

Blockchain for Trade Finance

Presenter:

Dr. Ravi Chamria

Co-founder Sofocle Technologies



agenda.

- 01.** **About Sofocle**
Brief overview of Sofocle – an Enterprise Blockchain company
- 02.** **Trade Finance Challenges**
Current challenges in Trade Finance domain
- 03.** **TradeReboot Platform**
An innovative platform for Trade Finance using Blockchain and Smart Contracts
- 04.** **TradeReboot Infra Mx**
A scalable deployment strategy and execution

ABOUT SOFOCLE

An Enterprise Blockchain company

Sofocle is one of the leading Enterprise Blockchain companies in the world. With a strength of over 60 experts in emerging technologies like Blockchain and Cryptocurrencies, Sofocle has built various products and solutions for enterprises, Blockchain start-ups and governments.

BFSI

- sofoCap - Supply Chain Finance
- TradeReboot – Trade Finance
- Insurra – Automated Claim Settlement
- sofoSafe – An Audit Layer

SCM

- Certum – Supply Chain Traceability
- Certiza – Digital Records Management
- sofoPay – Procure to Pay Management

BaaS

- Zeeve – A No-Code Blockchain Automation Platform

Technologies

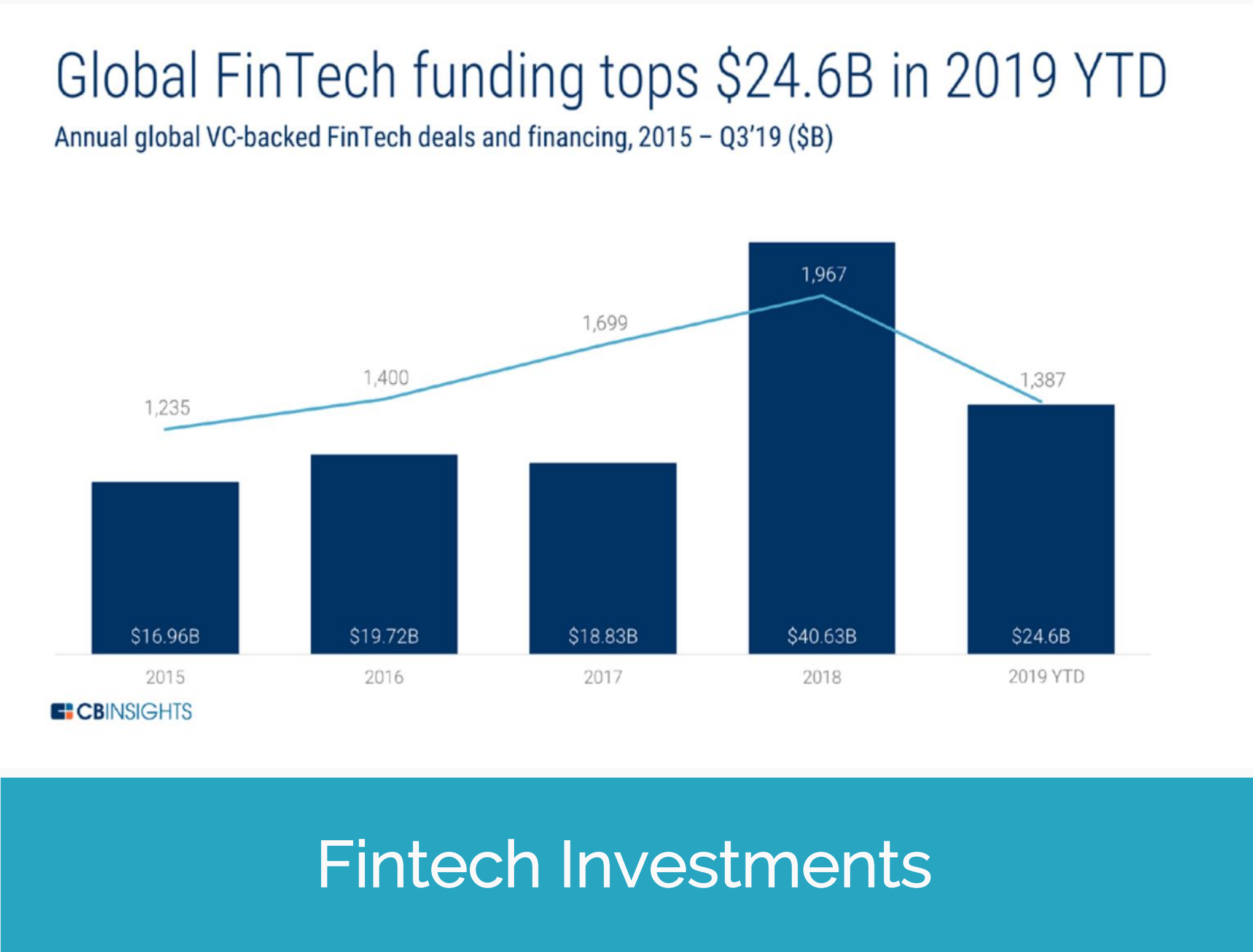
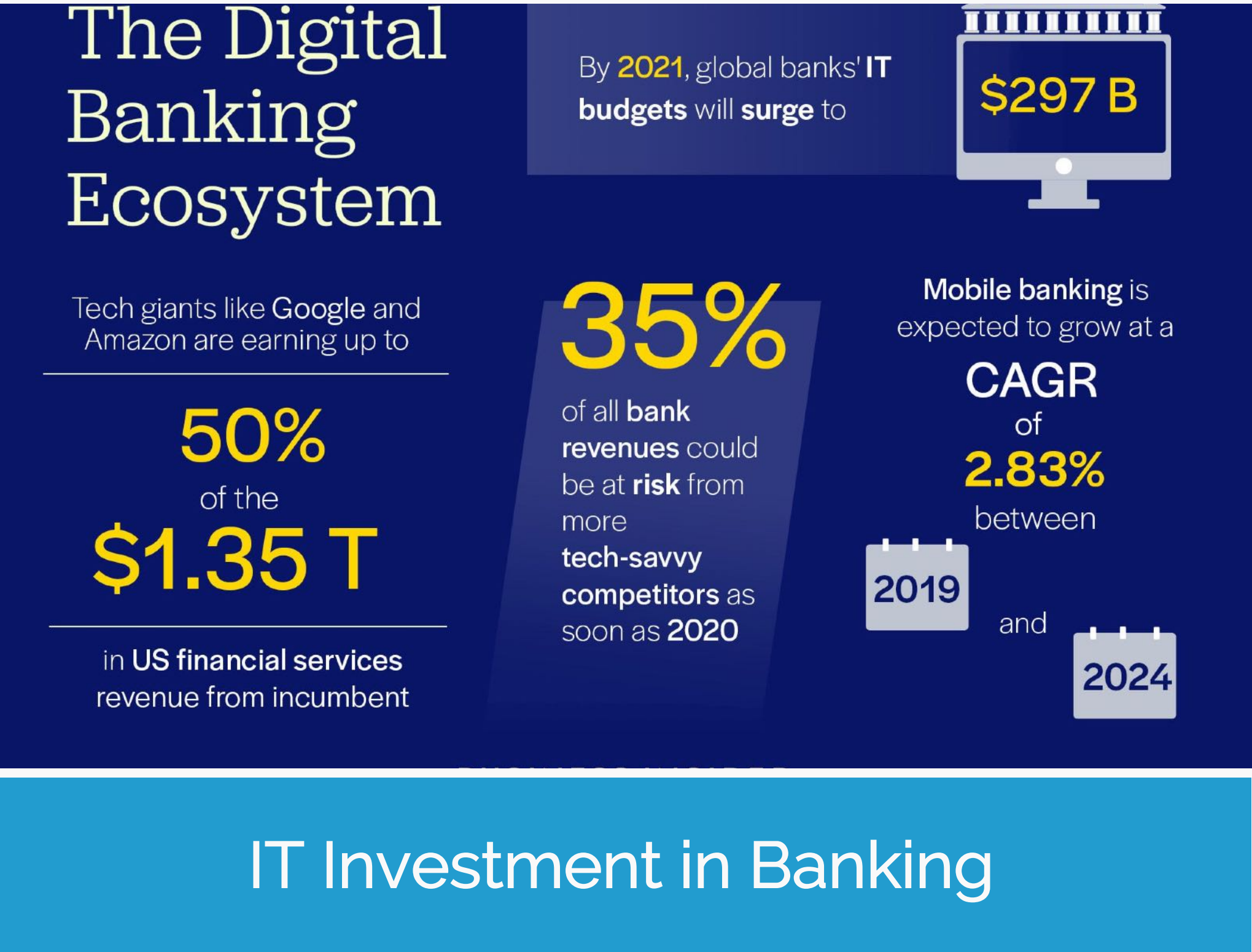
- HyperLedger Suite of Products, Corda and Ethereum
- C/C++, Rust, Python, GoLang
- ReactNative, Flutter, WebApp Stack
- MongoDB, MySQL, ReThinkDb, Cassandra
- Apache Ignite, Apache Spark, ThingWorx
- Intel SGX

Sofocle Team

- Led by seasoned IT entrepreneurs and professionals
- Team of 45+ Blockchain engineers and domain experts

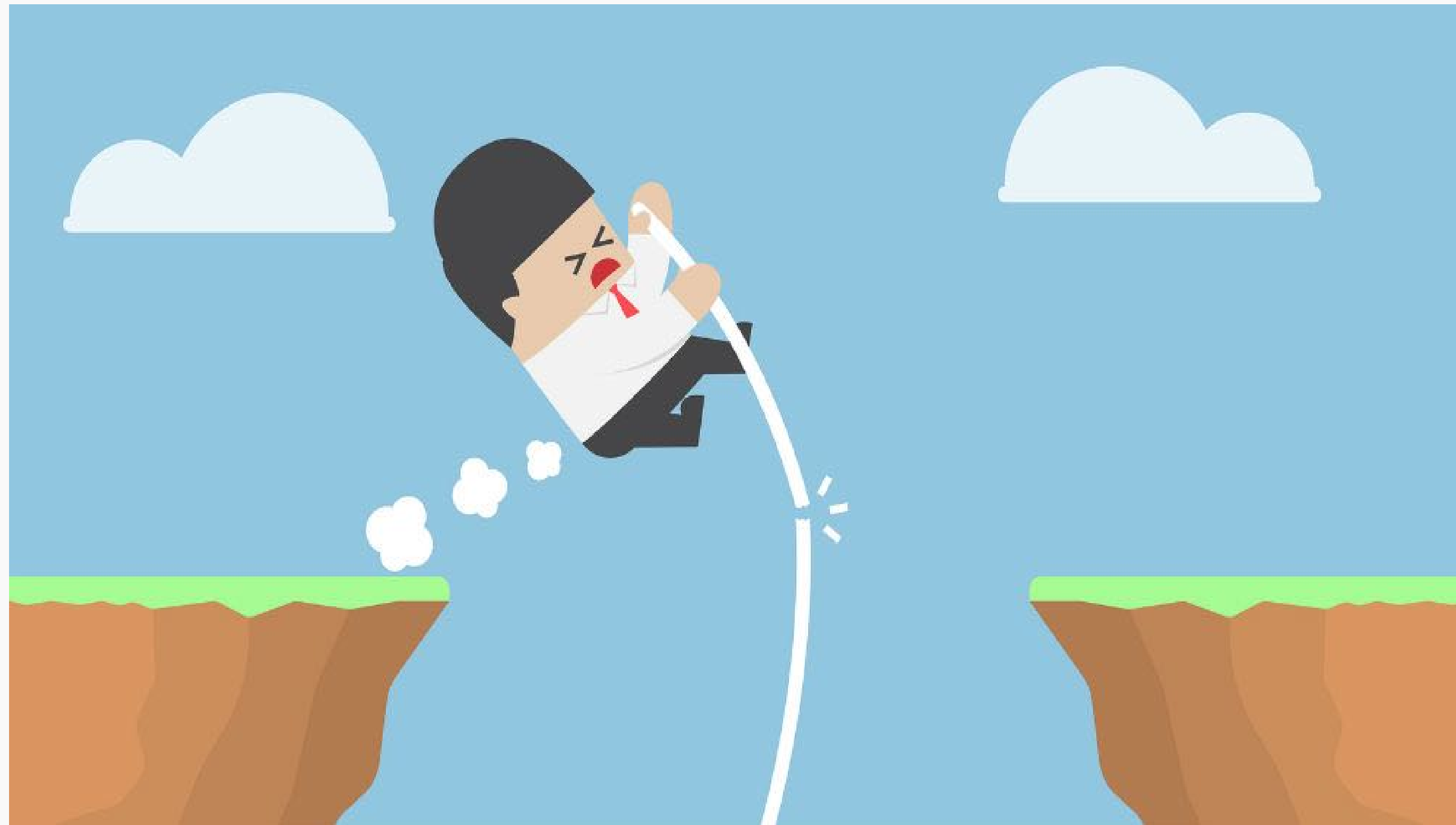
DIGITAL TRANSFORMATION IN FINANCIAL SERVICES

IT investments in Banking and new gen Fintechs have brought the wave of Digital Transformation in Banking



FALLING SHORT

The traditional technologies has little impact on underlying challenges – Reliance on 3rd Party Trust and Old Thinking



- Legacy Infrastructure
- Slow Processes
- Intermediaries
- Audits

FALLING SHORT **TRADE FINANCE**

Taking digital initiatives in Trade Finance as Example

- ◎ A bank payment obligation, or BPO, is a digital alternative provided by Swift.
BPO uses automated data checking of standardized data sets, rather than stacks of paper.
- ◎ MT 798 has been in place for eight years..
An authenticated message service to exchange trade data between companies and member banks of Swift..



Limited Reach

as digitalized only a slice of the trade process



Too Bank Focused

Banks mainly invested in digital trade channels and back-office systems



Too many changes

Banks asked too many changes by companies to understand and accept a new risk playbook

FALLING SHORT TRADE FINANCE

Current digitization masking the real challenges

- 01

Trade Finance Gap

is estimated at about **\$1.5 trillion** as per ADB. This could reach **\$2.5 trillion** by 2025 according to the World Trade Organisation (WTO)
- 02

Paper Based & Manual

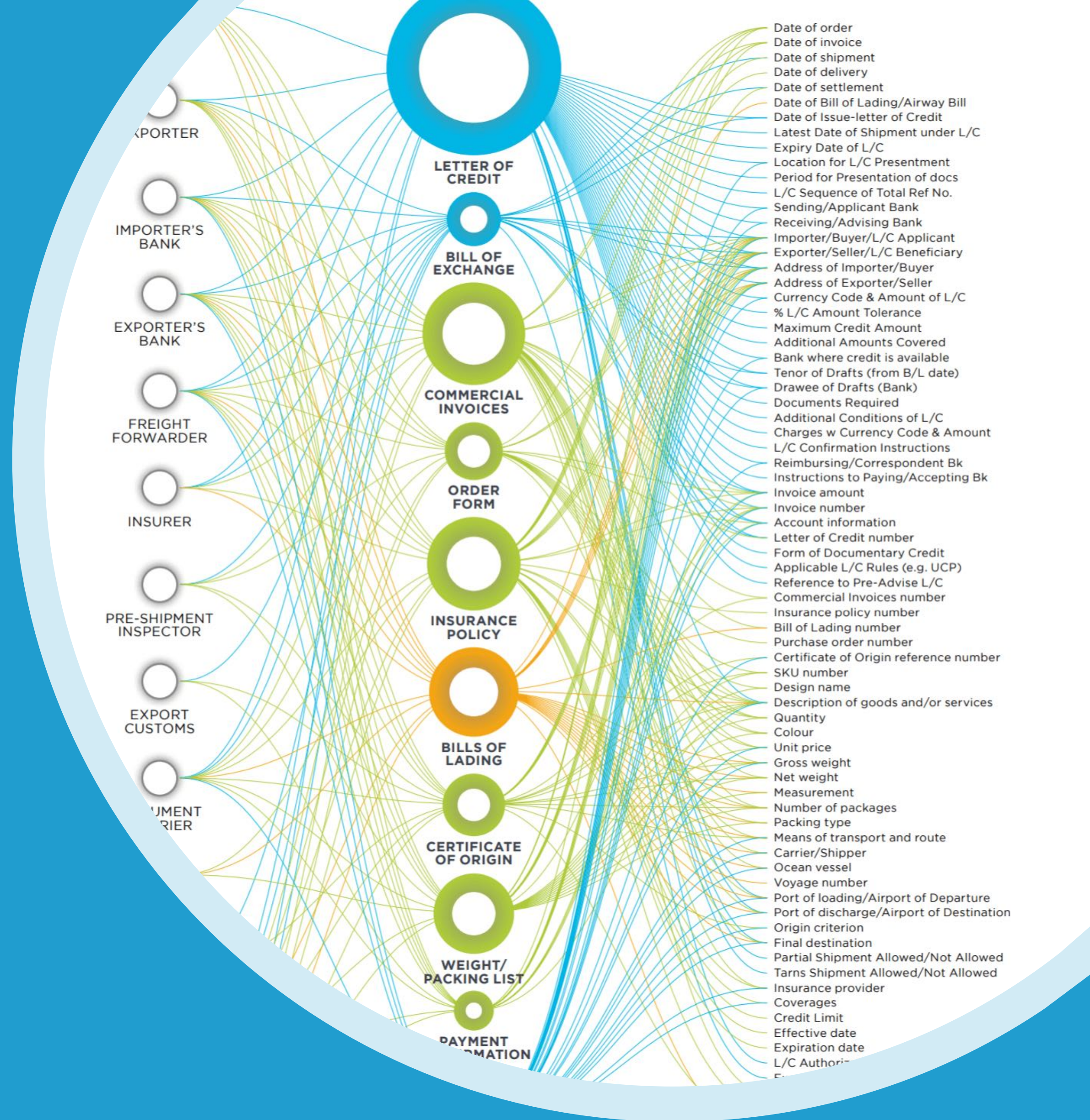
From the 34 days of shipment, 10 days were due to waiting for documents – Maersk Test
- 03

Siloed & Disconnected Systems

There is not one platform where all the parties can connect among each other
- 04

Highly Risky & Costly

The absence of transparency results in a lack of trust and consequently a high-risk assessment and costs.



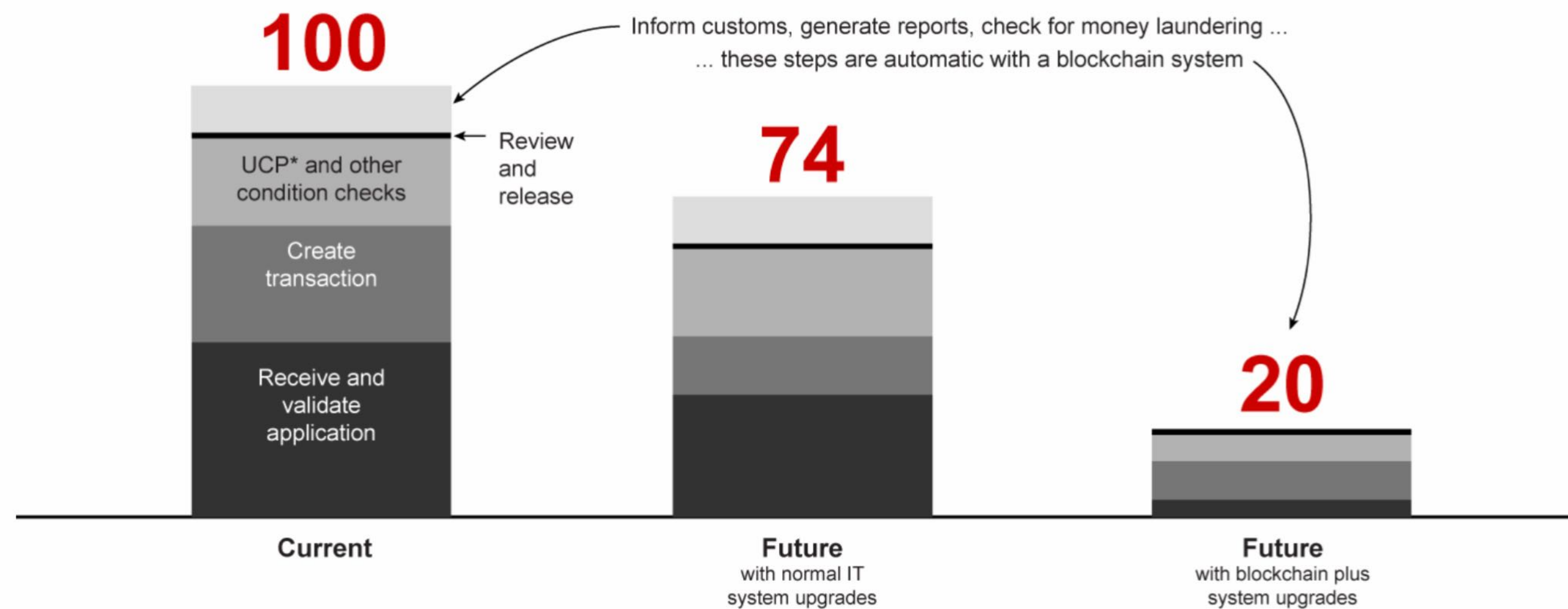
As per BCG report, the players create about 5000 data field transactions in a Single Transaction

BLOCKCHAIN TO THE RESCUE

With Open, Decentralized, Secure and Trustless Network, Blockchain truly disrupts

Automation through blockchain could reduce letter-of-credit processing time by 80%

Letter-of-credit processing time, indexed



*Uniform Customs and Practice for Documentary Credits
Sources: Bain & Company; HSBC

- Faster turnaround times
- Lower processing costs
- More trade financing made available
- Faster financing decisions
- Faster supply chain decisions
- Transparency of steps and status
- Accurate representation of each record
- Freed-up working capital

BLOCKCHAIN IN TRADE FINANCE?

Trade finance represents the financial instruments and products that are used by companies to facilitate international trade and commerce.



Exporters

Quickly distributed sources rather in empowered.



Importers

Quickly distributed sources rather in empowered.



Participating Banks

Quickly distributed sources rather in empowered.



Shipping and Logistics

Quickly distributed sources rather in empowered.



Customs/Regulatory Bodies

Quickly distributed sources rather in empowered.



Insurers

Quickly distributed sources rather in empowered.

TRADEREBOOT **FEATURES**

A collaborative and trustless platform for Trade Finance powered by Blockchain and Smart Contracts



Onboarding – KYC/AML

Digital Onboarding with KYC/AML checks and assignment of unique Digital Identity



Consignment Tracking

Asset/Consignment Tracking using chain of custody as well as IoT based tracking.



Smart Contracts

Smart Contracts for payments, financing decisions, SLA Management and Insurance cover



E-LC Management

Ability to apply for, receive, manage, issue and accept Electronic LC



Contract Dashboard

A single intuitive dashboard to manage all documents, messages, movements and notifications



Connected Ecosystem

Connecting all stakeholders like Insurance, Shipping and Inspection agencies



Document Management

Document Issuance/Upload with granular access controls and traceability



AIA Report

Based on deep learning and data analytics, a multi-parameter credit score for traders

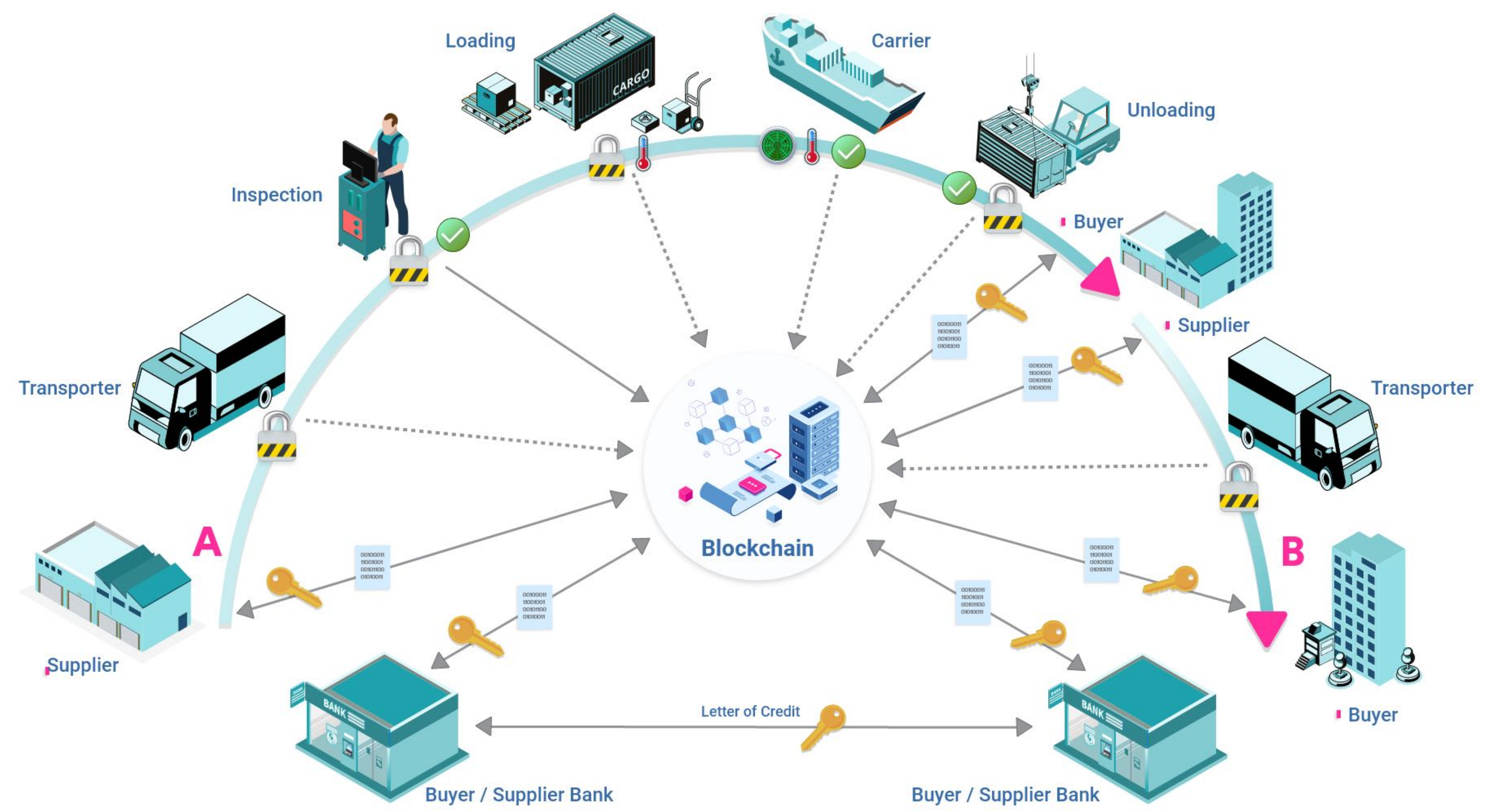


ICC & UCP Compliant

The platform is built on ICC guidelines with all contracts as per ICC compliance and payment processes as per eUCP compliance

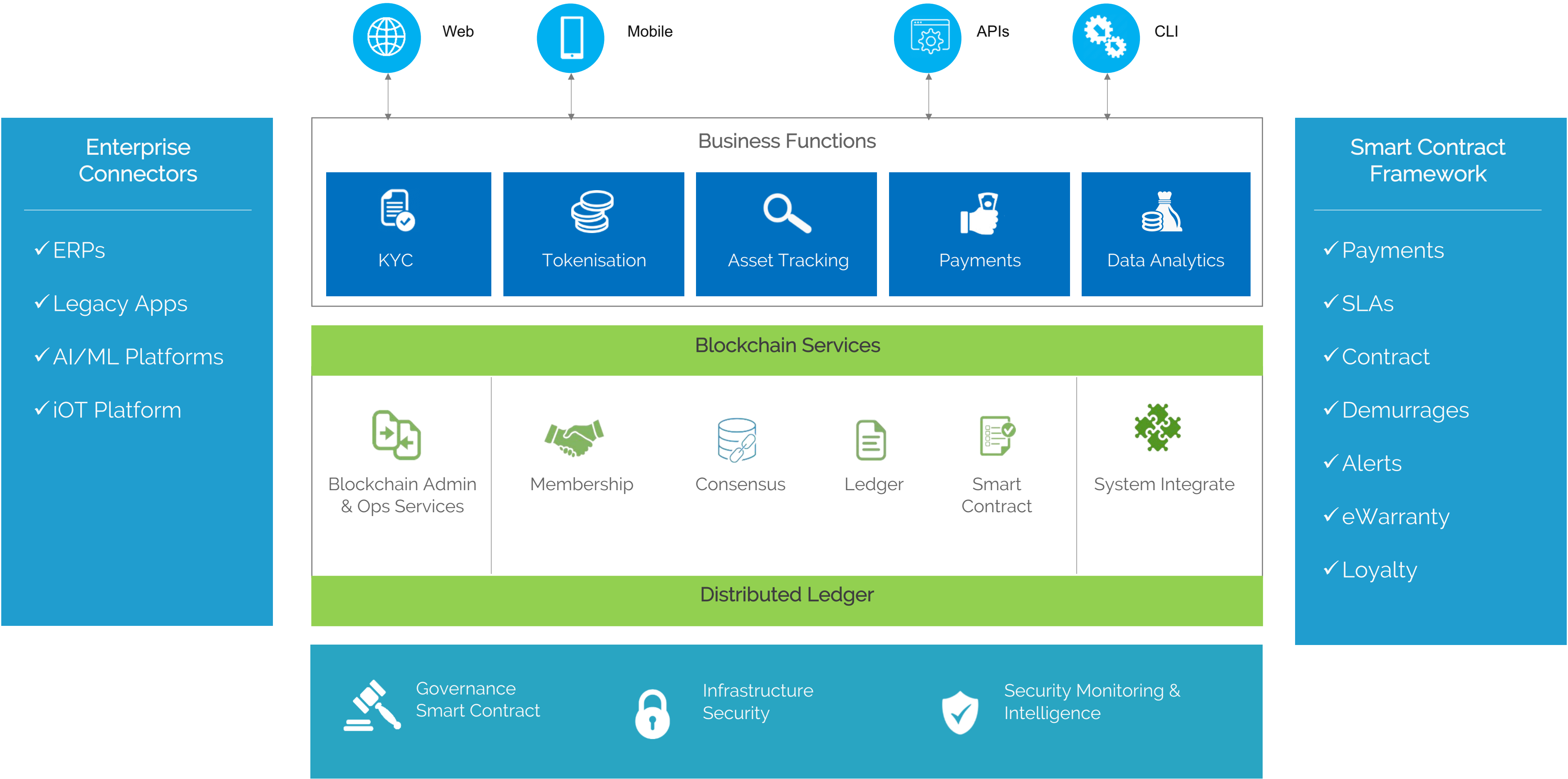
TRADEREBOOT JOURNEY MAP

A collaborative and trustless platform for Trade Finance powered by Blockchain and Smart Contracts



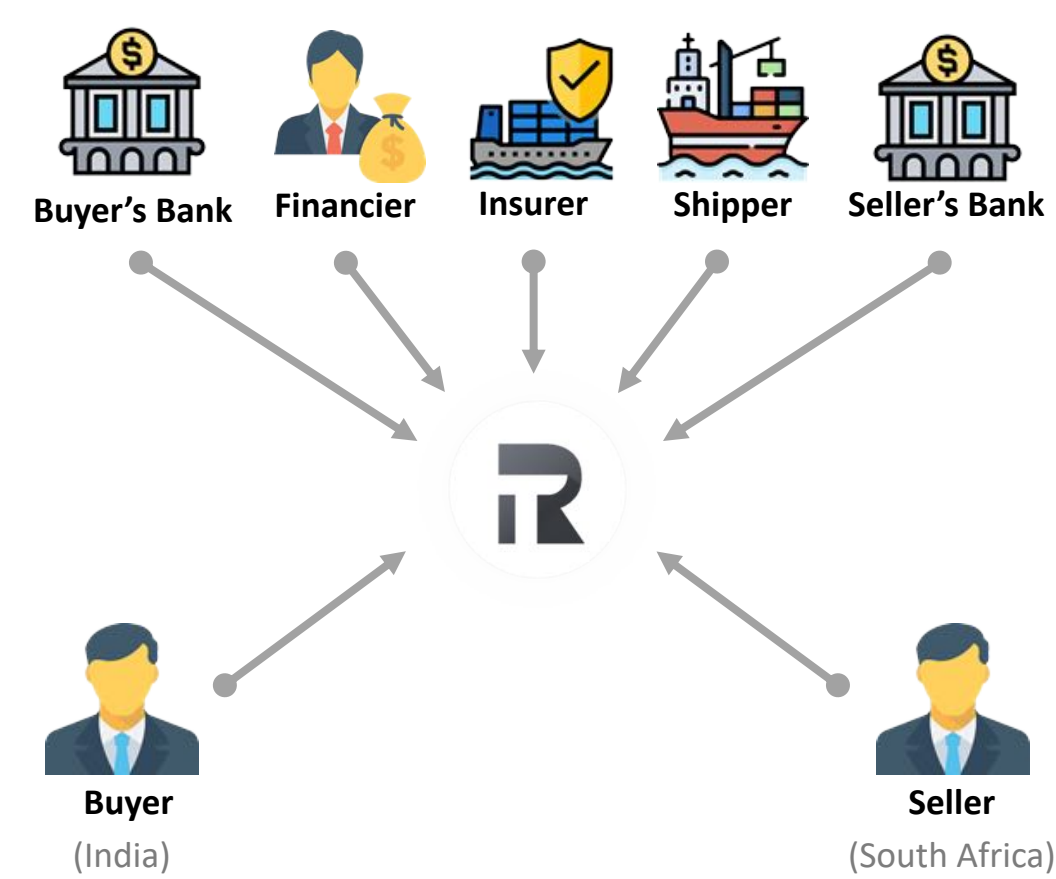
TRADEREBOOT TECHNOLOGY OVERVIEW

A collaborative and trustless platform for Trade Finance powered by Blockchain and Smart Contracts



TRADEREBOOT CASE STUDY

A collaborative and trustless platform for Trade Finance powered by Blockchain and Smart Contracts

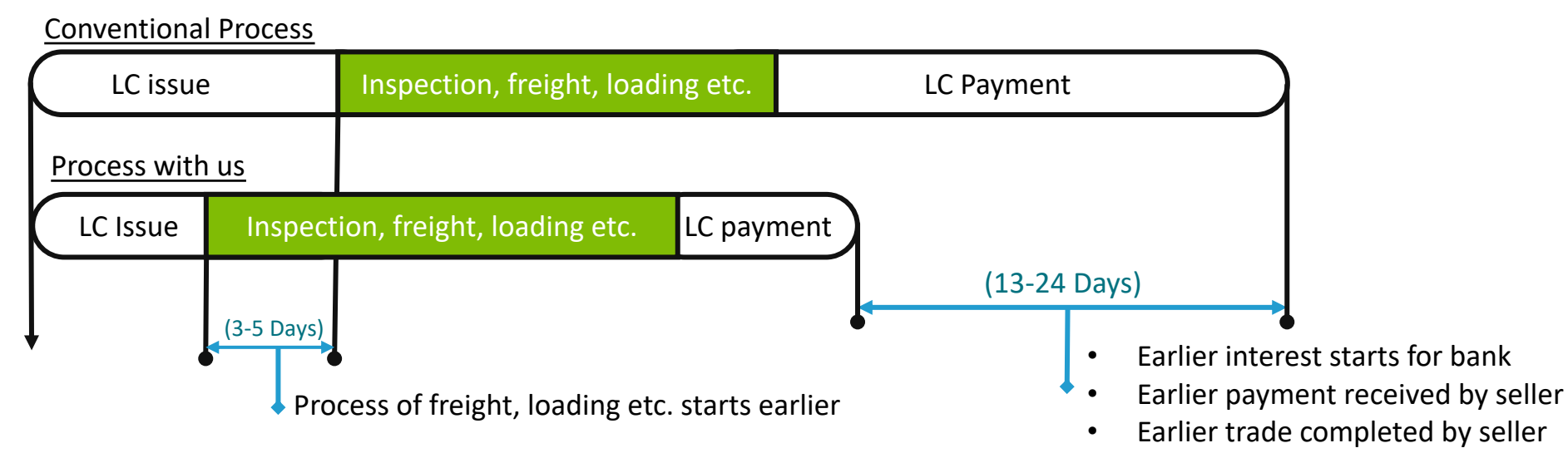


Commodity Bought	Coal Grade 6000 Kcal, USD 3 Millions
Payment Method	Sight LC
Type	FOB (free on Board)

Process	Earlier	Now
Application for LC Issue	3-5 days	0 day
LC Issue by bank	1-2 days	1-2 days
Time Saved LC Issue	3-5 days	
Freight, Inspection, Loading		
Issue BL	1-2 days	0 day
Sending documents to seller's bank	1-2 days	0 day
Seller's Bank check documents	2-3 days	0 day
Seller's Bank send Documents to issuing bank	5-10 days	0 day
Issuing Bank Check Documents	2-3 days	1 day
Payment	1-2 days	1-2 days
Time Saved LC Acceptance	10-19 days	

TRADEREBOOT CASE STUDY

A collaborative and trustless platform for Trade Finance powered by Blockchain and Smart Contracts



Bank	Seller	Buyer
3-5 days saved in LC Issuance	3-5 days saved in LC issue, means process by seller can be started earlier, ergo trade can be completed earlier	3-5 days saved in LC issue, means process can be start earlier and goods will be received earlier by 3-5 days
10-19 days saved in LC Acceptance, combined with time saved during issuing, a total of 13-24 days extra interest or earlier payback	10-19 days saved in LC payment, so payment will be received earlier after sending goods	10-19 days saved in LC payment, so credit line can be freed early
The whole process saves 13-24 days on a single transaction by buyer, thus same credit limit can be used a greater number of time	The combined process saves 13-24 days, considering IRR to be 1% pm a total of 0.4-0.8 % additional returns	The whole process save 13-24 days on a single trade, thus credit limit can be used a greater number of time

TRADEREBOOT CONTRACT DASHBOARD

A collaborative and trustless platform for Trade Finance powered by Blockchain and Smart Contracts

BANK

Dashboard

Cases

Finance

My Network

Notifications

New Contract Created #CT-20CIFU63LT7918 (Copy_DEMO DA II)

Bank Process Updated, Document Verification Pending

Bank Process Updated, Importer's Bank agreed with Cover Letter

Bank Process Updated, Document Verification

Cases

Total 11 Cases

New

In-progress

Completed

Search Contract Name

From dd-mm-y To dd-mm

Reset

Contract Name	Buyer/Importer	Seller/Exporter	Commodity	Quantity	Price	Created on	Category	LC/Check No	Status
DEMO DA II	Summer Soldier T...	Kim Wiley Seller	Coal	123 mt	\$123	08/09/20...	Buyer Ba...	N/A	NEW
CT-20CIFPNG1WM9795									
<div>Cases DetailsContract DocumentsCases Logs</div>									
Copy_DEMO DA II	Summer Soldier T...	Kim Wiley Seller	Coal	123 mt	\$123	08/09/20...	Buyer Ba...	N/A	Comp
Trial AI 2	Dhiraj Trader	Shrikant Seller	Coal	5000 mt	\$65	03/09/20...	Buyer Ba...	N/A	NEW
new test BC Check	Summer Soldier T...	Kim Wiley Seller	Coal	330 mt	\$12396	01/09/20...	Buyer Ba...	N/A	NEW
MY DADP TEST	Summer Soldier T...	Kim Wiley Seller	Coal	330 mt	\$12396	03/09/20...	Buyer Ba...	N/A	Comp
dpddp test BC C...	Summer Soldier T...	Kim Wiley Seller	Coal	330 mt	\$12396	01/09/20...	Buyer Ba...	N/A	Comp
Trial AI 5	Dhiraj Trader	Shrikant Seller	Coal	2000 mt	\$65	02/09/20...	Buyer Ba...	N/A	Verify
31aug_test31	Dhiraj Trader	Shrikant Seller	Coal	10000 mt	\$123	01/09/20...	Buyer Ba...	N/A	NEW
31Aug	Summer Soldier T...	Shrikant Seller	Coal	10000 mt	\$1234	01/09/20...	Buyer Ba...	N/A	NEW

Case Details

Hi Test bank 1

Contract #CT-20FOBC3NN1W7211 : Bank Process

07/08/2020

Contract Documents

Summary

Bank Process

Blockchain Audit

Test bank 1

38 East First Drive, Ullamco sunt laborum, Harum quidem laboris, Debitis optio paria, Nisi ut proident pr, PIN-7274123. Landmark - Assumenda magni unde

7412369852147

Importer Bank Account No

Test bank 2

17 North New Boulevard, Nam volutatum moles, Sapiente doloremque , Nostrum corrupti qu, Eius dolore aute as, PIN-6732343. Landmark - Totam vitae hic inci

11234567890

Exporter Bank Account No

1741225851458

4512

2020-08-14T23:23

07/08/2020,20:23

Transaction ID

Transaction Amount

Transaction Date/Time

LC Process Initiated at

07/08/2020,20:23

LC Process Updated at

Bank Process Current Status, LC Reimbursement Initated Process Done

View LC Draft

View SWIFT LC

Case Details

Hi Test bank 1

Contract #CT-20FOBC3NN1W7211 : Summary

07/08/2020

Contract Documents

Summary

Bank Process

Blockchain Audit

Importer

Summer Soldier Trading Comp

417114 , street-8, some office, some area, delhi, delhi, PIN-741741.

Exporter

Kim Wiley Seller

816 Oak Parkway, Cillum voluptate rep, Id tempor harum aut, Et explicabo Quasi , Cum sunt quidem arch, PIN-110094. Landmark - Proident tempore q

Investigation Agency

Guerrero and Dyer Co

978 Nobel Road, Quia quia harum fac, Aute eaque magna cup, Esse culpa ut mima, Dolorem Nam exercita, PIN-110053. Landmark - Eius aut impedit re

Ship Owner

Shippers Pvt. Ltd

A 78, Paytm road , Noida, Noida, UP, PIN-110067.

COAL

Commodity

15/08/2020

Laycan Start

01/10/2020

Laycan End

Case Details

Hi Test bank 1

Contract #CT-20FOBC3NN1W7211 : Blockchain Audit

07/08/2020

Contract Documents

Summary

Bank Process

Blockchain Audit

TXN_ID

2a78d86cb9e975b1b74f861bd0138e9cb053370bbccfa6025debc603046323a1

Asset_address

8e9d9ccae243bf805ceb39dbe5cb43cfbb7cf4bb6a37d19d0de28e8d08f4a19c

Timestamp

07/08/2020,12:21

Address

CONTRACT8e9d9ccae243bf805ceb39dbe5cb43cf2a78d86cb9e975b1b74f861bd0138e9c

User Address

1c8425a77ef57be1e493acfb456a7f032878f0ee60d85cfb84450c180a3885

Message

Contact Added

TXN_ID

3ee7337d173252db0c857909561ea95b8ebd18e0c2052ef03cd63f58af6d125f

Asset_address

8e9d9ccae243bf805ceb39dbe5cb43cfbb7cf4bb6a37d19d0de28e8d08f4a19c

Timestamp

07/08/2020,13:46

Address

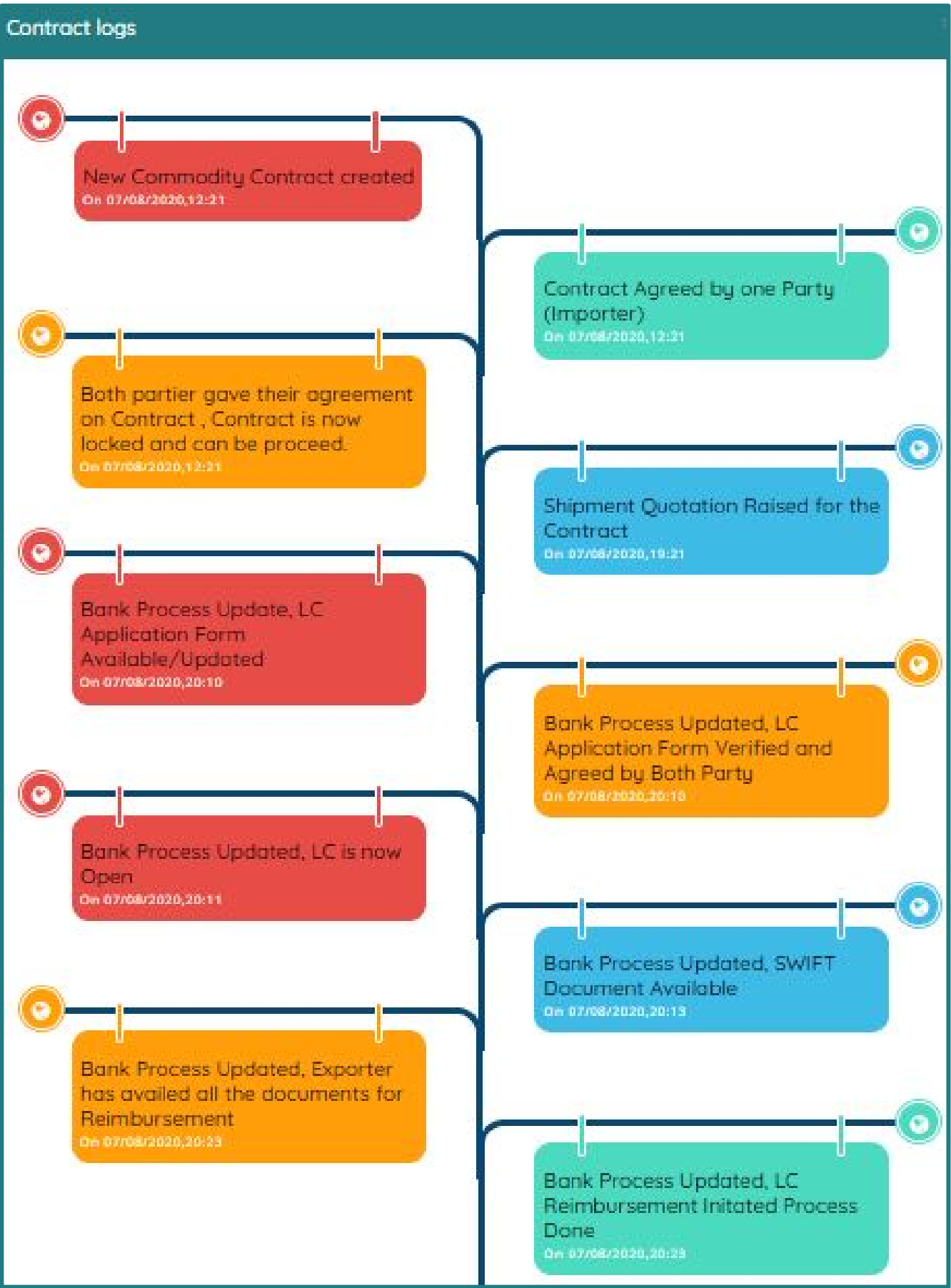
CONTRACT8e9d9ccae243bf805ceb39dbe5cb43cf3ee7337d173252db0c857909561ea95b

User Address

0f351db750eabe0046e51f7e71cb796bef5d44ee56ae1b143b05ddb9f1ec9a6

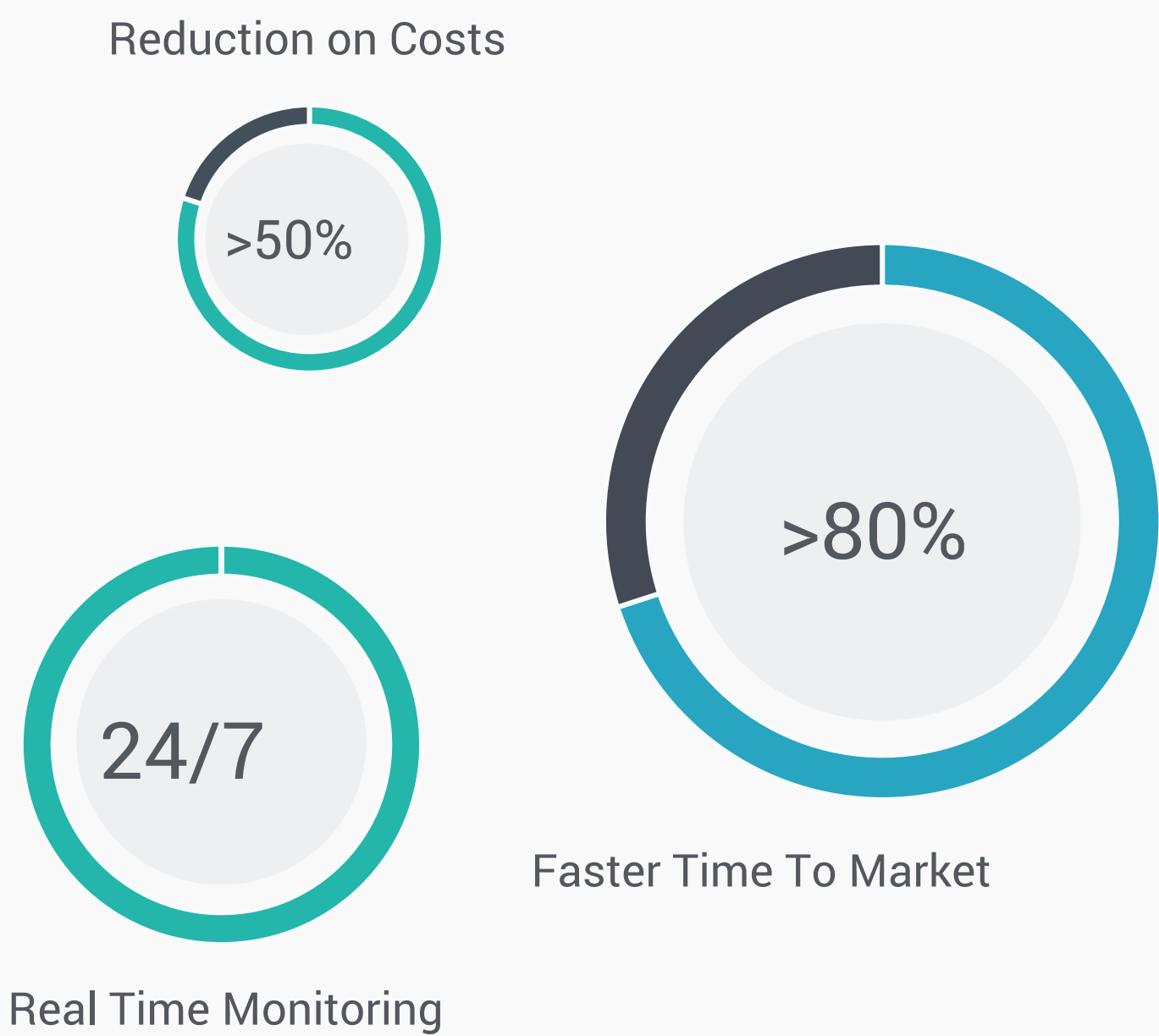
Message

Document Added Sellers signed commercial invoice



TRADEREBOOT **DEPLOYMENT**

A Scalable Deployment Architecture using Zeeve BaaS Platform



Thank You

Blockchain Platform For The Most Efficient
Trading Experience in Trade Finance domain

