The technological architecture of the banking, financial services and insurance (BFSI) industry is steadily moving from core system modernisation towards new-age IT solutions and tools. {K2Splitter} The technological architecture of the banking, financial services and insurance (BFSI) industry is steadily moving from core system modernisation towards new-age IT solutions and tools. Many financial firms are actively deploying technologies such as cloud computing, blockchain and artificial intelligence (AI) for a wide range of operations such as payments, trading customer acquisition, lending, and risk and wealth management. Apart from enhancing business efficiency, these solutions are helping the BFSI industry in providing a personalised and omni-channel experience to its customers. The shift towards these technologies is being supported by advancements in mobile technologies, increased mobile internet usage and formulation of enabling regulations.

In India, the proportion of financial transactions through digital channels has increased significantly, following the government's push towards a less-cash society through policy actions such as demonetisation. Significant growth in the use of non-cash channels such as mobile wallets and card payments is also being witnessed. Meanwhile, customer awareness and engagement have also increased in the past few years and customers are now demanding sophisticated new digital products that can fulfil their requirements. The industry, thus, needs to constantly stay on the path of transition to a digital ecosystem and deploy new technologies as strategic tools to meet this demand.

A look at the new IT applications being adopted by organisations in the BFSI space…

Cloud computing

Traditionally, the BFSI industry kept a close control on its IT infrastructure due to perceived security and regulatory risks. This is, however, set to change as banks are now focusing on minimising their operating costs by reducing the number of data centres and moving to the cloud. The BFSI industry generates a large amount of data on a daily basis, which should be accessible to consumers anywhere, any time. This can be ensured through cloud-hosted solutions. The banking areas best suited for cloud computing are delivery channels, customer relationship management, client sales and servicing, and payments. Most financial trading firms have also moved their operations online. This has helped boost customer confidence in trading as they are able to access real-time data. This, in turn, has increased trading volumes. Insurance firms, too, see cloud as a critical enabler that can help them reduce costs and enhance operational efficiencies.

Cloud-based solutions are also making inroads into the payments space. There is an increasing shift towards cloud-based point-of-sale (PoS) systems, which offer several advantages over traditional PoS systems such as secure transmission and storage of sensitive credit card data, guaranteed system uptime and service availability and an offline option in the event of a network failure. A lot of other services such as internet and phone banking are also being moved to the cloud.

IoT

Internet of things (IoT) has provided an opportunity to the BFSI industry to offer a personalised experience to customers, generate more cross-sell opportunities, innovate and devise better ways to improve risk management, reduce costs, and improve overall operational efficiency. By analysing the data collected through connected devices, banks can anticipate the needs of customers, and offer solutions and advice that can help customers take sound and smart financial decisions. This can help increase customer loyalty, and, in turn, bring more business to banks. Further, by leveraging IoT, banks can analyse the usage of ATMs in specific areas and increase/decrease the installation of ATMs based on usage data.

In the insurance industry, IoT can play a major role in providing usage-based insurance products. By using real-time data about personal behaviour, insurance firms can fine-tune coverage to potentially add or eliminate certain risk clauses. Meanwhile, asset and wealth management companies can use IoT to help businesses and consumers make investment decisions and undertake asset allocation based on behaviours, personal choices and geographic considerations.

Blockchain

Blockchain is fast emerging as a popular technology tool for solving the cybersecurity challenges being faced by the BFSI industry. Apart from making the general banking process more secure, blockchain can play a significant role in facilitating cross-border payments, digital identity management, clearing and settlement, letter of credit process, and syndication of loans. A key application of the blockchain technology is cryptocurrency, popularly known as bitcoin. Cryptocurrency addresses multiple challenges associated with digital transactions such as double spending and currency reproduction. It enables peer-to-peer payments without going

through an intermediary. It also reduces the cost of online transactions while simultaneously increasing authenticity and security. As per an industry estimate, blockchain technology has the capability to reduce costs for banks by up to $20 billion annually by 2022.

The Indian banking industry too is gearing up to use blockchain technology to make banking more robust and secure. The Reserve Bank of India, in its latest financial stability report, has acknowledged that blockchain can bring about a major transformation in financial markets, starting with identifying collaterals (such as land records) and setting up payment systems. A number of Indian banks including ICICI Bank, IDFC Bank, Kotak Mahindra Bank, IndusInd Bank and RBL Bank are undertaking a project to test blockchain technology for know-your-customer (KYC) data. In February 2017, state bank of India formed a working group of Indian banks, named as BankChain, for developing blockchain solutions. The consortium will initially focus on developing blockchain-based solutions for KYC, anti-money laundering, syndication of loans, group lending, trade finance, asset registry and asset rehypothecation, secure documents, cross border payments, peer-to-peer payments and security controls.

Going forward, the prospects of large-scale adoption of blockchain solutions in banking and finance would hinge on the pace at which the several challenges currently being faced in the implementation of the technology are addressed. These comprise building a network of banks to use the technology, application integration challenges, and identification of the right use cases, right platforms and right vendors. Further, a conducive regulatory regime is imperative for the success of the technology.

Artificial intelligence

The newest wave of opportunity in the financial technology horizon is related to the use of AI. For example, banks can use the technology to identify suspicious activities based on transaction history and behaviour of individual customers. If a huge transaction is initiated from a bank account, machines can immediately withhold it until it is verified by a human. Further, AI can be used to develop automated chat systems called chatbots, which simulate human chats without any human intervention. These bots use natural language processing to understand human inputs (voice or text) in contextual terms and respond accordingly. Machine learning also allows an analysis of real-time data based on recent transactions, market conditions and even latest news to identify potential risks in offering credit. With the help of predictive analytics, a machine learning algorithm can analyse huge volumes of data to understand micro activities and assess the behaviour of parties to identify a possible fraud, a task which is difficult for human investors to perform manually. Moreover, with the ability to analyse past behaviour, machine learning can serve as an influential tool for marketers to design future campaigns.

The Indian banking sector is also beginning to adopt AI quite aggressively for both back-end and front-end operations. SBI is currently using an AI-based solution to scan the cameras installed in its branches and capture the facial expressions of customers and immediately report whether the customer is satisfied or not. SBI has also launched SIA, an AI-powered chat assistant that addresses customers' enquiries instantly and helps them with everyday banking tasks just like a bank representative. HDFC Bank has also developed an AI-based chatbot called Eva. According to the bank, Eva can assimilate knowledge from thousands of sources and provide simple answers in less than 0.4 seconds. Since its launch, Eva has addressed over 2.7 million customer queries, interacted with over 530,000 unique users and held 1.2 million conversations. Axis Bank has also launched an AI and natural language processing-enabled conversational banking application to help consumers with financial and non-financial transactions, answer frequently asked questions, and get in touch with the bank for loans and other products.

The way forward

Going forward, the BFSI industry is poised to become far more technologically empowered than it is today. While this will help both the ICT industry as well as banks to derive synergistic benefits, it will also lead to the emergence of new security challenges. Use of IoT and AI will allow cybercriminals more opportunities to hack a network as there will be more points of entry. Thus, banks will need to add an extra layer of security across the entire IoT ecosystem, comprising devices and network. The need to ensure that the entire connected banking experience is secure will be increasingly vital in order to gain customer trust and move upwards on the technology trajectory.

About Us We are Hiring Contact Us

Subscribe Privacy Policy Advertise Terms & Conditions

Copyright © 2010, tele.net.in All Rights Reserved