

Openwave® WAP Push Library, Java Edition 1.0

Push technology offers application developers and carriers enormous opportunities to improve existing applications and introduce compelling, interactive mobile applications such as multimedia messaging, instant messaging, auctions or innovative, interactive multi-user games. Openwave WAP Push Library is a collection of APIs and tools that allows wireless application developers to easily author and test services that use the powerful features of a WAP 1.2-compliant push proxy gateway, such as the Openwave® Push Proxy Gateway.

Push Technology

Push Access Protocol (PAP), defined by the WAP Forum, specifies how push applications can send messages to Wireless Application Protocol (WAP)-enabled mobile devices without an explicit request from the user at the time the message is sent.

Combined with other applications, such as location-based services, push becomes a powerful way of providing users with valuable, highly relevant information that goes beyond simple text to include images, sound, WML and MIME content.

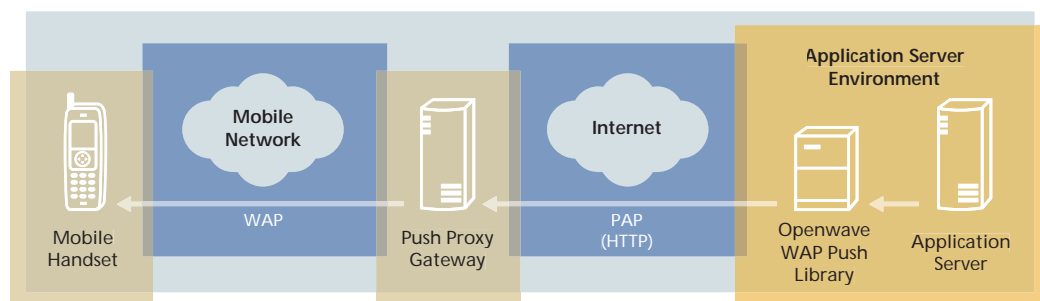
An example would be a traffic alert for a specific route during commute time that also includes a URL to get alternate route information. This ability to send “active” content enables new, interactive mobile applications limited only by the imagination of application developers.

With the Openwave Push Proxy Gateway (PPG), developers can use one interface (i.e. PAP) to send push content to: WAP 1.2.1-compliant handsets, the large existing base of Openwave browsers that support previous push technology, and handsets that can only receive text-based Short Message Service (SMS) messages. The Openwave PPG simplifies application development by automatically translating push content according to handset capabilities. This is explained further in the WAP Push Library Developer’s Guide.

Push Architecture

The push application uses PAP to send push information to the PPG. PAP utilizes HTTP and encloses all necessary information in an XML document. Once the information is received, the PPG processes the PAP request and sends the push message through the mobile network to the mobile device using WAP. The push message can be delivered using SMS as a bearer or over an already-established data session.

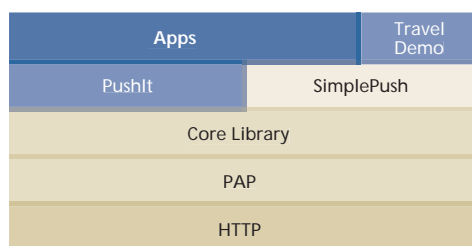
To help developers easily create push applications, Openwave has implemented an abstraction layer—Openwave WAP Push Library—between the application server and PAP. It implements a simpler interface than PAP, yet still exposes the true value of push technology.



Openwave WAP Push Library

Openwave WAP Push Library

Openwave WAP Push Library is a collection of Java object classes and tools that abstract the WAP PAP so that wireless application developers can more easily develop applications that use the powerful features of the WAP 1.2-compliant Openwave Push Proxy Gateway. On top of the PAP is the Core Library, the essential element of the abstraction layer. It provides all the classes needed to take full advantage of PAP.



On top of the Core Library are 2 components:

- **SimplePush:** This is the abstraction layer used in run-time on the application server. It exposes the functions needed to quickly build a push-based application. The WAP Push Library contains a test application, Travel Demo, that illustrates the usage of SimplePush.
- **PushIt:** This is a server-side tool with a graphical user interface for sending push messages. The simple user interface makes it an easy tool for initial set-up and testing different push message types and parameters. The source code is fully documented to illustrate the use of the Core Library.

Supported Platforms

The current version of the WAP Push Library is based on Sun Microsystems Java™ 2, available as a free download at <http://java.sun.com>. Any development tool that implements Java 2 (also known as Java Version 1.2.x) can be used to develop push applications based on the WAP Push Library.

Openwave WAP Push Library is supported on:

- Windows 2000
- Windows NT 4.0
- Solaris™ 8

Development

Developers can use the push-enabled phone simulators in the Openwave® SDK WAP Edition 5.0 to test push applications written with the WAP Push Library. Openwave WAP Push Library and SDK are freely available on the Openwave Developer Web site at <http://developer.openwave.com>.

For further information on the WAP Push Library and SDK, refer to the Openwave Developer Forum at <http://devforum.openwave.com>.

Refer to the WAP PAP specification at <http://www.wapforum.org> to learn about the rich feature set that is available to developers for building push applications. The XML Document Type Definition (DTD) is openly available at <http://www.wapforum.org/DTD/>.

About Openwave

Openwave Systems Inc. is the worldwide leader of open, Internet-based communication infrastructure software and applications. Openwave provides Communications Service Providers, including wireless and wireline carriers, ISPs, portals and broadband providers worldwide, with the IP-based software infrastructure to rapidly enter the Internet economy by building boundary-free, multi-network communications services for their subscribers.

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Part Number: DSWPL-R1-002

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