

Phones Get Smarter: Do Users Care?

The buzz about wireless Internet services continues unabated. Although wireless subscribers use their phones primarily for voice services, carriers continue to try to stimulate increased airtime and revenues by offering data services. Until now, users primarily accessed these services through Wireless Application Protocol (WAP)-based devices. WAP technology works with fairly "dumb" phones that have micro-browsers located on the handset. Most of the data processing takes place in the network, which makes wireless phones the ultimate thin client. Phones are getting smarter, however, and Sun's Java 2 Microedition (J2ME) is one technology that increases a phone's IQ.

A recent survey of Cahners In-Stat Group's Wireless Internet Panel illustrates that users are not only interested in having a smarter device, they are willing to pay more money for it and for applications that can be downloaded onto the handset. (Take note that panelists tend to be early technology adopters and don't mirror the market characteristics of consumers as a whole.)

J2ME can be offered as a standalone on a handset, or on a browser-based handset. Sun has a relationship with Openwave, which plans to make J2ME a standard feature of its browser. Sun is also pursuing arrangements with handset manufacturers to license J2ME technology directly. This is important since some manufacturers, such as Nokia, prefer to use their own proprietary browser. Motorola developed the first J2ME-enabled phones in the U.S. for Nextel's iDen network; these phones are currently available. J2ME-enabled phones have been available for NTT DoCoMo's iMode network since late last year.

So Just What is J2ME?

Sun offers three editions of its Java technology: Micro (J2ME), Standard (J2SE), and Enterprise (J2EE). Each edition offers developers APIs, tools and supplies for creating networked products and applications for the consumer and embedded markets. J2ME technology, Sun says, enables device manufacturers, service providers, and content creators to gain a competitive advantage and capitalize on new revenue streams by rapidly and cost-effectively developing and deploying compelling new applications and services to their customers worldwide.

J2ME can be used on many devices connected to wireline or wireless networks. It has specific advantages for wireless handsets, which is important because handsets are subscribers' primary wireless Internet access device. The technology:

- Allows users to download the same application on any J2ME-compliant device.
- Running locally on the device, interaction between the user and the application is faster than with a browser-based interface (e.g., WAP) and navigation inside the application is easier.

- Allows for a rich color GUI on mobile devices.
- Running on a device, rather than a network server, applications can run uninterrupted if a network connection is lost.
- Allows new applications or upgrades of existing applications to be downloaded to a handset or device on the fly, so users don't have to visit their carrier's store to re-program a handset.

Of these benefits, users find the ability to download new applications or upgrade existing applications (78%) most beneficial. The second most useful capability, according to 65% of users, is that applications will run uninterrupted if a network connection is lost. Carriers and retailers selling J2ME-enabled phones should focus on selling these capabilities. Fifty-eight percent of respondents also think it is useful that J2ME applications run locally on the device, speeding up interaction with the user and making navigation easier.

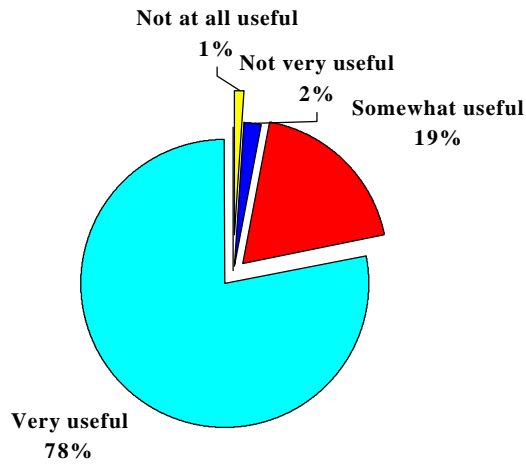
One of the reasons early WAP versions received bad reviews was due to a poor interface that forces users to scroll through a "deck" of Internet pages. One would think J2ME's GUI and color support would be very appealing, but only 34% of respondents found this attribute to be very important.

More than half of respondents said they would be willing to pay \$25-\$30 more for a handset that supports J2ME. Since these are early adopters, however, price is less important to them than for consumers overall.

In-Stat also found that users are most interested in the following applications on J2ME-enabled phones: mobile information services including news and stock updates (93%) and mobile communication services such as chat and e-mail (80%). Importantly, about 70% of panelists said they would be willing to pay extra for new applications that could be downloaded onto a handset.

Users must beware of the technology's drawbacks. More processing on the phone and color displays mean batteries drain faster. While panelists find functionality and ease of use to be the most important attribute when selecting a phone, battery life runs a close second. Users must evaluate the advantages of J2ME-enabled phones and decide how much battery life they are willing to sacrifice to gain this functionality.

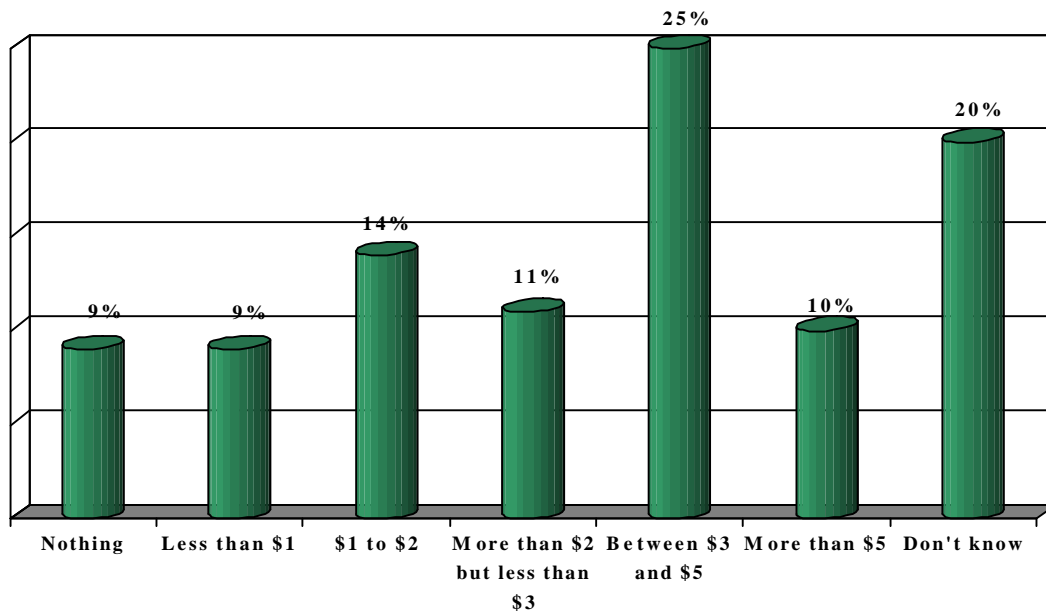
“J2ME allows new applications or upgrades of existing applications to be downloaded to your handset on the fly. This means you wouldn’t have to visit your carrier’s store for reprogramming the handset. How useful is this to you?”



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Amount Willing to Pay Extra For New Applications That Could be Downloaded on a Handset



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