The Value of Web Services

Web services are a platform- and language-independent means of developing and delivering distributed applications that users can access directly and easily via the Internet or intranet, based on accepted infrastructure standards. Web services enable transactions that are efficient and secure, as well as functionality that is replicable and reusable in a variety of environments.

Government operations are dependent on large, interconnected and highly complex systems that must be interoperable and secure to work effectively. Web services are vital components for developers to achieve end-to-end application integration and collaboration.

Interoperability: the Critical Challenge for Government ICT Systems

Past experiences of e-government initiatives show that new information and communications technology-based (ICT) systems are very often developed from scratch at both central and local governmental levels. These systems may be developed with specifications and solutions that match goals and tasks relevant to a particular administration or agency, but without adequate attention to the surrounding government institutions and other ICT systems.

The result is a patchwork of ICT solutions that are not always compatible, despite the need and desire for interoperable systems. In addition to the obvious loss of efficiency, there is a huge waste of resources expended in solving the same problems in multiple locations, as well as in generating the same data from many different places.

Interoperability is the solution to the problem. True interoperability is achieved when a user’s expectations regarding the exchange and use of information meets an application’s function across a variety of devices, and among the offerings of various IT vendors. The Web Services Interoperability Organization (WS-I) came into being to meet just this challenge: to establish Best Practices for Web services interoperability, for selected groups of Web services standards, across platforms, operating systems and programming languages.

What We Provide

WS-I’s deliverables provide resources for developers to create and deploy interoperable Web services and verify that their results are compliant with WS-I guidelines. Key WS-I deliverables include Profiles, Sample Applications and Testing Tools.

WS-I Profiles document Best Practices for using related Web services specifications together for secure interoperability. To date, WS-I has finalized the Basic Profile 1.1, Attachments Profile 1.0, Simple SOAP Binding Profile 1.0, and Basic Security Profile 1.0. Work on Basic Profile 1.2, Basic Profile 2.0, Basic Security Profile 1.1 and Reliable Secure Profile 1.0 is currently underway. All WS-I deliverables are available without charge from our Web site, www.ws-i.org.
In brief, the two core profiles address these challenges:

- **Basic Profile 1.1** — provides interoperability guidance for a core set of non-proprietary Web services specifications, such as SOAP, WSDL and UDDI, along with interoperability-promoting clarifications and amendments to those specifications.
- **Basic Security Profile 1.0** — deals with transport security, SOAP messaging security and other Basic-Profile-oriented Web services security considerations, and provides guidance on the use of WS-Security and the REL, Kerberos, SAML, Username and X.509 security token formats.

Work is in process to add capability for Reliable A synchronous Messaging for Web Services with the launch of two new Profiles, Basic Profile 1.2 (WS-Addressing) and Reliable Secure Profile 1.0 (WS-ReliableMessaging and WS-SecureConversation).

### Other WS-I Deliverables

- **Sample Applications** are Web services applications that are compliant with WS-I guidelines. These implementations use multiple platforms, languages and programming tools to demonstrate interoperability in action and provide readily usable resources for Web services developers.
- **Testing Tools** help determine whether a Web service conforms to WS-I guidelines. Tests are self-administered and aim to discover unconventional or faulty specification implementations and improve interoperability between applications and across platforms.

### WS-I Membership Overview

WS-I is a global organization with members throughout North America, Europe, Asia and the Pacific Rim. Current members include:

- Key software vendors providing tools to develop and deploy Web services;
- Web services solutions providers;
- Companies that build or deploy Web services within their organizations and/or with their trading partners; and
- Standards development organizations that want to make their work available to the widest possible audience.

### Contributing Membership

Contributing Membership is open to any interested company; it includes voting rights and eligibility to run for WS-I offices and participate in the speakers’ bureau. Other important benefits accrue as well:

- By submitting your real-world Web services interoperability requirements to WS-I’s technical working groups, your company can influence the WS-I agenda;
- By participating in WS-I’s development of Best Practices for Web services interoperability, you can influence the direction of the entire Web services industry.

WS-I Contributing Membership dues are $2,000 (U.S.) per year per company. Membership materials are located at [www.ws-i.org/join/membership.aspx](http://www.ws-i.org/join/membership.aspx).

### Associate Membership for Standards Development Organizations

As a standards integrator for Web services interoperability, WS-I welcomes and values collaboration with Industry Standards Development Organizations (SDOs). Associate membership is offered by invitation only, at no charge, exclusively to SDOs.

### Advocates Program

The WS-I Advocates Program recognizes companies that support the work of WS-I. As an Advocate, a company can show its support for the mission of WS-I and the business and technical value of the WS-I deliverables.