



PFM and the Power of a Strong Data Platform... The Developer Opportunity

What is Personal Financial Management?

Gone are the days when consumers had to manually piece together—either on paper or using other software programs—the various details of their accounts to produce a complete picture of their finances.

Thankfully, an entire class of online tools and services for money tracking, budgeting, and advice known collectively as Personal Financial Management, or PFM, now exists to help consumers navigate and manage their financial lives. A PFM solution can aggregate accounts, receive bill reminders, establish goals, view and split transactions, visualize spending categories, provide savings tips, and track short-term cash flow.

PFM goes beyond the typical online banking activities of paying bills, viewing balances, and transferring funds. It also offers banks rich insight and a dynamic view into their customers' financial goals and account relationships through a trove of customer data on existing accounts (including those held outside the bank), goals, and needs—critical data for effective cross-sell strategies that benefit both the customer and the bank.

Initially, these tools were offered by a handful of startups, the most famous being Mint.com. But banks have taken notice, realizing that they are the logical entities to provide these tools. In fact, PFM is already being folded into online banking. According to one recent survey, what consumers want most is a feature some banks, like Citi, already allow: the ability to pull information from all of their accounts into one place.

With every major financial institution competing for the same customer base, banks that invest in a strong, intuitive PFM platform stand to win customer loyalty. Consumers consistently respond favorably to invitations to learn how to spend less, keep a budget, and make their money work harder for them; and they are loyal to institutions that help them do so.



The Opportunity

Banks have realized that if they don't provide what today's customers want and need, smart entrepreneurs will fill the gap, through exciting online services. To increase customer acquisition, strengthen loyalty, and boost revenue, banks must help customers solve challenges and meet financial goals and begin offering products and services that help them do just that.

That's where developers come in. Studies have shown that while people are looking outside their bank for solutions, they trust their banks and feel they are the logical place to turn for these tools. As a result, banks are working hard to streamline and improve online banking and create services that will truly meet customer needs. These solutions may not always include traditional banking products.

Banks need help creating the innovative tools that will speak to this population. PFM offers banks a low-cost online channel that engages customers in the way today's customers prefer. In addition, PFM and the services that may comprise it, can allow banks to be allies to their customers again.

It's an exciting time to be a developer!

What to Look For in a Partner

As a developer interested in creating innovative financial apps, you'll likely be searching for a partner that will allow you to leverage established technology and banking relationships and get a running start to creating financial services that go beyond aggregation to analysis and advice. When searching for a partner, understand that not all data aggregation engines are equal. Seek out a leader in the field with an existing robust FinDat platform that will allow you to avoid having to reinvent a costly infrastructure.

Ensure that you'll have access to top financial institutions and a scalable, extensible, and secure data platform for building integrated applications, with a single point of integration for financial institutions. You'll want a sophisticated data engine that quickly and continuously aggregates data from multiple sources within an institution and from multiple financial institutions, resulting in a centralized repository of financial data specific to each consumer. Check that the data is loaded into a common database with a well-defined, normalized structure. From this unified structure, it is possible to create easy-to-use services.

While many attributes distinguish the best from the rest, the following are key to separating a leading platform from the rest of the pack:

Network Size—The success of a data aggregation solution revolves around the size of its network. The number of users and accounts in the system is crucial to data quality, coverage, and cost to support. There are tens of thousands of datasources in the world, and hundreds of thousands of account types with a nearly unlimited number of transaction types, most of which are not supported by any sort of industry standard format. To successfully understand, store, interpret, and display that information, the aggregation system that has exposure to the greatest number of variables is going to be the most successful.

Data Breadth and Variety—The solution must be able to aggregate data from a broad variety and wide breadth of data sources. To provide a user-centric experience, all types of financial accounts need to be supported from as many data sources as possible.

Data Model Depth—Since all consumer data is compiled into a centralized and highly secure database, it is imperative that the set of fields in that database provides comprehensive coverage of all account and data types that may be encountered.

Transaction Categorization and Merchant Name Services—Key to data aggregation is identifying the merchant and category of transactions as they are aggregated. Merchant name identification should be performed on all bank and credit card accounts, while categorization is performed on bank, card, investment, loan, and insurance transactions. The best data aggregation engines ensure

that categorization and merchant name identification processes are closely linked and that they leverage the network with crowdsourcing and external data sources. In addition, identification of merchants and categories should be done at runtime as new transactions are encountered.

Enhanced Data Quality—When collecting data from disparate sources, the quantity and quality of data varies. The differences must be analyzed and appropriate routines devised to produce a complete and consistent dataset.

Automatic Data Updates—A strong data aggregation solution uses sophisticated scheduling rules to efficiently and automatically update aggregated data even when the consumer is offline. This ensures a high quality user experience every time the consumer logs in. The consumer is confident that personal data is up-to-date and immediately available.

Alerts—An additional benefit of data aggregation is the ability to quickly identify and act on changes in data. To facilitate exception-based monitoring capabilities, an alert engine compares global and consumer-specific rules every time data is collected and triggers alerts when the data meets predefined criteria. A wide variety of balance, statement, transaction, usage, and billing alerts can be supported to notify consumers when their data has changed and action is required.

Advanced Data Services—In addition to basic data collection, a wide variety of complementary services are possible that further enhance the value of aggregation solutions. Look for a solution that automatically logs in consumers to a destination site (Auto-Login); automatically registers them for online access at a destination site (AutoReg); facilitates biller-direct card payment at a biller's site (DirectPay); and signs them up for recurring card payments at a biller's site.



Reporting—Data collected by the aggregation engine is not only useful to the consumer, it also provides the financial institution with detailed consumer information, including “share-of-wallet.” An institution is able to tell what percentage of a consumer’s assets is within its organization and what percentage is being held away. This knowledge supports the financial institution with cross-sell and up-sell opportunities, market penetration, and consumer usage trends.

Advanced Monitoring and Data Operations—Due to the nature of aggregation technology, it is imperative that all data sources, data quality, and data operations are monitored 24/7. For example, if a data source becomes unavailable, specialized operations personnel must be on hand to correct the problem. A sophisticated proactive monitoring and debugging infrastructure that addresses data source and data quality issues quickly and without compromising the security and privacy of consumer data is essential.

Content in Different Languages—It is possible to aggregate content in different languages if the site is able to provide content in different languages. Based on the consumer’s preference and site support for that language, the aggregation engine can fetch the content in the consumer’s preferred language. It can also render system information like account type, help information, etc., in the consumer’s preferred language.

Flexible Integration Options—The ability to integrate aggregation-driven solutions into the overall service portfolio of a financial institution is critical. This provides a seamless consumer experience and maximizes the value of the offering. Look for a flexible implementation model ranging from hosted Web solutions for each application to complete, custom applications built using a Web services Software Development Kit (SDK). Make sure the solution supports industry standard integration options such as SAML 1.0/1.1/2.0 for Single Sign On (SSO), as well as a standards-based model for alerts integration.

Scalability—True enterprise-class aggregation solutions must be designed to be highly scalable and perform while handling hundreds of thousands—if not millions—of consumers and accounts. Look for a platform that can support massive horizontal scalability, for example, one that leverages a J2EE architecture that is well known to achieve these requirements.



The Yodlee Platform

Yodlee's mission is to enable consumers to navigate and manage their financial lives. With 13 years of experience, 50 issued patents, and more than 80 percent market share, Yodlee is doing just that.

As the pioneer in data aggregation and PFM, Yodlee meets each of the key capabilities described above and sets the industry standard for data aggregation-enabled consumer solutions. The Yodlee platform benefits greatly from the network effect of the scale and breadth of the company's data engine. With more than 40 million registered users across 600 world-class banks, Yodlee is able to cleanse, normalize, and categorize more transactions more accurately than any other system.

Currently supporting data aggregation from over 10,000 data sources and constantly adding more as market and business requirements dictate, Yodlee has immense breadth and depth of data. In fact, given the breadth of site and account coverage the company has attained, Yodlee has connectivity to the most extensive library of global financial services data possible. From this perspective, Yodlee has refined and expanded its data model to provide a rich and compelling data set suitable for valuable financial services applications.

In addition, the Yodlee data engine applies sophisticated business rules to ensure the richest, highest quality data set possible. Sophisticated scheduling rules enable the Yodlee platform to efficiently and automatically update aggregated data even when the consumer is offline, while an alert engine compares global and consumer-specific rules each time data is collected and triggers alerts when the data meets predefined criteria. A wide variety of balance, statement, transaction, usage, and billing alerts are supported to notify consumers when their data has changed and action is required.

Partnering With Yodlee Interactive

Yodlee Interactive welcomes strategic developer partners building the next generation of digital FinDat services, including any service or process that can be created, improved, or enhanced by streamlined access to data, payments, and digital security. The Yodlee Interactive financial cloud is an innovation delivery system for entrepreneurs, partners, and developers to access the most robust FinDat platform in the world, with bank level security and encryption and APIs that enable flexible, innovative, and multi-channel distribution solutions.

Build on the powerful Yodlee platform, and reap the benefits of working with the leader in personal financial management. Contact us now at yodleeinteractive@yodlee.com to learn how you can gain access to the valuable resources and documentation you need to start developing cutting edge solutions.



About Yodlee and Yodlee Interactive

Yodlee is the Platform for Financial Innovation. More than 600 companies globally, including 7 of the top 10 US financial institutions, rely on Yodlee to power personalized financial apps and services for millions of consumers – driving retention, engagement, and revenue. Leveraging the industry's largest data platform, Yodlee also delivers real-time insight into consumer behaviors to create more dynamic interactions – anywhere, anytime, on any device.

Yodlee Interactive is focused on making the Yodlee platform available everywhere that value can be created by entrepreneurs, partners, and developers to build digital financial apps and services. As the architects of a new digital ecosystem, Yodlee Interactive optimizes the wisdom of the financial technology crowd to create, catalyze, and distribute innovations faster through an open and secure data API. Used by hundreds of companies, both small and large, Yodlee Interactive is the horsepower behind today's coolest and most personalized digital experiences. Yodlee is headquartered in Redwood City, California. For more information, visit yodleeinteractive.com.