CHAPTER 5

ENTERPRISE BUSINESS MODEL

Thin vs Fat Clients and Servers

Case 8: Insignia Jeode Technology for Compaq iPAQ Home Internet Appliance

JEODE TECHNOLOGY ENHANCES THE ART OF WEB BROWSING ON THE COMPAQ iPAQ HOME INTERNET APPLIANCE

http://www.insignia.com/products/ch.asp - compaq

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Once limited to PCs and workstations, the art of browsing the Web has extended to a new class of devices – some of which were built strictly for accessing e-mail and surfing the World Wide Web. As users browse from one website to the next, they expect the experience to be the same as using their desktop computers. They expect web pages to open and functionality that is meant to enhance the Internet experience to do just that.

This is especially true for Internet terminals, sometimes known as "dedicated Web browsers." These devices are intended to provide a simple and easy to use mechanism to get people on the Internet and provide e-mail, instant messaging and chat capabilities. The target audience for this type of product tends to be:

- Inexperienced computer users that are worried about setting up and maintaining a complex PC
- People or families that already own a PC but want additional affordable devices to access the Internet from elsewhere in their home, such as the kitchen or kids’ bedrooms

While users expect all the Internet functionality of their personal computers, meeting this expectation is a challenge. Internet terminals are fundamentally different than PCs. They don’t have the resources of a desktop computer. They don’t have a hard drive. The amount of available RAM is limited. The processors these devices employ may not be as powerful so that they can be built more economically.

The barriers to overcome in delivering a rich and complete Internet experience to consumers are especially apparent in ensuring that they can leverage the many
popular Java-enabled websites that have become increasingly prevalent on the World Wide Web.

**The Art of Web Browsing Mandates Java Functionality**

Since being introduced in 1995, Java has quickly built a reputation as "the language of the Internet." The Java programming language is one of the most robust, fully featured, user-friendly languages used by software developers today, and its popularity is growing. International Data Corporation estimates that there are currently 2.5 million Java developers and expects that this number will grow to 4 million by 2003. According to the Gartner Group, 79 percent of the universities offer Java courses with 50 percent requiring Java coursework in their computer science curriculums.

According to Hotbot, more than 5.6 million web pages are Java-enabled – and that number is growing quickly every day. As a point of comparison, use of Java technology on the Web is nearly twice that of the much longer established .pdf technology, which is the standard in document display and printing.

According to both the Web 100 poll and MediaMetrix usage ratings, 70 percent of the ten most popular websites on the Internet are Java-enabled. The top Java-enabled Web 100 sites include Disney, senior.com, National Geographic Online, USA Today, CNN, ZDNet, PBS Online and the Wall Street Journal. The top Java-enabled MediaMetrix sites include Microsoft, Yahoo, AOL, Lycos, Excite, About - The Human Internet, c/net and Real.com network.

The increasing interest in deploying Java technology in information appliances, such as an Internet terminal, is due to its many benefits to both consumers and developers. The most visible benefit of Java technology for consumers is the rich, complete Internet experience it provides by providing the ability to run the many Java applications and applets available over the Web, including games, chat, personalized news tracking, real-time stock quotes and sports headlines, financial calculators and other dynamic content.

Developers appreciate the attributes of Java as a programming language, as well as its portability and cross platform support (write once, run anywhere) the Java platform provides. They also like its high degree of security, dynamic extensibility, and Internet savvy.

To provide these types of consumer and developer benefits, Internet terminals and other types of information appliances need to be Java-enabled, which requires a Java Virtual Machine (JVM). But JVMs that were built for desktop computers do not effectively operate in the constrained-memory environments that are typical of these devices. Only a JVM that is tailored for the unique requirements of limited-memory is suitable for these types of devices.

**Enter the Compaq iPAQ Home Internet Appliance**

While the personal computer has found its way into a large percentage of U.S. households, a significant number of people still don’t own one. There are also some households that have a PC, but need additional ways to access the Internet as more family members go online for information and communication.

Recognizing the need for a simple, affordable device that offers rich browsing functionality, instant messaging, and e-mail capabilities, Compaq Computer teamed