

# ZIONS Bancorporation



## Länsförsäkringar Bank



**PLUS**

**QUARTZ**

at the Intersection  
between Industries

Meet us at  
Booth Q105  
at SIBOS

# PREPARING FOR THE LEAP TO HYPERCONNECTIVITY

We at TCS Financial Solutions have been working with our customers globally to make several big leaps – to move from fragmented and siloed core processing architectures to modern componentized yet integrated architectures, and from batch processing models to embracing real-time paradigms of processing and interactions.

Yet we recognize that the next leap may be even more challenging. We are entering an era of hyperconnectivity.

Hyperconnectivity will mean that there will be far more people, businesses and “things” online, generating more data than ever, through network, transmitting that instantaneously to an ecosystem that will in turn respond instantly to trends and patterns in real time. Competitors across borders and across industries are imagining ways to profit from the exponential growth in connectivity in ways that we have only begun to glimpse.

For a financial institution operating in this age of hyperconnectivity, merely being connected in real-time will not be enough. To retain and attract customers will require the highest levels of flexibility and innovation and an ability to reimagining business and value creation models which can happen predominantly only when they are able to visualize more partnerships with entities across the broader ecosystem.

It is amply clear that hyperconnectivity will place incredible demands on organizations, and TCS Financial Solutions is committed to ensuring that TCS BaNCS customers will be ready. In every area of our business, we have been working to ensure that we provide open platforms and trusted networks that support real-time interchange of information with diverse stakeholders.

We are putting in place several key aspects of our strategy keeping this new world in mind. These revolve around three fundamental building blocks

### **1. Ability to connect, interact, and exchange data**

We believe that ‘designed for cloud’ solutions having support for APIs and microservices will form an essential component of success in the hyperconnected world. TCS already holds the leading position as a SaaS provider for cloud-based financial services, including Diligenta, TCS’ platform for life insurance and pensions in the UK; TCS BaNCS Cloud for Core Banking, which handles over 100 million transactions per month; and our just-launched TCS BaNCS Cloud for Asset Servicing, which has already started winning customers in the largest markets in the world.



By **Venkateshwaran Srinivasan**, Head of TCS Financial Solutions,  
**R Vivekanand**, Vice President and Co-Head, TCS Financial Solutions



## 2. Ability to analyze data

TCS BaNCS Cloud deployments will also include powerful pre-integrated tools for data analytics. These tools will accelerate the ability for our customers to make the highest use of all the information at their disposal.

## 3. Ability to innovate and co-create value

We want TCS BaNCS clients to lead the way in building new ecosystems for innovation and co-creation of value in the hyperconnected economy, and to that end, we have launched several new solutions and platforms:

- **Quartz**, a horizontal business unit providing blockchain solutions that span industries, whether as pre-built Quartz Smart Solutions or custom-developed solutions built with Quartz DevKit.

- **BaNCS Industry Network**, which embeds TCS BaNCS functionality directly into Quartz blockchain solutions, giving TCS BaNCS clients the fastest and easiest way to participate in cross-industry blockchain solutions.

- **TCS BaNCS Marketplace**, an ecosystem connecting solution providers with financial institutions around the world. (We'll introduce some of the many TCS BaNCS Marketplace partners at SIBOS 2019 and at the TCS BaNCS Annual Customer Forum in London.)

We've also made it easy to connect with ecosystem partners by embracing open banking in a big way with our adoption of BIAN, IFX, and ISO 20022.

Overall, these three building blocks are intended to support TCS BaNCS customers throughout the transition to hyperconnectivity by enabling constant interchange with a wide range of stakeholders throughout the broader ecosystem.

By making it easier to create and build solutions within the emerging ecosystem, our customers retain the needed flexibility to keep up with the challenges that will arise out of hyperconnectivity. Organizations that can ensure security, protect privacy, and harness innovation within the fast-moving hyperconnected economy will have a decided strategic advantage.

We are dedicated to ensuring that our customers make the leap to hyperconnectivity, and we look forward to connecting with you in person at SIBOS and continuing our conversations.



# from the editor



TCS Financial Solutions was launched as a strategic business unit of TCS in 2007. Since then, we've deployed TCS BaNCS at more than 450 financial institutions worldwide, and many of their stories have appeared in these pages.

Based on exclusive interviews with key executives, these case studies illustrate how TCS BaNCS customers have successfully redefined and transformed legacy businesses, launched new businesses, and enabled first-to-market innovations. In this issue, we feature several more examples from financial institutions around the world.

You, our customers, have reshaped the global financial services industry, and the TCS BaNCS Customer Newsletter has served as a valuable record and welcome celebration of your accomplishments.

That's why it gives me great pleasure to take up the mantle of Editor of the TCS BaNCS Customer Newsletter now. I've been involved with the newsletter behind the scenes for a while now — and I've learned much from 15 years of working with my predecessor Dennis Roman, who is now heading Products & Platforms Marketing for TCS.

Speaking of products and platforms, this issue features our 2nd special supplement on Quartz, a horizontal business unit of TCS providing blockchain-based solutions across industries. Quartz may have started in financial services, but it's quickly becoming a much bigger story. In the hyperconnected world, financial services are increasingly intertwined with broader ecosystems throughout the economy, and just as TCS BaNCS provides the capability to run any financial institution of any size and configuration, Quartz provides the tools, networks and resources to create and cultivate any kind of ecosystem across industries.

Let's explore the hyperconnected ecosystem together, at SIBOS London 2019 (Booth Q105) and at the 12th Annual TCS BaNCS Customer Forum, followed by the 9th Annual FT-TCS BaNCS Financial Leaders Dinner Forum, themed: "Connected banks, protected nations: What does hyperconnectivity really mean for financial services?"

Also, make TCS BaNCS part of your commute! Download our brand-new podcast (<http://bit.ly/TCSBaNCS31>) for bonus content from this issue of the TCS BaNCS Customer Newsletter and subscribe for future updates.

Happy Reading, and Happy Listening.

**Anjana Srikanth**

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## About TCS Financial Solutions

TCS Financial Solutions is a strategic business unit of Tata Consultancy Services. Dedicated to providing business solutions to financial institutions globally, TCS Financial Solutions has compiled a comprehensive product portfolio under the brand name of TCS BaNCS. The TCS BaNCS universal financial solution is designed to help financial services institutions enhance end customer experience, enabling them to embrace open and innovative technologies that embody true digital customer engagement. Deployed at more than 450 installations worldwide, it is the largest collection of components, enterprise and consumer apps for the financial industry made available through the cloud, helping firms become more agile and intelligent by leveraging the power of new and extended ecosystems.

To know more about TCS BaNCS, please visit: <http://sites.tcs.com/tcsbancs/>

Follow us on Twitter @TCS\_BaNCS, and on LinkedIn at <https://www.linkedin.com/showcase/tcs-bancs>.

## About Tata Consultancy Services LTD (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that has been partnering with many of the world's largest businesses in their transformation journeys for the last fifty years. TCS offers a consulting-led, cognitive powered, integrated portfolio of business, technology and engineering services and solutions. This is delivered through its unique Location Independent Agile delivery model, recognized as a benchmark of excellence in software development.

A part of the Tata group, India's largest multinational business group, TCS has over 436,000 of the world's best-trained consultants in 46 countries. The company generated consolidated revenues of US \$20.9 billion in the fiscal year ended March 31, 2019 and is listed on the BSE (formerly Bombay Stock Exchange) and the NSE (National Stock Exchange) in India. TCS' proactive stance on climate change and award-winning work with communities across the world have earned it a place in leading sustainability indices such as the Dow Jones Sustainability Index (DJSI), MSCI Global Sustainability Index and the FTSE4Good Emerging Index. For more information, visit us at [www.tcs.com](http://www.tcs.com).

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cover story

# ZIONS Bancorporation

Affiliate brands to share a single platform for consumer lending, commercial lending, and deposits

By Jim Washburn, Senior Relationship Executive, TCS Financial Solutions



**Zions Bancorporation recently completed the second phase of an ambitious three-phase plan to consolidate consumer loans, commercial loans, and deposits onto a single core banking solution — TCS BaNCS.**

The first phase went live in May 2017, covering consumer loans.

The second phase was completed in February 2019 for commercial and consumer construction loans.

Typically, large multistate banks in the U.S. use separate product-specific systems for each individual bank brand. Previously, Zions followed that business model with its seven legal bank charters, six affiliate banks, and five core banking systems, a situation that led to a high degree of customization and complexity that was becoming increasingly difficult to support.

By moving to a single solution for consumer loans and commercial loans across multiple affiliates under a single bank charter, Zions Bancorporation has standardized processes and procedures, leading to higher levels of back-office efficiency. The transformation acted as a catalyst for making

operational changes to processes and procedures that had been in place for multiple decades.

“With the conversion, we’ve brought all of our teams onto the same system and the same processes,” says Kristiane Koontz, EVP and Director of Banking Transformation at Zions Bancorporation.

The new solution has already improved the customer experience. “Instead of waiting for overnight batch processes, our users now have real-time processing and real-time results,” says Koontz. “For example, if an employee needs to reverse a loan payment or waive a fee, we can do that instantaneously on TCS BaNCS.”

**“Customers are excited about having questions answered faster and simple requests done more quickly, and it’s having a positive effect on customer service and customer satisfaction,” says Koontz.**

Employees also find the new system much easier to use. “The user interface is so much more intuitive,” says Koontz. “Now, because it’s so easy to use, our branch employees are able to provide instant answers for a large number of inquiries on our loan portfolio.





# cover story

Instead of taking 20 minutes to resolve a question, they can do the research and provide an answer, right then and there.”

“Our branch employees have a level of visibility into customer accounts that they never had previously,” adds Koontz.

The third phase of the transformation will cover deposits for six divisions of Zions Bancorporation, with expected completion in 2022.

The TCS BaNCS deployment for deposits will include core deposit processing, teller systems, account opening, account maintenance, and some of the branch platform assets.

Foremost among the benefits of the next-generation TCS BaNCS architecture is the ability to enable real-time posting and reconciliation of deposits, which will improve the speed in

resolving posting exceptions while also improving customer service.

Furthermore, the real-time architecture of TCS BaNCS works smoothly with the broader API-based open banking ecosystem, enabling Zions and its customers to adapt to future changes in the marketplace with less effort and greater speed.

Zions has prepared for the transition by rationalizing deposit product offerings. “We’ve gone from more than 540 different products across our affiliates down to 130,” says Koontz. “The improved simplicity is allowing us to take full advantage of the TCS BaNCS solution.”

**“We are the only bank of our size in the United States that’s putting most loans and deposits onto a unified core banking solution to this degree,” says Koontz.**



## BANKING FOR TOMORROW

### From Zions Bancorporation 2018 'Year in Review'

One of the most notable features of our endeavor to build a strong foundation can be found in our technology investments. Facing a future in which digital banking capabilities and data analytics will be critically important, we’re building a strong technology architecture with a focus on replacing our aging core loan and deposit systems.

After an exhaustive evaluation of every major vendor, we entered into a partnership with Tata Consultancy Services, one of the world’s premier information technology organizations, to deploy their TCS BaNCS platform. The TCS BaNCS core banking system continues to be rated as one of the two or three leading digital core banking software solutions in the world by some of the industry’s most reputable technology consulting firms.

We are in about the sixth inning of the ballgame, having successfully implemented two of three phases: consumer loans, in 2017; and commercial & industrial and commercial real estate loans in mid-February 2019. We have embarked on the final phase of the project, replacing our deposit systems, with implementation expected to be complete in 2022.

**Replacing any core system is a massive, complicated and expensive undertaking. Replacing all of them, in a single integrated project, is nearly unheard of. This is an infrastructure investment that should serve us well for the next 20 years or more.**

It will provide us with a highly modern technology foundation capable of operating in real time and integrating easily with a wide variety of digital product offerings. We also believe it will provide us with data assets that are second to none in the industry. At the same time, the project has been the catalyst for modernizing and simplifying our data environment, which should lead to continuing opportunities to streamline the way we do business.

Having had a front-row seat to the intensive planning and the seemingly endless testing that goes into ensuring that thousands upon thousands of details in such a major program are executed perfectly, I couldn’t be prouder of our team of professionals that continues to work tirelessly to ensure the success of this project.

—**Harris H. Simmons**, Chairman and CEO  
February 28, 2019





# AT A GLANCE

**Company:** Zions Bancorporation

**Headquarters:** Salt Lake City, Utah, USA

**Business Challenge:** Commercial loans, consumer loans, and deposits on a single platform for the affiliate brands of a large multistate bank.

**Solution:** TCS BaNCS for Core Banking

## FAST FACTS

Zions Bancorporation is one of the premier financial services companies in the United States, with total assets exceeding \$65 billion.

Zions operates under local management teams and distinct brands in 11 western states: Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, Washington and Wyoming.

case study

# LÄNSFÖRSÄKRINGAR BANK

One of Sweden's largest banks  
modernizes core banking and payments

By **S Prahalad**, Head of Delivery, Europe (excl. DACH),  
TCS Financial Solutions







Founded in 1996, Länsförsäkringar Bank quickly became one of Sweden's largest banks by offering banking services primarily to the 3.9 million insurance customers of the Länsförsäkringar Alliance, comprised of 23 customer-owned regional insurance companies also providing non-life insurance, accident and medical insurance, life assurance, pension saving plans, and fund savings plans.

By 2008, it was clear that Länsförsäkringar Bank would eventually need to upgrade its core banking system. The major objective was to secure future business, meeting customers' evolving expectations and high growth ambitions. The built-in system complexity was increasing due to enforced unique customer development and functional and technical limitations leading to unsatisfying flexibility and time to market. The bank's system had to go offline each night for batch processing, an archaic requirement in the 24/7 digital world. Furthermore, the legacy platform was not built to handle integrations with the broader Swedish and European payments ecosystem, which was steadily becoming more integrated.

Over several years, the bank continued to observe the core banking marketplace and saw how the different solutions evolved. "We could identify the problem and mobilize before the situation was acute and hence we had the time to choose the right solution, prepare well and make the organization aware of the coming change," says Rikard Lundberg, Core Banking Director, Länsförsäkringar Bank.

In 2015, the timing was right for the bank to proceed with an extensive vendor search.

# case study

## Key criteria included:

- **24/7/365 core banking solution.** Modern solution supporting digital services.
- **A strong payments infrastructure.** The bank needed a payment engine with adherence to European SEPA standards, which involves requirements for message formats, communications, and service standards; as well as connection with Sweden's existing payment infrastructure, including its real-time payments engine, branded SWISH, that enables bank-to-bank funds transfers using mobile phones
- **Flexibility and time to market.** To supplement Länsförsäkringar's broad range of products and services across banking and insurance, Länsförsäkringar Bank sought a platform that would be easy to integrate with the external world and fast when it came to launching new functionality.
- **Maintenance and support.** Ability to provide assurance of multi-decade support and product growth with a futureproof core banking solution.

Länsförsäkringar Bank sent out an RFP to a long list of vendors, and then shortened the list by scoring the vendor's capabilities as well as the functionality of the core banking solution. "TCS and TCS BaNCS scored very high in all areas," says Lundberg.

TCS BaNCS soon emerged as a clear favorite. "TCS did very well in modernizing TCS BaNCS, and from a functional perspective, the product is

very mature," says Lundberg. "From the product roadmap and ongoing community enhancements, it was obvious that TCS BaNCS would keep up with changing market demands."

In 2016, Länsförsäkringar Bank selected TCS BaNCS, with TCS as its primary implementation partner, including a 20-year support contract. "Maintenance and support were important evaluation criteria, and TCS had the ability to execute on a program like this based on their methodology and culture," says Lundberg.

The ensuing three-year deployment succeeded due to the quality of the relationships that evolved. "Through dialogue and cooperation, we had a very close relationship with the on-site team of product specialists, and we worked well with the team in India doing product enhancements," says Lundberg. "We always felt that TCS took their responsibilities very seriously."

The deployment was completed very successfully, with a total migration and cut over from the old system to BaNCS in just one weekend in April 2019.

"TCS promised a lot during the procurement process, and they delivered," said Lundberg. "They lived up to the high expectations that we had with an extremely high commitment on all levels from people who were very skilled, positive, and quite good to work with."

After the go-live, Länsförsäkringar Bank immediately began to see the benefits of a modern core banking system, including improved data quality, better security,

**Rikard Lundberg**, Core Banking Director,  
Länsförsäkringar Bank





# AT A GLANCE

**Company:** Länsförsäkringar Bank

**Business Challenge:** Modern core banking solution with payments infrastructure and support for open banking

**Solution:** TCS BaNCS for Core Banking and Payments



Länsförsäkringar Bank awards TCS BaNCS with a gift to commemorate the successful go-live.

## FAST FACTS

**Länsförsäkringar Bank, one of Sweden's largest banks, offers banking services on the retail market within Sweden through customer-owned regional insurance companies.**

**Total number of Länsförsäkringar Bank customers: More than 1 million.**

**Customer contact takes place during personal meetings at 130 of the regional insurance companies' branches throughout Sweden and via digital services and telephone.**

**Rewarded with the highest private customer satisfaction: 13 out of 15 years (Swedish Quality Index)**

increased support for packaging and pricing, and improvements in back office processes. Also, the bank was now able to fully meet its SEPA obligations and ready to be compliant with the coming Swedish payment infrastructure.

The bank is now positioned to pursue new business opportunities, whether through rapid development of new products within the TCS BaNCS environment, or through open banking using the API gateway. "TCS BaNCS is easy to integrate with the external world, making it easy to extend our partner network," says Lundberg.

With TCS BaNCS and the bank's API gateway, the full range of internal and external products assembled for Länsförsäkringar Bank customers can be made available through powerful new digital experiences.

"The replacement of the system marks a key milestone for Länsförsäkringar Bank and the new modern IT platform will further add to our ability to meet our customers in the digital space and open more opportunities for developing the digital banking services of the future," commented Sven Eggefalk, CEO of Länsförsäkringar Bank. "In addition, Länsförsäkringar's Open Banking platform was launched in June with the aim of building new, innovative services that make everyday life easier and create security and added value for customers."

Sven Eggefalk, CEO of Länsförsäkringar Bank, and Venkateshwaran Srinivasan, Head of TCS Financial Solutions, participate in go-live celebration in Bangalore.



## interview

# Q&A

## with **Dhananjaya Arvind Tambe**, Deputy Managing Director & Chief Information Officer at **State Bank of India**



The DMD & CIO of India's largest bank discusses the centrality of analytics in driving customer satisfaction and digital readiness in India's fast-growing digital marketplace.

### **Let's start by describing the scale of State Bank of India.**

SBI is the largest bank in India, with approximately 425 million customers, which is more than the population of North America. We serve every nook and corner of India, from islands in the Bay of Bengal and the Arabian Sea to villages in the Himalayas. We have a total branch network of about 23,000, a massive network of 58,000 ATMs, and about the same number of customer service points.

### **What's SBI's history with TCS BaNCS?**

In 2002, the bank decided to deploy a centralized core banking solution. One of the guiding factors was that it should be able to scale up to handle our very large customer base and massive scale. We selected technology from a company that later

developed into TCS BaNCS.

Today, we handle on average 250 million transactions per day, and I can tell you with a fair degree of satisfaction that the bank's decision to go for the solution that became TCS BaNCS was a good decision.

### **Describe your overall approach to banking.**

All your problems in life can be solved if you have only one objective, and in banking, that should be CUSTOMER SATISFACTION: How do I keep my customers more satisfied today than they were yesterday?

To do this, you have to create value by making relevant offers. Financial services are not emotion-based services. There is very little scope for anyone to appeal to emotions on

something based on rates and figures. If I'm going to pay you 3% rate of interest, and another bank is going to pay you 3.25% rate of interest, it's very easy to discern the difference. Therefore, to add value for your customers, you have to offer them relevant products and value-added services.

If you make the right offers, your customers will feel that the bank cares for them. Banking is a trust-based service; and caring about customers has a multiplier effect on loyalty.

### **How is it possible for banks to differentiate themselves with technology?**

Technology has been a great leveler. Every bank today has core banking

and can provide the same basic services to all its customers. For one bank to differentiate itself from the other banks, the only thing it can do is provide superior service, and superior service is based on customer analytics. By using analytics, the loyalty of your customers will be far greater than by any other means that you might adopt.

For example, we analyzed our entire customer base and came up with a list of several hundred thousand pre-approved personal loan customers. We made them offers through our mobile app, and whenever these customers want to avail themselves of the pre-approved loan, in just two or three simple steps taking less than two minutes, the amount is credited into their account. This has been a super-hit product, and every day, thousands of customers make use of it.

The differentiator of tomorrow for any bank in the world is going to be analytics. The finer your analytical algorithms, the better your results and the better your service to the customer.

### **How does analytics change the interactions at the branch?**

Our bank has 425 million customers, which means that every branch has tens of thousands of customers. In such a scenario, it is not possible for tellers or relationship managers to have personalized knowledge of all their customers. By making analytic insights available to them through a digital interface, their customer interactions become more specific and more fruitful. If I know the risk appetite of and the sale history to a customer, I can provide informed

advice about a suitable mutual fund offering or similar product.

Most customers are unable to manage their finances themselves. People are so busy from morning until evening that they have no time to look at the balance in their savings bank. They want somebody to tell them: “Hey, you’ve got 500,000 rupees in your account, so why don’t you set up a public provident fund account for you to keep 150,000 rupees every year?” This kind of valuable advice drives loyalty, and the banks that survive will be those that do it well.

### **How do you use analytics in risk management?**

Risk is impact multiplied by probability. In the past, it was difficult to ascertain impacts or probabilities. Today it is possible for us to know impacts and probabilities with much greater certainty. We can now use analytics to reduce overall risks in the banking environment.

The biggest risk in banking is credit risk, or the risk of default. Previously, the process of due diligence often would take several days. Today, I can do analytics-based due diligence on the fly, which gives me great confidence on whether or not to issue a loan to someone. We can also know whether a customer remains creditworthy or not, and if creditworthiness has gone down, we can take corrective action as quickly as possible. That means our biggest risk, credit risk, can be brought down.



# interview

We are also using analytics to detect fraud. Last year, we noticed a pattern of fraudulent transactions occurring with our ATMs. We drilled down and identified specific geographical clusters, and from there, a group of people who we discovered were related to one another. With analytics, we were able to stop this kind of fraud.

Similarly, we can predict at which branches fraud is likely to happen, so that we can alert the branch staff and keep a better vigil. As a result, we can bring down fraud losses in this area.

There are also external risks such as market risk or currency risk, but those risks you have to mitigate through other means.

## **Does the analytics-based strategy scale down to smaller banks?**

Analytics is like oxygen. Everybody has to have it. Whether you are small or whether you are big, you have to breathe. I don't think a bank today can survive without customer analytics.

For very small banks to do analytics in-house would be a challenge, so they should get their analytics done by third-party service providers and then make use of the results.

## **How are you working to improve analytics in the future?**

Artificial intelligence is the most important tool that any bank should be using today if it wants to fulfill expectations for customer service.

We have a very large number of products in our core banking system, and to know about all of them would be a daunting task for any teller or front-line employee. With AI, we can easily fish out the information regarding a particular transaction, or how a particular transaction needs to be performed. This can save a considerable amount of time, while enabling our staff to render better services.

As an example: Given our large customer base, every day we receive applications from the heirs of deceased customers. But for any given teller, this is a relatively rare event. Unless the teller knows how to handle a case of this delicate nature, this customer may not be served correctly.

AI can also check the consistency of information in legacy accounts. State Bank of India was established in 1806, and we have been performing banking service continuously for 213 years since. Many of our customers' accounts have been open for 70 to 80 years, and in many of these cases, the information may be obsolete. With AI monitoring the consistency of information in our back-end systems, we can prompt the teller to ask customers to update their customer records as needed. This will improve communication across all channels, boost customer satisfaction, and help to ensure that we have the highest-quality data for analytics.

## **We've talked about how State Bank of India is approaching the marketplace. Now, let's talk about changes in the marketplace itself. In what ways has digital technology transformed banking in India?**

The Indian marketplace is changing very rapidly due to the lower price of smartphones and the greater availability of 4G data connectivity. This has led to a massive increase in the demand for mobile apps.

Along with that is the revolution in mobile payments with the Unified Payment Interface, or UPI, which allows mobile apps to easily incorporate purchases and bill payments. UPI is one of the finest implementations of its kind that I have seen anywhere in the world. It enables you to make payments in real-time from your account into the account of anyone else in the country, at any time. And the best part is that you can make payments from your State Bank of India account using either a third-party bank's UPI app or State Bank of India's own UPI app, and it works just the same.

The UPI ecosystem has created a huge amount of innovation. For example, UPI is the most important method of payment for the Google Pay digital wallet in India. We are one of the four banks to partner with Google Pay in India. And if WhatsApp or any other payment service starts a UPI service in the future, we will be able to partner with them as well.

We are also partnering in stored value cards, including one designed by the National Payment Corporation

continued



of India for use in transit payments for train, subway, and buses. This will become a massive market as the transportation system in India modernizes.

The pace of digital transactions in India is growing very rapidly, and as digital payments increase, the number of transactions also increases. We expect the exponential increase to continue.

### **How has SBI prepared for this exponential increase in transaction volume?**

We have benchmarked TCS BaNCS to handle 2 billion customer accounts and 23,000 transactions per second. Currently we are at about 700 million customer accounts and 7,500 transactions per second, which leaves a considerable amount of headroom in our core banking architecture. This gives us confidence that TCS BaNCS will hold us in good stead for the foreseeable future.

We recently saw our infrastructure put to the test with banknote demonetization in India. Within a span of three months thereafter, the number of digital transactions almost doubled, but we had plenty of headroom.

### **What other challenges did you face with demonetization?**

Our core banking system had to be changed very rapidly to account for new restrictions and limits. The instructions would arrive in the evening, and by the next morning, our interfaces had to be ready for the change. The TCS teams responded admirably to the challenge. We were able to handle the massive changes during the period of demonetization

in a manner that was very satisfactory for all of our customers. We also received accolades from the government. We were able to quickly extract data on demonetization from the core banking system, and many of the decisions which the government took during that period were based on that data.

### **Running such a large organization as SBI, how do you ensure agility with your systems?**

When we started, our core banking system was a monolithic application, which we thought was an ideal architecture. We soon realized that having a monolithic application sharply increased our time to market.

A core banking system needs to connect with multiple interfaces and channels, and the best way of doing so is through APIs. Otherwise, you end up with the spaghetti of one-to-one connectivity between every system that needs to exchange data.

For example, our SMS notification engine was originally built into the core banking system. When we wanted to add different kinds of notifications, we found that it was very difficult to change the code. This delayed our ability to provide notifications for new services. Working with TCS, we decoupled the notification engine from the core banking system, so that notifications work through an API that can connect with any component of core banking or any other system. We can now deploy new types of notifications much faster in response to consumer needs, and it's much more reliable.

Customer satisfaction would increase as a result.

We took the same decoupling approach for our Government Banking services. Initially, these services were built into the core banking solution. Then, we took those functions out into a separate application, making them more agile and nimble. We can make modifications in ways that we could not have done earlier, which has increased our agility in creating highly customized banking services for specific government agencies.

### **Any final thoughts on the relationship between SBI and TCS?**

TCS has the advantage of its lineage as part of the Tata Group of companies, which are known to have a very good corporate governance culture and very high ethical standards. Because of this, we have a great deal of faith in TCS as an organization.

TCS has been running our core banking solution for almost 18 years. In addition, TCS is involved in running many other critical systems of the bank.

Whenever the need has arisen, TCS has been able to accommodate us — most of the time. No relationship in the world is perfect, and we will always have more demands on them than they can fulfill. But the relationship has been a very satisfying one.

## case study

# Payments



## TCS readies Canadian financial institutions for real-time payments modernization

By **Lokesh Rai**, Head of TCS Financial Solutions, Canada

Payments Canada provides Canada's national payments systems, including those for large-value payments and for day-to-day domestic commerce. In 2018, those systems cleared approximately \$53 trillion..

In 2015, Payments Canada commenced a strategic plan to develop a modern payments system, including:

- **Real-Time Rail**, a new real-time payments system for low-value payments that can be initiated with mobile numbers and email addresses, to serve as a platform for value-added service offerings. Expected go-live (with a new name) in 2020.
- **Lynx**, a new high-value payments system to provide real-time settlement finality. Expected go-live in 2021.
- **Settlement Optimization Engine**, a centralized retail batch system to replace existing applications for clearing of batch paper and electronic payments, with migration to ISO 20022, an additional exchange window, and faster funds availability. Enhancements are ongoing through 2021.

These elements of a modern payments system will simplify and enhance daily payment interactions for Canadians and help secure and strengthen Canada's competitive position as a global leader in financial services.

Canadian consumers have been quick to embrace new technology and digital payments. Cash use has decreasing by 20 percent since 2011, and the marketplace is eagerly awaiting the innovation enabled by real-time payments.

The modernization is already in progress, with each phase carefully designed through consultations with more than 100 organizations in the Canadian and global payments ecosystem.

TCS is actively engaged with Payments Canada by

contributing its experience in delivering modernized solutions in multiple markets for real-time gross settlement, real-time payments rails, and ISO 20022 implementations. Through consulting services, innovation support, and technology solutions, TCS is accelerating the modernization of Payments Canada.

### #Invisible Payments

Based on our experience in multiple markets building real-time capabilities much like those being developed by Payments Canada, we anticipate that in the future, Canadian payments will become **#Invisible**:

- **omnipresent** throughout the digital economy;
- **secure and trustworthy** to a degree that alleviates concerns;
- **open** to innovation of all kinds; and
- **personalized and contextualized** using information pertinent to the individual.

#Invisible Payments represents a paradigm shift away from the legacy situation, in which payments are confined to specific use cases through insecure, one-size-fits-all instruments that cannot easily be modified.

At the 2019 Payments Canada Summit, R Vivekanand, Vice President and Co-Head, TCS Financial Solutions, spoke about how #Invisible Payments will drive social transformation and consumer empowerment; described TCS' role in two innovative payment initiatives, Vipps in Europe and Unified Payment Initiative in India; and outlined the opportunity for financial institutions to become disruptors in their own regions with #Invisible Payments experiences, the possibilities only limited by the imagination.

# Canada



## TCS Canada

In anticipation of these significant changes in the marketplace, financial institutions in Canada will need to develop an entirely new set of capabilities, for which TCS offers a complete set of solutions:

**TCS BaNCS for Payments:** is aligned to the Payments Canada roadmap and will help banking and financial institutions in Canada to accelerate the adoption of Payments Canada's modernization initiatives. TCS BaNCS for Payments is a proven solution for payments processing, operating in 25 markets across the globe and ready for either on-premise or cloud deployment.

With our localized solution for the Canadian market, TCS will help financial institutions to adopt real-time payments with ISO 20022 and to build overlay services that deliver differentiated customer experiences, while staying in compliance with Canadian banking and data privacy regulations.

**TCS BaNCS Cloud** delivers the full capabilities of TCS BaNCS, including the localized Canadian version of TCS BaNCS for Payments, as a comprehensive SaaS offering..

**TCS Enterprise Cloud Platform** is TCS' cloud hosting service for TCS BaNCS Cloud, which can also run on any major third-party cloud provider.

**TCS BaNCS APIs** enable banking and financial institutions to innovate with payments-related products and services. Using the microservices-ready, component-based design of TCS BaNCS, organizations can incorporate stand-alone functionality, such as Payments Limits, into their broader ecosystems.

**Payments Solutions** enable financial institutions to provide payments as a utility, convert messages to ISO 20022 formats, process payments, or layer services on top of payments, with solutions localized for the Canadian marketplace.

**Innovation Hub and Garages:** Canadian financial institutions can work with TCS payments experts on envisioning new services at our Payments Innovation Hub, and experiment with new technologies at our Garage for #Invisible Payments, both in Toronto.



With these market-tested offerings and with our ongoing relationships with major Canadian financial institutions, TCS has made a major commitment to the Canadian marketplace, with the hope that Canadian financial institutions and Canadian consumers will benefit from TCS' extensive experience in real-time payments around the world.

"We have extended our globally-proven TCS BaNCS for Payments solution to financial institutions in Canada, reinforcing the pivotal role we play in helping Canadian financial institutions to continue their ongoing transformation journey," commented R Vivekanand, Vice President and Co-Head, TCS Financial Solutions. "With our investment into powerful and flexible infrastructure built for the Canadian marketplace, and our market-leading adaptation of innovations such as ISO 20022 and SWIFT gpi, we have enabled our customers to grow and transform in alignment with the modernization of Payments Canada."

**WATCH** Vivek's presentation on YouTube: <http://bit.ly/vivek-paycan>

**LISTEN** to Vivek's presentation (and more!) on the

TCS BaNCS Customer Newsletter Podcast <http://bit.ly/TCSBaNCS31>

## case study

# BSP Fiji



## Run-Grow-Transform strategy pays dividends for successful South Pacific bank

By **Freddy Tivaknoa Konousi**, Relationship Manager, TCS Financial Solutions

In December 2009, Bank of South Pacific acquired Colonial Fiji Group to form BSP Fiji. Together, the combined entity set an ambitious new goal: To become the number-one financial provider in Fiji and the region.

The entire BSP Fiji organization met the challenge head-on. Ten years ago, the bank was a distant third in a marketplace with four major players. Today, they're running a close second in a more-crowded marketplace that includes two major Australian banking groups. "By 2020, we expect to be the number-one bank in Fiji," says Omid Saberi, CIO of BSP Fiji.

Since the mid-1990s, Colonial Fiji Group had been using the core banking solution that, in 2005, was incorporated into TCS BaNCS. Based on that strong, long-lasting relationship, and the cost advantages, performance benefits, and stability of the core banking solution, it was a clear choice to move the combined entity onto TCS BaNCS.

With that choice, the seeds of today's success were planted at the time of the merger. "We compared all the systems from both BSP and Colonial, at that time, and our assessment was to stick with TCS,"

says Saberi. "In hindsight, we made the right decision. TCS BaNCS has worked for us, and TCS has been a good partner."

TCS was initially just BSP's core banking provider, but now, the relationship has expanded to include multiple solutions and projects. "We have had a long-term relationship with the people at TCS that goes back for over 25 years," says Saberi. "The longevity in that relationship really works well for us, because we know that when we deploy a project, TCS will be there to support it."

### DIGITAL BANKING TRANSFORMATION

One of BSP Fiji's key objectives was to enable digital banking. "Digital is not just about access through the Internet," says Saberi. "It's starting from core banking all the way up to the touchpoints around the channels. It's providing efficiencies, enhanced customer experiences, cost savings, and competitiveness."

As such, the solution could not consist merely of bolt-on solutions onto the existing core. "Core banking is a pivot point for every product," says Saberi. "No matter what we

deliver, it has to interface with the core banking system."

That's why, before rushing ahead to deploy new digital capabilities, BSP Fiji began with a comprehensive upgrade of its core banking solution. This approach to transformation is described as "Run-Grow-Transform."

The first step, "Run," aimed to reduce risks in technology and operations with upgrades to existing systems, including the deployment of TCS BaNCS across the entire bank.

The second step, "Grow," expanded the deliverables provided to customers through existing systems, including new end-user applications.

The third step, "Transform," improved overall performance with reengineered workflows.

"We had to go through all of these stages, one at a time," says Saberi.

This "Run-Grow-Transform" approach has yielded new solutions in multiple areas:

- **Loan origination system.** BSP Fiji has significantly reduced the time it takes for a bank branch employee to process new applications for unsecured loans. These were previously processed manually, taking hours or even days. "If





# AT A GLANCE

**Company:**  
BSP Fiji

**Headquarters:**  
Port Moresby,  
Papua New Guinea

**Business Challenge:**  
Digital transformation  
for geographically  
dispersed customers

**Solution:**  
TCS BaNCS Digital

Omid Saberi,  
CIO of  
BSP Fiji



you have all the paperwork and everything is in place, you can come into a branch and come out with your unsecured loan within 20 minutes,” says Saberi. “This has been a huge success, and is now one of our biggest products,” says Saberi.

● **Wholesale and treasury systems.**

From being predominantly a retail bank, BSP Fiji has expanded into commercial lending and asset management. “Previously, everything was done on spreadsheets,” says Saberi. “Now, everything is automatic, and at any time we can see our institution’s positions.”

● **SMS USSD banking.**

BSP Fiji has the specific challenge of deploying banking services across a geographically dispersed region, including remote islands that lack basic banking services. To reach these customers, BSP Fiji provides mobile banking services using SMS messages and USSD sessions; and uses post offices as agencies acting on behalf of the bank. “We have to be creative,” says Saberi.

● **Online apps for smartphones.**

Demonstrating the readiness of the marketplace for online banking, as

well as the power of word-of-mouth marketing, over 10,000 people downloaded BSP Fiji’s smartphone app before the bank placed a single advertisement.

“Revenues are showing a very strong upward trend,” says Saberi. “Our transformation has been a good success story for the bank.”

Next up for TCS and BSP Fiji are advances in compliance and risk management, including new components for anti-money laundering, including transition monitoring and watch list checks. In addition, BSP Fiji is working to automate the reconciliations process, and on deploying EMV chip cards.

“We will not relent in our endeavor to become better at what we do, and to service our customers in better ways, and TCS is there whenever we turn to them, helping us to achieve those ends,” says Saberi. ●

## FAST FACTS

**BSP is one of the largest and most successful banking organizations in the South Pacific. With a proud and established reputation in Papua New Guinea, and a long history of a highly successful business in the region, BSP has become the most respected bank in the Pacific.**

**In addition to being the largest bank in Papua New Guinea, BSP is represented in Fiji, Solomon Islands, Samoa, Tonga, Cook Islands, Vanuatu and Cambodia.**

**BSP Fiji has over 250,000 customers, and Fiji’s widest network of customer touchpoints.**

**The bank is Fiji’s largest commercial financial sector employer, and Fiji’s largest commercial institutional investor with an asset base of over USD\$1 Billion.**

# INDUSTRY Cloud



## SaaS approach of TCS BaNCS Cloud powers any financial enterprise

By **Bharat Shah**, TCS BaNCS Cloud Enablement Lead, TCS Financial Solutions

TCS BaNCS Cloud handles over 100 million transactions per month for more than 190 customers, including retail banks, corporate treasury operations, private banks, and credit unions in the United Kingdom, the United States, Switzerland and India.

- In the **U.S.**, a community bank uses TCS BaNCS Cloud for its banking operations, compliant with FFIEC and other relevant U.S. regulations.
- In the **U.K.**, TCS BaNCS Cloud powers core banking for a number of credit unions, empowering these smaller financial institutions to introduce flexible digital services at a faster pace than their larger competitors.
- In **Europe**, TCS BaNCS Cloud offers lower costs, standardization, and agility to a number of private banks.
- In **India**, TCS BaNCS Cloud powers more than 170 Regional Cooperative Banks with core banking operations, offering these smaller, rural banking operations with the benefit of modern technology at low cost.
- TCS BaNCS Cloud also runs **treasury operations** for a leading investment firm in the U.K., a steel manufacturing company in India, and a Shanghai-based financial development bank.

TCS BaNCS Cloud has been designed to support the full needs of financial institutions with a variable-cost SaaS approach, engineered with cloud-native technologies that make possible a wide range of new business models.

Operating as an “Industry Cloud” to support any financial enterprise, TCS BaNCS Cloud offers a variable-cost, pay-as-you-go, buy-what-you-need, Software-as-a-Service (SaaS)

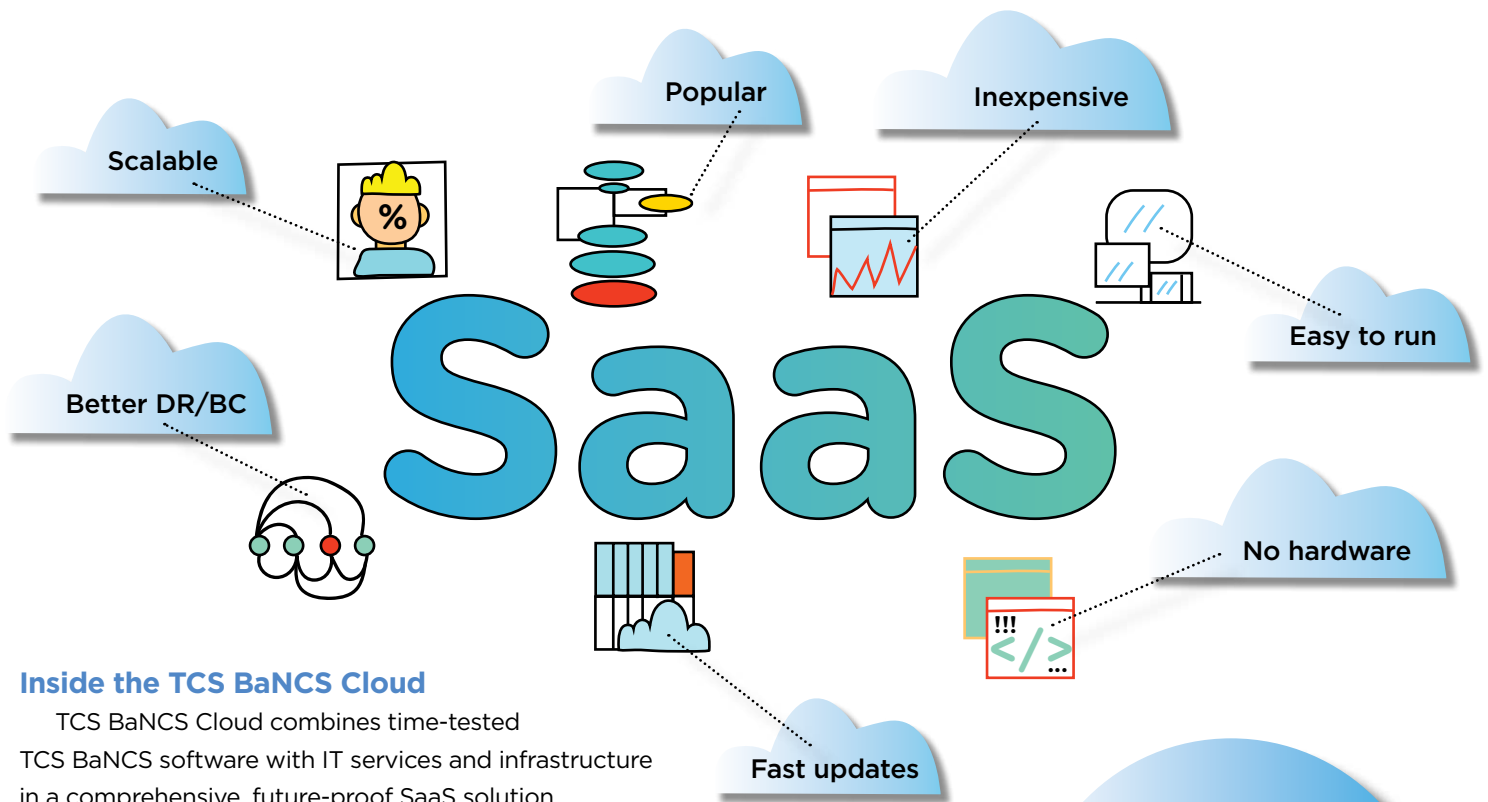
arrangement that encapsulates core business services along with a full set of ancillary business services designed expressly for a given vertical industry.

By making one consolidated purchase decision, an entire financial institution can forego the complexities of software, infrastructure, and cloud operations across all of its business units, freeing up resources to focus on revenue drivers and digital-driven innovation.

TCS BaNCS Cloud has demonstrated the highest levels of capability, maturity, and expertise, enabling financial institutions to execute upon the Industry Cloud vision with full safety, regulatory support, and certainty. Plus, the integration of BPO/ITO services from TCS ensures full support for any combination of businesses involving banking, capital markets, or insurance, beyond what any other provider can offer.

TCS BaNCS Cloud is built using technologies that support business models that would not be feasible with on-premise deployments.

One example is the cloud-native technology of microservices. Where an application might have had 50 to 100 active APIs, that same application using microservices can offer an essentially unlimited number of low-bandwidth, high-speed connections. Using microservices, financial institutions can build better customer experiences that account for a customer’s entire financial portfolio, tied together with ancillary services in data analytics, artificial intelligence, and machine learning guiding advisory services and automation. Furthermore, without having to go through a lengthy procurement, deployment, and testing cycle, enterprises can rapidly develop their own microservices.



### Inside the TCS BaNCS Cloud

TCS BaNCS Cloud combines time-tested TCS BaNCS software with IT services and infrastructure in a comprehensive, future-proof SaaS solution.

TCS BaNCS Cloud consists of the following successive layers:

- 1. Core Application:** TCS BaNCS for Banking, Capital Markets, and Insurance, on the same product roadmap as with on-premise deployments
- 2. Cloud Infrastructure:** Managed by TCS Enterprise Cloud Platform, or hosted on other cloud providers (e.g. Azure, AWS), an on-premise cloud, or a hybrid cloud.
- 3. Integrated Ecosystem:** Robust, tested microservices connect with core TCS BaNCS functions; pre-integrated tools in Data Analytics, Artificial Intelligence, Machine Learning; fintech offerings from third-party providers; and legacy systems.
- 4. Business Process Outsourcing / IT Outsourcing:** TCS offers financial institutions a full selection of BPO and ITO services, including teller services, KYC for customer onboarding, and virtually any other business process. IT outsourcing includes migration services, IT operations management, IT optimization, and innovation planning.
- 5. Utility/Platform Interface:** Ability to power external-facing interfaces, whether for B2B utility businesses or B2C platform businesses. (For example, Diligenta in the U.K. operates as a BPO utility managing closed-book life insurance policies on behalf of several U.K. insurers. Also, one of the largest U.S. insurance companies will be running a customer-focused Platform business using TCS BaNCS Cloud.)

Five years ago, “the cloud” was mostly IaaS and PaaS. Today, SaaS represents two-thirds of total cloud market revenue.

Each level of TCS BaNCS Cloud contributes to a full-service Industry Cloud that represents the most comprehensive SaaS offering in the marketplace. Financial institutions can receive their desired combination of infrastructure services, BPO/ITO services, and a full selection of the largest collection of components, enterprise and consumer apps for the financial industry.

TCS BaNCS Cloud will support existing customers and new customers; innovative startups and legacy financial institutions; retail banks, private banks, community banks, credit unions, brokers, and insurers; and organizations of any size and footprint.

With more than 190 customers, TCS BaNCS Cloud is already transforming financial services in the hyper-connected economy, and we’re excited to work with many more customers in the months and years to come. ●



case study

Update

# Market Infrastructure

Success stories in Finland, Kuwait, Morocco, and the Philippines – plus the World Forum of CSDs

## Euroclear Finland

**CSD core transformation gives Euroclear Finland one of the most advanced market infrastructure implementations in Europe.**

Euroclear Finland has completed the full replacement of multiple legacy core systems with Infinity, powered by TCS BaNCS for Market Infrastructure.

Infinity now serves as Euroclear Finland's core system for securities issuance, safekeeping, management of investors and their accounts, settlement of on-exchange and over-the-counter (OTC) trades, account transfers and portfolio transfers, corporate actions, and management of rights and restrictions. Infinity also supports core depository functions and legal requirements pursuant to Finnish proprietary rights and restrictions. It provides comprehensive support for both ISO 15022 and 20022 standards for the entire settlement cycle and for corporate actions processing.

The momentous achievement of a CSD core transformation gives Euroclear Finland one of the most advanced market infrastructure implementations in Europe, positioning Euroclear Finland and the Finnish capital markets as a leader in terms of investor-friendly benefits and capabilities.



Read the full story: <http://bit.ly/TCSBaNCS30-EuroclearFinland>

## Kuwait Clearing Company

### Single integrated system modernizes depository platform

Kuwait Clearing Company (KCC), the central clearing, settlement, and depository entity for all securities and derivatives traded at the Boursa Kuwait, has modernized its depository platform with the implementation of TCS BaNCS for Market Infrastructure as a single integrated system.

The successful implementation of TCS BaNCS for Market Infrastructure was accomplished without disrupting business operations and well in advance of the marketplace transition, including NASDAQ's scheduled upgrade of trading software at the Kuwait Stock Exchange (KSE).

With TCS BaNCS, KCC has deployed a proven, unified clearing solution for the cash and derivatives markets having several business advantages:

- Depository and registrar services on a single platform
- Automated payments and fund transfer using the SWIFT network
- Increased flexibility and reach of all market participants
- Usage of international standards and practices such as ISIN-based identifiers and ISO 15022

The deployment of TCS BaNCS has helped KCC to significantly decrease the time required for payments processing, while also deploying automation to reduce manual errors, thereby increasing data reliability and security.

In addition, KCC has simplified corporate actions processing, enabled real-time dematerialization and rematerialization of securities, rolled out analytics features, and delivered an improved user experience through mobile apps and a browser-based interface.

## Maroclear

### Maroclear continues technology leadership with innovative cross-border settlement on blockchain

Nine years ago, Maroclear implemented depository and settlement solutions of the TCS BaNCS Market Infrastructure product to provide a world-class multi-asset class depository to its participants. With this solution, Maroclear was able to reengineer post-market procedures in Morocco, strengthening the security and integrity of the market and, consequently, making Morocco more attractive to domestic and international investors.

Continuing as a technology innovator, Maroclear, in conjunction with Kuwait Clearing Company, recently conducted a successful test using blockchain for cross-border securities settlement.

For more information about the blockchain pilot conducted between Maroclear and Kuwait Clearing Company, see the Quartz pull-out section in this newsletter.

## Philippine Depository & Trust Corp.

### TCS BaNCS transforms PDTC's operations through a first-of-a-kind implementation in Asia

Philippine Depository & Trust Corp (PDTC) recently implemented TCS BaNCS for Market Infrastructure as Asia's first comprehensive depository system.

Customized to suit the Philippines' unique market practices, TCS BaNCS now supports PDTC's role as being Asia's first comprehensive depository, with capabilities including:

- Depository, registry, and custody on a single platform
- Integrated depository system, capable of managing delivery and payment
- Interface to the RTGS payment system of the central bank of the Philippines
- Ability to reinforce immobilized and dematerialized securities
- Operational flexibility in custody and depository instances



## World Forum of CSDs

TCS was Diamond Sponsor of the World Forum Conference of CSDs, WFC 2019, hosted by Maroclear and the Africa & Middle East Depositories Association (AMEDA). R Vivekanand, Vice President and Co-Head, TCS Financial Solutions, shared insights on how Blockchain, AI and Machine Learning will shape the future of Market Infrastructure.



# TCS BaNCS in

## Guangdong Rural Credit Cooperative

**(GDRCC)** was among the first banks in China to implement TCS BaNCS for Core Banking. Rolled out successfully in 2009, TCS BaNCS has provided key support to GDRCC's business growth, earning high confidence and satisfaction from the business.

GDRCC has now become a leading financial institution in China's digital economy, not just in rural finance but across the entire financial services marketplace in Guangdong Province. With the high-growth, vibrant cities of Guangzhou and Shenzhen, Guangdong Province ranks among the most highly developed regions in China.

Ms. Zhang Yan, Chairman of GDRCC IT and Business Service Center in Guangzhou, hosted an executive delegation from TCS Financial Solution headed by Mr. Venkateshwaran Srinivasan in November 2018. After a review of the successful history of the partnership, the executive leaders from both GDRCC and TCS expressed their mutual intention for further cooperation beyond the current core banking deployment and looked forward to continuing the bank's journey to be a leading financial service provider in the region's digital economy.

The 2009 go-live for TCS BaNCS for Core Banking followed a 17-month implementation project that centralized the GDRCC's IT systems and infrastructure, which had previously consisted of 20 core systems from 12 vendors, hosted on different platforms. GDRCC built a centralized IT processing system using TCS BaNCS, enabling the organization to provide identical branding, policies, procedures, and product offerings to each member credit union. With the deployment, GDRCC began to operate in harmony as an integrated financial institution.

Yet each member credit union retained its own dedicated customer base and pricing model, including separate analytics and reporting capabilities. The multi-institution deployment structure was a critical factor of the deployment, enabling each member credit union to tailor its offerings to accommodate the diversity of Guangdong Province, which

includes major, high-profile cities along with less-developed rural areas. In support of the multi-institution structure, TCS BaNCS provides internal clearing to manage transactions between member credit unions.

At present, GDRCC is well positioned to accelerate business development, while also planning for the future.

Within the next five to ten years, GDRCC plans to become the leading digital financial institution in Guangdong Province, and the development roadmap includes an integrated ecosystem for intelligent digital services that will enable a greater support and stronger business development for its full range of customers. To this end, the TCS leadership has emphasized its full commitment to supporting these strategic business activities, while benefitting from GDRCC's guidance in customizing the target ecosystem for the Guangdong marketplace.



## Guangdong Rural Credit Cooperative (GDRCC)

- **Established in 2005 from the consolidation of 99 existing rural credit unions**
- **The largest financial institution in Guangdong Province with 6,000 branches and outlets, 18,000 tellers and 2,000 ATMs.**
- **Manages over 120 million accounts, averaging 22 million online transactions every day.**
- **Total assets exceeded 10 Billion RMB in 2015.**
- **Accounts for one-sixth of the total deposit and loan balance of the whole rural finance service market in China (as of 2018).**



# CHINA



**PSBC Consumer Finance** was established in 2015 as the consumer lending subsidiary of Postal Savings Bank of China (PSBC), which is one of the largest commercial banks in China. PSBC Consumer Finance provides a full range of consumer lending products, offered solely through digital channels with a Direct Banking business model.

The subsidiary went live in November 2015 following a six-month implementation of TCS BaNCS for Core Banking.

In May 2016, just eight months after the launch, PSBC Consumer Finance reached a loan balance of more than one billion RMB, serving more than 100,000 customers.

Those impressive startup numbers have already put PSBC into the fifth position in consumer lending in China.

With TCS BaNCS providing key support for PSBC's ongoing business growth, PSBC is on the path to becoming one of the top consumer lenders in China, according to Mr. Yu Hongyong, President of PSBC.

In November 2018, PSBC executives met with a delegation from TCS Financial Solutions headed by Mr. Venkateshwaran Srinivasan. The executive leaders from both PSBC and TCS expressed their clear intention for further cooperation beyond the current solution, and TCS looks forward to supporting PSBC's journey to become a leader in the consumer lending segment.



## PSBC Consumer Finance

- Consumer lending subsidiary of Postal Savings Bank of China (PSBC)
- Launched in 2015
- 8 Months After Launch: 1 billion RMB loan balance, serving 100,000 customers



## TCS Helps Insurer Complete First Phase of TRANSFORMATION JOURNEY

### Digital Platform powered by TCS BaNCS Enhances Policyholder Experience and Simplifies Processes

Scottish Widows has successfully completed the first phase of its implementation of the TCS BFSI Platform for Life and Pensions, powered by TCS BaNCS.

In 2017, TCS entered into a 15-year partnership with Scottish Widows, the life insurance and pensions arm of Lloyds Banking Group, to deploy the TCS BFSI Platform, powered by TCS BaNCS. To date, TCS BaNCS supports more than 16 million insurance policies in the United Kingdom.

TCS BaNCS for Life, Pensions, Investment Products, Annuities and Mutual Funds will provide end-to-end policy administration services for Scottish Widows' 4 million policyholders. The deployment will improve the customer experience, simplify the operating model, and reduce risk for Scottish Widows.

Operating as a single core policy administration system, TCS BaNCS will replace 13 legacy policy administration systems and will simplify the legacy ecosystem by interfacing with 125+ peripheral systems and replacing 100+ ancillary systems. Following the deployment, TCS BaNCS will transform and support more than 800

life insurance, pension and investment products for Scottish Widows' longstanding customers.

Scottish Widows has completed the first phase by significantly streamlining operating procedures in ways that have already improved customer service for policyholders.

"I am pleased with the progress we have made with TCS on our transformation journey," said Donald MacKechnie, COO Lloyds Banking Group, Insurance and Wealth. "Our first phase has been completed successfully. Simplifying and modernising our systems will help us provide a better service for our customers."

#### Putting Customer Expectations First

The completion of the first phase was a key milestone toward fully deploying the TCS BFSI Platform for all 4 million customers of Scottish Widows.

"This is the first step in our customer experience transformation journey with Scottish Widows and it is exciting to see the early benefits delivered from TCS BaNCS," said Suresh Muthuswami, President and Global Head, Banking, Financial Services and Insurance (BFSI) Platforms, TCS.

"This milestone is made possible

thanks to our shared culture and customer ethos. By putting customer expectations at the heart of this transformation process and focusing on reducing complexity, we have achieved a new scale of mass personalization that will give millions of customers an enhanced experience," added Muthuswami.

In addition, the TCS BFSI Platform includes analytics capabilities, a unified communications hub, a customer experience layer, and other components that provide a complete digital solution for the insurance enterprise.

Instead of multiple handoffs across several systems to handle a claim or other transaction, contact center personnel can now access required information via the unified communications hub. "With the implementation of TCS BFSI Platform and TCS BaNCS as its digital core, we have digitized the critical 'moment-of-truth' transactions, enabling a much better customer experience and a significant reduction in turnaround time," said Daniel Praveen, VP & Head UK&E, TCS BFSI Platforms.

Previously, about 60 percent of service requests were fulfilled at the





first point of contact. Now, with the implementation of the TCS BFSI Platform powered by TCS BaNCS, the first-contact fulfillment rate has increased to over 80 percent for key transactions.

The first phase of the implementation also covered foundational data quality initiatives to revalue legacy policies, standardize reinsurance contracts, and fully document IT and compliance practices. These initiatives will reduce risk and improve operations throughout the partnership.

In future phases of the deployment, policyholders will benefit from further digitization and enhanced services. In addition, the agility and flexibility of TCS BaNCS will enable Scottish Widows to quickly launch new business offers based on analytics driven by the TCS BFSI Platform.

### Execution by Machine First principles and Agile Methodology

“A transformation journey of this magnitude always demands innovative execution,” said Rajat Subhra Pal, Global Head - Insurance, TCS Financial Solutions. “To orchestrate the journey with multiple stakeholders and delivery streams, we have adopted core principles of our Machine First Delivery Model (MFDM™) and embraced the Agile Methodology to execution to ensure measurable and predictable progress toward completion of the transformation journey.”



# events

## TCS BaNCS DIALOGUES

TCS BaNCS Dialogues cover topics including Custody & Corporate Actions, Securities, and Banking.



South Africa



New York



Zurich



London



Singapore



11th Annual  
TCS BaNCS Customer Forum,  
The Calyx at the  
Royal Botanic Garden,  
Sydney, Australia



# events

## 1. World Economic Forum

At the WEF in Davos, Switzerland, TCS welcomed over 500 business leaders, media and policymakers to the TCS Dome.

**R Vivekanand, Vice President and Co-Head of TCS Financial Solutions**, spoke on how blockchain is helping to change the ecosystems of financial services. TCS is also collaborating with WEF on its Closing the Skills Gap coalition, which aims to re-skill or up-skill 10 million people in the global workforce by 2020.

## 2. Zions Bancorporation

A team from Zions Bancorporation recently participated in a lively event in Mumbai.

Pictured at front: Venkateshwaran Srinivasan, Head of TCS Financial Solutions, and Scott McLean, President and COO of Zions Bancorporation.

## 3. UK Credit Union Event

TCS hosted an event for credit union executives, "Credit Unions: Turning Challenges into Growth Opportunities," held October 2018 in Manchester, England.

## 4. Channel Partner Meeting

TCS hosted a two-day event in January to recognize the achievements of its channel partners at the TCS BaNCS "L Center" in Bangalore.

## 5. BIAN Open Day

TCS hosted the \*BIAN Open Day & Asia-Pacific Chapter Meeting\* in Bangalore. The BIAN Open Day allows new members and guests to learn more about the banking technology standard.

### World Federation of Exchanges

TCS was a Platinum Sponsor at The World Federation of Exchanges' (WFE) 36th Clearing & Derivatives Conference 2019, hosted by the National Stock Exchange of India.



TCS BaNCS, a strategic partner of **SIFMA**, co-hosted "The Future of Corporate Actions and Custody" on April 24 at the SIFMA Center in New York and livestreamed on the web. The event featured opening remarks from **Ellen Green, SIFMA Managing Director**, and two TCS-moderated panels: a Custody panel featuring executives from BBH and BNP Paribas, and a Corporate Actions panel featuring executives from Morgan Stanley, Fidelity Investments, and Blackrock.



# awards

## 6. Celent Model Insurer Awards 2019

Legacy and Ecosystem Transformation  
Nedbank Insurance and TCS BaNCS

Photo: Indranil Bandyopadhyay, Head - Business anEnablement, Nedbank Insurance, and John Barr, Senior Analyst, Celent

## 7. The Asian Bank Business Achievement Awards 2019

Best Treasury Management Award  
New Development Bank and TCS BaNCS

## 8. FTF Technology Innovation Awards 2019

Best Blockchain Breakthrough of the Year  
TCS BaNCS Network Solution powered by Quartz Blockchain



### ICBA

TCS BaNCS showcased solutions for U.S. regional and community banks at ICBA, held March 18-22 in Nashville, Tennessee.

### Named in Gartner Magic Quadrant for Global Retail Core Banking

In the July 2019 Gartner report, "Magic Quadrant for Global Retail Core Banking," by Vittorio D'Orazio and Don Free, TCS was recognized as a Leader in MQ for Global Core Banking for the 11th consecutive year. Among the vendors evaluated in the report, TCS was placed highest for Ability to Execute.

Gartner, Magic Quadrant for Global Retail Core Banking, Vittorio D'Orazio, Don Free, 22 July 2019  
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**TATA  
CONSULTANCY  
SERVICES**

**TCS BaNCS™**

**Funds Administration**

**TCS BaNCS**

**Portfolio Accounting**

**Book of Records**

**Registrar and Transfer Agents**

The funds and investment management solution from TCS BaNCS consists of a large repository of financial services components, helping organizations/firms consolidate fragmented applications across the value chain, unlocking operational efficiencies, maximizing customer engagement, and designing a coordinated vision of the future through the right technology. Resting on a strong digital core, it encompasses solutions for **RTA, fund management and administration, portfolio accounting, securities processing, corporate actions and wealth management.**

Through its reference data components, it can automate the entire investments and fund administration value chain, including NAV computation, unit price creation, investment instruction and income distribution processing, share register maintenance, thereby, creating a **single source of truth. With real-time accounting,** rule-based processing, high levels of STP, integrated reconciliations and tax lot engines, and End User Reporting (EUR) tools, the operations team can gain from complete visibility into essential information—and, all at one place. Its flexible API-based architecture ensures agility by helping firms design business solutions that are innovative and adaptive to a dynamic and ever-evolving environment. It is integrated with the TCS BaNCS Custody and Insurance products. In short, with the TCS BaNCS solution, your organization can extend its business footprint, reduce TCO and leverage the power of new and existing ecosystems to derive more value.

To know more about how the TCS BaNCS solution can help your business, write to us at [tcs.bancs@tcs.com](mailto:tcs.bancs@tcs.com)





# QUARTZ

## AT THE INTERSECTION BETWEEN INDUSTRIES



### Building industry-spanning blockchain ecosystems with Quartz DevKit

By **R Vivekanand**, Vice President and Co-Head, TCS Financial Solutions

For decades, software providers have built extensive solutions targeted toward specific industries.

Today, the larger potential for business transformation exists at the intersections between industries, where significant inefficiencies remain. This is one of the key drivers for TCS setting up Quartz as a horizontal business unit offering blockchain-based solutions that span industry verticals including energy, utilities, supply chain, healthcare and, of course, financial services.

Quartz was born out of the banking, financial services, and insurance (BFSI) domain, cultivating ecosystems in OTC securities settlement, cross-border remittances, and corporate actions announcements.

Quartz blockchain technology is now being deployed to provide foundational support for ecosystems that span multiple industries. Quartz significantly lowers the cost and effort required to build ecosystems that involve all the relevant players, making possible an entirely new range of capabilities, services and products.

For example, at the intersection of Insurance and Healthcare, Quartz will speed up the settlement of insurance claims, significantly thereby bringing relief to citizens who otherwise have the arduous

task of following up with hospitals, diagnostic labs, and third-party insurance providers for settling their claims. Similar ecosystems are being built for the intersections between Insurance and other industries such as Automotive, Real Estate, and Retail. Through these ecosystems, we're making it easier for insurance products to be embedded throughout the economy, thereby also aiming to bring in positive societal impact.

Quartz will also embed financial services into the supply chain of other industries. Products and services are being enhanced with specific offers and built-in capabilities - for example, by providing channel financing in large supply chains in the manufacturing industry. Quartz solutions will soon be available for bill discounting, enabling better liquidity for SMEs.

By enabling innovative business models at the intersections between BFSI and the broader economy, Quartz will unlock immense value and generate potential for economic growth.

Moreover, Quartz, with its BFSI heritage, has demonstrated the ability to support robust, mission-critical solutions and ecosystems for critical infrastructure providers, making Quartz a natural fit for industries such as energy, utilities, and government.

## Quartz DevKit

Given that the global economy is set to increasingly draw on the power of business ecosystems, Quartz represents the fastest and most effective way of adapting to these transformational changes through rapid innovation, led by the creation of trust and transparency.

But before an enterprise can innovate within blockchain ecosystems, they first require skilled developers who not only understand blockchain technology, but who can also deploy robust business code that can be trusted by an enterprise and its ecosystem partners.

Quartz DevKit addresses the skillset challenge by providing a solution that generates high-quality code for customizable business requirements. The comprehensive code library, built with TCS' extensive experience across domains, enables rapid development using pre-built components that handle a wide range of typical business requirements across industry domains. For any further customization, the easy-to-use programming model ensures that developers can easily transfer existing skillsets (e.g. Java) when designing and building custom applications for their enterprise needs.

The result is predictable, robust, high-quality code that can be deployed in ecosystems serving the most demanding industries, at a level of trust that will enable blockchain to reach its highest potential, and at aggressive timeframes that enable our customers to spearhead change in their ecosystems.

Quartz DevKit is a mature, production-ready development toolkit that is already being used by customers including an Asia-Pacific energy utility and a payment infrastructure provider building mission-critical payment rails, as well as by the Quartz team itself, which uses the Quartz DevKit to build the entire range of Quartz Smart Solutions across diverse industry domains.

Quartz DevKit has built-in support for Hyperledger Fabric as well as R3, and Ethereum capabilities are planned for release in early 2020.

Using the capabilities offered by Quartz DevKit, organizations can quickly prototype, build, test, and deploy blockchain solutions in their IT landscapes in ways that will create value, delight customers, and propel business into the future. ■

## BaNCS Industry Network

***Pioneering initiative enables unified, cross-border adoption of Blockchains***

TCS BaNCS customers are partnering to explore and embrace blockchain technology in exciting new ways, building ecosystems together that break down silos, bring organizations together, and amplify business value through seamless collaboration.

BaNCS Industry Network, a private, permissioned blockchain network designed for TCS BaNCS customers, enables banks, custodians, CSDs, and insurance firms to seamlessly connect and share information and services through shared ledgers.

The cloud-based BaNCS Industry Network enables the rich functionality of TCS BaNCS to be integrated with Quartz blockchain solutions.

BaNCS Industry Network also facilitates rapid deployment of Quartz Smart Solutions for Corporate Actions, Reference Data, Settlements, Insurance Claims Processing and others. This transformative collection of "designed for blockchain" solutions enable organizations to launch proven solutions quickly, on a trusted platform that supports the cultivation of an ecosystem that includes a wide range of partners and customers. ■

### AT A GLANCE: BaNCS Industry Network

- Private, permissioned, cloud-hosted blockchain network
- Connects 400+ TCS BaNCS customers
- Bridges geographic markets and industry verticals
- Enables rapid launch of complete ecosystems

## Cross-Border Corporate Actions in Africa

*Award-winning initiative connects Nigeria's CSD with South African custodian Standard Bank*

**Central Securities Clearing System (CSCS) Plc.**, the central securities depository (CSD) of Nigeria, and **Standard Bank**, a leading custodian based in South Africa, completed a pilot to exchange information for cross-border corporate actions on the BaNCS Industry Network powered by Quartz blockchain.

In the pilot program, CSCS Nigeria placed corporate actions announcements for a wide range of events for equity and fixed income instruments on the BaNCS Industry Network running on Quartz blockchain. This gave Standard Bank instantaneous access to accurate corporate actions information that could be relied upon for further processing.

"Blockchain represents a unique opportunity for early adopters interested in transforming their businesses and industries. CSCS is excited to have worked together with TCS BaNCS and Quartz Solutions on this innovative pilot that has the potential of generating efficiencies in the financial markets," says Haruna Jalo-Waziri, CEO, CSCS Plc, Nigeria. "This is a significant step towards our vision of being the globally respected and leading central securities depository in the region."

"The innovative BaNCS Industry Network, which Standard Bank used to connect to Quartz Blockchain, enabled us to complete the pilot in record time," says Charl Bruyns, Head - Investor Services and Financial Institutions, Standard Bank Group. "The results of this successful technology pilot present exciting opportunities for Africa to deepen innovation, increase efficiency and drive integration in its capital markets. Standard Bank will continue to work with TCS to explore ways to develop future-ready digital solutions for all our stakeholders." ■

## Best Blockchain Breakthrough of the Year

*Pilot with CSCS Nigeria and Standard Bank SA on BaNCS Industry Network wins prestigious FTF award*



BaNCS Industry Network, powered by Quartz Blockchain, was named the Best Blockchain Breakthrough of the Year at the 2019 FTF News Technology Innovation Awards.

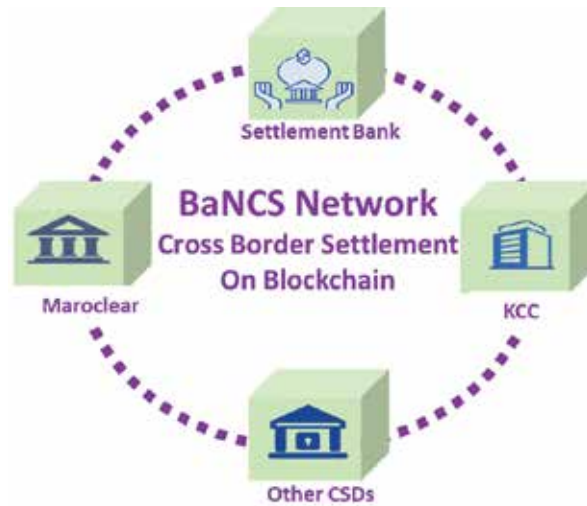
The award was given in recognition of the successful pilot on cross-border corporate actions processing conducted by Central Securities Clearing System (CSCS) Plc. and Standard Bank.

"Successful Business 4.0™ companies are finding innovative ways to leverage the power of ecosystems and deliver exponential value to their customers, and Quartz uses the power of blockchain technology to enable this," said R Vivekanand, Vice President and Co-Head, TCS Financial Solutions. "We are delighted to receive this award from FTF. It is a recognition of our thought leadership and ability to stretch the boundary of what is possible."

FTF (Financial Technologies Forum) is the leading provider of executive-level events and training focused on trends and initiatives in securities trading and operations. The prestigious FTF awards recognize the professionals, financial technology vendors, service providers, industry bodies, and regulators that have made significant strides and noteworthy achievements in operational excellence in the post-trade industry. ■

## World's First Cross-Border Securities Settlement on Blockchain

**CSDs in Morocco and Kuwait connect via blockchain to complete cross border securities settlement using Cash Coins**



Maroclear, the central securities depository (CSD) of Morocco, and Kuwait Clearing Company, the CSD of Kuwait, conducted successful tests on blockchain for cross-border securities settlement.

Both Maroclear and KCC are Market Infrastructure customers of TCS BaNCS, making it easy to bring them together on the BaNCS Industry Network running on the Quartz blockchain. The pilot tests were completed in less than six weeks.

The Quartz blockchain contained ledgers for each CSD to maintain segregated accounts pertaining to a set of equities and fixed income securities listed on the Kuwaiti and Moroccan markets. Using those ledgers, cross-border settlement instructions were matched and settled instantaneously, with the associated notifications on the status of the transactions available immediately to the respective CSDs. Real-time delivery-vs.-payment (DVP) cash settlement was accomplished using Cash Coins, a form of digital currency.

The solution demonstrated the ability for CSDs to process and settle transactions in "T+0" real time, leading to increased transparency and improved settlement efficiency.

"We have demonstrated that by using disruptive technologies like Blockchain, we can overcome limitations in prevailing business models and create new business opportunities for our customers," said Fathia Bennis, CEO, Maroclear.

"The seamless integration of the Market Infrastructure solution from TCS BaNCS with Quartz Blockchain now opens up new opportunities for us to explore the usage of Blockchain in the Kuwaiti market," said Khaldoun Al-Tabtabaie, CEO, Kuwait Clearing Company. ■



WEF, Davos



WFC, Marrakech

**The solution was showcased at the World Economic Forum (WEF) in Davos, Switzerland in January 2019 and at the prestigious World Forum Conference of CSDs in Marrakech, Morocco in April 2019.**



This special section was written and compiled with the participation of Malini Raman, Product Head, Quartz Blockchain Solutions and V. Anjana, Solution Architect.

