

Using Java in Service-Oriented Architectures

JavaTM Web Services



Java™ Web Services

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Welcome to Web Services

The promise of web services is to enable a distributed environment in which any number of applications, or application components, can interoperate seamlessly among and between organizations in a platform-neutral, language-neutral fashion. This interoperation brings heterogeneity to the world of distributed computing once and for all.

This book defines the fundamentals of a web service. It explores the core technologies that enable web services to interoperate with one another. In addition, it describes the distributed computing model that the core web service technologies enable and how it fits into the bigger picture of integration and deployment within the J2EE platform. It also discusses interoperability between the J2EE platform and other platforms such as .NET.

What Are Web Services?

A web service is a piece of business logic, located somewhere on the Internet, that is accessible through standard-based Internet protocols such as HTTP or SMTP. Using a web service could be as simple as logging into a site or as complex as facilitating a multi-organization business negotiation.

Given this definition, several technologies used in recent years could have been classified as web service technology, but were not. These technologies include win32 technologies, J2EE, CORBA, and CGI scripting. The major difference between these technologies and the new breed of technology that are labeled as web services is their standardization. This new breed of technology is based on standardized XML (as opposed to a proprietary binary standard) and supported globally by most major technology firms. XML provides a language-neutral way for representing data, and the global corporate support ensures that every major new software technology will have a web services strategy within the next couple years. When combined, the software integration and interoperability possibilities for software programs leveraging the web services model are staggering.

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