Net PCs in Action at Arrow Electronics, Inc.

Breakthrough
Manageability
Without
Compromise

intel.

The Manageability Challenge

"Our systems are mission critical."

Arrow Electronics is one of the world's largest distributors of electronic components and computer products to industrial and commercial customers. With $6.5 billion in annual sales and over $1 billion worldwide inventory, the company's global distribution system services North America, Europe and the Asia/Pacific region through more than 170 sales facilities and 19 distribution centers in 32 countries.

Cost is an important differentiator in the distribution world. Arrow is not only one of the largest distributors, but the low-cost leader as well – and they aim to keep that lead.

Information technology is an essential tool to help them do so. "Our systems are mission critical," says David Westmoreland, Arrow Vice President of MIS, North American Operations. "If systems aren't available, our sales reps don't know what's available in inventory to sell and our warehouse doesn't know what's available to ship. Our goal in IT is to provide the highest value to our suppliers and customers, and at the same time maintain the competitive advantage that comes from being a low-cost distributor."

Toward that end, Arrow is preparing to roll out a new user environment that will move some 3,000 users away from a text-based interface on a 3270-style terminal. Although Arrow considered solutions based on other programming languages, they rejected them as not being feasible within their time frame and not providing the fast response times their transaction-based applications demand. Instead, the company will transition users to a state-of-the-art graphics interface written in Visual Basic* and running on PCs with the Windows NT* operating system.

Pre-deployment testing shows the new PC-based sales desktop interface will slash training time by half and more than double operator productivity for the company's inside sales representatives, the front line of the sales force. By displaying information graphically and taking advantage of the ability to move among different windowed applications, the new interface enables sales reps to give customers more information, more quickly. "It's a huge win for us from a training and productivity standpoint," says Sean Fernandez, director of Arrow's Sales/Desktop Task Force, which is developing the application and its infrastructure.

Managing the Net PC

"If you . . . reached the limitations of a dumb terminal, the Net PC definitely fits your profile."

Managing the new environment will be a major challenge. The rollout will take Arrow from its current level of 1,800 LAN-connected PCs at nine locations to more than 3,000 LAN-connected PCs at 50 field sites. For the most part, the desktops will be remotely managed by the MIS Department from the company's headquarters in Melville, N.Y.

Because the Network PC (Net PC) provides the full performance of a traditional PC along with easy manageability and remote access, Arrow decided to test the systems by participating in Intel's

Net PC trials. Arrow deployed units in its MIS department at company headquarters and at their busiest call processing center in Minneapolis.

Arrow found the Net PC's combination of PC performance with a sealed chassis fills the bill in a number of respects: "The Net PC provides the functionality our users need to do their jobs effectively, without extraneous elements that can confuse users and complicate the support picture," says Westmoreland.

The sealed chassis increases security and manageability by reducing the opportunity for users to remove any part of the system, or to bring in software or hardware add-ons. When users alter the computer configuration, they often increase the likelihood of problems, and make it harder to troubleshoot problems when they occur.

"The Net PC lets us give our users everything they want and need," explains Marisa Richman, Arrow LAN Project Manager. "If you're a user who lives on a 3270 terminal, but has reached the limitations of that dumb terminal, the Net PC definitely fits your profile."

At the same time, the Net PC makes life easier for Arrow's MIS department because the system is secure. "You've eliminated the possibility of someone bringing in a great sound card from home and 'accidentally' causing problems that might prevent them from getting their job done," says Richman.

The Net PC comes with built-in features that, when combined with management applications such as Intel's LANDesk® Configuration Manager, enable the systems to be configured and managed remotely. Arrow anticipates using these features for its MIS HelpDesk troubleshooting and problem resolution, as well as for its Operations Hotline, which provides advice on using the applications. "Remote control of the Net PC will play a very big part in our environment," Richman notes.

The network-based installation process is also dramatically simpler than with earlier generations of PCs – an important consideration for a company that will be deploying thousands of new machines. "Once you've put in the up-front time to develop the installation script and the software image, the installation is as simple as clicking a button," says Tony Tennaro, Arrow LAN Support Analyst.

The User's Point of View

"It works just like a regular PC, and the speed is just as fast."

What differences did Arrow's users notice between the Net PC and a traditional PC?

"Virtually none," according to Scott Smith, one of Arrow's top salespeople and a member of the Desktop Task Force. "It works just like a regular PC, and the speed is just as fast as a comparable PC. The only difference is the lack of a floppy drive, which our users don't need anyway."

In Fernandez's view, the Net PC's lack of a floppy disk drive provides an added benefit for users. "Even though the Windows NT* operating system provides a software lockdown capability, having the drive there is a bit of a tease," he says. "It's always there, reminding you of what you're missing. With the Net PC, you take away that reminder."

The Net PC's small footprint is also a bonus for Arrow users. "One of the really nice things about the Net PC is that it takes up so little space," observes Smith. "That's a big plus, because you never have enough space out in the field. The Net PC is small enough that you can fit it just about anywhere."

Finally, the Net PCs have proved themselves highly reliable. "Since we got the systems set up, we haven't heard any complaints from our users," says Richman. "The machines are in the field; they're working; they're consistent."

Summing Up   "We're excited about the Net PC."

Moving from the 3270 world will bring Arrow significant benefits, but it is not without its challenges. The Net PC can play a key role in helping Arrow meet those challenges successfully.

"Locking down the desktop is going to be a key to making our transition from the 3270 world more manageable," Westmoreland says. "That's why we're very excited about the Net PC."
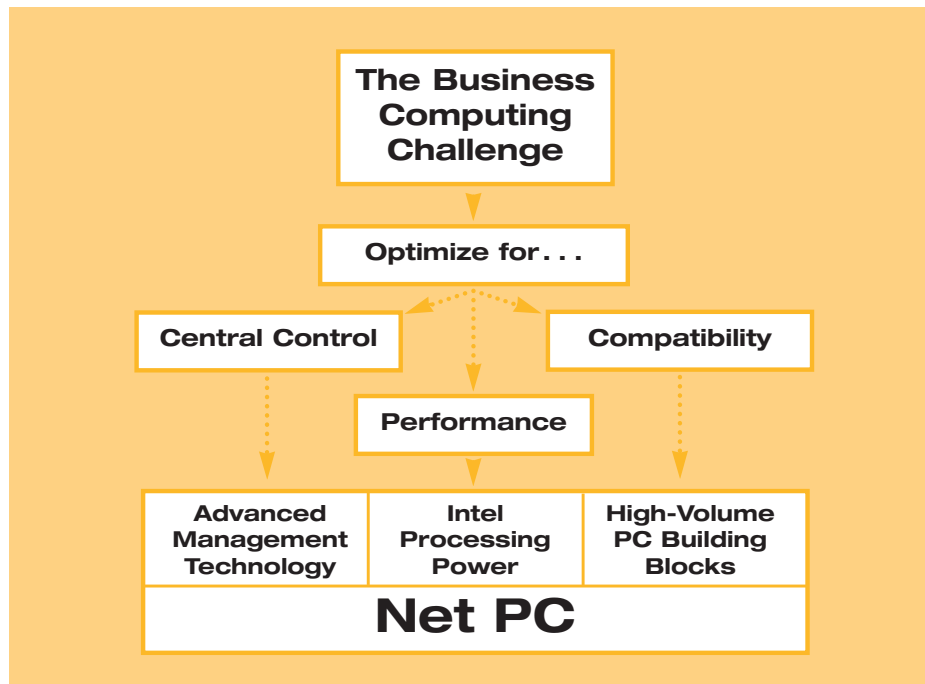
The NetPC at a Glance

The Network PC, or Net PC, is a new type of business PC intended to reduce ownership costs through its advanced management capabilities while delivering the power and versatility of traditional business PCs. Advanced system administration features, including remote configuration and repair and the ability to wake up systems for off-hours maintenance, give IT organizations greater centralized management capabilities while retaining existing LAN infrastructures. Hard disk drives give users the choice of running their Windows*-based business software and storing data locally or on servers.

Net PCs cover the full range of price/performance, including high-power systems based on Intel's Pentium® II processor.

The Net PC is most appropriate for companies centralizing PC management and for those data- and task-focused users who need no hardware expandability. For example, it is ideal for information delivery, kiosks, customer support, manufacturing, finance and training applications.

Net PCs are based on a reference specification developed by Intel, Microsoft,* Compaq,* Dell* and Hewlett-Packard.* Products based on the specification are emerging at a wide range of performance levels and price points.

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