

Paper Cuts

Rio Tinto Leverages Blockchain for Trade

With the first fully digital, blockchain-secured end-to-end letter of credit transaction between Nanjing Iron & Steel and Rio Tinto complete, TMI asks Rio Tinto's Michel Alves, Customer Service Manager, Iron Ore and James Liu, Account Manager, Southern China, to share their highlights from the experience.

By **Tom Alford**,
Deputy Editor

Engage in a conversation about cross-border trade and eventually talk will turn to the sheer volume of physical paperwork it involves. The delays and extra costs of this manual approach are arguably among the most frustrating elements of an activity that keeps almost every economy in the world turning.

With the rapid advance of digitisation, being able to cut out physical paperwork has never been more attainable than now. But it's going to take a few major players to switch to the digital pathway before it becomes the trusted norm; no one will overturn the centuries-old tradition of manual processing overnight.

One deal that finance professionals seeking greater (paper-free) efficiency in their international trade transactions may find of interest is the recent first fully digital, blockchain-secured end-to-end secured letter of credit (eLC) transaction

between Nanjing Iron & Steel and mining giant, Rio Tinto.

The deal was facilitated by issuing and advising bank DBS together with essDOCS, which enabled management of the electronic bill of lading (eBL) through its CargoDocs solution. The approval of key contract terms, eLC issuance and presentation of export documents under the LC, were all carried out electronically, from start to finish, on a single platform.

This was provided by Contour, a blockchain-based open-industry trade finance collaborative network for creating, exchanging, approving, and issuing eLCs. Formerly known as Voltron, Contour is building an expanding network of trade finance banks, corporates and technology providers to try to settle the seemingly intractable paper issue.

This transaction was DBS' second on the network since it became a member in May 2020. In Rio Tinto, a major commodities provider with several decades' experience of trade in China, it found another willing partner.



Starting out

Traditional paper documentation had often created challenges for the company. Where Chinese national holidays bisected deal completions, for example, document delivery and payment settlement delays would occur, notes Liu. “We started looking a few years ago for more efficient ways of facilitating all these processes, examining closely the market for electronic documentation transfer and settlement solutions, and third-party platforms.”

Contour’s deployment of Corda blockchain technology within its architecture is described by Liu as a “representation of the future”. With security assured, and the platform provider’s rising profile in Asia, he says Rio Tinto saw a new opportunity to work on trade process optimisation with its own customers – many of which, he notes, are similarly “open to finding new, more efficient solutions”.

Work with Contour began in earnest in 2018, says Alves. The first two attempts at using the platform were with a Singapore-based client. As an early-stage development, Alves felt there was room for improvement; Contour was listening and the latest trade with Nanjing benefited from a number of platform advancements giving “a much better experience”.

As part of Rio Tinto’s trading process, the digital LC had to be augmented with an eBL. The company suggested that Contour extended its platform to cover eBLs. But knowing this would take significant effort to co-ordinate with the relevant partners, an alternative suggestion was to build a partnership with an existing provider.

Again, Contour took this feedback on board, and with assistance offered by the Rio Tinto team it formed a partnership with essDOCS, integrating the latter’s CargoDocs eBL solution (Contour has since also integrated with the Bolero e-trade administration platform). “That was a huge value-add to the trading process,” comments Alves. “But we also needed to talk to our customers, especially in China, to see if there was now a similar level of perceived value.”

Developing solution

Although having validated the platform through its initial trials in Singapore, Rio

Tinto’s China-based trade also needed to be validated. Fortunately, Nanjing expressed interest from the outset. The Rio Tinto team connected all parties, including the “very supportive” DBS, which appeared to Alves as being “one of the most engaged” with the Contour concept, despite having also embarked on its own journey in this respect.

“It has required a lot of co-ordination, even within Rio Tinto, to bring various parties in the trade environment together, to engage and motivate them,” he notes. The integration of essDOCS with Contour in particular brought the Rio Tinto team closer into the discussions, contributing significantly to the end product.

Contour has purposefully developed an open architecture, enabling many more stakeholders to connect. This work is ongoing. Even Rio Tinto is yet to integrate its enterprise resource planning (ERP) and other back-office systems to the Contour environment. Without that integration it still requires some human intervention, with invoices being issued and uploaded manually to the platform. “In the future, we will do this through application programming interfaces,” comments Alves.

When this happens, back-office integration with Contour will necessarily include a range of banking platforms, if volume issuance of eLCs on the network is to take place. The likelihood of such a development rests on Contour being able to recruit more participants. “They have a lot of support from us, the banks and shareholders, and they are getting more traction among corporates; they just have to surf the wave now,” observes Alves.

Reasons to be cheerful

With Rio Tinto having made the leap into electronic documentary trade, “delivery of a better service to our customers was always expected”, says Alves. It certainly beats paper. With its largest customers based in China, but many using banks in Hong Kong or Singapore (and sometimes requiring back-to-back LCs to support a single transaction), paper-inflicted cost, time and risk is often added to the process, especially when shipped goods reach port before the documentation.

By taking paperwork out of the equation, turnaround times will improve

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JAMES LIU

Account Manager, Rio Tinto Iron Ore China team

In his role in the Iron Ore China Team Liu focuses on providing the best customer service to Chinese mills and customers in China’s Northern and Southern regions. Liu has been with Rio Tinto since 2008 and has managed a wide variety of activities including contract execution, document operation, coordination on tonnage allocation, logistics and customer relationship management. Liu worked in the shipping and logistics industry for 6 years prior to joining Rio Tinto.



MICHEL ALVES

Customer Services Manager, Iron Ore

Alves took up his role in 2019, overseeing projects to deliver meaningful business insights to sales and marketing, assessing and driving long-term goals, growth strategy, digitisation and expansion opportunities. Alves has 13 years experience in international trade, working in the commodities business with extensive commercial, marketing, finance, logistics and team management experience from roles across South America, Europe, the Middle East and Asia.

considerably simply because recipients no longer have to wait for a piece of paper to land before they can progress. “It’s a huge benefit for all of us to have that visibility and traceability, right to the end,” he says.

Alves believes the application of blockchain security on the Contour network will be a game-changer. Other digital trade solution providers, such as essDOCS and Bolero, are not blockchain-based but bringing them together on Contour offers an additional security layer that will allay the concerns of most participants in this process, he says. Indeed, blockchain adoption across a collaborative network seems to overcome the final point of resistance to the digitalisation of trade finance – digital trust – voiced especially, but not exclusively, by the banks.

Adding momentum

Rio Tinto’s experience has confirmed its desire to continue using Contour. “We’re open to exploring other solutions in the market, but we have joined Contour’s beta-development network and the results should go into production towards the end of this year,” says Alves. “We are looking to do more transactions.”

Liu reports positive feedback from Nanjing Iron & Steel so far. The process itself was described by the firm as “very

smooth”, despite coming up against a potentially disruptive Chinese public holiday mid-transaction. As a result of the trust created by the blockchain-secured digital documentation, Nanjing also managed to avoid the need for a letter of indemnity; in the commodities world, it has become common practice to accept buyer payment against this instead of traditional shipping documents. Blockchain simply removes that need and its associated cost.

Although Nanjing reported that it took a little extra time to set up the initial legal agreements with the various parties on Contour, its expectation henceforth is for no such issue, Liu reports. It did, however, suggest that Rio Tinto should consider finding more supporting banks. Where non-domestic Chinese banks are used, it can trigger a need for back-to-back LCs, generating extra cost. If domestic Chinese banks could be brought onto the platform, Liu says, this cost too would be removed.

With the Rio Tinto team in China engaging with more clients, explaining how the platform works and the benefits it can offer, Alves knows that “the best way for anyone to find out if it adds value or not is to try it”. If sufficient momentum gathers, paper could well be on the way to being banished once and for all from the trade process. ■

