



Revol Wireless dials in key company strategies, competitive advantages with data warehouse and business intelligence technologies from Jaspersoft and Talend.

The Company

Revol wireless is a privately held, regional provider of CDMA wireless communications services with headquarters in Independence, Ohio, a suburb of Cleveland. The company offers a simple mobile phone service featuring unlimited wireless usage for one flat monthly rate, without requiring long-term contracts or deposits.

Serving more than 7 million people in areas of Ohio, Indiana, and Pennsylvania, Revol sells its services through more than 400 retail locations – including 12 owned by the company, in addition to premier and authorized dealers – spread across the three states.

Revol’s unique product model – unlimited service at an affordable rate – and its high-quality, all-digital wireless network brings the convenience of wireless communications to traditionally under-served customers. Founded in 2005, the rapidly growing company currently has more than 400 employees.

Challenge

With as many as ten competitors in some geographic markets, wireless service is a highly competitive industry. Successful companies must consistently deliver outstanding service just to survive. Revol’s strategy for winning in this climate revolves around a series of guiding principles:

- **Managing churn.** While every wireless company faces this challenge – high turnover among customers – many do so reactively. Revol takes a proactive stance by working to understand and monitor the underlying factors that contribute to churn, then to actively manage those they can control.

Culture. Revol complements its unique selling proposition with a deliberate effort to nurture and manage strong cultural elements. Chief among these are performance management – goal setting and careful, ongoing measurement – plus an emphasis on accountability that includes various forms of publishing employee and department performance against those goals.

The company also stresses a Play-to-Win culture by encouraging internal competition along with competitiveness in the marketplace.

FAST FACTS

ORGANIZATION

Revol Wireless

INDUSTRY

Telecommunications

SOLUTION

Strategic Data Warehouse

RESULTS

Enhanced performance at every level of the company, with BI-reinforced accountability, competitive and performance management initiatives – along with reduced churn.

“We’re visibly moving the company strategy forward. We’ve built a strategic asset, and we’re a better company because of this work. And that makes everyone feel good.”

George Mehok

Because these practices and philosophies require Revol to excel in tracking performance at every level, Business Intelligence is seen as especially important. By collecting, understanding, and judiciously publishing performance – among employees, against goals, and related to churn – Revol expects to leverage business intelligence in order to provide the superior service its markets demand.

As is typical for fast-growing enterprises, Revol rapidly implemented a series of operational applications in its early years, creating disjointed information “silos.” As a result, information became inconsistent across the systems.

Reporting and other data discrepancies were common. “We could query five different systems and get five different answers,” says George Mehok, CIO. “But, to measure performance adequately, we needed to analyze data along various dimensions including store, region, associate, project and others.”

Realizing the operational systems wouldn’t be practical for supplying this information, the Revol IT team wanted to engineer a single, reliable data source that would enable the company to pursue its information-intensive strategies.

Implementing “Pervasive Business Intelligence.”

To support good decision-making, motivation, and accountability across the company, Revol set a goal to create a data warehouse and business intelligence solution – and to extend its capabilities to as many business users as possible, company-wide. To achieve eventual wide deployment, Revol targeted executives, sales managers and store managers as end users.

The desired solution would enable the company to deploy dashboards to facilitate performance monitoring, while using operational reporting to track Key Performance Indicators (KPIs) and to highlight internal competition. Analytics would also be developed to help uncover churn factors.

Revol also knew that just gathering data in one place wouldn’t be enough: processes for agreeing on definitions and business rules would be important, too. “We had to get enterprise-wide definitions on foundation data elements like Customer and Product,” Says Mehok. “So we introduced the idea of Data Stewardship, and eventually obtained executive-level sponsorship for the initiative.”

Choosing a Business Intelligence Solution

Partially because a number of its operational applications were Oracle-based, Oracle was chosen as the data warehouse platform. The team then began evaluating business intelligence providers, including those from four leading proprietary vendors and a pair of open source solutions, including the open source Jaspersoft Business Intelligence Suite, including JasperETL Powered by Talend.

CASE STUDY

To evaluate the candidate solutions, the team developed a range of criteria highlighted by the following.

- Functionality areas were identified and classified as mandatory or optional. By keeping the company's cultural goals in mind, the team realized that many "bells and whistles" were completely optional. But the team did want solid integration tools (Extract / Transform / Load, or ETL tools); flexible reporting, easy-to-build dashboards, and widely usable ad hoc query.

Notably, ETL would have to be flexible, as key data in operational applications is spread across a number of database platforms including Oracle, MySQL, Microsoft SQL Server, and the company wanted no restrictions on future data sources. There was also a desire to use ETL capabilities, if availability, to move Point-of-Sale (POS) data directly between operational structures.

- Self-service usability was critical, because the wide deployment goals demanded that end users be able to define reports and dashboards without depending on limited IT resources. This requirement even included ETL functions. "Our DBAs are busy," says Director of Information Security and Data Warehousing Lance Cuthbert. "To the extent possible, we wanted to minimize the need for DBA involvement in routine data movement."
- Again because hundreds of users were anticipated, pricing was critical. This criterion led to the early elimination of some contenders which only offered per-seat pricing.
- Architectural fit was also important. Because Revol was already using other open source technologies including Apache, Linux, PHP and others, the team knew an open source BI solution would be a good fit. Open, standards-based technologies were seen as a way to assure future flexibility as new technology initiatives arose later on.
- According to Cuthbert, industry regulations and preferred business practices demanded that the solution support Sarbanes-Oxley and Payment Card Industry (PCI) standards for data security and customer privacy. Part of meeting these standards involved reducing "hands-on" data manipulation by DBAs; to the extent possible, the team wanted to be able to handle data integration tasks through end-user admin tools, not through direct database access.

Revol chose the commercial open source Jaspersoft Professional Business Intelligence Suite, featuring JasperETL Powered by Talend, for a range of reasons:

- The low cost and per-server subscription pricing model would let the company affordably pursue its goal of wide usage. That same goal is also supported by the

CASE STUDY

solution's ease of use. "We liked the idea that end users can easily learn how to define their own dashboards," says Mehok.

- Because both Jaspersoft and Talend technologies are built on modern open standards, Revol would be free to meet staff preference for Web 2.0-type user interfaces.
- The IT team would be able to quickly and easily do any needed customization, thanks to easily-accessible APIs and source code.
- Output choices were important too. Many Revol users would be more likely to adopt the new BI capabilities if reports could be formatted for mobile devices – a built-in Jaspersoft feature.
- While open source software simplifies the support question considerably, Revol was still impressed with the consistent high marks given Talend and Jaspersoft support in independent industry surveys.

The Revol team also liked the advantages of open source technology: community support, assured, perpetual access to source code, the markedly lower costs, and ease of integration.

Solution

The Revol team took a straightforward approach to designing and building the initial data warehouse; the strategy was to bring all of the relevant data into a centralized database, with only minor filtering or transformation – which could be augmented later after the team developed a clearer understanding of data requirements.

"The Talend ETL tools made that a cinch," says Cuthbert. "I used point-and-click tools to generate all the scripts myself – and I'm not a DBA." Because the data warehouse is implemented on the Oracle database platform, a few Oracle-based operational data are moved into the warehouse using native Oracle tools; the JasperETL/Talend tools handle the rest.

All reporting, report design, report scheduling, dashboarding and ad hoc query tasks are managed with Jaspersoft tools.

Together with the technology, key processes and tools are considered crucial to Revol's "Pervasive Business Intelligence" environment. These include:

- **Data governance model.** Revol's Data Stewards are empowered to get everyone talking the same language, in the interest making the solution as approachable as possible
- **Web 2.0-style tools.** In one example, Revol created a wiki user interface for its data dictionary, to facilitate easy collaboration on data definitions.

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- **Clear roles.** The effort has been managed so that IT focuses on ETL and database maintenance only, leaving report and dashboard design to business users. This was facilitated by the designation of “super users” who understand information needs for certain business area – and how the operational systems store that information.

Results

Revol is well on the way to its goal of pervasive Business Intelligence usage within its company, with more than 100 end users accessing BI components. The quantitative results – those which have enabled the company to boost market share and improve sales effectiveness are confidential, but very satisfying,” according to Mehok.

In the process, the Revol team has been able to gain some interesting advantages. For example, they integrated historical sales information in the data warehouse with demographic data from state census and transportation departments in order to perform traffic studies – highly useful in identifying future store locations.

“This kind of study usually costs a company hundreds of thousands of dollars,” notes Mehok. “We were able to do it for a tiny fraction of that amount – and it’s a real competitive advantage.”

In another example, Revol uses real-time monitoring – coupled with reports and dashboards – to deliver competitive sales across stores, regions, and even sales associates. “It supports our play-to-win philosophy,” says Mehok. “And it works as a real motivator.”

Company executives use dashboards to check sales performance – for any store or combination of stores – throughout the day. When volumes look unusual, problems are identified quickly for follow-up.

“We’re also having good success reinforcing the cultural changes we want,” says Mehok. “Just about every report or dashboard with a KPI or other metric compares performance to targets – and that keeps us all focused on accountability.”

Finally, Mehok notes, the new data warehouse and BI capabilities have served as a strong motivator for the IT team. “We’re visibly moving the company strategy forward,” says Mehok. “We’ve built a strategic asset, and we’re a better company because of this work. And that makes everyone feel good about what we’re doing.”

About JasperSoft

Jaspersoft's open source business intelligence is the world's most widely used BI software, with more than 10 million product downloads worldwide and more than 12,000 commercial customers in 100 countries. Jaspersoft provides a web-based, open and modular approach to the evolving business intelligence needs of the enterprise and is the only BI vendor enabling true multi-tenancy while providing a common platform for on-premise, virtualized, SaaS and Cloud deployments. Jaspersoft's products span the continuum of core BI requirements, including reporting, analysis, dashboards and mash-ups, data analysis, and data integration. Its BI software is updated constantly by a development community of more than 120,000 registered members working on more than 350 projects. For more information visit: www.jaspersoft.com and www.jasperforge.org.

About Talend

Talend, the first provider of open source data integration software, makes data integration available to all types of organizations, regardless of their size, level of expertise or budgetary constraints. Talend's solutions connect to all source and target systems and they can be downloaded at no cost. Talend also offers data quality solutions, fully complementary to its data integration solutions.

Talend Open Studio manages highly complex integration processes in even the most demanding environments. **Talend Integration Suite**, the leading open source enterprise data integration solution, supports the tough requirements of enterprise development, scaling to the highest levels of data volumes and process complexity. **Talend On Demand**, the industry's first data integration Software as a Service (SaaS), enables project teams of any size to consolidate their work in a centralized and shared repository.

Talend Open Profiler enables business users and data management staff to gauge, at a glance, the level of quality of critical business data. Talend Data Quality extends **Talend Open Profiler**, adding data cleansing capabilities, enterprise-grade features and technical support.

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