

White paper



# IBM SecureWay Host Publisher, Version 2



**Abstract: This paper is intended to provide a basic understanding of the follow-on product to the Host Publisher function currently provided in IBM Communications Server for Windows NT. It will explain how IBM SecureWay Host Publisher Version 2<sup>1</sup> fits in the Web-to-Host Integration market space, basic features and functions, positioning with other IBM Web-to-host products, and competitive advantages. This paper will help the reader understand how Host Publisher can enable the user to quickly and easily extend existing host applications to new Web users without modifying the existing applications.**

### **Where Does Host Publisher Fit with Web-to-Host Integration?**

Web-to-Host integration has become a well known term and is understood more and more as an integral part of any e-business. 70% of business critical data and applications reside on IBM host systems such as S/390<sup>®</sup>, AS/400<sup>®</sup>, and RS/6000<sup>®</sup>. Making this information available to new users and using it in new ways across intranets, extranets and the Internet enables companies to reduce costs, improve services, generate new sources of revenue, and establish a competitive advantage.

The term *legacy application extension* is used to describe the trend where companies quickly move existing host applications to the intranet, extranet, and the Internet without modifying the existing application. This is the quickest way for companies to gain benefits from e-business. Industry consultants have observed that a combination of technologies are required to satisfy the needs of different types of users. For example, many customers are utilizing the power of Java™ to implement new Web applications or to provide new user interfaces to existing applications. This implementation requires a level of control over the user's desktop, or at least requires that the user has a Java-enabled browser. This is typically not a problem when dealing with intranet or extranet users. However, when you extend existing applications to new users, such as customers, using the Internet, you cannot be sure that every customer has a Java-enabled browser, so HTML is required.

IBM's Host Integration family of products includes a complete end-to-end solution to address the legacy application extension space with solutions to address the needs of all user groups. Host On-Demand and Screen Customizer are targeted primarily at the intranet and extranet, and to a lesser degree, the Internet. Host Publisher is targeted primarily at the Internet, and to a lesser degree, the extranet and intranet.

### **Host Publisher Overview**

Host Publisher enables you to extend the reach of existing mission-critical data to new users across the Internet and extranet with no need to modify the existing applications. It supports any standard HTML browser and does not require Java-enabled browsers. Host Publisher also allows you to integrate multiple sources of host data into a single Web page, so that you can create "composite" applications that appear to the end user as a single new application. Host Publisher supports applications that run on 3270, 5250, VT, Java, and databases that provide a JDBC interface, such as IBM DB2® Universal Database, Oracle, and Sybase.

Host Publisher provides the enterprise-class features you expect, including security, load balancing and hot standby. Host Publisher supports Secure Sockets Layer (SSL) encryption and authentication, as well as DES-encrypted passwords, to provide a high level of security. Host Publisher includes the IBM SecureWay Network Dispatcher which provides the same level of load balancing and hot standby for large enterprises that was used in the Nagano Olympics.

Host Publisher is an excellent solution for quickly implementing Web self-service applications from existing host applications. This allows companies or government agencies to provide information directly to customers, reduce the expense of call centers, and improve service.

Host Publisher is divided into two major components; Host Publisher Studio and Host Publisher Server. The Host Publisher Studio provides the easy to use customization environment for creating host integration objects that can be used on Web pages to dynamically access back end data sources. Host Publisher Server provides the runtime environment for executing host integration objects created with Host Publisher Studio.

You create host integration objects and Web pages using the Host Publisher Studio, publish them to the Host Publisher Server/Web Server, and provide access to the final end user. Host Publisher builds Web-to-host applications based on Integration Objects. Integration Objects are made up of reusable Java beans that can:

- Automatically establish a session with a host
- Navigate to and extract data from an application
- Disconnect from the host and end the session

Performance options, such as session pools, optimize session establishment and connection. Integration Objects can be used to generate fully-customizable HTML pages or can be reused by other Java application programs.

### **Host Publisher Studio**

The Host Publisher Studio is a collection of task-oriented, easy-to-use graphical user interfaces which assist the Web page designer in managing and creating Web-to-host publishing projects. It uses task-oriented prompts to guide the user through the creation process, including recording host and database interactions, identifying desired data, and labeling that data for retrieval. The Studio automatically generates a type of Java bean called an Integration Object, which encapsulates the interactions and data retrieval. You can use Host Publisher Studio to generate a fully customizable HTML Web page for modeling interaction with the Integration Objects and rendering the resulting data. You can enhance the generated HTML with your favorite Web authoring tool, such as NetObjects Fusion or Microsoft\* Front Page, to meet corporate guidelines on style and image. Once the Web page is completed, you publish it to a Host Publisher Server for production access by end users.

Host Publisher Studio runs on the Windows NT™, Windows 95™, and Windows 98™ operating systems.

### **Host Publisher Server**

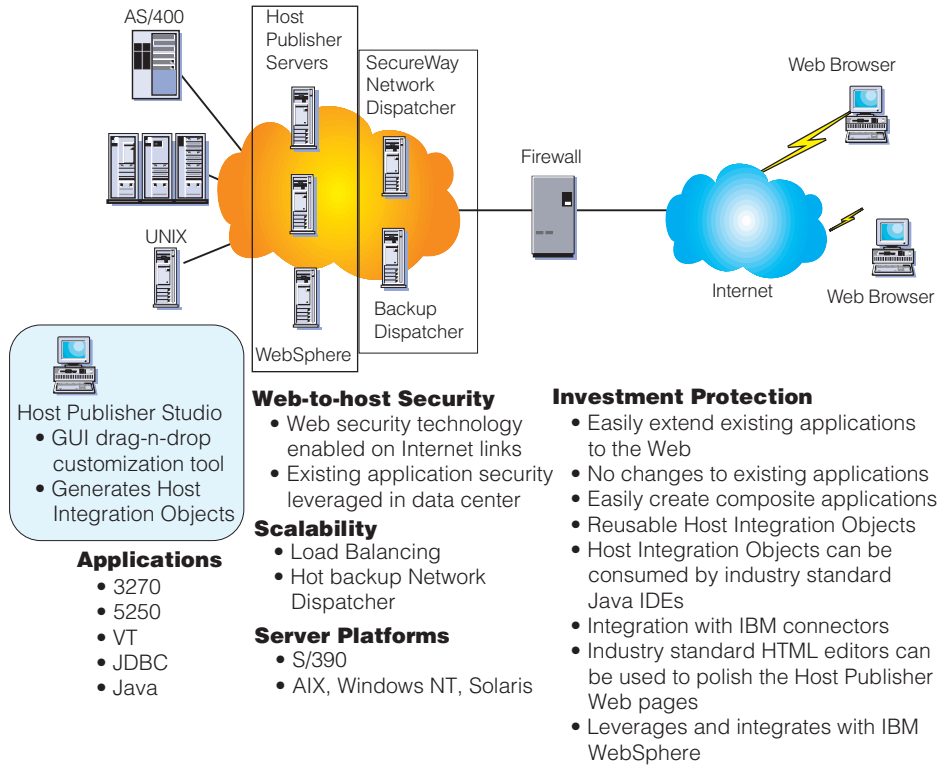
The Host Publisher Server provides the runtime environment for supporting host integration objects and Web pages created with the Host Publisher Studio. It consists of the IBM WebSphere™ Application Server Standard Edition, Version 2<sup>2</sup>, and other runtime components such as session management, license monitoring, run-time administration, and log and trace management.

Host Publisher supports session chaining, which allows the user to break a task up into logical reusable components to improve performance and flexibility to the user, and reduce the administration of creating complex web pages. For example, you might use chaining in a typical 3270 application which uses multi-level menus. A corporate phone directory might have several menus to step you down to the point where you can list everyone in a particular department. You want to display the office location of someone in the list, return to the department list and select a new name, and display the second person's office location. Chaining enables you to break the Integration Object into several reusable components so that the end user does not have to navigate back down through the several menus to reach the department list again.

To enhance performance, Host Publisher provides session pools, which are defined in the Host Publisher Studio. Session pools are used during runtime to cache connected, logged on, and ready sessions to improve response time to Web pages. A user-defined number of sessions will remain active in the pool supporting requests from any user. This eliminates the overhead of establishing a session, and connecting and disconnecting for each host request.

Host Publisher's integration with WebSphere enables it to integrate with other IBM Connectors, such as one for MQSeries®, by integrating Integration Objects into WebSphere-developed applications.

Host Publisher is written in Java and is supported on OS/390®, AIX®, Windows NT and Sun™ Solaris™ operating environments.



### Host Publisher Summary

#### Positioning Host Publisher with WebSphere

Although Host Publisher and WebSphere complement each other very well, and Host Publisher integrates WebSphere into its runtime environment, there is a fundamental difference between the primary use of each solution.

Host Publisher delivers a quick and easy way for companies to implement e-business applications by extending *existing* applications to the Internet. It focuses on the legacy extension space with little or no new business logic. In contrast, WebSphere provides a robust Java infrastructure for the development and execution of Java applications and Servlets. WebSphere focuses on adding new business logic to existing applications or deploying totally new Web applications such as is used in business reengineering.

The two products are complimentary in that Host Publisher utilizes the WebSphere application server environment to support the runtime environment for applications utilizing Integration Objects created by Host Publisher. You can reuse Integration Objects within new WebSphere-based applications, or you can use WebSphere and your favorite Java interactive development environment (IDE), such as VisualAge® for Java, to add new business logic to Host Publisher implementations.

While Host Publisher provides WebSphere Standard Edition, Version 2<sup>2</sup>, if you need or already use the advanced features of WebSphere Advanced Edition or WebSphere Enterprise Edition, you can substitute those products to support the Host Publisher runtime environment.

### **Positioning Host Publisher with Host On-Demand**

Host Publisher is targeted primarily to Internet users, who may not have Java-enabled browsers and who require HTML. As in Web self-service applications, the user typically connects infrequently and for short periods of time. End users are familiar with their standard HTML browser, and they are accustomed to Web response time. Users are not familiar with typical host "green screens" nor how to navigate through legacy applications, so a new, easy-to-use graphical interface is critical. Requirements often include accessing multiple back end hosts for a single presentation to the end user. Host Publisher can also be appropriate for extranet users and, to a lesser extent, intranet users where their usage and requirements are similar to the Internet user.

Host On-Demand is IBM's answer for Java-based host access primarily targeted to meet the needs of intranet and extranet users. User desktop software is typically well controlled, and can ensure it includes a Java-enabled browser. Users typically connect for extended periods of time and fast response times are important to maximize productivity. Users may be familiar with the original green screen and can be considered power users who require a full function emulator.

### **Host Publisher Competitive Advantages**

Host Publisher is built on open industry standards such as Java and HTML. The Java beans that are generated as part of the Integration Objects are reusable components that can be used in Java applications created outside of Host Publisher. Likewise, interactive development environment (IDE) tools can be used to add new business logic to Host Publisher created applications. The Host Publisher Studio also generates fully-customizable HTML output with imbedded Java Servlet Page tags. We fully expect users to use their favorite HTML editor to enhance and customize the HTML to meet their design guidelines and personal preferences.

Host Publisher Server provides enterprise-class performance, scalability and availability through several key features such as chaining, session pooling, load balancing, hot standby, and cross-platform portability. Since the runtime environment of the Host Publisher Server runs on OS/390, AIX, Windows NT, and Sun Solaris, applications created with the common Host Publisher Studio will run unchanged in all environments. The load balancing capabilities of Host Publisher will allow you to balance the load of host Integration Object requests over a group of Host Publisher Servers, providing predictable performance, easy scalability, and hot backup. The ability to move from one operating system platform to another will allow you to move your workload to a higher capacity platform as demands increase.





© International Business Machines Corporation  
1999

IBM Corporation  
Department VK4A  
3039 Cornwallis Road  
Research Triangle Park, NC 27709

Produced in United States of America  
7-99  
All Rights Reserved

The following terms are trademarks of the IBM Corporation in the United States or other countries or both: IBM, RS/6000, AS/400, S/390, AIX, Universal Database, SecureWay, MQSeries, Visual Age

Microsoft, Windows, and Windows NT are trademarks or registered trademarks of Microsoft Corporation.

Java, Sun, and Sun Solaris are trademarks or registered trademarks of Sun Microsystems, Inc.

UNIX is a registered trademark in the United States and other countries licensed exclusively through The Open Group.

<sup>1</sup> IBM SecureWay Host Publisher is scheduled to become generally available September, 1999. Information contained herein is subject to change without notice.

<sup>2</sup> For IBM SecureWay Host Publisher for OS/390 operating environments, WebSphere is provided with the base operating system and is not included in the Program. For IBM SecureWay Host Publisher for Windows NT, AIX and Solaris operating environments, the Program includes WebSphere Application Server Standard Edition.

Other company, product and service names may be trademarks or service marks of others.