



Moneris' John Morgan believes that by empowering merchants with self-service access to transaction information, they can become more self-sufficient and reduce the load on their call centers.

Extending the Enterprise with WebFOCUS

MONERIS UNVEILS MERCHANT DIRECT, CANADA'S FIRST INTERNET-BASED TRANSACTION AND ANALYSIS REPORTING SERVICE FOR MERCHANTS

Most merchant processing companies make their money the old fashioned way: picking up a small percentage of each purchase in exchange for electronically processing and authorizing credit card transactions. But for Moneris Solutions, Canada's leading technology merchant processing company, the 1.7 billion transactions the company processes each year have a value that goes beyond mere transaction fees. Moneris also sells information. Through Merchant Direct, a WebFOCUS application that allows merchants to view their debit, Visa and MasterCard transaction data online, Moneris customers can access consolidated statements and reports, obtaining a customized view of card payment activity.

"We're using business intelligence technology to help organizations manage information about consumer spending," says John Morgan, senior manager of Information Services at Moneris Solutions. "WebFOCUS supplies the engine for a self-service reporting environment capable of supporting many thousands of users."

Moneris Solutions was formed in December 2000 as a result of a joint investment between the Royal Bank Company Financial Group and the Bank of Montreal. For years, these companies have provided businesses with advanced, easy to use, point-of-sale solutions designed to electronically process and authorize credit and debit card transactions, including customized loyalty card transactions. They formed Moneris to leverage the synergies between the two companies and provide information-based services to their customers.

SNAPSHOT

Organization: Moneris Solutions, Canada's leading technology merchant credit card processing company

Challenge: Gain a competitive advantage by providing value added services to clients; develop a way for merchants to view their debit, Visa and Mastercard transaction data online

Strategy: Create a self-service Web application that customers can use to obtain a customized view of card payment activity and access consolidated statements and reports via the Internet. Also build an intranet reporting system that summarizes information into subject-oriented data marts for specific business groups

Results: Merchant Direct boosts productivity in the Moneris call center and gives merchants access to information that helps them better understand consumer spending and manage their businesses

Information Builders Solution: WebFOCUS, iWay, Information Builders Consulting

For example, in 2002, Moneris created Merchant Direct, an online business intelligence service that allows merchants to view daily sales data by individual store, as well as to roll up summary information to reflect the operation as a whole. The self-service application makes it easy to access information about cash flow and consolidated statements, allowing merchants to spend more time focusing on their business and customers, less on routine administrative tasks. "Merchant Direct offers daily reports of Visa, MasterCard, and debit card transaction information so merchants don't have to wait

sends the answer set across the wire; it does not send a lot of information for processing on the client."

To further enhance scalability, WebFOCUS supports many different server environments, giving customers a choice of what type and size of processor to use. Merchant Direct uses Java-based WebFOCUS servlets to communicate with an IBM WebSphere Web server and an IBM DB2 database on an IBM OS/390 mainframe computer running the MVS operating system. It draws its source data from the Moneris transactional point of sale system, an IMS application. Merchant transactions are loaded into a DB2 repository each night—between two and four million records per day or about 500 MB of information. The data-

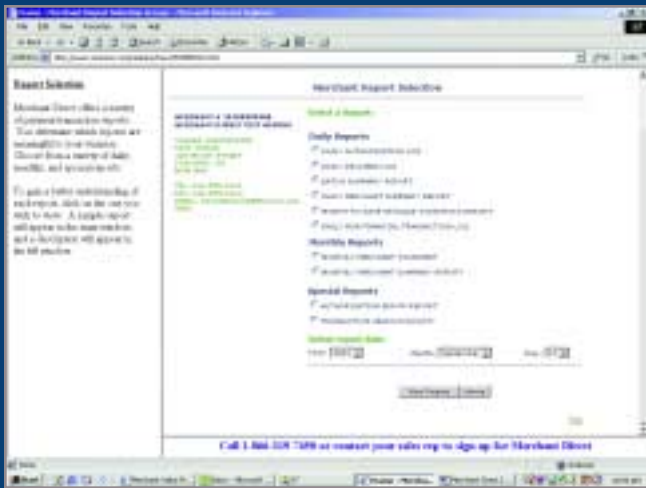


Figure 1, a sample of the Merchant Direct interface along with a sample monthly Corporate Summary Report



Figure 2, a sample of the MIS Intranet logon pages

for their month-end statements to review card transaction data," Morgan explains.

Honing its Competitive Edge

Seven developers from Moneris worked with information delivery specialists from Information Builders Consulting to design and build the Merchant Direct application. The development effort extended over an eighteen-month period as the team designed an Internet-based reporting environment to support expected response levels from a merchant base of more than 300,000 Canadian customers.

"The Merchant Direct application was built to scale substantially," confirms Morgan. "The architecture needed to be able to handle an immense user base in Canada, and many additional users in the future as we expand our business to support U.S. based-merchants."

Because WebFOCUS requires no software on client PCs it is extremely scalable. Moneris customers simply need a standard Web browser to access the Merchant Direct application. Additionally, because of the way in which WebFOCUS minimizes network utilization, performance is exceptional. "Our stress testing for common reports yielded an average response time of less than 10 seconds," Morgan says. "WebFOCUS only

base is currently storing more than 250 million records.

"The database is dimensionally modeled for reporting and analysis purposes," explains Morgan. "We maintain a historical snapshot of data going back three months for daily transactions, and two years for monthly summary data. Merchant Direct is capable of running in a Microsoft Windows NT environment as well, as we are demonstrating with an internal reporting environment for our corporate intranet" (see sidebar).

Helping Customers Help Themselves

Merchant Direct went into production on March 1, 2002. Customers welcomed its new capabilities, including:

- Convenient and timely access to deposit and transaction information, 24 hours a day, seven days a week
- Automatic consolidation of card transaction data for businesses with multiple locations
- Up-to-date data to facilitate decision-making, forecasting and trend analysis
- State-of-the-art encryption to ensure privacy and security
- Generation of reports on a daily basis for tracking purposes
- The ability to move Merchant Direct data into spread-

sheet and accounting software programs for business planning, reporting and reconciliation

Merchants such as Stott Pilates, an exercise equipment company, can quickly create parameterized reports such as the Daily Authorization Log, Monthly Merchant Statement, and Daily Corporate Summary (see Figure 1). Users at these and other companies also use WebFOCUS to generate month-to-date statistics, while an online search facility streamlines access to individual transactions.

“By enabling us to see our daily card transactions online, Merchant Direct is an invaluable source of information as well as a real time-saver,” says Roy Nelson, controller at Stott Pilates. “Having access to a consolidated, daily list of all our company’s Visa, MasterCard and debit transactions allows us to quickly monitor our daily cash balances.”

Measuring the Benefits

Credit card reconciliation and related merchant services are extremely competitive businesses with a high churn rate. Unique offerings such as Merchant Direct help Moneris attract new clients and retain existing ones, driving revenue and building long-term value for the company. “Merchant Direct provides benefits in the areas of cost reduction, revenue generation and client satisfaction,” says Morgan.

There are measurable productivity increases as well. By giving customers direct access to transaction information, Merchant Direct enables call center reps to become more productive and minimize hardcopy correspondence.

Moneris plans to add other valuable services to Merchant Direct in the future, including a peer-reporting feature that will allow merchants to analyze sales data and trend information from particular market sectors, such as groceries and home furnishings. This detailed demographic data will facilitate direct marketing among businesses, such as when a wholesaler wants to alert partner retailers about product introductions or closeouts.

“Astute merchants will use the information from Merchant Direct to discover innovative ways to analyze their markets and target their advertising efforts,” says Morgan.

Moneris is planning to enable its merchants to recreate receipts online as well—an activity commonly referred to as copy request charge-backs.

“By empowering merchants with self-service access to transaction information, they can become more self-sufficient and reduce the load on their call centers,” concludes Morgan. “Call center representatives can in turn become more responsive, addressing the unique or challenging inquires of their customers.”

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Building Self-Service Solutions for Enterprise Reporting

Motivated by the popularity and success of the Merchant Direct reporting solution, Moneris is leveraging its expertise with WebFOCUS to construct intranet-based reporting applications for several functional areas of the corporation, including sales, management, finance, credit risk, marketing, and operations. Dubbed the Moneris Reporting Environment, it uses the WebFOCUS Report Server in conjunction with Microsoft SQL Server databases on a Microsoft Windows NT platform, delivering targeted information to users.

According to Lorant Szabo, manager of MIS Product Development at Moneris, this architecture was designed to make information accessible to individual departments. The data and appli-

cations are easy to access and maintain by the internal MIS department, and users throughout the organization simply need standard Web browsers to access reports—a self-service model that is similar to the Merchant Direct application. “WebFOCUS is dramatically improving our accessibility to information and allowing us to build new reporting systems in a relatively short timeframe,” Szabo says.

Moneris is now constructing individual data marts catering to specific business groups. Ultimately, these data marts will draw their information from an enterprise-wide data warehouse that will serve as a single point of authoritative information.

Teaming with the Pros

The Moneris development team worked with Information Builders Consulting on all aspects of the Moneris data warehouse initiative, including development of the Extraction Transformation and Load (ETL) procedures, data cleansing, and the eventual rollout of the production ETL environment. Developers used data integration technology from iWay Software to extract data from point-of-sale and transactional card systems in three data centers, and load it into the SQL Server-based data warehouse.

According to Todd Holowenko, applications manager, MIS, the team is currently downloading about 5 million rows of transactional information into the data warehouse each day, and plans to retain about 24 months of historical information for direct user reporting. “We are currently in a pre-production phase and hope to move the warehouse into production shortly,” says Holowenko. “The warehouse is expected to become a catalyst or ‘feeder system’ to many existing and proposed applications.”

