HermesProposal

PROJECT PROPOSAL

Hermes: A WS-Notification Implementation

A proposal for a robust implementation of the Web Services Notifications family of specifications.

RATIONALE

The current Apache WS-FX subproject located under the Web Services project (http://ws.apache.org/) has been tasked to provide functionality useful in the development of Web services following the set of WS-* specifications.

This proposal is to further the state of the art within that subproject by adding to the number of supported WS-* specifications.

The rationale for Hewlett-Packard and Globus to contribute to this open-source effort is to help further the adoption of the WS-* specifications as well as higher-level specifications such as WSDM MuWS.

SCOPE OF SUBPROJECTS

Currently, the scope is to include Axis/Java support for the WS-Notification family of specifications. These include:

- WS-BaseNotification
- WS-BrokeredNotification
- WS-Topics

The project also proposes to support the related, but distinct, WS-Eventing specification.

This proposal is to build a subproject called Hermes to encompass these specifications under the WS-FX subproject umbrella.

FEATURES

- Design-time and run-time support for WS-Base{{`Notification's Notification}}`Producer and Notification`Consumer.
- Run-time support for WS-Base{{`Notification's Subscription}}`Manager.
- Notification server that accepts WS-BaseNotification and a WS-Eventing subscription request and replies in the appropriate dialect.
- Notification{{`Broker as defined by WS-Brokered}}`Notifications.

PRACTICAL APPLICATIONS

- Web Services Distributed Management compliant Web services.
- Web services that require one-way asynchronous notifications.

INITIAL SOURCE

Both HP and Globus have existing WS-Notification implementations to support their respective projects - WSDM MuWS and the Globus Toolkit. The starting point source code for this project will be a combination of source code from both HP and Globus. The HP WS-N source code will initially reside in the new Muse project, since it is currently an integrated part of that project.

RESOURCES TO BE CREATED

- CVS Repository
- Bugzilla
- Mailing Lists
- Official Build Systems

CRITERIA

The product developers have examined the guidelines that govern Jakarta subprojects and it has been determined that they can and will be adhered to during the lifetime of the propsed projects. Hewlett-Packard has committed to releasing the code related to the proposed projects under the Apache License umbrella.

While the proposed projects do not enjoy an active community, they certainly have a high potential for doing so. Examining the authors of the WS-* specifications that this proposal plans to support shows that such a potential exists. In addition, the specifications may also garner support not only from the organizations represented by the authors but also from those organizations following OASIS recommendations and specifications. This proposal should also be able to tap into the already existing community for the WS-FX subproject.

HP and Globus are committed to building a strong community around the proposed projects. As part of the initial population of the initial incubation projects, the committers will supply example code, build and run ANT scripts as well as "trailmap" tutorials. This documentation should help bring new members up to speed as to the current functionality of the code and how it is organized and maintained.

The core set of intial developers have experience in using open source products (particularly Jakarta projects). Two of the core developers are actively involved in the WS-FX WS-Addressing project.

The bulk of the libraries used by the initial incubator code heavily rely on Apache libraries (log4j, XmlBeans, Axis, et. al.) as well as another open source library (wsdl4j). A core piece of the WS-ResourceProperties implementation requires usage of one of the current WS-FX subprojects (WS-Addressing). Therefore, this proposal aligns nicely with existing Apache projects.

AVOIDING THE WARNING SIGNS

This proposal is not the result of an orphaned or abandoned HP/Globus-internal project. On the contrary, the proposed projects will help assist HP and Glbous in furthering their current long-term goals of promoting technology needed to support its vision of the Adaptive Enterprise and Grid Computing.

All of the current committers have experience working with open source projects and communities; we have a committer on another open source project and others have activily participated in other open source initiatives.

COMMITTERS

- Sal Campana (HP)
- Jarek Gawor (Argonne National Lab)
- John Mazzitelli (HP)
- Sam Meder (Argonne National Lab)
- Bill Reichardt (HP)
- Ian Springer (HP)
- Steve Loughran (HP) - Member of WS PMC and Axis Committer

PROPOSED APACHE SPONSOR

Web Services WS-FX sub-project.

CHAMPION

Davanum Srinivas (dims@yahoo.com)