



# The Application Framework for e-business



### ***Introduction***

**It seems like nearly every country in the world is captivated by the Internet. A half-billion users worldwide are expected online by the year 2003. The Internet is not only providing a communication medium for the masses but it is enabling business-to-business relationships to soar to new heights. The underlying technologies enabling this fundamental revolution have opened the door for the development of the next generation of business applications.**

**IBM concluded that it was in its best interest and those of its customers to take the lead in driving a new application model based on multivendor, open industry standards, like HTML, TCP/IP, Java™ and XML, which became the foundation for the IBM programming model. This standards-based approach will allow IBM to enable more than 300 products for Microsoft® Windows® 2000, by its availability. These next generation e-business applications will deliver the availability, reliability, security and performance necessary for mission-critical business environments like those that run businesses today.**

### **The power of e-business**

e-business is a simple concept—an e-business is an organization that connects critical business systems directly to key customers, employees, suppliers and distributors using the Web (the Internet, intranets and extranets.) This simple concept has immense power and appeal for businesses of all sizes. As customers, employees, suppliers and distributors are all connected to business systems and information, data and information become knowledge—and knowledge is the tool that enhances key business processes.

Most companies have begun the transition from traditional business to e-business. They have established Web sites and have started to Web-enable such core processes as self-service applications to strengthen customer service operations, better connect with their supply chains and reach new and existing customers. However, the next step is integrating business processes. We find that it's not just Web-enabling that counts, but linking a myriad of business-critical processes. Logistics, supply chain and customer relationship processes allow you to be available to all of your customers, distributors and suppliers.

To facilitate this transition, IBM defined a model ensuring our customers chances for success. Research was conducted to better understand the issues that application developers deal with as they build Internet-based applications. Included in the research was participation from corporate and commercial application developers—both IBM and non-IBM customers.

The customers involved in the research were developing sophisticated intranet, Internet and extranet applications in multiplatform environments. They indicated that there was no roadmap for developing applications that span multiple platforms—and told us they would welcome a proven approach that combined products as well methodology. IBM was viewed as one of the few vendors who could provide such a roadmap due to our commitment to standards and knowledge of multiple platforms. Now, having worked side-by-side with thousands of customers, IBM has delivered a model to design, develop and deploy this new class of e-business applications, the Application Framework for e-business.

### **What is the Application Framework for e-business?**

The Application Framework for e-business is a combination of:

- A set of industry standards and technologies
- Proven methodology
- Leadership products

The framework is based on what has been proven successfully over the last three years as we have worked closely with customers to help them develop and deploy the e-business applications that are transforming their businesses.

#### *Industry standards and technologies*

The framework is based on multiplatform, multivendor standards like Java, CORBA and XML. It includes the client, application server, network, data and infrastructure standards that make it possible for a client to access services and data anywhere in the network. This model simplifies application development and deployment, enabling developers to write an application on their platform of choice and then deploy it somewhere else without completely rewriting the application.

#### *Proven methodology*

You're building and buying mission-critical applications. To cost-effectively leverage your existing investments and transform your business, you need to know what works. So, we're harvesting our experience and turning it into methodology that our IBM services teams and partners can use to help you develop and deploy applications that meet the demands of your e-business environment. This on-going process is focused in four areas: methodology for business analysis, application design, application development and application deployment.

#### *Leadership products*

Although there are others in the industry whose products adhere to the standards and philosophies of the framework, IBM is fielding a battle-tested portfolio of software—which is a solid foundation for e-business applications.

- *Application server software:* At the heart of the framework is a family of secure, feature-rich application servers and integration services fortified by our years of experience delivering mission-critical applications in a wide variety of environments. Included are: Lotus® Domino™, IBM WebSphere™, IBM DB2® Universal Database™ and IBM MQSeries®.
- *Development tools and components:* To complement these servers, IBM delivers a growing set of development tools and reusable application components, including the VisualAge® family for professional programmers, WebSphere Studio, Lotus Domino and SanFrancisco™ components. Pretested SanFrancisco components are a Java-based set of components that let developers quickly assemble server-side business applications from existing parts, rather than build from scratch. Cross-platform applications can be built once and run on a wide range of servers, including Windows NT®, IBM OS/400®, IBM AIX®, Sun Solaris, Hewlett-Packard HP-UX and Reliant UNIX®. SanFrancisco is the largest server-side Java initiative in the industry and is a key element in the Application Framework for e-business.

- *Secure network and management software:* When you transform your business into an e-business, you need the same level of security and management you have enjoyed within the walls of the enterprise—extended to include your suppliers, customers and employees. IBM SecureWay® provides integrated directory, connectivity and security between users and applications for e-business in a networked world. To manage the availability and performance of your e-business solution, we have extended our Tivoli® family to manage your entire environment, from systems and network management all the way through application management.
- *Server engines:* Server choice is critical in e-business. Your server acts as the actual storefront, as well as the customer service desk, the expert down the hall and the individual managing the inventory. That makes availability critical because when a server goes down, your operation comes to a stop. We deliver 99.999% availability on our most powerful enterprise server, the IBM System/390®. Security is another important consideration in choosing a server. IBM servers with robust encryption technologies can be configured with security ranging from passwords to certificates on smart cards.

#### **What is the value proposition for the framework?**

IBM e-business methodologies, software and the engines that run the applications continue to deliver what we have traditionally delivered for years. These include our core strengths of:

- Mission-critical reliability
- Secure transaction capabilities
- Availability and scalability
- Integration of assets running on multiple platforms

There is a difference between applications that are ready for the Web and applications that are ready for e-business. Applications that are merely ready for the Web are applications built on the traditional client/server model—a model facing significant availability and deployment limitations in the world of e-business.

As a company, our unique value proposition lies in our e-business software, servers, services and solutions that work together. All are based on multiplatform, multivendor standards that help customers and solution developers leverage existing application, systems and skills investments to develop and deploy e-business applications that meet the demands of today's increasingly competitive networked world.

The future of e-business is a network of connected businesses collaborating over open, standards-based infrastructures that span multiple systems and multiple enterprises—giving businesses competitive positions, without the expense of traditional business operations.

Upon realizing this need to integrate business processes, you quickly react with a first question...how? You recognize your new solutions must leverage existing systems and investments and you can't afford the time or expense associated with starting over. So, partnering with a vendor who can deliver a broad portfolio of hardware, software and services to integrate over multiple platforms is key. The Application Framework for e-business provides the answers by delivering technology, development guidelines and products to deploy e-business solutions based on open, Internet standards—all with the security, scalability and transactional robustness necessary to successfully run core business processes.

**For more information**

To learn more about IBM e-business solutions, contact your IBM marketing representative or IBM Business Partner, or visit our Web site at:

*[www.ibm.com/build](http://www.ibm.com/build)*

For more information about Windows 2000, visit our Web site at:

*[www.ibm.com/software/windows2000](http://www.ibm.com/software/windows2000)*



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