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Project Keitai (Mobile Sakai)

Origins

In January 2011 the Universities of Cambridge, Florida, Indiana, and Oxford (see http://m.ox.ac.uk) began collaborative discussions about "mobilizing" Sakai. Out of those conversations came the Mobile Sakai proposal presented at the Summer 2011 Sakai Conference and Fall EuroSakai Conference along with an invitation to other Sakai institutions engaged in the development of mobile Sakai functionality, to join in collaboration around Mobile Sakai with the following goals:

1. Establish a model framework for authentication, connecting to Sakai tools, and exchanging data to achieve a reasonable level of mobile functionality within the Sakai 2.x core;
2. Identify and communicate best practices to local institutions seeking to integrate Sakai tools and functions;
3. Develop and implement quality assurance and quality control mechanisms integrated with existing QA/QC efforts for developing and testing mobile functions and mobile-enabled tools as they move toward becoming part of core Sakai;
4. Work with community to identify recommended practices for development, including programming, working with tools, service layer interactions, and other technical elements;
5. To translate these objectives for the Sakai Open Academic Environment.

   Click here to view the original Mobile Sakai Proposal to the Community.

Nov 2013 Update

All current work is complete and will be in Sakai 10. An API document has been created and is available here.

Sept. 2012 Update

Building on conversations and work from the 2012 North America Sakai Conference, the mobile project changed direction from seeking to round up programmers to commit to the work identified in the original proposal to raising funds to contract with programmers to undertake this work. because of this change in direction, a new framework for moving forward was required, beginning with seeking official approval from the Sakai Foundation Board. toward that end the following proposal was drafted.

Mobile Sakai Project Proposal

At the 25 September 2012 meeting, the Foundation Board approved the proposal "with enthusiasm:"

Purpose:

To improve the capabilities of the Entity Broker in Sakai CLE 2.10+ to enhance communication with mobile devices; and to upgrade existing core tools and selected Contrib tools to take advantage of improved Entity Broker capabilities leading to a mobile-enabled Sakai CLE. It should be noted that the purpose of this project is to "mobile enable" Sakai, not to create mobile apps themselves. This leaves to each Sakai institution the choice of developing their own apps or hiring third-party companies to do this development as well as the choice of which Sakai functions each institution wishes to enable and support in the mobile environment.

Project Name:

"Keitai" – Japanese for "cell" as in "cell phone." This also aligns with a current trend in the Sakai Community to Japanese names (e.g. "Nakamura" = OAE kernel; and, of course, "Sakai" itself).

Goals:

1. To improve Entity Broker support for communication and integration across Sakai CLE tools as well as communication to and from external services , especially mobile devices;
2. To enhance Core and selected Contrib tools to enable effective use of the Entity Broker for full functionality of Sakai on mobile devices of all kinds;
3. To contribute all code developed under this project to Sakai 2.10 with possible back-porting to 2.9;
4. To evaluate and maintain submitted code in future CLE point releases (2.11+).

Steering Committee:

A steering committee will be recruited to provide oversight for the Mobile Sakai Project, to: 1) ensure project outcomes meet the needs of Sakai institutions and support providers; 2) to evaluate and approve project costs according to appropriate procedures; and, 3) to support communication efforts to promote the work of this project to the large Sakai community.

Members of the Steering Committee include:

- Christian Bond, Leaning Forward Technology, LLC

- Matthew Buckett, Oxford University, UK
- Matt Willmore, University of Notre Dame
- Ian Dolphin, member *ex officio*, Sakai Board and Foundation.
- Kim Eke, University of North Carolina, Chapel Hill
- Doug Johnson, University of Florida, Project Manager

Work to Date:

The Mobile Sakai Project started in 2011 with conversation among four institutions: Cambridge, Florida, Indiana, and Oxford which lead to a public proposal presented at the 2011 Sakai North America Conference and the EuroSakai Conference. A number of additional institutions "signed on;" and project goals were subsequently defined over 2011-2012.

In Summer 2012, at the Sakai North American Conference, a brainstorming session with users about desired mobile capabilities for Sakai helped define the specific programming work necessary to mobilize Sakai. This work was defined as: 1) upgrading the entity broker to enable communication and integration across all Sakai CLE Core tools; 2) enhancing existing Core tools to take advantage of improved Entity Broker capabilities; c) enhance selected Contrib tools (i.e. Mneme, Melete) as identified by contributing institutions. Subsequently, a Sakai Commercial Affiliate already involved with the mobile effort on a voluntary basis, was invited to further define the necessary programming effort and to prepare a cost proposal. That proposal was submitted in August 2012.

The Project Manager subsequently contracted with the SCA to complete the defined work. All code written under this project is being submitted to the Sakai Project as open/community source code under the standard operational models of the Apereo Foundation.

Costs & Fundraising:

The University of Florida has agreed to fund the base programming for this project, providing $50,000 (USD). The Project Manager, with support from the steering committee, the Sakai Foundation and Board, along with any other volunteers, will solicit any additional, sustainability funding from other institutions, as needed.

State of the Project, Feb. 2013

Here is the text of the update email sent on 13 February to the Sakai Mobile List:

Greetings All!

With profuse apologies for this long-overdue email, let me bring everyone up to date on the Sakai Mobile Initiative. Also forgive me for the length of this email; the good news is that positive things have been happening; and as a result, the overdue status of this email means there's a lot to update.

So back to Summer 2012 …

The Jasig-Sakai Conference in Atlanta was a great event; and, no surprise, I encountered a very high level of interest in a mobilized Sakai. I had arranged both to do an update session on the Mobile Sakai initiative and for a Mobile Sakai programming marathon; however, during the presentation it became clear that there were few programmers available to make use of the programming time. Fortunately, an excellent suggestion was raised during the session that we should use the time for a "Use-Case-A-Thon" and give potential users the opportunity to report on how and why they need and want various mobile capabilities. So we did that, and for most of a morning I met with various people – instructors, students, programmers, administrators -- to discuss how they envisioned using a mobilized Sakai.

The take-away was that users want *all* capabilities in Sakai mobilized, but some institutions have significant questions about whether or not they would want to deploy certain tools in the mobile environment. I'll say more about this shortly.

So interest in a mobile Sakai remains high and is, in fact, increasing. At the same time, it is very clear that our institutions are under increasing budget pressures making it difficult to contribute programmer cycles to this effort. This creates a seemingly insurmountable hurdle; and yet, after the conference we have opportunities we have not had before.

Specifically, after banging ideas around with a number of people at the conference, I decided to give up on trying to recruit and coordinate volunteer time to do the programming for mobilizing Sakai and changed focus to raising funds to contract with a programming team to do this work. This has worked far better than I expected.

In short, after more discussions with Sakai leadership to work out the legalities and logistics, I moved forward:

a)   Writing up a formal project proposal and submitting it to the Sakai Foundation Board for approval;

b)   Soliciting volunteers to participate in a Steering Committee to advise and direct the Mobile Sakai Project;

c)   Identifying a formal project name: Project Keitai;

d)   Working with the Steering Committee to identify a vendor to handle the programming for this project and securing an estimate of costs from that vendor;

e)   Raising the required funds;

f)   Writing up a Memorandum of Understanding with the Sakai Foundation Board to define its role in managing and disbursing project funds for Project Keitai;

g)   Lining up the contract programmers.

Many of these details are already posted at the Mobile Sakai project site [https://confluence.sakaiproject.org/display/MOBILE/Home], so I will not repeat them here. Perhaps most importantly, the Steering Committee has selected a Sakai Commercial Affiliate to handle the programming for this project, so knowledge of and familiarity with Sakai are obviously not a concern. I should also note that all code developed under Project Keitai will be contributed to the Sakai Foundation and will become part of he generally available code base.

I also want to point out that much of the Project Keitai work will focus on updating and improving the Entity Broker. I am particularly excited by this, because it has been suggested to me that updating the Entity Broker is long overdue, and, of course this work will have beneficial implications for the CLE far beyond mobile capabilities.

It has also been announced already [http://www.sakaiproject.org/news/announcing-project-keitai] that the University of Florida has agreed to fund Project Keitai. So the programming resources to mobilize the Sakai CLE and the funding to pay those resources are now in place. In this context I'd like to publicly thank my boss (Fedro Zazueta) for his support and advocacy along with the University of Florida CIO (Elias Eldayrie) for having the vision to fund this project.

Let me return to the issue of how a mobilized Sakai is now conceived.

As the Use-Case-A-Thon progressed, it became clear that a mobilized CLE (or any course management system for that matter) has policy implications that need to be addressed at an institutional level. For example, does an institution want to enable the testing tools potentially enabling high stakes testing on mobile devices? Institutions will differ in their answers to that question; and institutions need to remain empowered to make that and other related decisions.

Therefore, the scope of Project Keitai has been defined as creating the "hooks" in ALL current core tools and a small number of selected Contrib tools to enable those tools to communicate with mobile apps developed or adopted at the institutional level. Project Keitai will not be developing a mobile app itself. This accomplishes three critical objectives:

1. It will enable schools that have already developed mobile apps to "hook" into the Sakai CLE without requiring them to adopt some other app for Sakai access;
2. It will enable individual schools to decide which Sakai tools and features will be mobile-enabled in light of local policies and practices;
3. It will enable 3rd-party vendors to develop and market mobile Sakai apps for those institutions who do not have the ability or desire to create their own.

I should also note that programming is targeted at the 2.10 CLE release and will be back-ported to 2.9 to the extent possible.

So that's the 30,000 foot view. Where are we in the project details?

"On the ground" things have moved much slower than I would like; to a great extent because Project Keitai was caught up in the broader currents of the Apereo merger. As a result, legal review and approval of the Memorandum of Understanding took about 3 months and the contract is still pending, but should be resolved within a few days. I know some work has been done on the mobile code; but as of yet, full-scale production is not happening. Furthermore, I have been in contact with a couple schools and institutions (Oxford, Samoo) that have already done some mobile code work on the CLE and are willing to contribute; so that will expedite overall progress. In fact, Samoo (www.samoo.es) has committed up to 200 hours of programmer time to this effort; so grateful thanks to Diego del Blanco Orobitg and his colleagues

At this time, the projected timeline is that the mobile CLE code can be developed in 8 to 9 months of full production. I had originally hoped that we would be able to announce a fully mobile enabled Sakai at this Summer's Apereo Conference; however, at this time I anticipate only partial coverage by summer; but we do project having some significant improvements to announce at that time. So a mobile Sakai is unquestionably on the way.

Bottom line: Project Keitai – a mobile enabled Sakai CLE – will happen. It should also happen within this calendar year, barring further, unanticipated delays.

Feel free to contact me if you have additional questions; and thanks for your interest and support!

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State of the Project, June 2013

Consider this a teaser ... I will be co-presenting a session at the San Diego Apereo Conference titled, "Apereo: The Mobile View" on Tuesday morning at 11AM. During this session I will provide a detailed update on Project Keitai. After the conference, I will update this site with those details.

Mobile Sakai Listserv

Occasional updates and activity related this mobile project takes place on the mail list. Here's how to subscribe:

Go to http://collab.sakaiproject.org/mailman/listinfo, scroll down to sakai-mobile and sign up as appropriate. You can then post messages to the group using the email address sakai-mobile@collab.sakaiproject.org. Be sure to configure your Junk/Spam controls to accept messages from this list.