

Web Services Interoperability Organization

Accelerating Web Services Adoption

May 16, 2002



The Context

- **Innovation needs to happen at an ever increasing pace**
- **Success requires broad interoperability**
 - Within an enterprise
 - Between business partners
 - Across a heterogeneous set of platforms, applications, and programming languages
- **Internet technologies are assumed, interoperability is required**

The Context

- **The shift to Web services is underway**
 - An Internet-native distributed computing model based on XML standards has emerged
 - Early implementations are solving problems today and generating future requirements
 - The Web services standards stack is increasing in size and complexity to match functionality requirements
- **The fundamental characteristic of Web services is *interoperability***
 - Assumes consistency across platforms, applications, and programming languages

Challenges

“[the] Architecture of Web services is not fully crystallized. Without guidance, standards may fragment”

Gartner Group, March 12, 2001

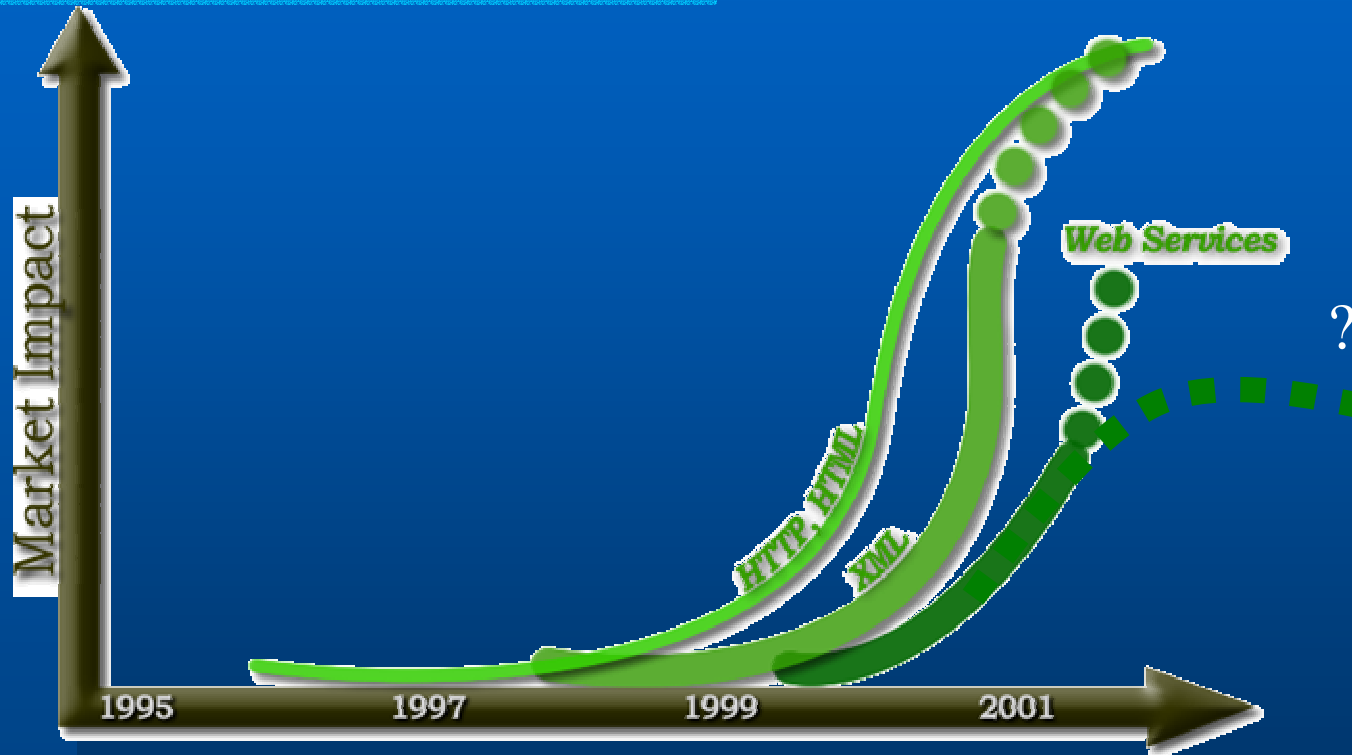
Part of the problem is that even at this early stage, Web services have more faces than Fu Manchu. . . . Inevitably, companies involved with Web services will define them in their own way. The term Web services will be a messy catchall phrase.

Intelligent Enterprise, June 29, 2001

“It’s standards...that allow Web services to overcome the barriers of different programming languages, operating systems, and vendor platforms so multiple applications can interact.”

eWeek, August 13, 2001

Opportunity: Accelerate Adoption



Web Services: Standards-based integration and interoperability across platforms, applications, and programming languages

What is Needed?

- **Guidance**

- Implementation guidance and support for Web services adoption
- A common definition for Web services

- **Interoperability**

- Across platforms, applications, and programming languages
- Consistent, reliable interoperability between Web services technologies from multiple vendors
- *A standards integrator* to help Web services advance in a structured, coherent manner



- **Industry initiative for Web services**
 - Open to any organization committed to Web services
 - Promote and accelerate adoption, deployment
- **Focused on promoting Web service interoperability**
 - Across platforms, applications, and programming languages
 - Promote a common, clear definition for Web services
- **Promote customer adoption & deployment**
 - Integrate specifications from standards bodies
 - Implementation guidance & tools for customers building and deploying Web services

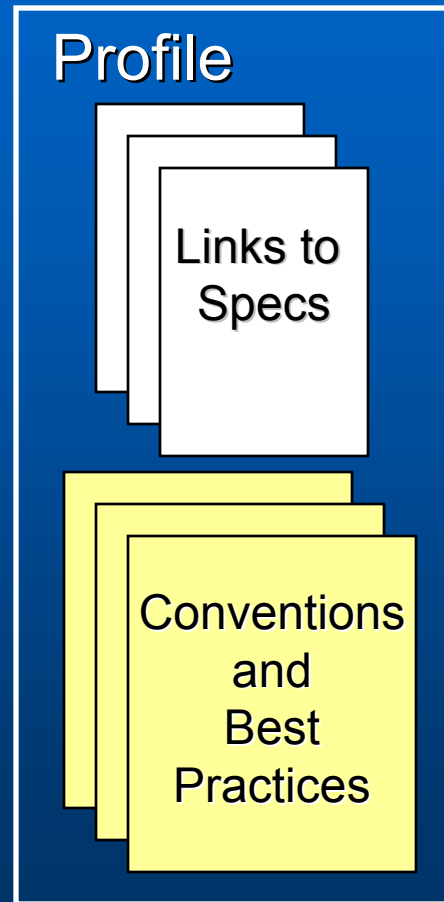


WS-I.org Deliverables

- **Profiles**
 - Named groups of specifications at given version levels with conventions about how they work together
- **Implementation Scenarios**
 - Solution scenarios based on customer requirements
- **Test suites and supporting materials**
 - Sample solutions
 - Implementation aids
 - Conformance testing tools
 - Supporting documentation and white papers
- **All resources required to ship in multiple languages and platforms**
 - Java and C# are required. Members are developing perl, COBOL, and others as well.
 - All source code for samples and tools publicly available.

WS-I.org Profiles

- Provide guidance on general purpose Web services functionality
- Address interoperability at a level above specification-by-specification
- Supporting specifications and standards will be considered from multiple industry sources
- Profile development will reflect market needs and requirements
- First Profile: WSBasic: XML, Schema, SOAP, WSDL, UDDI



WS-I.org Scenarios

- **Scenarios**
 - Within a given Profile, a set of simple Web services are defined
 - used to exercise a specific set of functionality within a profile
- **Test Input and Resources**
 - Identified issues become test/compliance cases for future activity, and are incorporated into supporting tools
 - Implementation guidance and source code will be available
 - Guidance is consistent across all the WS-I Working Groups

WS-I.org Testing Activity

- **Test Materials**

- Developed by Working Groups to test Web service implementations and detect errors
- Final materials available to all Web service developers
- Based on the Profiles adopted by the organization

- **Sample Applications**

- Working Group members implement the scenarios and identify interoperability issues
- Implementations are developed with multiple platforms, tools, and programming languages
- Source code for the implementations will be available
- Provide implementation guidance to Web service developers

WS-I.org Test Activity

- **Test Resources:**

- **Monitoring tools (“Sniffer”) will be provided to collect Web service message traces and generate a log for subsequent analysis**
- **Analysis tools (“Analyzer”) examine traces for correctness and use of recommended practices**
- **Output of analysis tools is used as a basis for WS-I compliance claims**
- **Tools are intended for use by any Web service developer**
- **Source code will be available**

WS-I.org Compliance

- **Compliance is self regulated by the industry (and press and competitors).**
- **Asserts that the implementations are free from protocol implementation errors.**

Schedule

- **Working Group meetings are underway**
- **Committees meet weekly**
 - **WSBasic Profile Definition**
 - **Scenarios**
 - **Sample Applications**
 - **Testing Tools**
- **Version 1 release scheduled for late fall**
- **Futures: “Security”, “Enterprise Messaging”, ...**