Chapter II

Wireless Application Protocol (WAP)

In this chapter, you will:

• Learn about the purpose and history of the Wireless Application Protocol (WAP)
• Examine the WAP Architecture
• Discuss some of the available Software Development Kits (SDKs) that support applications developed under the WAP
• Observe the steps required to install Nokia’s WAP SDK, and Openwave’s Mobile Internet Tool Kit (NITK)

Introduction

In this chapter, you are introduced to the Wireless Application Protocol (WAP), which was designed to support the development of applications over cellular networks in order to provide communication and data services for a variety of users. In addition to the protocol we will go through the process of installing both the Nokia Mobile Internet Toolkit, 4.0, and the Openwave SDK 6.2.2. These toolkits are used throughout the chapter of this book where WML, WMLScript, WMLScript Standard Libraries, and XHTML Basic are discussed.
WAP - The Wireless Application Protocol

In 1997 Ericsson, Motorola and Nokia, along with Unwired Planet, now Openwave, formed an organization, WAP Forum Ltd. The desire was to support the development of wireless data services that were carrier independent. The result of that endeavor was the creation of the first version of the Wireless Application Protocol. Version 1.0 of the Protocol evolved over a period of time, adding functionality to support the evolving wireless community and newer mobile devices. The latest version of WAP, 2.0, was released in August 2001. Version 2.0, backward compatible with the earlier versions of WAP, provided the following enhancements:

- Added support for standard Internet communication protocols: IP, TCP, HTTP
- Continued development of WAP support over emerging higher speed telecommunication technologies
- Provided application environment that includes support for PDAs, pagers, mobile phones, and other wireless devices
- Address unique characteristics of wireless devices: small screens, limited memory, limited user interfaces, limited battery-life
- Minimized processing power requirements, optimized network resources
- Incorporated flexibility in support of different manufacturers and their device uniqueness.

In 2002, the Open Mobile Alliance and the WAP Forum merged to the form the Open Mobile Alliance (OMA). The OMA, www.openmobilealliance.org, established a set of goals that would serve as a direction for their work. The goals, as taken from their Web site are:

- Deliver high quality, open technical specifications based upon market requirements that drive modularity, extensibility, and consistency amongst enablers to reduce industry implementation efforts.
- Ensure OMA service enabler specifications provide interoperability across different devices, geographies, service providers, operators, and networks; facilitate interoperability of the resulting product implementations.
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