

Web Services Resource Interactions Working Group Charter (v071808a)(v080812)

The **mission** of the Web Services Resource Interactions Working Group, part of the <u>Web Services Activity</u>, is to produce W3C Recommendations for a set of Web Services specifications by refining the <u>"WS-Transfer"</u>, <u>"WS-ResourceTransfer"</u>, <u>"WS-Enumeration"</u>, <u>"WS-MetadataExchange"</u> and <u>"WS-WS-Transfer[1]</u>, <u>WS-ResourceTransfer[2]</u>, <u>WS-Enumeration[3]</u>, <u>WS-MetadataExchange[4]</u> and <u>Eventing"WS-Eventing[5]</u> Member Submissions (referred to in this charter as "the submission specifications"), addressing implementation experience and interoperability feedback from <u>the</u> implementers and considering composition with other Web services standards.

The submission specifications define SOAP-based mechanisms for interacting with the XML representation behind a resource-oriented Web Service, accessing metadata efrelated to that service, as well as a mechanism to subscribe to events related to that resource. WS-Transfer defines base CRUD the basic (Create, Read, Update, Delete) typeDelete (CRUD)) operations against Web Services.resource-oriented Web Service metadata. WS-ResourceTransfer enhances these operations, through the extensibility points of WS-Transfer, with the addition of fragment and batched access. WS-Enumeration provides a protocol that allows a resource to provide a context, called an enumeration context, to a consumer that represents a logical cursor through a sequence of data items. WS-Eventing allows interested parties to subscribe to a series of notifications from a Web Service. WS-MetadataExchange defines a mechanism by which metadata about a Web Service can be retrieved. When used in conjunction with WS-Transfer, WS-ResourceTransfer and WS-Enumeration, this metadata can be accessed and managed just like any other Web Service resource.

These specifications are relevant to other standardization efforts that rely on resource access and event subscription mechanisms. To meet these needs, Web Services Resource Interactions Working Group should complete its work in a timely fashion.

Join the Web Services Resource Interactions Working Group.

End date TBD (31 December 2009?)
Confidentiality Proceedings are <u>public</u>

Initial Chairs TBD Initial Team Contacts

(FTE %: 35)

TBD

Usual Meeting Schedule See Meetings

Scope

The Web Services Resource Interactions Working Group is chartered to standardize a general mechanism for accessing and updating the XML representation and metadata of a Web Service as well as a mechanism to subscribe to receive events from the Web Service. The following list of in scope of a resource-oriented Web Service and metadata of a Web Service, as well as a mechanism to subscribe to events from a Web Service. features is intended to focus the work of the Working Group to prevent feature bloat and delay completion of its work:

- 1.The definition of the basic CRUD (Create, Read, Update, Delete) operations that provide access and update capabilities to a Web Service's XML representation.
- 2.A mechanism by which a fragment of the XML representation of a resource can be specified for the purpose of accessing, updating or deleting.
- 3. The definition of common Expression Dialects to identify these fragments.
- 4.A mechanism that allows for multiple (similar) fragment level Read and Update operations for the same resource to be batched into one request.
- 5.A mechanism by which a Web Service can advertise, through its Metadata, the capabilities it supports with respect to the features defined by the Web Service Resource Interactions specifications.
- 6.A mechanism allowing a requester to retrieve the Metadata related to a Web Service. The supported Metadata forms returned include:
 - a.The Metadata itself.
 - b.An Endpoint Reference (EPR) to a Metadata Resource (whose XML representation is the Metadata).
 - c.A URL to a resource, whose content contains the Metadata.
- 7.A mechanism for embedding metadata within an EPR.
- 8.A mechanism for allowing a requester to specify the type(s) of Metadata returned by the Web Service e.g. wsdl, schema...
- 9.A processing model in which CRUD operations can be used against the EPR to a Metadata Resource to access and manipulate the Metadata.
- 10.A mechanism by which a requester can iterate over, and retrieve in an incremental fashion, a large dataset.
- 11. The definition of subscribe, unsubscribe, renew and get status operations for managing subscriptions.
- 12. The definition of a XPath filter dialect that can be used in subscriptions to specific interest in specific messages.
- 13.A mechanism to allow a subscriber to specify the delivery mode for a subscription and the definition of a push-based delivery mode.

- 14.Promote interoperability by ensuring that the Work Group's specifications conform to relevant WS-I Basic Profiles. The following list of features is intended to focus the work of the Working Group and ensure its timely completion:
 - The definition of basic Create, Read, Update, Delete (CRUD) operations
 that provide capabilities to create, read, update and delete a Web
 Service's XML representation and the binding of these operations to
 SOAP.
 - 2. A mechanism by which a fragment of the XML representation of a resource can be identified for the purpose of accessing, updating or deleting it.
 - a. The definition of one or more common expression dialects to identify these fragments.
 - 3. The capabilities in (2 above) should be designed so that they can be implemented efficiently. For example, it may be desirable to allow the batching of similar requests into a single request.
 - 4. A mechanism to allow a requester to retrieve metadata related to a Web Service and to embed Web service-related metadata in an Endpoint Reference (EPR). The defined capability must provide for retrieval and embedding of specific items of metadata such as WSDL, XML Schema and WS-Policy. The mechanism must also allow for the retrieval of either an Endpoint Reference (EPR) or a URL to a metadata resource, whose XML representation (when retrieved) is the metadata.
 - 5. The definition of Web service operations (e.g. Enumerate, Pull, GetStatus, Release, and EnumerationEnd) to enable a consumer to request, manage an enumeration context, and retrieve data items from an enumeration context for a data source. These operations must define details of SOAP messages for the request and response as well as one or more filter dialects to select the data that would be sent to the consumer. The ability to work efficiently with large datasets is important.
 - 6. The definition of Web Services operations (e.g. Subscribe, Unsubscribe, Renew, GetStatus, and EndSubscription) to create and manage subscriptions to events that are delivered via Web Services.
 - a. The definition of one or more filter dialects, such as XPath, that can be used in subscriptions to indicate interest in messages with specific content or metadata.

- b. A mechanism to allow a subscriber to specify the means by which an event is delivered and the definition of a push-based delivery mode.
- A mechanism by which a Web Service can advertise, through its metadata, such as WSDL and WS-Policy, the capabilities it supports from among the features defined by the Web Service Resource Interactions specifications.

The Web Services Resource Interactions Working Group will take as its starting point the member submission versions of WS-Transfer, WS-ResourceTransfer, WS-Eventing and WS-MetadataExchange.WS-Transfer[1], WS-ResourceTransfer[2], WS-Enumeration[3], WS-Eventing[5] and WS-MetadataExchange[4]. Consideration will be given to compatibility with the submission documents.

The Working Group will work to minimize overlap and <u>assuremaximize</u> composability with other WS_{_*}* specifications <u>including</u>, <u>but not limited to</u>, <u>WS-ReliableMessaging</u>, <u>WS-SecureConversation</u>, <u>WS-MakeConnection and WS-Notification</u>. <u>that provide secure</u>, <u>transacted</u>, <u>asynchronous</u>, <u>reliable</u>, <u>and policydriven messaging services</u>.

The Working Group will also promote interoperability by ensuring that the specifications it produces conform to relevant WS-I Basic Profiles.

Success Criteria

The Web Services Resource Interactions Working Group will define the specifics of their exit criteria before Last Call. The Working Group is expected to demonstrate at least four interoperable implementations of each deliverable during the <u>Call for Implementations</u> step of the set of features not marked as <u>"at risk"</u> for each Recommendation specifications.

Deliverables

New publications

- W3C Recommendations for the output specifications of this Working Group. The Working Group may organize the structure of the specifications into one or more specifications.
- A test suite intended to promote implementation of the Candidate Recommendation, and to assess interoperability between these implementations.
- May author Potentially a primer that includes guidance on the use of the specifications.

• <u>May proposePotentially</u>, a new charter for follow-on work on these specifications per the World Wide Web Consortium Process Document.

Milestones

Proposed Timeline For Work

Note: The group will document significant changes from this initial schedule on the group home page. The Advisory Committee MUST be notified of any significant schedule changes.

FPWD	LC	CR	PR	Rec	
Oct 2008	Jan 2009	Mar 2009	Jul 2009	Sep 2009	

Timeline View Summary

This timeline should be revised, if needed, when the WG is chartered.

- September 2008: Working Group created.
- September 2008: The first face-to-face meeting will be hosted by XXX, in XXX, XX, USA, on September XX, XX and XX, 200X.
- October 2008: Publish First public drafts for output specifications.
- November 2008: The second face-to-face meeting is targeted for November XX, XX and XX, 2008.
- January 2009: The third face-to-face meeting. Publish Last Call drafts for output specifications.
- March 2009: Fourth face-to-face meeting. Candidate Recommendation drafts for output specifications.
- May 2009: Fifth face-to-face meeting.
- July 2009: Sixth face-to-face meeting. Publish Proposed Recommendation drafts for *output specifications*.
- September 2009: W3C Recommendations for *output specifications*.
- October 2009 December 2009: Post Recommendation work, next steps considerations

Dependencies

W3C Groups

The Web Services Resource Interactions Working Group should coordinate its efforts with other Working Groups involved in the Web Services Activity.

As part of the Web Services Activity, the Web Services Resource Interactions Working Group Chair and Team Contact will be represented in the Web Services Coordination Group.

External Groups

The following organizations have groups that may utilize, or compose with, the Web Services Resource Interactions specifications:

Organization for the Advancement of Structured Information Standards

OASIS is a not-for-profit, international consortium that drives the development, convergence and adoption of e-business standards. Relevant Technical Committees include, but are not limited to: <u>WSFED</u>, <u>WS-RX</u>, <u>WS-TX</u>, and <u>WS-SX</u>.

Distributed Management Task Force, Inc.

The DMTF is the industry organization leading the development, adoption and promotion of interoperable management initiatives and standards. Relevant Working Groups include, but are not limited to: WS-Management.

Web Service Interoperability

The Web Services Interoperability Organization is an open industry organization chartered to establish Best Practices for Web services interoperability, for selected groups of Web services standards, across platforms, operating systems and programming languages.

W3C TAG

The W3C TAG has expressed interest in this area by means of a TAG White Paper authored by Noah Mendelsohn [6].

Participation

Effective participation is expected to consume one or two workdays per week for each Working Group participant; two or more days per week for editors. The Chair shall ensure that the criteria for <u>Good Standing</u> are understood and followed.

To be successful, we expect the Web Services Resource Interactions Working Group to have 10 or more active participants for its duration.

Participants are expected to carry out their assignments in a timely fashion, attend most meetings, and to remain familiar with group documents and mailing list discussion (W3C Process Document, section 6.2.1.7). Active participation will help ensure rapid progress.

Meetings

The Web Services Resource Interactions Working Group will have distributed and face-to-face meetings.

At least up until the Last Call period ends a Working Group distributed meeting will be held as needed. Thereafter, a Working Group distributed meeting will be held every week. When necessary to meet agreed-upon deadlines, distributed meetings may be held twice a week. Face-to-face meetings are expected to occur as needed.

The Web Services Resource Interactions Working Group may adjust the timing and duration of meetings to address the workload and assure that the goals and schedule of this charter are achieved.

Communication

This group primarily conducts its work on the public mailing list <u>public-ws-resourceInteractions@w3.org</u>. A Member-only mailing list <u>member-ws-resourceInteractions@w3.org</u> is also available for administrative purposes.

Information about the group (deliverables, participants, face-to-face meetings, teleconferences, etc.) is available from the <u>Web Services Resource Interactions</u> <u>Working Group home page</u>.

Decision Policy

As explained in the Process Document (<u>section 3.3</u>), this group will seek to make decisions when there is consensus. When the Chair puts a question and observes dissent, after due consideration of different opinions, the Chair should record a decision (possibly after a formal vote) and any objections, and move on.

This charter is written in accordance with <u>Section 3.4, Votes</u> of the W3C Process Document and includes no voting procedures beyond what the Process Document requires.

Patent Policy

This Working Group operates under the <u>W3C Patent Policy</u> (5 February 2004 Version). To promote the widest adoption of Web standards, W3C seeks to issue Recommendations that can be implemented, according to this policy, on a Royalty-Free basis.

For more information about disclosure obligations for this group, please see the W3C Patent Policy Implementation.

About this Charter

This charter for the Web Services Resource Interactions Working Group has been created according to <u>section 6.2</u> of the <u>Process Document</u>. In the event of a conflict between this document or the provisions of any charter and the W3C Process, the W3C Process shall take precedence.

<u>References</u>

The correct URLs for these references need to be inserted.

[1] WS-Transfer

[2] WS-ResourceTransfer

[3] WS-Enumeration

[4] WS-MetadataExchange

[5] WS-Eventing

[6] W3C TAG White Paper on Web Services