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## **Smart Messaging to Come to GSM**

### ***The new Wireless Application Protocol takes information distribution on GSM to a new level.***

*by Bob Emmerson*

Utter the word messaging, and many European mobile phone users think of Short Message Service (SMS), a 160-character, text-only, pager-like message format. But a new, smarter messaging concept will make its way into Europe's Global System for Mobile Communications (GSM) networks later this year.

Formulated by Ericsson, Motorola, Nokia, and Unwired Planet in late 1997, the Wireless Application Protocol (WAP) enables more sophisticated subscription services and interactive Web browsing.

WAP includes specifications for transport and session layers as well as security features. The protocol also defines an application environment that includes a browser, a scripting language, telephony value-added services, and new content formats. In addition, it specifies a general-purpose framework for wireless devices, such as intelligent phones and PDAs, and includes the Wireless Markup Language (WML), which resembles HTML. Says Steve Bell, director of marketing for Motorola, "Motorola is committed to WAP support across both traditional and smart phone products in 1998."

The new protocol's Telephony Value-Added Service (TeleVAS) framework will allow network operators to enhance and extend network services to end users (see the figure above) and download information to handsets in WML format. Applications foreseen for mobile phones include flight schedules, weather reports, stock news, currency rates, banking, and local movie listings.

Upcoming, more intelligent mobile phones and other wireless hand-held devices will also facilitate Internet access. "When implemented in the GSM infrastructure, WAP enables Internet access from all GSM phones, but there will be more functionality and a better interface in next-generation devices," says Ilkka Raiskinen, general manager of wireless data at Nokia.

All leading mobile-phone manufacturers, including Alcatel, Panasonic, and Philips, now support WAP. Although fully WAP enabled devices and services won't become commercially available until later this year, Nokia has already included a subset of WAP features in its Artus Messaging Platform. Released last fall, it sends Web information without graphics to an Internet-enabled mobile phone, such as the Nokia 8110i. Also, Unwired Planet has developed a microbrowser, which is already being used in Motorola's handsets, that will comply with the WAP specifications.