

BUSINESS INTELLIGENCE Case Study

Worldwide reporting challenges

What if you could gain immediate access to your operational data?

What if your business users could securely and easily generate their own reports?

What if you were able to have the insight to make data-driven decisions?

"Noetix was a lifesaver. The product was dependable, consistent, easy-to-use and saved us millions by enabling us to see the workings of our business."

*Sandra Smith, Head of IS
Toshiba Information Systems (UK) Ltd.*

Discover why more than 1,300 customers worldwide rely on Noetix everyday to leverage their current business intelligence tools and deliver faster, easier access to operational data for Oracle's Enterprise Applications.

Project from BI with ARC

Finally, a business intelligence solution that lives up to its purpose – intimately sensing the dynamics of a business. Much more than a toolkit, ARC is designed to make business intelligence work for retailers. ARC has changed the way retail managers in Game Stores, Haggen Supermarkets and Deutsche Woolworth use business intelligence. No more are they held down with getting the right DW architecture, developing the right analytics, or delivering reports on time.

ARC is built all the way for retail. It brings together a retail data model, a robust data warehouse, hundreds of measures & KPIs, and a highly intuitive front end in one pre-built solution. By enabling retail analytics in a collaborative environment, ARC institutes an action-oriented BI culture in a retail organisation. Game Stores UK comments, "In our dynamic business, ARC has helped us keep our finger on the pulse at all times".

www.arc-bi.com



It is magic!

A data warehouse appliance is giving Virgin Media performance, simplicity and affordability.

It all started with rumblings of disquiet from the user community. "They wanted greater performance and more detailed analysis," says Paul Froggatt, head of information management at Virgin Media. "We needed to look at alternative technologies to give us a step-change in performance."

Virgin Media is an entertainment and communications business that offers United Kingdom consumers television, telephone, broadband and mobile telephony. It is made up of businesses formerly run by ntl, Telewest and Virgin Mobile. It has revenues of £3.6 billion, 14,000 staff and 10 million customers.

Mr Froggatt used to work in the data warehousing practice of a major vendor, so he has considerable experience of tuning relational databases to get the best out of a data warehouse. "You can always do more tuning and get a little more out of it," he says, "but we were shackled by inherent complexity. The law of diminishing returns applies, so you don't get much performance back for the effort you put in."

He believed that other relational databases would have the same problems of scalability, as well as inherent complexity that would inhibit quickly designing and building new solutions. He was impressed by the concept of database appliances and their message of simplicity, although he found it hard to believe their performance claims. A data warehouse appliance integrates database, server and storage platforms in a single system specifically designed to perform detailed queries and analyses on large volumes of data.

The company carried out a four week off-site test with four vendors. They were provided with the data structure of the largest data warehouse, a full day's call detail records (CDRs) and some actual business queries. Each vendor was evaluated for performance, simplicity of solution and cost of ownership.

The appliances proved that they could deliver a big step change in performance over the existing environment. Netezza Performance Server demonstrated an average performance 252 times the existing environment and the others were not far behind.

The company decided to move to an in-house eight week proof-of-concept project with Netezza. "We

were confident because they had demonstrated everything we asked and delivered more," says Mr Froggatt.

The project revalidated the off-site performance; extended the scope to cover additional data structures from another data warehouse; and tested concurrency and high volume throughput. It also proved integration with other BI technologies, such as Business Objects, Informatica and SAS.

This was actually achieved in only four weeks. At that stage an urgent business need arose, so it was decided to go straight into production. The six terabyte data warehouse was migrated in only four weeks.

"It was easy to achieve because a lot of groundwork was done and because the appliance delivers on the promise of simplicity," says Mr Froggatt. "It deals with the physical layout of the database and optimises it. With a relational database it would have taken at least four weeks just to design the data input and output. With an appliance you merely create your database structure and load the data. That is as complex as it gets. It is magic!"

The users saw an immediate step change in performance. Their twice daily Business Objects queries previously had to be run against specially built summaries to improve performance. This limited the scope of the

queries and still took 15 minutes to run.

The raw power of the appliance meant that the summaries were no longer required. This gave users the ability to query all the data in the warehouse and reduced query time to only three minutes. This is adequate for them, although the appliance has the facility to create dynamic summaries that are updated in real time, which would give sub-second query times.

"People find the performance gains hard to believe," says Mr Froggatt, "but the appliance takes away all the inherent complexities of traditional relational database systems. There is no need to worry about physical database lay-out, indexing strategies to optimise queries or clustering data.

Because the users are now able to access more detailed data, they are uncovering new data quality issues. The performance means that the data warehousing team can quickly run highly detailed queries and reports to investigate the problems.

Another benefit from the raw power of the appliance is the ability to manipulate large volumes of data. The company need to change some data structures, which meant manipulating 32 billion rows of data. This took less than four hours, yet it wouldn't have been possible to attempt it on the old environment. Virgin Media currently has a 'spider's web' of data

warehouses and data marts that share common integrated data. This has arisen partly because when the company started with data warehousing, the technology available then didn't allow a single data warehouse. Having proven the performance and value of the appliance, the company's objective is to start consolidating and rationalising them. This will result in a much simpler architecture, with fewer databases to manage, fewer points to interface into and fewer interfaces between databases.

As far as the cost of ownership is concerned, the project paid for itself within three months of the second warehouse application going live. The appliance saves several database administrators and allows users to run more detailed analysis over larger data ranges than before, allowing them to spot patterns and trends.

"Our existing data warehouse solutions were already delivering benefits and were begging to be scaled up," says Mr Froggatt, "but we didn't have the technology to do it. The performance boost from moving to the appliance has given us the ability to increase those benefits."

Interestingly, the server in the old data warehouse environment was increased to the maximum available, a lengthy project which only doubled the speed. This compares with the 252 times speed improvement in the off-site test, which was conformed in the on-site test.

"The data warehouse appliance is delivering its promise of performance and simplicity," Mr Froggatt concludes. "Business users are now free to run whatever queries they can dream up. It is delivering everything we wanted it to deliver and more at less than we expected to pay."

