

Cultivating Customer Relationships: Big Data in Financial Services



Industry Overview

Financial services institutions are under continuous pressure to identify ways to grow their revenue and assets under management. At the same time, competitive threats abound as financial services firms of all types compete for customers and their wallet share.

To drive growth and ward off competitive threats, financial service institutions are looking at different channels to acquire new customers while building more effective and profitable relationships with existing ones. This includes:

- Attracting new customers at an optimal acquisition cost through targeted marketing
- Better understanding of customer behavior to offer the right value-added products and services, and increase customer wallet-share
- Improving the customer experience and identifying patterns of dissatisfaction to reduce churn and maintain existing revenue streams.

Leading financial services firms outperform their peers by harnessing their ever-growing volumes of data to generate deeper insights, allowing them to more effectively acquire and expand relationships with customers. Big data analytics, using modern BI platforms, can bring tremendous value, as demonstrated by the following companies:

- A large financial institution reduced customer churn by 50 percent through identifying key customer behavioral patterns.
- A large brokerage firm improved customer experience by identifying and eliminating the root causes of problematic mobile transactions.
- The credit card division of a large consumer bank increased offer conversion and customer purchases through deeper buyer behavior analytics.
- A large consumer insurance company increased the potential lifetime value of customers through deeper segmentation.

Imagine the effect on your firm's business if you could apply these value metrics to your organization. Big data analytics can deliver this value.

Business Challenges

On the customer acquisition, sales and retention front, financial services institutions are challenged to do more with less — and achieve better results. For example:

- To attract the right customers, marketing teams need to engage in more efficient, targeted marketing, which requires harnessing new kinds of customer and market data.
- To increase revenue and minimize churn, sales teams and relationship managers must better understand customer behavior across channels, including their websites, call centers and social media channels.
- To develop the products and services that customers want, product teams need to harness new sources of customer and market data to identify customer needs and opportunities for differentiation.

The good news is that customers generate enormous amounts of digital data which can be turned into insights that help companies realize these goals. Every time customers click on a digital ad, contact your call center, use their online accounts and perform transactions, they are generating interaction data.

Along the way, companies are collecting an unprecedented amount of customer data — both structured and unstructured. This includes all forms of interaction data from a variety of channels — digital advertising, social media, email campaigns, product usage and contact centers. The data can then be enriched with all types of publicly available data, such as demographic data, and then analyzed.

The Analytic Challenges

The challenge is empowering sales, marketing and operations teams to turn this data into timely insights that drive better decisions and outcomes. Customer and market data is typically a mix of very large data sets — structured and unstructured — that's in diverse formats that complicate integration. Because this data is so difficult to bring together, most analytic results only provide siloed views of the customer and their experience within channels, rather than across them.


In addition, most companies rely on traditional enterprise data warehouses (EDWs) and BI software for customer analytics. But traditional EDWs can't handle unstructured data, which is the bulk of most customer interaction data being generated today. And any attempt to structure it (for example, in database tables) takes a great deal of resources and limits its potential value as a source of insight. In addition, a typical EDW can't run sophisticated analytics such as clustering, path and graph analysis and advanced data mining. Using modern BI platforms, financial services organizations can tackle these challenges head on. These platforms enable the efficient ingestion, enrichment, analysis and visualization of large and constantly changing data sets so they can be harnessed strategically to benefit from customer relations opportunities.

The Solution

Modern BI platforms deliver a myriad of benefits to your customer analytics process, including:

- Enabling you to use more customer data in in your analysis — from different channels and sources — which is critical to gaining deeper insights.
- Simplifying the process of integrating and preparing diverse data for analysis.
- A dramatic reduction in analytic cycle times through self-service tools designed for analysts that increase the agility of the business.
- Providing breakthrough analysis into customer behavior and experiences, that were previously impossible due to the sheer complexity of the data and the depth of the analysis involved.

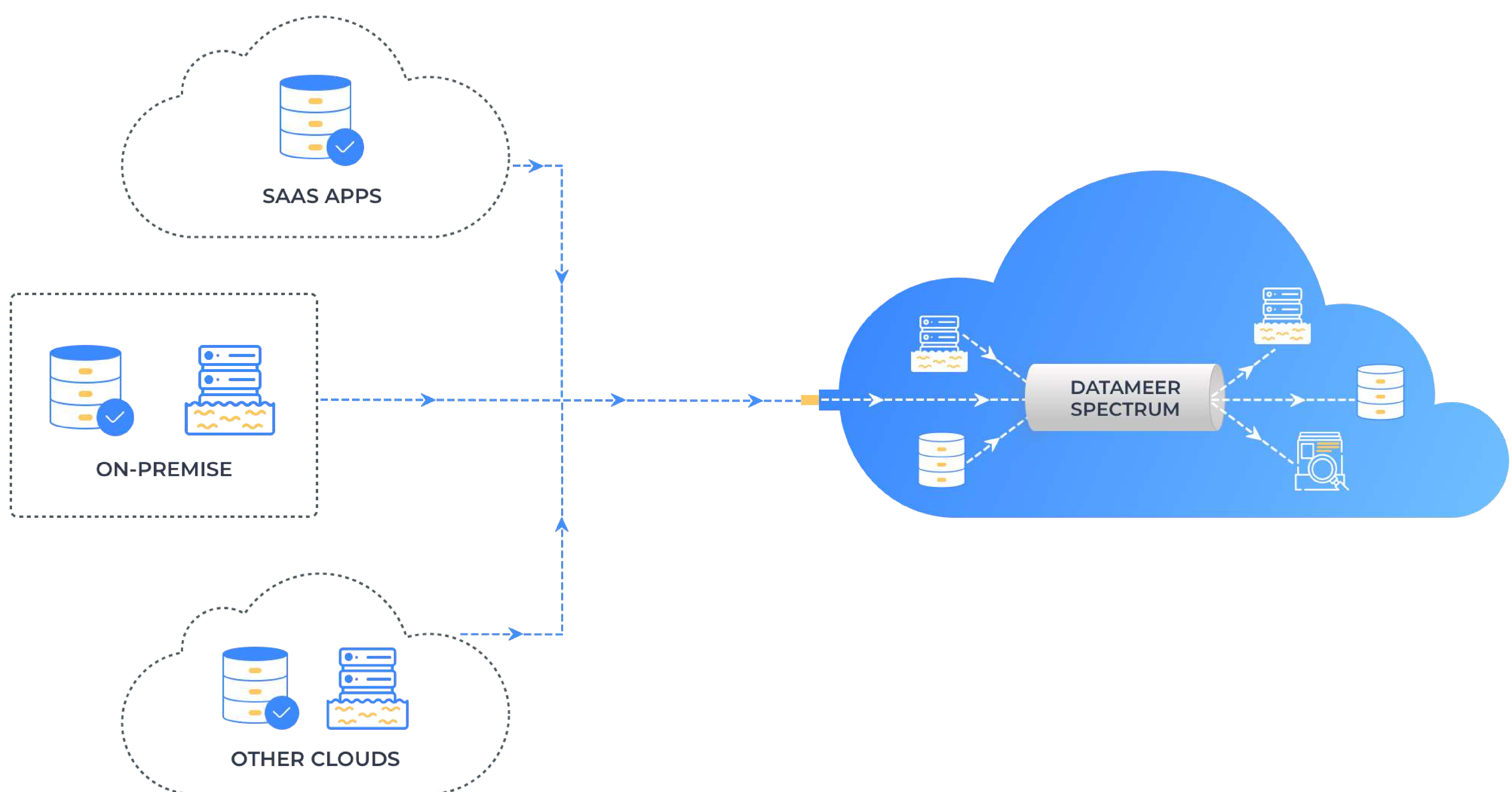
For example, marketing teams can use big data analytics to identify which combination of campaigns will likely convert the most leads into customers and design new campaigns accordingly. Similarly, they can determine which kinds of customer behaviors are associated with a high propensity to churn — and then proactively engage with customers before it's too late.



Datameer Spectrum: Built to Handle the Complexities of Customer Data

Datameer Spectrum delivers a state-of-the-art modern BI platform that can handle the analytic and architectural challenges of massive and constantly changing customer-related data. It leverages the full power of Spark to analyze the large-scale data sets required, cutting processing times from days down to minutes.

Spectrum's end-to-end, self-service platform allows business analysts to perform the entire analytic process — from integration to visualization — thereby reducing analytic cycles from months to days. It does all this while providing the enterprise-level governance needed to maintain the security, privacy and access control that financial services and insurance institutions require.



Use Any and All of Your Data

The data that provides a 360-degree view of the customer is stored in many different systems and formats. This includes:

- Structured data from CRM, transactional and asset pricing systems.
- Semi-structured data from logs and other telematics data.
- Unstructured data from social media or other communications.

Datameer provides over 80 native data connectors that make it easy to access all of their data for analytics. These connectors work with a multitude of data sources and formats for structured and unstructured data.

At the same time, Spectrum's data management services enable firms to apply specific date and time partitioning, scheduling and retention policies. This enables more efficient use of resources and faster analytic processing times.

Easy Preparation and Analysis

Data analysis across varied customer data sources requires preparation of the data to ensure data quality, consistency, accuracy and completeness. For example, source transaction or sanctions list data will vary by data schema, file format, geography, currency and other characteristics. With Spectrum's instant visual profiling, it's easy to identify and correct these issues to enable accurate analytics.

Spectrum's interface uses a familiar, Excel-like spreadsheet interface with over 280 prebuilt formulas and support for multi-source, multi-view and multi-step data pipelines. Analyses can easily be completed by one group and then passed on to other groups that rely on the data as a component of downstream analysis — all while maintaining a single, trusted source of data.

With Datameer Spectrum, business analysts can prepare and analyze various customer data sets to generate results to be used by downstream business teams. Once defined, this entire data analysis pipeline can be automated via job scheduling and workload management that's tailored to each specific data set. Complete data lineage can also be viewed within the tool or extracted via the REST API for easy reporting and auditing of the full pipeline of data ingestions, transformations and calculations.

Eye-Popping Visualization

Once data is analyzed, compliance officers, business analysts and technology analysts can visualize the results using infographics. Datameer offers over 30 visualization widgets for creating multi-page infographics that can be viewed within Datameer or embedded in any application or web page.

With Spectrum, marketing teams can visualize results related to advertising, campaign, and offer effectiveness. Customer agents can see sales activity, customer experience scores, and next best offers to drive additional sales and retention.

Putting Your Insights to Work

The real business value from your insights comes from operationalizing them to the various departments and lines of business that can take action. To meet this end, Spectrum offers easy integration with external applications, extensive data governance and security and an intelligent execution framework for power and scale.

With Datameer Spectrum, a large number of large analytic processing jobs can be executed in parallel daily, sending results directly to marketing analysts, to CRM systems for call center agents to access or to marketing automation systems that drive online and offline offers for customers. This can be set up and performed with granular security and operational controls to ensure proper governance.



Datameer in Action

Companies are using Spectrum's end-to-end, self-service analytics platform to gain a deeper understanding of their customers and generate insights to help them realize their goals.

Gaining Insight Into Customer Behavior to Predict the Risk of Churn

As part of a strategic initiative to maintain money and assets under management, a financial services company wanted to identify client behaviors that indicate potential churn so they could identify and focus on clients considering a move of their funds to a different financial firm.

Identifying the patterns and risk of churn was critical as the firm had a track record of successfully retaining at-risk customers 50 percent of the time when the customer loyalty team knows of such risk. If such risk was detected, the teams would take proactive strategies to reach out to educate the client about their wealth management services.

Using Datameer Spectrum, the analyst team integrated and then analyzed a wide variety of data that could provide signals that a client was at risk of leaving — all in fewer than three hours. Specific customer behaviors that signaled churn included:

- Calling for information with an outside financial consultant on the line
- Reporting a change in address, workplace or power of attorney
- Browsing or searching the company site for specific forms

By correlating this data, the company was able to determine the statistical relevance of each activity or combination of activities to customer churn. Datameer then built out activity paths for each client to see what ultimately led to a transfer or withdrawal. Now the company can analyze customer behavior data, assign each customer a risk score for customer churn and proactively reach out to at-risk customers about wealth management products at just the right time. As a result, customer churn has fallen by 50 percent.

Enabling More Targeted Promotions and Lower Customer Acquisition Costs

One Datameer financial services customer wanted to optimize their marketing campaigns to increase conversion rates while reducing overall customer acquisition costs. The company needed to identify channels, offers and methods to better target customers and promote the most appropriate products and services.

This credit card company used Spectrum to correlate, aggregate and analyze a large amount of structured and unstructured data to help identify key indications of interest, including:

- Customer purchase and transaction history
- Customer profile data
- Customer behavior on social media

From the insights driven by Datameer Spectrum, the company identified multiple ways to offer special promotions and new products or services to individuals based on their interests. For example, if a person made a number of transactions at Whole Foods and liked the Food Network, the company could send a credit card with a special promotion for those companies.

Using the Datameer-driven insights, the company created special targeted promotions that helped achieve new customer growth rates while reducing customer acquisition costs by 30 percent.



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See Datameer Spectrum in Action

Datameer Spectrum has time and again proven the value of its platform and analytics at financial services firms large and small. Besides customer analytics, Datameer has helped numerous financial institutions solve complex problems in Anti-Money Laundering (AML), Risk and Compliance and other business use cases.

Datameer Spectrum's analytic platform provides the right combination of power, speed and flexibility required to successfully navigate the unpredictable waves of financial services analytic challenges. Learn more about Datameer's work in financial services on our website at www.datameer.com/financial-services/.