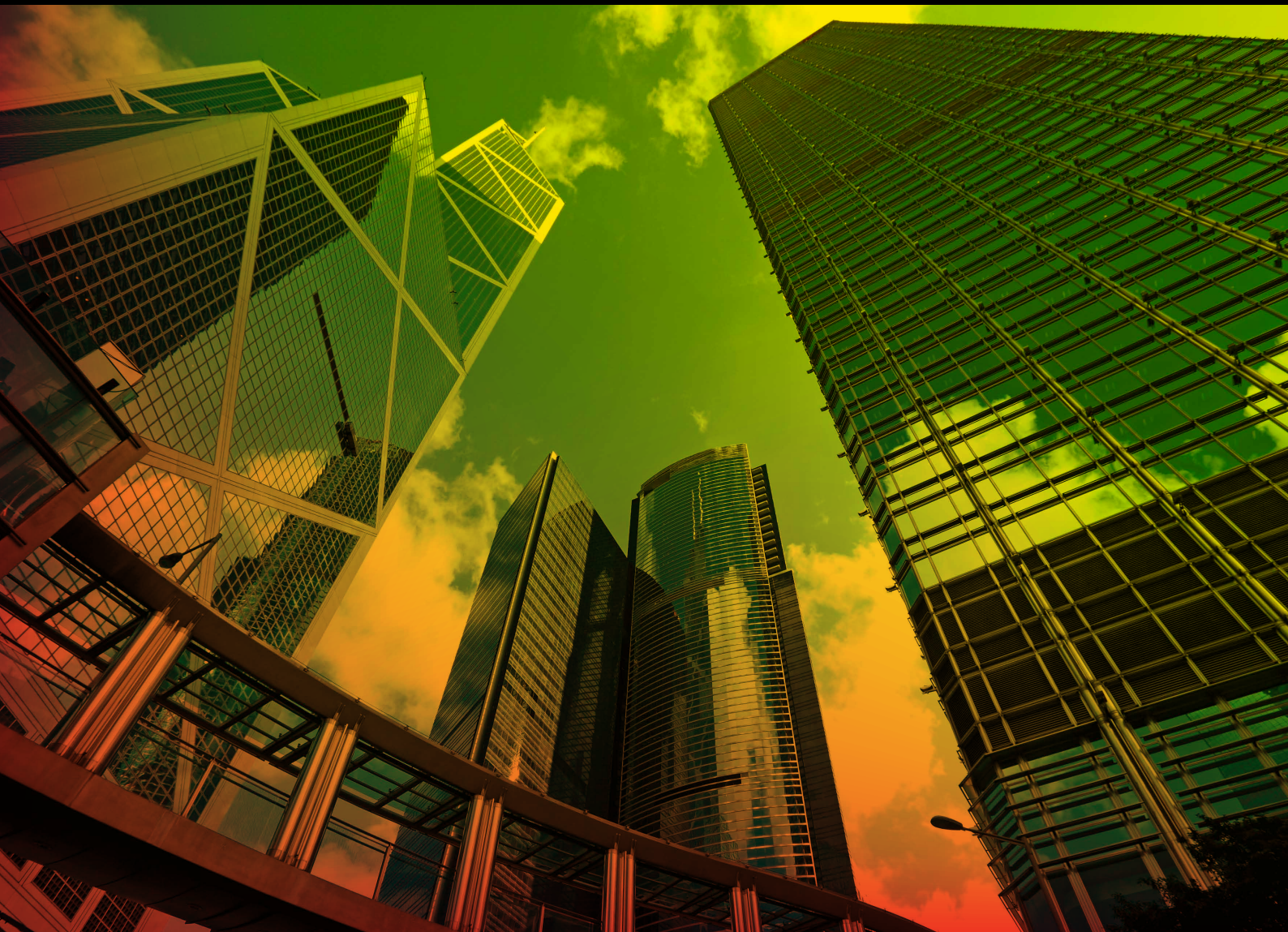


Fostering Innovation at Central Banks



Central banks play a pivotal role in protecting the health of financial systems across the world. From driving governance and monetary policy to managing financial stability, they help drive innovation in the financial services industry.

Every central bank is unique; however, they face common challenges in addressing market-driven changes such as real-time payments, CBDCs and, most importantly, digital transformation. Many central banks today come with multiple, heterogeneous legacy systems that are difficult to operate and integrate, making any kind of transformation cumbersome and expensive. They are looking to simplify their technology and data landscape in a way that gives them the agility to make decisions in real-time, 24/7 and ensure resilience and security in the markets they operate in.

Tata Consultancy Services (TCS) has architected a comprehensive solution for central banks premised on the extensive experience of executing transformation programs for leading central banks, market and payments infrastructure firms worldwide. An integrated solution comprising award-winning products such as TCS BaNCS and Quartz, it can be customized to the specific requirements of each central bank.

TCS' Solution for Central Banks

TCS' solution for central banks combines products, platforms, and IT services, such as the technology stack for cloud, security and business operations. With the TCS BaNCS and Quartz products and the deployment experience of having worked with more than 400 financial institutions worldwide, we have designed an integrated solution for central banks that can be customized to your unique needs. Our approach is experience based, design-led, insights-driven and customer focused.

TCS BaNCS is a comprehensive and time-tested product suite, covering functions in banking, payments, treasury and market Infrastructures and can be deployed as one solution at a central bank or as separate modules to co-exist and meet one or more functions within a central bank.

TCS BaNCS for Market Infrastructure is deployed in 25+ markets providing solutions to the mission critical requirements of leading exchanges, clearing & settlement, payments organizations and central banks. The solution addresses the need for real-time payments processing, with its ISO 20022 messaging, API driven, high performance, low latency, and scalable capabilities. It is powered by a High-Performance Transaction Manager (HpTM) and deployed using cloud-based microservices, made accessible through a rich set of APIs.

Following our rigorous selection process, TCS BaNCS emerged as the natural fit, matching our key criteria for fit-for-purpose and ability to deliver. 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. 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."

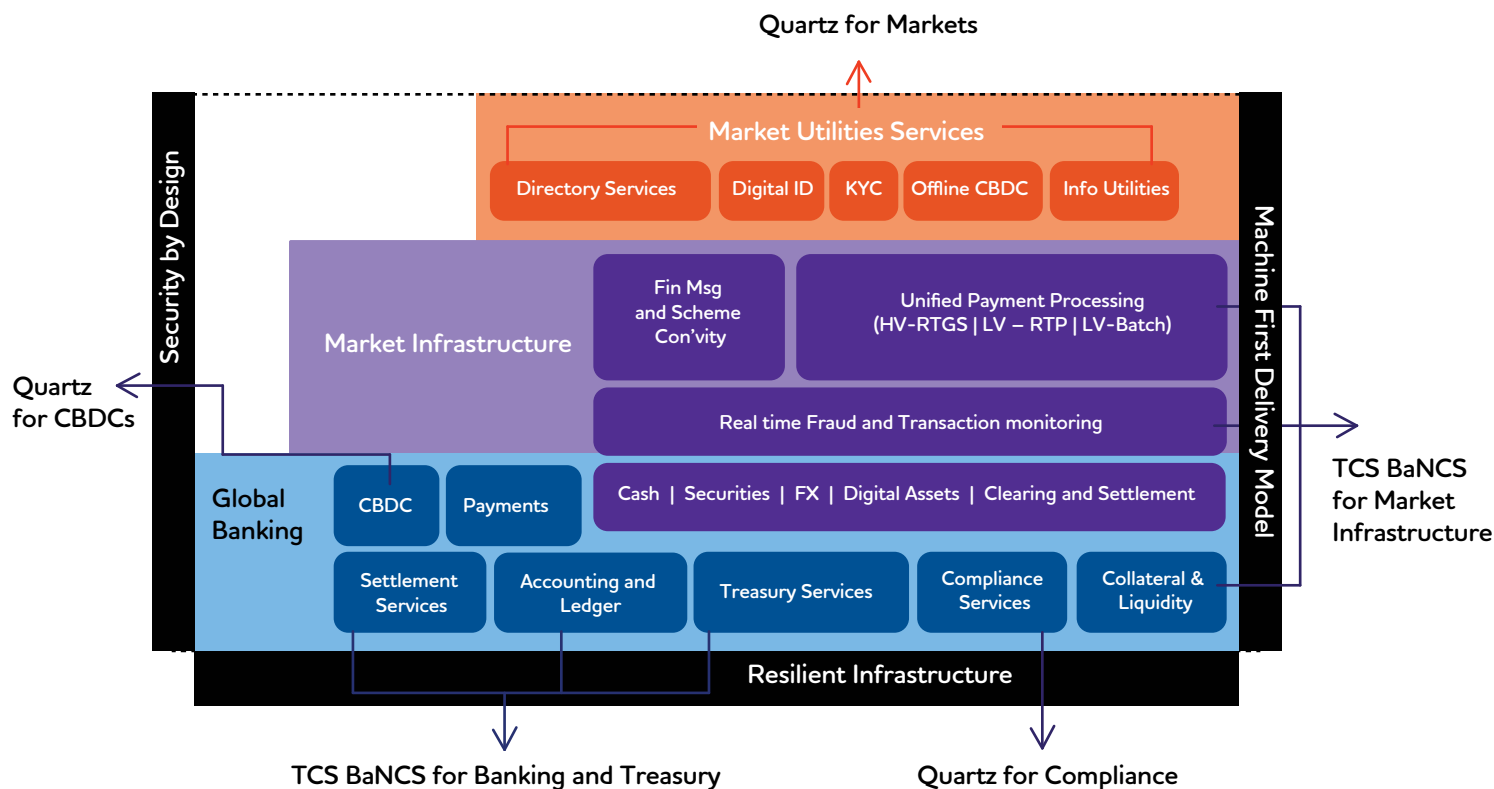
– BankservAfrica

Quartz for CBDCs addresses the wholesale and retail use cases and is designed to bring in flexibility to support country or region-specific CBDC adoption models. Central banks can issue and distribute CBDCs easily with the highly configurable solution, allowing for near real-time synchronization with existing central bank systems.

Quartz for Markets supports the entire post-trade life cycle of a wide range of tokenized/digital assets, providing firms with a choice of settlement in fiat or digital currencies, including multiple token standards.

"(..)We commend Tata Consultancy Services' Quartz for winning the Outstanding Innovation award. The nomination was about how blockchain is being deployed in a purpose-driven, meaningful manner by market infrastructures institutions, custodians, banks and other players offering services around traditional as well as tokenized securities," said

Justin Lawson, Co-founder and Publisher, Asset Servicing Times.



TCS' Solutions for Central Banks

Quartz for KYC is designed to simplify the KYC process, standardizing data collection for efficient customer onboarding, sanctions screening, periodic reviews, remediation, and lifecycle management.

Quartz for Compliance helps financial and non-financial institutions in proactively managing fraud and compliance risks alongside AML/CFT transaction monitoring. The solution leverages blockchain, AI/ML technologies and caters to a comprehensive range of regulatory requirements to detect financial crime ranging from watch-list screening, pattern detection, fraud monitoring and regulatory reporting.

Benefits:

- Addresses market changes with minimal or no changes to core services.
- Parameter and rules-driven approach for process changes, avoiding customization.
- Modular and flexible design to build a digital network premised on trust, with fewer silos
- Resilient infrastructure, supporting operations 24x7 with 99.99% availability
- Zero Trust architecture approach included in design, ensuring robust end-to-end security
- Operational automation, augmented by M/L technologies to improve Straight-Through Processing
- Leveraging new technologies (AI, Cloud, API), on a need basis for meaningful transformation
- Ready-to-use plugins and solutions to extend ecosystems for Blockchain, ISO 20022
- Co-existence-based approach to drive future growth in a progressive manner

The Combined TCS Advantage for Central Banks

TCS BaNCS & Quartz - The Product Advantage

- Strategic product roadmap: Customers are protected from obsolescence with quarterly technology updates and annual business releases
- Market proven, multi-entity, multi-currency, multi-country transaction processing applications
- The solution can be adapted to the specific needs of the marketplace, regulators, investors, financial institutions, and other stakeholders for Securities, FX, and Payments.
- Out-of-box built-in standard interface ready for external systems such as SWIFT
- Solution supports co-existence of ISO 15022 and ISO 20022 formats and is ISO 20022 ready.
- With Quartz™, The Smart Ledgers, we can help Central Banks leverage blockchain meaningfully for their business. The co-existence approach has been designed to enable customers to roll out business functions on blockchain or on traditional technologies based on their needs.

Over the years, TCS has made significant investments to our product development that helped us deliver on our promises to customers. The TCS Co-Innovation network helps in sourcing ideas and technology from the larger, global ecosystem. It today comprises of thousands of start-ups, fintechs, academic institutes, VCs, Alliances, and large technology partners. The focus is on creating business value for customers by investing and nurturing contextual knowledge and leveraging these learnings across every implementation.

TCS' Comprehensive Services Portfolio

TCS is a leader in global IT services, consulting, and business solutions leader, and has been partnering with the world's leading businesses in their transformation journeys for over 50 years. With TCS, customers can tap into the full spectrum of services offered, ranging from business & IT/architecture, consulting, program management, systems integration, implementation, quality assurance, training, application management and support. These solutions address the transformational needs for enterprise operations, business process re-engineering and operations outsourcing.

About Quartz

Quartz is a startup incubated in TCS to create innovative solutions that leverage the emergence of blockchain technology. Quartz provides foundational technology, tools and business components for creating distributed solutions for varied industries.

To know more about Quartz, please write to us at tcs.quartz@tcs.com, or visit our website <https://www.tcs.com/what-we-do/products-platforms/quartz>

About TCS BaNCS

TCS BaNCS' comprehensive product portfolio is dedicated to providing business solutions to financial institutions globally. The solution suite 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: <https://www.tcs.com/bancs> or write to us at tcs.bancs@tcs.com

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is a purpose-led transformation partner to many of the world's largest businesses. For more than 50 years, it has been collaborating with clients and communities to build a greater future through innovation and collective knowledge. TCS offers an integrated portfolio of cognitive powered business, technology, and engineering services and solutions. The company's 592,000 consultants in 46 countries help empower individuals, enterprises, and societies to build on belief.

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