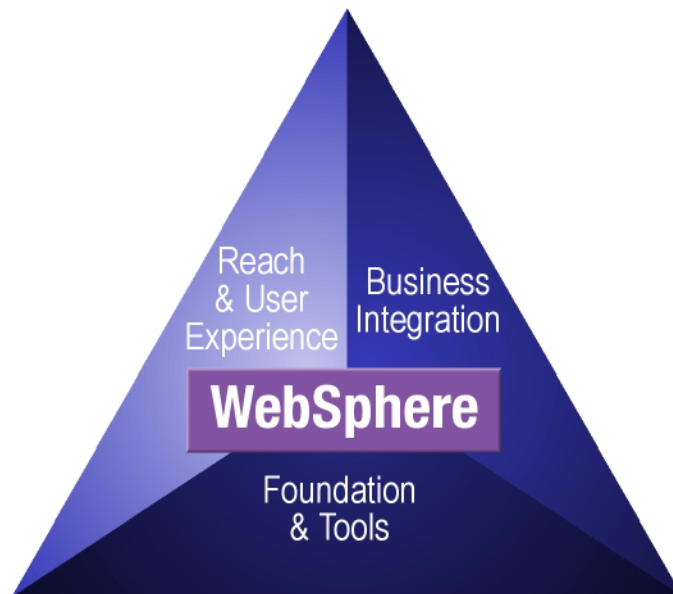




# World Class Infrastructure for On Demand Business

## WebSphere Application Server, Version 5



## Highly Integrated Application Development

The workflow capability is one example that demonstrates the power of the WebSphere integrated development and deployment environments. WebSphere Studio provides a visual tool for composing new applications out of a set of enterprise services - whether they are Web services, EJBs or legacy resources - enabling this new application to be tested immediately, and subsequent changes to be implemented, without disruption to the running production applications.

An integrated application development and deployment platform provides direct positive impact on ROI by:

- Enabling rapid time to market for new applications, from concept through debug and test into production - regardless of the deployment server platform or operating system
- Making it easy to expand and adapt applications as business needs changes
- Facilitating re-use of existing assets and skills when creating new applications
- Driving productivity for both the individual developer -- --through wizards and templates - and across the development team by supporting different developer roles across the organization.

## Build Quickly, Expand Easily

*WebSphere Studio, V5* integrates development of Web sites (HTML, CSS); dynamic Web applications (JSP, XML, JDBC); and J2EE applications with a WebSphere Application Server unit test environment. The integrated tools and server enable a tight develop, test, debug cycle for both functional and performance testing by each developer.

In addition, by utilizing Eclipse Technology -- an open, industry supported software platform for application development -- IBM *WebSphere® Studio, V5* provides an integrated environment for the many different developer roles throughout the application life cycle. The result is higher quality, lower cost, more flexibility and faster time to value.

By leveraging a services oriented architecture, *WebSphere Application Server, V5* simplifies the development and ongoing adaptation of dynamic applications.

## Increase Productivity

The time required to roll out new applications is a key concern across all industries, and improved developer productivity is clearly a way to address this. One way to vastly improve productivity is to reduce the need for handcrafted programming. This can be accomplished through powerful frameworks that absorb much of the work involved in development, or through tools that generate code used by the runtime.

WebSphere delivers a combination of frameworks and tools that work together to provide best practice implementations, a realization of the industry's best architectures. With *WebSphere Studio, V5*, developing and maintaining applications is largely facilitated through *visual programming*. As discussed in the "Build-to-integrate" section of this paper, the WebSphere Studio services choreography feature enables a developer to create and combine basic services into workflows or applications. Wiring these interactions together in a visual fashion makes it easier for developers to create applications, and to preserve the flow structure of the application when underlying service implementations change over time. *WebSphere Studio, V5* also provides Web site developers with the ability to visually map a series of actions in order to generate a dynamic Web page.

Still other productivity gains come from the inclusion of wizards, automated project task lists and sample application templates.

## Maximize Development Assets

Integral to information and data connectivity is building new applications that integrate multiple back-end systems requiring data transformation and transactional integrity. *WebSphere Application Server, V5* delivers productivity through an open approach to transforming any application asset into a modular network-accessible service, which can be easily identified and reused by other.

WebSphere Studio Assets Analyzer is a powerful member of the WebSphere Studio family that can be used to analyze existing application assets - from Web pages, to Java components, to host assets such as COBOL, PL/1 and JCL. Using the knowledge store built from the analysis of your assets, WebSphere Studio Asset Analyzer helps you identify reusable components; understand the impacts to changing them; and helps you prepare them for broader use as services accessible by new and existing business applications. The result: you maximize the value of exiting assets that have been running your business for years (if not decades) and continue to leverage the skill and experience of all of your developers.



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