Information Builders

Organization

A payment processing and technology provider headquartered in Cincinnati, Ohio, Worldpay has 3,300 employees and $1.68 billion in annual revenue.

Worldpay

The Challenge

Worldpay needed new reports, dashboards, and analytics capabilities to leverage its expanding big-data lake and related resources.

The Strategy

WebFOCUS® and InfoAssist extended portals, dashboards, InfoApps™, and self-service analytics throughout the business, deliver-ing value-added services to customers and better tools to analysts.

The Results

Annual revenue boost of $8 to $15 million by more intelligently pricing customers; $2.5 million saved eliminating hardcopy financial statements; 27,000 BusinessObjects reports replaced by 10 WebFOCUS InfoApps.

Information Builders Solution

WebFOCUS Professional Server with App Studio, Portal, Maintain, InfoAssist, iWay DataMigrator, iWay Big Data Integrator, and Professional Services.

Information Builders provides the industry's most scalable software solutions for data management and analytics. With one smart platform for integration, data quality, and analytics, we help companies man-age their data, generate insights, take action, and deliver impact.

WebFOCUS   iWay Software   Omni
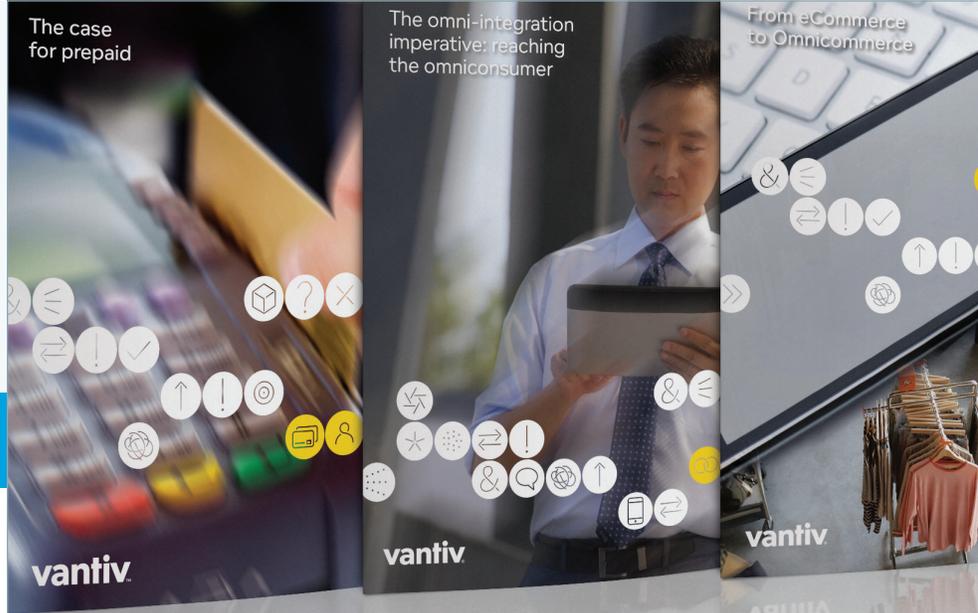
Worldpay Obtains Big Payback on Big Data Analytics

Payment Processing Company Creates Merchant Portal With WebFOCUS

Since the Great Recession, the financial services industry has been in a state of upheaval. Non-interest revenue has become increasingly strained in response to expanded regulations and shifting member expectations. Some forward-looking companies have looked to big data for new business solutions.

Worldpay discovered that many of its customers want to analyze their transaction-level payment data – and it has marshaled substantial resources to facilitate these requests. From the world's largest retailers to small mom-and-pop merchants, Worldpay is leading a transformation in the payments industry.

"Since we began analyzing this type of big data, the intelligence equity of our organization has moved into a very different realm," says Sujit Unni, senior leader of technology at Worldpay. "Previously, our ability to extract customer insights was limited. All we could do was access aggregate data. With WebFOCUS, we analyze detailed merchant data at the transaction level to develop more precise pricing models."

Worldpay selected the WebFOCUS business intelligence (BI) and analytics platform from Information Builders to aggregate its data; create portals, dashboards, InfoApps™, and reports; conduct what-if analyses on virtually any type of data set, and visualize the results in the form of detailed pricing analytics; and generate active financial statements containing In-Document Analytics – all with complete and integrated data governance and metadata management.

"WebFOCUS is very effective for us," Unni states. "It gives us the data discovery, data visualization, and drill-down capabilities that we need. More importantly, it allows us to put the right degree of control around how we use, expose, and report on our data."

Opportunities With Big Data

Worldpay offers a variety of payment services through point-of-sale software vendors, financial institutions, value-added resellers, and independent sales organizations, which amounts to approximately $842 billion in payment volume. The company ensures a healthy revenue stream by carefully pricing and re-pricing its customers, which entails adjusting pricing terms based on total transaction volume and other variables. For an industry leader like Worldpay, pricing customers is no small task. The company has nearly 800,000 merchants and processed 23 billion transactions last year.

To improve its pricing capabilities, Unni and the other members of Worldpay's Data and Analysis Insights team use WebFOCUS to visualize and populate domain-specific objects from a Hadoop data lake. Their big-data environment, which utilizes a distributed storage architecture, has lowered the cost of managing transaction data from more than $6,000 per terabyte to about $500 per terabyte.

"Big data has changed industry dynamics and opened up new opportunities for nimble companies that can store, process, and especially analyze payment data," Unni explains. "It used to be prohibitively expensive to store tens of billions of transactions, and very time-consuming to process it all. For example, it might take an hour-and-a-half to process a hundred million records. With our current big data architecture, it takes less than 20 seconds."

Achieving a Measurable Payback

According to Unni, Worldpay saw a complete payback on its BI initiatives in just 12 months. He calculated this return based on three primary factors:

- Phasing out two legacy BusinessObjects platforms
- Generating additional revenue by re-pricing key customers
- Reducing the time that IT professionals spend fulfilling custom report requests

"We have seen an exponential revenue boost, just by re-pricing our customers,"Unni states. "Our MIS needs are substantial, and now we can create dashboards and publish them at will."

Another big payback comes from Worldpay's use of In-Document Analytics – something it couldn't do with BusinessObjects – which streamlines the delivery of financial statements to customers. "Our marketing guys took one look at the BI portal and said, 'We don't have to generate paper statements anymore!' We have saved more than $2.5 million since we stopped creating so many paper statements."

Worldpay is completing the process of a major report migration project for the finance department, in which BusinessObjects is being replaced by WebFOCUS. "We are working towards replacing our existing BusinessObjects reporting environment, containing more than 27,000 reports, with 10 WebFOCUS business views and 10 to 20 InfoApps™, in conjunction with an InfoAssist reporting environment," says Nagesh Goteti, technology leader of data analytics and visualization at Worldpay.

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Senior Leader of Technology
Worldpay

"Previously there was very little data governance," he adds. "The critical aspect of this migration is not only to replace this huge body of reports, but to accommodate future needs as well. WebFOCUS gives us a strong foundation and integrations for the future."

Creating Portals, Dashboards, and InfoApps™ With WebFOCUS

WebFOCUS directly accesses Worldpay's Hadoop platform, along with other back-end databases, such as flat files on a mainframe system and an Oracle data warehouse that contains structured data. To utilize all this information, Worldpay created a merchant portal that includes user-friendly dashboards, histograms, pie charts, reports, and InfoApps™. InfoApps are reusable analytics modules that help users at the point of decision. Unlike traditional, rigid, tabular summaries and columnar reports, InfoApps facilitate self-service queries with thousands of permutations.

For example, one external-facing InfoApp™ combines data from the mainframe with transactions from the Hadoop big data lake, and then ties them together with geocentric codes to reveal insights about shopper habits and preferences. Merchants use this customer-facing application to better understand the purchasing behavior of their end-customers.

Another InfoApp, designed for internal users, allows Worldpay's accounting department to visually demonstrate how working capital assignments impact billing just by filtering the data attributes. "That's a big deal for the accounting guys," Unni says, "because at the end of the day, you have to be able to show traceability on the data. WebFOCUS allows us to do that."

Yet another InfoApp enables merchants to visualize important shopper statistics, such as the average basket size for a particular time or region. It also reveals when transactions are brisk and where else customers shop within a particular zip code – insights that retailers can't get by analyzing just their own point-of-sale data.

Many customers also use the portal to create financial statements. Worldpay's electronic documents utilize WebFOCUS In-Document Analytics to allow recipients to visualize precisely the elements that they want to see. "We send dynamic statements to our customers, and they can mine their data directly," Unni says. "WebFOCUS Analytical Document Format (ADF) lets them slice and dice the data any way they choose."

Meanwhile, power users within each of Worldpay's lines of business can leverage the metadata layer within WebFOCUS to create their own custom reports. For example, an analyst might benchmark customers of the same size and segment to develop regional pricing strategies.

Building a Foundation for Effective Analytics

Within the main analytics portal, Worldpay developed individual tabs or "themes" for finance, sales and marketing, risk, and other business domains. The company also built a WebFOCUS security architecture, which governs who can see the data, according to their roles within the organization. This architecture allows the IT team to easily control access to designated fields, files, folders, and analytics assets.

"WebFOCUS gives us a very clean way to provide analytics to our internal and external customers," Goteti says. "We are transforming a traditional reporting-based organization into a modern data analytics-based organization, both inside and outside the firewall."

"WebFOCUS has enabled a world without boundaries. These analytic tools make it easy to develop and maintain analytic assets – and easy to govern those assets. With WebFOCUS, if you can imagine it, you can make it happen."

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Senior Leader of Technology
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WebFOCUS supports a spectrum of delivery methods, which allows Worldpay to extend analytics throughout the organization. Casual business users simply want to select fields and filter data within predefined InfoApps™, while power users can use InfoAssist to create reports for themselves.

"The data is governed and users can select what they want to see," adds Goteti. "They build reports from the containers we have created for them, and cherry-pick the fields that are pertinent for each project. This strategy is working well."

Worldpay leveraged another unique capability in WebFOCUS – the ability to write back to the database. This feature allows the team to create a strategic pricing tool that empowers users to develop potential pricing adjustments. Once the terms are established, they can click a button to send a proposal, accept the terms, and update the records in the database. Being able to write back to the database in this fashion illustrates the power and flexibility of Information Builders' comprehensive platform. From financial reporting to big data analytics, Worldpay has one versatile set of tools for all its analytics needs.

According to Goteti, the Data and Analysis Insights team is exploring various integration adapters provided by Information Builders to simplify access to the data lake so they can create new reporting objects for the business community. "Getting the raw data in place for analysis is just the start," he explains. "We must look beyond the data to find aggregations. The value comes when we can discover insights for our customers."

For Worldpay, using these tools in innovative ways has been essential to its post-Recession transformation. "The company that holds the data and can analyze it to discern patterns can wield tremendous power," concludes Goteti. "WebFOCUS has enabled a world without boundaries. These analytic tools make it easy to develop and maintain analytic assets – and easy to govern those assets. With WebFOCUS, if you can imagine it, you can make it happen."

Find Out More

We can help you succeed. Talk to your local Information Builders representative to learn how. Visit us at **informationbuilders.com**, e-mail **askinfo@informationbuilders.com**, or call **(800) 969-4636** in the U.S. and Canada. To improve your skills, visit **education.ibi.com**.

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