



#### Client

**centrica**

#### Challenges

Overcoming the limitations of legacy systems constraining future business growth

#### Solution

Progress® DataDirect® for Oracle

#### Benefit

Automated labor-intensive manual procedures involving numerous personnel; provided direct, high-performance connectivity to SQL Server from a UNIX-based Oracle database

### Energizing Businesses

Part of the British Gas/Centrica brand, British Gas Business sells gas, electricity, and energy-related services to small, medium, and large industrial and commercial users. With one million customers, British Gas Business is the UK's largest supplier of energy (gas and electricity) to businesses ranging from single-unit shops to multinational enterprises.

### Real-time Access to Data Platforms

A vital function within British Gas Business is pricing, which—among other things—forecasts costs, sets prices, produces daily quotations, and effectively manages risk for British Gas Business.

The legacy pricing systems in use were not sufficiently sophisticated, constraining the future growth potential of British Gas Business.

Bateman reports that these systems need to address the demands of the rapidly changing industry, which has recently become deregulated and highly competitive.

At the end of 2007, the British Gas Business management team recognized the growth potential of a revamped and more fully automated pricing system. They launched the development of a new pricing engine to be designed and implemented in association with a globally recognized software vendor.

Bateman explains that one of the key business processes to be automated consists of sales personnel providing quotations to customers. This process typically involves an existing customer being made an offer in the form of a quotation based on that customer's metered consumption history held in the billing system.

"This has been a time-consuming process," he notes. "A sales person follows a number of steps that result in the generation of the quotation, the actual offer paperwork."

The new pricing application would interface directly with other key systems, such as billing systems and long-term demographics and forecasting, building an integrated suite of applications. The direct link between systems would ensure automated transfer of data in a consistent format.

To minimize integration costs, the project adopted a plug-and-play approach to interfacing with up-stream and down-stream systems. These systems exist across various technical environments within the British Gas landscape, using different vendor databases.

One such interface is to the billing system, necessary to obtain the required customer consumption and billing data needed for renewal purposes. This is an event-driven activity needed to generate the electricity pricing quote for an existing customer.

It was essential that the billing system could provide the pricing application with the most up-to-date customer data (up to 12 months of specific data entities—often as much as an estimated 1.5 GB of data—in a synchronous fashion to provide the capability of automatically creating renewal offers.

One of the key challenges lay in the data sources used by the different applications. The pricing application's infrastructure requires a large Oracle database on UNIX infrastructure; the application solution requires dual access in real time to both Oracle and SQL Server database engines.

The requirement existed for direct connectivity to SQL Server from the UNIX-based Oracle database to allow real-time access to data.

## Several Options Considered

Since the two databases lack a shared communication architecture, ODBC was to provide the connectivity between them. The Oracle client provides the Windows OS with an Oracle-supplied database driver, so ODBC connections can easily be made to Oracle databases from Windows hosts. The ODBC client is supplied with Oracle under the existing license agreement and software.

An extra network service was required (Heterogeneous Services) that allows Oracle databases to communicate in ODBC terms with other database services without any additional impact in terms of license expenses. However, it does not come with any specific non-Oracle database drivers.

Several solutions were considered but rejected in the face of the demanding criteria set forth by the project team.

“Performance was critical,” Bateman says. “Our application had to be real-time, fast, and effective in order to be able to handle large volumes of data.”

A SQL Server batch feed populating Oracle tables at frequent regular intervals, for example, was briefly considered. But no matter how frequently this took place from SQL Server to Oracle, it would not meet the requirements. Routing the network via the application host from the Oracle database to SQL Server offered the lowest-cost options; however, the complicated path required of requests made this solution, too, ineffective. One other possible option was attempting to get the application to trigger SQL Server to send data to the pricing solution, with the application picking up the results from within the Oracle database.

“I’m sure our team attempted this approach early on,” says Bateman. “But it was technically difficult and fraught with pitfalls in terms of linking up the right data sent from SQL Server within the Oracle database from a table of temporary data.”

Since Centrica is a large organization using many Oracle databases, Bateman consulted with the Oracle administrators about finding a solution.

“They found that the Oracle documentation for HS connectivity suggested Progress DataDirect for Oracle as an option,” he recalls. “We downloaded an evaluation copy from the vendor and conducted proof-of-concept testing, and that gave us a good feel that this was the way to go.”

## Automation Transparent to the Users

The first order of business for the new system is to replace the manually intensive process by which sales people obtain quotes remotely. In many cases sales personnel will be able to manage the entire process themselves, with automation eliminating the involvement of several people in operating the pricing system.

This technology, however, all takes place behind the scenes.

“The end user in sales will not see the actual technology,” Bateman explains. “All they’ll see are the results; they’ll submit the consumption data or retrieve it from the billing solution, key in the customer info, push a button, the software will generate the price, the forecast, and the actual documentation for the quote.”

The interface is written in Oracle database stored procedure (PL/SQL) and is used to query the billing system’s reporting database over a database link created by the ODBC connection, necessary in order to support the real-time access requirements of the pricing application, between the billing SQL database and the pricing application Oracle database. DataDirect ODBC drivers provide a common, standards-based connectivity architecture across database types and versions using no proprietary approaches that can restrict flexibility.

Bateman reports that DataDirect for Oracle satisfies the criteria that the pricing team set forth for a high-performance, effective solution.

“We’re confident that the DataDirect technology fits in with our future business as a pivotal part of our solution,” he says.

“Our application had to be real-time, fast, and effective in order to be able to handle large volumes of data.”

Chris Bateman,  
Project Manager, Pricing British Gas Business (Centrica)

## About Progress

Progress (NASDAQ: PRGS) is a global leader in application development, empowering the digital transformation organizations need to create and sustain engaging user experiences in today’s evolving marketplace. With offerings spanning web, mobile and data for on-premises and cloud environments, Progress powers startups and industry titans worldwide, promoting success one customer at a time. Learn about Progress at [www.progress.com](http://www.progress.com) or 1-781-280-4000.

## Worldwide Headquarters

Progress, 14 Oak Park, Bedford, MA 01730 USA Tel: +1 781 280-4000 Fax: +1 781 280-4095

On the Web at: [www.progress.com](http://www.progress.com)

Find us on  [facebook.com/progresssw](https://facebook.com/progresssw)  [twitter.com/progresssw](https://twitter.com/progresssw)  [youtube.com/progresssw](https://youtube.com/progresssw)

For regional international office locations and contact information, please go to [www.progress.com/worldwide](http://www.progress.com/worldwide)

Progress and Progress DataDirect are trademarks or registered trademarks of Progress Software Corporation and/or one of its subsidiaries or affiliates in the U.S. and/or other countries. Any other trademarks contained herein are the property of their respective owners.

© 2016 Progress Software Corporation and/or its subsidiaries or affiliates. All rights reserved.  
Rev 16/06 | 100608-0098

