Why Financial Services and Banks Need An Operational Data Layer

Datastax Enterprise

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Introduction

Financial institutions are on the precipice of a major change, both externally and internally.

As consumer expectations evolve and more consumers rely on mobile devices and web apps to manage their lives, banks must develop robust data management systems that serve their customers with personalized services. The most efficient way to achieve this is by tapping in to real-time analytics and using big data to deliver a better user experience.

The first step involves understanding today's customer's needs. Next, financial institutions must create customer journey frameworks that satisfy those needs. They will need to streamline their data collection and data management processes successfully understand and engage the customer — and all while meeting compliance and regulatory standards. This is easier to execute with an operational data layer embedded in the bank's architecture, an important element that can help manage data efficiently, securely, and at a low cost.

Customer expectations evolving with digital adaptation

Whether a customer is ordering food, streaming a movie, or checking Facebook, they're spending more time with digital services than ever before and have been conditioned to have expectations about their digital experiences.

The rise of mobile applications usage has caused consumers to adopted a specific set of interaction styles — ways of interacting with web applications and communication platforms — that make ease of use, availability, and speed of response a measurable differentiator between competitors.

Having access to real-time data is paramount to success as customers expectations and behaviors change. Forward-thinking financial institutions must now focus on two priorities:

- **Reducing customer friction:** Making it easier than ever for customers to use their applications and become a customer's go-to destination for anything related to their finances, instead of going to a third-party website or fintech application to begin their customer journey.
- **Developing a robust customer experience:** Ensuring all customers receive a personalized experience by delivering relevant content at just the right time. This requires collecting key data points and using advanced analytics to manage and predict the customer journey.

Factors driving change

Businesses are restructuring from inside out to accommodate this shift in behavior. In financial services, it's not only about customer expectations.

Competitive and regulatory pressures are driving change within this industry so companies are forced to adapt. Customer behavior has changed as customers take things into their own hands, turning to Google or third-party websites to begin their customer journey instead of going straight to the financial institution's website.

Regulatory changes allow for API integrations of user-provided data which challenges the old models of data collection and management. Fintech companies are disrupting the industry by introducing new consumer-facing websites, apps, and other portals that connect with the customer well before the banks have a chance, and banks are then left with the responsibility to manage these leads in the most effective way possible. Fintechs are also acquiring customers that the banks could have had (for example: there are fintechs that lend money).

All of these factors are driving change with customer acquisition, customer-banking relationship, and customer management processes. Financial institutions must adopt new ways of collecting and managing the data customers are providing at every step of the customer journey to ensure they can deliver a highly personalized, optimized, and consistent customer experience.

Why the time for retail banks to change is now

Removing friction from the customer journey involves being the first touchpoint with a customer so the customer isn't diverted by search engines, aggregators, or other third-party websites.

Proactive engagement with the customer using data from customer applications is critical.

Retail banks can successfully achieve this by:

1. Using Big Data to extrapolate trends and make intelligent predictions
2. Making relevant recommendations based on real-time and historical customer data
3. Implementing systems that allow for easy sharing of data internally - information needs to flow across different channels to avoid fragmentation
4. Overcoming the challenge of using open APIs that do not comply with industry regulations and increase the chance of misuse or theft internally in an effective way
5. Implementing architecture with provable safety and compliance to effectively expose data to relevant third parties
6. Maintaining unified data across different customer products, which in turn provides a 360-degree viewpoint of the customer and eliminates fragmentary channels and products

Qualities of transformative banking apps

The financial services industry is in a state of transformation and many retail banks have already taken steps to accommodate for next-generation demands.

Banks are cognizant of the fact that consumers' expectations and needs are changing rapidly so they need smart strategies and scalable solutions in order to survive.

Transformative banking applications need to have the following qualities:

1. **Contextual -** Apps need to deliver value in-session
2. **Always On -** No downtime for maintenance and upgrades, and no risks of failure
3. **Real Time -** Instant response times to keep up with customer expectations.
4. **Distributed -** Easily replicate data across as many locations (data centers and/or cloud regions) as needed
5. **Scalable -** Must grow with the business dynamically and also be agile to reduce costs and maintain speed

How an operational data layer works

The data layer is a key part of what's required to enable the Right-Now Enterprise.

“Rip and replace” has become the bane of many companies’ existence today, but having an operational data layer makes that unnecessary.

An operational data layer sits between your systems of record (primarily legacy databases, data lakes, and data pools) and your systems of engagement (CRM, ERP, web and mobile apps, ecommerce, etc.).

With your operational data layer, you can harmonize your legacy systems to make them usable for your most powerful, most transformative applications and digital transformation initiatives.

How to unify your banking data

Exploiting search data, analytics, and graph helps build a 360-degree view of the customer.

Unifying data involves creating flexible linkages between data sets to create a virtual profile of a customer. Whether the customer is sharing information about their mortgage needs or looking for life insurance coverage, unification of all this incoming data allows an organization to link the data sets, deep-dive into analytics, and serve up relevant questions, content, emails, and other forms of customer engagement to nurture the customer effectively.

As the customer stays engaged and provides more information about themselves, the organization can create a 'virtual ID' of this customer to identify relevant offers and additional services that would appeal to this specific customer. And, they can do all of this without costly data migrations, inefficient customer relationship management processes, and other activities that demand more resources.

Security - priority number one

Since banks aren't able to apply just any technology to legacy systems without raising questions about security and safety, priorities are shifting towards implementing architectures that provide the highest possible level of security.

Requirement Zero: Be Demonstrably Secure

The only way to step into this grand-scale change is by integrating seamlessly with what is already there and taking steps that won't degrade security. The right architecture can achieve this. Banks need to look for a database that offers the following:

- Transparent data encryption
- Authentication
- Authorization via Kerberos, LDAP
- In-flight encryption
- Auditing
- Fine-grained access controls

How Macquarie and ING use DSE

Case Study: Macquarie

The Challenge: Drive digital transformation initiatives to enhance the customer experience

The Choice: DSE

The Results:

- Transformed from no retail presence to leader in digital consumer banking in less than two years
- Used DSE as the core of its operational data-layer to enhance activity instead of replace it
- Consolidated data from disparate system to obtain 360-degree, real-time customer visibility
- World-class consumer banking app now uses real-time analytics and full text search to capture data

Case Study: ING

The Challenge: Availability with focus on customer experience and microservices

The Choice: DSE

The Results:

- Transitioned to a touch-point architecture that relies more on micro-services
- Recognized need for availability, consistency, and scalability
- Staying active with always-on architecture

Power your financial organization with DSE

As financial institutions evolve to meet the changing needs of today's consumer, managing data effectively and having access to analytics is more of a priority than ever. In order to reduce customer friction, deliver a robust customer experience, and protect consumer data to meet compliance guidelines and regulatory standards, a bank's architecture must include an operational data layer.

DSE is the always-on, distributed cloud database built on the best distribution of Apache Cassandra and designed for hybrid cloud environments. DSE was built to deploy Right-Now Economy applications and handle complex datasets at scale. Leveraging DSE to create an operational data layer allows financial institutions to quickly overcome many of the inherent data management challenges associated with API integrations and microservices that are now becoming a mainstay of digital financial services. DSE can also sort and store large data loads while reducing inefficiencies — and at a lower cost.

Streamline your data collection and management processes with an operational data layer designed that you can implement both externally and internally. Contact a representative at DataStax by calling +1 (650) 389-6000, or visit www.datastax.com for more information.