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InSite: Lessons from leading users

U.K. firm chooses brains over brawn

Netezza appliance crunches big numbers and improves business results.

■ BY ANN BEDNARZ

What Caudwell Communications lacks in brawn, the start-up telecom service provider is trying to make up for in smarts. It's doing some serious number-crunching to stay on top of customer usage trends, avert fraud and find the most-attractive call routing options.

The device handling much of the analysis for Caudwell is a data warehouse appliance called the Netezza Performance Server. It combines a server, storage and relational database in one device. What it's crunching is terabytes of call detail records (CDR) that Caudwell gets from other carriers, plus operational data from its internal order processing, billing and CRM applications.

Caudwell uses the intelligence to make business decisions. For example, it helps the provider identify its most-promising prospects — the Netezza appliance gleaned data showing people who pay by direct debit are easier to recover money from than those who pay by check, says Joe Macken, head of IT at Caudwell in Manchester, England.

It also keeps the telecom provider nimble. When a much larger competitor announced it would introduce new rates for fixed-line telephony services, Caudwell scrambled to devise competitive — while still profitable — new service plans of its own.

"Within 24 hours, we were able to take a sample of 40 million CDRs and apply call plan ideas — factoring in things like calls made during on-peak and off-peak times — then model the impact and arrive at our own set of decisions. It took just a couple days to create entirely new call plans," Macken says.

In the end, Caudwell introduced and went live with its new rate plans even before the competitor rolled out its own, he says.

It's also helped to identify "revenue leakage" resulting from people who made unau-

thorized calls against existing call plans that then weren't being charged to any account. "Within just the first couple of weeks, we identified leakage that the carriers weren't aware of," Macken says.

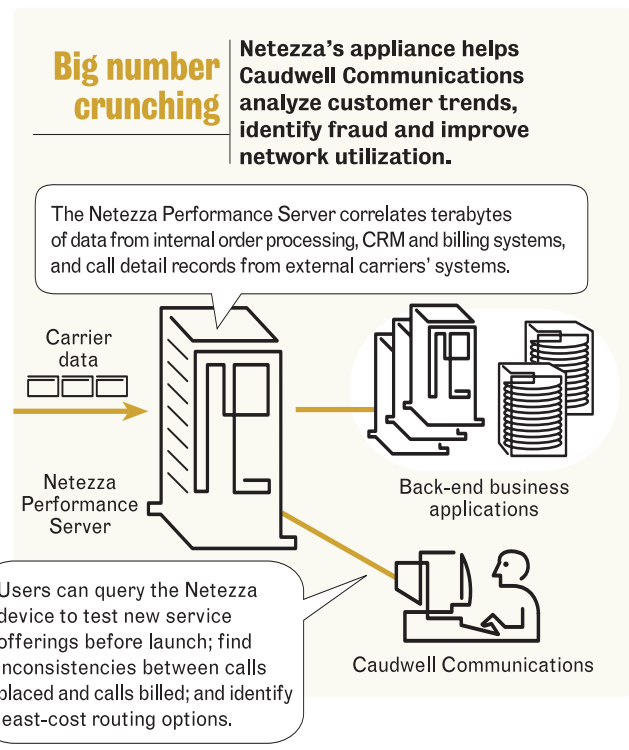
Big business

For Caudwell, finding a data warehouse system wasn't easy. Caudwell has big-league performance requirements but not the budget for a traditional high-end data warehouse, Macken says.

The company looked first at high-end market leaders such as Teradata. "We rapidly arrived at the conclusion that such an investment was above and beyond what a medium-enterprise budget could handle," he says. Not only was the cost prohibitive, but also the implementation timetable was too long. Caudwell wanted its data warehouse to be up and running within four months.

Caudwell also considered software-based data warehousing systems, but the scalability wasn't adequate. Caudwell's multi-terabit data volumes well surpass the limits of products such as Microsoft Access, SQL and Oracle running on industry-standard servers, he says.

When Caudwell stumbled across Netezza, the vendor boasted that its appliance delivers 10 to 50 times the performance at half the cost of current data warehouse systems. To do so, Netezza locates processors in close proximity to the storage component. In this way, the sys-



tem can filter and process records right as they come off the storage disk, so only the relevant information for each query gets handled, the vendor says.

Netezza seemed too good to be true, Macken recalls. "We didn't believe the metrics they were laying down for us," he says. So Caudwell gave the vendor a chance to prove itself. Macken delivered a CD with 56 million CDRs and 57 different call plans and told the vendor to rewrite each CDR for all 57 new plans. Netezza ran the query in 98 minutes, Macken says.

When Caudwell had tried a similar query on an Oracle-based system, the telecom service provider abandoned the effort after two days of processing. ■



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