

HeraldryIdentityProposal

Proposal

This is a proposal to create a project within the Apache Software Foundation to develop technologies around the emerging user-centric identity space. The project would utilize Yadis [1] for URL/XRI-based service discovery and OpenID [2] for web based single-sign-on and the basis of exchanging profile data. Yadis is currently being standardized within OASIS as part of the XRI effort, within a TC committed to creating royalty-free work, and OpenID has emerged as a de-facto specification. The two initial components of the project, downloadable perspective, would be an Identity Provider application and libraries in various languages that implement Yadis and OpenID. The initial goal would be to both provide an out-of-the-box application as well as the required libraries for other developers to integrate Yadis and OpenID into their existing applications.

To provide some background, the Higgins Project is being actively developed within Eclipse and is a framework that will enable users and enterprises to integrate identity, profile, and relationship information across multiple systems. Using context providers, existing and new systems such as directories, collaboration spaces, and communications technologies (e.g. Microsoft/IBM WS-*, LDAP, email, IM, etc.) can be plugged into the Higgins framework. Applications written to the Higgins API can virtually integrate the identity, profile, and relationship information across these heterogeneous systems. They current have integration with Microsoft's [CardSpace](#) and we'll be working with them over the next few months to add support for OpenID. It hasn't yet been determined, nor does it need to be right now, if the code to tie OpenID into Higgins will live within Apache or Eclipse.

Rationale

While identity systems such as X.509 have existed for many years, and more recently SAML and the Liberty Alliance framework, only within the past two years has there been a true emergence of user-centric technologies. Pursuant to Kim Cameron's laws of identity, technologies such as LID, Yadis, OpenID, and Sxip were defined to put control of a person's digital identity back into their own hands.

Both Yadis and OpenID have reached a point where they have millions of users and a strong community backing. On May 28th 2006, Brion Vibber of [Wiki Media](#) announced in a Google Tech Talk that [WikiPedia](#) would support both of them within the following month. This sort of broad adoption and traction has not been seen with other technologies of this kind in this space.

By bringing these technologies to one place, these communities will have a place to fully converge and continue the development of interoperable implementations. Additionally, by working with the Higgins Project, ASF will be able to provide a foundation where a person can use one or more digital identities consistently across blogs, eCommerce sites, and portals as well as even high-risk transactions via their desktop computer.

Currently Apache does not offer any project such as the one being proposed. Integration with projects such as Lenya would definitely be encouraged.

Initial Goals

- Expansion of Yadis and OpenID libraries into additional languages beyond the existing Python, Ruby, Perl, and PHP libraries
- OpenID authentication specification revision to fix known security considerations, investigate compatibility with the DIX IETF proposal, describe Yadis integration, and allow either an URL or XRI be used as the End User's Identifier
- Continue the development of a data transfer protocol on top of OpenID to allow the exchange of profile data as well as other secure messages
- Investigate existing mechanisms for profile exchange, namely Sxip 2.0 and SAML, and investigate how they would be layered atop OpenID
- Integration of the OpenID Authentication protocol with the Higgins framework to provide desktop integration
- Extension of OpenID to support non-browser based authentication use cases. ie authentication to a Subversion server, creation of mod_authnz_openid, using your OpenID Identity without modifying the svn client-side tool

Known Risks

Commercial Interest

- Many companies are currently working to build businesses supported on top of these technologies. As part of the code contributions, [VeriSign](#) will contribute source to their Personal Identity Provider to provide a complete base with both libraries and a sample application. [VeriSign](#) intends to continue development of the PIP and to contribute it within ASF, although it hopes others will contribute to it as well.

This proposal is not the result of an orphaned or abandoned project, but is the result of the continued emergence of a strong community around these technologies. Many of the initial contributors have a strong tie to the Open Source community and do not rely on their salaried position to continue contributing code.

The OpenID and Yadis communities have both been built on a foundation of meritocracy with open discussions to shape the technologies. The initial committers certainly see the value in the Apache brand and believe the emerging community will benefit from further widespread collaboration as well as give the existing developer community a place to converge and create a community that will outlive the founders.

Initial Source

OpenID has been in development since the summer of 2005. It currently has an active community (over 15 million enabled accounts) and libraries in a variety of languages. Additionally it is supported by [LiveJournal.com](#) and is continuing to gain traction in the Open Source Community.

Yadis has been in development since late 2005 and the specification has not changed since early 2006. Like OpenID, it has libraries in various languages and there is a large overlap between the two communities. The specification is currently being incorporated in the XRI Resolution Working Draft of the OASIS XRI TC (which operates under a 100% royalty-free IPR mode as detailed in the XRI TC charter at <http://www.oasis-open.org/committees/xri/charter.php>.)

Source and Intellectual Property Submission Plan

Initial Submissions

- The OpenID specification and content on openid.net from Brad Fitzpatrick of Six Apart, Ltd. and David Recordon of [VeriSign](#), Inc.
- The domains openid.net and yadis.org from Brad Fitzpatrick of Six Apart, Ltd. and Johannes Ernst of [NetMesh](#), Inc.
- OpenID libraries in Python, Ruby, Perl, PHP, and C# from [JanRain](#), Inc.
- Yadis libraries in Python, Ruby, Perl, and PHP from [JanRain](#), Inc.
- OpenID and Yadis test suites from [JanRain](#), Inc.
- OpenID libraries in Perl from Brad Fitzpatrick of Six Apart, Ltd.
- OpenID Consumer Ruby on Rails plugin from [VeriSign](#), Inc. and [EastMedia](#) Group.
- PHP based OpenID Identity Provider from [JanRain](#), Inc.
- Patch to enable OpenID and LID support in [MediaWiki](#) from [NetMesh](#)
- Yadis conformance test suite from [NetMesh](#) and [VeriSign](#), Inc.

We will also be soliciting contributions of further plugins and patches to various pieces of Open Source software.

Additional Submissions

- Source of the Personal Identity Provider from [VeriSign](#), Inc. and [EastMedia](#) Group, Inc. ideally by August 1st, 2006.

Resources

We foresee only standard Apache developer resources to be created.

Mailing lists:

- heraldry-dev
- heraldry-commits
- heraldry-user

Subversion repository: <https://svn.apache.org/repos/asf/incubator/heraldry>

Jira project

Documentation

[1] Information on Yadis can be found at:

<http://yadis.org>

<http://www.openidenabled.com>

[2] Information on OpenID can be found at:

<http://www.openid.net>

<http://www.openidenabled.com>

The mailing list for both OpenID and Yadis is located at:

<http://lists.danga.com/mailman/listinfo/yadis>

[3] Information on the Eclipse Higgins project can be found at:

<http://www.eclipse.org/higgins/>

The OpenXRI mailing lists are located at:

<http://mail.idcommons.net/mailman/listinfo/openxri>

Initial Committers

- David Recordon (drecordon@verisign.com)
- Andy Dale (andy.dale@ootao.com)
- Brad Fitzpatrick (bradfitz@sixapart.com)
- Brian Ellin (brian@janrain.com)
- Dan Lyke (danlyke@flutterby.com)
- Dan Quelhorst (dan@abtain.com)
- Drummond Reed (drummond.reed@cordance.net)
- Johannes Ernst (jernst@netmesh.us)
- Jonathan Daugherty (cygnus@janrain.com)
- Josh Hoyt (josh@janrain.com)
- Les Chasen (les.chasen@neustar.biz)
- Matt Pelletier (matt@eastmedia.com)
- Michael Graves (mgraves@verisign.com)
- Paul Trevithick (paul@parityinc.net)
- Steve Churchill (steven.churchill@ootao.com)
- Trotter Cashion (cashion@gmail.com)
- Wil Tan (william.tan@neustar.biz)

Apache Sponsor

We respectfully request that the Incubator PMC sponsor this project.

Apache Champion

Ben Laurie (benl@google.com) – Champion and Mentor

Paul Querna (pquerna@apache.org) - Mentor

Ted Leung (twl@apache.org) - Mentor

Contact

David Recordon, Innovator for Advanced Products and Research

[VeriSign](#), Inc.

487 East Middlefield Road

M/S MV6-2-1

Mountain View, CA 94043

Email: drecordon@verisign.com

Phone: +1-650-426-4424