

Enterprise-level blockchain implementation by ICSFS

ICS Financial Systems delivers one of the first Oracle enterprise-level blockchain implementations in the world for Arab Jordan Investment Bank (AJIB)



Arab Jordan Investment Bank (AJIB) is one of Jordan's leading investment and commercial banks that serves retail customers, large corporations and financial institutions. AJIB's retail department provides diversified products and services to its clients such as personal and housing loans and most types of credit cards; and AJIB's investment and corporate banking departments offer their clients a wide range of investment and commercial banking services including mergers and acquisitions, equity capital markets, transaction advisory services, project and trade finance and equity research. AJIB was founded in 1978 and is headquartered in Amman, Jordan. It also has subsidiaries in Cyprus and Qatar.

ICS Financial Systems (ICSFS) is a leading provider of modern banking and financial technology powered by a very solid, agile and digital banking platform as part of its DNA, launching innovative products that are constructed on a secured and agile integration. Its ICS BANKS® software is a fully integrated universal banking software suite that provides open products with international standards, real-time business processing and value-added capabilities of tailoring products, on-premises or in the cloud. ICS BANKS® software suite future-proofs banking activities by providing a broad range of features and capabilities with more agility and flexibility, to enrich customers' journey experiences.

A key pillar of AJIB's strategy is to focus on digital transformation, aimed primarily at providing superior user experience, while making processes simple, secure and efficient. As a part of its innovation strategy, the bank's CIO, Ayman Qadumi – following the direction from the chairman and board of directors – led the charge to explore blockchain technology in early 2017, understanding how it works and which use cases would be feasible for the bank.

Based on feasibility and alignment with future goals, the bank selected cross-border fund transfer as one of the top use cases for blockchain technology. The vision of this initiative was to position AJIB as a leading innovator in the region and enhance the bank's value proposition.

“Arab Jordan Investment Bank can now practice fund transfers between its subsidiaries, faster, cheaper and instantly through its digital banking platform 24/7”

AJIB had to choose a blockchain partner that provides the most optimal blockchain infrastructure through its requirements. The bank chose Oracle's enterprise-grade blockchain platform for its high resiliency, scalability, and security with built-in identity management and data encryption features.

Finding the right partner

Selection of integration partner is one of the most crucial factors that impact the success of such initiatives, especially in uncharted areas involving emerging technologies such as blockchain. AJIB is a long-term customer of ICSFS and operates on the ICS BANKS® core banking system.

AJIB selected ICSFS as a partner for this implementation, on the merit of its prior experience and proven performance, during implementation and support of its core banking system, and the fact that ICSFS has a detailed understanding of AJIB's current technology infrastructure. In addition, ICSFS was one of the first independent software vendor (ISV) Oracle partners, which also gave AJIB confidence in ICSFS' ability to drive this pilot implementation successfully.

The implementation aimed to bring improvements in the efficiency of cross-border fund transfers. It was designed to enable fund transfers between AJIB subsidiaries in different countries over blockchain, without the need of any intermediary. Prior to that, the process involved intermediaries network and corresponding banks to enable

these transfers, which brings so many challenges to the banks and their customers, resulting in additional costs and processing times. The production enabled these transfers in real-time at the fraction of the cost, while raising the level of information security since the bank will not share its clients' information with other entities.

Another crucial benefit is an enhanced customer experience and efficiency of their journey – customers will be able to access this blockchain-enabled fund transfer seamlessly integrated within their mobile banking or internet banking portal.

It's worth mentioning that, in March 2018, a proof of concept (POC) was conducted in a multi-country implementation approach between AJIB's headquarters in Amman and its subsidiary in Cyprus. The implementation involved a moderate level of customisation requirements as per AJIB's workflows. It started in March 2018 and took close to five months to successfully implement, ending in July 2018.

Following the successful POC, AJIB went live with its blockchain platform in April 2019, executing the first transfer of funds between the bank's head office in Jordan and Cyprus branch. The successful project execution was a result of the combined efforts of AJIB's visionary management team, robust technology support from ICSFS and a resilient, scalable and secure blockchain platform.

ICSFS played a critical role in this implementation, specifically developing the middleware that was necessary for the bank's systems to work with the blockchain platform. The middleware, ICS BANKS® Blockchain Adapter, is an enterprise-grade blockchain platform with industry leading resiliency, scalability and security. The Adapter was integrated with Oracle Cloud Blockchain Service running on hyper ledger Fabric platform, ICS BANKS® Core Banking System and ICS BANKS® Digital banking platform.

Overcoming hurdles together

AJIB faced some hurdles during the implementation; however, ICSFS was able to address all these challenges in an orderly manner.

The cross-border fund transfer space is highly regulated, and AJIB wanted to ensure 100% compliance with all regulations subject to this new process. Since this was one of the first implementations of its kind, the bank was concerned about how the regulator might deal with this new model.

ICSFS ensured the bank remained compliant by performing data verification against AML and other systems by developing a middleware and smart contracts, which provided the needed integration to the compliance systems and produced the results automatically.

Data privacy and security was also a big concern for AJIB, since it is dealing with sensitive customer data. The concept of blockchain is to generate chains by adding 'blocks' of data. ICSFS mitigated this by using a private blockchain network with strong encryption for data at rest and data in transit, plus identifying management with secure

defence. In addition, ICSFS ensured that only a bare minimum amount of data needed to complete the transaction and the verification process is shared over the blockchain.

Ayman Qadumi said: "One of the key concerns for AJIB was the scarcity of blockchain experts in the industry, as the skillset is very difficult to find. But ICSFS had subject matter specialised experts on its team, which was a big advantage."

Before using blockchain, money transfers between AJIB subsidiaries were achieved by using third-party intermediaries. These intermediaries charged fees at each stage of a cross-border transfer transaction. In addition to the extra fees, using these intermediaries made it necessary for the bank to share some customer information with third parties. Sharing this type of customer information involved compliance with strict regulatory requirements. AJIB aimed to reduce the costs and time required for cross-border payments, while making the entire process more secure and efficient.

AJIB is now able to make the same transfers in real time without paying the transactions fees for each transaction to third-party intermediaries. Senders and receivers can now track money transfers while the funds are in transit, providing transparency to both parties about the exact timing and amount of the transfer.

This implementation sets a precedent for the entire region on the commercial use of blockchain and demonstrates the benefits of application of blockchain in cross-border fund transfer. Customers of AJIB can instantly transfer funds to any account within AJIB's subsidiaries from their mobile app – allowing them to transfer funds to family, friends or businesses across countries 24/7.

Going live with blockchain technology provides AJIB with rapid provisioning and simplified operations with built-in monitoring, continuous backup and point-in-time recovery, and helps mitigate the shortcomings of the current setup in areas of security, delays, speed and dependency on third parties.

Going forward, AJIB has big plans for blockchain and intends to scale this system to other geographies and branches. Working with an established brand such as ICSFS could potentially allow AJIB an opportunity to open the program to their other clients in the world. In addition, AJIB expects to leverage its understanding of blockchain with this implementation and plans to continue exploration of more potential areas where blockchain may prove beneficial.

KEY FACTS

Bank: Arab Jordan Investment Bank (AJIB)

Headquarters: Amman, Jordan

Supplier: ICS Financial Systems (ICSFS)

Solution implemented: ICS BANKS Blockchain Adapter and Oracle Cloud Blockchain Service

Deployment: Private blockchain network