

IBM WebSphere Transcoding Publisher, Version 3.5 for IBM @server iSeries

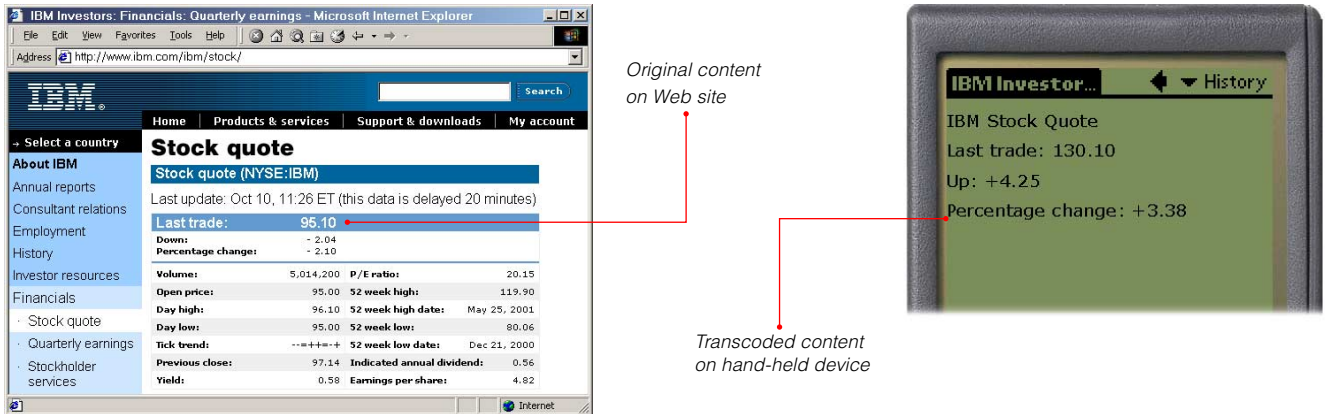


Figure 1. IBM WebSphere Transcoding Publisher can dynamically adapt both Web content and applications on your Web site to a variety of pervasive devices, transcoding from one markup language to another and eliminating unwanted or unsupported items from the original source.

Highlights

- **Dynamically transcodes HTML content to WML, HDML, i-Mode, VoiceXML and ClipperML for Palm.Net devices**
- **Supports content customization techniques that allow you to select and tailor content for an optimized wireless Internet experience**
- **Includes deck fragmentation, allowing Web content to be dynamically broken into smaller pieces in response to device memory limitations**
- **Can streamline delivery across disparate network environments by reducing the amount of data sent to the end user**
- **Presents XML content to virtually any device by applying appropriate XSLT stylesheet**
- **Helps minimize the need for multiple versions of your Web site by dynamically adapting content for a variety of pervasive devices**
- **Integrates with IBM WebSphere software platform for e-business**
- **Converts, rescales or eliminates images to match display capabilities and to optimize delivery to constrained devices**

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, Version 3.5 for IBM @server iSeries™ can convert 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, Version 3.5 for iSeries, 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 pervasive devices.

WebSphere Transcoding Publisher, Version 3.5 for iSeries 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, Version 3.5 for iSeries can dynamically adapt, reformat and filter your Web content,* helping minimize the need to generate and maintain multiple versions of Web content or applications to support different target devices and environments.

WebSphere Transcoding Publisher, Version 3.5 for iSeries consists of several inter-related 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*
- *An infrastructure so versatile that you can write your own transcoders, device profiles and stylesheets and plug them in with ease*
- *An administration console with the ability to add, enable and change profiles, transcoders, stylesheets and external annotation files*
- *A developer's toolkit that provides specific graphical user interface (GUI)-based tools, sample programs, sample stylesheets, sample annotation files and detailed documentation to help you add or build custom transcoding solutions*

Extend the reach of your Web content

WebSphere Transcoding Publisher, Version 3.5 for iSeries can dynamically transform data so that it is suited for new environments, including the wireless Internet. This approach virtually eliminates 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 device, virtually anywhere.

With more wireless subscribers than ever gaining Internet access through hand-held devices, you need to be able to leverage existing investments in HTML- and XML-based content to reach wireless Internet

users. With WebSphere Transcoding Publisher, Version 3.5 for iSeries, content can be dynamically adapted for use with a wide variety of pervasive devices, including personal digital assistants (PDAs) and Internet-enabled phones like Wireless Application Protocol (WAP) phones, Hand-held 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 can be eliminated.

By dynamically bridging the different text and image formats and tailoring content to the specific device, WebSphere Transcoding Publisher, Version 3.5 for iSeries helps you reach new markets and offer new services.

WebSphere Transcoding Publisher, Version 3.5 for iSeries can abstract 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 a variety of mobile devices. These transcoding plug-ins can be used independently or in conjunction with one another for more complex content transformations.

*Filter or modify only materials that you own or have sufficient legal rights to filter or modify.

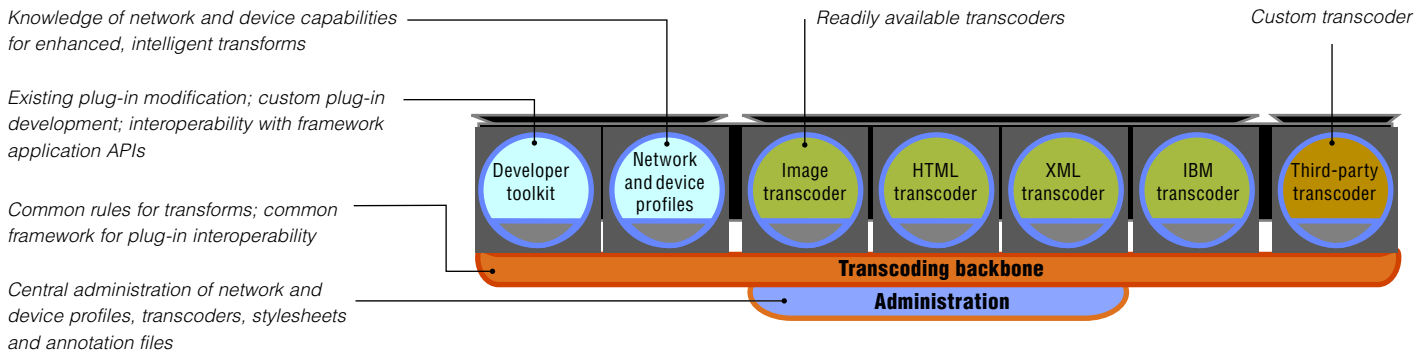


Figure 2. Transcoding plug-in layer

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 ClipperML for Palm.Net devices*
- *XML to a wide variety of formats through the use of Extensible Stylesheet Language Translation (XSLT) stylesheets*
- *Image transcoding*
 - *JPEG images to GIF and WBMP formats*
 - *GIF images to JPEG and WBMP formats*
 - *Can also rescale and reduce quality of images*
- *Machine translation plug-in for natural language translations*

You can quickly deploy additional transcoders into the extensible framework to respond to changing market conditions. The toolkit provides samples and documentation that show you how to write additional 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 pervasive devices with their everyday habits, content needs to be streamlined so information is provided efficiently across costly, lower-bandwidth wireless networks. WebSphere Transcoding Publisher, Version 3.5 for iSeries helps make accessing content across the wireless Internet quicker and easier—delivering only what you need, when you need it. Therefore, even when the target device can render HTML content, WebSphere Transcoding Publisher, Version 3.5 for iSeries 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, Version 3.5 for iSeries also can convert, reduce or eliminate images to match display capabilities and optimize delivery to

specific devices. This allows you to send smaller image files faster over wireless networks. 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, Version 3.5 for iSeries also dynamically partitions the content into smaller segments to match the minimal memory capacities of Internet-enabled phones. This can allow content providers to reach the enormous number of device models being introduced with the same source content.

WebSphere Transcoding Publisher, Version 3.5 for iSeries can be deployed in a number of ways, providing increased flexibility. In addition to a simple network proxy configuration, you can deploy WebSphere Transcoding Publisher, Version 3.5 for iSeries as a reverse proxy, as a servlet within the WebSphere Application Server or even as individual JavaBeans components. With these options, you can deploy WebSphere Transcoding Publisher, Version 3.5 for iSeries where it will be most effective in your network infrastructure.

Customize presentation

WebSphere Transcoding Publisher, Version 3.5 for iSeries 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 can be better interaction with customers, trading partners, suppliers and employees.

Using WebSphere Transcoding Publisher, Version 3.5 for iSeries, you can customize content in several ways. With some custom Java™ programming, text clippers can be written to extract, or clip, specific content to be delivered to the device. For example, a cell phone user is able to retrieve a relevant portion—such as the daily stock price—from a corporate Web site filled with other links and detailed information less essential to the specific transaction. Support is also available for an alternative approach to content selection—called annotation—based on annotating the original page with instructions to select and tailor content. The annotation transcoder responds to an XML-compliant annotation language that can either be added to the original document or maintained in a separate file.

WebSphere Transcoding Publisher, Version 3.5 for iSeries can also transform XML content to various formats and markup languages through the dynamic application of XSLT stylesheets. This capability allows you to render an XML document in virtually any markup language desired.

WebSphere Transcoding Publisher, Version 3.5 for iSeries includes a standard set of device and network profiles, containing configuration and capability information to support a wide variety of popular client devices and common network environments. When processing Web content, WebSphere Transcoding Publisher, Version 3.5 for iSeries 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 code 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. To make adding support for new pervasive devices and stylesheets a simple process, WebSphere Transcoding Publisher, Version 3.5 for iSeries is equipped with an easy-to-use administration console.

Designed to support developers and systems integrators, WebSphere Transcoding Publisher, Version 3.5 for iSeries toolkit provides a rich set of application programming interfaces (APIs) to customize existing transformation engines and integrate new transcoders as part of its pluggable framework. For example, the IBM Machine Translation Transcoder enables WebSphere Transcoding Publisher, Version 3.5 for iSeries to work with the WebSphere Translation Server to dynamically translate Web content into different languages.

By using the two products together, HTML content can be translated into multiple languages in realtime and then transcoded to further extend the content to pervasive devices.

As your enterprise expands into new e-business markets, your ability to extend data and applications to the growing number of portable devices and pervasive computing environments becomes vitally important to reaching new customers and enhancing business-to-business (B2B) relationships. WebSphere Transcoding Publisher, Version 3.5 for iSeries can leverage the Web services capabilities of the iSeries platform and successfully propel your business through the era of mobile computing.

For more information

To learn more about IBM WebSphere Transcoding Publisher, Version 3.5 for iSeries, visit:

ibm.com/websphere/transcoding

IBM WebSphere Transcoding Publisher features at a glance

Feature	Benefit
Access to Web data and applications from pervasive devices, such as PDAs, Microsoft® Windows® CE devices, Internet-enabled phones and traditional voice-only phones	<ul style="list-style-type: none">• Can extend the reach of Web application content to new customers and devices—creating new business opportunities• Can expand 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, ClipperML, GIF, JPEG and WBMP	<ul style="list-style-type: none">• Provides convenient and virtually seamless access to Web content• Can leverage existing IT assets (host data and Web application content) into new environments• Provides plug-and-play transforms
Easy customization of content view	<ul style="list-style-type: none">• Helps you modify content for a wide selection of device types and matches display to user needs• Leverages text clippers, which can extract specific portions of the Web document to be displayed on the device for a more usable presentation and efficient delivery of information• Provides runtime support for annotation, a content selection approach which makes it possible to select and tailor source content through an XML-compliant annotation scripting language• Enables WebSphere Transcoding Publisher, through the Machine Translation Transcoder, to work with the WebSphere Translation Server to dynamically translate Web content into different languages
Rich, dynamic framework for transcoding that is extensible and standards-based	<ul style="list-style-type: none">• Provides an open, flexible solution• Can extend 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
Flexible implementation models, including IBM WebSphere Application Server servlet, forward proxy, reverse proxy and JavaBeans deployment	<ul style="list-style-type: none">• Serves as a network proxy to enable existing host applications for wireless access or as a servlet running WebSphere Application Server; as a network proxy, works with caching products in your network
Easy-to-use developer toolkit with documentation and samples for building powerful solutions	<ul style="list-style-type: none">• Facilitates customizing Web content presentation• Can simplify customization of existing transcoders or creation of new transcoders• Supports developers and systems integrators by providing sample programs and GUI-based tools

Recommended hardware

IBM AS/400® operating system	<ul style="list-style-type: none">• AS/400e™ Server 170 with minimum processor Feature 2385, or higher model AS/400e or iSeries• 512MB available memory
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Software requirements

IBM WebSphere Transcoding Publisher, Version 3.5 for iSeries server operating systems	<ul style="list-style-type: none">• Java-capable CPU feature number• OS/400® Version 5.1 or Version 4.5 with latest cumulative PTF fix package applied• Java Development Kit (JDK) Version 1.2.2 (5769-JV1)• AS/400 Toolbox for Java (5768-JC1)• Option 30—Qshell interpreter (5769-SS1)
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Note: If running as a servlet, IBM WebSphere Application Server, Version 3.5.2 or later is required.

Client applications	<ul style="list-style-type: none">• HTML-capable browsers, such as Microsoft Pocket Internet Explorer, Microsoft Internet Explorer and Netscape Communicator• Microbrowsers, such as Phone.com Up.Browser and Nokia WAP client• Devices with a standard HTTP browser
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IBM WebSphere Transcoding Publisher features at a glance (continued)

Software requirements

- Software supported
- Legacy integration
 - IBM WebSphere Host Publisher
 - Caching and load balancing
 - IBM WebSphere Edge Server
 - Web serving
 - IBM WebSphere Application Server, Version 3.5.2 or later
 - IBM WebSphere Voice Server
 - IBM WebSphere DirectTalk® Server
 - IBM WebSphere Translation Server
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Note: The iSeries server does not provide a graphical display. In order to install and administer Transcoding Publisher, you will need a second computer, which we will call the administrative machine.

- The administrative machine can be any of the following:
- Microsoft Windows NT™, Version 4 with Service Pack 5, or later
 - Windows 2000 Server
 - IBM AIX® Version 4.3.3.10, or later
 - Sun Solaris Version 7, or later

The administrative machine must have a copy of the JDK Version 1.2.2. You can use a single administrative machine to administer several Transcoding Publisher servers. If you have WebSphere Transcoding Publisher for Multiplatforms in your network, you cannot use the same Administration Console to administer WebSphere Transcoding Publisher servers on iSeries and other platforms. WebSphere Transcoding Publisher Version 3.5 for iSeries software runs on both iSeries and AS/400e servers. The LDAP feature of WebSphere Transcoding Publisher does not run on this AS/400 product or the iSeries servers.



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