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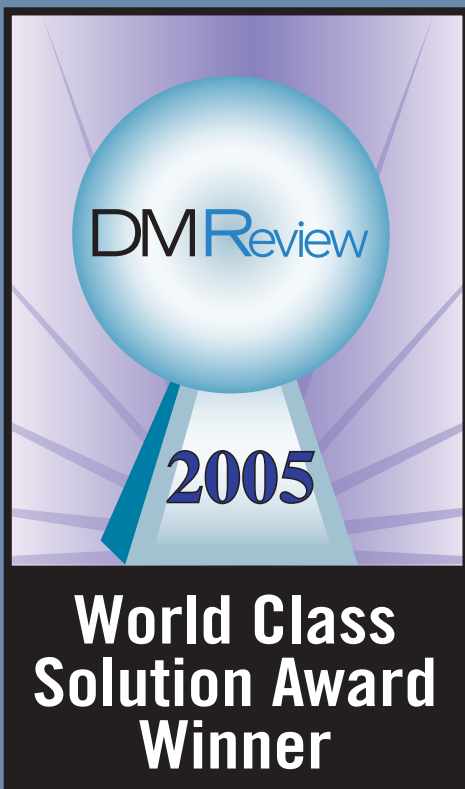
2005

# DM Review

# World Class Solution Award Winners

*"We received more than 100 entries for this year's World Class Solution Awards competition. I commend all the finalists that were announced in September, and now I heartily congratulate the winners for 2005!"*

*—Brian Cronin  
Publisher, DM Review*



# Caudwell Communications with Netezza Corporation

Category: Data Management

**E**stablished in 1996, *DM Review's* World Class Solution Awards mark the elite within the business intelligence, analytics and data warehousing industry. This prestigious award represents the industry's best practices – showcasing those vendors and companies that have implemented solutions that address a persistent business problem and, in turn, provide significant business value.

As in the past, this year's winners were selected by a panel of business intelligence industry experts. Our panel of expert judges evaluated the solutions based on their business value, quantitative benefits, qualitative benefits, sustainability and value as a best practice. More than 100 entries were distributed to the judges this year.

## 2005 Judges

*DM Review* wishes to express sincere gratitude to the 2005 WCSA judges, including: Sid Adelman of Sid Adelman & Associates; Lou Agosta, technology analyst; Kent Bauer of GRT Corporation; Steve Craggs of The Integration Consortium; Jonathan Geiger of Intelligent Solutions; Larry Goldman of AmberLeaf; Claudia Imhoff of Intelligent Solutions; David Loshin of Knowledge Integrity; William McKnight of Conversion Services International, Inc.; Sue Osterfelt of Bank of America; Craig Schiff of BPM Partners; Rick Sherman of Athena IT Solutions; and Deepak Srinivasan of Headstrong.

Awards were presented to both the implementation site and vendor companies at DCI's Business Intelligence and Data Warehousing Conference in Orlando, Florida, on September 28. Read more about the award-winning solutions at [www.dmreview.com/awards](http://www.dmreview.com/awards).

# Caudwell Communications with Netezza Corporation

## Category: Data Management

Established in 2000, Caudwell Communications is the fixed-line telephony business of the Caudwell Group, one of the U.K.'s largest privately owned companies and the parent of a number of major players in the U.K. mobile market, such as Phones4U and 2020 Logistics.

Caudwell Communications supplies data and voice calling services within the fiercely aggressive U.K. business-to-business and residential telecommunications marketplaces. They compete not only with the large multinational telephony providers, but also with supermarkets, the post office, and hundreds of other vendors selling very similar products.

Today, customers of all sizes benefit from the competitive pricing and innovative services offered by Caudwell Communications. A few years ago, as a startup, Caudwell Communications looked to differentiate itself in a crowded market through unmatched customer service and superior knowledge of what the customer wanted. The company planned to do so by leveraging an asset overlooked by most of their competitors – valuable customer data on everything from preferred payment methods to patterns for on- and off-peak calls.

Caudwell Communications' management wanted to implement a data warehouse that could be up and running within four months. To meet this need for "world-class data analysis in a hurry," Caudwell required an enterprise-class database server that was fast, robust and reliable. For Caudwell, this meant an enterprise-class solution that would provide: adequate storage for large amounts of data, data retrieval in seconds, rapid updates within an overnight batch window, proven results in the telecommunications sector and low total cost of ownership (TCO). And if the company could get all that from a single vendor, even better!

Caudwell's startup-level budget restrictions weighed heavily on the database server selection process, ruling out excessively expensive multiyear projects. It also meant that some of the traditional components of a Business Intelligence (BI) solution (e.g. Data Model and ETL tools) could not be immediately available if the timescales and budgets were to be met.

### **Something less traditional was required.**

Caudwell turned to Netezza, whose Netezza Performance Server (NPS) system promised to deliver 10 to 50 times the performance of big name systems at half the cost and be fully operative in just hours. When Caudwell's executives visited Netezza's headquarters where they witnessed a demo featuring a very large, complicated query performed in just minutes,

they were impressed. And when they saw the price tag, they were sold on Netezza's solution.

Caudwell Communications kicked off their three-phase data strategy by implementing two NPS 8100 systems – the first to support Production queries and reporting (late 2003), the second to provide a segregated development and test function and also to double as a Disaster Recovery (DR) back-up to the Production machine (2004).

The second phase of the data strategy, executed in early 2005, involved the creation of a "Tactical Data Model" (TDM). This was the first step toward creating an Enterprise Data Model, but without having to fund and then await the fruits of a major, multiyear project. The TDM v1.0 mapped the major reporting data from all the Caudwell business systems onto a common data format. Caudwell Communications has multiple billing and CRM systems running on a variety of hardware, O/S and RDMS, and consists of a mixture of bespoke and COTS packages.

The TDM hides this complexity from the data user, and by doing the "heavy lifting" in the data warehouse, Caudwell Communications can present "lego bricks" of consistent, accurate, enterprise data in a timely manner for the reporting users to slot together.

Currently in progress is the strategy's third phase, which centers on the implementation of an ETL tool (Sunopsis) and also a further release of the TDM that would fold the data from a new Customer Care and Billing system into the standard TDM format. The expectation is that the Sunopsis ETL tool will improve the current DTS-based data movement strategy.

Caudwell Communications has a dedicated team of several reporting analysts who use the NPS system for business intelligence purposes. In addition, users from Finance and Credit Control make use of the data for specialty purposes.

By 9 a.m. each day, Caudwell Communications management is in the enviable position of receiving from the data warehouse a suite of consistent, accurate activity reports spanning the entire business.

Caudwell Communications data users need not have detailed knowledge of the schemata and inner workings of the business systems supplying the data – all necessary information



is served up in a single easy-to-understand Business Objects Universe.

The NPS system helps Caudwell analyze customer trends, identify fraud, and improve network utilization. Inside the NPS system, processors are located within close proximity to the storage component. As such, the system can filter and process records as they come off the storage disk, analyzing only the relevant information for each type of query.

With the NPS system, Caudwell remains informed of customer usage trends. Prior to implementing the NPS system, Caudwell realized that the way to tap into customer behavior was to exploit an asset frequently neglected by many of their competitors: call data records, or CDRs.

The NPS system tackles the task of quickly and affordably analyzing over one billion CDRs stored in Caudwell's data warehouse. On average, the NPS system crunches about 1,000 queries daily. With the NPS system, Caudwell can now rate CDRs more effectively and faster – in seconds instead of tens of minutes – than their competitors.

Case in point: A competitor announced that it was developing new rates for telecom services. In the face of this pressure, Caudwell was able to use the NPS system to instantly pull 40 million of their own CDRs and apply hypothetical call-plan ideas. Caudwell was then able to roll out updated, more competitive plan rates – days ahead of the competition.

By using the NPS system to mine customer-centric data, Caudwell can quickly identify and retain their most profitable prospects with targeted product and service promotions. Furthermore, customer profiling empowers Caudwell to more accurately cross-sell and up-sell to various customer segments. For example, if a customer is found to have called a dial-up internet access number, then that person would be a strong prospect for Caudwell's broadband service.

Additionally, the NPS system empowers Caudwell to avert fraud by detecting revenue leakage, which happens when customers make unauthorized calls against existing call plans not being charged to any account. After only two weeks of having implemented the NPS system, Caudwell identified revenue leakage that had gone unnoticed previously.

The NPS system also correlates terabytes of operational data from Caudwell's internal order processing, billing, and CRM applications. The discovery and subsequent elimination of operational waste, such as redundant reports and reports without sponsors is an important functionality of the NPS system that saves Caudwell time and money.

As Caudwell continues to advance into new markets and expand its product offerings, the NPS system is also able to adapt

to major system overhauls, like Caudwell's ongoing replacement of the customer care and billing system.

Caudwell's selection of the NPS system has had dramatic payoffs, leading to more nimble decision making at several levels.

During the proof of concept phase, Caudwell presented Netezza with a database of 56 million CDRs and 57 different call plans, asking Netezza to match each CDR with one of the 57 new plans. The NPS system successfully ran the query in 98 minutes. A similar query attempted on an Oracle-based system was abandoned after two days of processing.

In the same near real-time fashion, the NPS system provides Caudwell management with an accurate consistent report set at 9 a.m. daily. The frequency of this schedule has not wavered, despite a massive increase in volume of data, additional products, additional routes to market, and so on.

The NPS system imparts a "single version of the truth" that allows decision-makers to rely on the consistency of the reports.

By pulling the information into a common format, users of the Data Warehouse data are shielded from the fact that some data comes from a bespoke, Windows/SQLServer CRM system and other data comes from an off-the-shelf, UNIX/Oracle Billing system.

This shielding of complexity means that Caudwell Communications will be able to slot in a new Customer Care and Billing system or, indeed, any operational system on any platform without inconveniencing Caudwell Communications' data users.

The three-stage program of Data Appliance, Tactical Data Model, and ETL tool deployment allows a company to grow a data strategy without undue upfront cost or delay. It means that a company can almost immediately reap benefits of data warehousing from even the earliest stages of data strategy development.

The NPS system is a viable solution for both established and startup companies, whether or not an enterprise data model is in place. The NPS system integrates seamlessly with both existing data models or data models implemented piecemeal. Similarly, ETL tools need not be in place prior to installing the NPS system.

Finally, in virtually any global market, rapid ROI determines whether a company will sink or swim. For a startup like Caudwell that could not justify long and expensive projects, quick ROI is especially vital. Because the NPS system is a plug-and-play solution that can be loaded with data within days of installation, the system began turning out a full suite of management reports that benefited Caudwell's business within weeks.

**NETEZZA**  
*The Power to Question Everything™*