Market Infrastructure



KUWAIT CLEARING COMPANY



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

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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.



Market Infrastructure



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.



20 21

Market Infrastructure



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," says Al-Saleh. "We see TCS as a solid, trusted partner, and continuing the relationship with TCS is essential to our future."





22