Introduction to Shindig & Social applications' development
Agenda

• Introduction to Shindig

• Social applications’ development

• Conference development
Introduction to shindig

• Apache Shindig
  – was originally started by Google in 2007
  – Since December 2007, it became an Apache project

• Apache Shindig's objectives
  – Provide an infrastructure to host OpenSocial applications
  – Be language neutral and cover multiple languages
    • Currently, Java and PHP versions are available
Introduction to shindig

• Apache Shindig is a reference implementation of the OpenSocial API specifications versions 0.8.x and 0.9.x
• OpenSocial API is a standard set of Social Network APIs
  – http://www.opensocial.org/page/specs-1
  – It includes:
    • Profiles
    • Relationships
    • Activities
    • Shared applications
    • Authentication
    • Authorization
Introduction to shindig

• Implemented OpenSocial APIs
  – OpenSocial REST
  – OpenSocial RPC (Remote Procedure Call)
  – Javascript
Introduction to shindig

• Apache Shindig exposes four resources
  – people
  – appdata
  – activities
  – groups

• More information can be found at
  – http://shindig.apache.org/overview.html
  – http://sites.google.com/site/opensocialarticles/Home/shindig-rest-java
# Introduction to shindig

- **REST interface:**

<table>
<thead>
<tr>
<th>Resource</th>
<th>URI</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>/social/rest/people/{guid}/@self</td>
<td>Profile record for user {guid}; e.g. <a href="http://localhost:8123/social/rest/people/john.doe">http://localhost:8123/social/rest/people/john.doe</a></td>
</tr>
<tr>
<td></td>
<td>/social/rest/people/{guid}/@friends</td>
<td>Collection of all friends of user {guid}; subset of @all</td>
</tr>
<tr>
<td></td>
<td>/social/rest/people/{guid}/@all</td>
<td>Collection of all people connected to the user {guid}</td>
</tr>
<tr>
<td></td>
<td>/social/rest/people/{guid}/@all/{pid}</td>
<td>Individual person record for a specific person known to {guid}; shows {guid}'s view of {pid}</td>
</tr>
<tr>
<td></td>
<td>/social/rest/people/@me/@self</td>
<td>Profile record for requestor</td>
</tr>
<tr>
<td></td>
<td>/social/rest/people/{guid}/{groupid}</td>
<td>Collection of all people connected to user {guid} in group {groupid}</td>
</tr>
</tbody>
</table>
Introduction to shindig

- REST interface

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<thead>
<tr>
<th>Resource</th>
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<th>Description</th>
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<tr>
<td>Appdata</td>
<td>/social/rest/appdata/{guid}/@self/{appid}</td>
<td>All app data for user {guid}, app {appid}</td>
</tr>
<tr>
<td></td>
<td>e.g. <a href="http://localhost:8123/social/rest/appdata/john.doe">http://localhost:8123/social/rest/appdata/john.doe</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/social/rest/appdata/{guid}/@friends/{appid}</td>
<td>All app data for friends of user {guid} and app {appid}; read-only (only GET and HEAD supported)</td>
</tr>
<tr>
<td></td>
<td>/social/rest/appdata/{guid}/@self/{appid} ?fields=count</td>
<td>Just the count field for user {guid}, app {appid}</td>
</tr>
</tbody>
</table>
Introduction to shindig

Installation

• Use OpenSocial Development Environment (OSDE)
  – Can be installed from Eclipse using the update site:
    • http://opensocial-development-environment.googlecode.com/svn/update-site/site.xml
  • A step-by-step installation procedure can be found at:
    • http://sites.google.com/site/opensocialdevenv/user-guide/install
Social applications’ development

• A tutorial can be found at:
  – http://sites.google.com/site/opensocialdevenv/user-guide/tutorial

• Using the real product
  – Start shindig and add sample data
  – Create a social application
  – Create and execute a REST Java client
Conference development

Sever d’Application

Conference application

Client

Invite

startConf(participantsList)

start

GUI

Conferecne application

Invite

Ok

Ack

endConf()

end
Conference development

• Server side
  • An application that will create a conference among given users
    • Uses SIP stack to listen to, receive, process and send SIP messages
      • JAIN SIP
      • SIP Servlet

• Client side
  • Download and use an existing SIP client
    • E.g. X-lite
      • [http://www.counterpath.com/x-lite-download.html](http://www.counterpath.com/x-lite-download.html)

• Use JMF for media
How to download JAIN SIP

• API doc and .jar can be downloaded at:

• Reference implementation .jar can be downloaded at:
  – [http://download.java.net/communications/jain-sip/nightly/](http://download.java.net/communications/jain-sip/nightly/)
  – Click: “jain-sip-ri/”, you can find all nightly build implementations .jar
  – You can also find sdp implementations at the same place

• When implementing a conferencing application using Jain SIP stack, add the two jar files (one api, one impl) to your project:
  – jsip_api_v1.2.jar
  – jain-sip-ri-1.2.xx.jar

  • Tip: you may need log4j-xxx.jar, depending on the sip impl you use. If you have running errors, add log4j-xxx.jar to your project
    – [http://www.apache.org/dyn/closer.cgi/logging/log4j/1.2.15/apache-log4j-1.2.15.zip](http://www.apache.org/dyn/closer.cgi/logging/log4j/1.2.15/apache-log4j-1.2.15.zip)
References

**Shindig**

**OpenSocial Development Environment (OSDE)**

**Social application development**
- [http://sites.google.com/site/opensocialdevenv/user-guide/tutorial](http://sites.google.com/site/opensocialdevenv/user-guide/tutorial)
- [http://code.google.com/opensocial](http://code.google.com/opensocial)
- [http://code.google.com/p/opensocial-resources/](http://code.google.com/p/opensocial-resources/)

**OpenSocialClient Class :**

**Specifications**
- [http://opensocial.org/](http://opensocial.org/)
- [http://groups.google.com/group/opensocial-and-gadgets-spec](http://groups.google.com/group/opensocial-and-gadgets-spec)
References

- **JAIN SIP tutorial & examples**

- **SIP Servlet sample applications**