DIFFUSI⏻N DATA
Data Distribution Framework

Software Engineering Firm Derisks & Simplifies Development for Global Investment Banks & Exchanges, with Diffusion®

How Baker Technology used Diffusion to enrich and transform the data in-flight, and distribute the data to their bespoke front-end applications

baker technology

Sector

Technology

Software engineering firm

Company Profile

Baker Technology, a specialist software engineering firm, builds bespoke trading applications for global investment banks and Exchanges.

Their core activity includes Designing & building front-end (UI) systems (e.g., HTML5 clients) for trading, market data, real-time event data. Integrating and delivering real-time events and market data to Internet clients, including low-latency, high-throughput systems. They emphasise domain knowledge in financial services (FX, money markets, bonds, repos).

https://www.bakertech.com.sg/

Executive Summary

Baker Technology specializes in user interfaces built in HTML 5. All their development is done in London, allowing them to work extremely closely with their clients. The firm's experience has demonstrated that their London teams consistently outperform offshore or client-internal teams due to the company's high level of financial services, domain experience and efficiency of development and delivery. Diffusion helped Baker Technology to…

Access to real-time data feeds over the Internet into HTML5 clients

Reducing project technical delivery risk

Increase speed of development & real-time data management

"Using the Diffusion Platform derisks & simplifies our development. With Diffusion, we eliminate a high proportion of technical risk in a project"

David Bull,
Director, Baker Technology

Challenge

Since the firm's founding in 1997, Baker Technology has specialized in building bespoke trading systems. Baker Technology's reputation is based upon deep knowledge of the trading business and efficient delivery of real-time front-end systems. With clients demanding platforms that are ever more technically challenging to build, the company must minimize project complexity and maximize development efficiency to provide competitive advantages to their clients. The Diffusion Intelligent Event Data platform for consuming, enriching and delivering event data in real-time, helps them meet this goal.

"With Diffusion, our development teams don't have to worry about the network stack. As an intelligent, event-data platform, Diffusion handles the complexity of accessing and consuming data from the services on the back-end, enriching the data in-flight, and delivering the data in real time to our front-end trading applications."

The Requirements

BakerTechnology first encountered Diffusion in 2011 when working with a large international investment bank. Baker Technology was engaged to build the front- end of a large, Internet-facing, FX trading platform. Since then, the company has successfully delivered a wide range of projects for other organizations. Baker's core business includes Single-dealer platforms, internal sales platforms, exchange trading platforms, and real-time business intelligence platforms.

These platforms span a wide range of financial products including FX Cash, Money Markets, FX Options, Bonds, and Repos. Across these platforms, Baker Technology has identified some common themes like; the need to access and manage data from multiple services and third-party systems, the need to provide event-data distribution over the "last mile" to users on the Internet, projects have high levels of technical complexity, challenges around testing the user interface with high volumes of real-time data, and aggressive time to market required by the clients.

The Solution

Efficient, high-performance, and highly scalable data management and distribution is a key component of Baker Technology's bespoke trading systems development projects. Diffusion provides a secure, unified method of distributing and synchronizing data models between the server and the client tier.

By using Diffusion as an edge tier, the Baker Technology development teams are relieved of the time and effort they would otherwise have to invest in programming to consume data from the disparate back-end sources, enrich and transform the data in-flight, and distribute the data to their bespoke front-end applications.

A key part of any development project is thorough testing. With Diffusion, Baker can easily stub out the back-end and use a simulator to connect to the Diffusion API to run their rigorous functional and performance test cases - automatically as part of the build pipeline. The ease of testing with Diffusion, allows the company to build higher quality systems with more predictable performance and failure/recovery profiles

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"Diffusion is a big benefit for us because it provides a common gateway into our clients' micro services via a single API to consume and transform event data. It also manages fan- out, scaling, and high availability of event data delivery for the large global systems that we build. Diffusion reduces both complexity and development time for our User Interface teams."

David Bull
Director, Baker Technology

Diffusion in a Nutshell

Distributes time-critical data feeds at speed, on a global scale, saving our customers time and money.

- **Patented Innovation:** Transforming data delivery with patented technology

- **Edge Optimised:** Empowering industries with real-time edge ready solutions

- **Feature-Rich Excellence:** Empowering powerful applications with a feature-rich platform

- **Cost Efficiency Without Compromise**: Save egress costs by up to 80%+ whilst improving application performance

- **Reduce time to market:** Drastic reduction in development, days instead of months

- **Scalability and Power:** High performance, reduced bandwidth by up to 90%+, and delivery of scalable, future proofed, solutions

- **Security**: Precise role-based access control and data filtering that enables hyper personalisation of data streams

Results and Future

An important ongoing benefit of Diffusion is that teams start with a well-known platform for handling data distribution. This reduces delivery times for new applications by allowing developers to concentrate on business deliverables rather than low level technical infrastructure.

Following the 2011 project for the large international investment bank customer, Baker Technology has been engaged to rebuild the bank's FX trading system twice, as business needs have evolved. They rebuilt the application in HTML5 in 2014 with a complete UX refresh in 2016.

David Bull, a Director at Baker Technology, says, *"With Diffusion in place as an event-data consumption, enrichment and distribution layer, we were able to completely re-platform the user interface without changing the services on the back end. The bank was able to deliver a new experience to their clients, while leveraging the existing investment in their core services."*

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Try Diffusion Cloud for free!

About Us

DiffusionData are pioneers in the world of real-time data distribution. The company provides infrastructure software to customers that use fast-moving data streams. The software is delivered as a cloud, on- premise or hybrid solution to companies worldwide, in sectors such as financial services, iGaming, retail, transportation, health and digital media