

# Microsoft® **.net**<sup>TM</sup> *for manufacturing*

BRINGING THE POWER OF THE INTERNET TO THE ENTERPRISE

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*Sales/Marketing/Customer Service*



## .NET Strategy

THROUGH .NET FOR MANUFACTURING, MICROSOFT PROVIDES THE PERFECT 'CUSTOMER BASE'—A FOUNDATION ON WHICH TO BUILD A CUSTOMER RELATIONSHIP MANAGEMENT SOLUTION.



# The Customer's Always in Sight

Manufacturers are shifting their intense focus from the production floor to the customer. Instead of just concentrating on the organization of parts and fabricating products, manufacturers are elevating customers to a new level of consciousness within the organization. The customer is the center of their universe.

Coinciding with this enlightenment about the end user has been the development and adoption of customer relationship management (CRM) strategies, which are designed to optimize profitability and revenue while at the same time working to ensure customer satisfaction. When properly initiated, CRM impacts every aspect of the customer life cycle, supply chain, organizational infrastructure, and e-business initiative.

Why the sudden importance in CRM activities? The main reason is that the Web makes it easier than ever for customers to switch from one company to another; all it takes is a click of a mouse. And with businesses realizing that it costs 10 times more to attract and acquire a customer than to retain one, it's more important than ever to deliver quality goods and service to the

the top CRM solutions are really only a repackaging of call-center applications. That means organizations will have to consider interoperability issues as they investigate CRM solutions that allow them to accommodate more channels—both internally and externally—as well as e-mail, chat, and voice functionality. Companies are no longer looking for monolithic solutions, but best-of-breed integrated solutions that interoperate together.

## A CRM PLATFORM

Fortunately for these organizations, Microsoft .NET® for Manufacturing is the bridge connecting these architectures. The .NET for Manufacturing vision is an extension of Microsoft's strategy of any time, any place, any device computing and communications via the Internet and intranets onto assembly lines and into processing plants and other manufacturing environments. This is possible because all the disparate functions located in sales and marketing, engineering, procurement, finance, and plant operations can be linked using

current customer base. In fact, AMR Research Inc. reports that the use and deployment of CRM solutions is increasing by nearly 49% per year.

In conjunction with CRM efforts, manufacturers are concentrating their sales, marketing, and customer service activities in three specific areas:

- Achieving higher revenues and profits through cost-effective fulfillment operations.
- Improving customer satisfaction and loyalty by better management of customer knowledge.
- Attracting new customers.

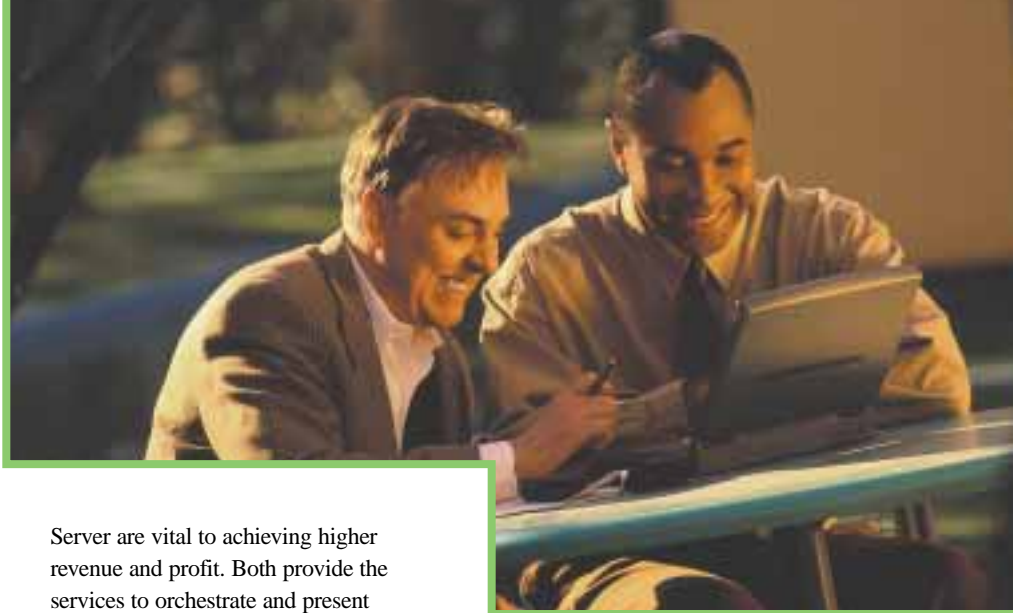
Interoperability is of particular concern because CRM strategies must accommodate a variety of architectures. The reality is that the tools needed for CRM do not yet exist in a neatly packaged suite. Some of

XML and other technologies. Microsoft .NET for Manufacturing is also a logical development, considering the business-to-business and business-to-consumer supply chain and Web issues forcing organizations to adopt multi-enterprise application integration and worker collaboration. Any solution has to be quickly deployable and easily reconfigurable.

As a result, .NET for Manufacturing is an ideal platform for CRM, according to William Fong, worldwide manufacturing industry manager at Microsoft.

"Microsoft's strategy, backed by comprehensive technology, products, and service offerings, facilitates this integration of disparate technologies, so organizations can track and support customers from initial contact through to post-sales support," he says.

Microsoft is currently developing .NET applications that exploit the power of these interactive technologies and allow communication regardless of the languages in use. Examples of .NET-enabled products are Windows® 2000 Advanced Server, SQL Server™ 2000, Application Center 2000, BizTalk™ Server 2000, Commerce Server 2000, and Exchange Server 2000.



### PROFITABLE RELATIONSHIPS

These .NET-enabled products are being used to identify the needs of the customer base and target these customers with specialized services, resulting in a more profitable relationship for both sides of the demand-supply relationship.

“Competitive advantage will no longer come from new manufacturing techniques,” Fong says. “It now stems from building profitable relationships with your customers and partners.”

The examples of .NET for Manufacturing being used to attain increased profitability are numerous:

- Manufacturers use collaborative enterprise portals operating on Windows 2000, Office 2000, SQL Server, and Exchange to deliver quality, customer-influenced products to market in a quicker manner.
- The interoperability, OLAP services, and scalability in SQL Server help to deliver customer information to “knowledge workers” so they can make informed customer decisions more quickly.
- BizTalk Server 2000 combines enterprise application integration, business-to-business integration, and advanced BizTalk Orchestration technology in a single product that can be used by manufacturers to build programs that automatically deliver content and promotions to spur sales activities.
- Commerce Server, along with sophisticated feedback mechanisms and analytical capabilities, is being used to build tailored e-commerce solutions that encourage repeat business and forge tighter customer and partner relationships.
- Commerce Server and BizTalk

Server are vital to achieving higher revenue and profit. Both provide the services to orchestrate and present personalized real-time customer and order data from multiple disparate systems out through multiple channels to customers.

### KEEPING AND ATTRACTING CUSTOMERS

Profitability is always the main concern for any business. To further increase revenues, any CRM strategy must address retention of customers and recruitment of new business. Microsoft .NET for Manufacturing assists in those two areas as well.

By creating a positive customer experience, manufacturers have a greater chance of cultivating a loyal customer base. This means creating an overall satisfying experience through any and all customer touch-points and channels.

To accomplish this, data from isolated information systems must be integrated to provide customer representatives, service people, or other designated employees with the knowledge they need to provide quality support services.

The Microsoft .NET framework and .NET Enterprise Servers are able to provide that level of integration and access to those who need it at any time.

Once the knowledge is at hand, customers want rapid feedback. Microsoft, with its family of products, including SQL Server 2000 and Microsoft Windows 2000 Server, provides a robust, scalable, and flexible platform on which industry partners build CRM applications.

New customers, on the other hand, are looking for more basic services. Key

requirements for them include reliability, support for XML, and interoperability in heterogeneous environments.

Windows 2000 and SQL Server are able to provide that level of performance and scalability needed for large enterprise-class CRM deployments. Tests conducted by Doculabs show that Microsoft ranked highest in an independent Web application server test. The Microsoft results, on SQL Server 7.0 and the Windows platform, were almost triple that of the closest competitors in terms of performance, and the Microsoft system was a third of the cost.

BizTalk Server answers the questions regarding support for XML. The BizTalk infrastructure helps manufacturers integrate, manage, and automate dynamic business processes by exchanging business documents among applications and within or across organizational boundaries.

With SQL Server, the challenge of interoperability is easily overcome. SQL Server provides excellent interoperability with heterogeneous data sources, including many common databases.

By reaching out to these isolated “islands of information,” Fong says, Microsoft .NET for Manufacturing not only meets interoperability requirements, it helps manufacturers turn CRM strategies into successful business propositions. With this far-reaching and flexible IT platform, manufacturers can always be assured that their customers will always be in sight. ■

Despite the current market turmoil, the e-business transformation is not over. Indeed, for manufacturers, economic uncertainty redoubles the imperative. In any downturn, unlike their dot-com brethren, manufacturers face a world of competitive opportunity. E-business technologies and strategies have reached the point where they can be combined with the resources of the entire manufacturing enterprise. While manufacturers may no longer need to worry about venture-backed wildcards, the real race has just begun. From now on, traditional, head-to-head competitors will be the businesses creating disruptive change.

As they blend e-business techniques into the rest of their operations, companies need to realize that e-business efforts will be extending ideas and business goals that have been popular among leading manufacturers for more than a decade. The shift is one of speed and style, not substance. And the change will continue to be constant and competitive.

Any technology initiative needs to address five principles of strategic manu-

strength standards to serving customers via the Internet and communicating the business-to-consumer (B2C) lessons learned across the entire enterprise. The digital loop of B2C feedback is only valuable for a manufacturer if it can be tied into the activities of the entire business. The potential cost of new customer acquisition dwarfs the price of retaining customers. Innovative manufacturers are tightening the connections among customer service data, quality control data, and production processes. This is imperative in this era of growing concerns over customer satisfaction and safety.

#### GLOBALIZATION

In the high-touch model promoted by the Internet, customer expectations are rising in all the major international markets.

Manufacturers committed to serving customers globally will have to support more product and service customization than ever. As a starting point, that includes their Internet presence. How can a company claim to be customer-oriented in 70

By James E. Heaton

# The Customer is King in E-Manufacturing

facturing excellence: customer value, globalization, competency, collaboration, and agility.

#### CUSTOMER VALUE

Customer-facing applications have been the early proving ground for e-business.

Companies can recognize opportunities sooner and respond to customer issues faster today than they could five years ago.

As the e-CRM (customer relationship management) revolution continues, the enterprise needs to ensure that growth does not become sprawl. Sales and marketing executives need to consider how integrated their customer relationship efforts are. By pulling together the touch points, sales teams gain more insight into customers and prospects and reduce operations costs.

Manufacturers need to apply industrial-

countries with a Web site that speaks one language?

International sales remain the immediate growth opportunity in the e-business world. Today's Internet applications and technologies offer companies the opportunity to personalize the Web experience and the entire selling process for international customers.

#### COMPETENCY

The single-minded pursuit of excellence will continue to distinguish the best from the rest in a world where the possibilities have started to appear endless. The popular adoption of the Internet has lowered the costs of communication between businesses. E-services will allow companies to re-think the business value of many back-office functions. Companies unwilling to alter their expectations radically for

JAMES E. HEATON, PRESIDENT OF AMR CONSULTING, HAS MORE THAN FOUR DECADES OF EXPERIENCE IN THE MANUFACTURING AND TECHNOLOGY INDUSTRIES. CURRENTLY, HE WORKS WITH END USERS IN IMPLEMENTING PLANNING, PRODUCT SELECTION, AND PROJECT DEPLOYMENT AND WITH VENDORS TO ASSIST IN THE DEFINITION, LAUNCH, OR REDIRECTION OF MANUFACTURING SOFTWARE AND HARDWARE PRODUCTS.

“internal” processes will miss the opportunity to reset the cost of doing business.

Whether they sell direct or indirect, manufacturers commit to bringing the sales teams, inside and outside of the enterprise, up to speed on new products. Sales training is an expensive and time-consuming process. However, well-trained sales professionals are without a doubt a competitive advantage. Sales executives need to consider how new technologies can streamline and improve their training processes.

## COLLABORATION

The other side of the competency coin is mastery of the supply chain. However, on-time quality is only the first order of business. Leading manufacturers are using information to ensure performance at all levels of the business-to-business (B2B) collaborative process. In contrast to the days of broadcast electronic data interchange, companies have learned that outsourcing excellence requires value-added interaction. Tightening B2B relationships will affect sales, marketing, product development, and even finance. Innovative manufacturers are delivering information-based services that enable supplier action.

Sales executives are already familiar with the challenges of B2B collaboration. They have handled customer requests for order status for years. Today, those requests are more aggressive than ever.

In an e-business world, even the production plant becomes part of the sales effort. Plant operators will have to put traditional measures of productivity and utilization into the context of the orders in production at any given time. All manufacturing activity takes place against the backdrop of time-to-market performance and customer service. This is a change in culture for many manufacturing organizations. Without changing the scorecard, manufacturers will not succeed in adapting to the new demands of B2B collaboration.

## AGILITY

Now more than ever, strategy has to be executed with agility. So, what do we

mean when we say “agility?” Processes and systems must be designed to accommodate unanticipated comprehensive change. But in this environment, accurate planning has proven increasingly difficult. Do not hard-wire anticipation. Rather, think through the requirements for operational flexibility.

For agile manufacturing veterans, the clear imperative is to expand their use of information as a key ingredient in the change process. However, even these companies need to consider how e-business technologies extend agility to the information technology (IT) infrastructure.

and leveraging new services from the Internet applications provider world as well. New Internet technology-based initiatives such as Microsoft’s .NET promise new, concurrently rapid and agile solutions to this set of challenges.

A number of Microsoft products are especially significant in meeting sales and customer service challenges. As a foundation, Windows CE-based devices provide both next-generation controls technology and secure mobile devices for accessing information. For extended enterprise collaboration, BizTalk Server provides a next-generation XML-based integration platform for integrating new and legacy



*In an e-business world,  
even the production plant becomes  
part of the sales effort.*

E-business strategies need to incorporate agile thinking. Companies need to make smart IT investments that allow for changing methods and shifting tactics. Without readiness, manufacturers are simply repeating practices in IT that were abolished 20 years ago in the plant.

Again, the fundamental change is the widespread demand for this information and interaction among suppliers, partners, and customers. The requirements are not new. It is the urgency with which the market expects a response. Some observers look at these issues and generically bucket them under supply chain integration. And, in doing so, they miss the point. Smart e-business strategies will move forward with opportunistic integration and creation of new Internet services.

For these reasons, e-business architects must stop looking at their existing systems as baggage and utilize them instead as the foundation for new value creation. They need to select e-business technology that will allow them to address a portfolio of strategies: adding new functionality, preserving old applica-

customer-related applications. To serve all the users in the enterprise and beyond with the right information, SharePoint Portal Server integrates diverse information and file types across internal, supplier, and customer sites.

Exchange 2000 Conferencing Server enables sales organizations to confer with major clients and deliver training materials without the burden of time and travel expenses. For manufacturers conducting business with customers and suppliers online, Microsoft Commerce Server 2000 bundles all the applications necessary for building strategic e-commerce systems. Manufacturers can manage product catalog, design promotional strategies, and maintain a profile of all e-commerce users. In turn, companies can use the Analysis Services in Microsoft SQL Server 2000 to analyze customer needs and identify sales opportunities.

Real change is what happens after the hue and cry of the revolution. It is a constant process, not a one-time event. Manufacturers should marshal their leadership and prioritize today’s apparent innovations accordingly. ■

*Dell Computer Corp.*

Dell Computer Corp. has climbed to the top of the computer world with its online, direct-to-consumer supply model. It's a business model built on communication, organization, and execution.

The same theory of business applies to its Dell Technology Consulting (DTC) arm, the folks responsible for consulting and implementation services affiliated with Dell products and related technologies. Utilizing the core knowledge of its consultants, DTC endeavors to make planning and implementation of Dell information technology (IT) solutions as smooth as possible, while also contributing to the continued optimization of the systems. DTC's knowledge base covers e-commerce, Microsoft® Exchange Server, Microsoft Windows® 2000 and Windows NT®, server and storage consolidation, backup and recovery, storage area networks, network attached storage, and server-based computing.

and costly implementation process.

After researching the available offerings, DTC saw that Professional Services Automation (PSA) software, version 5.1, from Microsoft Certified Partner Changepoint Corp. provided the wide scope of management services it needed. The other part of DTC's knowledge management solution called for the software to be run on the Microsoft .NET for Manufacturing platform.

"Changepoint provides the specific capabilities we were looking for—project management, tracking and reporting, resource scheduling, time tracking, and utilization measurement of our consultants," says Todd Monroe, manager of DTC Operations at Dell.

The PSA solution is designed to enable IT services organizations to reshape the way they think about and deliver services. By integrating the critical processes of customer relationship management, engagement management, project management, resource management, time and expense capture,



# Servers and the Dell

## THE SEARCH FOR KNOWLEDGE MANAGEMENT

When DTC first launched in January 1999, the group envisioned implementing a knowledge management tool to manage its wide range of expertise.

The group was looking for a tool that could provide it with a repository for project, operational, and financial information, as well as reporting and analysis on that data. Additionally, DTC wanted to capitalize on its familiarity with Microsoft products by implementing Microsoft server applications, particularly Microsoft SQL Server™.

Implementation time was also a key factor because DTC wanted to start gaining return on investment as soon as possible and avoid a long

invoicing, support, and knowledge management, Changepoint believes it can deliver a software solution that helps organizations build closer and more profitable relationships with clients.

DTC was a quick convert to the software and made the decision to implement the knowledge management tool after a detailed pilot and testing period. A team of four employees—two Dell developers and two Changepoint consultants—installed the system over a period of several weeks.

The new system met Dell's implementation timeframe needs and then some. In fact, the brief implementation cycle helped Dell achieve return on investment almost immediately.

But the quick implementation process didn't mean that DTC had to compro-

mise its IT demands. The PSA software allowed DTC to customize its solution during implementation. Through this customization process, DTC was able to retain its processes, forms, and terminology. The DTC staff also benefited from a shorter staff learning curve because the new knowledge management environment was reminiscent of the documents the staff had worked on previously.

### TRACKING AND ANALYSIS

Within a few weeks, DTC had a new look for its business operations. Because Changepoint's PSA software integrated all of Dell's consulting engagements and because SQL Server comprehensively captured and stored the system's data, DTC now had the ability to perform advanced reporting and analysis.

Using the online analytical processing services component of SQL Server and ProClarity, a business intelligence solution from Microsoft Certified Solution Provider Knosys, DTC is able to generate reports that provide useful feedback on project cycles, business processes, and customer feedback. With such detailed information, DTC can identify areas to improve customer service or enact more cost-effective business practices. That helps DTC meet another one of its prime objectives—conducting statistical analysis so that it can run an efficient consulting business.

"The solution allows us to increase productivity and bring the services our clients are asking for to market more quickly," Monroe says.

Additionally, the capability of SQL Server to scale up provides a dependable platform of operations. The Changepoint and Microsoft solution can support thousands, or even tens of thousands of users, with its existing configuration.

Together, Changepoint's PSA software and Microsoft's .NET for Manufacturing platform have made it possible for DTC to set up a knowledge management solution on a platform that will serve its purposes well into the future. ■



### PROBLEM:

When it was launched in January 1999, one of the key objectives for Dell Technology Consulting (DTC) was to implement a repository of project, operational, and financial information to manage its business. DTC needed a system that could provide valuable statistics around key metrics used to run an efficient consulting business. The ability to measure opportunity pipeline, closure rate, consultant utilization, and customer satisfaction were among the criteria for selecting a system.

### SOLUTION:

Dell implemented Professional Services Automation software from Changepoint Corp. and server technology from the Microsoft .NET for Manufacturing platform to build a knowledge management solution that efficiently centralizes its entire service delivery process and makes information available to team members at all times. The solution integrates key processes such as marketing and sales management, engagement management, project management, resource management, time and expense tracking, and invoicing.

*Hewlett-Packard Co.*

With an installed base of more than 55 million printers, Hewlett-Packard Co. (HP) is a leader in the \$18 billion inkjet industry. To remain a leader, HP had to commit to providing better analysis of sales information to its reseller customers.

With technical barriers to entry falling, more and more competitors are bringing products to market, making competition more ruthless than ever in the inkjet industry. That's why HP has targeted its reseller business to help it boost its growth rate and

**EASY ACCESS**

As a technology company, HP has done a superb job of capturing and storing vast quantities of information its resellers need, both from primary research and from third parties. But the information exists in huge pipelines or reservoirs that don't communicate with one another.

The Business Analysis Group decided it needed a system that would provide market metric data to help field sales force managers or account teams make brand and channel management decisions. At a higher level, the group wanted a unified analytical environment that would allow HP decision-makers to clearly see the complex trends, patterns, and relationships that impact their business. By allowing these decision-



# Bridging the Information Gap

protect market share. HP considers these resellers as important as the end users that plug in the printers.

"To be successful in our business, we have to come up with solutions for the reseller," explains Greg Stanley, manager of HP Consumer Products Business Organization's Business Analysis Group, which is responsible for aggregating and analyzing the market data that the company uses to run its business. "Resellers have specific needs and wants just as individual users do. To maximize their profitability, they're focusing on the expense and inventory investment side of the profit equation. We have to share information that will help them maximize their efficiency and profitability. If we don't, the competition will walk in and do it for us."

makers to see how advertising affects sales or who is capturing market share and why, HP hoped to establish a framework for quick response to market movements.

Because of its small size, the group needed help evaluating potential solutions. So the group turned to Knosys Inc. ([www.knosysinc.com](http://www.knosysinc.com)), a Boise, Idaho, software company that has developed a business analysis/online analytical processing (OLAP) package called ProClarity. Having built its software from the ground up for the Microsoft® SQL Server™ data mart/data warehouse environment, Knosys recommended that HP adopt the SQL Server relational database—part of the Microsoft .NET Enterprise Server family—and ProClarity solution.

At first, Stanley's group was opposed to

creating yet another data store on another server technology. "But Knosys showed us that this solution would enable us to move the data so quickly and at such a low cost of maintenance and ownership that it would solve our problems," Stanley says. "We would be duplicating data, but the new system would bridge the gap between users and data. This was very compelling."

### SAVING MONEY, MEETING NEEDS

Based on the advice of a leading OLAP consulting company called Symmetry, the Business Analysis Group decided to move ahead with the Microsoft SQL Server and ProClarity solution. Knosys has helped the group build the data flow algorithms with the Microsoft Visual Basic development system and Microsoft SQL Server's Data Transformation Services. Some of the original data was in Microsoft Excel spreadsheets, other flat files, and OLAP exports from other vendors. HP needed common ground to establish the data flow procedures. Visual Basic for Applications and Microsoft Access provided that common ground, plus made the data easier to maintain. From Microsoft Access, the data goes into Microsoft SQL Server.

At the highest level, Microsoft SQL Server is expected to deliver significant cost savings in two critical areas. First, its integrated Data Transformation Services will make moving the data from multiple, disparate sources easier than competing solutions. Second, Microsoft's OLAP Services can meet the needs of a sophisticated analytical environment without excessive management overhead.

The OLAP Services include a number of additional features that are attractive to HP. According to Clay Young, vice president of marketing for Knosys, the Business Analysis Group was particularly impressed with Microsoft SQL Server's hybrid OLAP capabilities. "The hybrid architecture of Microsoft SQL Server's OLAP Services will enable HP to deal with high data volumes and still deliver fast query response," he says.

Additionally, HP appreciated Microsoft SQL Server's virtual cubes and cube partitioning capabilities. Cubes are



#### PROBLEM:

The Consumer Products Business Organization's Business Analysis Group within Hewlett-Packard Co. (HP) needed a system that would provide field sales force managers or account teams with the information they needed to make the appropriate brand and channel management decisions. The group also wanted a unified analytical environment that would allow HP decision-makers to clearly see the complex trends, patterns, and relationships that impact their business.

#### SOLUTION:

The Business Analysis Group turned to Knosys Inc. and its business analysis/online analytical processing package called ProClarity, which was built from the ground up for the Microsoft SQL Server data mart/data warehouse environment. The solution is successfully moving the data from multiple, disparate sources and organizing it in such a way that field sales managers or account teams can access pertinent information that helps HP better serve its reseller business.

databases with multiple dimensions. HP has at least eight OLAP cubes, each of which will support a particular group of decision-makers. Virtual cube capabilities also allow decision-makers to cross-analyze data from all these OLAP sources simultaneously. Cube partitioning will allow HP to manage a large number of OLAP cubes more effectively and to manage differing levels of aggregation and views of time much more easily.

### GETTING RESULTS

When the new Microsoft SQL Server and ProClarity system are fully operational, Stanley expects it to provide significant benefits to account representatives in the field, business analysts in his and other groups, and HP's reseller customers.

"I expect that account reps who are calling on a major account will log onto a Web page on Monday morning before going to call on that account and pull up last week's sales and inventory levels all the way down to the store level," he says. "They can produce a report that shows inventory problems in particular stores.

"The bottom line," Stanley concludes, "is that this new system, through more accurate, detailed, and timely data, will make our business more efficient so we, in turn, can help our resellers make their businesses more efficient." ■

*Motorola*

Motorola has been at the forefront of communications technology for many years. In fact, Motorola supplied the transponders that relayed Neil Armstrong's famous words, "One small step for man, one giant leap for mankind," back to Earth in 1969.

In an attempt to begin focusing more on supporting its customers and their strategies, instead of being a strictly technology-obsessed company, Motorola is taking a giant leap of its own. It is in the midst of linking its workers around the world with shared knowledge about customers. And Motorola is doing this through a digital dashboard based on Microsoft® technologies.




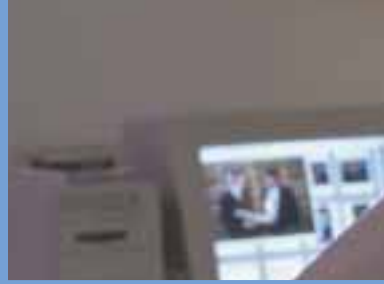
# Communications Management

## LINKING THE WORLD

With thousands of Motorola workers spanning the globe, it was not unusual for the company's customers to receive contradictory information occasionally. Such is life in a multi-million-dollar company with a multinational presence.

"We have Motorola staff in every region of the globe working with global customers," says Mike Rhodes, director of change management at Motorola. "We have many touch points with our customers. Communication and collaboration are essential for us to deliver one face to our customers."

Digital dashboards help people work more efficiently by consolidating key information from disparate data sources—including corporate databases,

enterprise resource planning systems, personal e-mail and calendaring, and the Web—into a unified desktop view.

To develop the solution, Motorola teamed with Microsoft Consulting Services and Leverent Consulting. By using Web Parts and other tools included in the Microsoft Digital Dashboard Resource Kit 2.0, the team incorporated disparate types of information from a variety of internal and external sources into the dashboard form.

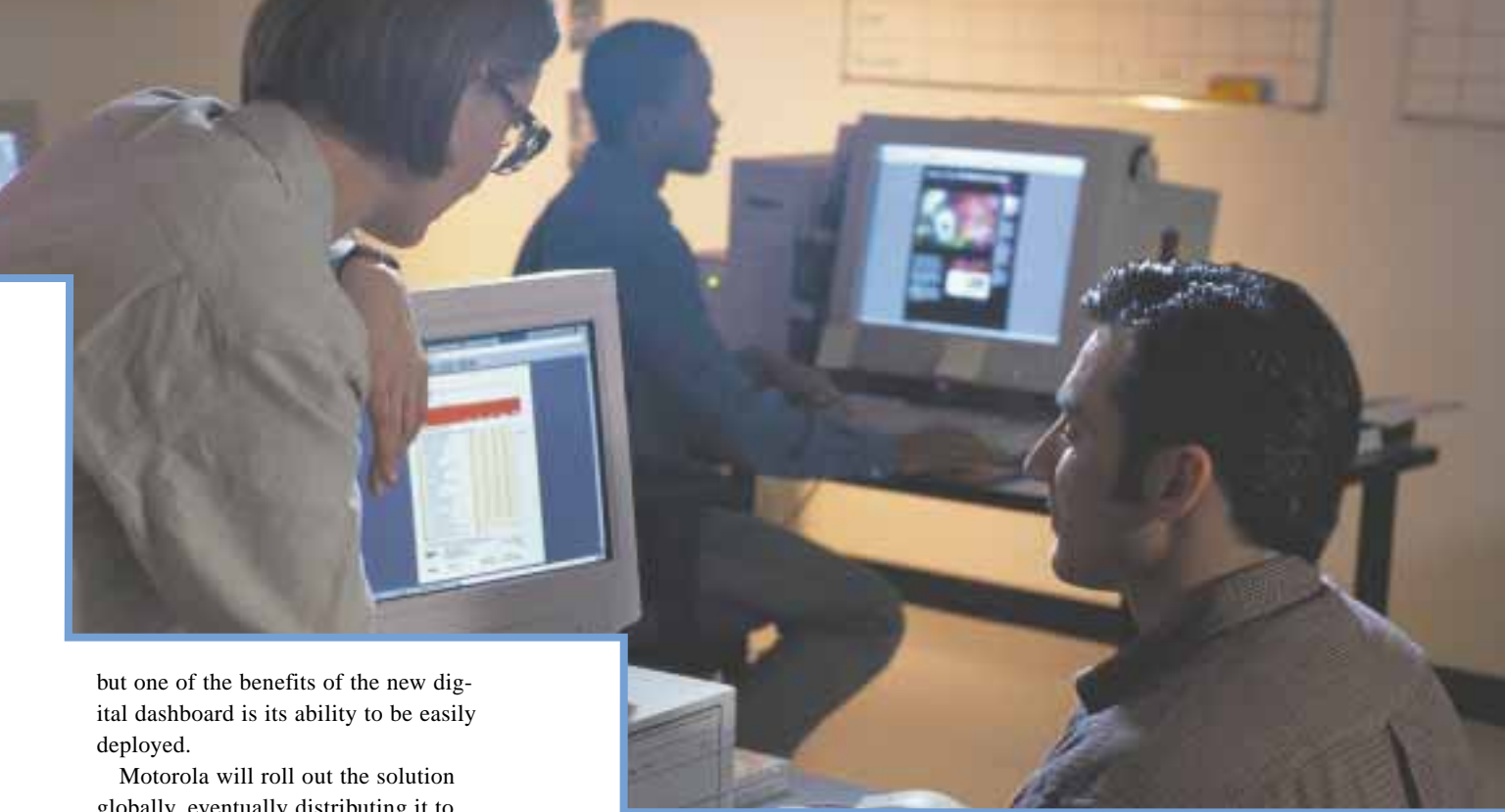
Microsoft Internet Information Services in Windows® 2000 Server enables the digital dashboard to bring together—within the same interface—access to unstructured information such as Microsoft Office documents and structured data stored in a Microsoft SQL Server™ database.

"Users don't care about information structure or storage, and they don't have to. The digital dashboard gives them everything they need within a single interface," Rhodes says.

To enable users to customize their displays, the development team created a custom menu, based on eXtensible Markup Language (XML), that uses the built-in XML support found in Microsoft Outlook® 2000. Web standards such as XML are a key component of the makeup of Microsoft's .NET family of enterprise servers.

## FULL-SCALE DEPLOYMENT

The job of the deploying the digital dashboard sounds like a daunting task,



but one of the benefits of the new digital dashboard is its ability to be easily deployed.

Motorola will roll out the solution globally, eventually distributing it to 3,500 to 4,000 workers. Because Outlook 2000 is already running on the computers of Motorola employees out in the field, Motorola can simply e-mail the digital dashboard file to workers or deliver the file on its intranet. Motorola doesn't have to worry about shipping thousands of compact disks with the digital dashboard deployment program.

The benefits don't end there—especially for the customer.

The Business Intelligence page—one of the pages found on Motorola's multiple-page digital dashboard—will help account teams stay ahead of the competition and address potential business threats. The thousands of Motorola workers across the globe will now be working with the same information—not contradictory anecdotal knowledge—ensuring that customers get the service they need.

The SALESworks page of Motorola's digital dashboard helps workers identify, prioritize, and allocate resources to business opportunities in the top 300 accounts. In this way, the customer is always in front of the Motorola worker. Motorola estimates that opportunities representing billions of dollars in potential sales are currently stored in a SQL Server database.

#### PROBLEM:

In a core process redesign, Motorola is reorganizing its business around customers, a radical change from the company's traditional technology focus. To understand and support customers better, Motorola wanted a tool that would enable its workers to communicate and share information more efficiently across business functions from any place in the world.

#### SOLUTION:

Motorola, working with Microsoft Consulting Services and Leverent Consulting, developed a digital dashboard based on Microsoft technologies to provide its workers with a single point of access to view and update customer information. As a result, a single face is presented to customers, supporting them much more effectively.

#### NEW CUSTOMER FOCUS

Motorola's digital dashboard will now provide the worldwide organization with single-point access to shared customer, competitor, and project data through the familiar Microsoft Outlook 2000 messaging and collaboration client. With this access to consolidated customer data, discussion groups, and document repositories, Motorola workers can now build a shared knowledge repository about customers and provide consistent answers to their questions.

Consider it one small step for Motorola and one giant step for its customer service. ■

*Honeywell IAC*

For some companies, launching an online presence is a simple matter. A few products are photographed, several Web pages are written, add on some nice design work, and it's ready to go live. But what do you do when you sell everything from air dryers and medical products to spark plugs and valves? That was the challenge facing Honeywell Industrial Automation Control (IAC), a manufacturer of automation control systems, hybrid control systems, business optimization software, and measurement and control instruments.

Honeywell IAC realized that its standard distribution channels were no longer enough. The global nature of the economy demanded a rapid and effective transition into e-commerce in order to broaden its reach to include diverse geographic areas, expand into new industries, and showcase company expertise.

"We wanted our Industrial Store to be more than just a collection of products," says Wayne Oleksak, e-commerce channel manager at IAC. "It had to be an easy-to-navigate showcase for a massive range of

With the desire to reach new markets, combined with the need for a searchable and detailed product catalog, IAC executives envisioned an online industrial store to aid site visitors with their specific needs. The site had to be easily accessible to both existing and new clients.

"A primary goal of the Honeywell Industrial Store is to promote frictionless trade with Honeywell," Oleksak says.

While opening new sales avenues played an important part in the decision to enter the realm of e-commerce, IAC realized that its site must also fully support its existing distribution channels. As well as ordering direct from the company, the Industrial Store had to make it easy to order from existing suppliers. Clients are then assured of receiving prompt and professional service.

Perhaps the biggest challenge, however, was making the public aware of the immense variety of products and services under the Honeywell IAC brand. Its products are used across a number of applications and industries, including oil and gas,

## The Launch of an Online Industrial Store

products while at the same time adding real value to each visit."

IAC turned to two partners to build its e-business vision: USWeb/CKS to create a searchable catalog of IAC products, including descriptions, photos, downloadable brochures, and detailed specifications for each item; and Microsoft to add e-commerce capabilities based on Microsoft® Site Server 3.0.

### SETTING THEIR SITES

As the global leader in industrial control, Honeywell IAC conducts business in approximately 95 countries. The company employs 1,300 people at its Phoenix headquarters, with another 400 people in Fort Washington, Pa., and 1,200 in field offices throughout North America.

hydrocarbon processing, power generation, and chemical, metal, glass, and ceramic manufacturing.

### TEAMWORK

Realizing that its online vision demanded top-of-the-line e-commerce technology, IAC sought a consulting partner in the field. It discovered USWeb/CKS, a professional services firm that works with clients to define strategies and implement innovative ways to build their business.

"When we decided to find an external supplier to build our first e-commerce site, we started with a weighted vendor selection matrix," Oleksak says. "Selection criteria included, in order of importance, ability to meet our schedule, strength of the technical solution, overall expertise, risk, and cost."



and create strong channels for its distributors and partners.

By using Site Server, Commerce Edition, visitors are able to swiftly find products and secure orders without difficulty or delay. Spanning a wide range of capabilities, from e-mail, database management, and intranets, to e-commerce, security, and wireless messaging, Site Server provides the foundation for integrating businesses with the Internet.

Furthermore, Site Server comes with a host of additional features specifically designed for the e-commerce marketplace. "Microsoft Site Server, Commerce Edition offers many third-party plug-and-play components like Taxware and Cybercash," says Wayne Thayer, senior business consultant, information technology for IAC. "These two applications eliminated the need for developing tax and credit card processing functions."

IAC opted for USWeb/CKS because of its specialty in marketing strategies, e-commerce, and systems integration. With more than 2,800 staff, USWeb/CKS offers a broad selection of services, from brand development and advertising, to business process automation and e-commerce solutions.

"USWeb/CKS understood our project and what was important to us,"

Oleksak says. "Furthermore, they demonstrated a commitment to the success of the project; a 'do whatever it takes' attitude that gave us the sense that together we would succeed."

Starting with a searchable catalog for its products, IAC and USWeb/CKS designed a unique user interface for the site to avoid the frustration that comes from being unable to locate the information or product desired. Honeywell introduced an Industry Focus section that allows the visitor to find applications, information, and industry links related to his or her needs with ease.

### IDEAL PLATFORM

But having a nice site wouldn't be enough in Honeywell IAC's competitive industry. True e-commerce success demanded the right platform, one that would be both scalable and reliable enough to host its Industrial Store. To fulfill this need, Honeywell IAC selected Microsoft Site Server, Commerce Edition (since renamed Microsoft Commerce Server).

Site Server, Commerce Edition is a comprehensive Internet commerce application that helps businesses take full advantage of the Web. Site Server allows IAC to support online transactions, improve corporate purchasing and integration with other systems,

### PROBLEM:

Honeywell Industrial Automation Control wanted to develop an online store for its products and services, but the sheer number of its offerings made such a project seem out of reach. Honeywell also wanted to open new sales channels without jeopardizing its existing partner relationships.

### SOLUTION:

Working with the professional services firm USWeb/CKS, Honeywell launched its user-friendly Industrial Store, which can scale up to meet heavy user demand, and is building strong channels for its distributors and partners. Microsoft Site Server, Commerce Edition—a solution within the Microsoft .NET Enterprise Servers family—supports Honeywell's e-commerce initiatives.

To further enhance its e-commerce capabilities, IAC added the Microsoft SQL Server™ 7.0 database. "While the numbers are currently small in e-commerce terms—concurrent users peak in the hundreds," Thayer says, "and the database is under 10 megabytes in size—the database is as close to zero-administration as I can imagine."

Industrial Store serves as both an information tool and a sales aid, creating a new channel for Honeywell and providing better service to new and existing customers. "The site increases the frequency and reach of our branding message, the breadth of products each customer sees, and, most importantly, it makes it easier to purchase our products," Thayer concludes. ■

*Holophane Corp.*

In business for more than 100 years, Holophane Corp. knows that making customers happy is the foundation of success. Holophane is a manufacturer of premium quality, highly engineered lighting systems for a wide range of industrial, commercial, and outdoor applications. Based in Newark, Ohio, Holophane sells its products through an international network of sales and internal support staff, generating \$200 million in annual revenues.

Although its employees knew how to keep customers satisfied, time-consuming bottlenecks in Holophane's complicated order processing system had begun to compromise relationships with its customers.

Holophane works closely with the construction specification community to design lighting solutions that meet particular project needs. Trained and experi-

52% of orders required changes after order entry. This was frustrating for everyone," Stang says. "As a just-in-time manufacturer, our orders need to be processed quickly and accurately. Any delays in order processing could slow product delivery to our customers." In the past, information about new product variations was not always effectively communicated to the field.

"Product education is a critical factor to generate technical sales of new product offerings quickly. Sales training on an extensive and expanding product line is time-consuming, and requires better tools and technical information to ensure that products are being configured correctly," he says. "We determined that accuracy, early in the process, would speed product manufacturing and order fulfillment."

Thanks to Pivotal Relationship, the cutting-edge customer relationship management (CRM) application from Microsoft® Certified Solution Provider Pivotal Software Inc., Holophane is spending less time correcting orders and more time



## Illuminating Operations Through Relationship Management

enced field sales personnel are critical to all facets of the company's sales process. The sales force has to know its markets and customers—and be able to react quickly to their needs.

"Our direct sales representatives are known for their work in providing lighting designs and product assistance in creating lighting solutions based on unique customer needs," says Douglas Stang, Holophane's director of information services.

### FIXING CRACKS IN THE PROCESS

"However, our strength in 'mass customizing' products had begun to show some cracks. More than one-third of orders were returned for clarification, and

building long-term client relationships. Running on Microsoft technologies, Pivotal Relationship has reduced the company's order clarification delays by 44% and boosted order processing by 25%.

"Pivotal Relationship gave us more than we asked for," says Stang. "Within the first year of deployment, we are enjoying huge benefits, with a 44% reduction in order clarification delays and an increase of 25% in orders processed through the system."

By choosing Pivotal Relationship, Holophane has gained a solid platform for its 10% annual growth target. Its choice was also influenced by Pivotal Software products' tight integration with Microsoft technologies. Holophane was already using products such as Microsoft

Windows NT® Server and Microsoft SQL Server™.

“As we looked at our future growth needs, we made the decision to leverage our Microsoft platform to provide tight integration with our front-end applications and provide a scalable back-end platform from which to grow,” Stang says.

It became apparent almost immediately that Pivotal Relationship and Microsoft servers were the right choice for Holophane. “The manufacturing errors, reschedules, expedites, and excessive paperwork are shrinking,” Stang reports. “We have cut the number of orders requiring changes after entry by 18% and saved 6%. Now our sales staff can spend more time with customers, building long-term business relationships.”

#### MAKING IT HAPPEN

A key to the success of Holophane’s Pivotal Relationship implementation was the system’s integration with additional applications important to the CRM process. Holophane decided to integrate Enact Selector sales configuration software to pass configured quotation line items between its customer quotation and production manufacturing databases.

Now, Pivotal Relationship routes special product engineering and pricing requests automatically between the field and factory support departments. Changes to product structure, pricing, and options can be implemented in real time as product changes are made in manufacturing.

“We knew that the value of our customer information would increase if we could move the data between systems,” Stang says. “Pivotal Relationship provides us with strong tools to make it happen.”

In fact, Pivotal Relationship is making a difference throughout Holophane’s sales cycle. “Pivotal Relationship has allowed us to get a more complete view of our customers and our business activity by creating centralized project information,” Stang explains. “Now we can pull information about our customers, our products, and

our projects into our central office. Quotation information and project history are automatically distributed to other salespeople subscribed to the project team. All departments can work out of the same ‘file.’

“Tight integration with Microsoft products provides a simplified computing environment,” Stang continues. “Microsoft applications are now key communication tools, critical to our business operations, corporate-wide.”

And Microsoft technologies, combined with solutions from Pivotal

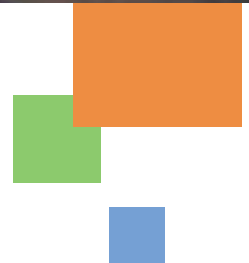
#### PROBLEM:

Holophane’s complicated ordering system was contributing to time-consuming bottlenecks and compromising customer service. The company needed a flexible customer relationship management (CRM) solution to support its 10% annual growth target and streamline its order entry and processing cycle.

#### SOLUTION:

Holophane implemented Pivotal Software Inc.’s Pivotal Relationship, a CRM application designed for mid-range Microsoft-based environments. Drawing on the openness of Pivotal Relationship, Holophane integrated Enact Selector sales configuration software to pass configured quotation line items between its customer quotation and production manufacturing databases. In its first year, the system has increased the number of orders processed by 25%, with 44% fewer requiring clarification. Expedited orders have been reduced by 6%, reducing administrative shipping costs. Overall, the solution gives both field sales representatives and head office management a more complete view of their customers, and enables them to spend less time correcting orders and more time building long-term business relationships.

Software, have proven to be an effective combination. “Pivotal Relationship has given us the ability to build a solution that helps meet our business targets. It means our business runs our systems, not the other way around. This product’s vision was right in line with our business targets.” ■





# Sales, Marketing, and Customer Service: How Agile Are You?

## CAN YOUR ORGANIZATION...

Accept orders over the Web and have that order information automatically entered into the required systems to produce the products, send order confirmation to the customer, fulfill the order, and handle billing?

Provide your customers with a personalized Web experience tailored to their needs and interests in conducting business with your organization?

Proactively and automatically disseminate appropriate product-related information, promotions, and updates to customers and channel partners electronically?

View customer purchasing and service information collected from multiple touch points including call center, Web, and sales/service calls, while making this information easily, yet securely available to the employees and partners who work with your customers?

Offer customers access and the ability to update their profiles, orders, and delivery schedules?

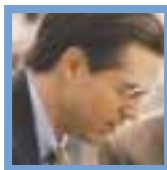
Enable customers to use an online guided configuration tool to simplify the customization of complex products or services and place orders for these customized products electronically?

Target the “right or most profitable” customer sales opportunities and customer segments based on accurate, credible information from internal and external sources?

Identify and react quickly to competitive threats or changes in customer preferences and purchasing habits?

Provide customized pricing and intelligent cross-selling capabilities to ensure sales through all channels maximize revenue potential?

Reward the best customers for loyalty and provide services to increase customer satisfaction?



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