Information Builders helps organizations transform data into business value. Our business intelligence, integration, and data integrity solutions enable smarter decision-making, strengthen customer relationships, and drive growth.

MasterCard

Snapshot

Organization
MasterCard is a global payment and technology company. It operates the world’s fastest payments processing network, connecting consumers, financial institutions, merchants, governments, and businesses around the world.

The Challenge
MasterCard’s previous reporting tools required a detailed understanding of data, and a restrictive licensing policy that limited their extensibility to multiple business domains.

The Strategy
To develop targeted reporting solutions for many parts of the business, enabling an unlimited set of BI assets to be delivered to employees and customers.

The Results
A secure and scalable reporting architecture that increases reporting flexibility, reduces administrative costs, and enforces data integrity.

Information Builders Solution:

MasterCard Standardizes on WebFOCUS for Enterprise Reporting

Pervasive Analytic Solutions Support Thousands of Employees and Hundreds of Thousands of Customers

MasterCard is a global payments and technology company. It operates the world’s fastest payment processing network, connecting consumers, financial institutions, merchants, governments, and businesses in more than 210 countries and territories. MasterCard’s products and solutions make everyday commerce activities – such as shopping, traveling, running a business, and managing finances – easier, more secure, and more efficient for everyone.

Since selecting Information Builders’ WebFOCUS business intelligence (BI) platform as its corporate standard for enterprise BI, MasterCard has devised an enterprise-reporting strategy that streamlines reporting activities for both employees and customers. This secure and scalable reporting architecture encourages new avenues of inquiry using protected data sets – increasing reporting flexibility, reducing administrative costs, and enforcing data integrity.
“We purchased an enterprise-wide license from Information Builders because we were confident that WebFOCUS would be suitable for a wide range of reporting needs,” says Kimberly Martin, group head of MasterCard Value Added Services. “Information Builders has enabled us to extend data reports more widely and cost effectively than we could with our previous reporting solution. With WebFOCUS, each group can create a reporting environment that makes sense for them.”

Addressing the Backlog
Martin’s team develops analytic applications that add value to MasterCard’s core business of authorizing, clearing, and settling transactions. She has a broad base of experience stemming from her previous role heading up MasterCard’s Data Warehouse Solutions group. “Our teams were always looking for more efficient ways to create reports,” she explains. “As our users became more information savvy, requests for reports continued to rise and we realized the best solution would be to put more power in the hands of our users so that they could get immediate access to the data they needed.”

Part of the challenge involved the nature of the reports that people requested. “We were looking for a BI tool that would let us create custom reports more quickly, and also integrate with our data security controls,” says Martin. “It had to be flexible enough to deliver information to people who don’t always know all of the questions they want answered in advance.”

Information Builders developed a proof-of-concept (POC) to validate how its BI tools could fulfill these requirements. MasterCard especially liked WebFOCUS Active Technology, which permits people to manipulate the significant amount of data that is distributed with each report. Doing so allows for a controlled environment for sorting, filtering, performing calculations, and other advanced functions.

“Active Technology reports provide similar functionality as Excel, with the advantage of being able to limit the potential corruption of data,” explains Martin. “With Excel, people can make their own copies of the data, and that can sometimes cause it to be out of sync with the data warehouse. Active Technology reports enable us to guard against this happening. People can do the same types of analysis as they do in Excel, but the data stays clean.”

Advanced Analytics
MasterCard’s Data Warehouse Solutions Group supports a number of analytic tools, routines, and reporting environments that access the warehouse and other data sources. It creates a variety of standard and ad hoc reports, from analytic applications to customer-facing BI portals. This organization provides transaction data analysis and data-driven consulting services to help clients optimize, streamline, and grow their business.

“WebFOCUS performs well under different conditions and with various types of data,” says Angie Schelker, senior business leader, Information Analytics, Data Warehouse Solutions, MasterCard. “Our data security requirements often require extensive integration steps when we implement a third-party vendor solution. Information Builders has been quick to resolve challenges as they arise. They have even added new features to the software to accommodate our requests.”

The group’s enterprise data warehouse serves thousands of internal employees as well as MasterCard customers. It draws on data from MasterCard’s core transaction systems, combined
WebFOCUS Active Technologies permit people to manipulate pre-selected payloads of data that are distributed with each report, taking advantage of sorts, filters, calculations, and other advanced functions.

With external data sources for its analytic products. The warehouse contains hundreds of terabytes of information, and access to the data is governed by rigorous security controls at many levels. Employees across all business units can access this information, along with hundreds of thousands of external users at banks, merchants, and other organizations.

“WebFOCUS Active Technology allows us to create constrained reporting environments by pre-defining data, which is applicable for each domain,” explains Schelker. “The WebFOCUS guided ad hoc capability lets us produce flexible reporting solutions that direct users through the process to select and filter the data they need to answer the current business question.”

In addition, MasterCard uses WebFOCUS guided ad hoc reports to parameterize report dimensions, calculations, measures, and other variables, replacing many hard-coded reports with a single, lightweight HTML page. Users can choose the drill-down path at runtime, all through a standard web browser. This method has enabled MasterCard to dramatically reduce the total number of reports needed for regular operational tasks.

**Designed to Scale**
Information Builders’ Professional Services helped MasterCard design a reporting architecture that distributes the reporting load across servers, with automatic load-balancing and failover processes. Administrators can easily scale-out each tier by using the WebFOCUS Cluster Load Management software, Autonomic Server, and Workload Distribution Facility, which intelligently routes requests to servers with the most available capacity.

WebFOCUS queries are dynamically partitioned, with complex number-crunching and aggregation operations optimized across the back-end database and reporting servers, not the web server or desktop. Thus a single processor can serve multiple, simultaneous user requests, maximizing system performance.

**Gaining Proficiency**
Approximately 20 MasterCard employees have attended training courses through the local Information Builders office and through its annual Summit User Conference. MasterCard is planning to send additional developers to advanced training courses to help them improve their skills and abilities. “Information Builders’ Education sessions allowed us to move forward faster and more knowledgeably with the products,” says Schelker. “It has been helpful to have experts to get us started.”

MasterCard retained Information Builders’ Professional Services to create new reports as well as migrate reports from a previous reporting environment. So far MasterCard has reduced the number of reports by half. Users can output data to PowerPoint, Excel, HTML, PDF, or an Active Technology report that permits additional sorting, summarization, and drill down within the data set.

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Angie Schelker
Senior Business Leader
Data Warehouse Solutions
MasterCard
The consolidation continues as Schelker and her team develop advanced reporting solutions for various business domains. “We have started to change the internal mindsets by demonstrating that users don’t necessarily need 10 separate reports for 10 related needs,” explains Schelker. “WebFOCUS permits users to filter, select, and drill down into the data. In many cases we can replace five or ten existing reports with one WebFOCUS reporting solution. But even more importantly, these solutions allow us to create new reports that users haven’t even thought of yet. WebFOCUS gives the business team a safe reporting framework from which to ask questions,” she adds. “You can draw the wrong conclusions if you don’t begin with the right constraints.” Martin calls it “click-and-sync” reporting.

“There are numerous fields within the reporting tables,” she explains. “Our report templates include pre-structured queries to make sure users don’t obtain erroneous results. They can only ask questions for which there exist valid, defensible data, and they don’t need to worry about data sources. Our previous reporting solution required in-depth knowledge of the data.”

An Enterprise Strategy
MasterCard has 12 WebFOCUS reporting solutions in production and this number is expected to increase by year-end. Each reporting solution is launched from the MasterCard analytics portal, which grants access to specific reports based on each employee’s role and credentials. The portal includes scheduling functions through WebFOCUS ReportCaster, making it easy for people to obtain regular updates on a periodic basis, or to schedule resource-intensive reports during off hours.

InfoBuild India is helping MasterCard migrate third-party reports to WebFOCUS. As it progresses, MasterCard is shutting down third-party reporting environments and standardizing on WebFOCUS for the majority of its future reporting needs. There is a concerted effort across the company to standardize the look and feel of the reporting delivered internally and to customers. Standardizing creates a more cohesive and cost-effective enterprise reporting environment.

For example, the MasterCard Value Added Services team is enhancing customer-facing BI applications such as Smart Data, In Control, and Bill Payment. Smart Data includes 60 WebFOCUS reports that help customers manage their purchases. In Control helps business customers manage expenses on corporate cards, such as setting spending limits and authorizing only certain types of purchases. Bill Payment enables consumers to set up electronic transactions to designated vendors and merchants.

Once MasterCard has completed the current report-development effort, WebFOCUS will be available to all MasterCard employees and customers.

“We have successfully used WebFOCUS with many types of database technologies,” Schelker concludes. “We have received a lot of positive feedback on our WebFOCUS reporting capabilities. WebFOCUS is easy to use so people do not need much training. By enhancing our capabilities in this space, we are changing the way people access information by empowering them to get the data they need on their own.”