

## Web Services Power the Real-Time Enterprise

Whit Andrews

Enterprises need to understand various Internet computing methods, such as Web services, to meet looming IT and business challenges.

## ANALYSIS

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The nature of the Internet makes it the ideal platform across which IT may blaze new trails. The loose confederation of independent, interconnected networks is already providing the platform for new kinds of software and new methods of ubiquitous computing that support and supplant established IT systems. The Internet is leading a wave of new and better-adapted computing methods and underlying technologies.

Computing methods such as portals and Web services are responses to a shift in business requirements that demand enterprises operate in real time and deliver more flexible, externally connected and resilient IT systems. Global-class computing systems will be built on loosely coupled business processes that operate across highly distributed, multienterprise computing environments, 24x7 (see "Improving Interactions With Global-Class Computing").

The Internet is the ideal support architecture, but not a perfect one. It requires new and maturing technical underpinnings to enable disparate systems to connect to one another. This foundation includes a service-oriented architecture (SOA), service-oriented development of application (SODA) approach and Web services standards.

### Interoperability

The SOA represents a necessary environment for enterprises that want to use Web services — and, conversely, Web services are a primary catalyst of the SOA ecology. SODA represents the style of development needed to build and operate SOA environments (see "Service-Oriented Architectures Foster Real-Time Capability"). The standards-based connection culture of these services is accelerating the process of logic distribution, which, in turn, is creating a new model for software creation and distribution. Because software is the basis of how business efforts are fulfilled, the impact on business is poised to be profound as well (see "Web Services Define a New Generation of Software").

Portals will also be integral to the SOA. They will act as primary consumers of Web services and as a means to disseminate the results of the newly interconnected applications. A portal will provide the user interface/presentation layer for Web services, enabling developers to use SOA approaches when developing Web services. However, starting in 2004, enterprises will fulfill their portal needs from application suites containing portal functionality more than they will from traditional portal products (see "Suite Approach to Portal Functionality Will Arrive in 2003"). This should open the door even further for services — and for service providers.

### Web Services and E-Commerce

Web services are emerging slowly in support of e-commerce. Ultimately, the interconnections of interenterprise processes will overlay one another in a complex environment. Web services will eventually be used to simplify such interoperability problems. For the near term, Web services will serve mostly as the roots that e-commerce applications will send down into enterprise applications such as customer relationship management and enterprises resource planning (see "E-Commerce: Enterprises Identify ROI, but Need Vision"). For now, enterprises should expect Web services to provide a conduit to allow for remote execution of application logic in new venues, such as portals and e-commerce applications.

In many ways, Web services are the least exciting of the "hot" new technologies to emerge since the Internet's first pirouettes on the commercial stage in 1994. Following the Internet bubble and the multimedia craze, Web services have failed to excite investors or the media. The alphabet soup their standards brew is confusing and even irritating for their proponents, who cast about for appropriate metaphors or short definitions. However, Web services are also the most likely to

have a major impact on IT through 2007. Understanding the future of Web services is understanding the next generation of IT applications.

## Features

"Improving Interactions With Global-Class Computing" — Enterprises must pursue global-class infrastructures to stay competitive. **By Larry Perlstein, Charles Abrams, Ken Dulaney and Karen Peterson**

"Service-Oriented Architectures Foster Real-Time Capability" — Enterprises should consider service-oriented architectures as the foundation for real-time applications. **By Whit Andrews, David Smith, Charles Abrams, Cameron Haight and Yefim Natis**

"Web Services Define a New Generation of Software" — Enterprises need to prepare for changes in the way software is created, delivered and consumed. **By David Smith and Whit Andrews**

"Suite Approach to Portal Functionality Will Arrive in 2003" — Enterprises will acquire their portal embedded in enterprise application suites rather than as point products. **By Gene Phifer, Ray Valdes and David Gootzit**

"E-Commerce: Enterprises Identify ROI, but Need Vision" — Enterprises must set appropriate expectations for using Web services in e-commerce initiatives. **By Whit Andrews and Larry Perlstein**

## Recommended Reading and Related Research

"The Real-Time Enterprise: The Quest for Strategic Gains" — Many technologies, including Web services, will support the real-time enterprise. **By Mark Raskino**

"Portlets Help 'Tame' the Delivery of Web Services" — Portals will provide a critical success factor in the deployment and adoption of Web services. **By Gene Phifer**

This research is part of a set of related research pieces. See "Predicts 2003: Internet Platforms and Web Services" for an overview.

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