



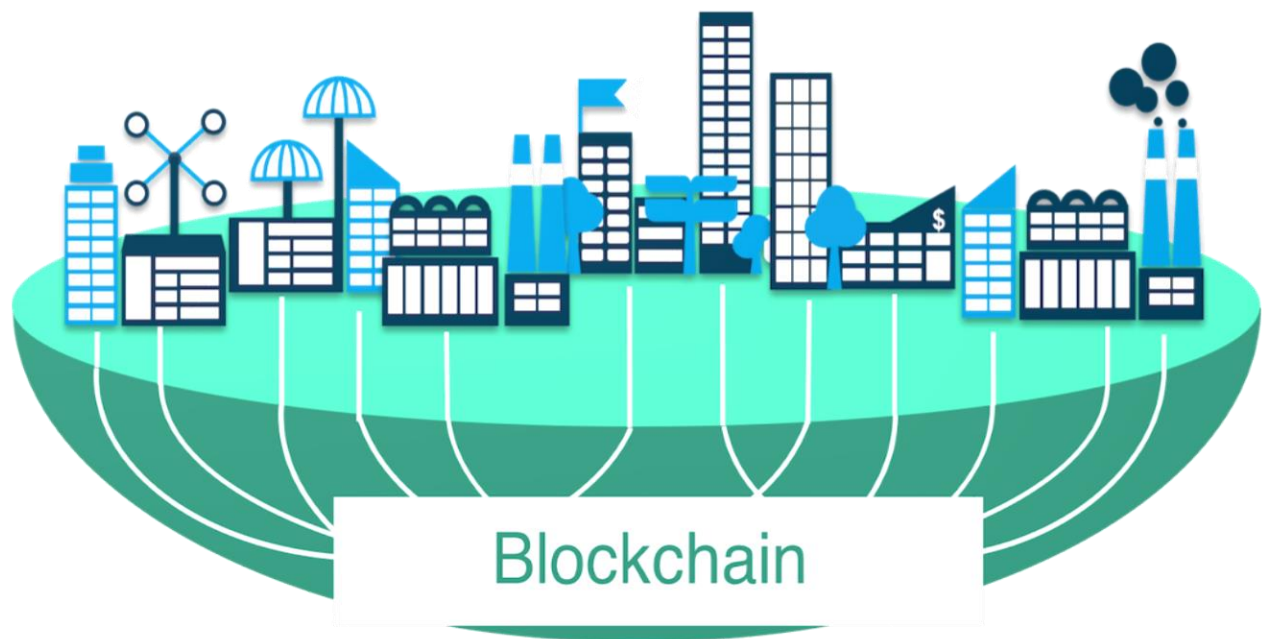
HashCash in Supply Chain

Blockchain based Supply Chain Solution in HashCash HC Net



EXECUTIVE SUMMARY

Blockchain technology has found repose in the trade finance industry, a key focus area, through its efficient application. Making it easier to reduce disputes and fraud, Blockchain also provides delivery and payment certainty along with enabling transparency of trade asset movement. It also facilitates the flow of trade receivables that result in increased collaboration, automation, and oversight in trade transactions. This white paper (the first of a five-part series) sheds light on the three areas of trade finance: payment method automation, trade asset tokenization, and payment instrument digitization, on which, the different benefits of a successful blockchain application can be reaped.





TRADE FINANCE LANDSCAPE

Providing delivery and payment assurance to buyers and sellers, trade finance by banks and other financial institutions is a vital function in the international commerce industry. It helps to close the gap concerning trade cycle funding for the parties as mentioned earlier. Only a robust financial mechanism and easy availability can ensure the growth and sustenance of the \$16 trillion international trade market. This particular facet of trade finance has earned it the accolade of being the fuel for global commerce. It must be mentioned here, that, trade participants can be vulnerable to business risks and uncertainties that has its roots deeply embedded in several factors that include variance and fluidity in trade regulations and requirements across geographies, the operational and logistical complexities that arise when a large number of entities interact and process inefficiencies. According to a recent survey by the International Chamber of Commerce, there has been seen, an increasing trend in litigation and fraud related to trade financing over the last few years. An example of such a mishap would include the trade and receivable financing fraud which includes the \$1.1 billion lawsuit against Citigroup that was a result of financing falsified receivables. Besides, the loss of hundreds of millions of dollars to various banks in the Qingdao port metal financing fraud involving multiple invoices secured against the same collateral also offers a comprehensive view of how these problems can affect different sectors of International commerce.

The other challenges include payment and delivery delays due to process overheads along with a lack of insight into the movement of goods. It also takes a vast effort and engagement to manage counterparty due diligence and contractual compliance processes.

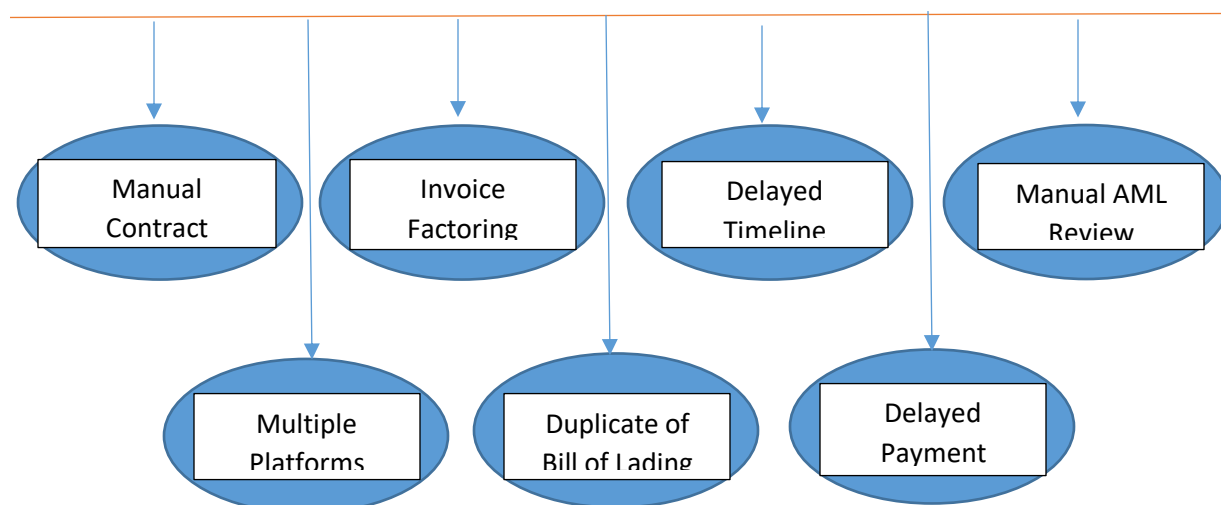
Have been taken the instance of banks, it can be seen that these omnipresent obstacles are bound to increase risks and costs that would lead to unfavorable financing terms, especially for small businesses. An estimated 60% of trade finance applications from small and medium-sized enterprises (SMEs) are rejected by banks globally. Besides, as put by the Asian Development Bank, the total value of unmet trade financing demand can be estimated at a whopping USD\$1.6 trillion. In addition, a study conducted by International Finance Corp. reflects the financing gap for global micro, small and medium-sized enterprises at USD\$2.6 trillion. Adversely affecting growth in global commerce, these risks and inefficiencies have limited the size of the trade finance market, which currently stands at \$4 trillion to \$5 trillion.



PAIN AREAS OF TRADE FINANCE

1. **MANUAL CONTRACT CREATION** –The financial agreement provided by the importer has to be first reviewed by the import bank manually and then separately it has to send financials to the correspondent bank
2. **INVOICE FACTORING** - Invoices are used by exporters to achieve short-term financing from multiple banks which adds additional risk in the event of the delivery of goods fails
3. **DELAYED TIMELINE** - Multiple checks by intermediaries and numerous communication points significantly delays the shipment of goods
4. **MANUAL AML REVIEW** – A rigorous chore, the export bank must manually conduct AML checks using the financials provided by the import bank
5. **MULTIPLE PLATFORMS** - The chances of miscommunication is often and the propensity for fraud is high, since each party across countries operates on different platforms
6. **DUPLICATION OF BILL OF LADING** - Inability of banks to verify the authenticity leads to bills of lading being financed multiple times
7. **DELAYED PAYMENT** - Prior to the disbursement of funds to the exporting bank, multiple intermediaries must verify that funds have been delivered to the importer as agreed upon previously.

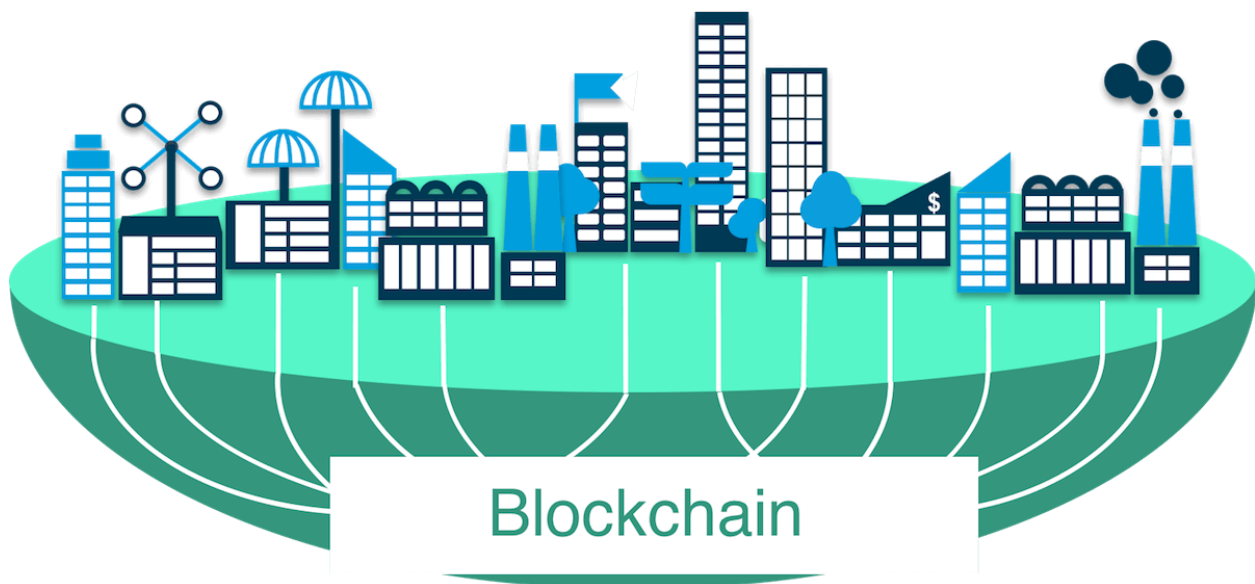
Pain Areas of Trade Finance





BLOCKCHAIN IN TRADE FINANCE

The new sought-after goal for businesses in the contemporary trade scenario is a better connected, highly automated and far more open infrastructure, which will also enable more efficient trade finance solutions for customers. An answer to this can be achieved by incorporating a set of trusted and permissioned interactions between corporations, B2B networks, service providers and other financial institutions. The entrance of 'smart contracts' will help businesses to automatically trigger commercial actions based on defined criteria. Further boosting efficiency by streamlining processes, this will also ease time and the cost of transactions. The improved traceability which an indelible audit trail provides is one of the main benefits of blockchain application in trade finance. Assets are automatically checked, owing to the new verification levels. Thus, businesses can reduce fraud and compliance costs by ensuring that each transaction is recorded sequentially and indefinitely. Blockchain has the ability to allow simple, secured share trade-related data between different financial institutions that nonetheless, enhances every aspect of security. Using independently verified complex cryptography, blockchain verifies every transaction that is verified within the network. Unprecedented levels of trust can be injected in the trade and finance systems very easily by including some much-needed commercial transparency to the mix that would thrive on solving and eliminating problems such as delays and sharing data between parties. Notions like authenticity, transparency, and simplicity are rapidly becoming the new language in the trade finance market.





BLOCKCHAIN APPROACH

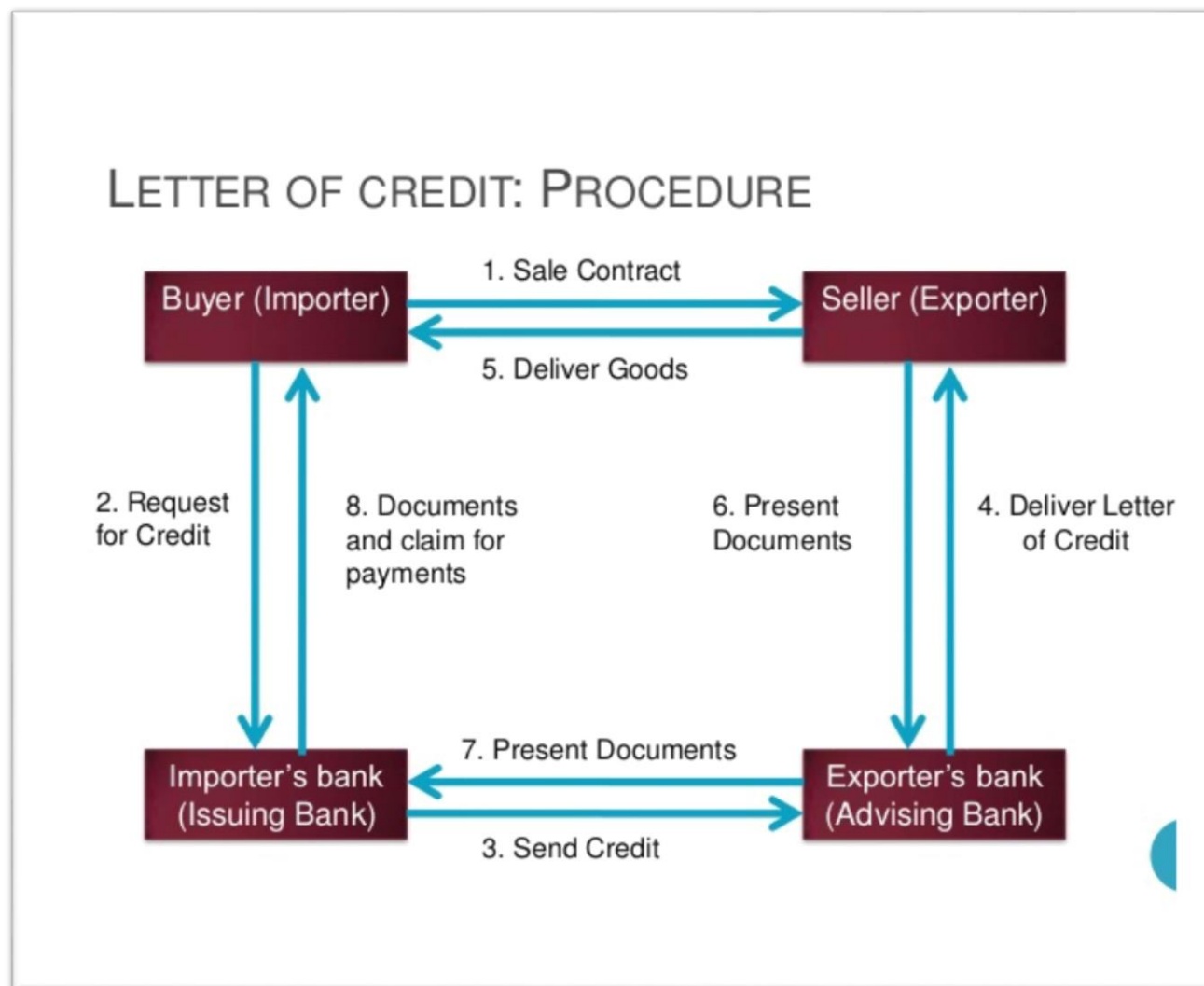
1. The agreement of sale between the importer and exporter is shared with import bank using a Smart Contract on the Blockchain at the very moment of purchase
2. The import bank will have the capability to review purchase agreement, draft terms of credit and submit an obligation to pay to the export bank in real time using Blockchain technology
3. A Smart Contract will be generated on the Blockchain to cover terms & conditions and lock-in obligations as soon as the Export bank will review the provided payment obligation and give the approval.
4. The exporter will digitally sign a Blockchain-equivalent letter of credit within the Smart Contract to initiate shipment after receiving the obligations.
5. Goods will be inspected by 3rd parties and the customs agent in the exporting country - with all the involved entities providing their respective digital signature of approval on the Blockchain Smart Contract
6. Blockchain offers a quick traceability during transit where goods will be transported from Country A to Country B
7. The importer will digitally acknowledge receipt of goods and trigger payment upon the confirmed delivery
8. Using provided acknowledgment, Smart Contract will enable the Blockchain network to automate payment from importer to exporter



BENEFITS

1. Real Time Review: Blockchain reduces the initiation time of the shipment as financial documents linked and accessible through Blockchain are reviewed and approved in real time
2. Transparent Factoring: Invoices accessed on Blockchain provide a real-time and transparent view into subsequent short-term financing
3. Disintermediation: Banks facilitating trade finance through Blockchain do not require a trusted intermediary to assume risk, eliminating the need for correspondent banks
4. Reduced Counterparty Risk: Bills of lading can be tracked through Blockchain, eliminating the potential for double spending
5. Decentralized Contract Execution: As contract terms are met, status can be updated on Blockchain in real time, reducing the time and human resources required to monitor the delivery of goods
6. Proof of Ownership: The title available within Blockchain provides transparency into the location and ownership of the goods
7. Automated Settlement and Reduced Transaction Fees: Contract terms executed via Smart Contract eliminate the need for correspondent banks and additional transaction fees
8. Regulatory Transparency: Regulators are provided with a real-time view of essential documents to assist in enforcement and AML activities

ARCHITECTURE



INVOICE FACTORING EXAMPLE





ABOUT HASHCASH CONSULTANTS

At HashCash Consultants, we use the best of Blockchain technology to empower enterprises and institutions to move assets and settle payments in real time. FinTech Companies, Domestic Payment Networks, Currency Exchanges, Banks and corporates use HC NET for Retail Remittances, Corporate Payments, Trade Finance, and Payment Processing. An array of technologically sound products that we offer includes HC Remit, HC Corporate Payments, HC Commerce and HC Market Maker.

A dark blue banner with the text 'HC NET' in large white letters, underlined. Below it, the text 'Join the largest blockchain network trusted by' is displayed. At the bottom, there are six teal circular icons with white symbols, each followed by a category name: Banks (bank icon), Currency Exchanges (Bitcoin icon), Corporate Houses (building icon), Fintechs (bar chart icon), Payment Network (dollar sign icon), and Global Merchants (shopping cart icon).

HC NET

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