



Client



Challenges

In-memory database customers required the ability to visualize and access data through standard analytics and BI solutions such as Tableau and MicroStrategy

Solution

Chose Progress DataDirect OpenAccess SDK because of its leadership and proven success in the market and VoltDB's confidence in the Progress Engineering team

Benefit

Reduced time to market by 50 percent versus other solutions, developing a prototype in one month and releasing the new driver in just three months

Progress DataDirect ODBC Driver Delivers Scalability and High Availability

We live in a 24x7 on-demand world where fast is becoming too slow. For many businesses, velocity is everything—the key to enhanced revenue, customer satisfaction and staying in front of the competition. But the emergence of Big Data is proving to be a barrier for some, making it difficult, time consuming and cumbersome to access and organize massive amounts of data in a way that makes the information actionable.

VoltDB was created to solve that challenge. Designed by Dr. Michael Stonebraker, a pioneer of database research and technology and a professor at MIT, VoltDB is a modern NewSQL in-memory database designed to handle the most challenging workloads and operations at tremendous speeds with limitless scalability and zero data loss. Its revolutionary scalable architecture allows VoltDB users to build applications once thought impossible applications that leverage inexpensive, virtualized computing infrastructures, including popular cloud service platforms.

“Successfully handling streams of fast data generated by the Internet, mobile, smart devices and social applications, and then making that information actionable in real time to inform business decisions is a big challenge,” explains John Piekos, VP of Engineering for VoltDB. “VoltDB ingests significant amounts of data very quickly, allowing you to do real-time analytics and make per-event real-time decisions based on what is happening right now.”

The UK Smart Grid is using VoltDB to determine policy and billing decisions for activity across 25 million households' electrical meters. And SAKURA Internet, one of Japan's largest enterprise-class ISPs, is using VoltDB as part of its strategy for keeping enterprise customers online in the face of distributed denial of service (DDoS) attacks.

VoltDB is extraordinarily fast; a single VoltDB node is capable of running millions of SQL statements per second, and a cluster can run hundreds of thousands to millions of transactions per second. In addition to high write workloads and per-event decisioning, VoltDB's customers also want the ability to visualize and access fast-moving data through standard analytics and business intelligence (BI) solutions such as Tableau and MicroStrategy. To enable that connectivity, VoltDB developed a new ODBC driver using the Progress® DataDirect® OpenAccess™ SDK, the industry's leading custom driver development kit. DataDirect OpenAccess SDK makes any data source SQL accessible and enables developers to implement data source-specific code using just 12 functions.

"We evaluated several offerings, including Simba Technologies, but we chose Progress DataDirect OpenAccess because of the product's leadership and demonstrated success within the market, and because I was confident in the Progress engineering team and appreciated the level of access I would have to that group throughout development and implementation," says Piekos.

The reputation of Progress for having incredibly reliable and scalable drivers was also very important to VoltDB. "High availability is absolutely critical to our end users.

The VoltDB database is a clustered database that is highly available, maintaining multiple copies of partitioned data within the cluster. This means that machines can be removed from, or added to the cluster, and VoltDB still maintains a complete set of data in the database. Our Progress DataDirect ODBC driver is critical to ensuring that high availability to the end user," says Piekos.

VoltDB worked closely with Progress, developing a proof of concept of the ODBC driver on Linux and Windows in just one month and launching the driver two months after that. "The expertise of the Progress Engineering team and the Technical Support team was invaluable. They provided us with code walkthroughs, some actual code suggestions and consulting to get our driver into production quickly," says Piekos. "The toolkit allowed us to rapidly prototype a solution and prove that it could work. In fact, with Progress DataDirect OpenAccess SDK, we were able to cut our time to market in half versus building it ourselves."

VoltDB already has a number of customers evaluating the new Progress DataDirect ODBC driver. One financial services company is looking to use it for real-time risk visualization of portfolio data, and another company focused on data cleansing and data pipeline management wants real-time visualization of its extract, transform and load (ETL) process.

Piekos says a significant benefit of working with Progress is that the company has dedicated its 30+ years in the industry to providing developers with modern, state-of-the-art technology. "Progress is a developer-oriented products company. They have a long history of building software that developers use to build business applications. And part of that is DataDirect and the ability to connect data sources like VoltDB—a new SQL database—to existing tooling. Leveraging the knowledge and experience of Progress has been very beneficial for VoltDB."

About VoltDB

VoltDB is the only in-memory solution for Smart Data Fast. VoltDB offers the performance of in-memory, the scalability of NoSQL, full streaming capability, and the transactional consistency of traditional relational databases. Designed by Dr. Michael Stonebraker, VoltDB is a modern NewSQL in-memory database that is scalable to easily handle fast data, powerful to make it smart, and reliable and fault tolerant in both back-room and cloud environments. www.voltDB.com.

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John Piekos,
Vice President of Engineering, VoltDB

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 or 1-781-280-4000.

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