MOLECULA

Drive Acquisition, Engagement, and Loyalty

FeatureBase delivers real-time data access for effective personalization at scale.

MARKET TRENDS: Seventy-five percent of customers are more likely to purchase from an organization which offers personalized services based on their individual preferences. In fact, companies earning $1 billion annually can expect to earn, on average, an additional $700 million within 3 years of investing in customer experience according to **Qualtrics**. It's no surprise that more than half of large companies have ambitions to provide the best customer experience in their industry.

In the retail, travel, entertainment, telecom, and financial-services sectors, **Mckinsey** reports that personalization at scale can drive between 5 and 15 percent revenue growth.

While most brands have some basic level of personalized marketing or product development, the reality is that personalization is often a technical challenge, especially for businesses that cater to large volumes of customers.

It is now possible to predict customer wants and needs using fine-grained data such as: what is sitting in their online cart, when they last visited the physical store, or what search terms they used. Combining this type of data with data from other customers who share attributes such as lifestyle, interests, attitudes, or purchase behavior is very powerful.

Some of the challenges facing companies looking to personalize at scale today include:

> **CUSTOMER DATA IS DIFFICULT TO MERGE ACROSS DIFFERENT COLLECTION SYSTEMS OR STORAGE SILOS**

> **BY THE TIME DATA IS INTEGRATED, IT IS OFTEN OUTDATED**

> **BUILDING DIGITAL TRUST REQUIRES STRONG SECURITY AND PRIVACY MEASURES, INCLUDING BEING TRANSPARENT WITH DATA USE AND PROVIDING VALUE IN EXCHANGE FOR THE DATA**

> **IT'S IMPORTANT TO USE ACCURATE, RELEVANT DATA TO AVOID BEING "CREEPY"**

DATA AT THE SPEED OF THOUGHT™.

FeatureBase for Customer Experience & Personalization—

FeatureBase is designed to deliver secure, fast, continuous access to all your **data.**
The first and most crucial step in leveraging big data for improved customer experience and personalization is ensuring all of the data is ready and accessible.

Rather than the conventional approach of moving, copying, and pre-aggregating data, FeatureBase extracts features from each of the underlying data sources and stores them in a centralized feature storage solution —the most efficient data format built for advanced analytics and machine learning. FeatureBase maintains up-to-the-millisecond data updates with no upfront data preparation necessary.

With Molecula's feature extraction technology operations across machine learning and analytics projects can be executed against FeatureBase without the need to access the actual data. As the data inevitably grows over time, the benefits grow even greater since FeatureBase does not scale 1:1 with the data.

Whether powering a customer-facing application, a shopping experience, or customizing marketing initiatives, FeatureBase enables real-time computations on any and all data at unprecedented speeds, with incredibly low latency, requiring a fraction of the hardware as compared to conventional methods.

FeatureBase Enables—

AI-ready feature storage
Continuously extract and update features in real time

Centralized data
Ultra low latency access to everything

Time-oriented filtering
Track and filter time at a feature level

Query-time JOINS
Highly performant without pre-aggregation or preprocessing

Reduced data footprint
Up to 85% lossless data reduction

Overlay implementation
Seamless integration into existing architecture

FeatureBase's Unique Approach—

FeatureBase is designed and created to be continuously aware of all data values at all times. The result is instant, "machine-native" access to all values of the data without moving, copying, or federating the original data. Dynamic JOINS and complex analyses are reduced to bitwise computations which return results orders of magnitude faster than traditional methods.

Historically, feature extraction techniques have been used by machine learning practitioners because of the massive workloads they face. With FeatureBase, any company that has a large scale, time sensitive data need can now benefit from this fundamentally superior technology.

Integrates with Existing Architectures—

Since FeatureBase is implemented as an overlay, the original data can remain in the format and systems in which it presently resides. FeatureBase's fully-functional feature representation of the data is at least an order of magnitude smaller in size than the original data, so wherever or however the representation is stored, moved, or updated, it will require fewer resources to manage and access.

The diagram below illustrates how data is ingested and integrated through taps that are deployed once to populate feature tables in the feature store. From that point on, the state of the data is automatically updated in the feature tables as it changes. The right side of the diagram shows that data is continuously and instantly accessible through secure, highly available, low latency feature sets to all of the applications using traditional interfaces such as SQL.
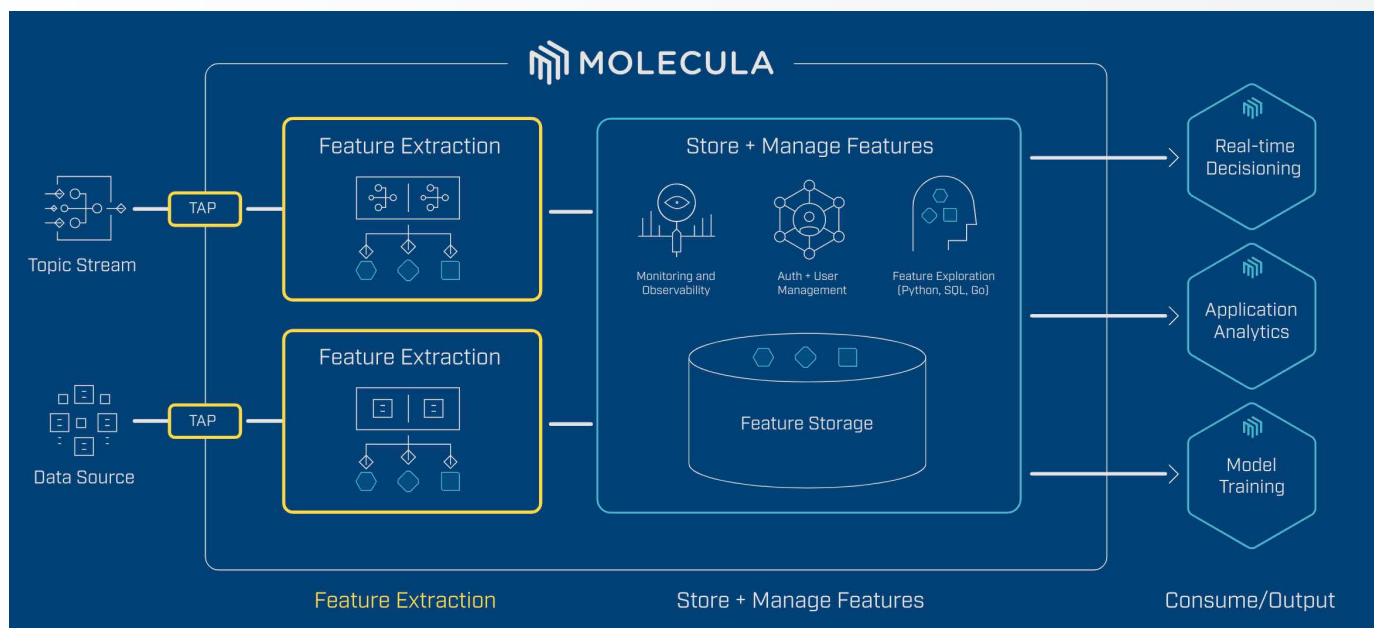
FeatureBase In Action—

Below are some of the ways FeatureBase enables improved customer experiences and personalization. What will you do with continuous, real-time analysis of your most important data?

REDUCE CUSTOMER ACQUISITION COSTS
Optimize marketing efforts and run analyses across hundreds of campaigns and millions of customers.

PERSONALIZED OFFERS
Deliver offers that are uniquely crafted at an individual level that are more likely to convert. 80% of consumers are more likely to make a purchase from a brand that provides personalized experiences.[1]

OPTIMIZED LOYALTY PROGRAMS
Deliver authentic loyalty program experiences. Consumers with an emotional connection to a brand have a 306% higher lifetime value.[2]

Take Action—

Implementing feature extraction and storage is one of the most important ways to prepare an organization for the future. Contact us today to learn more about how FeatureBase will transform your business. Ask us how you can unlock real-time value and power AI and machine learning use cases never possible before.

> "Companies earning $1 billion annually can expect to earn, on average, an additional $700 million within 3 years of investing in customer experience"
>
> – QUALTRICS

[1] Epsilon study | [2] Motista study

| www.molecula.com

REQUEST A DEMO