



# **Functional Assessment of IBM WebSphere Portal - Express Plus for Multiplatforms V4.2**

**120 S. LaSalle  
Suite 2300  
Chicago, IL 60603  
(312) 433-7793  
[www.doculabs.com](http://www.doculabs.com)**

**E-mail Doculabs at:  
[info@doculabs.com](mailto:info@doculabs.com)**

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This is a summary of our view of the product's main value proposition.

## IBM at a Glance

<b>IBM, Inc.</b> <b>Armonk, New York</b> <b>(914) 499-1900</b> <b>www.IBM.com</b>	
Founded	1911
Stock Symbol	IBM (NYSE)
Employees (2002)	315,889
2002 Revenues	\$81.2 billion
Office Locations	Headquarters in New York; offices located worldwide
Overview	<p>IBM is a leading global manufacturer of information technology, including hardware, software, networking systems, storage, and microelectronics.</p> <p>IBM's tiered family of portal solutions ranges from its entry-level WebSphere Portal - Express product, which helps small and mid-size businesses easily deploy sophisticated portals for employees, trading partners, and customers, up to the WebSphere Portal Experience edition, which addresses the needs of large and complex enterprise deployments.</p>

## A Scalable Portal Solution for Changing Business Needs

In the world of portal server technology, scalability is often achieved simply by adding additional hardware, an approach fully supported by nearly every solution on the market. While this approach allows portal solutions to scale up to meet expanding traffic demands, the absence of a tiered solution set often does not meet the needs of many end-user deployments. As a result, organizations face one of two dilemmas – they must either purchase a significant amount of unnecessary software or become locked into a solution specifically tailored for small-scale or workgroup deployments.

### *IBM's Approach to Portal Scalability*

IBM's tiered portal solution ranges from its entry-level WebSphere Portal - Express product up to the WebSphere Portal Experience edition, which is aimed at the needs of the largest and most complex enterprise deployments.

A common API for all WebSphere Portal products enables organizations to maximize development efforts. For example, once custom development has been done on WebSphere Portal - Express Plus, it can be reused later if an organization upgrades to the WebSphere Portal Extend offering. IBM's WebSphere Integration Server can

also be plugged into the portal by exposing its business objects as portlets. In addition, a wide array of complementary products can be added to create a more complete solution that includes commerce, security, and enhanced collaboration and personalization functionality.

One of the hallmarks of IBM's portal approach is the ability to create solutions by combining components from a variety of product lines, including WebSphere, Lotus, DB2 and Tivoli to name a few. This breadth of possible solutions and expertise sets IBM apart from most other platform vendors. This approach offers a clear advantage to end users as well as independent software vendors and systems integrators. They can pick a WebSphere Portal solution that most closely aligns with their current needs, knowing that compatible enterprise editions are available to address changing scalability requirements.

Doculabs recently evaluated IBM WebSphere Portal - Express Plus Version 4.2. This product combines the WebSphere Portal - Express offering with Lotus collaboration technology, including instant messaging, online people awareness and team workspace functionality. The product is primarily aimed at the needs of the indirect market, such as systems integrators, solution providers, and independent software vendors, as well as mid-market and departmental installations.

## Review of IBM WebSphere Portal - Express Plus for Multiplatforms V4.2

The section provides Doculabs' analysis of IBM WebSphere Portal - Express Plus.

### Capabilities

Collaborative capabilities are a major competitive differentiator for the IBM WebSphere Portal Express - Plus product, which includes Lotus collaborative components such as instant messaging, online people awareness and team workspace functionality. In particular, visibility into the status of other team members and ease of communication via messaging are unique features that are available out-of-the box.

Personalization is supported through a business rules definition framework. While the process of creating rules-driven personalization is somewhat complex, wizards are available and the system is customizable. Rule specifications are made through a web-based editor. Although rule-based personalization is a feature not typically found in a mid-market product but more often reserved for enterprise portal offerings, the capabilities could be easier to use, with enhanced user interfaces.

External and syndicated content is available via a growing library of pre-written portlets available from IBM and its partners. A number of these portlets

are included with the product, and still more are being created as the user community grows. Bundled portlets include general news, stock and weather feeds via Pinnacor.

While WebSphere Portal Express does not provide advanced reporting and statistics, an external tool such as Tivoli can be integrated to monitor site traffic and portal and page activity.

Although the proprietary WebSphere Portal - Express full-text search functionality is somewhat limited, complementary products such as Autonomy, Verity and Lotus Extended Search can be plugged in via an extensible interface. Other than some basic capabilities supplied by the team workspace component, the product also lacks integrated document management systems and an integrated portal-wide indexing and search engine. The team workspace library is full-text indexed and searchable from the team room, but is not searchable by the main portal search engine, resulting in a somewhat disjointed document management framework.

Business process management and workflow capabilities are available in Enterprise versions of the portal.

### *Architecture*

The WebSphere Portal - Express Plus product is based on the WebSphere application server, and therefore inherits its session management, persistence, and resource pooling from WebSphere. The result is a robust system architecture that provides the underpinnings for the portal frameworks. WebSphere Application Server Advanced Edition is bundled with the product at no additional cost (when used explicitly with WebSphere Portal - Express Plus).

While many of the underlying application server features are available to WebSphere Portal - Express Plus, more advanced enterprise features such as clustering and load balancing are not supported, given the product's intended usage in the middle market.

Organizations needing more advanced features in these areas will find them in the WebSphere Portal Enable and WebSphere Portal Extend versions of the product.

WebSphere Portal Express - Plus adheres to J2EE development standards and supports integration with Web services wrapped into portlets.

The bundled package is currently certified for use on the Windows 2000 and Linux operating systems. Database support includes the DB2, Oracle and Microsoft SQL Server relational databases.

### *Development*

The portal development environment is easy to use and very flexible when it comes to assembling pre-defined portlets into a set of user pages. The interface is clean and easy to work with, and offers a variety of options for placement, appearance, and layout. The Click to Action feature is a powerful tool for wiring portlets together within a portal application. The Click to Action portlet is included with WebSphere Portal - Express Plus.

In general, portal pages are implemented using Java Server Pages (JSP). Portlet functionality is primarily implemented via the servlet programming model. WebSphere Portal uses servlets to implement functionality using the documented IBM Portal API.

Portlets can use special servlets that access all J2EE functions and WebSphere Application Server extensions, and can access any context information the portal provides, such as standardized access to portlet settings, user profile information for personalization, and the credential vault for single sign-on.

As IBM grows its partner base, more third-party portlets are being added to the library of available components. Enterprise architects in particular will appreciate the fact that portlets created for use with WebSphere Portal Express and Express - Plus can also be used with

WebSphere Portal Enable and Extend and vice-versa. Therefore, if a client chooses to upgrade to take advantage of enterprise level features, none of the work done in developing custom portlets is lost.

While not included as part of the WebSphere Portal - Express Plus product, IBM offers the WebSphere Studio development tools as add-ons to the server offering. The WebSphere Studio development tools should be considered essential for any organization that needs to customize the portal environment to any extent. These feature rich tools will accelerate the pace of development in the portal environment, as well as within the WebSphere suite of products in general. Other integrated development environments that support servlet and JSP development and deployment to WebSphere are also compatible. IBM is a strong proponent (and originator) of the Eclipse framework, and its products interoperate with Eclipse-based developer offerings.

Data tier integration with relational databases is supported via an SQL query portlet. This portlet can be used to quickly create a view into a relational database. While this pre-built functionality provides a definite productivity enhancement over a manual coding process, it could be made even better by adding the ability to introspect tables and rows in the target database.

### *Administration*

Deploying portlets to the server is a straightforward process. Once portlets are registered into the framework, they are available for administrators to include in pre-defined pages, or for users to include in various pages at their discretion. The product supports delegated administration, helping remove IT bottlenecks by letting designated user administrators to control various aspects of portal configuration.

The product provides basic logging capabilities. Messages and notifications are written to a global log for the entire portal server. Therefore, analysis of specific items (i.e. database errors) needs to be filtered by a secondary process.

### *Security*

WebSphere Portal Express - Plus allows administrators to define security through a web-based interface. Group and user definitions are supported, but there is currently no facility for role-based security, which may limit flexibility.

There are flexible options for user management via LDAP integration, a local database, or a combination of both. An organization's existing LDAP definitions can be used as a base, but there is no provision for altering them via the portal environment. However, the product bundles the IBM Directory

Server, which provides its own configuration management utilities. Authentication information is stored in the LDAP directory, and authorization information is stored in a relational database (DB2, Oracle and Microsoft SQL Server are supported). In addition to supporting the IBM Directory Server, Domino Directory and Microsoft Active Directory are supported.

The product supplies basic single sign-on (SSO) services via the Credential Vault, which will be sufficient for most small to mid-sized installations. IBM also provides more advanced, add-on capabilities for users requiring more extensive security support.

### *Integration*

WebSphere Portal - Express Plus offers several options for integration with other enterprise applications. It supports any JDBC compliant database as a data source, and adapters to JD Edwards, PeopleSoft, SAP, and many others are available through the Portlet Catalog on the IBM Web Site [www.ibm.com/websphere/portal/portlet/catalog](http://www.ibm.com/websphere/portal/portlet/catalog).

The package does not currently include tools for easily consuming Web services. However, Web services that have been previously wrapped as portlets and published to the catalog can be included in a simple manner.



## Business Benefits of the IBM Solution

WebSphere Portal - Express Plus can provide organizations with a number of immediate business benefits, including:

- ***Strong collaborative capabilities***

The WebSphere Portal - Express Plus product contains very strong collaboration capabilities. Functionality provided by Lotus collaborative components includes chat and online awareness features, team rooms, project management and document editing capabilities. This combination of features provides a distinct advantage for the product compared with other portal solutions aimed at the SMB market. Collaborative functionality is a feature set that is particularly important when a portal is to be used for internal knowledge sharing, and in this regard, IBM WebSphere Portal - Express Plus shines.

- ***Extensible architecture***

The product utilizes a consistent set of APIs between the WebSphere Portal Express, Express - Plus, Enable, Extend and Experience offerings. IBM also makes use of open standards across its product lines. This prevents users from being locked into a solution that does not scale to meet their needs over time.

- ***Good framework for broader solutions*** - The product is a good choice for independent software vendors, solution providers, and systems integrators in need of a portal runtime environment to provide a framework for their own solutions.
- ***Single sourcing for key enterprise architecture components***  
IBM provides a large breadth of solutions across many related technology areas such as content management, integration servers, personalization, application platforms, and database technology. This breadth of offerings provides buying organizations with a single source of support and maintenance.

## The Final Word

Overall, the IBM WebSphere Portal - Express Plus product is a solid mid-market offering that builds on and includes the industry standard WebSphere Application Server, as well as the common WebSphere portal architecture and API set.

The product's strengths include proven architectural underpinnings as well as the ability to integrate complementary products from IBM and third parties. In addition, the product provides the ability to upgrade to enterprise-class portal solutions from IBM such as the WebSphere Portal Enable, Extend, and Experience products.

WebSphere Portal - Express Plus provides excellent collaborative functionality, mainly through the inclusion of the Lotus components. A variety of integration points with third party systems are supported, including

adapters for products from SAP, Peoplesoft, and Siebel.

The product does not provide wizard-driven functionality to directly consume Web services, instead choosing to defer to the forthcoming Web Services for Remote Portals (WSRP) specification. While the product has a solid rules-driven personalization engine, it is not easy for non-technical personnel to use.

The solution is broadly applicable for inclusion as an OEM component of final solutions being created by systems integrators, solution providers, and independent software vendors, as well as for middle-market organizations with in-house Java development skills. IBM's commitment to open standards, combined with the high degree of integration capabilities built into the product, help ensure that users do not become saddled with a portal product that is neither extensible nor able to grow as their needs evolve.

## *Strengths and Challenges of IBM WebSphere Portal - Express Plus*

Strengths	Challenges
<ul style="list-style-type: none"> <li>• Ability to migrate existing customers to enterprise versions of the portal without re-coding applications and portlets</li> <li>• Strong community of portlet developers already in place</li> <li>• Lotus collaboration features</li> <li>• Impressive translation between web-based display and Office documents</li> <li>• Good integration – a variety of third party applications can be accessed</li> <li>• UDDI support</li> <li>• Robust rules engine</li> <li>• IBM clearly has strong momentum in adding channel partners</li> <li>• Huge breadth of related software, hardware and services offerings</li> </ul>	<ul style="list-style-type: none"> <li>• IBM needs to continue to integrate disparate product lines into a unified product stack</li> <li>• Rules engine and personalization needs to be easier to use and more wizard-driven</li> <li>• Web services support needs enhancement</li> <li>• Search capabilities should be broadened</li> <li>• Document publishing capabilities lack an integrated portal-wide indexing and search engine.</li> <li>• The installer needs enhanced support to better adapt to embedded product offerings</li> <li>• Role support is missing</li> <li>• The product needs enhanced, wizard-driven functionality specific to portlet customization, particularly for RDBMS access portlets</li> </ul>

## About Doculabs

Doculabs is an independent research and consulting firm that improves the way companies plan for, select, and optimize emerging technologies through project-based services. Its clients include both the companies that purchase emerging technologies and the leading vendors that supply those technologies.

Based in Chicago and founded in 1993, Doculabs provides consulting services that are grounded in research that combines hands-on evaluation of technology with real-time business knowledge gained from engagements with Fortune 1000 clients. Doculabs helps its clients deliver on their business strategies through solutions in areas such as enterprise content management, relationship management, and infrastructure.

Doculabs leverages its research to provide deliverables customized to vendors' go-to-market initiatives. Specifically, it offers short-term consulting projects designed to:

- Improve time to market by accelerating strategy development and product lifecycle
- Reduce product development costs by leveraging critical market information
- Increase market penetration by enhancing a competitive value proposition

In addition to fixed-bid, short-term project engagements, Doculabs channels its analysis through speaking engagements, interviews, and authored articles to a number of leading trade organizations and publications, including AIIM, BAI, DIA, NACHA, *InformationWeek*, *CIO*, *Insurance & Technology*, *Transform*, *Energy Business and Technology*, *The Wall Street Journal*, and *BusinessWeek*, among many others.



**D O C U L A B S**

**120 S. LaSalle  
Suite 2300  
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