



## Medical Company Saves \$375,000 Annually with Paperless Workflow, Improved Search

### Overview

**Country or Region:** United States

**Industry:** Life sciences—Medical device

### Customer Profile

Kinex Medical Company provides orthopedic equipment used to regain mobility after surgery. The Wisconsin-based company employs 75 people and has annual revenues of U.S.\$13 million.

### Business Situation

Paper-based communication with distributors slowed new-patient processing and delayed insurance reimbursements. Employees also spent too much time searching for data and tracking tasks.

### Solution

Kinex used the 2007 Microsoft® Office system to create automated forms and a document portal where employees and distributors can find patient data. Windows Vista™ will improve search capabilities.

### Benefits

- U.S.\$200,000 annual savings from better search capabilities
- \$75,000 annual savings in new-patient processing
- \$100,000 annual savings from automated time tracking
- Fifty percent reduction in distributor support costs

“We estimate that instant document search capabilities will save every one of our employees at least an hour a day; that’s worth nearly U.S.\$200,000 annually in increased employee productivity.”

Scott Noles, Technology and Education Manager, Kinex Medical Company

Kinex Medical Company provides physical therapy devices that help patients regain mobility after surgery. The 75-person company leases its devices through 125 distributors in 23 states. Paper-based processes slowed communication between Kinex and its distributors, which, in turn, slowed insurance payments to Kinex. Employees wasted time hunting down information and tracking hours for management. Kinex then turned to Microsoft® Office SharePoint® Server 2007 and Office InfoPath® 2007 and created a paperless workflow and searchable document portal for its employees and distributors. The innovation is saving the company U.S.\$200,000 in faster information searching, \$75,000 in new-patient processing, and \$100,000 in time tracking, annually. Moving the portal to the Windows Vista™ operating system will broaden its search capabilities, enhance desktop security, and reduce IT support costs.

## Situation

Kinex Medical Company of Waukesha, Wisconsin, provides continuous-passive-motion devices used to provide stage-one physical therapy in a patient's home immediately following surgery. Patients use a Kinex device for several weeks after surgery to consistently exercise a wrist or knee, for example, before entering into a more-extensive physical therapy regimen to regain strength.

Kinex employs 75 people and depends on a network of 125 independent distributors to represent its devices to thousands of patients across the United States. Kinex has between 3,000 and 5,000 pieces of equipment in the field at any one time. Distributors work directly with patients to outfit them with the correct Kinex device and to complete insurance paperwork. Distributors also recover the machines when patients are finished with them and return the devices to the leasing pool.

The new-patient process and all communication with distributors was paper-based, slowing distributors' ability to get records and forms to Kinex, and thus, Kinex's ability to get reimbursed by patients' insurance companies. Using paper patient records also slowed employees' ability to locate information, answer distributor and patient questions, and track their time for management.

"We were communicating with our distributors by faxing lots of paper," says Scott Noles, Technology and Education Manager for Kinex Medical Company. "Likewise, when distributors signed up new patients, they faxed us a stack of paper, which included forms about the patient, the equipment, and HIPAA release forms. Distributors often delayed filling out paperwork because it took so much time, but that prevented us from billing the insurance

companies. Every day that we couldn't bill on equipment, we lost money."

The paper-bound new-patient process spanned two to five weeks. When faxed forms arrived from the distributor, Kinex staff members keyed them into a patient records management system called TeamDME!, which ran under the MS-DOS® operating system. If the forms were illegible, the staff person had to ask the distributor to fill them out again and resend. Once the forms were entered into TeamDME!, the patient information manager then sent an e-mail message to a benefits coordinator letting him or her know about the new customer and directing the coordinator to a shared drive containing the patient's records. The benefits coordinator ultimately sent the forms to the reimbursement team, which contacted the insurance company and requested payment.

During the time the paper process was wending its way to completion, neither Kinex employees nor distributors could easily find information about patients. TeamDME! wasn't electronically searchable, and paper forms were often difficult to locate.

Another related problem was the amount of time employees spent tracking their work each day in an effort to improve productivity. Kinex employees earn points for every task they complete toward signing up a new patient, with the aim of completing tasks as efficiently as possible. "The only problem was, a five-minute task took one minute to document!" Noles says. "Managers were grumbling about the time it took to compile spreadsheets of productivity statistics—roughly a fifth of their week."

## Solution

Kinex wanted to create a more efficient environment that would eliminate all of that paper and give both internal staff and

“Compressing the new-patient cycle and eliminating errors is saving us more than U.S.\$75,000 annually in improved worker productivity.”

Scott Noles, Technology and Education Manager,  
Kinex Medical Company

distributors quick, electronic access to company and patient information. The goal was to use collaboration technologies to increase information gathering and sharing, make it possible to search document libraries, and provide automated electronic forms.

#### **Tablet PCs a First Step**

In early 2006, Kinex streamlined its new-patient process by giving distributors Tablet PCs running Windows Mobile® software. Noles's staff used the Microsoft® Office InfoPath® 2003 information-gathering program to develop automated forms that distributors filled out on the Tablet PCs in patients' homes. Once a day, distributors synchronized their Tablet PCs to a Microsoft SQL Server™ 2000 database at Kinex, using a Virtual Private Network (VPN) connection, to download new-patient forms. This innovation eliminated paper coming into Kinex from the field, but Kinex employees still had no way to organize and search the electronic patient forms coming in, nor did the IT staff have a way to easily create new forms and distribute them to their distributors.

In mid-2006, Scott Noles and Greg Damask, Technology and Education Associate at Kinex Medical Company, enrolled Kinex in the 2007 Microsoft Office system Rapid Deployment Program. “We were very interested in Microsoft Office InfoPath 2007 for easier forms creation, in Microsoft Office Forms Server 2007 for making forms Web-accessible, and in using Microsoft Office SharePoint® Server 2007 as a searchable document portal,” Noles says. Kinex engaged Microsoft Gold Certified Partner Inacom Information Systems of Madison, Wisconsin, for assistance.

#### **Automated Forms with Built-in Workflow**

“The ability to integrate Office SharePoint Server 2007 with the Windows® Workflow Foundation was a huge timesaver,” says Nick

Morris, Practice Lead, Enterprise Architectures, for Inacom Information Systems. “Before the new Microsoft products came out, we were going to attempt to create a portal using Microsoft .NET, but having the workflow engine built into Office SharePoint Server 2007 cut our development time in half.” Windows Workflow Foundation is the programming model, engine, and tools for quickly building workflow-enabled applications for the Windows operating system.

Kinex and Inacom used Office SharePoint Server 2007 to build a document portal that is accessible over the Web to both employees and distributors. Noles's staff uses Office InfoPath 2007 to create forms, and uses Office Forms Server 2007 to distribute them to Tablet PC users through an Internet browser. Access to sensitive data is controlled by Active Directory® directory service, a security and authentication component of the Windows Server® 2003 operating system. Office SharePoint Server 2007 and Office Forms Server 2007 both run on Windows Server 2003.

Today, distributors access Office InfoPath 2007-based forms through an Internet browser from their Tablet PCs. The forms are stored in the Office SharePoint Server 2007 portal and connected to the TeamDME! application by a SQL Server 2000 database. This linkage enables Office InfoPath 2007 to autopopulate patient data from TeamDME! if such data is available.

Office SharePoint Server 2007 initiates the new-patient workflow with all Kinex parties, simultaneously alerting the patient information manager, benefits coordinator, and the reimbursement team, and directing them to the patient documents on the portal. The system timestamps all actions and documents, which helps Kinex measure how long various process steps take.

Distributors sync their Tablet PCs with the SQL Server 2000 database daily to keep their patient records up-to-date, with Active Directory helping ensure that distributors see only their own patient data. Office SharePoint Server 2007 provides an automated workflow, sending tasks and reminders to appropriate employees as e-mail messages in the Microsoft Office Outlook® 2007 messaging and collaboration client. Employees and distributors can easily locate patient records using the SharePoint portal's built-in search capabilities.

#### **Broader Search Capabilities, Enhanced Security with Windows Vista**

Kinex also plans to roll out the Windows Vista™ operating system, which will provide even broader search capabilities, as well as features for enhancing desktop security and simplifying IT management work. As soon as an employee enters search criteria, Windows Vista will begin searching across applications, folders, and documents. The Microsoft Office Outlook 2007 Instant Search capability adds the ability to search e-mail archives. "With e-mail messages piling up, our employees are using Instant Search to find critical e-mail messages and time-sensitive items without leaving Outlook 2007," Noles says.

Kinex is also looking to Windows Vista to help enhance desktop security. "Windows Vista provides many new ways to secure desktop computers, at both the hardware and application levels, which will help us better secure our network and reduce IT staff time," says Noles.

Workers using Windows Vista and the 2007 release of Microsoft Office have given the products high marks. "Users notice that the products are much easier to use," Damask says. "We're looking forward to improved productivity because the programs work so well together."

## **Benefits**

By using the 2007 Microsoft Office system, Kinex has been able to create a searchable repository of patient records, speed new-patient processing, and automate worker time tracking, saving hundreds of thousands of dollars annually. Once the new system is running on Windows Vista, Kinex employees will have even more extensive search capabilities, and the IT staff expects reduced desktop deployment and support costs.

#### **U.S.\$200,000 Annual Savings from Better Search Capabilities**

With Office SharePoint Server 2007, Kinex has a single, central location for patient information, which will make employees more efficient and give distributors Web access to information 24 hours a day. "We estimate that instant document search capabilities will save every one of our employees at least an hour a day; that's worth nearly U.S.\$200,000 annually in increased employee productivity," Noles says.

Once the portal is moved to Windows Vista, Kinex will be able to harness Windows Vista Indexing Services to the company's Office SharePoint Server 2007 portal, which will allow employees to quickly search document libraries, find forms, and locate patient records and other vital information to quickly get information into the right hands. "Our early use shows that Windows Vista makes it dramatically easier for employees to find information, contributing at least another \$20,000 in annual productivity savings," Noles says. The old way of finding information required employees to navigate multiple shared network resources, which could be a daunting task. Now, employees simply enter their search criteria, and Windows Vista finds the information for them.

“Office SharePoint Server 2007 incorporates Business Scorecard Manager dashboards, which are dynamically updated. This is very powerful, allowing managers to manage with data rather than by instinct.”

Greg Damask, Technology and Education Associate, Kinex Medical Company

#### **\$75,000 Annual Savings in New-Patient Processing**

Use of the automated forms solution has made it possible for Kinex to reduce its new-patient processing period by approximately 12 days per month per employee. This reduction comes from getting more accurate data from distributors more quickly, eliminating frequent form reworking and accelerating the workflow. With 35 employees processing new patients, the savings add up.

“Compressing the new-patient cycle and eliminating errors is saving us more than U.S.\$75,000 annually in improved worker productivity,” Noles says. The speedup not only gives workers more time to process more new patients, but also accelerates insurance payments by allowing Kinex to submit claims sooner.

Using its portal for getting information to distributors has allowed Kinex to reduce its printing, paper-handling, and mailing costs by 50 percent. “We’re able to use Excel® Services in Microsoft Office SharePoint Server 2007 to present reports to distributors, reducing printing and mailing costs,” Noles says. “Plus, we can push information to them through the portal versus drowning them in paper and e-mail messages. We get better share of mind as well as lower costs.”

#### **\$100,000 Annual Savings from Automated Time Tracking**

Instead of manually tracking their activities for productivity reporting, Kinex employees are now led through a list of new patients each day by the workflow engine in Office SharePoint Server 2007, clicking checkboxes as tasks are completed. Office SharePoint Server 2007 automatically calculates employee points and converts the data into a dashboard that shows managers individual and group productivity metrics. “Not having to

manually track points saves 35 administrative employees about 30 minutes each day,” Noles says. “That’s a nearly \$100,000 annual savings.”

Managers have regained the approximately one day a week that they were wasting sifting through productivity statistics and creating spreadsheets. Just as important, they get better reports with which to make decisions. Says Damask, “Current spreadsheets are just snapshots in time. Office SharePoint Server 2007 incorporates Business Scorecard Manager dashboards, which are dynamically updated. This is very powerful, allowing managers to manage with data rather than by instinct.”

#### **Fifty Percent Reduction in Distributor Support Costs**

Kinex spends a great deal of time helping distributors be successful, answering questions, and tracking down information for them. The new portal will allow Kinex to reduce distributor support costs by at least 50 percent by giving distributors a self-serve mechanism for information access.

With the help of the 2007 Microsoft Office system, Kinex will also be able to track and easily calculate a profit-per-distributor metric. This will enable Kinex to provide additional attention to some distributors or even pare low-yield distributors. “We are looking to grow our distributor base, so the ability to build a profile of successful distributors will help us do this more intelligently,” Noles says. “Ultimately, we want to allow distributors to log on to their own Office SharePoint Server 2007 site and see their own dashboard showing where they’re making and losing money.”

#### **Estimated 200 Percent Faster Forms Rollout**

Noles also estimates that, with Office InfoPath 2007, his staff will be able to roll out new forms 200 percent faster, because the IT

staff will have the ability to create their own forms without outside development assistance. This is worth approximately \$17,000 annually. "Not only will my staff be more efficient, but employees will be empowered to make minor changes to forms themselves, without waiting on the IT staff," Noles says. "Helping employees do for themselves is the most valuable benefit of all."

#### **Expected 60 Percent or More Reduction in Desktop Rebuilds**

With the Windows XP operating system still in use, the TeamDME! application runs as a local administrator, which gives users the freedom to do anything they want on their desktops. Says Noles, "Opening an e-mail message with a virus can trash the machine, and it takes my staff four hours to rebuild it. Windows Vista will put an end to that, reducing our PC rebuilding costs by 63 percent annually."

Through the use of Windows Vista image-based deployment, Noles' staff will be able to further reduce IT costs by reducing the amount of time it takes to deploy a desktop computer. The enhanced ability to lock down security settings will provide a more consistent user experience across the network and reduce support costs.

Finally, simply standardizing on one version of Windows and one version of Microsoft Office will generate savings in training, troubleshooting, image creation, and other support activities. "Today we're supporting three versions of Windows and three versions of Microsoft Office," Noles says. "A single software base will save us \$35,000 by eliminating the need to hire an entry-level IT support person and save users time by speeding training and improving productivity."

## For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: [www.microsoft.com](http://www.microsoft.com)

For more information about Inacom Information Systems products and services, call (877) 462-2664 or visit the Web site at: [www.inacom.com](http://www.inacom.com)

For more information about Kinex Medical Company products and services, call (262) 513-8440 or visit the Web site at: [www.kinexmedical.com](http://www.kinexmedical.com)

## Microsoft Office System

The Microsoft Office system is the business world's chosen environment for information work, providing the programs, servers, and services that help you succeed by transforming information into impact.

For more information about the Microsoft Office system, go to: [www.microsoft.com/office](http://www.microsoft.com/office)

## Windows Vista

Windows Vista can help your organization use information technology to gain a competitive advantage in today's new world of work. Your people will be able to find and use information more effectively. You will be able to support your mobile work force with better access to shared data and collaboration tools. And your IT staff will have better tools and technologies to enhance corporate IT security, data protection, and more efficient deployment and management.

For more information about Windows Vista, go to: [www.microsoft.com/windowsvista](http://www.microsoft.com/windowsvista)

### Software and Services

- Microsoft Office
  - Microsoft Office Forms Server 2007
  - Microsoft Office InfoPath 2007
  - Microsoft Office Outlook 2007
  - Microsoft Office SharePoint Server 2007
- Microsoft Server Product Portfolio
  - Microsoft Windows Server 2003
  - Microsoft SQL Server 2000
- Windows Mobile
- Windows Vista

### Technologies

- Active Directory
- Excel Services
- Windows Workflow Foundation

### Hardware

- 3 Gateway M450 portable computers
- 65 Gateway Profile desktop computers
- 100 Gateway Tablet PCs
- 1 Gateway E-9515 server computer

### Partner

- Inacom Information Systems