

IBM WebSphere Transcoding Publisher for Multiplatforms, Version 4.0

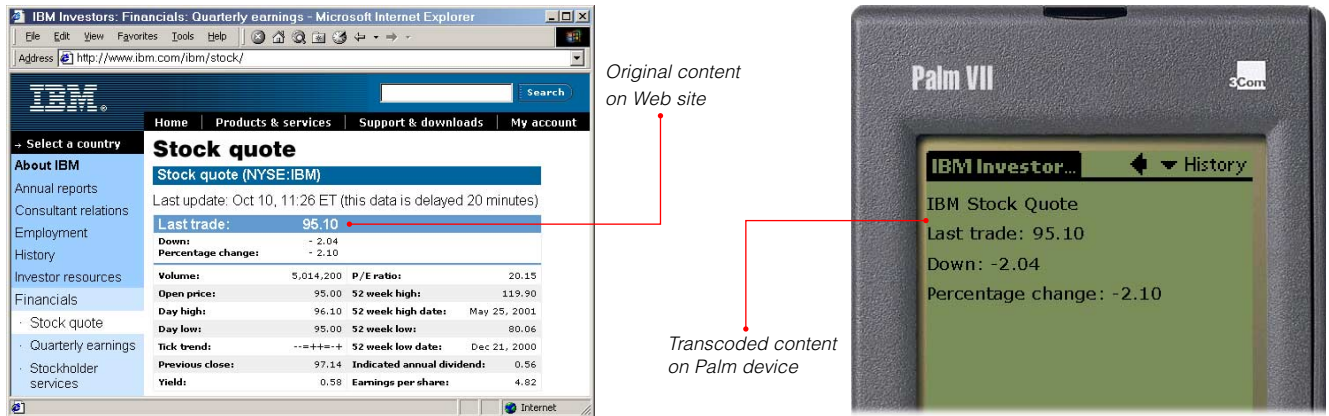


Figure 1. IBM WebSphere Transcoding Publisher can dynamically adapt both Web content and applications on your Web site to a variety of pervasive devices, transcoding from one markup language to another and eliminating unwanted or unsupported items from the original source.

Highlights

- Experience dynamic conversion of HTML content for voice-only phones through VoiceXML transcoder.
- Convert HTML to PalmOS HTML for display on Palm.Net devices with Palm transcoder.
- Translate content into different languages using Machine Translation plug-in and WebSphere Translation Server.
- Create your own stylesheets to convert XML documents with new XSL Stylesheet Editor.
- Manage your stylesheets with robust search and sort capabilities.
- Incorporate user preferences when operating in an environment where users are identified and user preference information is available, such as WebSphere Everyplace Server.
- Create external annotation files to customize the information returned to mobile devices with new External Annotation Editor.
- Increase security and caching capability by deploying WebSphere Transcoding Publisher as a plug-in to WebSphere Edge Server.
- Simplify administration of multiple WebSphere Transcoding Publisher servers by importing and exporting configuration information.

Extends Web content to new devices without reauthoring

As e-business moves from the desktop to pervasive computing devices, delivering greater access to your enterprise and Web content is vital to remain competitive. IBM WebSphere® Transcoding Publisher for Multiplatforms, Version 4.0 converts content from the wired Internet to formats that can be used on wireless devices without the need to reauthor or create an entirely new Web site. With WebSphere Transcoding Publisher you have a simple solution to the complex problem of extending the reach of your data and applications across diverse business systems to a variety of mobile devices.

WebSphere Transcoding Publisher is designed to help you provide seamless access to mobile employees, customers, trading partners and resellers across the Internet, extranets and intranets—quickly and cost effectively. WebSphere Transcoding Publisher can dynamically adapt, reformat and filter your Web content*, minimizing the need to generate and maintain multiple versions of Web content or applications to support different target devices and environments.

WebSphere Transcoding Publisher consists of several interrelated components that provide an open, extendable platform to adapt your data to the pervasive computing environment. The primary components include:

- *A set of standard transcoders to transform Web content for nontraditional Internet-capable devices and now voice-only phones, as well*
- *An infrastructure so versatile that you can write your own transcoders, device profiles and XSL stylesheets and plug them in with ease*
- *An administration console that provides the capability to add, enable and change profiles, transcoders, XSL stylesheets and external annotation files*
- *An improved developer's toolkit that provides specific GUI-based tools, sample programs, stylesheets and annotation files and detailed documentation to help you add or build custom transcoding solutions*

Extend the reach of your Web content

WebSphere Transcoding Publisher dynamically transforms data so that it is suited for new environments, including the wireless Internet. This approach reduces the need to reauthor content and the burden of maintaining multiple versions of your data so that the information can be viewed by almost any end user, anywhere.

With more wireless subscribers than ever gaining Internet access through handheld devices, you need to be able to leverage existing investments in HTML- and XML-based content to reach mobile users. With WebSphere Transcoding Publisher, content is dynamically adapted for use with a wide variety of pervasive devices, including personal digital assistants (PDAs), RIM BlackBerry pagers and Internet-enabled phones like Wireless Application Protocol (WAP) phones, Handheld Device Markup Language (HDML) phones and i-Mode phones, as well as traditional, voice-only phones. As a result, the need to create multiple versions of your Web site is greatly minimized.

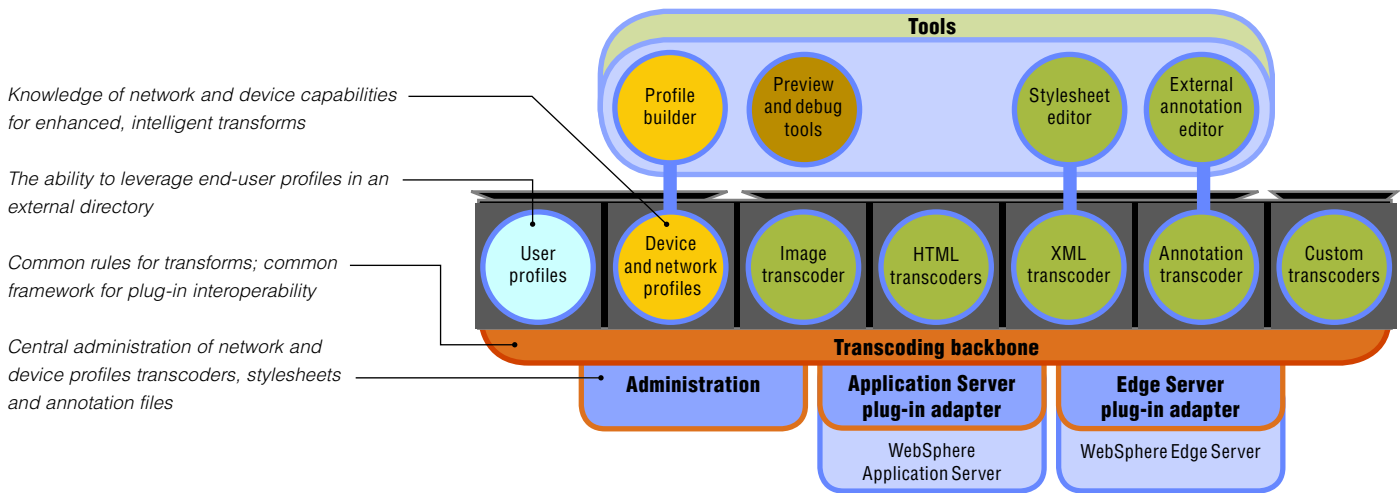


Figure 2. WebSphere Transcoding Publisher architecture

By dynamically adapting the different text and image formats and tailoring content to the specific device, WebSphere Transcoding Publisher helps you reach new markets and offer new services.

WebSphere Transcoding Publisher helps remove the complexity of communicating over disparate wireless networks and device types so you can concentrate on your core competencies. A broad selection of transcoders allows you to modify your Web data and images for display on mobile client devices. Standard WebSphere Transcoding Publisher transcoders can be used independently or in conjunction with one another for more complex content transformations.

Standard transcoders include:

- *HTML to simplified HTML*
- *HTML to Wireless Markup Language (WML)*
- *HTML to i-Mode (a variant of compact HTML)*
- *HTML to HDML*
- *HTML to VoiceXML*
- *HTML to PalmOS HTML for Palm.Net devices*
- *XML to a wide variety of formats through the use of Extensible Stylesheet Language Translation (XSLT) stylesheets*
- *Image transcoding*
 - *Support for PNG format*
 - *JPEG images to GIF and WBMP formats*
 - *GIF images to JPEG and WBMP formats*
 - *Can also rescale and adjust quality of images to smaller screen sizes*

You can quickly deploy additional transcoders into the extensible framework to respond to changing market conditions. The GUI-based toolkit allows you to easily create or modify transcoders, preference profiles, XSL stylesheets and external annotation files. In addition, it provides samples and documentation that show you how to write transcoders that can easily plug into the framework.

Streamline content delivery across wireless networks

The challenge in today's marketplace is to deliver content across a variety of networks. As businesses and consumers integrate mobile devices with their everyday habits, content needs to be streamlined so information is provided efficiently across costly, lower-bandwidth wireless networks. WebSphere Transcoding Publisher helps make accessing content across the wireless Internet quicker and easier—delivering only what you need, when you need it. Even when the target device can render HTML content, WebSphere Transcoding Publisher can streamline delivery by converting images to links that can retrieve the displaced images and by removing features not supported by the device, such as JavaScript™ code, applets or Macromedia Shockwave files.

WebSphere Transcoding Publisher also converts, reduces or eliminates images to match display capabilities and optimize delivery to constrained devices. You can send smaller image files faster over wireless networks because smaller image files render quickly on small-screen devices.

This capability saves the time it would take for the device itself to discard or alter images. Before sending content to the device, WebSphere Transcoding Publisher also dynamically partitions the content into smaller segments to match the minimal memory capacities of Internet-enabled phones. This capability allows the same source content to reach a number of device models.

Providing increased flexibility, WebSphere Transcoding Publisher can be deployed as a network proxy, caching proxy, servlet filter in the WebSphere Application Server, as well as stand-alone JavaBeans™ transcoders. This flexibility allows you to integrate WebSphere Transcoding Publisher with your existing network configuration. With these options, you can deploy WebSphere Transcoding Publisher where it will be most effective in your network infrastructure.

To simplify monitoring and management, you can store configuration information in a Lightweight Directory Access Protocol (LDAP) directory shared by multiple WebSphere Transcoding Publisher servers. This reduces the investment required to deploy and maintain the transcoding solution to multiple WebSphere Transcoding Publisher servers.

Customize presentation

WebSphere Transcoding Publisher helps make communication through the wireless Internet more targeted and convenient. Not only can you extend your Web content to pervasive devices, but you can customize the end-user experience so that the information is received effectively and in a user-friendly fashion. The result is better interaction with customers, trading partners, suppliers and employees.

Using WebSphere Transcoding Publisher, you can customize content in several ways. The HTML-based content can be customized using an approach called annotation. The new External Annotation Editor makes it easy to select and tailor content to be displayed on different types of mobile devices to best suit their capabilities and limitations. The annotation can either be inserted into the original document or maintained as a separate file. For example, a cell phone user is able to retrieve a relevant portion—such as a daily stock price—from a corporate Web site filled with other links and unusable or undesirable information. For additional customization, programmers can write Java™ applications with text clippers to extract, or clip, specific content to be delivered to the device.

WebSphere Transcoding Publisher can also transform XML content to different formats and markup languages through the dynamic application of XSL stylesheets. The new Stylesheet Editor makes creating and modifying XSL stylesheets easy. In addition, robust stylesheet search and sort capabilities help you manage the stylesheets to facilitate business-to-business (B2B) information interchange.

WebSphere Transcoding Publisher includes a standard set of device and network profiles, containing configuration and capability information to support a wide variety of popular mobile devices and common network environments. When processing Web content, WebSphere Transcoding Publisher dynamically selects a network profile and a device profile to apply to the document.

The preference profiles define the characteristics of devices and networks. Individual preferences can indicate unique features, such as whether a device processes JavaScript coding or displays color images. Grouped together in profiles, the preferences define how data should be transcoded before it is delivered to the target device or network. With WebSphere Transcoding Publisher, you can use a graphical interface to add support for new mobile devices and stylesheets.

Designed to support developers and systems integrators, the WebSphere Transcoding Publisher enhanced toolkit provides a rich set of application programming interfaces (APIs) that enable integration of new transcoders as part of its pluggable framework. For example, the IBM Machine Translation plug-in enables WebSphere Transcoding Publisher to work with the WebSphere Translation Server to dynamically translate Web content into 10 different languages. Using the two products together facilitates the translation of original source content into multiple languages in realtime and then enables transcoding to further extend the content to mobile devices.

As your enterprise expands its e-business, the ability to extend data and applications to the growing number of mobile devices and pervasive computing environments becomes essential to reaching new customers and enhancing B2B relationships. WebSphere Transcoding Publisher extends your business to the mobile Internet and helps ensure that your data and applications will reach customers when and where they need them.

For more information

To learn more about IBM WebSphere Transcoding Publisher, visit:

ibm.com /websphere/transcoding

IBM WebSphere Transcoding Publisher features at a glance

Feature	Benefit
Access to Web data and applications from mobile devices, such as PDAs, Microsoft® Windows® CE devices, Internet-enabled phones and traditional voice-only phones	<ul style="list-style-type: none"> • Extends the reach of Web content and applications to new customers — regardless of client device type — creating new business opportunities • Expands the reach of self-service applications for products and services • Helps enable dynamic content sharing with trading partners and suppliers across disparate systems
Plug-and-play transcoders for standard text and image formats, including XML, HTML, HDML, WML, cHTML, i-Mode, VoiceXML, PalmOS HTML, GIF, JPEG, WBMP and PNG	<ul style="list-style-type: none"> • Provide convenient and virtually seamless access to Web content • Leverage existing IT assets (host data and Web application content) into new environments • Help reduce reauthoring and maintaining of content and applications in multiple versions
Easy customization of content viewed through tools, such as External Annotation Editor, XML Stylesheet Editor, Java technology-based text clippers, device, network and end-user profiles	<ul style="list-style-type: none"> • Improves the end-user experience by helping define the amount and presentation of content based on device profile and end-user preferences • Optimizes transcoding performance by recognizing network and device limitations based on available profiles
Flexible framework for transcoding that is extensible and standards-based	<ul style="list-style-type: none"> • Extends easily by adding new device or network profiles and content transforms in response to market needs • Provides capability to add custom transcoders, stylesheets, device profiles and annotators
Multiple implementation models, including IBM WebSphere Application Server servlet, forward proxy, reverse proxy and JavaBeans deployment	<ul style="list-style-type: none"> • Give you the flexibility to choose the deployment method that best meets your needs and requirements
Improved administration and debugging tools, like Request Viewer and Transform Tool	<ul style="list-style-type: none"> • Help debug and optimize transcoding performance before your Web site goes live
Recommended hardware	
IBM AIX® on IBM RS/6000® operating system	<ul style="list-style-type: none"> • 85MB available disk space and up to 100MB to download and install product updates • 1GB available memory • 375MHz for uniprocessor, 332MHz for multiprocessor
Sun Solaris™ operating environment	<ul style="list-style-type: none"> • 85MB available disk space and up to 100MB to download and install product updates • 1GB available memory • Ultra SPARC™ 333MHz or higher processor
Microsoft Windows NT® and Windows 2000 operating systems	<ul style="list-style-type: none"> • 85MB available disk space and up to 100MB to download and install product updates • 512MB available memory • Intel® Pentium® II and 350MHz or higher processor
Linux®	<ul style="list-style-type: none"> • 85MB available disk space and up to 100MB to download and install product updates • 512MB available memory • Intel Pentium II and 350MHz or higher processor

IBM WebSphere Transcoding Publisher features at a glance (continued)

Software requirements

- IBM WebSphere Transcoding Publisher, Version 4.0 for Multiplatform server operating systems
- IBM AIX, Version 4.3.3.10 or higher
 - Windows NT, Version 4.0 with IBM SP5 or SP6a
 - Windows 2000 server (with or without SP1)
 - Sun Solaris operating environment, Version 7 or higher
 - Red Hat Linux, Version 7.1
 - SuSE, Version 6.4
 - Turbo Linux, Version 6.5
 - Caldera eServer, Version 2.3

Note: If running as a servlet, IBM WebSphere Application Server, Version 3.5.4 or later, or WebSphere Application Server, Version 4.0.1 or later is required. To use centralized configuration data, Tivoli® SecureWay® Directory, Version 3.2 or higher must be installed. To deploy WebSphere Transcoding Publisher, Version 4.0 as a plug-in to WebSphere Edge Server Caching Proxy, you must have WebSphere Edge Server Caching Proxy, Version 3.6.0.1 or Version 4.0 installed.

- Client applications
- HTML-capable browsers, such as Microsoft Pocket Internet Explorer, Microsoft Internet Explorer and Netscape Communicator
 - Microbrowsers, such as Phone.com Up.Browser, Nokia WAP client and Neomar for RIM BlackBerry and Palm devices
 - Devices with a standard HTTP browser
 - Voice-only devices through VoiceXML
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- Software supported
- Legacy integration
 - IBM WebSphere Host Publisher
 - Caching and load balancing
 - IBM WebSphere Edge Server
 - Web serving
 - IBM WebSphere Application Server, Version 3.5.4 or later, or WebSphere Application Server, Version 4.0.1 or later
 - e-business accessibility, including voice interface
 - IBM WebSphere Everyplace™ Access
 - Pervasive computing
 - IBM WebSphere Transcoding Publisher is a key component of IBM WebSphere Everyplace Server Enable and Service Provider Offerings
 - IBM WebSphere Voice Server
 - IBM WebSphere DirectTalk® Server
 - IBM WebSphere Translation Server
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