

CUSTOMER CASE STUDY—

Q2 Delivers Unprecedented Real-Time Personalization on Q2 SMART™ Banking Platform using Molecula's FeatureBase

Business Challenge—

Data scientists at Q2, a secure, cloud-based digital banking solutions company, needed to instantly access massive amounts of customer data in order to develop and power the next generation of Q2 SMART, a targeting and messaging platform that empowers financial institutions (FIs) to unlock actionable customer insights and engage account holders.

Q2's SMART goal is to utilize machine learning and unique statistical analysis to identify behavioral "traits" that help FIs anticipate customers' needs and engage users with better, more fitting product recommendations. It leverages proprietary algorithms to analyze millions of points of data, then packages them into an easy-to-use interface for enhanced marketing. FIs leverage this platform to run effective, profitable marketing campaigns that drive overall engagement and usage.

Technology Challenge—

With approximately 150 million monthly login attempts, Q2 manages incredibly large amounts of behavioral trait data.

The Q2 SMART platform relies on a massive "trait store," a proprietary system that stores characteristics, traits, and actions of more than 5.1 billion traits across a user base of 16.3 million end users, all of which needed to be instantly updatable and accessible. The previous system took several weeks to aggregate and process all of the user data required to personalize customer experiences. The ability to retroactively analyze customer behavior for insights was valuable, but Q2's FI customers needed to be able to take action in real time as users were engaged with their platforms. The former process and query speeds were simply too slow to achieve their goals. Q2 also wanted to deliver real-time customer dashboards with actionable, up-to-the-second information with graphs and charts that are easily understood through an intuitive user interface.

Q2

"We view ourselves as an innovative technology company, and Molecula is at the critical forefront of that innovation. It's the first solution I've seen that securely delivers the results we need while reducing our footprint and costs."

— ADAM BLUE, CTO, Q2

"Molecula enables instant access to millions of customer data points that drive our machine learning algorithms so our customers can make more intelligent, data-driven decisions."

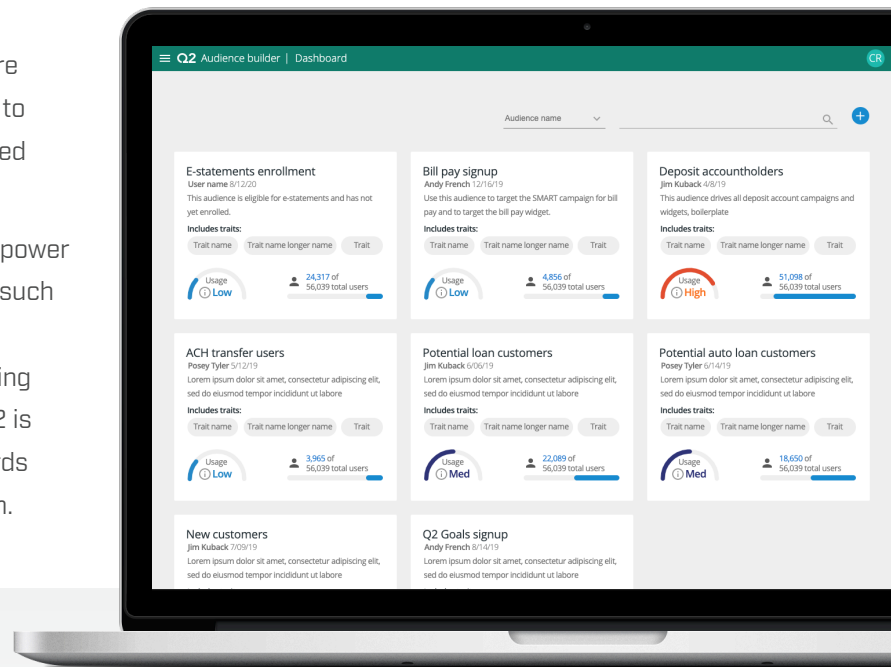
— MICHAEL PARKER,
ADVISORY TECHNICAL LEAD, Q2

How Molecula Helped—

Molecula’s FeatureBase powers the new “trait store,” one of the components of a much larger “FinX Engine,” which is the technology under Q2’s SMART platform. With FeatureBase, Q2’s massive amount of general, audience, and heuristic data can be securely collected, updated, and accessed without the need for pre-aggregation or pre-processing.

Millions of pieces of data are continuously feeding an unprecedented decision-support system. FeatureBase processes approximately 60 million Apache Kafka messages per day, per data center on average, and fits seamlessly into the overall micro-services architecture. At the outset of the new Q2 SMART platform launch, an average of 50k traits per second were being updated across hundreds of FIs. It is now possible to deliver real-time query analysis of specific consumer-based actions to FIs.

Real-time queries enable machine learning algorithms to power a robust recommendation engine that can perform tasks such as analyzing customer deposit and payment patterns to recognizing uncharacteristic balances or behavior and bring personalized online banking experiences to help users. Q2 is also able to provide invaluable customer-facing dashboards while integrating seamlessly with the existing Q2 Platform.



Business Outcome—

With the FeatureBase-powered Q2 SMART platform, Q2 makes data a new competitive advantage for FIs by giving them the ability to tailor their online banking experience to groups and individual users in real time.

They now use data to promote the products their customers are most likely to need and buy. For example, a real-time trait analysis may indicate that a customer is looking to purchase a car or home. Appropriately targeted loan offers can immediately be presented to that individual, resulting in higher conversion rates. Or, an analysis of traits can indicate that a user has a bill that is nearly due. The platform can respond by providing a bill pay widget with upcoming bills on the user’s landing page.

The unprecedented access to user data enables a multichannel approach to behavioral targeting that allows FIs to target many customer touch points based on customer behavior. It is now easier for FIs to create new custom campaigns, conversations, and offers based on specific user behaviors rather than just demographics or outdated data.