



## Client



## Challenge

Migrate 200 applications without disrupting medical care

## Solution

Progress® DataDirect® OpenAccess™

## Benefits

- Fast, efficient complex data migration from multiple sources
- Seamless data sharing across 200 applications and multiple facilities
- A foundation for continued growth in patient capacity, productivity, and quality of care

Experienced surgeons will tell you: the technical mastery of incision, excision, and ligation is not the principal challenge of surgery. What takes so many years of study and training is to develop the ability to anticipate what might go wrong and then be able to make it right. So it is, too, with the information systems that support a modern hospital system. When Reinoud Reynders, Senior IT Manager at University Hospitals Leuven (UZ Leuven), took responsibility for migrating the institution's complex portfolio of applications to DB2, there was a lot more at stake than mere bits and bytes. Patient care at UZ Leuven depends on accurate and highly available data that underpins 200 distinct software applications at the heart of the hospital's operations. Switching from Sybase to DB2 in such an environment is in many ways like a human heart transplant. There was no room for error or downtime in a process that Reynders referred to as "The Big Bang." It all had to work perfectly and instantly. There was only one chance to get it right.

## One of Europe's Most Respected Hospitals, in Transition and Growing

UZ Leuven is one of Belgium's largest hospitals and one of the most respected medical institutions in Europe. A Red Cross award-winner for excellence in hospital management, UZ Leuven was the first Belgian hospital to win accreditation from the Joint Commission International (JCI) for high standards for care quality and patient

safety. Building on this reputation, UZ Leuven had ambitious plans to work intensely together with eight other healthcare providers to form a new group: Nexus Health. The heart of this collaboration is the hospital information system of UZ Leuven. To execute on this collaboration strategy, UZ Leuven IT knew that it had to prepare infrastructure to scale (up to four times the current size) if it were to manage this growth while upholding the organization's reputation for reliability and quality of care.

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Reinoud Reynders  
Senior IT Manager, Infrastructure and Operation,  
UZ Leuven

## Caring for People but Managing an Information Business

Like most large enterprises today, UZ Leuven depends heavily on information technology. Reliable and efficient patient care requires accurate management of data, including patient information; financial, insurance, billing information; operational data; and so forth. Breakdowns in data management or lapses in accuracy could compromise patient care. Consider, for example, the impact of a mistakenly administered drug, a missing digital x-ray, or erroneous lab reports: lives are stake when it comes to managing patient data.

## Aiming for Efficient Data Sharing across Seven Facilities

Quadrupling existing capacity per the institution's growth plans required migrating one core application (the homemade EPR system, or electronic patient record system) and 200 small but important applications to the IBM DB2 database. Following a conventional database migration process, depicted in the process flow shown

below, is not possible in this case because those 200 applications use the same database as the EPR. This means that vital records such as patient identification and medication information are only stored in one place. So when UZ Leuven does the Big Bang, at the same time all those 200 applications must change.

Switching each application from Sybase to DB2 had to be accomplished with no “maintenance window.” Reynders described the situation by saying, “We've gone from a world with a lot of papers and pictures to a world that's completely electronic. The pressure on IT is much higher than 20 years ago, of course, because now when the computer systems are down, the hospital has to close, more or less, because there is no patient file anymore.”

The criticality of the database migration could also be likened to a heart transplant. Like the body waiting for a new beating heart, UZ Leuven needed a perfectly executed transplant of its core database. This urgency caused Reynders' team to seek a proven industry solution rather than trying to develop migration tools in-house.

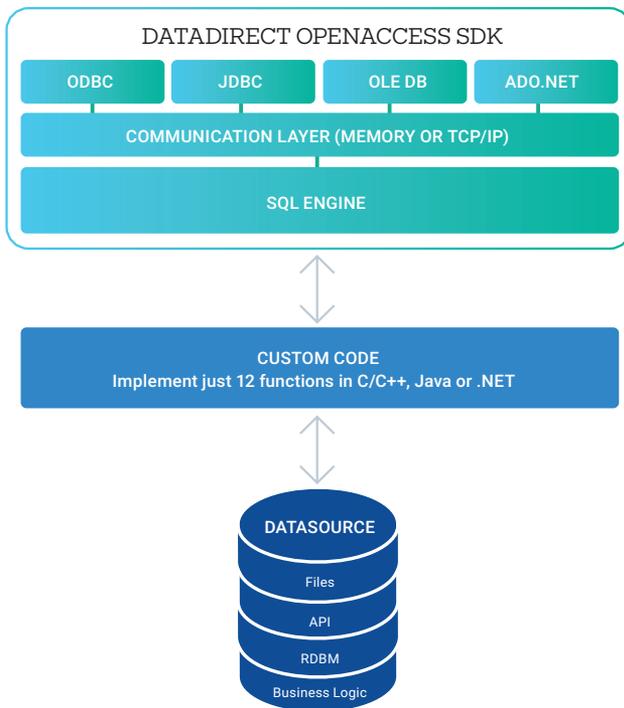


## Preparing for the “Big Bang” with Progress DataDirect OpenAccess

UZ Leuven selected Progress DataDirect OpenAccess to solve its database migration challenge. Using OpenAccess, Reynnders and his team were able to create a database emulation layer that made it possible to pre-configure and test database integration with DB2 on all 200 applications. The figure illustrates how OpenAccess manages multiple database drivers and transparently connects applications with multiple data sources.

“For us the Progress solution was a perfect fit at the right moment. Progress DataDirect OpenAccess makes an almost impossible transition not only possible, but also simple and easy to control.”

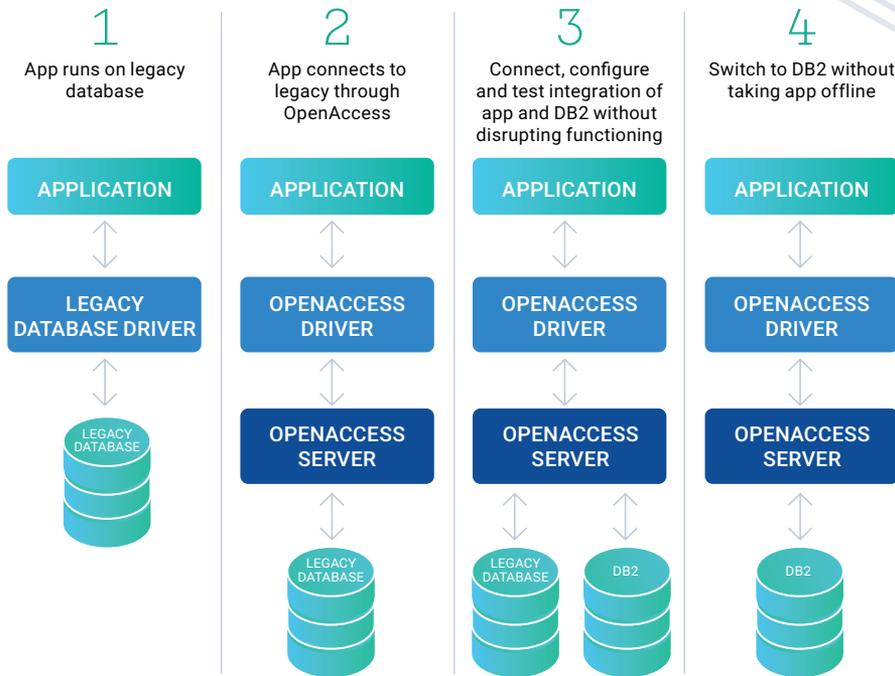
Reinoud Reynnders  
Senior IT Manager, Infrastructure and Operation,  
UZ Leuven



Reynnders and his team went through a four-step process to migrate their applications to DB2 without having to take them offline. As shown in the figure, they installed an OpenAccess driver on the application and connected the application to Sybase through the OpenAccess Server.

Once the application was talking to OpenAccess, not Sybase, Reynnders and his team could add DB2 as a second data source, connecting to the application through the OpenAccess Server. Then, after configuring and testing DB2 in its integration with the app, the team could switch to DB2 without needing to take the application offline at all. They could pre-configure and test every single application-database connection before they flipped the switch on the day of the “Big Bang.” The process flow for the migration is shown in the figure below.





## Why Progress?

UZ Leuven selected DataDirect OpenAccess because it was the only solution on the market that could fulfill the hospital's requirements for custom driver development, simple setup and configuration and broad interoperability with numerous data sources. No other solution offered such a potent mix of proven database drivers and custom development functionality.

## Benefits to UZ Leuven

UZ Leuven has benefited from the OpenAccess solution at both the project and strategic level. At the project level, OpenAccess made it possible for UZ Leuven to accomplish a highly complex database migration without missing a beat. This technical triumph paves the way towards broader strategic goals. Potential migration difficulties had threatened to slow execution on the growth plan. Success with migration to the new DB2 data management platform provides the hospital with the foundation it needs for continued growth in patient capacity, productivity, and quality of care. Just what the doctor ordered.

## 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.

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