Oracle Database In-Memory and CustomerXPs Delivers Cross-Channel Fraud Management in Real Time

"We at CustomerXPs are looking for technologies that can further improve the real-time responses of Clari5, as our global tier-1 banking customers are now demanding answers for more and more complex real-time problems, which typically were considered unsolvable. The combination of Oracle Database In-Memory and Clari5 enables a richer, deeper analysis and real-time insight at the point of the transaction itself. With this increased real-time visibility and agility, banks are better able to identify, intervene and respond to fraudulent actions and help decrease their financial risk."

– Ravi Varghese, Chief Executive Officer

Executive Summary

Financial institutions throughout the world are under constant and increasing pressure to rapidly detect and prevent cross-channel fraud and financial crimes in real time. To be more effective, banks need to unify fraud management into a single platform. This strong, centralized approach requires compute and data management to enable detail fraud detection to happen in the transaction window itself. CustomerXPs, an enterprise software company offering financial crime management products, recognized this need and collaborated with Oracle. The resulting real-time cross channel solution, provides financial institutions with the ability to stop crime in its tracks at the time of the transaction.

This case study describes how large financial institutions can benefit from the integration of CustomerXPs' Clari5™ with Oracle Database In-Memory in their business-critical financial services environment.

About CustomerXPs Software

CustomerXPs, headquartered in Bangalore, India, has developed real-time intelligent products that empower enterprises by delivering instant insights that enable fraud-free transactions. With a vision to provide protection to its clients by proactively understanding their customer's needs, CustomerXPs software identifies, and solves complex problems in the areas of enterprise fraud management, customer revenue management, and employee productivity management, by accurately predicting risk and automating targeted treatments in real time.

CustomerXPs' Clari5 Enterprise Fraud Management and Anti-Money-Laundering (AML) suite of products are successfully implemented across many large banks in multiple countries. CustomerXPs brings a wealth of experience implementing fraud, risk management and AML solutions to Tier-1 global banks.

CustomerXPs™

Oracle Customer: Customer XPs
Location: Bangalore, India
Industry: Software
Employees: 150+

ORACLE®

"With real-time visibility and agility across the channels and products, banks are better able to identify and respond to fraudulent actions and decrease their financial and reputational risk."

- Jayaprakash Kavala, Director, Product Management

Challenges: Cross-Channel Fraud and Financial Crimes

Cross-channel fraud and financial crimes have become less predictable and increasingly more sophisticated with the ability to breach financial systems through multiple points of entry. Traditional solutions were designed for a less complex environment; a single channel or single line of business, such as a credit card system, and were dependent upon end-of-day reporting and analysis in order to combat crimes. This outdated, non-real-time method relies on post-fact detection, not prevention. Additionally, this siloed approach leaves financial institutions more vulnerable.

Stop Crime in its Tracks

Key requirements for fraud management and prevention in financial services are real-time detection and prevention at the time of the event. The banking system must have the ability to analyze in-flight transactions and activities, detect suspicious patterns and influence the transaction by blocking, challenging or holding. To address these requirements, CustomerXPs implemented Oracle Database In-Memory to improve fraud detection and enable real-time decisions.

Oracle Database In-Memory at the Transaction Itself

As previously discussed, Clari5 integrates with multiple source systems within a bank to gather financial and non-financial transactions in real time, and derives fraud risk intelligence across various channels and products. This real-time risk intelligence is also used to provide real-time advice (allow/decline/challenge) during in-flight transactions.

In order to perform real-time analytics, it's best if the data is in an analytic format at the time of the transaction. Oracle Database In-Memory has a unique dual format that places the data in memory in both a row (transactional) and a columnar (analytic) format *simultaneously*, enabling real-time analytics to be performed immediately across all transactions, thereby *eliminating delays and reliance on transferring transactional data to a data mart, data warehouse or other analytic store for examination.* Additionally, Oracle Database In-Memory is the most scalable solution by scaling In-Memory analytic processing across servers and storage tiers.

To better understand how Oracle Database In-Memory engages with the transaction itself, here is a cross-channel fraud prevention scenario:

Chris has returned to the United States from a recent business trip to Europe. Chris logs into an Internet banking system to initiate his bill payments. Clari5 receives the transaction, and derives that the Internet banking transaction is from an IP address based in Wisconsin, USA, and stores this information in what is known as risk intelligence, for this customer. Later, Chris performs an ATM transaction in the United States using his debit card. Once again, Clari5 receives this information, and derives that the ATM transaction originated inside the United States. Within the next 60 minutes, a debit transaction authorization is

requested on Chris's debit card from a POS/Merchant in Europe. Clari5 receives the request, reviews the fraud risk intelligence for Chris, and makes a correlation with the origins of the previous two transactions, and responds with real-time advice, and declines the authorization request.

With Oracle Database In-Memory, the elapse time for Clari5's event processing improved by 4X. This improvement in performance allowed CustomerXPs to implement more complex functional scenarios, over a larger dataset for real-time fraud detection and increased the number of transactions that could be processed per second.

Better Together: Scalability, Performance, Agility and Productivity

Customer XPs' Clari5 together with Oracle Database In-Memory delivers higher scalability and performance, through the elimination of analytic silos previously analyzed independently. This allows for more complex analysis, with a greater volume of data, and across multiple channels and products. Increased performance equates to rapid detection, transaction blocking and prevention through the fast identification and response to fraudulent actions, suspicious patterns, and analysis of existing and in-flight transactions and activities, all in real time. With real-time visibility and agility, productivity benefits are seen by Financial Institutions due to instant access to data, and timely, up-to-date reports and analysis, with accurate indicators to management. This allows banks to better respond to fraudulent actions and decreases their financial and reputational risk.

Conclusion

By using Oracle Database In-Memory, enterprises can benefit from real-time business decisions. With its ability to accelerate mixed workloads, using technology that is proven to scale-out, with high availability, security and easy to implement, Oracle Database In-Memory is ideally suited for sensitive, high-transaction environments like financial services.

Clari5, integrated with Oracle Database In-Memory, an instrumental cornerstone of the solution, allows customers to better prevent and block fraud and financial crime at the transaction window itself. The resulting increase in speed enables more complex functional scenarios for real-time fraud detection use cases, while gaining the visibility and agility across various channels and products, thus providing banks a robust system to better identify and respond to fraudulent actions, decrease their financial and reputational risk, and create a positive experience for customers.

BEST PRACTICE:

For more information including Overview, Downloads, Documentation, Community and Learn More, please visit Oracle Database In-Memory on OTN:

http://www.oracle.com/technetwork/database/in-memory/overview/index.html

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Oracle is committed to developing practices and products that help protect the environment