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PUBLIC CLOUD IN FINANCIAL SERVICES

RISK AND COMPLIANCE EXECUTIVE SUMMARY

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CONTENTS

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INTRODUCTION

Cloud computing has made steady inroads into risk management and compliance for more than a decade. Capital markets firms and other large financial institutions pioneered private clouds as a scalable alternative to on-premise grid computing to handle data intensive and complex calculations for financial risk management. Cloud computing's ability to support advanced big data, analytics, and model development techniques has increased the attractiveness of the cloud for risk management applications.

Conversely, cloud computing in compliance first got a foothold at smaller banks and savings institutions as a means of accessing sophisticated software on a low cost, software as a service (SaaS) basis. Adoption in this sector has focused on financial crime compliance, including anti-money laundering and anti-fraud systems.

For large financial institutions and their regulators, security in the cloud has been an issue in the sensitive compliance arena. Increasing use of alternative sourcing arrangements such as managed services for compliance has helped large firms and regulators overcome some of these concerns.

Regtech is giving the public cloud a boost in risk and compliance through an emerging ecosystem of hundreds of new, native cloud offerings delivering advanced capabilities, often at significantly lower cost than on-premise solutions. Regtech areas of focus include governance, risk, and compliance (GRC) as well as financial crime compliance: anti-money laundering and know your customer (AML-KYC), fraud, and securities trading surveillance. The tremendous operational burden of financial crime compliance for large firms has even prompted regulators to advise financial institutions to leverage innovative, advanced technologies. This is likely to promote further adoption of regtech solutions and public cloud in this area.

According to a recent Celent survey, more than 40% of risk managers see inflexible systems unable to quickly respond to ongoing changes as a major challenge in operational risk. Cloud solutions can provide this needed agility.

Regulatory change management (RCM) is a case in point. In an effort to keep pace with the increasing complexity and frequency of regulatory change, many financial institutions have put in place systems to map their operations to relevant regulation, monitor any changes, and track the process of implementing the changes within the enterprise. Yet operational siloes and fragmented approval lines within firms as well as manual workflows in legacy RCM solutions have constrained the potential efficiencies of the technology. A new generation of solutions, many of them cloud native, is attacking the problem by automating the ingestion, mapping, and updating of regulations by means of natural language processing (NLP), artificial intelligence (AI), and robotic process automation (RPA).

This Public Cloud in Financial Services: Risk and Compliance Executive Summary provides a brief overview of the newer, growing uses cases of public cloud in risk management.

PUBLIC CLOUD USE CASES IN RISK AND COMPLIANCE

Public cloud is supporting the adoption of advanced, often lower-cost solutions across all major risk and compliance functions: financial and operational risk management, financial crime compliance, and regulatory change management.

Financial Risk Management

Financial risk is unique in being heavily regulated, integral to corporate strategy, and essential to specific lines of business (such as lending and derivatives trading), all at one and the same time. The use cases for financial risk solutions accordingly run the gamut, from stress testing to credit risk to investment risk. Number crunching is the foundation for all these areas and many large firms have moved their most data intensive risk analytics to the cloud for scalability and cost reasons. Leading financial risk management software vendors have followed suit, pivoting to cloud-based offerings. Increasing requirements for big data, alternative data, and intraday analysis will ensure the trend to cloud-based financial risk management technology will continue.

A Tier 1 bank in Europe seeking to improve its financial scenario forecasting capabilities opted for a cloud-native financial risk solution based on next generation technologies. The solution supports granular, big data analysis of structured as well as alternative, unstructured data; automates workflows, data management, and data mapping with smart process automation and orchestration; and enables collaboration among multiple users across the bank. The bank uses the solution’s data science tools to develop analytical models and the platform’s API-based integration capabilities to provide users across the enterprise with access to the solution to run the analytics.

Operational Risk Management: Governance, Risk, and Compliance

Governance, risk, and compliance (GRC) systems cover a wide range of functions, from operational risk to internal audit. Financial institutions have expended much effort on centralizing GRC in order to get a single view of risk across siloes, but progress has often been slow. This is an area that seems tailor made for the cloud. Cloud-based GRC solutions can efficiently support the collection of assessments entered by stakeholders as well as of quantitative data from systems throughout the enterprise; analyse these data; and display results to risk professionals in real time. Recent years have seen the emergence of numerous cloud-based GRC solutions, including a number of the leading systems in the field.

Cloud strategies in financial services require a strong risk framework. A Tier 1 bank in the US that is moving many of its application to the cloud has created a standardized environment and policy framework across its application architecture, including internal systems, third-party applications and SaaS-based solutions. The bank’s goal is to reduce operational risk and reduce time to market by having all systems, including partner systems, comply to the same standards of operation on the public cloud. The standardized environment supports efficient and seamless banking operations while the policy framework ensures compliance with regulatory requirements. Moreover, the continuous monitoring, visibility and control enabled by modern cloud architecture and tools has enabled the bank to establish higher baseline levels of security and dramatically reduce risk.

Fraud

Anti-fraud technology has used artificial intelligence and real time analysis since the 1990s. Off-premise, hosted fraud solutions have also long been standard in specific lines of business such as credit card fraud. Since that time, the advent of customer-facing digital financial services has opened financial institutions to new fraud and security vulnerabilities, which has ensured the continued development of cutting-edge fraud solutions. Anti-fraud techniques now encompass behavioral analysis, biometrics, device ID and device fingerprinting, and analysis of alternative data. Many of these point solutions are cloud native to better support monitoring of digital channels, big data analytics at scale, and integration with other fraud and compliance applications. Cloud-based fraud monitoring platforms have also emerged to bring advanced AI and NLP techniques to Tier 2 and Tier 3 banks that lack internal data science capabilities.

A Tier 2 bank in the US implemented a cloud-native anti-fraud solution to monitor transactions and customer activity across its digital channels, including mobile banking services such as remote deposit capture and third-party payments services offered through the bank. The solution uses AI and machine learning to identify and block potentially fraudulent transactions in real time. Mobile user interfaces further enhance the bank's ability to respond quickly to risks.

Anti-Money Laundering

Anti-money laundering is arguably the most operationally burdensome area within risk and compliance. Typically, 90% or more of alerts generated by AML systems are false positives; and Tier 1 banks deploy hundreds if not thousands of compliance analysts to work through them. The need to improve efficiency in AML operations is driving financial institutions to adopt solutions with AI, machine learning and RPA capabilities to improve analytic insights, reduce false positives, and automate workflows. AML is also a major focus of regtech, with some one-fourth of regtech startups working in this area. One-third of AML solutions are deployed in the cloud, mostly by the many Tier 3 banks in the US and several other markets. Now, the use of AI is leading to a new wave of cloud-based AML implementations at larger firms, supported by the cloud's capability to deliver high performance, scalable, and on-demand computing; and often at a lower cost.

A Tier 1 global bank implemented a next-generation network and link analysis platform to analyze internal and external data, including cross-jurisdictional data, to provide a comprehensive view of customer activities and relationships and the corresponding risk of financial crime. The system has enabled the bank to improve the quality, comprehensiveness, and speed of investigations; improve its ability to detect illicit activity, and reduce investigation time. The bank is implementing the system in more than 50 countries and realizing efficiency gains from moving to a centralized investigative platform and decommissioning legacy systems.

Know Your Customer (KYC)

Know your customer operations, integral to the onboarding and periodic review of accounts, is a complex area involving the collection and review of customer documentation as well as customer risk assessments based on negative news and other external data. KYC operations are challenged by high onboarding volumes in mass retail lines of business and by long cycle times—often stretching into weeks—for corporate accounts. KYC risk assessments are time consuming, involving analyst searches of multifarious data sources. The inefficiency of KYC processes as well as the regulatory risk of doing business with suspicious entities is leading financial institutions to turn to a new generation of KYC solutions that leverage NLP, RPA, and AI to automate the compilation of entity profiles and calculation of KYC risk scores. Many of the new breed of KYC solutions are delivered through the cloud and take advantage of cloud's ability to support scalable, real-time search and analysis.

A Tier 1 European bank implemented a cloud-native KYC solution to realize process efficiencies and improve investigative capabilities in its customer due diligence operations. The bank has achieved global coverage of negative news and other external data, which is automatically read and contextualized by NLP and AI, with curated profiles and risk assessments delivered via APIs to the bank's inhouse financial crime systems for escalation to analysts for further action as needed. The next-generation, cloud-based solution has enabled the bank to shorten KYC cycle times as well as reduce technology costs.

CONCLUSION

Financial institutions, and regulators, have traditionally shown extreme sensitivity to data protection, privacy, and security issues for risk and compliance operations. Accordingly, firms have been cautious in deploying risk management technology to the cloud. Nevertheless, the cloud's ability to support scalable, flexible, next-generation technologies—and at a lower cost—is leading many firms to turn to the cloud in order to resolve some of their most intractable risk and compliance challenges. The increasing importance of next-generation technologies for risk management will ensure that this trend to the cloud will continue.

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