WebSphere software

IBM WebSphere Micro Environment

Highlights

- ***Production-ready, Java Powered™ runtime speeds device deployment***
- ***Open standards enables connectivity***
- ***Configurable to address memory and speed constraints***

IBM delivers pervasive computing

In order for Service Providers, carriers and device manufacturers to stay ahead of the wireless game, the competitive edge depends on providing new and innovative features to entice new customers, maintain customer loyalty and open up new markets. These higher-value data services enable device-based offerings that connect professionals who need instant access with data, applications and transactions.

IBM WebSphere® Micro Environment provides the foundation for the deployment of e-business applications to small mobile devices. With the assured messaging of WebSphere MQ Everyplace® (MQe), advanced data management capabilities of DB2® Everylace (DB2e) and the scalability of WebSphere, IBM has created a complete platform for extending e-business onto millions of small devices.

Breaking through the barriers

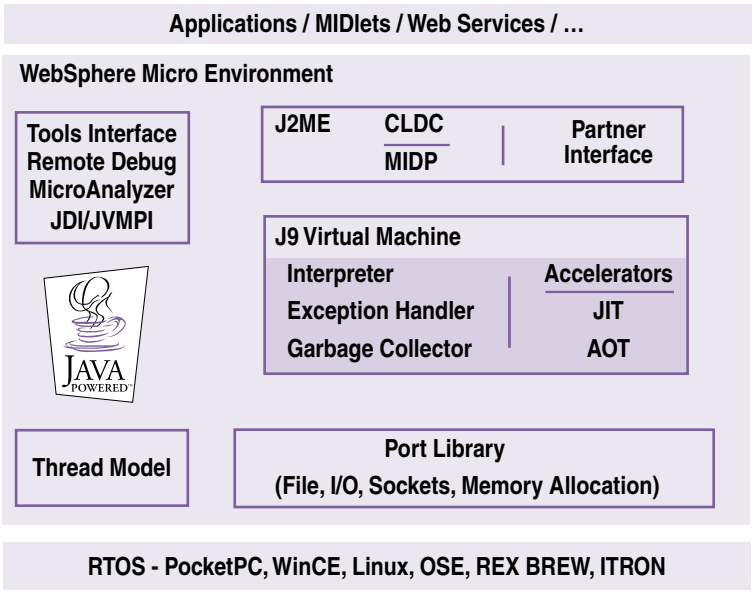
As part of an end-to-end solution for deploying enterprise-class applications to small devices, IBM has broken through the "browser barrier," enabling the storing and forwarding of information on devices that are intermittently connected to the network. WebSphere Micro Environment has broken through the "device barrier," providing a production-ready runtime environment across the more popular devices and device operating systems in the market today. Together with the integrated development environment (IBM WebSphere Studio Device Developer), IBM has created the right platform and the right tools—a solution for things that think and link.

Standards compliance

WebSphere Micro Environment contains a production-ready Java Powered runtime environment—and a whole lot more. The next generation of Java applications is supported today by IBM. As shown in the diagrams, the environment has been tested to meet J2ME® specifications for both cellular telephones and personal digital assistants (PDAs).

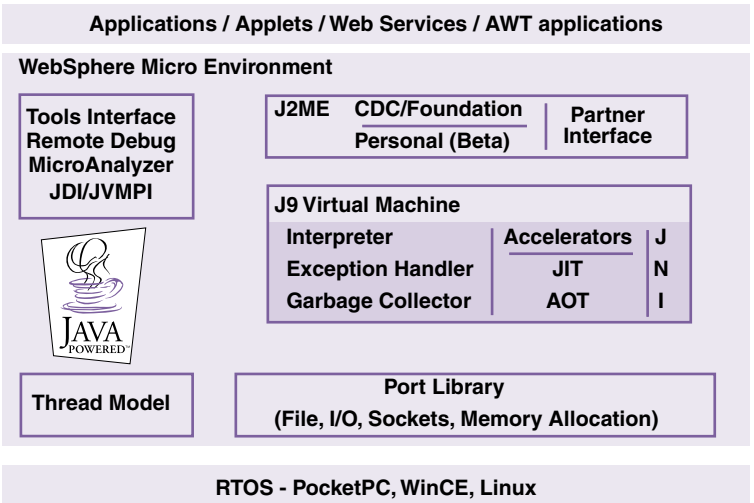
WebSphere Micro Environment was the first virtual machine to support the new J2ME specifications, simultaneously, across 15 platforms. This allows device manufacturers to start today, building devices that will host the next generation of Java applications. Proven over the course of five releases, WebSphere Micro Environment is already used in production to coordinate construction schedules, drill for oil in the North Sea, and deliver instantaneous messaging to mobile employees.

WebSphere Micro Environment—Cellular Telephone



For small devices such as cell phones, Stinger-based phones and small PDAs, WebSphere Micro Environment ships a platform that meets Connected Limited Device Configuration (CLDC) and Mobile Information Device Profile (MIDP) specifications.

WebSphere Micro Environment—PDA



For larger devices, such as larger PDAs, PDA Phones and handheld computers, WebSphere Micro Environment supports the Connected Device Configuration (CDC) and Foundation Profile. The J2ME Personal Configuration will also be available from the **ibm.com***/embedded Web site, once the TCK testing has been completed. A beta of the Personal Configuration is available today.*

Connectivity

The major differentiating factors for selecting WebSphere Micro Environment are industry support and connectivity. The network of third-party vendors reselling and integrating their products and services with WebSphere Micro Environment, all using the same open standards, can help manufacturers have an expanded choice of features and functions to offer on their devices. By pre-testing middleware and server connectivity, using open standards, WebSphere Micro Environment combines the convenience of mobile devices with the power of e-business. More than a stand-alone device for Personal Information Management (PIM) and entertainment, WebSphere Micro Environment provides a platform where high-value data services become a reality through relational database access data store and forward, transactions and application synchronization extensions. Connectivity to existing applications running e-business applications forms a complete end-to-end solution.

Memory and speed

WebSphere Micro Environment was designed with the constraints of limited memory availability and processing power in mind. By building the virtual machine to perform under the constraints of cellular telephones, the underlying architecture easily scales to deliver performance and footprint capabilities needed for the next generation of Personal Digital Assistant (PDA) and smart phone devices. By using native widgets, WebSphere Micro Environment maintains the performance of the device as well, preserving the native look and feel of applications deployed to the device.

Native interfacing

WebSphere Micro Environment supports the Java Native Interface (JNI), which can allow you to directly access native (non-Java) application interfaces, device drivers and Operating System (OS) functions. This provides maximum flexibility for original device manufacturers to select the peripheral devices (point-of-sale, barcode scanners, USB devices, etc.) for industry specific applications, or just to meet the ever-increasing demands for differentiating functions.

The right platform

WebSphere Micro Environment is available through IBM and our Business Partners on many reference platform implementations including PocketPC, Palm OS® and Qualcomm BREW™, as well as 25 embedded device platforms supporting QNX®, MontaVista™, Linux, OSE™ and ITRON. It delivers the right platform for the deployment of e-business applications across millions of devices ranging from realtime manufacturing controllers and automotive telematics systems to point-of-sale barcode scanners, Internet appliances, PDAs and cellular phones. Please visit **ibm.com**/embedded for a complete list of platforms supported.

For more information

To learn more about IBM pervasive computing software solutions visit **ibm.com**/pvc or call your local IBM representative.

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