

WebSphere® software



**Leverage legacy data with new e-business solutions.**

## Merging your network with the Web

The Web and its associated technologies offer you virtually unlimited ways to extend the reach of your business information. As a result, providing access to information stored on IBM @server iSeries™, IBM @server zSeries™ and other back-end systems, such as UNIX®, Microsoft® Windows NT®, Microsoft Windows® 2000 and Microsoft Windows XP system-based servers, is more important than ever. The quantity and quality of your business information, combined with the reach of the Web, presents you with the opportunity to transform that information into a powerful competitive advantage.

Merging Web technology with your existing information systems defines e-business. And building an e-business means finding a solution that provides a fast and cost-effective way to access, integrate and publish host information to Web-based clients.

With IBM WebSphere® Host Integration Solution, you can start simple and grow your e-business fast, leveraging your legacy data with new e-business solutions to help maximize your total return on investment. In a single offering, you get virtually everything you need to create and deploy advanced e-business applications that rely on host systems. Whether you want to give your host applications a Web look and feel without programming or integrate multiple legacy applications into a single Web page, WebSphere Host Integration Solution software has the answer. Now with IBM WebSphere Application Server Advanced Edition and IBM WebSphere Studio Site Developer, you can create and deploy host access e-business applications. You can use WebSphere Host Integration Solution programming technologies, such as Host Access Beans for Java and Host Access Class Libraries (HACL) to deliver dynamic host content using Java™ servlets, JavaServer Pages (JSP), Extensible Markup Language (XML) technology and Enterprise JavaBeans (EJB) components.



WebSphere Host Integration Solution offers industry-leading host access with unmatched flexibility for multiple environments. This product portfolio integrates with and leverages the WebSphere software platform, a comprehensive set of award-winning integrated e-business solutions from IBM that can allow you to quickly meet evolving market needs.

## What is WebSphere Host Integration Solution?

WebSphere Host Integration Solution comprises industry-leading IBM software communication clients and servers providing a variety of products to meet your network needs, including:

- **IBM WebSphere Host Access Transformation Server**  
An easy-to-implement Web-to-host solution that delivers HTML to your users' Web browsers, allowing you to extend legacy applications to end users. Its rules-based transformation engine dynamically converts host screens to Web-like graphical user interfaces (GUIs) to provide a quick and efficient way to integrate legacy assets into e-business applications.
- **IBM WebSphere Host On-Demand**  
A browser-based, thin-client terminal emulator that supports 3270, 5250 and virtual terminal (VT) emulation and provides an extensive set of programming tools to quickly create and customize e-business applications.
- **IBM Screen Customizer**  
A drag-and-drop customization tool that converts host screens into simple GUIs without programming.
- **IBM WebSphere Host Publisher**  
A set of tools that provides a quick and easy way to integrate multiple sources of data, including host and database applications, as a single Web page without changes to back-end systems.



- **IBM WebSphere Application Server**

A powerful deployment environment for Java applications and components, including support for EJB technology with clustering, caching, security and transaction support for e-business applications. WebSphere Application Server Advanced Edition combines the control and portability of server-side business applications and XML with the performance and manageability of Java technologies and application programming interfaces (APIs). IBM WebSphere Application Server Advanced Edition also extends the value and versatility of your Web server with functions that include simple GUIs and extensive monitoring and reporting tools.

- **IBM WebSphere Studio Site Developer**

A tool suite that brings together all aspects of Web application development into a common interface, providing everything developers need to create, manage and maintain compelling dynamic Web sites. WebSphere Studio Site Developer makes it easy for all team members to create, assemble, publish, deploy and maintain dynamic, interactive Web applications designed to meet the requirements of today's open technology standards.

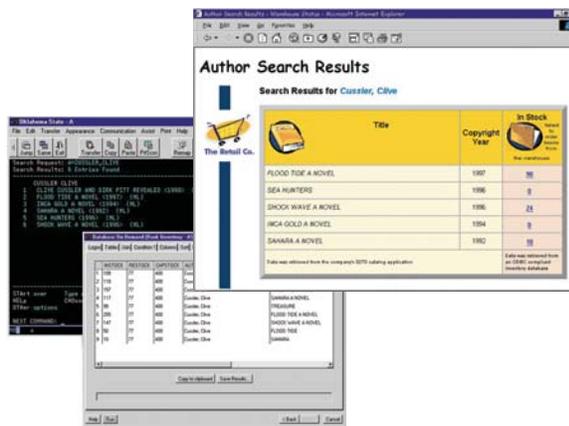
- **IBM Personal Communications**

A comprehensive communications client that offers 3270, 5250 and VT emulation, as well as a variety of APIs.

- **IBM Communications Server**

A powerful, multifunction, multipurpose gateway that connects diverse applications and network environments. Communications Server enables workstations to communicate with other workstations and host computers, regardless of platforms and network configurations — giving you the freedom to choose applications based on business needs rather than your network protocol.

Individually, these products are powerful tools, but together they provide a comprehensive solution to help deploy host-access and e-business applications across intranets, extranets and the Internet at a modest cost. You can choose the combination of client, server and platform software you need in a single offering to meet your business needs.



WebSphere Host Integration Solution takes host applications to the Web quickly.

### Reducing administration costs

The same WebSphere Host Integration Solution that extends the reach of SNA and TCP/IP networks within your enterprise can also enable your employees to access the information and applications they need from Web-based clients. For high-performance access to your business applications across an intranet, WebSphere Host On-Demand lets you use a traditional green screen emulation interface—installed on, and distributed from, a Web server—to help you save money in product deployment and maintenance. Your intranet needs may also include extending host data to new users who are unfamiliar with browser-based green screens. With Screen Customizer, you can give applications a Web look and feel without any programming.

### Connecting to your employees and external users

Connect your users to your key business applications. Unlike your employees, your external users may not be familiar with your mainframe applications. WebSphere Host Access Transformation Server is an easy solution to deliver host applications over the Web. Its rules-based transformation engine converts your host screens into Web-like graphical user interfaces to add pull-down lists, hot links, tables and graphics on the fly. With quick results and virtually no programming skills required, WebSphere Host Access Transformation Server delivers HTML to your users' Web browsers within a day of loading the program, with no changes to your host application.



### **Integrating with new WebSphere applications**

WebSphere Application Server is designed to meet customers' needs for flexibility and speed in developing e-business applications, while WebSphere Host Publisher is designed to extend and integrate existing applications with WebSphere e-business applications and to extend legacy applications to Web users.

WebSphere Host Publisher generates reusable Java technology-based host Integration Objects, EJB access beans and Web services, creating synergy with other components of the WebSphere family of products. You can reuse WebSphere Host Publisher Integration Objects within new WebSphere applications to provide access to existing host applications. WebSphere Host Integration Solution can enable you to leverage your investment in Web-to-host application extension to new WebSphere applications you'll be developing in the future.

### **Reaching your customers**

The Internet gives you an opportunity to extend the reach of your business to new customers around the world. But you may have concerns that make you reluctant to take advantage of the Internet's potential. For example:

- *How do you quickly and easily build a customer-oriented application from multiple sources of data?*
- *How do you integrate existing host-based information into Web pages?*

WebSphere Host Publisher helps you answer these questions. You can reach new customers quickly, and easily integrate multiple sources of data as part of a single Web page. With WebSphere Host Publisher, you can

provide your users with access to host applications and data, regardless of where they reside—3270, 5250, VT, Java classes and Java Database connectivity (JDBC) technology-enabled databases. The resulting Web-based application requires no special training for your customers, and it can run on almost any desktop system with a Web browser. You'll have a new, user-friendly composite application that accesses information from a variety of sources without requiring modifications to your existing business applications.

To help companies deliver host applications to the newest types of handheld devices, WebSphere Host Publisher can be used with other members of the WebSphere family of products to dynamically extend the reach of host data and applications beyond the Web to pervasive technologies, such as smart phone devices and personal digital assistants (PDAs).

### **Accessing legacy applications from IBM WebSphere Portal**

As critical business functions move to the Web, a portal infrastructure that can handle the diverse needs of your external users is paramount. WebSphere Portal family solutions provide a personalized single point of access to necessary information resources to help you reduce information overload and accelerate productivity.

WebSphere Portal solutions allow you to quickly and easily generate portlets. The building blocks of portals, portlets are programs that manage a portion of the browser window and retrieve data, transform it and display it in HTML or WML. By combining WebSphere Host Integration and WebSphere Portal solutions, you can create a number of portlets that include:



- *WebSphere Host On-Demand portlet*

With WebSphere Host On-Demand and WebSphere Portal, you can create a customized WebSphere Host On-Demand portlet to deliver simple host application access without programming. You can create a portlet using the WebSphere Host On-Demand Deployment Wizard or use one of the four sample portlets available at [ibm.com/software/webservers/hostintegration\\*](http://ibm.com/software/webservers/hostintegration*).

- *WebSphere Host Publisher portlet*

With WebSphere Host Publisher and WebSphere Portal, you can extend legacy content and services as new portal content. WebSphere Host Publisher portlet delivers the session state management capabilities needed to enable complex interaction with existing legacy applications, while providing the easy-to-use navigational advantages of WebSphere Portal.

- *WebSphere Host Access Transformation Server portlet*

With WebSphere Host Access Transformation Server and WebSphere Portal, you can modernize the look and feel of legacy applications and integrate them with enterprise portals. With this powerful combination, you can provide an updated GUI and deliver legacy portal content as HTML directly to your user's desktop.

### Building a flexible solution

Because most enterprises have a variety of hardware, software and networking architectures, IBM WebSphere Host Integration Solution is designed to accommodate complex networking environments. The client and server products in WebSphere Host Integration Solution are capable of running in a variety of operating environments, like Microsoft Windows, IBM AIX®, IBM OS/2®, Sun Solaris operating environment,



IBM OS/390®, IBM OS/400® and Linux® systems. And with the promise of Java technology, IBM WebSphere Host On-Demand can run on nearly any client that provides the appropriate Java Virtual Machine (JVM) support.

You can also extend the reach of your TCP/IP and SNA networks to new environments without abandoning your existing networks. Personal Communications and Communications Server provide Multiprotocol Transport Networking (MPTN), which allows applications to run over multiple network protocols. SNA applications can work with your TCP/IP networks without adding a separate TCP/IP network, and TCP/IP sockets applications can run over your SNA network with no modifications.

To support SNA connectivity, IBM Communications Server provides a powerful SNA gateway, featuring two of the most advanced SNA networking capabilities available today— IBM Advanced Peer-to-Peer Networking® (APPN) and high-performance routing (HPR). Personal Communications provides client support for 3270 and 5250 emulation across an SNA environment. In the TCP/IP environment, Communications Server acts as a Telnet server for both 3270 and 5250 communication. On the client side, Personal Communications and WebSphere Host On-Demand provide the same 3270 and 5250 emulation, with added support for VT emulation.





### Transporting your SNA applications

Through the use of Enterprise Extender (EE)—a leading-edge solution for accessing SNA applications over TCP/IP networks—you can maintain the integrity and reliability of your SNA LU6.2 / CPIC / APPC and LU0 applications over IP. Enterprise Extender technology in both Personal Communications and Communications Server transports native SNA applications over an IP network, allowing these applications to run unchanged even as the network changes. In addition, the IP network infrastructure does not have to change to handle these applications. Everything is done at the endpoints, and the routers forward the IP packets as if they were native IP applications. This client capability—exclusive to IBM—lets you transport SNA applications over an IP network directly from the client to the mainframe.

### Protecting your e-business data

Security is fundamental when extending the reach of critical business information to users across public networks like the Internet. To address security issues, IBM WebSphere Host Integration Solution supports authentication and encryption with Transport Layer Security (TLS) or Secure Sockets Layer (SSL), helping to ensure the secure transport of sensitive information across your network. WebSphere Host Integration Solution works with existing host security systems, such as IBM Resource Access Control Facility (RACF®).

WebSphere Host On-Demand can present a digital certificate (X509) to a Telnet server, such as IBM Communications Server for OS/390, for authentication. It is also enabled for smart card support.

With the express logon feature, 3270 users can log on to a host system without having to enter a user ID or password. WebSphere Host On-Demand uses digital certificates sent to RACF through the IBM Communications Server in place of user IDs and passwords, helping to reduce administration costs and decrease security risks. WebSphere Host On-Demand can also help securely deliver its Java applet and configuration data through HTTPS. WebSphere Host Publisher also provides an express logon function so that users with a digital certificate can access host applications without having to enter a user ID or password.

### Empowering your application developers

To protect your information technology (IT) investment and provide a powerful application development infrastructure, WebSphere Host Integration Solution contains a comprehensive set of APIs. The Host Access toolkit within WebSphere Host On-Demand includes HACL, the WebSphere Host On-Demand connector, the Host Access Beans for Java and the JavaScript API. This object-oriented set of APIs provides access to 3270, 5250 and VT data streams. With these APIs, you can use mission-critical information in new ways, such as integrating data into your corporate Web pages, combining data from one application with another or replicating information from one data source to another.



Host Access Beans for Java in the WebSphere Host On-Demand Toolkit allow your customers and trading partners to rapidly develop custom applications that contain the specific functions needed for your e-business processes. And because Host Access Beans for Java components are object-oriented, they can be reused within an IBM WebSphere Studio Application Developer to develop custom e-business applications as your needs evolve.



WebSphere Host Publisher can be used as a JavaBeans component or EJB object generator to quickly and easily create the beans that new WebSphere applications need to access legacy applications. WebSphere Host Publisher Studio delivers a wizard-like interface for bean generation that can eliminate the need for programming. As a result, the time and expense associated with application development can be significantly reduced.

### **An industry-leading solution**

IBM WebSphere Host Integration Solution can meet your Web-to-host e-business needs today and in the future. IBM WebSphere Host Integration Solution:

- *Provides a fast, easy and cost-effective way to take host applications and data to the Internet*
- *Requires no changes to host applications*
- *Requires no scripting or coding*
- *Addresses virtually all aspects of an e-business network environment, including SNA, TCP/IP, intranet, extranet and the Internet*
- *Can enable platform and technology migrations without additional purchases*
- *Supports a common development infrastructure and the ability to create and deploy host access e-business applications in a WebSphere software platform environment*
- *Provides security for your e-business transactions*

IBM WebSphere Host Integration Solution offers industry-leading host access solutions with unmatched flexibility for multiple environments, meeting virtually all your host access e-business needs.

### **Services**

The IBM WebSphere Host Integration Solution offers a comprehensive suite of services for WebSphere Host Publisher and WebSphere Host Access Transformation Server. Customers can now take advantage of our new QuickStart Services offerings to get you started down the path to a successful product experience. In addition, we can work with you to provide a customized set of services tailored to meet your needs. Services must be requested within 90 days of purchase of the IBM WebSphere Host Integration Solution. The services will be performed by skilled consultants who are ready to help with your WebSphere Host Integration Solution implementation. For more information, please visit the Services Web site:

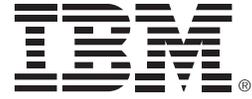
**ibm.com**/software/webservers/hostintegration/services.html

### **For more information**

To learn more about IBM WebSphere Host Integration Solution, visit:

**ibm.com**/software/webservers/hostintegration





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U.S.A.

Produced in the United States of America  
09-02

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\* This scenario requires you to have WebSphere Portal, Version 2.1 and WebSphere Host On-Demand, Version 6.02, which are available through the IBM Host Access Client Package.