

Overview

Country: International
Industry: Manufacturing

Customer Profile

The Colfax Pump Group consists of five companies located in the United States, Germany, The Netherlands, and Sweden. Together they employ 1,800 people and have combined 2003 revenues of approximately U.S.\$300 million.

Business Situation

Because sales and booking data was scattered across four financial systems, Colfax took nearly 20 working days to pull together monthly management reports, hampering executives' ability to make timely decisions.

Solution

Microsoft® Certified Partners Meta-Logix and Decision Support Panel built a "data pump" for Colfax that aggregates diverse data nightly and presents it as customized visuals for easy analysis.

Benefits

- Daily access to fresh data
- Better business decisions
- U.S.\$180,000 annual savings

BI Portal Gives Pump Manufacturer Daily Access to Business Data for Better Decisions

"The data at Colfax has been freed. It's not hidden in our books for a month at a time before we can use it."

Henry Carroll, Chief Financial Officer, Colfax Pump Group

Colfax is a global manufacturer of industrial pumps and fluid-handling solutions with companies in Germany, The Netherlands, Sweden, and the United States. Creating monthly reports for executives used to take two full-time analysts two weeks. By the time managers received the reports, the data was a month old. With the help of Microsoft® Certified Partners Meta-Logix and Decision Support Panel, Colfax created a Web-based reporting solution that automatically pulls current business data from four enterprise resource planning systems and creates customized, user-friendly reports. The solution was built using Microsoft Windows® SharePoint® Services, Microsoft SQL Server™ 2000, and SQL Server Analysis Services. The solution gives executives timely data for making daily decisions and eliminates the need for manual report generation, yielding an annual savings of U.S.\$180,000.



“The productivity savings generated by this reporting solution have given us a two-month return on investment.”

Henry Carroll, Chief Financial Officer, Colfax Pump Group

Situation

Colfax Pump Group is an association of several leading international industrial pump companies: Allweiler in Germany; Houttuin in The Netherlands; IMO AB in Sweden; and IMO Pump, Warren, and Zenith in the United States. As Colfax acquired each company, it left the original enterprise resource planning (ERP) and financial systems in place to minimize disruption. However, by not integrating back-end operational data, Colfax made it difficult for its executives to “read” the global business on a daily basis. In fact, just getting a monthly snapshot of bookings and sales was difficult.

Two financial analysts were employed full time to collect sales and booking data from four ERP systems (two SAP systems, one Movex system, and one Oracle system), normalize the data, balance it, and transfer it into Microsoft® Office Excel spreadsheets for executive consumption. The manual work of creating monthly reports took about two weeks; by the time executives saw the data, it was already 30 days old.

“It took so long to pull together data on five geographically dispersed companies that by the time executives saw it, the information was stale,” says Henry Carroll, Chief Financial Officer for Colfax Pump Group. “The original data was in three different currencies and four different formats. It took five days to pull together the data and another five days to generate reports, so we were always trying to run the business by looking in the rearview mirror.”

The difficulty of assimilating operating data meant that Colfax executives had limited visibility into which product lines were profitable, whether sales from a product line were growing or shrinking according to their strategic plan targets, where cross-selling opportunities lay with global customers, and so forth.

What’s more, this imperfect approach was costing Colfax a great deal of money—approximately U.S.\$180,000 annually for the two financial analysts. “We would rather have had these professionals spending their time analyzing data and making strategic decisions rather than cutting, pasting, and cleaning data,” Carroll says.

A final problem was capacity: Excel is limited to 65,000 rows of data, which can represent just one or two months of operational data for Colfax. The spreadsheet’s limitation meant that Colfax couldn’t save historical data or analyze it alongside current data to discover, for example, how a product’s performance this year compared to last year’s or how a customer that all five facilities served was doing in total over a three- to five-year trend.

Solution

The lead financial analyst at Colfax looked for a better way of doing business. His first step was to replace the Excel spreadsheets with a Microsoft Office Access database, which solved the data capacity problem. This larger data repository allowed Colfax to begin storing historical data for analysis.

Having a database back end also allowed Colfax to automate some of the reporting, trimming four days off the monthly process. Encouraged by this streamlining, Colfax wanted to similarly reduce the time required to clean up the data as well as find a way to create daily reports based on current, rather than month-old, data.

A Superior Solution at One-Fourth the Cost

Colfax initiated a search for a database reporting solution that would automate data collection and aggregation and provide highly visual reports for fast, easy executive review. “We looked at two leading reporting solutions, but both were expensive and neither

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Henry Carroll, Chief Financial Officer, Colfax Pump Group

was customizable to the extent we needed our solution to be,” Carroll says. “They also involved six- to nine-month deployments, which was too lengthy for us.”

At this point, Colfax contacted Microsoft Gold Certified Business Intelligence Partner Decision Support Panel, AB (DSP) of Sweden about its DSP Portal Edition Product. DSP recommended using Microsoft Windows® SharePoint® Services and Microsoft SQL Server™ 2000 Analysis Services. Part of the Microsoft Windows Server™ 2003 operating system, Windows SharePoint Services is an engine for creating Web portals that integrate with Microsoft Office Professional Edition 2003 to provide access to lists, document libraries, calendars, and contacts. Both Windows Server and SQL Server 2000 are part of the Microsoft Windows Server System™ integrated server software.

SQL Server Analysis Services is an easy-to-use, integrated, and scalable set of SQL Server components that enables organizations to build multidimensional online analytical processing (OLAP) cubes and provides access to those cubes from applications.

“Windows SharePoint Services is far more cost-effective for our use than other solutions,” Carroll says. “It’s integrated with Microsoft Office Professional Edition and the Outlook® messaging client and leverages our staff’s familiarity with Microsoft technology. It offers very strong security, great document management, and out-of-the-box intranet functionality. We were able to turn it on and start using it almost immediately.”

While on his way back to Sweden from the United States, one of DSP’s consultants created a quick proof of concept in just three days, and Colfax managers were impressed with what they saw. DSP then recommended that Colfax seek the services of its partner in

the United States, Microsoft Certified Partner Meta-Logix. With approval from Colfax, Meta-Logix built database schemas and procedures to automate the flow of information from the Oracle, Movex, and SAP ERP systems into the SharePoint site.

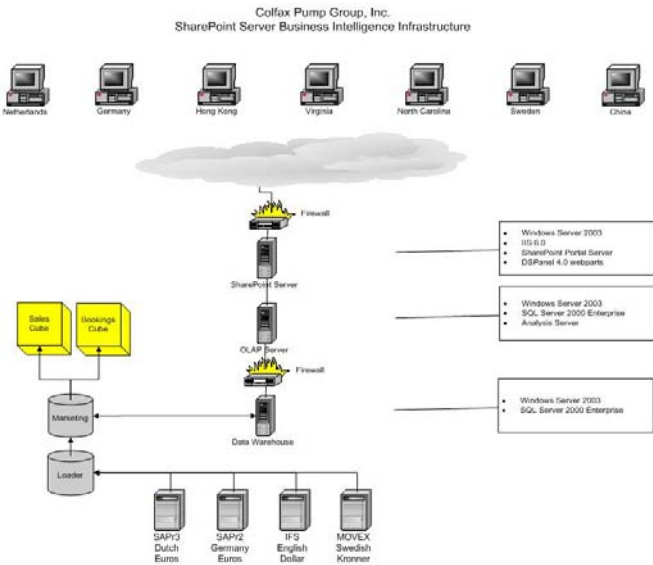
A Highly Visual Reporting Solution

With the back-end systems that Meta-Logix developed using Microsoft technology, DSP could now provide user-friendly presentation tools for executive reports.

“DSP’s [business intelligence] Web Parts use the information stored in SQL Server databases and enhance our options in integrating that data into SharePoint sites,” says Greg Mayer, President of Meta-Logix. “DSP’s contributions improve data distribution, simplify data consumption, and speed further analysis within the portal environment.”

The new Colfax “data pump” reporting process works like this: Every evening at a scheduled time, each of the five Colfax companies runs automated queries against its respective ERP system and creates a data file containing daily updates to sales and booking data. These data files are converted into File Transfer Protocol (FTP) files and sent to a loading server at headquarters. SQL Server Data Transformation Services (DTS) extracts the data and places it in the SQL Server data warehouse, where DTS then cleans and normalizes the data.

Next, the application populates several SQL Server Analysis Services OLAP cubes with year-to-date sales and booking data. Colfax’s largest cube contains five years of data, current to the previous business day. The cubes are processed at night on an OLAP server, with the largest cube requiring approximately 45 minutes to process. DSP Web Parts periodically check to see when the cube has finished processing and then



The Colfax data pump architecture.

refresh any requested reports to reflect the new data.

In the morning, Colfax executives anywhere in the world can log on to the SharePoint site and click any number of DSP Web Parts to view fresh business data in a multitude of ways. With the click of a button, the DSP Web Parts launch the DSP Client incorporating Office Web Components and PivotTable® dynamic views to give full “slice and dice” capability on the entire database stored in the cube.

Creating customized Web pages is also easy if executives want them. The DSP Web Part Wizard walks users through the data stored in the cube, prompting them to select the data they want to view (sales figures for certain product lines in certain countries, for example) and how they want to view it (bar chart, pie chart, graph, and so on). Then, using the built-in capabilities of Windows SharePoint Services, executives can publish the parts they want to their own Web pages.

To enable deeper analysis, DSP Web Parts are integrated with the PivotTable dynamic views in Microsoft Office Excel 2003 and other analysis tools, allowing executives to drill down on any Web Part to view more information. For example, a manager might click the title of the sales chart for the month of June to see sales by week, by particular region, and so forth. Any Web Part can also be converted to a printed report by being exported to Excel or sent by e-mail to others as an HTML document.

Because the Colfax chief executive officer may be interested in viewing one set of Web Parts-based reports every day, the southeast regional sales manager another set, and a plant manager still another, Meta-Logix used SharePoint My Sites to create personal portals for some executives and DSP Filter Web Parts to make pages dynamic based on users' business needs.

Managers can even save DSP Web Parts to their hard disks and send them to subordinates or colleagues every week or month as HTML e-mail attachments in the Microsoft Office Outlook messaging and collaboration client. When the recipient double-clicks the attachment, the Web Part dynamically runs a fresh query against the database and updates the data presented in the chart.

The Colfax data pump database currently contains approximately 5 gigabytes (GB) of data; 1 GB of data is added annually. There are 50 users of the data pump, and peak usage occurs between 8:00 A.M. and noon Eastern Time, when international offices are also open.

Benefits

The new Colfax data pump provides an intelligent gateway that seamlessly connects users, teams, and knowledge so that Colfax employees can access current business data across multiple departments, documents,

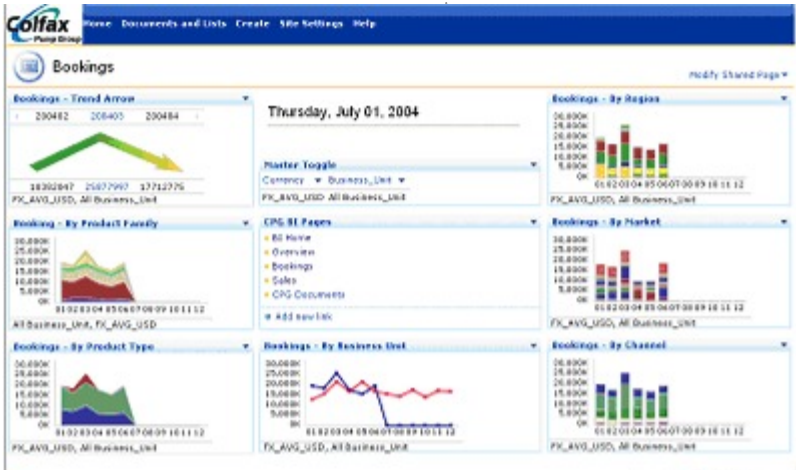


Figure 2. This fictitious example represents the Colfax reporting solution which delivers current and historical data in a highly visual format.

and global data sources found in Oracle, Movex, SAP, and SQL Server.

Better Decisions Based on Fresh Data

Using Windows SharePoint Services and DSP Web Parts, Colfax executives can find, access, share, manage, and exchange valuable enterprise data to make smarter, faster decisions and dramatically enhance business productivity. Because everyone is looking at the same up-to-date data at the same time, executives can make better daily decisions such as whether to proceed with a new strategic partner or where to commit additional sales resources. Instead of waiting a month to make such business-critical decisions, executives see operational data on a daily basis, so they can make faster, more effective decisions.

“The data at Colfax has been freed,” Carroll says. “It’s not hidden in our books for a month at a time before we can use it. Our management team can now make even smarter business decisions based on near real-time information.”

Each day, management has a near real-time view of sales and booking data on which to base corporate decisions. If orders spike, Colfax knows that it needs to change manufacturing schedules. If orders fall short of estimates, the company can scale down inventory and manufacturing after investigating the cause.

Colfax managers can monitor sales and bookings on a daily basis to see whether there’s a problem meeting monthly targets, if necessary bringing additional resources into certain regions or onto certain accounts. For example, Colfax has strategic channel partners that help drive sales in particular industries and regions. Colfax managers can create a SharePoint site with Web Parts showing a particular partner’s sales and quickly see whether the partner is meeting expectations. Security settings within Windows SharePoint Services and on the OLAP cube restrict access to only those managers who need the information in order to do their jobs.

“The combination of Windows SharePoint Services and DSP Web Parts has given us a robust, easily scalable tool that allows us to do analysis, share it with critical decision-makers, and execute strategies based on that analysis in near real time across the globe,” Carroll says. “Our new portal connects more

than 50 users in six countries with seven production facilities in the United States and Europe that are doing business in three different currencies. The sheer magnitude of the geographical separation makes the online collaboration that much more important due to time and language differences. Everyone can understand the numbers, which, thanks to Windows SharePoint Services and DSP Web Parts, practically speak for themselves.”

\$180,000 Annual Savings

The information that the data pump provides is not only better and fresher, but also less expensive. The two financial analysts who previously cobbled together monthly reports have been redeployed to the more valuable activity of analyzing data. That redeployment represents an annual savings of \$180,000.

However, the hypothetical savings run even higher. The data pump delivers data that is far fresher than the monthly data provided by the two analysts. Colfax estimates that collecting nightly data manually would have required a head count increase of four to five people—a cost of approximately \$250,000.

“The productivity savings generated by this reporting solution have given us a two-month return on investment, as well as allowed us to make better use of the analysis talents of our staff,” Carroll says. What’s more, the productivity increase of one department doesn’t come at the expense of another group’s productivity: One technician is assigned part time to set up access for new users.

The biggest value of all is the big-picture view that Colfax executives now have of the business. “We’re able to see our business with a degree of clarity and timeliness that we never had before,” Carroll says. “That has tremendous value.”

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

For more information about Meta-Logix products and services, call (888) 220-2323, or visit the Web site at: www.meta-logix.net

For more information about Decision Support Panel products and services, call (704) 540-0538, or visit the Web site at: www.dspanel.com

For more information about Colfax Pump Group products and services, call (704) 289-6511, or visit the Web site at: www.colfaxcorp.com

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Microsoft Windows Server System

The Microsoft Windows Server System integrated server infrastructure software is designed to support end-to-end solutions built on Windows Server 2003. It creates an infrastructure based on integrated innovation, Microsoft's holistic approach to building products and solutions that are intrinsically designed to work together and interact seamlessly with other data and applications across your IT environment. This allows you to reduce the costs of ongoing operations, deliver a more secure and reliable IT infrastructure, and drive valuable new capabilities for the future growth of your business.

For more information about Windows Server System, go to: www.microsoft.com/windowsserversystem

Software and Services

- Microsoft Windows Server System
 - Windows Server 2003, Standard Edition
 - SQL Server 2000
- Microsoft Office System
 - Office Professional Edition 2003
 - Office Outlook 2003
- Technologies
 - Microsoft SQL Server Analysis Services
 - Microsoft SQL Server Data Transformation Services
 - Microsoft Windows SharePoint Services

Hardware

- 1 HP DL380 Web server
- 1 HP DL380 application/OLAP cube server
- 1 HP DL580 database server

Partners

- Meta-Logix
- Decision Support Panel

Microsoft