



## The Carphone Warehouse Recoups £30 Million (~\$59 Million) in Lost Revenue with Netezza

Phenomenal growth of Europe's biggest mobile phone retailer continues, but the company needed a data warehousing platform that could grow with it. Netezza stepped in to help.

The Carphone Warehouse has always led change in the phone retail industry, but today finds itself in a more dynamic stage of its development than ever before. It faced considerable growing pains with its existing data warehousing system until the company put Netezza at the heart of its business intelligence strategy.

The Carphone Warehouse, which started in 1989 with a £6,000 (~\$11,500) investment, grew quickly to become the largest retailer of mobile phones in Europe, with over 2,000 stores in 10 countries. Now, it is rapidly expanding into the telecommunications operator space, both as a mobile virtual network operator (MVNO) and a fixed-line broadband and telephony provider. The company has succeeded in using a high-volume, low-margin model that lets it pass economies of scale onto its customer base. Its existing businesses were growing, and the company achieved £3 billion (~\$5.9 billion) in revenue for the first time in fiscal 2006.

### Growing Pains

The danger of a high-volume, revenue-driven model is that any revenue loss has a high impact. Because it operates in a volatile, quickly-moving sector, the company must react rapidly to changes in market conditions. For The Carphone Warehouse to maintain and grow its revenues, it needed a high level of data visibility, along with rapid, accurate reporting.

The company faced two challenges. First, it had to cope with the increasing data workload that comes from a rapidly growing, high-volume business. Secondly, it had to become adept at using that data to gain new insights into a business that deals in highly complex products and services that are heavily reliant on information for their success.

An example of such a product is the company's TalkTalk consumer telephone service, launched in February 2003. The service has grown quickly, thanks to the ability of The Carphone Warehouse to react quickly to shifting market needs by deploying and adjusting complex operational processes.

Acquisitions such as Onetel, which The Carphone Warehouse purchased in December 2005, doubled the service's subscriber base overnight, again highlighting the volatility of data levels in a growth-focused company. And all of this data has to be made available to managers in a 'retail-friendly' way, so that it can find out average revenue per user (ARPU) and churn rates by channel or branch, for example.



**CUSTOMER:** The Carphone Warehouse

**NETEZZA SYSTEM:**

NPS 10200 + NPS 10100 + NPS 10025

**APPLICATIONS:**

- Revenue Assurance
- Customer Relationship Management
- CDR Analysis

**BENEFITS WITH THE NPS SYSTEM:**

- £30M (~\$59M) in recovered revenue
- Scalability during rapid growth and acquisitions
- More dynamic response to shifting market needs
- Restored confidence from business users and management
- CDR queries down from 35 hours to 35 minutes



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*Simon Post  
CIO*

*The Carphone Warehouse*

*“I can now run queries I wouldn't  
have even attempted on the Oracle  
CDR data warehouse.”*

*Damon Harding  
Head of Data Integrity and Revenue Assurance  
The Carphone Warehouse*

By the end of 2006, the company was regularly dealing with queries containing over nine billion call detail records (CDRs). This growing number had contributed to poor data warehouse availability and performance, which was beginning to have an operational impact on the company's business. Business intelligence and ad hoc query performance was falling as data levels rose. Managers had to settle for service level agreements (SLAs) that promised data by 2pm. This meant that in the mornings, they were left uninformed about the current state of the business.

## Under Pressure

The Carphone Warehouse's existing Oracle database was four years old, and had been designed as a financial analysis tool. The company found itself in a perpetual upgrade cycle with Oracle as it tried to improve the performance of its database.

Business users and senior managers were quickly losing confidence in the data warehouse, which meant they faced the prospect of either flying blind or creating their own manual solutions. This led to a lack of cohesion in analytical methods. The company's data reporting function was facing failure and it needed a path back to productivity. The Carphone Warehouse decided to improve the SLA to make data available by 10:30am and take steps to improve overall performance. **The question was: how?**

## All Change

Following numerous acquisitions, The Carphone Warehouse had a wide variety of business intelligence tools in its portfolio that needed to be integrated onto a single platform. The company wanted to meet the challenge head on, and began an enterprise-wide back office transformation program. The program, which covers finance, human resources and information management, will deliver an integrated system giving The Carphone Warehouse a holistic view of its business and smoothing the merger and acquisition process.

It considered four options for its data warehousing strategy: stay with an Oracle database, or move to IBM, Netezza or Teradata. It chose Netezza for its price/performance ratio as well as its speed of deployment. Netezza provides analytic appliances that architecturally combine hardware, database software and data storage to optimize performance and analyze terabytes of data.

The Carphone Warehouse purchased two Netezza Performance Server® (NPS®) systems: an NPS 8050 with 2.25TB storage and 25 processors for development and test work, and a 112-processor, 4.5TB NPS 8150 for live number crunching. Informatica is used to extract, transform and load the data into the Netezza system, while Business Objects is used for the reporting layer.

It took just 12 weeks from The Carphone Warehouse's initial purchase decision until its NPS systems went live in November 2005. When the first system was switched on, it began processing initial data volumes of 1.5TB, handling enhanced analysis and Customer Relationship Management (CRM) extracts, in addition to revenue assurance.

## Lean and Mean

Once up and running, the system began delivering business value immediately. Previously, under the Oracle system, 150 million rows of unbilled CDR data would have taken 3.5 hours to process. The Netezza appliance finished the task in 35 minutes. Managers can now collect data for analysis at the desired 10:30am deadline, rather than having to wait until mid-afternoon.

The Carphone Warehouse found that Netezza was at least three times faster to load than Oracle and 50 times faster at running business intelligence queries, according to Simon Post, CIO at the company. “Netezza does what it says on the tin,” he said.

But the benefits are not merely about speed. The company can now run a greater range of interactive analyses, taking the data from retail transactions and insurance sales data, for example. These help it both maximize sales revenues and bolster its after-sales support. This is particularly important given that the company is responsible for the post-purchase care of over a million subscription customers across Europe for a selection of large cellular operator partners.

"I can now run queries I wouldn't have even attempted on the Oracle data warehouse. The other day I ran a query on Netezza that would have taken hours on Oracle and I went to a meeting. Twenty minutes later, I came back to check on it and it had finished! Now, that's amazing," said Damon Harding, head of data integrity and revenue assurance at The Carphone Warehouse.

According to The Carphone Warehouse, this efficiency has quantifiable savings. "Using a crude calculation, we estimate the time saved by 30 analysts at £20 per hour is around £2,100 per day," continued Harding. This translates to approximately \$4,140 per day in US dollars.

Had the retailer-turned-telco not moved to Netezza, it would be unable to analyze its CDRs because the growth in data volumes would have rendered previous systems unable to cope. The Carphone Warehouse's faith in the system is now such that since turning on the original Netezza systems, it has bought an NPS 10200 appliance with 25TB of storage.

The company has also repurposed its original NPS appliance to run an operational data systems (ODS) layer that provides access to near real-time data, making the system not merely of strategic importance but also operationally critical. It upgraded the original testing and development unit to a 6.25TB NPS 10050 unit to act as a fail-over system for the ODS.

## Revenue Assured

The increased data capacity of the Netezza appliances has enabled The Carphone Warehouse to keep its entire data store for processing, rather than having to archive older data. According to The Carphone Warehouse, archiving data older than 12 months could have cost the company almost half of its value as it lost the ability to claim back money as part of its revenue analysis function. With Netezza, the company can now realize 100% of returns on all of its revenue claims data.

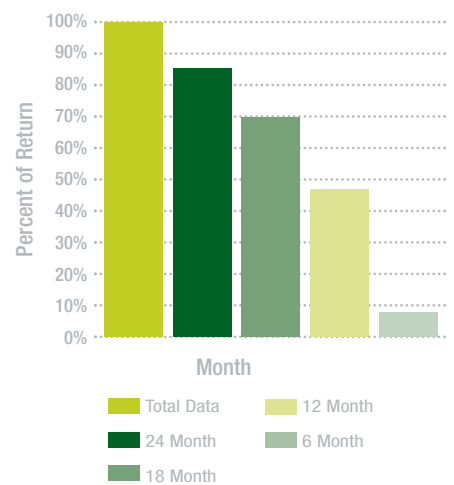
Jason McCreight, business intelligence manager at The Carphone Warehouse explained, "We continue to derive enormous value from our historical data and there is less pressure to aggregate data which tends to skew trend analysis. The Netezza platform has enabled us to develop an end-to-end revenue assurance model that has led to the recovery of £30 million (~\$59 million) to date. And, more efficient daily gross margin reports are enabling us to prevent further loss."

The Carphone Warehouse is enjoying the scalability that comes from a dedicated data warehousing platform that marries hardware and software together seamlessly to provide unparalleled performance. Thanks to Netezza, The Carphone Warehouse can continue its remarkable growth with confidence.

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***Jason McCreight  
Business Intelligence Manager  
The Carphone Warehouse***

### Business Benefits: Revenue Claims



***Before Netezza, The Carphone Warehouse's 12-month archiving policy could have cost the business 47% of its total value from revenue claims. Netezza provides the capacity and performance to enable 100% returns on all revenue claims data.***

## About Netezza

Netezza (NYSE Arca: NZ) is the global leader in analytic appliances that dramatically simplify high-performance analytics for business users across the extended enterprise, delivering significant competitive and operational advantage in today's information-intensive marketplaces. The Netezza Performance Server® (NPS®) family of streaming analytic™ appliances brings appliance simplicity to a broad range of complex data warehouse and analytic challenges. Customers who are realizing the benefits of Netezza appliances include Ahold, Amazon.com, CNET Networks, Debenhams, Department of Veterans Affairs, Epsilon, Neiman Marcus, Orange UK, Premier, Inc., Ross Stores, Ryder System, Inc., The Carphone Warehouse and Virgin Media. Based in Framingham, Mass., Netezza has offices in Washington, DC, the United Kingdom and Asia Pacific. **For more information about Netezza, please visit [www.netezza.com](http://www.netezza.com).**



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