Web Services for Remote Portals (WSRP) Overview

OASIS WSRP Technical Committee
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Overview

Web Services for Remote Portals (WSRP) will define a standard for interactive, user-facing web services that plug and play with portals.

WSRP will define:
- A WSDL interface description for invocation of WSRP services
- How to Publish, Find, Bind WSRP services and metadata
- Markup Fragment Rules for markup emitted by WSRP services
- Applicable Security Mechanisms, Billing information ?, ...

Companies involved in WSRP:
- Bea, Bowstreet, Divine, Epicentric, Factiva, France Telecom, Fujitsu, HP, IBM, Interwoven, Lexis-Nexis, Lotus, Moravia IT, Netegrity, Oracle, Peoplesoft, Plumtree, Silverstream, Stellent, SUN, Sybase, Tibco, WebCollage, SAP Portals, SeeBeyond
WSRP Services Plug&Play with Portals

Find

Registry

Publish

Clients

Web Clients

Portals

Bind

WSRP Services

e.g.

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WSRP Goals

- Enable interactive, user-facing web services to be easily plugged into standards-compliant portals.
- Let anybody create and publish their content and applications as user-facing web services.
- Let admins browse directories for WSRP services to plug into their portals without programming effort.
- Let portals publish portlets so that they can be consumed by other portals without programming.
- Make the Internet a marketplace of visual web services, ready to be integrated into portals.
Scenario: Use of WSRP in Portals

Portals can aggregate presentation from many WSRP services.

WSRP services can be aware of portal context:
- User profile from portal
- Desired locale and markup-type
- User’s device type

Aggregated HTML, WML, VoiceXML, ...

Over HTTP

Mark-Up Fragments Transferred via SOAP
Scenario: Portal sharing Portlets

Administrator publishes portlet as WSRP service to UDDI using portal’s admin user interface.

Administrator of other portal finds WSRP service using portal’s UDDI browser and binds to it with a few mouse-clicks.

Users of the second portal can select remote portlets like any local portlet and put them on their pages.

In this case, the portal providing a portlet as a WSRP service adheres to the WSRP protocol and contracts just like any other WSRP service, the...
Scenario: Use of WSRP in Client Apps

- Applications may embed WSRP Services through plugin mechanisms, e.g., COM Components or ActiveX Controls.
- In this case, the plugin in the client application adheres to the WSRP protocol and contracts, just like a portal would.

Rendering within the client application’s view.

User Info, Actions, Markup Fragments Transferred via SOAP.
Abstract Portal ↔ WSRP Interaction

User
- Adds Portlet
- Views Portlet
- Clicks Action
- Removes Portlet

WSRP Consumer (Portal)
- Create Portlet Instance
- Get Portlet Markup
- Perform Portlet Action
- Destroy Portlet Instance

WSRP Producer (Service)
- Allocate new Instance
- Generate Markup, (opt: create Session)
- Action Handling (opt: create Session)
- Destroy instance

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Allocate new Instance
Generate Markup, (opt: create Session)
Action Handling (opt: create Session)
Destroy instance

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WSRP and related Standards

- (X)HTML
- WML
- Voice XML
- cHTML
- WSRP
- WSRP/WSIA Common Base
- WSIA
- UDDI (Publish, Find & Bind)
- WSDL (Description)
- SOAP (Invocation)
Portal Architecture and WSRP

Clients → HTTP → Portal Server → Portlet API

Local Portlets → Generic Portlet Proxies

Internet/Intranet

Other Portals → WSRP → Publish/Find Web Services (SOAP) → UDDI Registry

WSRP Services
WSRP and Portlet API(s)

Platform Independent Web Service Interface

Platform specific, local Portlet APIs

Web Services for Remote Portals (WSRP)

Java Portlet API (JSR 168)

C# “Portlet API” (.NET)

WSRP Impl. on plain J2EE or .NET platform

Portlet APIs may be defined for different programming languages; WSRP can bridge between the different platforms, leveraging platform independence of Web services

Goal:
Portlets written to Portlet API can be published as WSRP services
WSRP services can be integrated through Portlet Proxies written to Portlet API

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WSRP TC Areas of Work

- Business Scenarios
- WSRP/WSIA – Common Interfaces
- WSRP Interfaces & Protocol
- WSRP Publish, Find, Bind & Metadata
- WSRP Markup Fragments Rules/Styles
- WSRP and Security, Identity, SSO ...
Business Scenarios

- Content/Application Provider providing WSRP Service
- Portal publishing Portlets as WSRP Services
- Syndicated Content / Billing via WSRP
- Enterprise Application
- Current Awareness
- Cooperating WSRP Services
- Multimedia Sports Portal / Mobility
WSRP/WSIA – Common Interfaces

Define common interfaces to be shared by WSRP and WSIA

- Basic life-cycle operations
- Basic operations for processing actions and getting markup
WSRP Interfaces & Protocol

Define the operations for WSRP services

- Advanced life-cycle operations, e.g. for creation of instances
- Advanced operations for processing actions/getting markup
  - User profile information contained in requests
  - Device information contained in requests
  - Locale information contained in requests
- Protocol defining interaction between portals and services
  - Allowed order of operation invocation
  - Contracts for handling instances and sessions
  - Caching considerations
WSRP Publish, Find, Bind & Metadata

- Define method used to publish services to UDDI
- Define metadata to be provided when publishing service
  - Name, Titles, Descriptions
  - Supported Markups / Locales
  - Hints for caching
  - ...
- Define method to find WSRP services in UDDI
WSRP Markup Fragments Rules/Styles

- Define valid markup fragments for
  - HTML / XHTML (#1 priority)
  - WML, cHTML, VoiceXML (after covering HTML / XHTML)
- Define URL rewriting
- Define namespace/prefixing
WSRP and Security, Identity, SSO ... 

- Define how security mechanisms and protocols can be employed with WSRP
- Define how Identity is to be provided by consumers to producers
- Define how SSO via a consumer to multiple producers may be achieved
Planned WSRP Milestones for 2002

- May 2002: WSRP Scenarios / Use Cases
- July 2002: First draft of WSRP Specification
- August 2002: First version of Impl proving that spec works
- October 2002: Final draft of WSRP Specification
- November 2002: Update of Impl to reflect final draft
- December 2002: WSRP Specification 1.0, Update of Impl. to reflect 1.0 spec, Compliance Test Kit

2003 Start next cycle for WSRP Specification 2.0 ...

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The Team: OASIS WSRP TC Members

- William Cox, BEA
- Adrian Fletcher, BEA
- Gino Filicetti, Bowstreet
- Peter J Quintas, Divine
- Robert Serr, Divine
- Alan Kropp, Epicentric
- Nigel Ratcliffe, Factiva
- Aditi Karandikar, France Telecom
- Madoka Mitsuoka, Fujitsu
- Takao Mohri, Fujitsu
- Gregory Pavlik, HP
- Angel Luis Diaz, IBM
- Carsten Leue, IBM
- Lothar Merk, IBM
- Thomas Schäck, IBM
- Rich Thompson, IBM
- Charles Wiecha, IBM
- Ron Daniel Jr., Interwoven
- Jon Klein, Lexis-Nexis
- Adam Nolen, Lexis-Nexis
- David Taieb, Lotus
- Petr Palas, Moravia IT
- Mark Cassidy, Netegrity
- Michael Freedman, Oracle
- Mike Hillerman, Peoplesoft
- Khurram Mahmood, Peoplesoft
- Susan Levine, Peoplesoft
- Sasha Aickin, Plumtree
- Jeff Broberg, Silverstream
- Brian Dirking, Stellent
- Alejandro Abdelnur, SUN
- Dave Clegg, Sybase
- Mark Rosenberg, Tibco
- Eilon Reshef, WebCollage
- Tim Granshaw, SAP Portals
- Yossi Tamari, SAP Portals
- Stephen A. White, SeeBeyond
- Andreas Kuehne, Individual Member

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