



Rice Exchange

Transforming the \$450 billion rice market



Rice is the staple food for much of the world. It provides the bulk of daily calories for billions of people. Millions of small farmers rely on the crop. It is an ancient crop. Could the global market for rice be transformed through blockchain? Rice Exchange thinks so. Through its Ricex marketplace, built on the Fujitsu Blockchain and Distributed Ledger Technology (DLT) platform, it is aiming to make the global trade in rice faster, more secure, and more transparent.

Challenge

Ricex needed a blockchain technology and cloud partner to take its test product to a global market.

Solution

- Fujitsu Blockchain Innovation Center (BIC)
- Fujitsu Blockchain and Distributed Ledger Technology (DLT).

Outcomes

- Achieved 20% reduction in trading costs
- Enabled higher volume of trades due to significant time reduction
- Enhanced security and flexibility when transferring, storing, and managing virtual good.

“Fujitsu enables us to remove the many barriers that have prevented transparent, low-risk trading in rice.”

Stephen Edkins, CEO, Rice Exchange (Ricex)

Industry:
Food

People:
10

Location:
Singapore

Website:
ricex.io

About the customer

Rice Exchange (Ricex) is the first digital platform designed for buying and selling rice. The platform enables buyers, sellers and service providers to easily find each other in a digital environment. It allows users to efficiently conduct trades and arrange insurance, inspection and settlement with the assurance of seamless integration and verifiable data.



90%

reduction in the time taken
to complete a rice trade

Revolutionizing the rice trade

Rice has been a strategic food staple for millennia, with millions of metric tons consumed daily. It is a \$450 billion annual market. However, rice trading lacks transparency and is a complex and extremely process-intensive business.

Ricex uses automation and blockchain technology to address these inefficiencies. By improving the traditional rice trade, it hopes to deliver greater profits for small farmers, less waste and social good.

"The more I learnt about the rice market, the more amazed I was at the antiquated way business was conducted," explains Stephen Edkins, CEO, Rice Exchange. "It's difficult to connect to new buyers and suppliers; it is unable to adapt to changes such as bad harvests; there is no digitization or automation of trades."

The result is lower revenues for producers, higher costs for consumers and lower profitability for everyone in the supply chain. In 2019, Ricex launched an early adopter program, signing up more than 500 importers and exporters in 60 countries, as well as service providers including insurers, shipping lines, inspection services, lawyers, loss adjusters and marine surveyors. Following the development of a minimal viable product (MVP), the company needed to find a strategic IT partner with blockchain experience to take it to a market-ready form.

Introducing Distributed Ledger Technology (DLT)

Ricex chose Fujitsu to build a production-ready, private, permissioned DLT scale-out solution running on Hyperledger Fabric. In addition, experts from the Fujitsu Blockchain Innovation Center (BIC) in Brussels are helping to develop the solution.

The Fujitsu BIC uses Microsoft Azure™ to support both the development and production environment for Fujitsu's blockchain-as-a-service offerings, including DocumentFlow and InvoiceFlow.

"The previous version was not built on Hyperledger and not fully blockchain-enabled so Fujitsu rebuilt the back end and middle layer from scratch over the course of nine months," explains Edkins. "At the same time, we worked together to integrate a load of new functionality into the front end based on feedback from early adopters of the original product."

Faster, more secure and more transparent trades

The resulting alpha build is the first fully integrated digital platform for the global rice trade. At its launch it has 50+ importers and exporters and six service providers. Within a year it expects to handle over \$250m in trades per quarter.

"Fujitsu's DLT solution allows buyers, sellers and service providers to find new counterparts in new geographic markets in a secure and trusted environment," continues Edkins. "This dramatically speeds up progress from agreement to contract to settlement."

Early estimates indicate that using Ricex will result in at least 20% savings for stakeholders and 90% savings in the time it takes to trade – with an end-to-end trade completing in as little as six minutes."

"It's a seamless, integrated and robust platform where everyone can see the pertinent data and documents in real-time," says Edkins. "It makes every step of the process more efficient and trustworthy."

Fujitsu

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