

Case study

Dierberg's



At a glance

Industry: Retail

Application: Store Operations

Intermec 700 Series helps 150-year-old grocery chain keep a fresh perspective

Service, selection and customer convenience are why Dierberg's, an independent grocer in the St. Louis area, thrives against much larger competitors. Continued innovation has kept Dierberg's in business for more than 150 years and helped it earn the top customer satisfaction rating of grocery chains in the 20 largest U.S. markets. But the 21-store chain doesn't rely on its history to maintain its competitive edge. Instead, it readily embraces new technologies, and today trusts the latest mobile and wireless computing systems from Intermec Technologies and Cisco Systems to provide the platform for next-generation innovation.

Dierberg's uses its wireless LAN platform to allow customers to check e-mail and surf the Web, browse product and recipe information at self-service kiosks, and to beam content to 40-inch plasma screens that display promotions and advertisements. The in-store wireless network also runs traditional inventory and aisle management handheld computing applications while simultaneously supporting weigh scales and voice-over-IP (VoIP) telephones.

"We're an independent grocer with tough, smart competition. We need

to stay flexible and agile," said Robert Sanabria, director of IT at Dierberg's. "Our wireless network is key, because we're flexible enough so that when there are developments in wireless technology, we can exploit them very quickly."

In-store wireless networks evolved from proprietary, 900 MHz radio technology to standardized 802.11b technology. When the time came to replace aging in-store handheld computers, Dierberg's found Intermec's 700 Series meshed perfectly with the company's platform philosophy. For communications, the 700 Series has 802.11b wireless LAN connectivity that is fully interoperable with the different Cisco access points that are deployed. Intermec also incorporates Cisco Compatible Extensions (CCX) wireless technology into its handhelds, which smoothes integration with the Cisco backbone and enables users to leverage the features in their wireless LAN infrastructure.

A Fresh Development

Dierberg's had used handheld computers for a variety of aisle management, inventory control and other applications for years. Legacy applications were difficult to modify or upgrade because they were written in a proprietary programming language, and the aging



handheld computers lacked the memory and processing power needed for newer applications.

"When we got the new computers, we washed our hands of how we were doing programming for the last 10 or 20 years," said Jason Powless, lead system developer at Dierberg's. "It was refreshing for us developers to work in this environment."

Dierberg's took advantage of the Windows Mobile operating system on the handhelds and its familiar development environment to quickly redevelop inventory, ordering, shelf management and other handheld applications, which are packed with new features.

"This platform is very conducive to bringing applications to market quickly. We can now create applications for the handheld computers (the cradle-mounted Intermec 720s) in an hour that used to take us weeks," said Sanabria. "We had our first computer up and running with three applications one-and-a-half hours after receiving the device."

The updated applications are more tightly integrated with enterprise systems than ever before. The result is higher-quality information that is available with less effort. For example, previous handheld applications were standalone and required some manual data processing so information could be shared with other applications.

What's In Store

Now, shelf counts, inventory transfers and other activities are recorded with an Intermec 720 computer mounted in a scan cradle, which updates host systems in real time over the in-store wireless LAN. Dierberg's has Cisco Aironet 350 series legacy access points, and is gradually

replacing them with Cisco's 1200 series. Because all access points and the Intermec 700 Series computer conform to the 802.11b wireless networking standard, everything is interoperable and there are no communications problems. Dierberg's has implemented Cisco's Real-Time Retail suite, which integrates data from the handhelds, point-of-sale systems and other in-store applications. Wide area network connections link the 21 store locations with headquarters and keep applications updated with the latest information in real time.

"The system enables us to fully exploit our infrastructure. We have end-to-end processing driven by the wireless handheld device. It can't get any simpler," said Sanabria. "Now, once a transaction is done on the handheld, it's done. You don't have to do anything with it again. There has been a significant productivity gain."

The system has improved productivity for Dierberg's and also provides improved customer service. For example, if a shopper needs help locating an item, a Dierberg's associate can use his or her handheld computer to see if the item is in stock in the back room, check the time of the next scheduled delivery, see if the item is available at another store, and even request an inter-store transfer. These capabilities help Dierberg's defend its niche as the leader in service and specialty items. Integrating information across the enterprise also helps manage inventory, which is especially challenging because the stores carry a broader product line than competitors and stock many hard-to-find, lower-volume products.

"The system eliminates a lot of variables and lets us act on real information," said Sanabria. "We are much more accurate now, and we are quicker to respond because

we have so much information literally at our fingertips."

Now that its handheld computers are so easy to program and support, Dierberg's can spend its time creating applications that improve customer service and internal efficiencies, instead of maintaining limited, disconnected proprietary systems.

"There are so many more things we can do with these handheld devices because they run Windows Mobile," said Sanabria. "And I really like that they are modular, so we can add memory or peripheral support if we need it."

The company develops many of its applications internally, and is beginning to use Web services and .NET to create components that can be deployed over the Web and reused in other applications. For example, Intermec printers are used in the back room of stores to print shelf labels, price tags and transfer labels. Dierberg's is developing a .NET application to merge label templates and price files at headquarters and distribute the updated files to all printing locations over the Internet.

"The new infrastructure has enabled us to flatten out our processes and eliminate a lot of steps," said Sanabria. "Flat and simple is the way to go."

When Dierberg's was founded, the flow of steamship traffic down the Mississippi River was key to the local economy. Today, it is the flow of information, and Dierberg's has proven to be a skillful navigator. With its modern IT infrastructure in place, Dierberg's will look to its Intermec mobile computers to help deliver innovative new efficiencies and services.

"To function in our world, you've got to have these handheld devices, and you have to have a lot of them in the stores," said Sanabria. "They pay for themselves pretty quickly."

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