Specifies the latest number of comments to be displayed along with each activity. By default, numberOfComments=0. If numberOfComments 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's recommended to use: "activity/:activityId/comments.format" instead
 - **number_of_likes:** Specifies the latest number of detailed likes to be returned along with this activity. By default, numberOfLikes=0. If numberOfLikes 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's recommended to use: "activity/:activityId/likes.format" instead.

Request:

GET: <http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/socialdemo>,

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=123456789"
            }
          }
        ],
        "totalNumberOfLikes": 20,
        "posterIdentity": {
          "id": "123456313efghi",
          "providerId": "organization",
          "remoteId": "demo",
          "profile": {
            "fullName": "Demo GTN",
            "avatarUrl": "http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
          }
        },
        "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=123456789"
        }
      }
    ],
    "totalNumberOfLikes":20,
    "posterIdentity":{
      "id":"123456313efghi",
      "providerId":"organization",
      "remoteId":"demo",
      "profile":{
        "fullName":"Demo GTN",
        "avatarUrl":"http://localhost:8080/profile/u/demo/avatar.jpg?u=123456789"
      }
    },
    "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"
    }
  }
}

```

}¹

3.6.3. Identity Resources

3.6.3.1.1.1. GET identityId.format

Description: Gets the identity and its associated profile by the activity Id.

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalId}
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **portalContainerName:** the associated portal container name
 - **identityId:** the specified identityId
 - **format:** the expected returned format
- **Optional (query parameters):** No

Request:

```
GET: http://cloud-workspaces.com/rest/private/api/social/v1-alpha3/portal/identityId.format
```

Response:

```
{
  "id" : "123456789",
  "providerId": "organization",
  "remoteId": "demo",
  "profile": {
    "fullName": "Demo Gtn",
    "avatarUrl": "http://cloud-workspaces.com/profile/avatar/demo.jpg"
  }
}
```

3.6.3.1.1.2. GET providerId/remotId.format

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

URL:

```
http://platform35.demo.exoplatform.org/rest/private/api/social/v1-alpha3/{portalId}
```

Requires Authentication: true

Parameters:

- **Required (path parameters):**
 - **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-socialdemo/private/api/social/v1-alpha3/socialdemo
```

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/socialdemo/demo/profile/avatar/demo.jpg"
  }
}
```

3.6.4. Version Resources

3.6.4.1.1.1. GET latest.format

Description: Gets 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://platform35.demo.exoplatform.org/rest/private/api/social/versionlatest.{f
```

Parameters:

- **Required (path parameters):**
 - **format:** the expected returned format
- **Optional (query parameters):** No

Request:

```
GET: http://cloud-workspaces.com/rest/api/social/version/latest.json  
or  
GET: http://cloud-workspaces.com/rest/api/social/version/latest.xml
```

Response:

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

or

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

3.6.4.1.1.2. GET supported.format

Description: Gets 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://platform35.demo.exoplatform.org/rest/private/api/social/versionssupported
```

Parameters:

- **Required (path parameters):**
 - **format:** the expected returned format
- **Optional (query parameters):** No

Request:

```
GET: http://cloud-workspaces.com/rest/api/social/version/supported.json
or
GET: http://cloud-workspaces.com/rest/api/social/version/supported.xml
```

Response:

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

or

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

3.7. Public Javascript APIs

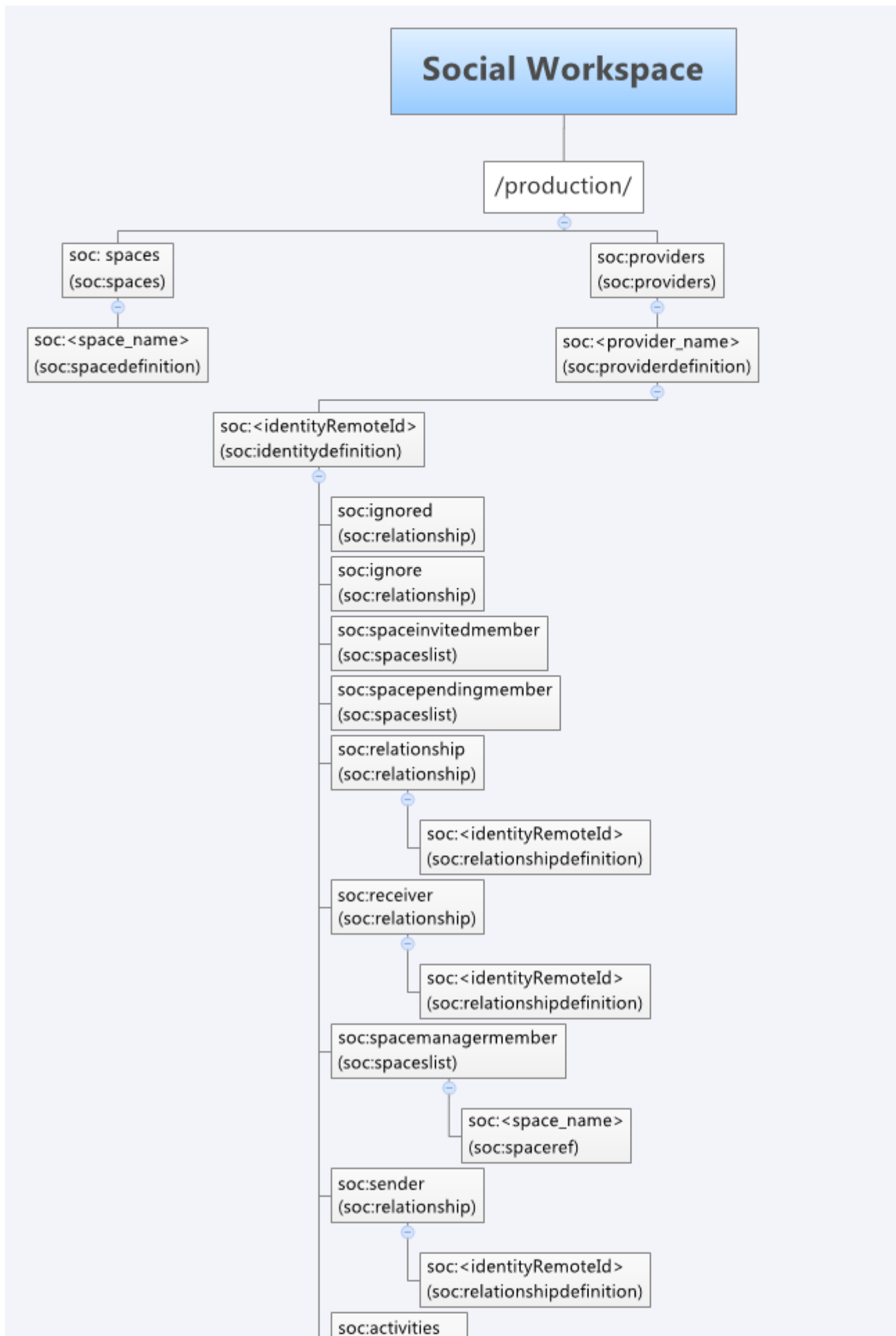
All references for Opensocial Javascript APIs can be viewed [here](#).

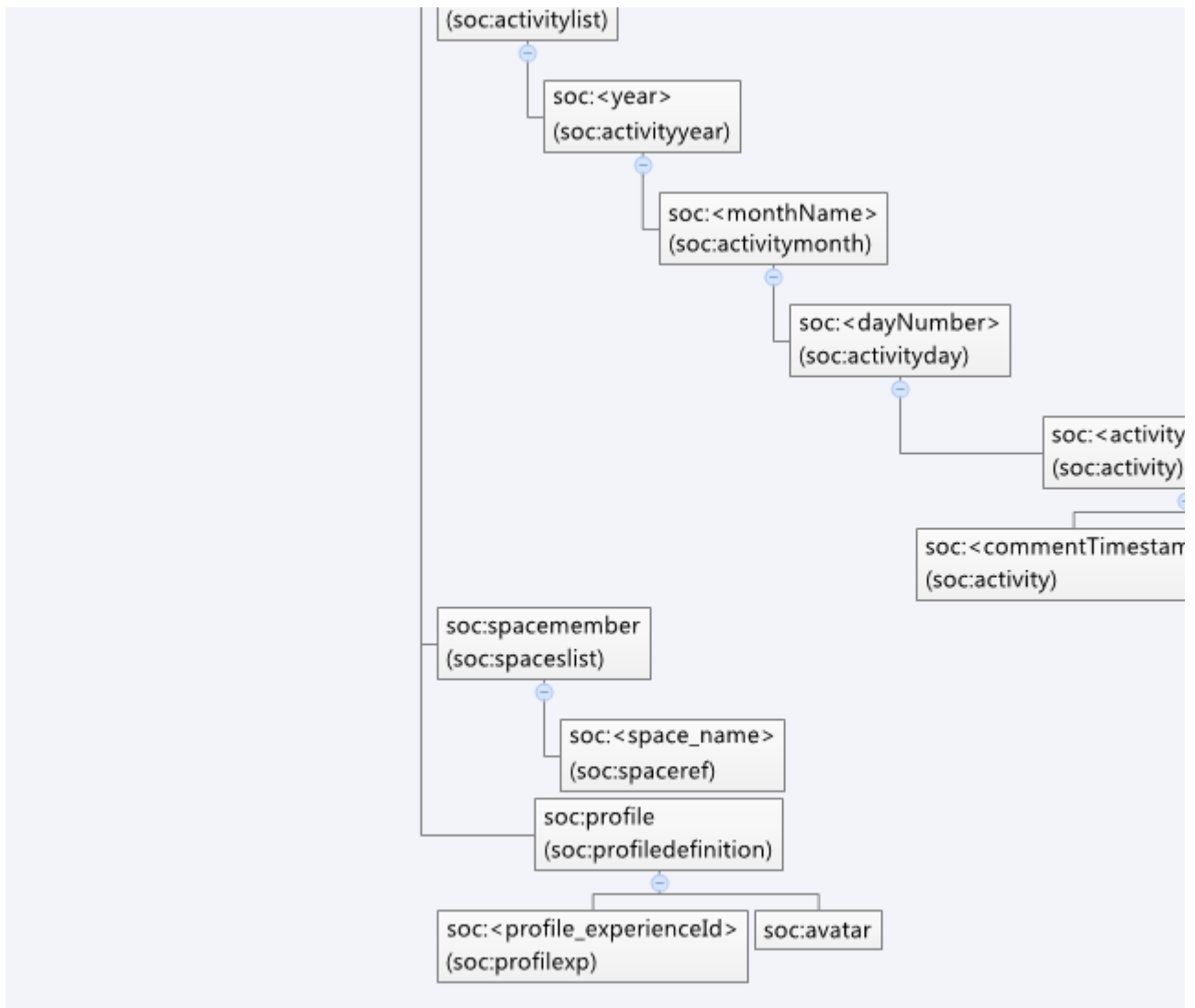
3.8. Social JCR Structure

3.8.1. Overview

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

See the eXo Social JCR structure in the chart below:





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

3.8.2. soc:providers

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

3.8.2.1. soc:<providername>

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

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

3.8.3. 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.
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.

3.8.4. 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	Denotes 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.

3.8.5. Profile

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

Property Name	Required Type	Mutiple	Description
soc:externalUrl	String	false	
soc:externalAvatarUrl	String	false	
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.
<i>childName</i>	soc:profilexp	All the experiences stored in the profile.

Some residual properties can be set and will be used by eXo 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.

3.8.6. 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.
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.

3.8.7. 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
<i>childName</i>	soc:activityyear	All the years containing activities in the list.

3.8.8. 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
<i>childName</i>	soc:activitymonth	All the months containing activities in the year.

3.8.9. 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
<i>childName</i>	soc:activityday	All the days containing activities in the month.

3.8.10. 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
<i>childName</i>	soc:activity	All the activities in the day.

3.8.11. 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:appld	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.
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
<i>childName</i>	soc:activity	All comments of the identity. The child is the posted time stamp.
soc:params	soc:activityparam	The activity parameters.

3.8.12. Activity parameters

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

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

3.8.13. 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.

3.8.14. 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, 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.