WS-Eventing

- Usage Scenarios, activities and expectations

Wu Chou

Avaya Labs Research

AVAYA

WS-Eventing

- A protocol for one WS ("subscriber") to register interest ("subscription") with another WS ("event source") in receiving messages about events
- It defines a subscribe/notify mechanism in WS that is of fundamental importance
- Widely implemented and used in various applications and software packages
- Standardizing WS-Eventing (the goal of the WS-RA WG of W3C) will provide a foundation for many other standards/future standards in WS

WS-Eventing in ECMA/ISO

- WS-Eventing - an informative option in ECMA-366 and ISO/ETC 25437 (WS-Session) to provide event notification for WS session services
  - *ISO URI: http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42921*
  - *ECMA URI: http://www.ecma-international.org/publications/files/ECMA-ST/Ecma-366%201st%20edition%20June%202005.pdf*
- WS-Eventing - an option for the future new Edition of ECMA-348 (Web Services Description Language for CSTA (Computer Supported Telecommunication Applications) III
  - ECMA would like to make the reference to WS-Eventing normative, and the option of using the WS-Eventing based event notification a normative option (pending on the status of WS-Eventing)
  - The standard status of WS-Eventing will impact several future standards and practices in ECMA

WS-Eventing Usage Scenarios

- Used as a generic subscribe/notify mechanism in WS
  - *Handle event subscriptions between one WS (subscriber) and another WS (event source)*
  - *Manage the event subscription by interacting with a WS (event subscription manager)*
  - *Specify delivery mechanism, e.g. push delivery*
  - *…*
- Critical WS applications in various areas
  - *Asynchronous service systems, communication systems, …*
  - *Software-as-a-Service (SaaS), SaaS enabled endpoints, mobile Web services endpoints, etc.*
  - *Supported by many SOAP engines and packages, e.g. Axis, JBoss …*

Some Wishes for WS-Eventing

- Quickly become a rectified standard
  - *This has been expected for a long time. Given the wide adoption of WS-Eventing, this is way over-due.*
  - *Expected by other WS standards that WS-Eventing can become a normative method and serve as a foundation for others*
  - *We have a list of comments/proposals regarding WS-Eventing*

- Minimize/avoid changes that can cause disruption
  - *WS-Eventing has already been implemented/applied/included in various software packages/applications/…*
  - *Fully support WSDL 1.1 which is the format of most Web services deployed today.*

Adopt the Latest WS-Addressing at a Deeper Level

- Adopting XML Infoset Representation in WS-Eventing
  - *WS-Addressing 1.0 introduces XML Infoset representation to specify the standard which elevates the usage coverage of the standard to the next level*
- Advantages of XML Infoset Representation
  - *More generic and flexible while maintaining the semantics of the specification*
  - *Same specification can apply to XMLs with different surface forms*
  - *More portable for various implementations and SOAP engines*
  - *More friendly for SOAP/XML compression and aligned with the work of W3C EXI (Efficient XML Interchange) WG*

Some Additional Wishes

- Standardize wrapped event sink
  - *WS-Eventing covers two delivery formats: unwrapped and wrapped formats, but it does not specify a standard WSDL for wrapped event delivery. The event source has to assemble different event notifications for different wrapped interfaces, thus diminishing the benefit of the wrapped event delivery.*
- *…*

Thank You