

IBM Z Banking & FM Point of View



As financial institutions continue to face slow growth and increasing economic uncertainty, they are reevaluating their operating models and business processes to become more agile, efficient and cost effective. At the same time, customers are demanding a highly personalized experience that is seamless across all channels and available at any time. Banks and financial service providers are also challenged with increasingly sophisticated security threats and growing regulatory compliance costs as well as competition from nontraditional players.

In today's digital economy, customers expect financial institutions to deliver the same level of personalization and engagement that they are used to enjoying in other parts of their lives. In fact, customers are more frequently make relationship decisions based on the ease of engaging with a bank or financial services provider. Taking advantage of the massively increasing volumes of data that financial institutions own, both structured and unstructured, is imperative to offering the individualized engagement that customers demand. 80% of the world's corporate data resides or originates on IBM Z® and most banking and major credit card transactions, stock trades, and money transfers are executed on IBM Z. Financial institutions can combine this wealth of customer transactional history and data with other sources such as cloud and distributed data, 3rd party and social data to discover valuable insight about customers' needs, preferences and intentions.

With technologies on IBM Z such as machine learning and Apache Spark, banks and financial institutions can execute self-learning behavioral models to anticipate customer needs and apply insight to take action in real time. These capabilities enable sophisticated, highly optimized analytic processing on IBM Z where the most current, business critical data resides with no data movement. Financial institutions can create a highly personalized customer experience and value added services by using in-the-moment insight such as combining real time transactional data with other data sources such as social, geospatial and Internet of Things. Analyzing data in-place significantly reduces the security risk and data governance complexity associated with copying business critical data. These technologies can also be used to rapidly identify emerging patterns of fraud and other financial crimes as they are occurring to minimize losses and protect customers. Additionally, IBM Z operations analytics solutions integrate cognitive capabilities to optimize performance and availability of business critical systems.

Banks and financial service providers need to respond to the rapidly changing marketplace and threat of disruption from new competitors by transforming and modernizing their business applications and processes, operating models and underlying technology rails as well. Highly flexible, agile systems that can respond quickly to customer needs, market requirements, technology innovations, and regulatory requirements and are enabled to connect and interact with the ever expanding ecosystem of partners are essential for financial institutions to remain competitive and relevant. Additionally, customers expect the services from their banks and financial service providers to be available at all times and to be highly secure. IBM Z is the industry's most secure and highly available enterprise server with record uptime and 99.999% availability with the capability to seamlessly expand for future growth and spikes in demand.

Financial institutions are transforming core business applications using APIs and microservices to increase agility and flexibility and reduce cost. Without changing backend systems or requiring Z skills, mobile and cloud app developers can create new services using APIs and microservices to connect to the existing data and transactional systems on IBM Z with IBM z/OS® Connect. Banks and financial

service providers are also adopting DevOps to support agile, collaborative software development and are looking for modern tooling across their enterprise. IBM offers an end-to-end suite of DevOps products and tools that can be used for across multiple platforms including Z. Additionally, IBM Z supports modern programming languages, tools and open standards such as Docker, Node.js, Swagger, MongoDB, JSON, etc. providing developers to create and deploy new APIs and services with greater speed and agility.

Modernization of payments systems is a high priority for many banks. Many banks are challenged by the deficiencies in their existing siloed payments infrastructure — poor visibility, operational inefficiency, high regulatory compliance costs and lack of agility to rapidly meet evolving customer demands and market requirements such as real-time payments. To modernize in a cost effective way, many banks are focusing on creating an integration layer across siloed payments applications to consolidate, standardize and centralize payments operations. A consolidated payments solution on IBM Z enables banks to reduce cost through consolidation of systems and reduction of the number of interfaces. IBM Z provides the continuous availability required for real-time payments systems and can seamlessly expand to support the future growth in volume and spikes in demand due to the unpredictable nature of payment transactions.

Financial Institutions are also looking at innovative new technologies such as Blockchain to reimagine key business processes such as cross-border payments, identity management for Know-Your-Customer (KYC) compliance, securities and trade settlement. IBM Blockchain for Hyperledger offerings include a high security business network, a cloud services offering underpinned by IBM LinuxONE™ that provides a permissioned network with the highest transaction rates and a hardened security environment with unique features including the Secure Service Container – a virtual appliance lockbox.

The theft of information assets and the intentional disruption of online processes are among the most critical business risks facing financial institutions today. The number of breaches in the financial services industry rose by 80 percent in 2015³ and continues to increase as attackers become more sophisticated and increased use of mobile devices and expanding ecosystems introduce new vulnerabilities to exploit. Extensive use of encryption is one of the most effective ways to help reduce risks and losses of a data breach and help meet complex compliance mandates.

IBM Z has unrivaled encryption capabilities to help defend and protect business critical data against external and internal attacks, including privileged users. Financial institutions can protect all the business critical data that resides on Z - at rest and in flight – transparently with no changes to applications with IBM Pervasive Encryption. Centralized data encryption policy-based controls significantly reduce the costs associated with data security and achieving compliance mandates, including new General Data Protection Regulations (GDPR). Centralized multi-factor authentication for users with elevated privileges can help prevent unauthorized access to business critical systems and sensitive data by rogue insiders or external attackers using compromised administrator credentials. Integrated encryption, data protection, identity and access management and security intelligence and audit on IBM Z provide financial institutions with a highly optimized, cost effective security environment.

IBM Z help the world's most complex organizations and quickly growing enterprises outthink the competition. Rely on IBM Z to deliver agility and efficiency through cloud, transact faster through Blockchain, create outstanding customer experience through analytics, and ensure service and data protection through the world's most secure systems.

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