



Use Case: Personalization

Systems that understand each person's unique habits and preferences and bring to light products and items that a user may be unaware of and not looking for.

Industry

Payments and Financial Services

Challenges

- Managing extremely large volumes of data from more than 11 million customers
- Poor scalability and performance issues with MySQL relational database
- Relational technologies limited historical views and aggregation of information

Solution

- Linear predictable scale accommodates high data growth
- Integration between operational information in Cassandra and Hadoop delivers a holistic customer view
- 24x7x365 expert support

Results

- Real-time analysis of information for improved customer experience
- Expanded partner network with flexible data model accommodation
- More accurate customer account analysis with Hadoop integration

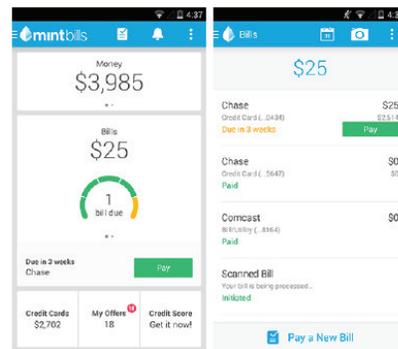
PERSONALIZATION

MINT BILLS SIMPLIFIES PERSONAL FINANCES WITH DATASTAX

Mint Bills (formerly known as Check) is a top-rated, award-winning mobile app that takes the work and worrying out of paying bills for more than 11 million U.S. consumers. The Mint Bills application stays on top of people's bills and money, eliminating missed payments, overdrafts, and late fees. Launched in 2008, Mint Bills was one of the initial 500 apps released on the first generation iPhone. The company was acquired by Intuit Inc. for \$360 million in June 2014.

The Challenge

In the financial services sector, it is extremely challenging to get traction against established mega leaders, and stand out as a disruptor. Mint Bills is a top mobile app focused on bill payments and personal financial management, helping users manage and track bills quickly and efficiently. With a few taps, users get an easy-to-understand overview of their bills, credit cards, bank balances, and investment accounts, all in one place. The application also sends timely bill reminders coupled with mobile payment functionality, making Mint Bills a one-stop destination for everyday personal finance.



Mint Bills delivers all-in-one personal finance management services via a mobile app

With more than 11 million users, Mint Bills faced the challenge of aggregating exponentially growing amounts of user data while delivering application performance in real time. Previously, Mint Bills relied on MySQL as a primary data store but soon hit a ceiling with scale and performance. Relational database architectures do not scale easily or predictably with massive data volumes and dynamic data models inherent in user data from different bank accounts, investment accounts and billers. Furthermore, Mint Bills' relational model could not keep up with performance needs of the online application supporting concurrent users viewing account information and retrieving payment results in real time.

To deliver the best possible customer experience, Mint Bills realized that it needed a more powerful technology approach for its database infrastructure. It also needed a fast and reliable way to aggregate user information daily and analyze and keep track of information like number of credit cards and bills, even from previous weeks. These requirements led to Mint Bills' search for a platform that offered seamless Hadoop integration, with the power to merge and analyze transactional with historical information for accurate business insights.

“With Apache Cassandra and DataStax Enterprise as our database infrastructure, we can not only scale but give our users a real-time, engaging customer experience.”

- Micky Csasznik-Shaked
Technology Lead
Mint Bills

The Solution

When Mint Bills began its search, relational databases were immediately ruled out because of their inability to cost effectively scale for immense volumes of data along with performance, complexity, and latency issues. “Our first decision was not to store user account data in a relational way,” said Micky Csasznik-Shaked, technology lead at Mint Bills. “Because of the large number of data models we had, to get a full view of all information across user accounts meant that we would have to join numerous tables and make many calls to the database, thus bringing down application performance.” The other issue Mint Bills had was that with relational databases alone, it couldn’t save more than current results, which limited the ability to truly understand customer profiles.

To meet the needs for scalability and real-time performance, Mint Bills selected Apache Cassandra™ to store user account data. “When you are selecting between accounts on your Mint Bills app, you are actually retrieving information from Cassandra directly,” Csasznik-Shaked added.

Mint Bills migrated to DataStax Enterprise for enterprise production support and professional services. The fact that Mint Bills is a financial services company sets a really high bar for database security, and DataStax Enterprise was able to deliver that with Mint Bills’ private data infrastructure. As a mission critical application, Mint Bills relies greatly on the Cassandra experts and 24x7 support provided by the DataStax team.

The Results

Currently, Mint Bills has 21 nodes in one cluster and stores 15 TB of transactional data in DataStax Enterprise. Even with a fast-growing number of user and accounts across various types of data models, Mint Bills continues to perform and scale with ease to support this massive growth. DataStax Enterprise has helped Mint Bills unlock valuable insights found in their Hadoop data lake, allowing them to integrate historical offline data with transactional online data.

“DataStax Enterprise gives us the power to change information in our supporting systems into actionable insights with historical views into account statuses. This was previously impossible with relational technologies. With Apache Cassandra and DataStax Enterprise as our database infrastructure, we can not only scale but give our users a real-time, engaging customer experience,” Csasznik-Shaked said.

Mint Bills has extended its solution from mobile to a web application. Mint Bills’ award-winning app is recommended by media as an outstanding personal finance tool and the leading mobile bill payment solution. The company continues to grow its partner network including financial institutions, regional utility providers, and communications carriers to provide superior user experiences to customers. Its huge success caught the eye of Intuit, who subsequently acquired the company for \$360 million in June, 2014.

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About DataStax

DataStax is the fastest, most scalable distributed database technology, delivering Apache Cassandra to the world’s most innovative enterprises. Datastax is built to be agile, always-on, and predictably scalable to any size.

With more than 500 customers in 45 countries, DataStax is the database technology and transactional backbone of choice for the world’s most innovative companies such as Netflix, Adobe, Intuit, and eBay. Based in Santa Clara, Calif., DataStax is backed by industry-leading investors including Lightspeed Venture Partners, Meritech Capital, and Crosslink Capital. For more information, visit DataStax.com or follow us @DataStax.
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