The Lombard Odier Group is headquartered in Geneva, Switzerland. With nearly 1,900 employees, the group has a presence in the world's main financial centers and a network of 24 offices in 17 countries.

**BACKGROUND**

Years ago, Lombard Odier created its own portfolio management system. Then, in the mid-1990’s, the company's homegrown mainframe-based system was becoming out of date. It was extremely simple and batch-oriented, which meant that users had to wait each day to see the numbers that were calculated overnight before making critical financial decisions.

Lombard Odier decided to replace its old mainframe-based system with a Windows-based modernization, which required an entire system rewrite on the server and the client side. They needed a much more interactive solution without any calculations stored in a database, and they strived to offer users the ability to quickly calculate any indicator over any portfolio at any time, rather than requiring fewer, slower heavy calculations.

In searching for a new solution to replace their relational database, Lombard Odier chose IgniteTech's ObjectStore PSE Pro solution. Back in 1996 and even still today, PSE Pro was far ahead of all competitors via an alternative to classic storing of data in relational databases. This was the beginning of a long term partnership between Lombard Odier and IgniteTech.
A NEW CHALLENGE
More than a decade after Lombard Odier purchased IgniteTech's ObjectStore PSE Pro and used it as the datastore for their core calculation engine implementation, a new challenge arose. In order to quickly and accurately process calculations while complying with reliability (and to become fault tolerant should they ever lose a server), Lombard Odier needed multiple instances of the calculation process to run at the same time. Because this functionality was not internal to PSE Pro, Lombard Odier had created multiple instances of the database. Of course, the challenge here was in ensuring that all copies were in line and synchronized.

SOLUTION
When Lombard Odier looks at the ObjectStore system as compared to past solutions, there is almost no way to compare them. In terms of architecture and features, ObjectStore's original PSE Pro solution moved Lombard Odier forward, but the new full-featured ObjectStore solution has future-proofed Lombard Odier for at least another decade to come.

Based on IgniteTech's ObjectStore, Lombard Odier has built a portfolio management system where all the indicators of a portfolio or a group of portfolios are not pre-calculated in a batch mode — they are calculated live. This allows portfolio managers to better and more quickly analyze a portfolio (or a group of portfolios) in real time across different axes and make rapid, educated decisions to improve the performance of their clients. They can dive deep into risk, exposure to various markets, performance, and more. They can also assemble thousands of portfolios in real-time, calculating and re-calculating what will make the most sense for individual clients and an entire book of business. The entire process could take days elsewhere because of its batch orientation, but it only takes minutes or even seconds at Lombard Odier — all thanks to the real-time orientation of the solution.

Lombard Odier especially loves how stable the system response times are. Every time a calculation is queried, an answer comes back in milliseconds. There is never a moment when a Lombard Odier employee or client is stuck waiting for an answer.

RESULTS
Based on ObjectStore, Lombard Odier has built a portfolio management system where all the indicators of a portfolio or a group of portfolios are calculated live (not pre-calculated in a batch mode). This allows Portfolio Managers to:

• Better and more quickly analyze a portfolio (or a group of portfolios) in real time across different axes
• Make rapid, educated decisions to improve the performance of their clients
• Dive deep into risk, exposure to various markets, performance and more
• Assemble thousands of portfolios in real-time, calculating and re-calculating what will make the most sense for individual clients and an entire book of business

“ObjectStore has contributed to our continued leadership by allowing us to know more and do more for our clients in seconds, instead of minutes or even hours.”

Christophe Gabriel
Chief Information Officer
Lombard Odier
Lombard Odier’s portfolio management system, G2, has been an efficient, successful implementation for roughly 17 years. As the company continues to add major features into the system, they have decided to build a next-generation version. This new system, to be called G3, will likely take multiple years to complete.

In evaluating this new system build, Lombard Odier decided to review and reflect — so many years after starting with ObjectStore, is there a newer, more well-suited or economical object oriented database system out there? After extensive research, the company decided that there is not. Still confident that ObjectStore will provide what Lombard Odier needs for the next 10-15 years, the company has decided to stick with their long-term bet on ObjectStore.

Over time, Lombard Odier realized that this speed and reliability challenge was worth an additional investment. Luckily, PSE Pro’s “big brother,” ObjectStore, held the key. Lombard Odier migrated the calculation process from PSE Pro to ObjectStore, and they are still using this architecture today.

ObjectStore helps Lombard Odier assemble thousands of portfolios in real-time, calculating and re-calculating what will make the most sense for individual clients and an entire book of business.

LEARN MORE
To learn more about how IgniteTech’s ObjectStore solution can help you build distributed and cross-platform solutions visit ignitetech.com/objectstore.