REBOOTING THE OPERATING SYSTEM FOR DIGITAL FINANCIAL SERVICES

Conventional structures and business models are being upended by pulls and pressures in the financial services industry. On one hand, parallel currencies, crowdfunding, peer-to-peer lending, and shadow banking systems are altering market dynamics; while on the other, millennial customers seek to seize control and participate in the creation of financial products and services.

Significantly, another constituent is demanding course correction: Regulatory bodies are making a case for more enhanced consumer choice in addition to better systemic security and customer protection. Benjamin M. Lawsky, Superintendent of Financial Services at the New York State Department of Financial Services, released the BitLicense framework at the BITS Emerging Payments Forum in Washington DC in June 2015. He discussed the potential of digital currency to drive changes in the payments landscape. "It generally takes you longer to transfer money electronically than it would to physically transport that cash to another state or country," noted Lawsky.

Digital technology has transformed banking and financial services. At the same time, it provides convenience, more engaging experiences amid stiffer competition, and stringent regulations. Financial service enterprises need a 'Renew-New' strategy that capitalizes on technology to achieve operational efficiency and drive innovation.

A subculture has emerged with the 'sharing economy.' Millennials expect convenient and almost instant services – be it opening a bank account, transferring money, or making a mortgage payment. The digital natives bypass financial intermediaries if they cannot access financial services as, when, and how they want the services.

'Renewal' opportunities

Lean IT infrastructure

The technology infrastructure of financial service enterprises needs to be upgraded continuously to address the dynamic landscape – online banking, mobile banking, digital displays and signages, IP-based video services, biometric protection systems, and a near real-time data network. IT teams should plan the infrastructure taking into account the sensitivity of mission-critical operations, complexity of applications, projected computing demand, regulatory compliance, and the user experience.

Migrating the computing infrastructure to the cloud makes business sense in the context of demanding business requirements and shrinking margins. Cloud-hosted Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) models, combine flexibility and scalability with on-demand availability while rationalizing investment. An enterprise view of platforms, processes, and applications, optimizes the cloud environment and streamlines the create-adopt-manage lifecycle.

Financial service enterprises require an ultra low-latency data network for accelerated execution. The network should ensure reliability of a large volume of data across the ecosystem. In addition, the data and network of banks, capital market companies, and financial intermediaries, need to be safeguarded with robust authentication and authorization mechanisms. A centralized security framework enables regulatory compliance, including the Sarbanes-Oxley Act and Gramm-Leach-Bliley Act, for protection of customer data and reporting data leakage or loss. Moreover, centralized control mitigates risks in the event of a security breach.

Robotic process automation

Typically, rules-based automated systems cover only 70 to 80 percent of a business process. Systemic issues and the 'subjective layer' of a business process demand human intervention to complete automated tasks. Robotic Process Automation (RPA) or rapid automation combines algorithms with artificial intelligence and machine learning to automate end-to-end business processes.

'Robots' in RPA software manipulate data, and identify, as well as interpret, actions of specific processes. Smart algorithms adapt to dynamic requirements, trigger responses, and initiate predictive actions. Since the software interacts directly with enterprise systems, RPA is useful for processes involving large volumes of transactions and data from multiple sources.

RPA technology minimizes costs significantly, accelerates cycle times, ensures scalability, and boosts productivity.

RPA can be applied in back, middle, and front office processes and functions in shared services or captive process centers at financial institutions. It supports remote management of IT infrastructure, IT support and service desk operations, and network management. RPA improves the accuracy of invoice processing, reconciliation, and application processing. Significantly, robotic process automation facilitates execution of subjective tasks and exceptions management through rules-based decision support.

RPA does not require process re-engineering. Software robots access systems through the graphical user interface with a login ID and password – in the same manner as users. Automatic tracking of tasks performed by the robot provides an audit trail and ensures better operations management. RPA technology minimizes costs significantly, accelerates cycle times, ensures scalability, and boosts productivity. Moreover, robotic agents are notable for their consistent performance, 24x7 availability, and operational excellence.

Risk and compliance management

Centralized systems for risk and compliance management are a business imperative for omnichannel financial services. Digital wallet interfaces for mobile payments and a digital ecosystem increase reputational and operational risks. An enterprise-wide, multi entity system, should be combined with responsive tools to safeguard customer data and digital assets, prevent fraud, and mitigate credit, market, and regulatory risks. The risk management system needs to aggregate data across products and locations for comprehensive reporting and disclosures.

Automated risk management monitors risk factors and compliance parameters across applications and business processes. A unified platform helps identify, measure, and control risks. Integrated risk management boosts productivity and enhances responsiveness to events. It provides a transparent system that inspires confidence while addressing regulatory requirements such as Basel III, Foreign Account Tax Compliance Act (FATCA), and the Dodd-Frank Act. Financial institutions can explore cash and credit management strategies to reduce risk exposure supported by visibility into the risk management lifecycle.

Predictive models and robust audit processes detect unusual behavioral patterns and activities, thereby preventing fraud. Modeling facilitates stress tests based on large volumes of transaction data from internal and external sources as well as simulation of market conditions. Dashboards and reporting templates aggregate risk elements and offer real-time visibility into enterprise risks. Early diagnosis of likely issues and accurate analysis help risk managers take informed decisions to manage liquidity, credit, and operations.

Omnichannel customer service makes the financial service enterprise vulnerable to cyber attacks. In addition, the diversity of user devices and applications adds to the demands on the data and network security solution. Identity management solutions built on biometric characteristics such as fingerprint, palm vein, iris, and face or voice recognition, ensure end-point security.

'New' opportunities

Digital transformation

Digital technologies are transforming financial services – from business models, infrastructure, and processes; to products, services, channels, and the customer experience. Digital transformation empowers banks and financial intermediaries in three strategic areas – personalization, straight through processing (STP), and omnichannel experience.

The millennial customer seeks personalized products and services. Unified digital marketing platforms help financial service providers share comprehensive information that allows customers to make informed choices. In addition, it offers a consistent experience across banking channels. At the same time, unified marketing platforms provide a holistic view of customers by combining data from structured data sources as well as social media. Analytical tools support marketing by predicting behavior and value across the customer's lifetime.

Straight through processing is the holy grail of financial services. An end-to-end digital workflow – from deal capturing to final settlement – accelerates transaction processing across financial instruments. STP minimizes errors, fraud, and risks, by eliminating human intervention and ensuring near real-time capturing, processing, and reporting. STP of payments and receivables improves transparency across the financial enterprise.

Quality of service influences customer behavior in the future. Context-aware products and services deliver a rich, omnichannel experience, while reducing the cost of operations. A mobility strategy benefits customers and agents of financial service providers. It allows customers to consult financial advisers anytime. Mobile devices help customers contact agents of providers, address queries by accessing customer / product data, as well as sales / marketing information.

Advanced analytics

Financial intermediaries and banks need to capitalize on opportunities and deliver outcomes across the value chain while simultaneously minimizing costs and mitigating threats. Sophisticated data and analytical capabilities help financial enterprises grow in the dynamic environment by migrating from react-and-remedy to predict-and-prevent operations.

Predictive analytics helps banks, insurance companies, and capital market firms transcend budgeting, forecasting, and reporting. It offers actionable insights to boost productivity and efficiency, increase profitability, drive revenue, and mitigate risks more effectively. However, a prerequisite for next-generation analytics is a robust data management system that can manage petabytes of data and support emerging analytical techniques. Enterprise systems should discover data in real-time across sources, structures, and formats, and seamlessly integrate new data sources with the analytical framework.

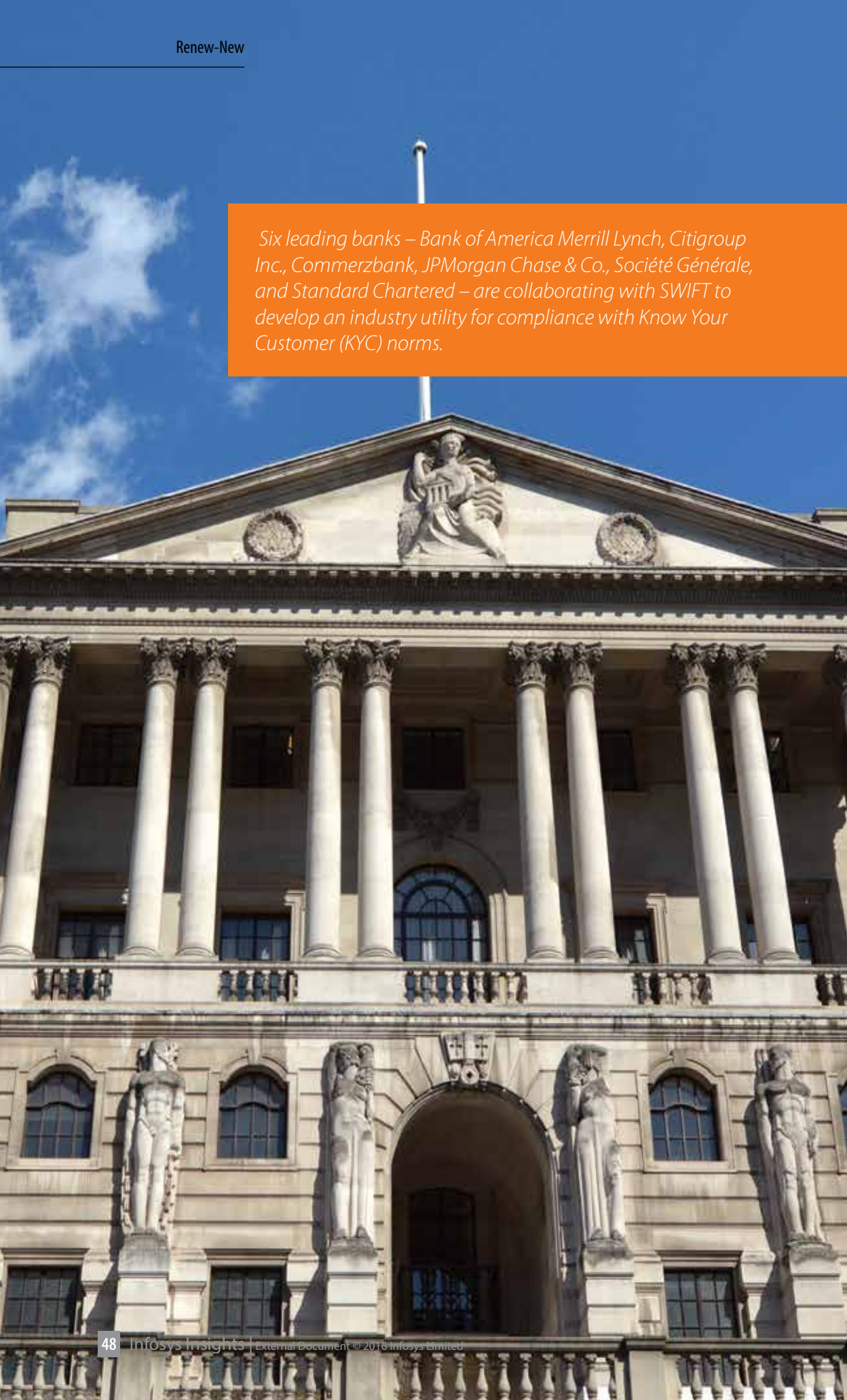
Data mining and analytics deliver compelling value across the customer lifecycle. Insights into customer behavior and accurate micro-segmentation improve campaign management, marketing, and sales processes through cross-selling, upselling, and loyalty initiatives. Customer analytics improves strategies to acquire and retain customers. It helps increase the wallet share in the most profitable segments and cultivate relationships with high-net-worth individuals through personalized engagement, niche products, and flexible pricing.

Risk analysis enables banks and financial service providers to make risk-aware decisions, improve credit management, and streamline collections as well as recovery. Transaction pattern analysis identifies and manages applications as well as transaction fraud. Credit scoring models mine unstructured data to support credit-related services.

Collaboration

Collaboration is increasingly shaping the growth and profitability of companies across industries. Wikipedia, the co-created repository of information, sounded the death knell of the encyclopedia business. Banks, insurance companies, and investment management firms should collaborate with customers, peer enterprises, and even competitors to remain relevant in the digital age.

Collaboration should transcend dissemination of data on online forums or blogs. Its potential can be realized by generating ideas to drive innovation, and create new products, services, and experiences. It should help employees



Six leading banks – Bank of America Merrill Lynch, Citigroup Inc., Commerzbank, JPMorgan Chase & Co., Société Générale, and Standard Chartered – are collaborating with SWIFT to develop an industry utility for compliance with Know Your Customer (KYC) norms.

connect within and beyond the enterprise, and actively participate in knowledge sharing. Gamification-oriented social collaboration accelerates innovation, while enriching the experience of delivering services for employees.

Financial institutions need to collaborate with third-party service providers or create consortiums to develop utilities as a shared service, rationalize costs, and address business challenges. Six leading banks – Bank of America Merrill Lynch, Citigroup Inc., Commerzbank, JPMorgan Chase & Co., Société Générale, and Standard Chartered – are collaborating with SWIFT to develop an industry utility for compliance with Know Your Customer (KYC) norms. The Bank Innovators Council is a consortium of banks to facilitate and support innovation. It was established to help financial institutions benefit from shared expertise.

Financial enterprises can streamline the payment process for customers by partnering with technology providers. Several multinational banks, credit card providers, and money transfer agencies leverage Apple Pay for mobile payments. Plaid, a tech start-up, is developing a unified application program interface for banks by accessing their data. Plaid applications will help banks deliver contextual data of every customer transaction.

A digital renaissance

Financial service enterprises can achieve faster time-to-market and improved regulatory compliance through digital transformation. Banks, insurance companies, and capital market firms can attract and retain digital customers by assimilating new technologies, re-orienting processes, and renewing core operating systems.

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