Supporting and Integrating PDA Technology on Campus

A strategy that includes a standard, support, and training for personal digital assistants can put a campus in control of how the technology is used in the enterprise

By **William Shepard**

According to popular wisdom, those who fail to study history are doomed to repeat it. Fortunately, I was in the IS industry during the personal computer explosion and saw the impact it had on our company as well as others in the field. No one seemed to completely understand the situation, no one stepped forward to set standards and take control, and no one was prepared to meet the challenges introduced by this new technology.

Some people thought PCs were a toy, a passing fancy, while others saw their strategic long-range advantages. I'm sure all of us who went through that phase of IS would love to have a chance to do it over, knowing what we know now.

Well, I have some good news — we have that chance. We can learn from our mistakes and take a better approach to incorporating a new technology. I'm not referring to PC technology, but to personal digital assistant (PDA) technology. This, as Yogi Bera would say, is "déjà vu all over again." Once again we face different hardware platforms, operating systems, applications, and integration issues. Along with all this come training support decisions and total cost of ownership.

With the PC explosion, my university didn't get control until far too late. With the PDA explosion, we intend to lead the way, influencing decisions and providing proper training and support.

Before I start sounding too noble, remember that we, like other universi-

ties, really don't have much choice. Unlike PCs, PDAs don't cost much. They are given as free gifts with the purchase of things like cars and business suits. People win them in contests or receive them from vendors. The question isn't when PDAs will enter an institution, it's "How can I prepare my department to help our users and direct them into the most efficient use of these devices?"

The Need for a Standard

We knew we would need a standard for PDA technology for several reasons. A standard would give our central IS shop the ability to create a list of hardware and software on which we could provide training, support, and security, as well as recommend specific products. Beyond these basic elements, we wanted to take the user community to the next level, teaching them how to use PDAs as extensions to our administrative applications.

Limiting the number of choices available to our user community would reduce our overall support costs. It would also let us focus our training efforts on a limited number of products, those appealing to the largest number of users. With limited training needs, we could support specific platforms and basic software, and even extend our training to include approved third-party products that would work well in our environment. Training courses and materials would be readily available to all users choosing a supported product.

The research required to analyze available products and understand how they would interact in our environment could be limited to a small team of people, while the results would benefit the entire community. Recommendations for hardware, software, personal information managers (PIMs), and synchronization software could make purchasing decisions easier for end users, since central IS completed the research and testing.

With standards, our central IS shop could provide installation services. Dealing with a limited number of products would allow easy training of our support staff and quick, scripted installations at the users' sites. Between the training, installation, and debugging services provided, our staff would move up the learning curve more quickly with a limited product base to support.

By establishing standards across campus, we could effectively train for, recommend, and support products from a list of approved software. From the IS perspective, less effort could produce greater results. From our end users' perspective, our standards, research, training, and support efforts would make training opportunities readily available, purchase decisions easier and quicker, and support readily available.

Developing the Strategy

My assignment was to develop a strategy for our department to introduce a standard across campus that would, for supported devices, provide training, pur-

chasing recommendations, and general support. We also hoped this standard would let us easily secure the data stored on these devices and teach end users how to use PDAs as an intelligent device rather than just another address book.

I started by creating a project team that could support our goals of training, support, purchase recommendations, security, and application extension. This team consisted of two application developers, our desktop support manager, our security administrator, and our help-desk/training manager. Based on the type of product, I decided most of our support effort would be in the help desk, desktop support, and training areas. I included our security administrator to make sure we wouldn't develop programs or processes that would compromise our data security by allowing users to download data to a device that could be easily carried off site. The developers were included with the idea that we might need to create code during the course of this project.

The critical people who produced the most support material and assistance were the desktop support manager and help-desk/training manager. All team members understood they would receive a PDA and be expected to contribute in some fashion to the overall deliverables.

We reviewed articles on several PDAs, including both Palm OS and Windows CE devices, and prepared ourselves to develop a training plan, support policy, purchase assistance documentation, and ideas for PDA applications. We made our first set of purchases in November of 2000. At that time, Handspring was the only vendor that provided an expansion slot. (The market has changed since then.) We decided on the Palm OS platform because of its market share. We chose the Handspring Visor with 8 megabytes of storage. At the time a Visor cost about $234 with our national buying contract. We guessed that most university personnel would be comfortable in the $200–$300 price range.

We thought we needed to develop a set of standard software products in several arenas in order to control the use of PDAs. At that time, we had a university standard to support only Outlook, Lotus

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Notes, and Eudora as e-mail clients. Outlook and Lotus could also serve as a desktop PIM.

We decided to standardize on Outlook, Lotus Notes, and the Palm Desktop for our PC-based PIMs. This decision was based on our existing policy of supporting Lotus Notes and Outlook. Since the Palm Desktop was delivered as part of the operating system, we agreed to support it as well. We agreed to support all of the PDA products that came with the PDA units. This included Datebook, Datebook+ (Handspring only), To Do List, Memo Pad, Address Book, and Mail. In addition, we agreed to support Avantgo as a PDA-based browser. We decided to evaluate any new software presented to us by our group or by users. If we felt the product was supportable and applicable to a wide audience, we would add the product to our supported software list.

We felt that synchronization software and the application conduits (products that intelligently move data between platforms) would be critical to support and would give us the best control over security of data. Understanding what type of data users would move from PCs to PDAs would help us understand what security issues would be important. We agreed to support Hotsync Manager (supplied with Palm and Handspring devices).

In addition, since many of our users on campus use Lotus Notes and Microsoft Office, we investigated and now support Intellisync from Puma Technologies (used to synchronize with Lotus Mail and the PIM), Install Buddy from Blue Nomad Software (used to provide a read-

only PDA version of Excel, Word, and PowerPoint documents), and Quick Office from Cutting Edge Software (used to provide read/write synchronization of Word and Excel documents).

Supporting Standard

As soon as we agreed on the operating system and PDA, we informed the director of purchasing. In our university, many seek his office's advice on technical buying. Our purchasing office looks for discounts discounts and tracks what others are buying. We explained that we were trying to develop a standard at Cleveland State University, and anyone purchasing Palm OS devices would benefit from our training and support policies.

We published a support policy linked to our departmental homepage indicating that we would help users install and configure both their desktop and PDA for supported products. We also published a list of supported software and hardware, information on buying discounts through a Web site, and a series of newsletter articles on related topics.

Supporting the standards of our selected hardware platform, desktop PIMs, synchronization software, and approved software requires assistance from several areas within our central IS shop. Our help desk has a special category for PDA-related questions and problems. Our desktop support group incorporated this responsibility into their normal activities without the need for additional staff. They already make numerous desktop visits in the user community, and can install and configure PDAs quickly. We use one person to do the training on a volunteer basis, not as part of his normal duties. Since we have many people who now use and understand these devices, problems can be handled and supported by a number of IS staff. Most of the support burden does fall in the desktop area and training area, though.

Finally, we incorporated a training schedule within our existing technical offering of courses. We selected a comprehensive training program from Info-Source Inc. Our classes were presented in one-hour segments over the lunch hour. All participants received a copy of

the training material from ISI and could attend any one of the classes offered in the series. The class schedule was advertised on our training homepage and through direct mail sent to all faculty and staff. Classes included

- An introductory class called "PDAs: What Are They?"
- Product classes on Calendar, To Do Lists, Memo Pad, and Address Book
- An "In Sync" class, covering synchronization, program installation, and file management
- Extension classes on e-mail and Web browsing
- "Ask the Experts," an open session where users bring their toughest questions for our panel of experts

Extending PDA Usefulness

We felt that creating a critical mass of trained PDA users was a good start. However, we knew that with proper direction for users, PDAs could play a more strategic role in our environment. We explored new ways of using PDAs with our existing applications.

- Using the Intellisync set of conduits from Puma Technologies, we can synchronize with Lotus Notes and, besides supporting e-mail, maintain a Notes journal (we used this to store our disaster recovery documents) on a network drive and sync that directly to the PDAs. Every member of the disaster recovery team has a PDA with all relevant information for disaster recovery.
- Using Install Buddy, we can synchronize Word, Excel, PDF, Power-Point, and HTML documents to the PDA. We frequently place Word and Excel documents on network drives. PDA users can now keep those documents up to date on their PDAs and ready for their next meeting. Install Buddy will take any comma-separated file and format it for the PDA. Even class rosters, which we can download from our internal sites, can be loaded directly to PDAs with this product.
- Many people have been using Avantgo to browse the net offline with PDAs. Our Web Standards committee established a standard that all Web sites should have a text-only version. Adding a meta tag[1] in the

header section of any text Web site makes it possible for the Avantgo conduit to reformat the site and make it PDA-ready. This makes most of our Web pages easily available to PDAs without redeveloping our Web sites.

- One of our newest administrative application projects has been to upgrade our Millennium fund raising and alumni management system from JSI Fund Raising Systems. Included in the purchase of additional reporting software is a PDA extension that will allow our system users to carry important data with them when they leave the office. We felt confident buying this add-on feature because we knew we could provide the training and support required. We anticipate other vendors will provide similar access in the future.

To support our teaching efforts, we started two projects. First, we have a special program geared toward high-risk students. This program teaches study, organizational, and academic skills, using PDAs to assist students with organizing their schedules and workload. Their instructors have attended the Palm training classed offered as part of our program. Also, several faculty

have requested PDA versions of several of our calendars, including the five-year academic calendar and exam schedule calendar for each term. We are currently working on a way to provide this information easily to the PDA platform.

We feel that our first initiative — preparing standards, support policies, and training materials — has helped place our department in the forefront of this technology. It also has helped us better serve many others on campus. People come to us for advice prior to a purchase and work with us during their initial use of this technology.

We are not done with our work. Nonetheless, we feel we are in strategic control of how this new technology will be used and what devices will be chosen as we move forward. *e*

Endnote
1. The meta tag used in the header of a text Web site is <META NAME="Hand heldFriendly" content="True">.

William Shepard (w.shepard@csuohio.edu) is Director of Applications, Integration, and Development at Cleveland State University in Cleveland, Ohio.