



WebSphere software

Developing a strategy to deliver a comprehensive e-business on demand portal solution.

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Introduction

The term *portal* is fast becoming a common part of the workplace vernacular. But the actual definition of a portal can vary from audience to audience. A portal can be a single interface connecting a variety of hyperlinked resources with search capabilities to an e-workplace providing contextual personalization, collaborative capabilities and wireless access. But developing a strong portal strategy isn't just about technology – it's about business. Technology is evolving, but business challenges and values remain more constant. Lowering costs. Streamlining operations. Increasing employee productivity. Delivering better service to customers. And realizing a solid return on every dollar spent. All can be realized by implementing a sound portal strategy.

As a March 2003 Giga report states, a key factor in selecting a portal provider is to establish your evaluation criteria based on a clear understanding of your business and user needs.¹ In turn, building a comprehensive portal strategy means choosing a vendor that can address those needs effectively. One that can help you align your IT resources with your business objectives. And offer you a solution that can address immediate challenges – combined with the long-term vision to help you grow that solution as your business needs dictate. This white paper provides a strategic vision for portal solutions from IBM. It explains how IBM defines a portal and what a portal can do for your organization. It also discusses market trends and IBM's position within the portal market and gives an overview of IBM WebSphere® Portal strategy.

Portal technology delivers business value

Portals emerged from the mainstreaming of the Internet. As more people used the Web, the amount of online content increased. The average user was frequently overwhelmed trying to navigate through the profusion of easily accessible information.

Search engines allowed individuals to include hyperlinks to favorite news, stock information, sports teams, weather and local content Web sites. Now, users expect even more from corporate resources.

- *Instant messaging and community groups*
- *Ability to interact with transaction systems*
- *Extension of capabilities to mobile devices*
- *Access to customers, trading partners and suppliers*

A corporate portal with these features can act as a critical point of interaction for conducting e-business. Enabling more effective collaboration across your enterprise and beyond. Facilitating dynamic responses to business changes. And integrating user-driven processes to increase operational efficiencies. A strong horizontal portal lets you discover new value from your existing applications, content and expertise – transforming loosely related assets into a single, cohesive e-business workplace.

As part of your portal strategy, you need to choose a portal implementation that includes the capabilities to best serve your specific needs. With a business-to-business (B2B) portal, you can improve relationships with your trading partners and facilitate cost-effective procurement practices. Make product and inventory information available to suppliers and trading partners – in a secure environment, strengthening your relationships with everyone along your value chain.

Through a business-to-consumer (B2C) portal, your customers have a single view into every channel of your business for all their needs. Around-the-clock access to account information. Personalized content about new products and services. And they can access that same information from branch locations, kiosks, their home PCs or wireless devices. Customers receive the best service and experience, so they aren't tempted to look for answers – or to buy – from your competition.

A business-to-employee (B2E) enterprise portal can help your staff organize their customized desktops to match their own work patterns. They can quickly locate critical information – like company news, product announcements or stock prices – and interact with the applications they need, even legacy applications, from a simple Web interface. Through a B2E portal, your staff can easily collaborate with colleagues. And through instant messaging features, they can send immediate queries, receive feedback and transfer vital information to one another. With easier access to information, customer-facing employees can become more knowledgeable about your products and services.

As you reap the rewards of one portal, you can deploy other portals to meet other business needs. For example, a pharmaceutical industry portal – where the goal is to accelerate the FDA drug approval process internally and externally – might require the combination of a B2E portal (for collaborating about test results) and a B2B portal (for interacting with FDA processes). Or if your business is a large commercial bank, a B2E portal can help you dispense information about company news, provide a venue for employee benefit enrollment and give access to customer relationship management (CRM) content. You can also create a B2C portal for your commercial customers so they can access and view accounts, shift funds, inquire about products and receive account attention. And hosting a B2B portal can help you negotiate short-term loans from commercial banks to smaller retail banks.

You may construct each of these portals using different technologies and base infrastructures. Besides lacking visual cohesiveness, using multiple vendor relationships and code bases can make supporting and managing these elements complex for your IT team. And the training, development and retention investment for the myriad technical skills required to maintain multiple technologies and products can be cost prohibitive.

IBM's portal strategy delivers a single portal platform with enough breadth and depth to serve current, emerging and anticipated future market requirements. You may:

- *Deploy your portal solution quickly.*
- *Customize it to suit your business.*
- *Incorporate a wide range of diverse content and application sources.*
- *Provide collaboration capabilities.*
- *Deliver rich e-commerce capabilities to support robust B2C and B2B interactions.*
- *Build a flexible platform that allows you to design, launch and maintain an online workplace for users.*

Choose a flexible solution based on open standards

A portal strategy based on open standards helps you avoid being locked into using offerings from a single vendor. Open standards give you the flexibility to change or modify your technology as your business strategies evolve. To better integrate your existing or disparate systems, whether inherited or purchased. And to free you from being tied to any one vendor or platform that may – or may not – be compatible with your future business strategies.

With a strong portal strategy, you can build a dynamic e-business on demand™ solution that provides the flexibility to meet the requirements of an ever-changing marketplace. A robust solution that can help address your specific business objectives – including marketing, sales and customer service – so you can compete more effectively. Link back-end systems to front-end Web sites, helping to lower administration costs and increase business efficiency. Make new products and services available more rapidly. And consistently deliver your products and services to market ahead of your competition.

The portal evolution

Portals are growing from an access point for applications and content to become the infrastructure for content, collaboration and communication. An infrastructure that can execute multiple transactions and conduct e-business on demand. According to Gartner, Inc., portal software products will be the basis for two new suite types, application platform suites (APS) and smart enterprise suites (SES). “Radical changes are under way in the already turbulent portal market, and these changes will alter which vendors offer portal products, as well as the manner in which the products are offered. By 2004, most vendors will deliver portal functionality as part of enterprise software suites...instead of via stand-alone portal products.”²² Each suite contains a combination of technologies. An APS is “a suite of integrated software infrastructure technologies for modern business applications containing an application server, integration suite and portal product.”²³ An SES, like the industry-leading WebSphere Portal family of products, is “an integrated suite containing search, classification, content management, collaboration, knowledge management and process management components.”²⁴

The portal market

The portal market remains robust and continues to grow. IDC predicts that double-digit growth will continue through 2007.⁵ Gartner predicts that “By year-end 2003, 10 vendors will own 85 percent of the portal market share (0.7 probability).”⁶ This forecast outlook of US\$21.8 billion for 2003 is an increase of 21.8 percent over last year. The license revenues generated by portal products could reach US\$1.7 billion by 2007.⁷ As this growth indicates, portals are playing a much more significant role in businesses – serving as online workplaces where users can obtain information and conduct business. Collaborate with peers, customers and trading partners. And increase communication and transaction efficiency across the value chain.

Incorporating WebSphere Portal into your business strategy

At the core of WebSphere Portal is a single platform for building portals that gives users a personalized, secure point of dynamic interaction with people, content, applications and processes. IBM has unified the advanced capabilities of its portal software technologies to provide a common portal architecture, effective collaboration, better enterprise integration, built-in support for mobile devices and a simplified upgrade path.

WebSphere Portal solutions can serve as much more than a place to access news or perform a content search. Use your portal as an online environment that can connect customers and suppliers – on demand. The broad function available with WebSphere Portal enables users to get information faster and execute day-to-day business transactions efficiently within the portal. For example, you can submit an appraisal or an expense report, complete a purchase order – and increase productivity by collaborating in real time with other portal users.

With WebSphere Portal software, users can:

- *Perform the functions of an application as if they were working directly in that application. For example, a user can change an enrollment election, participate in a document discussion thread or modify documents.*
- *Collaborate directly across portlet applications to take advantage of online presence awareness, directory access, meeting invitations, Web conferencing and e-mail.*

- *Increase productivity and improve operational efficiency through click-to-action function, where independently developed portlets exchange data with other portlets.*
- *Take advantage of a wide range of products and functions through Web services interactivity.*
- *Use the online workplace from any device, not just when they're connected to the local area network (LAN) or wide area network (WAN). WebSphere Portal software provides wireless access to the portal by transcoding the data and the display into a form appropriate to the type of pervasive computing device and the needs of the end user.*

WebSphere Portal strategy reflects several key trends in the portal market:

Growth of collaboration

Collaboration has many forms – from a dispersed team working together to solve a problem to an individual using instant messaging to contact a colleague for a quick answer to a question. As a Giga report points out, team collaboration technologies are integral to the first stage of the document life cycle – creating, collaborating and reviewing the first draft. When integrated into a portal, team collaboration technologies support a wider range of activities, including customer service, new product introduction, business strategy development, management of a merger or interactions in communities of interest. And when integrated tightly with portal technology, team collaboration components like instant messaging, online presence awareness and discussion threads support an even higher level of interactivity and context-based work.⁸

WebSphere Portal software includes instant messaging and Web conferencing to enable teams to collaborate more easily. The WebSphere Portal collaboration center provides users with access to an employee directory, reports-to information, as well as Web-conference setup and participation. With built-in services to access online presence awareness and chat services across portal applications, teams can work more effectively on shared tasks. For example, a discussion thread represented in a portlet may list the subject of each topic in

one column and the name of the author in the other. A user can click the author's name to open a chat session or share an application in an online meeting. The user can also choose to seamlessly view the author's biography, areas of expertise and organizational and reports-to information by accessing online directory search services. Easy-to-use WebSphere Portal tools are designed to facilitate the rapid creation of customized, security-rich, role-based individual and team workplaces. So user groups can quickly form and collaborate around specific projects and issues. Portlets are also available to integrate other collaborative products, like Microsoft® NetMeeting.

Application integration at the user level

Application integration can take place at many levels. Your business team doesn't care about the technical complexity of your underlying infrastructure—their concern is executing their business function. End users should be able to move data across the application processes they use. A comprehensive portal solution should provide users with convenient access to everything they need to get their tasks done, anytime, anywhere—in a secure manner.

With a WebSphere Portal solution, suppliers, trading partners, employees and customers can interact with your e-business infrastructure—and each other—with ease. Customer service representatives can find a record of all previous customer interactions, check with the last representative who handled the customer's calls and initiate a new transaction on behalf of the customer—all from a personalized portal. A data field from one application may be transferred to another application with a single mouse click—or your portal can be configured to execute a particular transaction each time a particular user initiates it. Business managers can approve expense accounts or initiate the review of a piece of marketing collateral as part of the WebSphere Portal workflow. Webmasters can manage their Web content, publishing on a schedule. And employees who need basic spreadsheets, presentations or documents can view, edit and share basic documents from within their WebSphere Portal, improving the productivity of each portal user.

Role-based workplaces to suit individual user needs

The data and applications people need depend on their roles in your organization. WebSphere Portal software allows end users to customize their workplace page to address their individual preferences, changing the layout and scheme of their individual portals. Besides a personal workplace, WebSphere Portal software can deliver business-specific information dynamically tailored to each user's role – based on organization, division, department or project team – recognizing that individuals work as part of a group. A member of your financial team can analyze the recent sales results. Someone in human resources can review employee satisfaction survey results. And they both can see the CEO's latest announcement, based on the role defined for each person within the portal.

WebSphere Portal software offers a strategic platform

The WebSphere Portal strategy reflects IBM's vision and investment in offerings for the portal market. The strategy centers on a single portal platform, so customers can start simply – and grow their solutions fast, to achieve maximum business agility. IBM offers a comprehensive portal infrastructure you can implement incrementally as needs for employee, trading partner, customer and supplier portals evolve. And it allows you to derive even more value from existing investments in enterprise applications, data and security features. As applications add open standards-based portal user interfaces, they will integrate seamlessly with WebSphere Portal software.

IBM's WebSphere Portal strategy takes into consideration several key concepts:

One size doesn't fit all

With the WebSphere Portal family of offerings, IBM delivers a tiered set of offerings that enables you to build a solution that meets your particular requirements, regardless of the size of your business. A solution that allows you to start simple and grow your portal with your business. Starting with a twenty-user WebSphere Portal - Express offering and including offerings for large IBM z/OS® system installations, WebSphere Portal allows you to match the solution to your business requirements. And IBM's commitment to open standards – like Web services, Java™ technology and XML – means your portal can integrate with your existing infrastructure – and use the operating system of your choice. Clustered environments support large, mission-critical implementations.

Include best-of-breed technologies from across IBM

IBM portal solutions combine technologies from across its software portfolio. Lotus® collaboration software from IBM to help you connect people. WebSphere e-business infrastructure software to provide access to content and e-commerce software to conduct B2C and B2B interactions. Tivoli® intelligent management software from IBM to help you analyze your Web site to maximize efficiency. DB2® information management software from IBM to handle transactions. A development framework and tools to create a truly customized end-user experience and pervasive-computing software to support mobile and wireless usage. All working in concert to simplify access to critical e-business applications, processes and people. These industry-leading products from IBM can help uniquely position your organization to gain maximum return from your portal implementation.

Cross-functional framework

To be a viable part of your IT infrastructure, your portal solution must be able to grow with your business. It must be cost-effective. Requiring minimal training for administrators – and end users. It has to integrate with your existing IT investments. And you have to be able to get it up and running quickly. All basic capabilities of WebSphere Portal software.

Being able to access the wide range of enterprise applications your organization has heavily invested in – and depends on – is a critical component of a successful portal. With a WebSphere Portal solution, you can take advantage of leading-edge portal technology without having to rebuild your IT infrastructure from scratch. Portlets provide access to existing applications, and you can build in interactive collaboration. They provide filters and format content for WebSphere Portal, acting as windows into your organization's core information and business processes. And they integrate your existing purchased applications – like those from PeopleSoft, Siebel, SAP and IBM Lotus Domino™ with WebSphere Portal software. You can download portlets for products and offering from other key application providers through the Web-based IBM portal catalog. You can also access legacy or COBOL applications within portlets created with the IBM Enterprise Modernization tool set.

You can enhance your portal solution by adding interaction with products from IBM or its Business Partners. Add a comprehensive security system, like IBM Tivoli Access Manager. A document-management system from Interwoven or Vignette. Advanced or federated search functions across multiple repositories. Commerce-portal extensions. Or advanced content-management services, like IBM Content Manager. Whatever your needs, WebSphere Portal can keep pace.

The WebSphere Portal framework can address the broader needs of your organization – whether you're focusing on enterprise application integration, community development and peer collaboration, extranet security or transaction handling. This single framework can support your enterprise resource planning (ERP), CRM and human resources (HR) employees, not just a segment of your workforce, with information, applications and data personalized for each of them.

Industry-specific solutions to address your specific requirements

Just as the WebSphere Portal framework can handle the horizontal processes common across industries – like e-commerce, sales servicing and supply chain management (SCM) – it can adapt to the requirements of your specific industry – whether it's retail, financial services, manufacturing or consumer packaged goods. WebSphere Portal serves as the foundation for industry-specific offerings for government, life sciences and automotive dealers. Through IBM Developer Relations, IBM supports independent software vendors and developers who want to customize or extend their portals – and offers portal technology to software vendors who want to embed portal capability into their own solutions.

IBM and Business Partner services

Whether you're building a solution to address employee relationship management, CRM, sales force automation, SCM or some other customized e-business solution, services from IBM and its Business Partners can help you construct a variety of vertical and specialized solutions. A number of IBM Business Partners specialize in building solutions based on WebSphere Portal software. And open, standards-based portal technology from IBM means these solutions integrate seamlessly to match your specific organizational requirements.



The IBM On Demand Workplace, based on IBM's own employee intranet site, is a horizontal solution developed by IBM. This comprehensive suite of software, hardware, services and expertise creates an environment where employees can dynamically interact with integrated business processes, other employees, partners, suppliers and customers. The solution simplifies employee access to content, applications, people and processes. It includes a secure enterprise-wide portal that enables employees to do their work from anywhere, anytime, faster and more effectively. The result is a personalized workplace, tailored specifically to each employee's role. The workplace becomes the primary point of interaction with corporate resources, like human-resources functions, financial systems, customer systems, supply chain systems, e-learning, help desk and key performance indicators. Giving users new, more efficient ways to communicate and work electronically with each other.

Extend your WebSphere Portal to meet evolving needs

It can be difficult to determine how much function to include in your portal framework. Not enough and you can miss important advantages. Too much can overload you with features you don't need. As your business grows, complementary products can be added to the WebSphere Portal family of offerings to satisfy more detailed requirements. The following products and offerings can be added to any WebSphere Portal family offering:

- *IBM Lotus Discovery Server™ to help users discover relationships among people, content and topics by categorization, skill mining and usage analysis.*
- *IBM Tivoli Access Manager to provide end-to-end security for e-business applications.*
- *IBM Content Manager to create, manage and distribute electronic content.*
- *IBM WebSphere Everyplace® Access to automatically adapt content to fit a wide range of pervasive computing devices, including mobile phones, personal digital assistants (PDAs) and personal organizers.*
- *IBM WebSphere MQ software to connect your business software with an industrial-strength messaging backbone.*
- *IBM BackWeb Proactive Portal Server to deliver critical portal information offline.*
- *WebSphere Portal portlets to enable you to integrate key enterprise business applications from SAP, PeopleSoft, Baan, Siebel, Oracle and others with portal solutions deployed using the WebSphere Portal family of products.*

Summary

A portal can range from a focused and tactical intranet to a strategic e-business workplace. Both types of portals allow employees, suppliers, trading partners and customers to easily interact, improving organizational effectiveness and increasing business value. A portal connects your most critical business assets – and allows you to focus on your business, instead of the technology behind it.

IBM has the vision, the experience and the expertise to help you build the right portal solution to meet your business needs. WebSphere Portal delivers important business benefits with its wide range of offerings, add-ons, services, standards (Web services and portlet APIs) and Business Partner offerings and expertise. A portal can become an integral part of your IT infrastructure. One that permeates your entire organization – and brings it all together in a single interface. WebSphere Portal software offers not just a personalized workplace but a next-generation, collaborative workplace that connects the individual with your entire e-business community.

For more information

To learn more about how the IBM WebSphere Portal family of offerings can enhance your e-business, visit:

ibm.com/websphere/portalfamily



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