



## B2C Technology Story

*Web Summary:*

### **Enterprise Connectivity Via PDAs**

*by Leon A. Enriquez*

**Reading Time:**

8 minutes

**Reader Benefit:**

- ◆ Understanding the rise of the PDA in the enterprise space;
- ◆ Discover what you can expect from this enterprise PDA evolution;
- ◆ Insights into the PalmOS versus Microsoft PocketPC PDA onslaught.

Today, we tend to rely on a personal digital assistant (PDA) or a smart handheld device (SHD) to keep track of the things we need to do. In fact, the PDA is fast replacing the pen-and-paper-based organiser – and helps you keep a list of your appointments, stores telephone numbers and documents, recognises your handwriting, serves as a wireless connection to the Internet, exchanges data with a PC, and even allows you to watch videos or play games.

Not surprisingly, the next logical step is for the deployment and use of PDA applications in the enterprise. Here, PDAs facilitate the flow of information. For example, how do you provide information from your corporate databases to field professionals, salespeople, or customers? Then, as transactions and needs change, how do you update such changes and new information from the field back into those databases?



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“Over the 2002-2007 period, PDAs are forecasted to have a healthy 18.3 percent CAGR (Compound Annual Growth Rate), with the highest growth rate anticipated for 2003. Future growth will rely on convincing consumers that PDAs can be more than just PC peripherals that keep track of the schedules and address books of millions of the techno-masses,” noted Cindy Wolf, a market analyst with In-Stat/MDR.

Professionals in the field and services environments are well aware of the importance of being organised and having the most up-to-date information – and being well-connected to their office environment. Here, a PDA with customised software applications is an excellent tool to help you keep up with the strict job demands.

Not surprisingly, the next logical step is for the deployment and use of PDA applications in the enterprise. Here, PDAs facilitate the flow of information. For example, how do you provide information from your corporate databases to field professionals, salespeople, or customers? Then, as transactions and needs change, how do you update such changes and new information from the field back into those databases?

Here, we sense the need for a carefully engineered two-way street or Internet highway that is accessed through the PDA. To enhance the value of the network connectivity, mission-critical information as well as vital information streams, have to come and go seamlessly and provide a truly integrated system.

In order for things to work effectively via the PDA, we need purpose-built software applications that are specially developed for the small footprint and limitations of such smart computing devices. To that end, strategies for vendors and component manufacturers are adjusting. There are now three tiers of PDA products: low-end, mid-range, and high-end devices.



What is noticeable is that these PDA devices are clearly moving beyond the basic applications of Personal Information Management (PIM). An increase in multimedia functionality is one good example. Because of the competitive market conditions, manufacturers are offering hardware devices that will attract new users to the market.

Wireless and communications functionalities are also being built-into PDAs, especially on high-end devices. For instance, users now have a choice of 802.11 and Bluetooth models for a variety of usage models, and a number of new devices will offer communications capability to help users reduce the number of devices that they need to carry.

The PDA market is growing at a rapid rate and PDA sales are being driven by enterprises and government agencies whereas the consumer market is going for phones with PDA features.

Last year saw a turnaround in the PDA sales pattern. In 2001, the consumer segment accounted for a majority of sales. In 2002, enterprises and government agencies drove the market. Powering this trend were the third-party software development companies offering customised, task-based software applications that turn the PDA into a useful enterprise tool. PDAs are carving out a niche for themselves in corporate and government circles where pilot projects are underway.

The user statistics are formidable. And according to U.S.-based, industry analyst firm Gartner Dataquest, globally 70 percent of all PDAs are purchased by consumers, and just 30 percent by businesses.

### ***CRM and SFA Lead the Way***

Enterprises are buying PDAs for CRM (Customer Relationship Management) and sales force automation (SFA) applications. Enterprises are working with ISVs (independent software vendors) which add value by loading customised software applications such as sales force automation or financial management tools.

For instance, when companies start investing in application software like CRM, their sales personnel can use PDAs to collect data from customers, and then directly synchronise the input data to the CRM application on their desktop PCs when they get back from their sales calls.



There is a plethora of independent software vendors who are producing customised, task-centric application software that runs on a smart handheld device (SHD) or PDA. The availability of such applications could increase the value-proposition of SHDs for commercial deployment – and is seen by many market analysts to be among the primary drivers for the commercial market. For example, a local distributor of IT products has business alliances with many independent software vendors and third-party developers.

Many companies are relying on customised software applications developed purposely to enhance sales force automation, financial tools like report generation and analysis, and stock inventory.

For a manufacturer, such PDA-based business applications means that they can track product movement closely. These are but a few simple but significant value proposition for enterprises to meet customer needs.

Another area of potential are the sales departments of fast-moving consumer goods (FMCG), and insurance companies which stand to gain substantially from the deployment of such PDA business applications.

In the government, these SHDs play the role of low-cost computing devices that can communicate with back-end IT infrastructure.

PDA's are mostly used to run management tools for sales force automation. Insurance agents use these just like the corporate user. In FMCG and financial companies, PDA's are used to track order details, stock options and data collection. E-government projects will also drive PDA adoption in the future.

Medical systems are using products for sales force automation and other applications with the bulk of sales generated by enterprises.

Consumers naturally prefer converged devices which offer a convenient blend of phone and PDA functionality. Mobile phones are coming out with basic PIM (Personal Information Management) functions; and applications such as calendars, e-mail and Internet access. You can't use an entry-level PDA to make a phone call, but you can use a phone with PIM capabilities to manage your schedule.



The market view is that there are two clear markets emerging in this niche segment. The enterprise market will be fulfilled by standard PDAs with tailor-made applications – while converged PDA-phones will cater to the consumer market.

Some simple illustrations of enterprise applications that are already being deployed include the following:

- ◆ Enterprise applications like CRM, SCM could boost PDA sales – customer data from PDA can be directly synced with a server-based CRM application;
- ◆ Smartcard-based applications can be done using PDAs such as updating your loyalty points or discount status at a local restaurant;
- ◆ The police can deploy PDAs with GPS capability;
- ◆ Government projects such as education programmes could use PDAs;
- ◆ Reading utility usage meters – onsite meter readings for utilities such as electricity, water and gas used by a consumer can later be directly fed into a PDA that can be synchronised with the IT database at the office;
- ◆ For clinical use, the areas that have been identified as being the most cost effective include electronic prescription generation, point of care data entry, charge capture/billing, electronic data retrieval in real-time mode, and the electronic medical record (EMR).

#### ***Vendor Comments***

“It is in the services and sales fields that HP has seen the greatest uptake of PDAs as enterprisewide applications,” said Dennis Mark, general manager for Personal Systems Group at Hewlett-Packard Singapore.

“Here, PocketPCs offer the advantage of streamlining manual process, greater and more timely data capture, in the field access to and manipulation of product, financial and human resource applications, including product delivery dates, expense reporting, payroll, recruitment and training.”

“For companies who successfully integrate the PDA into the organisation, they are likely to benefit in a number of ways. These include increased productivity, improved customer relations, increased reporting accuracy, more timely information, revenue improvements and the elimination of some basic costs,” concluded HP’s Dennis Mark.



Box Story 1:

## **Palm versus Microsoft**

Key handheld industry players Palm and Microsoft continue to work to better position their product offerings to meet the demands of business customers.

Despite economic uncertainty and tight IT budgets, corporate decision-makers continue to be interested in improving employee productivity and business processes with handheld devices.

As a result, competition for enterprise customers is heating up. With data we can learn about businesses' current and future plans for purchasing, supporting, and standardising on handheld devices from Palm, Microsoft, and their hardware partners.

From this, you can gain important insights into the key question of whether Palm or Microsoft is winning the battle. Despite a period of economic malaise and difficulty for key industry players, businesses of all sizes continue to be interested in handheld devices as tools for improving business processes and employee productivity.

Results from IDC's latest survey of over 7,500 buyers and users of mobile technology, reveal that, despite the soft economy, interest in business solutions centred on pen-based handhelds remains strong. A key segment of this market in 2003 will be business purchasers.

Another survey by IDC involved a group of over 1,100 corporate decision-makers about their plans for handheld devices and their preferences for hardware and handheld platforms.

Since the introduction of the original PalmPilot in 1996, handhelds have been most valuable to business users looking to increase their personal productivity and organisation by using PIM applications like contact and calendar management. Traditionally, these users have bought their handhelds with their own money.

As IT decision-makers have grown more familiar with these devices, and become more educated on their value, more companies are reimbursing their employees for their purchases or centralising outright the purchase and deployment of these devices.



The growth potential of the corporate market for handheld devices has led to increasing competition among handheld software and hardware vendors as each seeks to position itself for what is expected to be several years of significant growth.

Both Palm and Microsoft have sought to better position themselves to exploit the enterprise market for handheld devices.

The release of PocketPC 2002 – which includes a number of new enterprise-friendly features, such as a Terminal Services Client, VPN Support, and enhanced security – suggests that Microsoft has zeroed in on corporate customers as a key target market.

For its part, Palm’s continuing efforts to separate its hardware and software businesses suggest that it is also capitalising on the need to improve its platform to better meet the more rigorous demands of business customers.

Microsoft’s hardware partners, such as Compaq, HP, Casio, NEC, and Toshiba, have considerable experience selling to corporate customers. They will look to offer handheld devices not only as standalone personal productivity products, but also as parts of bundles of hardware, software, and services that more fully meet businesses’ IT needs.

Palm has pursued a partnership and alliance strategy with a variety of partner companies such as Siebel and SAP, to enhance its appeal to corporate customers.

Also, PalmOS licensee Handspring recently announced partnerships of its own and introduced a device – the Treo – with integrated wireless, marking its first serious attempt to win over enterprise-class customers.

With the recent acquisition of Handspring by Palm, the revitalised “new company” will be in a formidable position to capitalise on future opportunities in the exciting handheld market space.



***About the Author***

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