

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: www.tcs.com/bancs

Find us on social media @TCS BaNCS https://www.linkedin.com/showcase/tcs-bancs/

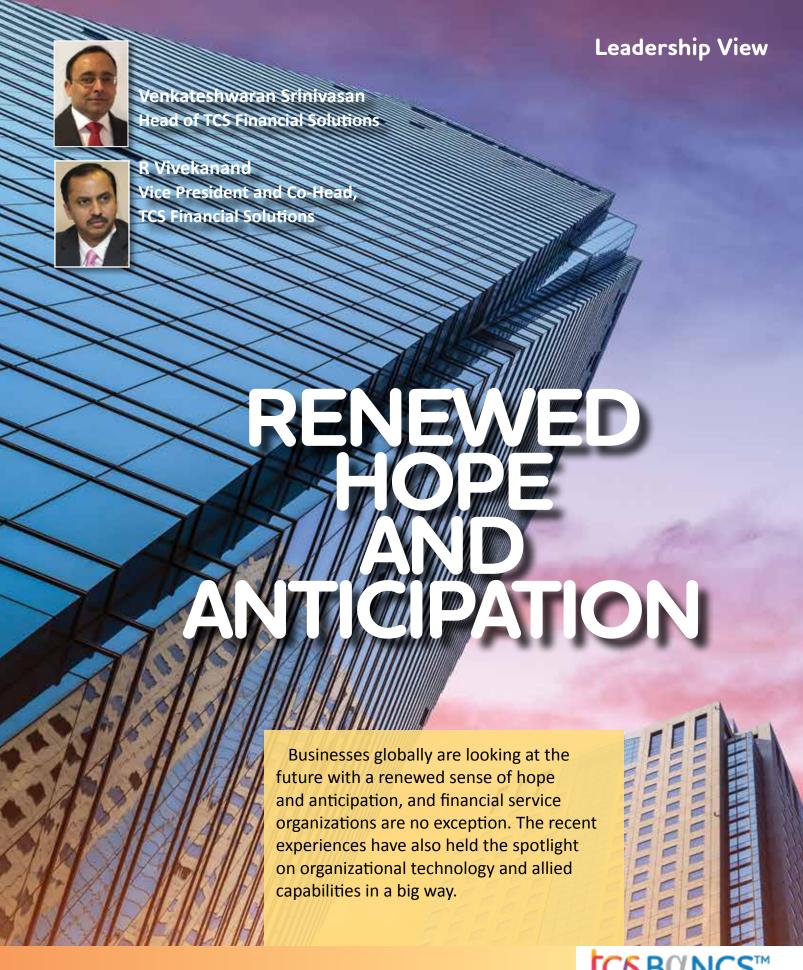
About Tata Consultancy Services (TCS)

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 over 50 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

A part of the Tata group, India's largest multinational business group, TCS has over 500,000 of the world's best-trained consultants in 46 countries. The company generated consolidated revenues of US \$22.2 billion in the fiscal year ended March 31, 2021 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 MSCI Global Sustainability Index and the FTSE4Good Emerging Index. For more information, visit www.tcs.com.

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We look forward to continuing the dialogue with you as we progress on some of these themes, which will reshape our future as a business while we endeavor to continuously stay relevant to yours.

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From the Editor Table of Contents



On the cover, you may have noticed the new vibrant and colorful TCS BaNCS logo.

As part of TCS' new brand identity, we have also embraced our company's new statement of purpose, "Building on Belief," driven by the idea that we can help transform our futures through innovation and technology. We can make a long-lasting impact on our clients' businesses and on society at large. We know that our clients believe that the work they do is making the world a better place, and TCS is dedicated to being an equal partner in helping realize those purposes.

The "Building on Belief" branding aligns perfectly with the TCS BaNCS partnership approach that we've practiced from the very beginning. That's why we're retaining our long-held "Turning our Technology to your Advantage" messaging for TCS BaNCS as well as the "Experience Certainty" promise from TCS. Our earlier brand promises remain essential in helping our customers throughout their growth and transformation journeys.

It's rewarding and enriching to hear directly from our customers about their ongoing successes. That's why in this issue we're pleased to feature an interview with the CEO of Switzerland's PostFinance, testimonials from US-based Continental Bank, and the latest update from Sweden's Länsförsäkringar Bank.

Market Infrastructure Institutions (MIIs) are undergoing tremendous changes in response to new technologies, new market models, and increased expectations from regulators, investors, and financial institutions. Our TCS BaNCS for Market Infrastructure customers, exemplified by Kuwait Clearing Company and BankservAfrica, are leading the way through these changes, and we are also extremely excited about our

latest transformation partnership with MCX, India's largest commodities exchange. (Also for MIIs: TCS recently launched Quartz for Markets, an end-to-end solution for managing tokenized blockchain assets. For more information, see Quartz Magazine #3.)

We realize that many people have not yet returned to previous levels of business travel, which is why we have expanded our video library (including our recent Corporate Actions and Insurance webinars) to share our vision and expertise with customers and stakeholders. We will continue to support all of our customers, wherever they may be.

At the same time, we are thrilled at the prospect to see some of you in person again. We had a large presence at SIFMAOps in Miami and will be at Money 20/20 in Las Vegas in late October.

We were also at this year's virtual Sibos 2021 – and be sure to watch the on-demand replay of our "Meet the Experts" panel on Transformative Technologies and Operating Models in the Securities Domain, featuring TCS BaNCS and Standard Chartered Bank.

Visit: https://www.tcs.com/sibos-2021.

We hope to see you at upcoming virtual and in-person events in the near future.

Happy Reading,

Anjana Chandrika S

Head, Marketing, Communications & Research, **TCS Financial Solutions**

> To request a subscription, email your name and affiliation to tcs.bancs@tcs.com

We highly value our customers' feedback about their experiences working with us. Every quarter, TCS' Governance & Assurance team surveys TCS BaNCS customers for Customer Service and Support (CSS) ratings. We're pleased to report that our overall score remains in the "A" range above 90 percent, with almost 10 percent of our projects receiving a 100 percent score. These measures are extremely important to us, and we'll continue working diligently to achieve straight "A" marks across the board.







Leadership View

Renewed Hope and Anticipation

From the Editor

10 Building on Belief

Growth and transformation in financial services drives successful economies

14 Market Infrastructure Special Report

Market Infrastructure Institutions face new challenges with TCS BaNCS

19 Kuwait Clearing Company

Thriving partnership continues with TCS over twenty years and three major upgrades

24 BankservAfrica

South African clearinghouse to provide infrastructure for real-time payments ecosystem

30 MCX

India's largest commodity exchange to transform core systems with TCS BaNCS

32 PostFinance: 10 Years with TCS BaNCS

Interview with Hansruedi Köng, CEO, PostFinance

38 Continental Bank

Testimonials from executives of a fast-growing, digital-only commercial bank in the United States

42 Länsförsäkringar Bank

The continued journey of a Swedish success story

Awards and Recognitions

Mutual Trust Bank Ltd. in Bangladesh, Huaxia Bank in China, and SWIFTReady 2021 Certifications

46 Societe Generale Securities Services

TCS BaNCS powers transformation of pan-European custody platform

Your Guide to the TCS BaNCS Ecosystem

Ecosystems have become essential to collaborate on success in financial services

52 Wealth Management

TCS BaNCS supports digital advisory service of top-tier asset management firm

60 Shareholder Identification

TCS BaNCS solution enables SRD II compliance

64 Corporate Actions on the Cloud

The future of asset servicing and the prospects for "Corporate Actions as a Service"

Intelligent Digital Solutions in Insurance Discussion about the hottest industry topics

TCS BaNCS On-Demand

Our updated library of product videos and event livestreams

70 Events

Gallery of our recent events, plus information about our upcoming events and webinars



Building on Belief

OUR BELIEF

Turning our Technology to your Advantage™

By **Anjana Chandrika**Head, Marketing,
Communications & Research,
TCS Financial Solutions

We are proud of our long history of serving TCS BaNCS clients, and the role that we have played in enriching the lives of hundreds of millions (if not billions) of customers. Behind all our efforts is a core belief that growth and transformation within financial institutions enables widespread access to strong financial institutions and infrastructure, which together represent an essential engine of successful economies and a necessary foundation for a peaceful and healthy planet.

Our **banking** clients serve everyone from high-net-worth households to first-time homeowners to people opening bank accounts via financial inclusion initiatives. With our Digital First, Cloud First™ approach, TCS BaNCS has lowered the barrier to entry for innovative new market entrants into banking and payments, benefitting consumers and businesses with greater choice, better service, and lower prices.

Our **capital markets** clients enable buyers and sellers to transact with safety, speed, and liquidity. Our market infrastructure clients ensure the secure and efficient operation of global marketplaces in equities, bonds, derivatives, and commodities. We have enabled all our capital markets clients to transform along with the global marketplace, adapting to changes in regulation ns, process improvements such as automated corporate actions, and the growth of innovative financial instruments including cryptocurrencies. These market-driven activities generate wealth that powers growth and transformation throughout the global economy.

Our **insurance** clients have transformed their operations to provide stronger protection during times of crisis, while also ensuring resilience and financial strength in meeting customers' long-term needs. Our clients' groundbreaking innovations include omnichannel customer service offerings with Al-powered capabilities, hybrid offerings combining life insurance and non-life insurance to protect customers during significant life events, and multi-entity platforms that deliver significant cost savings to preserve the value of pension fund assets for large populations of retired workers and their families.

TCS BaNCS has helped the world's financial institutions to extend the benefits of wealth and opportunity, improving the health and well-being of countless people and families worldwide. We believe that everything we do, and everything our clients do, impacts not just our customers, but communities, countries, and our society at large, for the better.

Those beliefs guide our thinking about the exciting future of TCS BaNCS, which will include financial services embedded into everyday life, integration of new blockchain-based decentralized finance ("DeFi") into existing financial infrastructure, and increased ease of deploying Digital First, Cloud First™ solutions in every area of financial services.



Building on Belief

OUR BELIEF

What do you believe?

Our beliefs power our actions. At TCS, we are committed to being a full partner to our clients, even during the most intense periods of growth and transformation.

That's why we're having powerful conversations with our customers, asking: "What do you believe?"

We'd like you to share your visionary beliefs with us. Your biggest out-of-scope ideas. Your ideas for rapid prototypes that would bring about the greatest potential for positive change.

With a solid understanding of your belief in what's possible in the future, we'll be at your side as your trusted partners – Building on Belief.

And as your trusted partners, we'll harness our collective knowledge and diverse perspectives to go quickly from rapid prototype to continuous business transformation.

At TCS BaNCS, we have local-market knowledge and delivery capabilities in financial markets around the world. Our product teams have co-created an ecosystem of innovative business solutions across banking, capital markets, and insurance, in traditional markets and with innovative new financial instruments, and using the best of advanced technologies in AI, Blockchain, Cloud, and Data. Our premium solutions are IP-enabled and competitively benchmarked to support business excellence and success.

We remain as resilient as ever, giving our strength in support of our clients. From the largest banks, brokerages, and insurers to the innovative, cloud-powered startup, we are as committed as ever to our "Experience Certainty" delivery promise, along with our "Turning our Technology to Your Advantage" business promise. These promises remain as strong as ever.

"Building on Belief" is an evolution of TCS in a way that recognizes the need for new strengths to complement our previous capabilities. In many ways, TCS BaNCS already exemplifies those new strengths through the diversity of minds present in our global delivery network, innovation at scale with TCS BaNCS Cloud, collective knowledge through TCS BaNCS Dialogues, and a shared purpose through our partners throughout the TCS BaNCS Ecosystem.

Throughout the history of TCS BaNCS, we have maintained consistent and concise messaging about the success stories of our customers through the TCS BaNCS Customer Newsletter, and on the implications of the underlying technology through the TCS BaNCS Research Journal. We will continue to tell stories about how we are transforming the world for the better, and we look forward to hearing those stories directly from you.

Our Promises

In it for good. We take a long-term view, working with our customers and communities with a shared purpose toward a shared future.

Bring everything. We commit our full range of capabilities with the determination to succeed to help you change your world.

Know-how. We combine the power of knowledge and skills to empower transformation with real and tangible solutions that work.

Master the journey. We proactively redraw and adapt, seeing each step on the journey as an opportunity to deliver greater value.





he pandemic has brought about a new set of challenges for Market Infrastructure Institutions, or MIIs. They have grown more than most segments, driven by retail interest and surplus liquidity. They have also faced waves of change, both regulatory and disruptive. This applies to all asset classes, and Payment infrastructures.

MIIs now need to combine high performance, low latency and best-in-class resilience with the agility to introduce new products/asset classes, and handle next generation tokenized assets/NFTs. Most MIIs are actively looking at the possibilities for supporting regulated cryptocurrencies, NFTs, and leveraging distributed ledgers, tracking real-world assets such as property, fine art, and other assets in cross-industry value chains, and some have moved past the pilot phase into actual deployments.

s, whose indices reflect economic growth and capital, and are in constant scrutiny, need to change faster, and in more comprehensive ways, than ever before. It is this unique mix that makes this an inflection point in the Market Infrastructure space globally. In most markets, it is the biggest change since the introduction of Electronic Trading and Central Depositories, a generation ago.

Through the strong contextual knowledge built over almost three decades of close collaboration with MIIs, TCS has consistently worked to improve TCS BaNCS for Market MIIs, whose indices reflect economic growth and capital, and are in constant scrutiny, need to change faster, and in more comprehensive ways, than ever before. It is this unique mix that makes this an inflection point in the Market Infrastructure space globally. In most markets, it is the biggest change since the introduction of Electronic Trading and Central Depositories, a generation ago.

Infrastructure, fostering rapid evolution in terms of the breadth of components, the range of MIIs and asset classes supported by the solution, introducing high performance and low latency capabilities and in enabling readiness for new market models. Our Securities Trading solution has also evolved to handle more asset classes, and has now been selected by three MIIs for their Trading Front End and Order routing needs.



We have also ensured that MIIs can coexist with the growth of tokenized securities with the recent introduction of Quartz for Markets. With Quartz, MIIs will be able to convert real-world assets such as high-end real estate and artwork into digital tokens and manage the full lifecycle of asset-backed tokens and NFTs, all in full compliance with relevant KYC/AML regulations and integrated with existing market infrastructure.

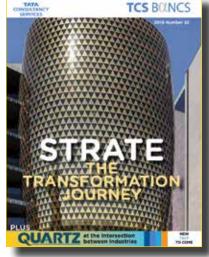
In addition, we are bringing together best-in-class solutions from our partners, some of whom are also from the industry, and our customers to create a solution map that addresses every need in this space.

TCS BaNCS for Market Infrastructure is now deployed globally for CSDs, clearinghouses, exchanges, central banks, and central payments infrastructures. In each and every deployment, TCS BaNCS for Market Infrastructure adapts to the specific needs of the marketplace, its regulators, investors, financial institutions, and other stakeholders. The continued evolution of the global marketplace has yielded tremendous diversity in terms of market models and market structure, and that diversity continues with the deployment and adoption of the latest technology.

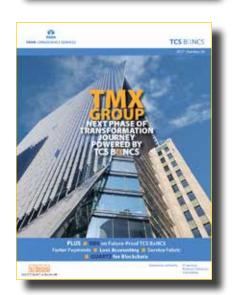
Our recent launch of Quartz for Markets fully embodies that spirit of embracing change. Built on the principles of coexistence, integration, and interoperability, our flexible distributed technology solution for MIIs has the capability to incorporate tokenized assets into investor portfolios of all types and sizes. Already, Quartz has been selected by four MIIs lin the last 6 months.

look forward to continuing our pathbreaking journey with many more deployments, as we head into the future with a next generation solution set combining Quartz and TCS BaNCS, enabling growth and transformation of marketplaces and economies.





CONSULTAN TCS BOINCE



Strate (South Africa)

Single multi-asset class CSD solution with support for different settlement models.

TCS BaNCS #32

Euroclear Finland

Full replacement of multiple legacy core systems onto single core system for securities issuance, safekeeping, account management, settlement, transfers, corporate actions, and more.

TCS BaNCS #30

TMX Group

Replacing legacy systems for TMX Group's cash clearing and derivatives clearing businesses, The **Canadian Depository** for Securities (CDS) and Canadian Derivatives **Clearing Corporation** (CDCC).

TCS BaNCS #28

Philippine **Depository & Trust** Corp.

Asia's first comprehensive depository system uses TCS BaNCS for Market Infrastructure to support an expanded range of services and capabilities including immobilized and dematerialized securities, value-added, integrated depository services, integration with RTGS, and multiple service and product lines on a single platform.

TCS BaNCS #31

Maroclear (Morocco)

Multi-asset class depository with reengineered posttrade activities, and the first cross-border securities settlement on blockchain.

TCS BaNCS #31



QUARTZ[™] FOR MARKETS



By Malini Raman, Product Head, Quartz

Tokenization of real-world assets now offers an alluring opportunity to the global investor community. Innovation powered by blockchain has opened up new marketplaces for tokenized asset classes, including

newer types of illiquid and exotic assets.

And tokenized assets are not just for high-net-worth individuals. Tokenization democratizes the access of assets to mass market investors, enabling people to make fractional, small-value investments into high-value assets.

To meet market demand, the entire wealth management industry will need to build capabilities to trade tokenized assets of all kinds. This poses a challenge not only for asset managers, but also for the market infrastructure institutions (MIIs) supporting them and their clients throughout the value chain.

That's why we created Quartz[™] for Markets.

Quartz[™] for Markets offers end-to-end next generation services around tokenized securities to drive future growth for Mlls including exchanges, depositories, central banks, payment infrastructures, private banks, custodians, and issuers. Quartz[™] for Markets builds on TCS' position as the largest independent software provider to Mlls, with its proven TCS BaNCS for Market Infrastructure and Custody solutions powering the operations of over 50 market-critical institutions across 66 countries.

Available now for deployment on cloud or onpremise, **Quartz[™] for Markets** has been designed for easy integration and interoperability with existing core platforms and third-party solutions, including built-in connectivity with TCS BaNCS for Market Infrastructure and Custody solutions.

For more information:

Visit https://www.tcs.com/quartz

Read Quartz[™] Magazine







Thriving partnership continues with TCS over twenty years and three major upgrades

By **T Arul**, Program Manager and **M Anand**, Product Head, TCS BaNCS for Market Infrastructure, TCS Financial Solutions

Kuwait Clearing Company (KCC)

S.A.K. was established in 1982 following the crash of the unregulated and unofficial Souk Al-Manakh stock market. By working with close cooperation with all Kuwaiti market infrastructure institutions and under the surveillance of regulators, KCC was instrumental in mitigating risks for Kuwaiti investors and restoring trust in the market.

As KCC matured in the 1990s, the organization increasingly began to benchmark its own operations against global best practices. That led to the search for a partner who could not meet Kuwaiti business practices, but also implement global best practices to enable market growth and increased competitiveness.

In 2002, KCC entered into a partnership with TCS. After twenty years and three major upgrades, the partnership continues to yield tremendous successes for both organizations.

TCS BaNCS for Market Infrastructure (MI) was implemented at KCC in 2005 for clearing and settlement. "In the beginning, TCS helped us to strengthen our market position," says Duaij Raed Al-Saleh, Deputy CEO, IT and Strategy. "As we realized our strengths, we started expanding our partnership with TCS to all the areas where we service the market, including depository, registry, and corporate actions."

In 2010, KCC and TCS started evaluating new areas for growth and cooperation. The next year, KCC started an 18-month project to expand TCS BaNCS to cover all the services provided by KCC. "We wanted not only to unify all services under one platform, but also to eliminate all our legacy procedures, systems, and operations, replacing them with a state-of-the-art solution and state-of-the-art operations to serve client needs and meet international standards," says Al-Saleh.

The design of the new system had to be flexible enough to meet the fast-changing needs of investors in Kuwait and the region. "It was a dynamic market, and we kept changing our requirements," recalls Al-Saleh. "In response, TCS adopted a dynamic way of managing the project with an Agile project management approach and development cycle, accommodating all the changes that came our way during the course of this 18-month project."

TCS proved to be an ideal partner for KCC not just in terms of its technical and business abilities, but also for its culture.

As a global organization with enterprise customers worldwide, TCS has been highly effective in transcending the language barrier, which was seen as a major challenge given the significant differences between Arabic and English writing, speaking, and digital representations.





From Go-Live to Go-Live

The TCS BaNCS MI V5 go-live in April 2012 was five months ahead of schedule. "The way KCC handled this was praised by all market participants, and the government recognized TCS' role in managing the dynamic marketplace requirements."

The upgrade delivered improved capabilities for KCC's CSD and Registrar businesses along with new capabilities to support mutual funds. KCC was also positioned to support higher trading volumes, facilitating the rapid expansion of Kuwait's capital markets between 2015 and 2020.

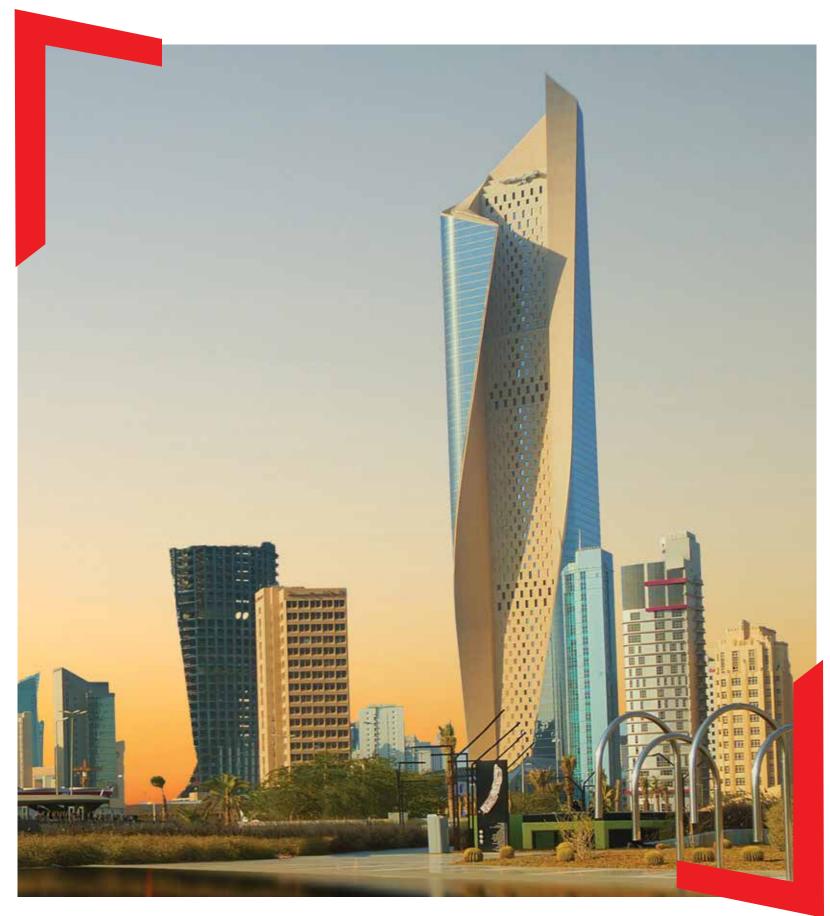
Soon, the global marketplace started to recognize Kuwait's emergence as a major investment destination in the GCC region. In 2018, Kuwait was upgraded from "frontier" to "emerging market" status by FTSE Russell, and a similar upgrade from S&P Dow Jones followed in 2019. Then, in In November 2020, Kuwait was added to the MSCI Emerging Markets index, which opened up Kuwait to a wider range of global investment funds.

Meanwhile, KCC and TCS had commenced a third major upgrade. "We needed to extend further, expand into more services, adopt more standards into our solutions, and implement more advanced technology solutions," says Al-Saleh.

The third upgrade included a significant market model change. KCC wanted to lead Kuwait's transition to BIS Model 2 Settlement, enabling net settlement of funds. Compared to the previous gross settlement model, the market-wide transformation to net settlement boosts efficiency, increases liquidity, and delivers real-time risk management, which promised to further improve Kuwait's profile as an investment destination.

At the time, Kuwait's regulators expressed doubts about KCC's ability to deliver upon its expansive vision for the Kuwaiti markets. That's when the longstanding partnership between KCC and TCS showed its true strength. "TCS sent a delegate to Kuwait who met directly with the regulator, assuring them that TCS would dedicate all its substantial resources to supporting KCC and the country's vision," says Al-Saleh.

"This is a memory I'll never forget," adds Al-Saleh. "The regulator's trust in TCS eliminated any doubts they had about us, helping KCC on our journey."



To meet the massive challenge of a market model change, KCC conducted 15 rounds of market-wide testing, with extensive participation of brokers, custodians, regulators, Boursa Kuwait, and other market intermediaries. TCS and KCC conducted comprehensive user acceptance testing, with TCS BaNCS V5 and V7 running in parallel for five months. In addition, KCC conducted non-functional tests covering 3 times existing trade volumes, business day operational tests, disaster recovery, and failover tests.

The thorough testing process was aided by a well-honed project management methodology that included live engagement between the respective teams from KCC and TCS. "We scheduled periodic visits to make sure that everybody involved shared the same objective and focus," says Al-Saleh. "From the TCS development, testing, requirements, and infrastructure teams to the KCC teams from all business areas, everyone is involved in these discussions."

The sudden onset of the Covid-19 pandemic arrived during the final stage of the upgrade. "We had to come up with alternative ideas on how to do project management, testing, and development," recalls Al-Saleh. "These were massive challenges that nobody expected, but as a team, KCC and TCS came up with an alternative governance structure that proved to be successful."

Under the new governance structure, the majority of implementation support, parallel run, and market testing was performed using TCS SBWS mode, along with a three-member team in Kuwait.





In May 2021, KCC went live on V7 of TCS BaNCS MI. The TCS BaNCS V7 brings new capabilities which includes:

- High-performance Transaction Manager (HpTM), a low-latency, real-time clearing and settlement system with improved risk management
- Support for trade splits, which makes trading more efficient for brokers by providing easy post-trade allocation to brokers' clients
- Full-stack technology upgrade, including more resilient hardware infrastructure, comprehensive realtime REST APIs, and multi-browser

TCS BaNCS V7 deployment benchmarks:

support

- —Average Trade volumes per day increased by 20-25 percent
- —Usage of Web services increased by 600 percent
- —Settlement performance improved by 60 percent
- Corporate actions processing improved more than 75 percent
- —EOD batch window reduced by 50 percent

Future visions

Through its ongoing transformation, KCC has ensured that global investors have efficient access to capital markets in Kuwait and the GCC, with automated access to real-time data and the highest levels of liquidity.

For the second half of 2022, KCC plans to launch central counterparty (CCP) clearing. "Our vision in Kuwait is to have a real-time CCP marketplace," says Al-Saleh. "We are in the final stages of setting up our CCP model."

The initial launch of CCP will cover equity markets. Subsequent releases will cover derivatives, including futures, options, fixed-income products, and ETFs. KCC will also establish structured membership tiers for advanced clearing and custody members.

"We are finalizing our strategy for the next several years, and one of the main drivers of our strategy is the fact that we are partnering with TCS," say Al-Saleh. "We see TCS as a solid, trusted partner, and continuing the relationship with TCS is essential to our future."







BankservAfrica is participating in an industrywide initiative to launch **Rapid Payments Program** (RPP), an easy-to-use, real-time retail payments system for South Africa. RPP is a Modernisation initiative of the South African Reserve Bank (SARB) and part of SARB's Vision 2025 strategy.

As a clearinghouse, BankservAfrica will be responsible for providing the RPP infrastructure, including real-time payments and clearing, for participants throughout the payment ecosystem in South Africa. To support this significant national initiative, BankservAfrica has selected the ultrahigh-performance, low-latency, scalable solution of TCS BaNCS for Market Infrastructure.

"Following our rigorous selection process,
TCS BaNCS emerged as the natural fit, matching
our key criteria for fit-for-purpose and ability to
deliver," said **Bishnen Kumalo**, Executive Head of
Modernisation at BankservAfrica. "In addition to
having the best technology stack, they have had
major success for innovating in India's payments
ecosystem and will no doubt support us in bringing
some of this experience to South Africa."

"This comes at a time where economic recovery is critical and the industry needs to catch up to the digital changes in the economy," adds Kumalo. "With TCS' technology, we are well positioned to expedite the launch of a modern, easy-to-use, and efficient payments platform that caters to lower-value transactions at an affordable cost for the benefit of all South Africans."

BankservAfrica

South African clearinghouse to provide infrastructure for real-time payments







Modernizing payments

RPP is an industry-wide initiative involving bank participants, the Payments Association of South Africa (PASA), and the Banking Association of South Africa (BASA). "We have received positive support from all participants as they all rally behind a common goal of unifying the entire banking sector to achieve Modernisation of South Africa's payment system," says Kumalo. "As of today, eleven of South Africa's major banks have committed to the implementation and rollout of RPP, with additional participation from non-bank players such as fintechs."

To support these diverse entities, the unique High Performance Transaction Manager (HpTM) of TCS BaNCS for Market Infrastructure will be deployed using cloud-based microservices accessible through APIs. This approach will deliver complete support for ISO 20022 standards, enabling easy integration with existing payment ecosystems to further the reach of real-time payments throughout South Africa. For clearing, BankservAfrica will consolidate multiple payment rails into the unified clearing solution of TCS BaNCS for Market Infrastructure, with configurability to cater to each ecosystem participant using the payments infrastructure.

The flexibility of the solution will enable payments providers throughout the economy to customize services to their own business models and customer needs. "Creating this new payment platform through a collaborative effort with banking and non-bank participants will ensure ease of use and access for South Africans," says Kumalo.

The RPP project commenced in October 2020 and is expected to launch in South Africa by mid-2022. "We anticipate that by 2023, RPP will be the preferred e-payment option in South Africa, deepening financial inclusion and contributing to building a safe, reliable, and efficient national payments system," says Kumalo.





<mark>26</mark> 27



RPP will promote widespread adoption of instant payments to South Africa using "pay-by-proxy" functionality that enables retail consumers to initiate, receive, and request payments using their mobile phones. These easy-to-use and powerful capabilities will be supported by TCS' innovative Quartz™ Smart Ledgers for Proxy Resolution, a solution built on decentralized and distributed architecture to deliver a secure, real-time, and scalable solution for account management; and Quartz™ for KYC/AML to provide real-time fraud management capabilities to facilitate transaction screening and monitoring.

Mobile-friendly capabilities will be essential in making RPP a ready alternative to cash, which still represents 9 out of 10 transactions in South Africa. "Cash can lead to losses for businesses and prevents small business from entering the formal economy," says Kumalo. "Our payments revolution is not about cancelling cash but reducing dependency on it by the underbanked and by small, medium, and micro-sized enterprises."

BankservAfrica's partnership with TCS BaNCS will enable further growth and transformation in the years to come. "Beyond the RPP, there are several enhancements and initiatives in the pipeline for the payments industry to continue to modernize by providing more immediate benefits to consumers while enabling a smooth transition towards digital solutions in an efficient and cost-effective manner," says Kumalo. "Also, once the RPP has been concluded domestically in South Africa, BankservAfrica has every intention to explore expansion into other African countries."

TCS has earned an important role as a partner to BankservAfrica and other financial industry players in the country. "Over the last couple of years TCS BaNCS has experienced great success in the South African financial services industry," says Kumalo. "With its proven track record for delivery and great innovation, its role in the Modernisation of the payments ecosystem in South Africa will remain relevant."

AT A GLANCE

Company: BankservAfrica

Headquarters: Johannesburg, South Africa

Business Challenge: Support South Africa's

Modernisation initiative with real-time retail payments and clearing with Rapid Payments Program (RPP).

Solutions: TCS BaNCS for Market Infrastructure

Quartz[™] Smart Ledgers for Proxy Resolution

Quartz™ KYC/AML

FAST FACTS

BankservAfrica seeks to ensure the ongoing stability of South Africa's National Payment System while enabling financial inclusion in South Africa and Sub-Saharan Africa







The Multi Commodity Exchange India Ltd (MCX), India's largest commodity exchange, has selected TCS as the technology solution provider for its growth and transformation journey.

As part of MCX's Project Udaan (Hindi for "flight"), TCS will help MCX build a new technology core, transforming its trading as well as post-trade functions to support its future growth and further strengthen its leadership position in the commodity derivatives market in India.

TCS will design and deploy a cutting-edge, ultra-low latency, high-availability, high-resilience, and high-performance solution that integrates multiple systems to transform MCX's end-to-end operations. To enable high throughput trading, the solution uses the Deutsche Börse T7® trading platform from the Deutsche Börse Group. TCS is a strategic business and IT transformation partner to the Deutsche Börse Group, and has helped develop this platform, and is also implementing it in select engagements.

Post-trade activities such as clearing, risk management, delivery and settlement will be transformed using TCS BaNCS for Market Infrastructure™ with its unique High Performance Transaction Manager (HpTM) deployed as microservices. Its unified clearing approach along with integrated real-time risk management and position monitoring, as well as its collateral and delivery management and settlement capabilities, will help MCX in meeting its current and future business needs

Further, TCS BaNCS' APIs and support for global messaging standards will enable easy integration with various participants, sub-systems and ecosystems. Compliant with global regulatory standards, TCS BaNCS will help MCX meet current and future regulatory standards including emerging regulations around client level collateralization.

Additionally, TCS will implement TCS BaNCS for Securities

Trading™ for MCX's trading members, providing them a modern, fast, intuitive user interface and real time market data feed for trading and post trade activities.

"Increasing trading volumes, longer trading hours, new asset classes, and higher retail participation are driving forward thinking exchanges and market *infrastructure institutions* to accelerate their transformation. A large growing economy like *India has immense future* potential in Commodity markets. We are delighted to partner with MCX in building a future-proof platform to enable this growth. Our strong presence across the Indian markets. unique market knowhow, intellectual property, and ability to put together a world class solution will help us play a pivotal role in helping MCX drive its transformation."

> —**R Vivekanand,** Co-Head, TCS Financial Solutions

India's largest commodity exchange to transform core systems with TCS BaNCS

About The Multi Commodity Stock Exchange Ltd.

The Multi Commodity Exchange of India Limited (MCX), India's first listed exchange, is a state-of-the-art, commodity derivatives exchange that facilitates online trading of commodity derivatives transactions, thereby providing a platform for price discovery and risk management. The Exchange, which started operations in November 2003, operates under the regulatory framework of Securities and Exchange Board of India (SEBI). MCX offers trading in commodity derivative contracts across varied segments including bullion, industrial metals, energy and agricultural commodities, as also on indices constituted from these contracts. It is India's first Exchange to offer commodity options contracts, bullion index futures and base metals index futures contracts. The Exchange has an extensive national reach, with 620 registered members and 48,427 authorised Persons with its presence in around 981 cities and towns across India as on 30 June 2021.

Watch R Vivekanand, Co-Head of TCS Financial Solutions, appearing in an extended interview on CNBC TV18 in India https://bit.ly/tcs-mox-cnbtv18





Interview with Hansruedi Köng, CEO, PostFinance



If we look back to pre-2011, what triggered the launch of the BaNCS initiative?

How time flies... Our payment solution at the time had worked smoothly but was certainly at the end of its life cycle and could no longer cope with the increasing complexity. Therefore, with TCS BaNCS, we moved away from individual solutions to a standardised solution based on a modular structure. Already at that time, TCS Financial Solutions could boast 20 years of experience in product development -incredible know-how paired with a worldwide network via their client base. It was important for us to get a software supplier on board like TCS, that would enable us to run the platform in-house as part of a transformation process.





How would you summarize the BaNCS initiative?

In order for payments of any kind to be made, a software that can process them is needed. With around 900 million payments per year at that time and with a total of 1.185 billion customer transactions in 2020 (equivalent to CHF 1,777 billion), large volumes have to be processed. Even at peak times, the payment system must remain stable and function, to meet customer expectations.

TCS has even larger accounts where it has addressed such high demands in full. TCS BaNCS is a modular system that has allowed us to implement elements in e-finance step by step. The Easter holiday in April 2018 marked the launch of the Core Banking Transformation (CBT), where we replaced our core banking system, and were thus able to integrate new elements almost every year. With TCS BaNCS, we have become more modern and standardized - especially in terms of product diversity. With the new capabilities, we can set up and launch new products more swiftly. In short, TCS was the enabler for the next generation of technology in payment traffic and has made us leaner and more modern with a standardized approach, which ultimately benefits our customers.



Were all expectations met?

After the introduction of the CBT with the Big Bang at Easter 2018, there were, as expected, some small glitches that needed to be eliminated. However, we had prepared ourselves very well at that time, and together with TCS, we were able to quickly establish a stable system from the customer's perspective. In the meantime, we have implemented a new major release of the TCS software and thus brought many business innovations to the market. From an operational point of view, we have now achieved a stable situation thanks to the close cooperation based on our partnership. We have a state-of-the-art core banking system which we can use to support our "Speed-Up" strategy.

How has Core Banking Transformation improved customer experience?

Through simplicity, speed, independence, and security. Let's take the investment business as an example: with CBT, we have laid the foundation to offer our clients a wide range of investment products, also in cooperation with TCS. Especially in the field of e-asset management. And as another example, the customer login: in the past, this was done using a reading device, but today biometric face or fingerprint recognition is sufficient. It's easier, we're faster, we can offer more in self-service mode, and we provide even more security. Digitalization has improved the customer experience enormously. CBT has laid the foundation for these developments and will continue to support us in our digital transformation efforts for years to come.

How has it improved internal operations and stakeholder performance?

The renewal of our banking software offered a great opportunity to unite the different ways of working and integrate systems within the company. The architecture is built in such a way that we can implement product innovations without making far-reaching adjustments to our core banking system. This allows us to react more flexibly to market changes. This also applies above all to internal processes and helps us to further optimize processes and make them more efficient. In addition, we benefit from product innovations made by TCS, so that our core banking system is ready for future challenges.





Interview with Hansruedi Köng, CEO, PostFinance

What aspects of the PostFinance-TCS partnership (e.g. leadership, methodology, experience, technology) were most important to the success of the 10-year journey and why?

An IT service provider must understand our strategic goals and must want to be part of the joint success story. I have to feel this already at the negotiation stage.

Furthermore, I expect absolute professionalism in all areas. Therefore, we usually only select a partner after proof of concept, when we can assess an initial performance. We did the same with TCS.

It is also important for me that the IT service provider thinks with us and helps to ensure the transfer of know-how to our employees. We want the leadership and conceptual competence to be with our employees. Of course, I must be able to rely on a partner. Verbal agreements also apply. We have developed a common language over these years, we know what our requirements are and what skills we can rely on, and I am very grateful for this cooperation also at my managerial level.

How has this
10-year partnership
positioned
PostFinance to be
a market leader,
whether relative to
competitors or peer
organizations in
other markets?

Thanks to the cutting-edge core banking system, we can move forward. And we also have to move. Banks need to act. If we don't transform, challenger banks and other tech providers will move deeper and deeper into banking. We have been working on this transformation for years and are constantly improving our offering. Of course, it is essential that we have a partner with whom we can trust and rely on, and with whom we can jointly drive further development.

What are your plans for building upon these accomplishments over the next 10 years?

The smartphone is becoming increasingly important and an integral part of everyday life. We also have to align ourselves with these changing customer needs. Our path – also with our "Speed-Up" strategy – is about automation and digitalization. We want to digitalize our processes end-to-end and automate all repetitive, rule-based tasks. We want to use new technology (machine learning, analytics, and communications) to simplify the handling of money for our customers. For this, we need a strong partner at our side.

What would you advise to other banking and payments executives considering a similar journey with their organizations?

Evaluate yourself: What are your requirements? And only then evaluate the provider! Specify the high-level requirements in a sub-area and carry out a proof-of-concept to test the cooperation. Only then decide with a view to the provider's overall package (technology, skills, availability) as well as with a view to your own needs and agree on a partnership with the provider and not just a supplier relationship. This includes, above all, a common understanding of the cooperation after the introduction.

MILESTONES

Core
Banking
Transformation
at
PostFinance

2011

Journey with TCS BaNCS commences

2014

Initial consolidation onto TCS BaNCS

2018

Core Banking
Transformation Go-Live

2020

Upgrade to the latest Major Release

2021

10-year milestone and continuous enhancements

Images: © PostFinance AG 2017, All Rights Reserved



Continental Bank

Testimonials from executives of a fast-growing, digital-only commercial bank in the United States





Nathan Morgan
Founder, CEO and President,
Continental Bank, Salt Lake City, Utah

We have been exceedingly pleased with the attitude, the effort, the desire, and the flexibility of TCS.

I have always felt the strength of their commitment to us and to the marketplace. That commitment is something continues to sustain us today as we develop new products and new variations of those that we currently operate.

TCS has come to us with ideas that we had not considered, and when we have gone to them with ideas that they hadn't considered, they are receptive and open to those.

TCS is committed to us as we are to them and to the marketplace. I want our relationship with TCS as a customer of TCS BaNCS to be as mutually beneficial as the relationship that we have with our banking customers.



Jonathan Feinauer Chief Technology Officer at Continental Bank

I've been in banking for 26 years, and I've dealt with a lot of core banking providers. TCS certainly exceeds expectations both with the implementation and with the ongoing support and development of their platform.

TCS was wonderful during the pandemic, and they did a great job of staying focused and keeping us on track. The patience and diligence that they brought to the table helped us to hit our production dates. TCS was great at anticipating our needs. They were a great partner during a very difficult time for everybody.

The financial services market right now is changing every single day. You can't be stuck on a platform that's going to force you into 18-month cycles. TCS provides a framework that gives you the flexibility to make changes and to remain competitive.

TCS is a unique partner in the market. In terms of core technology, TCS provides the type of core infrastructure that's really good for small to medium-sized banks because it provides flexible functionality, with the capability to maneuver within the changing market. TCS is providing us speed to market, a platform that gives us the capability to understand our customers and then be able to create new products and services. We can be small, and yet compete at a larger scale.









Burton MaySVP, Deposits and Card Operations,
Continental Bank

We originally had planned to go with a single rollout, but a business opportunity came along that made us want to go to market earlier. TCS was able to come up with a plan for us to get to market approximately two months faster than the original plan. That allowed us to open up our deposit products in a timely manner, to take advantage of the opportunities.

TCS BaNCS provides the ability to create banking systems from nothing. We started as a commercial loan broker with no deposit or account capabilities. Within a few short months, we were able to begin offering banking accounts to customers throughout the United States.

The communication with TCS has been extremely good in terms of content and frequency, and it's allowed us to solve problems almost in real-time. Many of the individuals that we work with at TCS have been in banking for, in some cases, two or three decades. They understand banking, and on top of that, they understand the technology.

ABOUT CONTINENTAL BANK

Continental Bank focuses on commercial equipment finance in selected niche markets and is dedicated to building long-term relationships with small to medium-sized businesses.

Visit: https://www.cbankus.com/



Joseph Morgan SVP, Strategic Partnerships Continental Bank

The bank was founded with a niche, narrow business model. We did not take any consumer or business deposits, and our entire balance sheet was brokered loans and liabilities.

What led our business model transformation was the need to have a core deposit franchise under a relationship-based model with good UI and UX.

The reason we chose TCS was, first and foremost, their flexibility. No other potential core provider was willing to go to the same lengths as TCS to provide a totally openarchitecture, Software-as-a-Service core, where we could plug-and-play, best-of-breed, any provider that we wanted. That flexibility set TCS apart from all the competition. We also found the people accommodating, respectful, very responsive, and easy to deal with.

When we first engaged TCS BaNCS, we thought we were going to remain a business bank. We've had so much success in winning business clients that we are now engaging TCS to help us bring on consumer products.

TCS BaNCS has given us everything we need to win business. We can do everything that a bank with branches has, because with TCS BaNCS, we don't need branches. TCS BaNCS is allowing us to solve our clients' biggest issues, which are flexibility, functionality, and speed, with automation and superior capabilities.

Continental Bank has some very aggressive growth ambitions, and with TCS BaNCS Cloud, we have unlimited flexibility and scalability.



Länsförsäkringar Bank



The continued journey of a Swedish success story



By **Hanumant Rajain** Product Specialist, TCS BaNCS

Länsförsäkringar Bank, one of Sweden's largest banks, modernized core banking and payments with its go-live of TCS BaNCS in April 2019. (Read about the award-winning transformation in TCS BaNCS #31 and #32.)

Using the advanced capabilities of TCS BaNCS, Länsförsäkringar Bank has responded quickly to regulatory changes, improved personalization in its banking and payments offerings, and upgraded the digital experience for end users.

These are some of highlights from the continued journey of Länsförsäkringar Bank with TCS BaNCS.

For **Sven Eggefalk**, CEO, Länsförsäkringar, long distance running is, just like in his work, about constant improvement.

Watch the video on LinkedIn:

https://bit.ly/Sven-Eggefalk-at-TCS-Lidingoloppet



● P27 Nordic Payments was created in 2018 with the lofty ambition of establishing a single pan-Nordic payment infrastructure for the region's 27 million citizens. The payments infrastructure is set to be a world first — a single, secure platform for real-time, batch, domestic, and cross-border payments using multiple currencies across multiple countries.

Länsförsäkringar Bank is working closely with TCS BaNCS to interface fully with P27, using Agile methodology to explore the possibilities and adapt to emerging business requirements.

(Read the brochure, "Accelerating P27 Adoption with TCS BaNCS" at https://on.tcs.com/3B8dBM2, and our coverage of P27 in TCS BaNCS #32.)



Growth & Transformation

- Embracing the implementation of the European Union's revised Payment Service Providers Directive (PSD2), an initiative promoting open banking and open APIs, Länsförsäkringar Bank has worked with TCS BaNCS to ensure the bank's own services are open to third-party solutions. Moreover, Länsförsäkringar Bank has taken advantage of open banking by providing to its customers detailed personal financial insights, accessible directly through the bank's own digital channels.
- Länsförsäkringar Bank successfully completed the migration of its credit card portfolio to Mastercard, switching away from a competing card brand.

 Rigorous planning and execution by TCS and Länsförsäkringar Bank ensured a seamless transition for customers.

Infrastructure Initiatives

- Länsförsäkringar Bank built a "data lake" to simplify the complex data mesh for the multiple systems in its computing landscape. TCS BaNCS sends a stream of core banking data to the data lake, enabling subscribing systems to incorporate the latest information into various analytical and operational solutions.
- TCS is a strategic partner to
 Länsförsäkringar Bank in modernizing
 the bank's loan origination platform with
 APIs, low-code automation, and a focus
 on business process management.

Collectively, these efforts demonstrate how Länsförsäkringar Bank leverages TCS BaNCS for growth, operational efficiencies, innovation, and a better customer experience.





Awards and Recognitions

Asian Banking & Finance Retail

Mutual Trust Bank Ltd. (MTB) was awarded Core Banking System Initiative of the Year – Bangladesh and Banking for Women Initiative of the Year – Bangladesh.

Syed Mahbubur Rahman,

Managing Director & CEO, MTB, termed these recognitions as a source of great inspiration and stated that as the bank continues to move forward into the new normal, it has adapted to the challenges associated with the crisis with a view to providing top-tier products and services to existing and potential customers.

In April 2018, MTB selected TCS BaNCS for its core banking transformation, which despite the Covid-19 situation, went live on schedule in November 2020 across the bank's 126-branch network. The transition from an 18-year-old legacy system was, for Bangladesh's banking marketplace, the first major core banking switchover and the only go-live during the pandemic.

MTB seeks to offer differentiated banking services to attract new customers in rural areas and for underserved market segments.

Banking Awards 2021

The flexible product configuration tools of TCS BaNCS facilitates the introduction of new products to fulfill these goals, including those under the umbrella of **MTB Angona**, a dedicated set of retail, SME, and card offerings for women.

- A recurring monthly savings scheme offering a wide array of free health benefits
- A complete business solution for women entrepreneurs, including bundled loans, leases, and bank guarantees
- Financial inclusion initiatives targeted at women customers
- A dedicated MTB lounge with a dedicated travel desk for health and tourism support, and business documentation services for women entrepreneurs

Huaxia Bank and
TCS Financial Solutions
won the "Best Bank
Infrastructure
Technology in China
(Core Banking System)"
award from
THE ASIAN BANKER®

Huaxia Bank deployed TCS BaNCS to further its digital transformation, improve transaction processing performance, provide flexible support for decision-making, and improve disaster recovery capability.



Compatible Application

Compatible Application

Payments

Compatible Application

Compatible Application

Securities Settlement

TCS BaNCS is accredited with SWIFTReady 2021 Certification for Corporate Actions, Payments and Securities Settlement

tcs B0\ncs™



Power its Future Growth

Societe Generale Securities Services (SSGS), a recognized global custodian, has successfully deployed TCS BaNCS as its next-generation, multi-entity asset servicing platform in Germany, UK, France, Ireland, and Luxembourg.

SGSS was looking for a platform that met its strategic objectives of providing standardized corporate actions processing and cash management services, and consistent customer experiences across their multiple locations in Europe. It selected the Corporate Actions and Account Management components of TCS BaNCS to build an integrated, innovative platform to deliver real-time customer experience across the custody lifecycle.

The new platform is one of Europe's first real-time and true multi-entity, unified platforms for corporate actions and securities-based cash operations. It has enabled a hub and spoke model, where the core processing is carried out in a highly automated fashion in the central hub, while the spokes are client facing and local. TCS BaNCS for Corporate Actions offers SGSS the ability to handle processing across custody and investment banking on the same platform and enhances cash payment services via exhaustive real-time position keeping and liquidity management. This further improves the quality of its customer experience.

Mathilde Guerin, Head, Transformation & Technology Delivery, Societe Generale Securities Services, said: "Leveraging the TCS solution and industry knowledge, SGSS has set up a technology platform aiming at providing the highest standard of service to its clients, well adapted to their business development requirements. With this successful deployment, sign of a strengthened cooperation, we offer a comprehensive suite of services, providing 24-by-7 true multi-entity, real-time processing with quick time to market. With the TCS BaNCS solution being at the forefront of the fintech industry, we provide better user experience to our clients while improving our operational efficiency."

R Vivekanand, Co-Head, TCS Financial Solutions, said: "TCS BaNCS for Corporate Actions at SGSS is one of the first integrated asset servicing platforms to provide access to high quality data in real-time. The solution automates and standardizes processes across systems, enhancing throughput and transparency, while reducing risk. TCS BaNCS is also unique in its ability to handle processing across custody and investment banking on the same platform. We continue to invest in our market leading asset servicing solutions to further enhance the experience of our customers."

tcs B0LNCS™



The success of an ecosystem is driven by the convenience and value it offers

Solution and Technology Partners

Channel Partners

TCS BaNCS Marketplace

In a world driven by the end customer's power of choice and demand for seamless interoperability, TCS BaNCS offers banks and financial services firms the power of creating and leveraging the emerging innovative world, fostering a culture of self-service and collaboration.

In many ways, we see TCS BaNCS as akin to a "Financial Operating System" enabling a marketplace of options that extend the enterprise, leaving the choice with our customers.

https://www.tcs.com/bancs/ecosystem



TCS BaNCS Ecosystem

Solution and Technology Partners



The fintech experience is all about cutting edge technology, innovative customer journey mapping, value for money, and clean and simpler customer experiences. Their focus on underserved niches has aided their unique positioning in value chains. We connect, evaluate and curate innovative solutions offered by our fintech and insurtech partners to compose new OpenX solutions to jointly add value to banks and financial institutions. The power of a system today flows from how it enables reusable, externalizable APIs and the TCS BaNCS Marketplace does just that. By becoming a provider and consumer of APIs, we will help our clients leverage the combined power of fintechs, aggregators and integrators.

It's all about innovation through collaboration today. Where ecosystems are gaining prominence as the absolute way to succeed in the "new normal."

Open X or Banking/ Open Finance initiatives driven by regulators and/or by industry across the globe are also providing the right impetus towards this trend of collaboration. The end consumer has many more choices to bank now, with existing business models being disrupted.

Financial service firms are increasingly adopting the ecosystem approach to innovate and are collaborating with FinTechs and InsurTechs and other players inside and outside the industry. Technology vendors are facilitating this process by establishing an ecosystem which provides not only innovative solutions, but also the right partners to enable transformation.

https://www.tcs.com/bancs/ecosystem/ solution-and-tech-partnerships



Our ecosystem of Channel Partners, as part of the Global Channel Partner Program, enables us to sell and implement our comprehensive suite of solutions spanning the three lines of businesses of Banking, Capital Markets, and Insurance in multiple markets. It is designed keeping in mind the latest and most relevant product innovations, as well as in ensuring execution certainty with comprehensive product enablers.

TCS BaNCS' ecosystem of Channel Partners, as part of the Global Channel Partner Program, enables us to sell and implement our comprehensive suite of solutions spanning Banking, Capital Markets and Insurance in multiple markets.

We strongly believe that collaboration is key to creating the right value for customers and this program is designed keeping in mind the latest product innovations in tandem with ensuring execution certainty using comprehensive product enablers.

The Global Channel Partner Program from TCS BaNCS is backed by:

- A world-renowned brand known for its values and ethics of doing business
- Products that are both local and international in its functional depth
 and breadth
- A global team of consultants across geographies available to support with sales, pre-sales and implementation
- Our standard TCS BaNCS implementation methodology, powered by product configuration accelerators and a host of other support tools helps institutions in quick go-to-market hence enhancing the ROI

Strong Partnerships Across the Globe

- A gamut of local and international partnerships, curated to jumpstart a bank's growth
- Quick accessibility and support along with a strong enablement program from the TCS BaNCS Academy
- Instant access to the world of fintechs leveraging on

https://www.tcs.com/bancs/ecosystem/channel-partnerships



Comply, Collaborate and Compete

TCS BaNCS has created an ecosystem for solution and technology partners who bring in the right innovations and enablers that can be quickly adopted by any financial services firm. The TCS BaNCS partner program evaluates, curates, and connects with prospective partners to compose new and innovative OpenX solutions, and jointly add value to the business of banks, financial institutions, and insurance companies. The TCS BaNCS Marketplace facilitates the easy discoverability of these solutions and APIs

Join the TCS BaNCS Marketplace:

https://marketplace.tcsbancs.com/

Please write to us at tcs.bancs@tcs.com if you are interested in joining our family of partners or in knowing more about the TCS BaNCS Ecosystem.



From resilience to reshaping investment trends for relevance



By **S Sambamurthy**, Head, Wealth Management and Private Banking, TCS Financial Solutions

Financial vulnerability triggered by the onset of the pandemic has resulted in an increase in investments, higher trade volumes, and market volatility the world over. In response, wealth and investment players in the retail and institutional sector have fast begun looking at modernizing their technological landscape and platforms, even as they expand solutions covering the full spectrum of services to their clients. Broader holistic advice catering to every type of asset, and the need to provide client experiences that are premised on trust, security and speed have become the hallmark of the wealth management and private banking industry today.















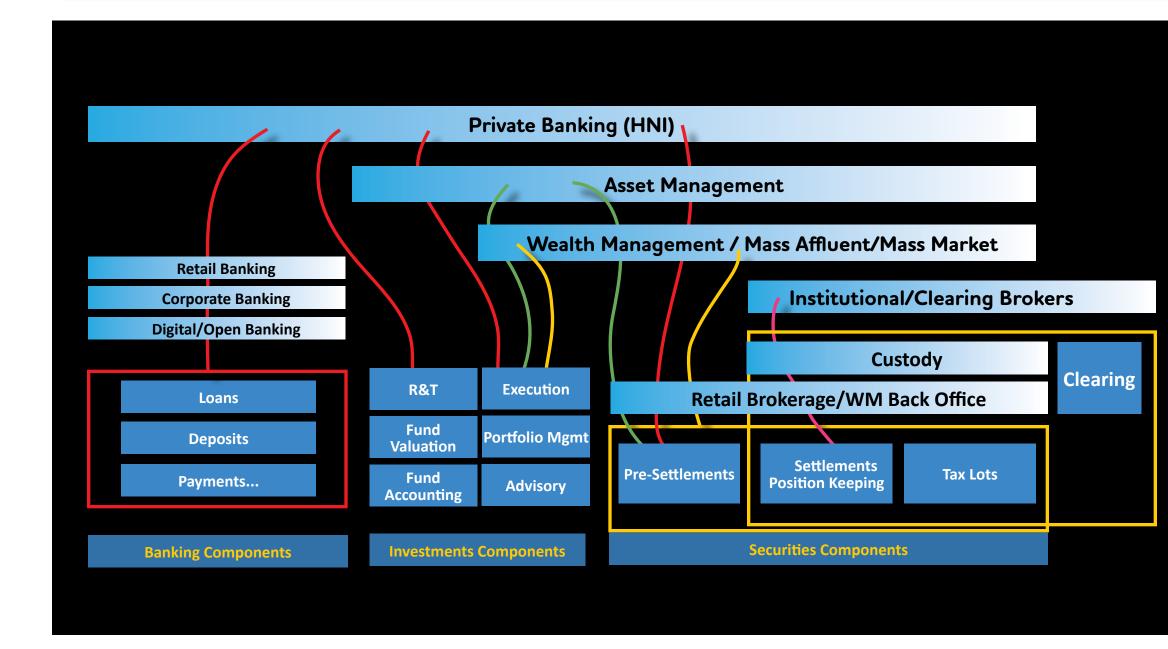
Wealth Management

The emphasis is on data-driven innovative services focused on hyper-personalization, managing data protection laws and transparent pricing. Wealth and asset managers want to help their clients grow their investments spanning both traditional and alternative assets as the relationship evolves.

Underpinning the drive for modernization are a range of transformative technologies:

- Cloud, especially with a SaaS based approach, for innovation, efficiencies, and the scale needed to manage unprecedented trade volumes.
- Digital-first approach to enhance UI/UX, zero touch advisory services, low code, and no code tools for a blend of face-to-face and remote advice.
- AI to consolidate, study, and protect data; combat fraud, improve operational efficiency and assess portfolio impact.
- Advanced analytical tools to scout for hidden opportunities, review past patterns, make relevant recommendations for trust-based advice, and increase advisor productivity.
- Improving efficiency of the middle and back-office as critical enablers.

We have a clearly defined Segment Strategy for Wealth Management & Private Banking





Wealth Management

The right value proposition for any client

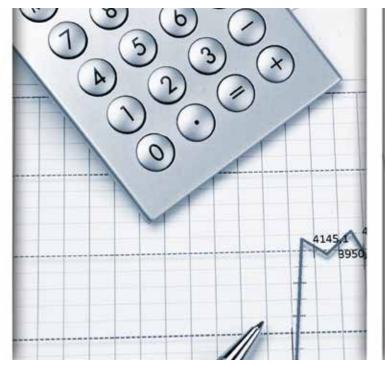
TCS BaNCS for Wealth Management is designed to strengthen wealth manager and their client relationships, stimulating the muchneed reassurance and transparency that clients need about their investments. TCS BaNCS' comprehensive suite of services encompassing wealth and asset management and private banking is tailored to facilitate informed decision making, meet dynamic customer demands and regulatory expectations, alongside quicker processing times.

TCS BaNCS components across banking, investments and securities components are assembled to deliver a tailored proposition for each segment. These foundational components provide the breadth of capabilities across banking, and when packaged with the securities back-office functions of position management and settlements, they address the transaction processing needs of a typical retail broker or wealth management back office. Extending these capabilities with solutions for advisory, portfolio management and execution, it caters to the needs of a typical wealth provider for mass affluent segments. Adding the fund accounting, valuation and R&T capabilities broadens the proposition to asset managers. The clearing components extend the capability to institutional/clearing brokers. In short, the solution offers a tailored proposition for a typical private bank across the spectrum of its business.

Metrics demonstrating the operational benefits of microservices-based architecture

One of the world's leading asset management firms and an existing TCS BaNCS customer turned to TCS to deliver a highly scalable and reliable performance measurement and analytics engine to support more than one million clients of its digital advisory service, representing five times the existing volume. Those clients include ultra-high-net-worth individuals, for whom processing accuracy is of paramount importance, as well as entry-level investors, for whom low-latency response is key for retention. This transformation program would eventually enable the firm's digital advisory business to foray into retirement portfolios.

As part of the engagement, TCS took ownership of the application support for the deployment of TCS BaNCS for Wealth Management, including responsibility for all business and technical operations related to security, monitoring, upgrades, integration, and backups.











Wealth Management

To ensure processing accuracy in calculations of portfolio performance, the application logic was meticulously reviewed to include pre- and post-validation checks to preempt any data pitfalls and to provide highly accurate computed results to end clients.

To ensure high performance, the solution had to meet two benchmarks:

- Calculate daily positions in less than four hours (daily volume of more than 4MN accounts containing more than 20MN positions).
- **2**. Deliver all on-screen responses in less than two seconds.

The Portfolio performance component of TCS BaNCS was deployed in a target microservices architecture on AWS. Using microservices, the decoupled architecture enables parallel processing for end-of-day position management, and for high volumes to be handled in smaller batches.

As promised, the TCS BaNCS solution fully met the performance requirements. Benchmarked results demonstrated the ability to compute 10x volumes of portfolio valuations in half the time previously required, while still enabling sub-second API response times for high responsiveness. In addition, the cloud related innovative methods enabled significant reduction in execution times, throughput, and database performance compared to prior operating models.

- Incoming load analyzer Optimal infrastructure usage at 85%
- Polymorphic batch controller –
 75% reduction in execution times
- Hyper threaded architecture –
 2x improvement in database
 performance
- Self-contained quality monitors –
 80% increase in throughput

With TCS BaNCS, the asset management firm is now able to drive more customers to its innovative digital advisory service, secure in the knowledge that all of them will receive highly accurate portfolio information and benefit from an optimal user experience.











Shareholder Identification

TCS BaNCS solution enables SRD II compliance







By **Pradeep Rao**, Consultant, TCS Financial Solutions, **Alan Lawman**, Consultant, TCS Financial Solutions, and **Giles Elliott**, Head of Business Development, Capital Markets, TCS BaNCS



Recent regulations have placed a stronger emphasis on timely processing of greater shareholder disclosures.

The EU Shareholder Rights Directive, or SRD II, requires EU asset managers to provide Shareholder Identification information on request to issuers.

The requirement, which came into effect in September 2020, states that at the request of a securities issuer, asset managers and other intermediaries must provide information about the identities of all eligible shareholders by the next business day. Considering the fast turnaround time for these data-intensive requests, an automated solution is the only way to mitigate the operational challenges and risks of SRD II.

Upon publication of the new regulation, TCS Financial Solutions conducted a detailed analysis of the full SRD II requirements, including the specific capabilities needed for compliance by asset management and asset servicing firms. Within a short span, TCS BaNCS Corporate Actions was upgraded to include a complete solution for Shareholder Identification compliance.

The TCS BaNCS Shareholder Identification solution has already been installed at eight leading institutions with EU operations. These deployments occurred well ahead of the annual meeting peak season, which generates the bulk of issuer requests for shareholder information. By automating the SRD II compliance process, firms can ensure that they can handle large volumes of issuer requests automatically, without the need for manual intervention.

An executive from Societe Generale **Securities Services commented: "The new** SRD II regulation came into force right in the middle of the unprecedented disruption of the pandemic, which created many uncertainties regarding existing milestones for many **European projects. In this incredibly challenging** context, thanks to strong collaboration and partnership with TCS teams, we successfully deployed an efficient solution, fully integrated into our information system. TCS teams have proven their in-depth knowledge of the SRD II Directive and helped us to understand both the business and technical stakes induced by this regulation. Proactivity and close collaboration between SGSS and TCS teams were two key success factors in this achievement, allowing SGSS to deliver a shareholder identification process in a timely manner and with a good level of service quality."





Asset Servicing



The SRD II solution in TCS BaNCS Corporate Actions draws upon years of corporate actions knowledge and experience, combined with the strong technology and engineering background of TCS. The solution is ISO 20022 compliant, meets market standards including SWIFT SR 2021 changes, and ensures full regulatory compliance with SRD II. To ensure continual process improvement, TCS Financial solutions continues to work with the EU Commission and with various Market Practice Groups, including ISSA.

The SRD II solution is suitable for any participant in the Corporate Actions lifecycle including issuers, intermediaries, and institutional investors, automates Shareholder **Identification with:**

- Automatic, verified sending/receiving of **Shareholder Identification requests**
- Identifying eligible shareholders under relevant domestic law, including classifications and full details on beneficial ownership
- Automatic response to issuers, agents, and intermediaries
- Detection, reporting, and automated repair on processing errors



Moving toward full-lifecycle automation on the cloud

TCS BaNCS Corporate Actions, including the SRD II solution, is now available as a service through TCS BaNCS Cloud for Asset Servicing.

The cloud-based operating model offers several advantages specific to the asset servicing business:



In our experience with traditional corporate actions systems, average server utilization is only 20 to 30 percent of the seasonal peak. With TCS BaNCS Cloud, firms can increase their computing resources to meet peak requirements, and then scale down during other times.

Connect directly to data sources. Instead of having to download, process, validate, and store market data and reference data, firms can connect directly to real-time, low-latency cloudbased solutions hosted by data vendors, as well as to analytical workbenches that make use of these rich sources of data. As the available cloud-based resources increase in breadth and depth, so will firms' ability to reduce costs and enable more powerful servicing resources to investors.

Increased automation. Cloud data works hand-in-hand with highly configurable AI and Machine Learning tools that can translate and normalize data, progressing towards automation of recurring challenges in processing. In addition, AI-based tools can be trained to automate digital extraction from manual documents. Together, Cloud and Al tools drive notable benefits throughout the asset servicing domain.

Expand industry connectivity. Industry groups are seeking to enable market players to actively exchange data in new and powerful ways. Already, APIs enable active data exchange between entities without the need for pointto-point connectivity. Soon, distributed ledger technology, or DLT, will be capable of unifying the distribution of common reference data, and as DLT evolves, we also expect that smart contracts will automate key decisions, especially in scenarios with default instructions such as in corporate actions.

Support firm-wide/market-wide utilities.

Cloud-based utilities enable firms and industries to centralize common functions. As firms scrutinize their own operations, certain functions will be moved to firm-wide utilities that service internal operations, while other,

non-competitive areas would be suitable for a market-wide utility. Corporate event announcements processing is an obvious area to consider, and there are other viable candidates for the utility model across the corporate actions operating model.

Maintain latest version of systems. Using the latest innovative tools and latest optimized system configurations, firms can best position themselves for the highest levels of performance within their operating models. The shift to cloud facilitates continuous upgrades, and thus the quickest rollout of regulatory upgrades, feature enhancements, and process improvements designed to improve competitiveness and lower

TCS BaNCS Cloud for Asset Servicing provides clients with several approaches to enhancing their operating costs and business models by drawing on the manyfold benefits of cloud-based deployment. Our technological expertise in cloud deployments, combined with our depth of experience in asset servicing, ensure our clients a highly effective and futureproofed solution.





Corporate Actions in the Cloud: Are Two Cs Better Than One?



Comments adapted from the April 2021 webinar, with the discussion moderated by Giles Elliott, Global Head, Business Development, TCS BaNCS Capital Markets.

Watch the webinar:

https://on.tcs.com/3z7JS4T

Carly Byrd
Regional Head-Americas,
Tax Operations, Deutsche Bank

Dealing with legacy architecture is always going to be a challenge. An additional challenge is the prioritization of regulatory work. We want to focus on balancing how you deliver on your regulatory requirements, as well as on efficiencies, risk mitigation, and opportunities to enhance platforms we're currently using.

Scalability is a key thing that we're considering — whether or not that cloud solution has the ability to scale based on the business need — one day running inquiries on a handful of clients, versus a year-end process for regulatory reporting.

One of the biggest challenges is the harmonization of data. When you're talking about corporate actions and then downstream how that information gets used for tax, we've seen one vendor can provide information a certain way, and another provides it a different way. There's a lot of opportunity for corporate actions and tax information to move into a more aligned process.

James (Jim) Monahan Managing Partner, Sionic



Corporate Actions touches the entire lifecycle of the trade. That information and data over time is flowing throughout organizations, measured in the hundreds of different departments.

There's a tremendous opportunity for global harmonization to bring corporate actions into a more consistent process. We've done well in being able to communicate corporate actions in a standard manner with ISO 15022 and ISO 20022. But we're still struggling with disparities in how certain corporate actions are handled differently across markets, or even in the same market. The broader opportunity is to bring together the entire lifecycle event, from issuer to intermediary to end beneficiary.

A breakthrough would be having the tools to allow an issuer, in conjunction with intermediaries and end beneficial owners, to centralize the input of that information. Input the info once, and have it disseminated throughout the industry, globally.

The ecosystem will evolve. We can bring issuers, intermediaries, broker-dealers, banks, and custodians together in a more consistent and harmonized process.



John Kain

Global Head-Business and Market Development, Banking and Capital Markets, Amazon Web Services

The real benefit of having a flexible infrastructure, even for traditional computing loads, is the ability to scale out the amount of resources you need when you need it, and turn it off when you don't.

Early in the pandemic, many [financial institution] customers were new to the "PPP" SBA lending program, and to be qualified to lend, they had to process a lot of documents that they had never used before. They got to market quickly because they could experiment, and those experiments only cost them a few pennies. As the loans came in, the infrastructure scaled with them, and then the costs went away. A few months later, they were able to spin it up again. Traditionally, you wouldn't even have ordered the equipment by the time the program was over. That ability to tailor business outcomes to IT cost is what's driving cloud adoption.

Audience Poll Highlights

- Reduced IT and infrastructure costs is the most attractive business driver for migrating to the cloud for 43 percent of attendees, with "Operational efficiency" in second place with 33 percent.
- Platform and data security is the top concern for 60 percent of attendees when assessing a move of mission-critical systems to the cloud.

tcs B0lncs™

Intelligent Digital Solutions



Comments adapted from the July 2021 webinar, with the discussion moderated by Ajay Wadkar, Regional Director, APAC, TCS Financial Solutions





Anubhav Rajput
CIO, Head Digital and Operations,
Cholamandalam, MS General
Insurance Co Ltd

Digital transformation is all about bringing a new experience for all the stakeholders.

Cloud gives two advantages: The first is the scalability and resilience to get a workload at any scale we require. The second is the new Fintech and Insuretech players using APIs, enablers and tools available through the cloud marketplace, enabling us to mesh capabilities together into a single offering. That makes cloud a business enabler.

AI has been prevalent for a long time in risk and underwriting. In claims, you can quickly decide based on an AI algorithm whether claims are admissible or not. AI is also used to identify which customers are at the risk of not renewing, so we can focus on engaging with them.

Gen Z customers want the onboarding process to be as seamless and frictionless as possible. And the older generations are getting comfortable with it too.



Ashish ChandVP, Head of IT Asia
Sun Life

The insurance industry needs to attract more **talent**. There's so much excitement, and so much to do. This is the best industry to be in. This is an exciting time to be in the insurance industry.

We've been able to move more conversations closer to the clients. In one of our markets, we're able to decide on the spot whether a life insurance policy can be issued.



Sourabh ChatterjeePresident, Head – Technology,
Digital Sales, Travel, Bajaj Allianz
General Insurance LTD

Digital makes us more efficient and more impactful.

Create something that users really love, and **adoption** will happen on its own.

In an **ecosystem**, the best thing is to have shared value. As insurers, we have to realize that Insuretechs will challenge the status quo. At the same time, Insuretechs need to realize that the only way the scale will come will be through **partnership**.

That approach creates value for everyone.



Watch the webinar: https://youtu.be/PCvx3cPwvAQ



TCS BaNCS

PRODUCT VIDEOS



Quartz

Enterprise DLT solutions designed for co-existence, integration, and interoperability.

https://youtu.be/Zu6LPolW-Yw



Quartz Reward Points

Powerful reward points ecosystem for banks, merchants, acquirers and payment processors.

https://youtube/896Mq7LZImE



TCS BaNCS Cloud for Asset Servicing

Manage the entire lifecycle of corporate actions.

https://youtu.be/hG30UKrpT5E

EVENT LIVESTREAMS



TCS BaNCS Dialogues: Corporate Actions on the Cloud: Are Two Cs Better Than One?

Securities industry leaders discuss the future of asset servicing and the prospects for "Corporate Actions as a Service." See page 64. https://on.tcs.com/3z7JS4T



TCS BaNCS Dialogues in Insurance: Growth and Transformation

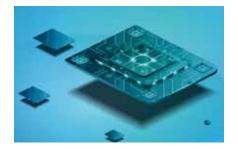
Panelists discuss the role of intelligent digital solutions in creating growth and transformation in insurance. See page 66.
https://youtu.be/PCvx3cPwvAQ



TCS BaNCS Dialogues in Insurance: Future of the Insurance Industry

Insurance executives share their experiences and discuss the future of the insurance industry.

https://on.tcs.com/35a4ZqA



TCS BaNCS Cloud for Banking

One-stop SaaS offering ensures anytime, anywhere digital access, scalability, resilience, high performance, and compliance. https://youtu.be/rkO7zl3Ndp0



TCS BaNCS Global Banking Platform

Create new revenue models and redesign the customer experience with granular APIs that leverage ecosystems.

https://youtu.be/2QW_ehgsIEU



TCS BaNCS for Life, Annuity and Pensions

Flexibility for open book and closed book life insurers and pension providers to explore new distribution channels and enrich end-user journeys.

https://youtu.be/ MSz7O7FG1Ec



TCS BaNCS Dialogues in Banking: The "Digital First and Consumer First" Bank

Banking innovators share their views on banking business models and ecosystems.

https://on.tcs.com/37B9J8L



Future of Payments Middle East and Africa Digi-Conference

Insights on the adoption challenges of real-time payments.

https://youtu.be/

Pb5F2vi8OMQ



Open Banking for Growth: The Next Chapter

TCS BaNCS and partners explore how financial institutions can improve stickiness and accelerate growth with microservices. https://on.tcs.com/3raKhyJ



Events









SIFMA Ops 2021

As a silver sponsor at SIFMA's annual Operations Conference & Exhibition in Miami, TCS hosted a "lunch-and-learn" session on

T+1, T+0 – Is the Securities Industry Ready for the Countdown?

The session, led by **Jim Monahan**, Managing Partner, Sionic, and **Sanjay Prasad**, Head of Capital Markets and Insurance, TCS BaNCS, explored shortening the settlement cycle, the potential role for blockchain technology, and the opportunity for using the present T+1 capabilities of TCS BaNCS for transformational change.

The conference was attended by asset managers, broker dealers, custodians, and service providers, with frequent discussions around shortening the settlement cycle, adopting new technologies, and rethinking operations after the pandemic.

https://events.sifma.org/ops





SIBOS

TCS BaNCS held a "Meet the Experts" session at SIBOS featuring lan Donald, Head, Prime & Securities Services Technology, Standard Chartered Bank, in conversation with Giles Elliott, Head, Business Development and SME, Capital Markets, TCS Financial Solutions and R Vivekanand, Vice President and Co-Head, TCS Financial Solutions.

Here are excerpts from what Ian Donald spoke about during the discussion:

Sustainabilit

For Standard Chartered, sustainability is a key agenda for the bank as we try to strive towards a net-zero carbon emissions outcome, and technology needs to play its part. With cloud computing, more efficient use of infrastructure leads to less power usage, and reduction of carbon emissions.

Data science

Ten years ago, data scientist was a niche role within financial services, and maybe even a luxury as well. But now, the chief data officer has a very senior role within the organization, driving solutions for clients. We need to understand what our clients need, work with them to understand their pain points, and see how we can solve those issues.

Artificial intelligence

Without solid foundations, your AI and machine learning solutions quickly become tactical in nature. A solid foundation is making sure that you have the right data in the right place at the right time, with the appropriate governance in place.

Pandemic

Without a doubt, the pandemic has accelerated the digitization agenda. Once you have digital data, that's where AI and machine learning tools can become more effective.

Blockchain

We are actively working on use cases, and we have one that will likely go into a production offering very soon around fractionalization of bonds and how we could make that available to retail clients. It's now gone beyond the talk of what can blockchain do for us. Things are actually happening, and I can only see more happening in this space in the future.

Watch the session on-demand: https://www.tcs.com/sibos-2021



Events



The 2021 Retirement Industry Conference focused on the theme of "Building Bridges," and showcased the importance of financial preparedness for retirements with the current pandemic and economic situation. TCS BaNCS was a sponsor at the 2021 Retirement Industry Conference and showcased its suite of solutions for Retirement, Life, Annuity and Pensions. TCS BaNCS sponsored breakout sessions on the topics of annuities, digital transformation, and automation. https://www.tcs.com/2021-retirementindustry-conference

CONVECT Online Flagship Event

InvestOps CONNECT 2021

TCS hosted a fireside chat with SIX at this invite-only virtual forum for COOs and Heads of Investment Operations at the world's leading buy-side firms.

https://clearingsettlement.wbresearch.com/

CORPACTIONS 2021

As a Gold Sponsor at CorpActions 2021, Europe's leading event for the Corporate Actions and Asset Servicing community, TCS BaNCS participated in a panel discussion centered on the theme of Regulatory and Standards Review, including discussion of ECB developments, SRD II shareholder identification, CEG's compliance assessment exercise, and ECB's CMH-TF SCoRE corporate action standards. Panelists included representatives from The Bank of New York Mellon and SWIFT, along with Giles Elliott, Head of Capital Markets for TCS BaNCS. https://www.tcs.com/corpactions-21





Blockchain Expo

Blockchain for Enterprise track at held in London and online. https://blockchain-expo.com/ global/track/blockchain-for-





Events



Building Societies Conference

The Building Societies Annual Conference 2021 brought together leading keynote speakers and panel discussions covering the key issues affecting the building society sector. TCS BaNCS was a sponsor at the Building Societies Annual Conference 2021 and showcased TCS BaNCS Cloud with a virtual booth.



https://www.tcs.com/building-societies-annual-conference-2021



Coming Soon

Payments (Middle East)

Banking: Cloud, Microservices, and Digital Banking (USA)

Insurance (Global)

Follow our LinkedIn page for updates

https://www.linkedin. com/showcase/tcs-bancs/

TCS BaNCS hosted
TCS BaNCS Dialogues for Banking on the topic:

How To Become a Bank that Differentiates – A Success Story

Listen to Continental Bank's Joseph Morgan,
Cornerstone Advisors' Sam Kilmer and
TCS BaNCS' Jim Washburn in a discussion about
how banks can set themselves apart
for higher value growth and results.

Watch the replay video on-demand https://on.tcs.com/3D8V2YL





The pandemic has set banks and financial institutions on evolutionary paths of exploring new, resilient business models and collaborative, connected ecosystems. **The Cloud First approach has become a game changer** for how financial institutions will operate in the future. After years of focusing on the cloud for its technological value as a faster, asset light and more elastic alternative, they are now looking at it as the always-on backbone of innovation.

TCS BaNCS Cloud delivered on a SaaS model is a comprehensive suite of pre-configured solutions for financial institutions of all sizes and types, with regulatory and data residency compliance built in. Resting on a strong digital core and designed on a **microservices** and **API-based architecture**, it can help institutions leverage the power of **Open and enriched ecosystems**, with curated partners from the TCS BaNCS Marketplace.

Be it updating systems faster or rebuilding transaction processing applications into leaner platforms, or executing on a consistent data delivery strategy, or applying cognitive tools like Optix for insightful decision making, TCS BaNCS Cloud is the solution that can drive your institution's purpose-driven journey into the future.

More than 100 MN transactions run on TCS BaNCS Cloud daily, and as evidenced by the 200+ customers who run their applications on the solution, it has steadfastly delivered on the promise of trust, accessibility, security, resilience, scalability, and compliance.