Turning Decision Making into a Right-Time Electronic Art with Informatica

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>
> - Rajesh Gupta, Data Integration Manager, Electronic Arts

Electronic Arts (EA) is the world's leading independent developer and publisher of interactive entertainment software for advanced console systems such as the PlayStation® 3, computer entertainment system, Xbox® video game system from Microsoft, Nintendo Wii, Nintendo GameCube™, as well as PC, casual web-based games and games for mobile phone devices. Founded in 1982, EA recorded $3.67 billion GAAP net revenue for FY2008.

In the fast paced, ultra competitive entertainment software retail market, stringent demand forecasting can make the difference between success and failure. The Demand Planning team at Electronic Arts is tasked with forecasting the revenue and supply requirements for the North American retail channel. Executives need this demand information at their fingertips to accurately communicate sales projections from which they plan their business daily, effectively manage retail stock expectations, and optimize product presence on the retail shelves.

Reflecting the similarity with so many of their interactive games, Electronic

Arts had to go into battle to get this information. It was taking an excessive amount of time and a high degree of manual coordination to gather the data; which meant the company could not effectively create predictive forecasts for demand planning. As a result, key decisions were being made with outdated, incomplete data. And even when the data was finally gathered, there were deep concerns about its reliability and completeness. Even month- and quarter-end processing across functional areas was problematic. For example, demand planners on the East Coast of the United States were not receiving reports until late in the afternoon. And that was often too late to influence key decisions.

Rajesh Gupta is Data Integration Manager at Electronic Arts and he explains the potential impact of outdated, incomplete data. "The impact on the business of not getting this demand forecast data in time is very serious," he explains. "It is imperative that we have near real-time information for our decision making. Without it, there is the possibility that the wrong

For Electronic Arts, demand forecasting was similar to playing one of the company's interactive entertainment software games. The Demand Planning team was up against the clock to generate the necessary reports in time and they had to battle a significant degree of manual coordination to gather the data. The outcome? Decisions were being made based on outdated, incomplete data—and there were issues concerning reliability and completeness.

Today, Informatica is the center piece of an Operational Data Store (ODS) which provides a daily, 360-degree view of key business areas such as sales, revenue recognition, and demand planning. Electronic Arts is now benefiting from data timeliness and completeness: more accurate forecasting has delivered millions of dollars to the bottom line for Electronic Arts. Moreover, the ODS/data hub has delivered such benefits as multi million dollars saved in project costs and a 25 percent reduction in calendar-time-to-benefit for rollout of systems to new business areas.

Business Initiatives:

Improve competitive advantage in the entertainment software market:

- Accelerate Sales and Marketing decision-making

- Improve operational efficiency

products would end up on the wrong shelves at the wrong time."

Informatica PowerCenter 8—the hub for all interfaces

In order to generate this daily, 360-degree view of key business areas such as sales, revenue recognition, and demand planning, Electronic Arts implemented an Operational Data Store (ODS) tied into two other key related systems, an Enterprise Data Warehouse (EDW) and a Global Financial Reporting (GFR) database. Informatica PowerCenter 8 is the hub for all the interfaces into and out of each of these systems.

Electronic Arts ODS, EDW, GFR database, and data hub environment are innovative in several ways. First, the company combined analytics and operational elements. In addition to supporting analytic functions, much of the data in the operational data store is pushed out to operational systems. For instance, the ODS is key in Electronic Arts being able to fulfill online orders. Second, the sheer scope of the system demanded leading-edge work. More than 1,300 mappings were created within Informatica PowerCenter and the system contains data from 22 key business systems, including EDW data from three regions, finance, executive dashboard data, royalties, online orders, revenue recognition, studio allocations, point of sales, and demand planning.

The project also leverages the capabilities of a unified platform approach to enterprise data integration. This includes extensive data transformation reuse to quickly add new data sources and respond to changing business needs. At the same time, a platform approach to data integration has supported the building of an internal team of experts—or Enterprise Integration Competency Center—for optimum response to escalating business needs for more data in the ODS.

The Informatica data integration solution is stable, mature, and delivering the benefits of data timeliness and completeness. Importantly, it is built to scale with mounting demand, and to take advantage of new advances in data integration processing to keep it ahead of the demand curve. The first implementations used Informatica PowerCenter 7, Linux, Oracle 9i, Cognos and Essbase. Hardware configuration was a four-node Oracle 9i RAC environment on Linux, with two ETL servers and one repository server.

Electronic Arts has since moved to a four-node Oracle 10G RAC environment, using PowerCenter 8 on two ETL servers and one repository server, with plans to move to using the PowerCenter Grid Option soon. This is necessary because of the success of the project and the dramatic increase in data processing required to meet new demand. The move to PowerCenter 8 alone yielded dramatic performance improvements at peak processing times, such as quarter end. For example, IT is saving 50 percent of their time while business users are saving 40 percent of their time at quarter end.

With Electronic Arts' entertainment software being sold in physicals outlets and online 24 hours a day, it's equally important that the Informatica solution offers real-time data warehousing to capture business activity data as it occurs. The Web is forcing the business to operate in 'right now' time. Games can be purchased online and downloaded right away. And although physical games are shipped to the doorstep, their sale is recorded as soon as the 'submit' button on the Web order page is clicked. Other business applications also need low latency, right time information. For example, a global chart of accounts is maintained in one global database and changes (such as addition of an entity, business unit, or global account) need to be propagated to other OLTP ERP applications and the ODS immediately.

Technology Strategy:

- Deploy right-time data integration solution based on Informatica PowerCenter 8
- Collect and centralize data from 22 key business systems in three regions, including online orders, revenue recognition, and demand planning

Nuts and Bolts:

- Data Integration: Informatica PowerCenter™ 8
- Sources: 22 key business systems, including EDW data from three regions

Targets:

- Operational Data Store (ODS), Enterprise Data Warehouse (EDW), and a Global Financial Reporting (GFR) database

Benefits:

- Ensured decisions regarding stock, inventory management, and predictive analysis are remarkably accurate and agile
- Delivered millions of dollars to the bottom line for Electronic Arts
- Allowed the company to control inventories tightly thereby reducing markdown dollars, carrying costs, and scrap while also insuring better in-stock position at the shelf
- Delivered reports five hours sooner each day for demand planners, for more agile decision making
- Saved multi million dollars in project costs
- Reduced by 25 percent time-to-benefit for rollout of systems
- Reduced maintenance time and costs by 50 percent
- Saved hundreds of thousands of dollars a year in labor costs

Rajesh Gupta explains how Informatica is powering this right-time environment. "With Informatica some processes are scheduled to run every 15 minutes, getting data from the source to the ODS system, or ODS to other systems. That right-time data integration means our decision making is based on data which is only 15 minutes old and that ensures the decisions we make surrounding stock, inventory management, and predictive analysis are remarkably accurate and as agile as they can be."

Delivered millions of dollars to the bottom line

Rajesh Gupta is very satisfied with the outcome of the Informatica project. "Within the demand planning area alone, more accurate forecasting has delivered millions of dollars to the bottom line for Electronic Arts," he says. "More accurate sales predictions have allowed the company to tightly control inventories thereby reducing markdown dollars, carrying costs, and scrap while also insuring better in-stock position at the shelf. And those demand planners on the East Coast who didn't get their reports until late in the afternoon are benefiting too: Electronic Arts is now able to deliver reports five hours sooner each day for demand planners, a key benefit for the overall business."

Within other functional areas, the ODS/data hub has delivered such benefits as million dollars saved in project costs and a 25 percent reduction in calendar-time-to-benefit for rollout of systems to new business areas, a 50 percent reduction in maintenance time and costs versus prior methods for data integration, and hundreds of thousands of dollars a year in labor savings by automating processes for collecting and submitting data at month and quarter end.

The project is also foundational to Electronic Arts' ability to move forward on other strategic retail initiatives such as vendor managed inventory and category management, which will help further set the company apart from its competition as a premier vendor who can reliably deliver in today's retail market.

According to Rajesh Gupta, "Before we were stuck on dial-up speed, now we're on broadband. Demand planners now receive their reports at 6:00AM PST, instead of 11:00AM, representing a restoration of service level agreements that we had only dreamed about. The timely arrival of this information allows Electronic Arts to make more accurate sales predictions and enable Electronic Art's planners to better control inventories and insure better shelf positions. And the capabilities of the system are moving the company closer to vendor managed inventory as it enhances its competitive position across a highly competitive industry."

Informatica

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