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CARGO COIN

Revolutionising the global trade and transport by decentralisation

Whitepaper

IBM Global Entrepreneur

GLOBAL TRADE & TRANSPORT – REVOLUTION BY DECENTRALISATION

Abstract

The CargoCoin platform links the physical world of trade and transport with the blockchain.

CargoCoin's foundation is based on two main pillars – the first pillar being the online platform allowing for various parties to connect and exchange information on cargoes, their transport needs, as well as supplemental services. The second pillar are the smart contracts: those can be used as just an electronic mean of recording the whole process through the CargoCoin token smart contract - from the offer to the delivery, or could additionally be used to facilitate the actual service and cargo payment, being it a direct payment, escrow payment or escrow payment with partial funds release at various stages. CargoCoin tokens are intended to be used a payment method for the services provided by the platform, as well as payment to 3rd party service providers on the platform.

It is designed to attract a wide user base from a multi-billion dollars B2B marketplace by introducing and implementing subscription free services. The CargoCoin platform users' interaction in the services sections naturally delivers demand for the platform's smart utilities. These smart utilities are facilitated through CargoCoin tokens. The aim of the platform is to bring maximum demand for CargoCoin tokens. Through demand for the tokens the CargoCoin ICO supporters receive added value.

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1. Summary

CargoCoin is designed to be a smart contract, crypto currency platform, decentralising global trade and transport. The platform target is to facilitate and optimise the interaction amongst traders, freight forwarders, shipping lines, booking agents as well as all other parties involved in the international trade and transport of commodities and cargoes. The platform users experience outlines well-balanced ecosystem based on cutting edge crypto security and frictionless interaction.

CargoCoin objective is to provide a global marketplace environment and utilities for facilitation of trade, transport, exchange of documents and payment options at low cost in real time. The platform architecture is based on the principles of high level of security, transparency, traceability and accountability. It is set up in a way that the participants can take advantage of any part of it alone, or in combination with other sections. It can be used as a very simple platform or as a complex smart contract utility with various payment options. The link between physical trade and transport with online crypto technologies delivers the opportunity for implementation of a large scale project and allows for further expansion.

CargoCoin platform options provide infinite possibilities for added value to the users and the participants. All utilities on the platform operate with CargoCoins. The ultimate aim is boosting demand and facilitating the usage of the tokens**. CargoCoin** Team interest is set in line with the interest of the ICO supporters!

1.1. What is CargoCoin?

The full scale scope of the project extends to all trade and transport areas i.e. the shipping industry (containers, bulk, break bulk, liquid bulk), inland transportation (trucks, railways), air cargo (transportation by planes, drones, etc.), other types of "new age" transport such as pipeline transport, space cargo, intercity and outer city shared rides. Dedicated platforms for the different types of transport will be interconnected, allowing for infinite functionality. The objective is the creation of synergy between the commodities & cargo traders with all transport means on a global scale. The integration of all participants and utilities delivers unique, FIRST of its kind **Ecosystem**.

CargoCoin is designed to utilise the platforms, both as a secure transfer and storage method by the means of smart contracts, as well as a payment unit for services, freight and cargoes. The **CargoCoin** concept fully unleashes the potential of block chain crypto currencies to act, not just as a means of payment and store of value, but also as an interactive way of sending, receiving, approving, rejecting and signing documents through the process.

CargoCoin is to be based on the newest ERC223 token standard. It has major improvements compared to the ERC20 token standard. The ERC 233 allows for more advanced, precise and universal handling of smart contracts, required for the project, while avoiding potential token traps. The issued tokens are designed to fully act as smart contracts programmed in *Solidity* and available as open source for everyone to review and inspect the code, thus serving all purposes of the project simultaneously.

The CargoCoin platform links the physical world of trade and transport to the blockchain.

1.2. The Problem

The size of the transport industry is tremendous – the global value of the seaborne trade itself is over $12 trillion (WTO statistics). The value of freight rates is USD 380 Billion is 2017 (UNCTAD). Although the shipping industry is one of the largest economic sectors it is the least technologically advanced one. Today paper documents are issued for all shipped cargoes, no matter of the transport means. All original documents are being sent by couriers, taking time and money. All cargoes and freights are being paid for in traditional ways – via bank wire transfers or letter of credit. Those are expensive, slow and non-confidential methods. Increasingly more often USD and EUR transactions are being blocked for weeks by US correspondent banks. Anyone in the industry has encountered that problem. Original documents delivery delays and money transfer delays cause unaccounted extra costs, opportunity cost & depreciation of assets, while disturbing a long supply chain. The **CargoCoin** blockchain technology delivers revolution of the trade & transport by fostering optimisation. It will eliminate a number of problems:

1. **Reducing Fraud** – **CargoCoin** minimises the risk of fraud and in many cases completely eliminates it, by not releasing any payments until the counter parties' pre-set conditions are met & publicly available proof of the payment has been made or secured in a smart escrow utility. Payments will be guaranteed by default. Fraudulent endorsement and duplication of ownership documents is ruled out.
2. **Lowering Costs** – **CargoCoin** will significantly reduce costs, compared to high percentages and other fine print fees that are charged through the whole process by banks, couriers, insurers, brokers, agents, lines, etc. Guaranteed payments will not incur any costs, as it is the case with Bank L/C at the moment.
3. **Minimising Delays** – **CargoCoin** avoids the delays by providing instant exchange, review and approval of documents and payments between the parties involved. Further delays are caused by different time zones, different public holidays, etc. The blockchain is always at work 24/7 and does not depend on human intervention. It is

estimated that payment delays alone cost around $19 billion per year (*UNCATD) in losses.

4. **Increasing Trust** – **CargoCoin** relies on the public infrastructure of the Ethereum blockchain, backed by thousands of people in a peer-to-peer decentralised infrastructure. Using a proven and trusted technology speaks for itself.
5. **Securing Information** – **CargoCoin** is naturally secured. It relies on the blockchain's proven hashing algorithm technology. There is no possibility of sensitive commercial information leakage by intermediaries, such as banks, brokers, agents, etc. While it is fully confidential it also allows for full publicity of the transactions details that are to be visible by all parties and the public.
6. **Safe Archiving** – **CargoCoin**, not just allows but fully relies for full historic storage of all transactions ever conducted, thus avoiding risks of physical loss or destruction of paper documents, while at the same time allowing for easy searching and reviewing past information stored in the cloud.

Flexibility – **CargoCoin** is flexible and allows the parties involved to easily select the terms that they choose to interact with. Options for standard or custom negotiated terms, conditions and forms will boost the user experience. Elimination of language barriers will further facilitate the eco-system participants.

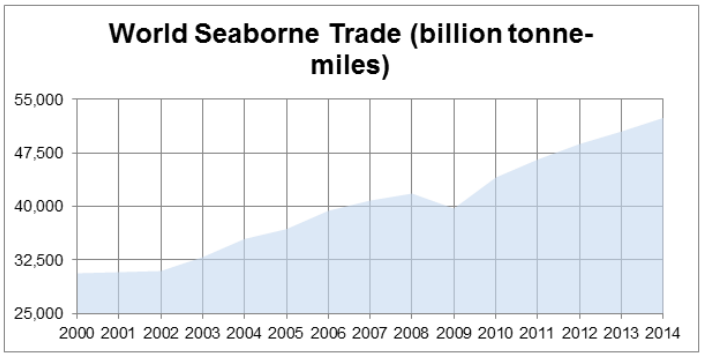
1.3. Development of CargoCoin

CargoCoin development has been set in the following stages:

1. **Shipping platform** – development of the global shipping platform, utilising Smart Contracts (Smart Bill of Lading, Smart Letter of Credit, etc.), referred to as the platform in this whitepaper. The platform connects importers, exporters, freight forwarders, booking agents, ship brokers, ship owners, etc. into a single unified marketplace.
2. **Inland platform** – development of the global inland transport platform, utilising Smart Contracts. The inland platform will cover all ground based transport, such as trucks, railroad, pipes, etc.
3. **Cargo all-purpose platform** – development of a marketplace, utilising Smart Contracts, allowing manufacturers to showcase their produce and connect them directly with customers, through an established link to the ship and inland transport platforms.
4. **Air cargo platform** – development of air cargo transport, utilising Smart Contracts, including cargo planes, cargo choppers and drones.

This whitepaper addresses Stage 1 – the Shipping Industry platform, which is the core part of the project.

2. Introduction to Trade & Transport on a Global scale



Source: UNCTAD Review of Maritime Transport, 2014

Transport is a key element of the international trade. Any physical commodity or good which is manufactured and traded is to be delivered. Transport enables trade between people, which has proved to be essential for the development of civilizations. The right mode of transport is fundamental to ensure efficient and cost-effective trade. The right partner, at the right time and right price is essential in order to achieve efficiency. There are four ways of transport – sea, road, rail and air. In most cases more than one type of transport is used. The shipping industry is the least technologically developed economic sector. This fact allows us to introduce the CargoCoin and penetrate the global marketplace at faster pace with relatively low competition.

Brief statistics of the financial aspects of the industry and the potential market.

- **10.3 BILLION tons in 2016 -** world seaborne trade;*UNCTAD (United Nations Conference on Trade and Development)
- **1.8 BILLION tons carried in containers;**
- **8.5 BILLION tons carried in bulk, break bulk, liquid;**
- **701 MILLION TEUs** were handled on ports worldwide in 2016; (*UNCTAD)
- **US $380 BILLION** in freight rates within the global economy, estimated by the (*UNCTAD) the operation of merchant ships to the global economy, equivalent to about 5% of total world trade;
- **1.9 BILLION TONS of DWT** – world merchant fleet *International Chamber of Shipping;
- **90% of the world trade:** The international shipping industry is responsible for the carriage of around 90% of world trade; *IMO (International Maritime Organisation)
- **50,000 merchant ships** trading internationally, transporting every kind of cargo; (*IMO)
- **USD 12 TRILLION** – Value of Seaborne trade, (heading towards the size of China's economy!); (*WTO estimate.)
- **1.2 MILLION** Seafarers from virtually every nationality;
- **Shipping is the most fuel efficient and carbon friendly** form of commercial transport; (*UNCTAD)
- **Steady long-term growth** of trade and transport on global scale; (*UNCTAD)

Taking into account the global statistics on trade and transport the CargoCoin platform objective is to penetrate interconnected multi-billion industries with smart contract crypto solutions, as a services and utilities provider.

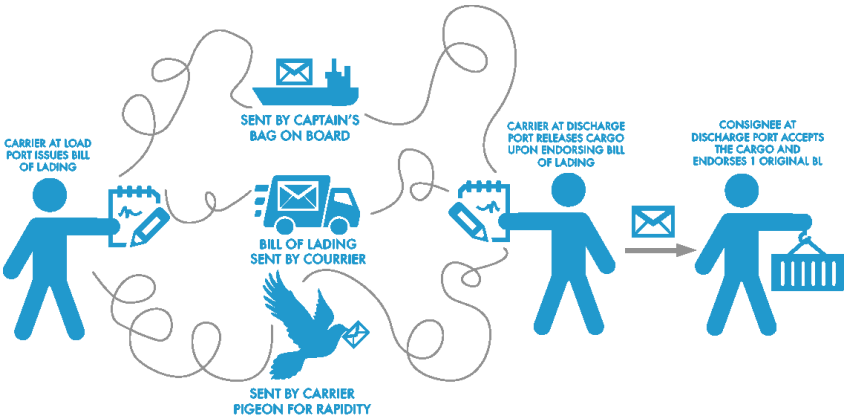
The Platform creates a strong link between the Physical world and the crypto universe.

3. The CargoCoin Ecosystem

3.1. Participants & Target Audience

The CargoCoin platform target extends globally to any trading company or individual, shipping line, freight forwarder, ship broker and other parties involved in the global trade and transport. The Platform has 2 cores i.e. **SERVICES & UTILITIES.** Maritime transport is the least technologically developed industry. This is the reason behind the decision to start off with this particular sector.

The **Services** are **FREE** (no monthly or annual fees) & they are designed to create a global marketplace for trade & transport. Wide user base is a prime objective. The platform **UTILITIES** make the use of CargoCoins and generate demand. The Demand for CargoCoin and appreciation of its value is the ultimate objective of the ICO. The interest of the Founders, the Team and the ICO Supporters are fully synchronized. Details on how the platform operates are reviewed in section 4.



Key ecosystem participants:

- Traders, Importers, exporters, charterers
- Private Individuals
- Freight Forwarders
- NVOCC (Non-vessel operated container carriers)
- Container lines
- Booking Agents
- Ship owners / ship managers / ship operators
- Ship brokers
- Ship agents
- Cargo/vessel/transport equipment Insurance companies & brokers
- Warehouses / storage facilities
- Customs Agents
- Independent cargo surveyors / superintendents / port captains
- Ship Chandlers, suppliers and service providers incl. provisions / technical / nautical
- Seafarers / crew
- State Authorities (last but not least, although admittedly it will take some time especially in the developing world countries)
- Ship classification societies, flag state administrations.

3.2. Potential market: Tens of Millions of users from all listed groups above

- All participants need to find the "right" service at the "right" price, time and place.
- All participants need instant transaction and secure interaction at low cost.
- All participants need secure & fast documents exchange.
- The main participants need additional services i.e. cargo surveyors, insurance broker, customs agent, ship agent, storage area etc.
- Global coverage
- Bank payments are slow - 2 to 3 banking days.
- SWIFT system was designed in 1973. Before the PC era, and decades before the Internet. It is increasingly unreliable and slow due to official US control over transactions.

- Banks work 9:00 to 5:00, weekdays only. There are Different time zones, different national holidays. Anyone in business is familiar with the problem.
- Bank payments are expensive. USD 1.6 trillion in annual cost* (World Trade Organization, Institute of International Finance, Federal Reserve)
- Confidentiality of document processing by 3rd parties is not guaranteed.
- Couriers are slow (2 – 4 days) & expensive.
- Original Documents do get lost along the way and in office piles.

In the shipping industry delays cost money, create additional expenses, and interrupt the entire supply chain. The opportunity cost of the equipment (ships, containers & port facilities) due to payment delays is estimated to be around USD 29 Billion per year. (*UNCATD)

The Shipping industry is the least technologically developed industry. It is "Old fashioned". The CargoCoin smart platform fully facilitate global trade & transport interaction between all involved parties. The Platform **UTILITIES bring revolution** and makes **CargoCoin** one of a kind, unique Eco System, for global trade and transport.

3.3. How the platform operates – explained

CargoCoin smart platform **objective** is to create a global market place for trade & transport services supported by smart contracts & crypto payment methods.

In order to introduce the **SMART UTILITIES** (smart contracts & payment methods) that create and increase the value of the **CargoCoin** we take a reverse but entirely market oriented approach.

The Core is a Global marketplace platform (**SERVICES**) facilitating the supply and demand for transport of all cargo types, including other essential services that are vital for shipping and trading. The use of the free services naturally implements the platform's **SMART UTILITIES**. The Marketplace is designed to be **FREE** for all users.

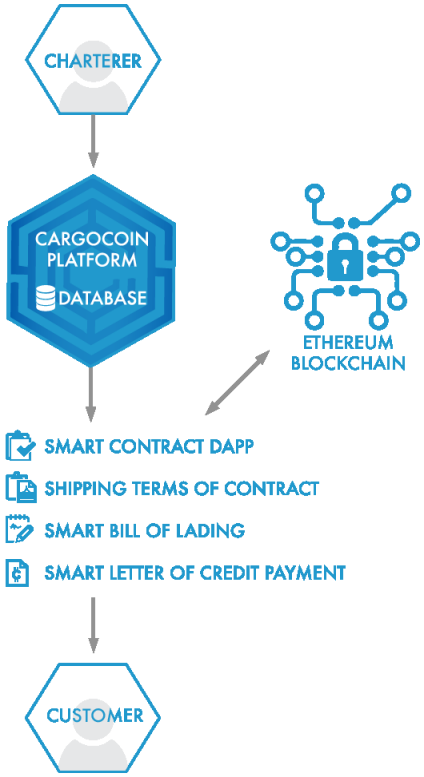
The CargoCoin objective is maximum number of users, participants and enhancement of their interaction.

Similar platforms that exist, cover only fragmented small areas of the CargoCoin services part. All of them are paid, up to USD 250 per month and biased. Those are created either to generate profit or to drag customers and information to its principal owner. (forwarding company or shipping line)

The market for trade & transport cargo platforms is non-saturated and has an easy entry. Becoming a market leader is a matter of offering free services in combination with the right marketing mix to promote and reach out potential users.

Currently no platform exists on the market that offers full smart contracts abilities and covers all types of transport. CargoCoin is set to create a circle that encapsulates all types of transport and cargoes into a single platform and then connect it to the traders of goods. This objective will be achieved by the two founding pillars of CargoCoin – the services platform & the smart contracts, utilising Blockchain technology of Ethereum.

We believe that the World economy is market driven by the "Invisible Hand". The "Big players" conform to this fact. In this way they become market takers. This is the reason behind our decision to approach the market from the "small" clients, but potentially tens of millions.



4. PLATFORM: SERVICES

4.1. The Shipping Industry: The underlying asset of the Ecosystem

It is designed with 6 main sections. Each section has its relevant sub-sections. This is the market place which facilitates the Ecosystem participants with added value for FREE.

The Sea Transport Platform is the foundation of the Eco System. It brings the users ON BOARD the CargoCoin vehicle and build up the grounds for services that create value to the ICO Supporters.

4.2. Containers. (FCL, LCL, OOG)

Platform users place their cargo order and receive offers and bid from forwarders, booking agents, NVOCCs, container lines, etc.

E.g. an importer needs a shipping quote in order to facilitate trade. They fill in simple form:

- From/to: Hamburg / Rio De Janeiro
- Cargo description: nature / weight / volume / size
- Dates of load readiness.
- Equipment, and pieces.
- Shipping & Trade terms (e.g. CIF, Liner Out)

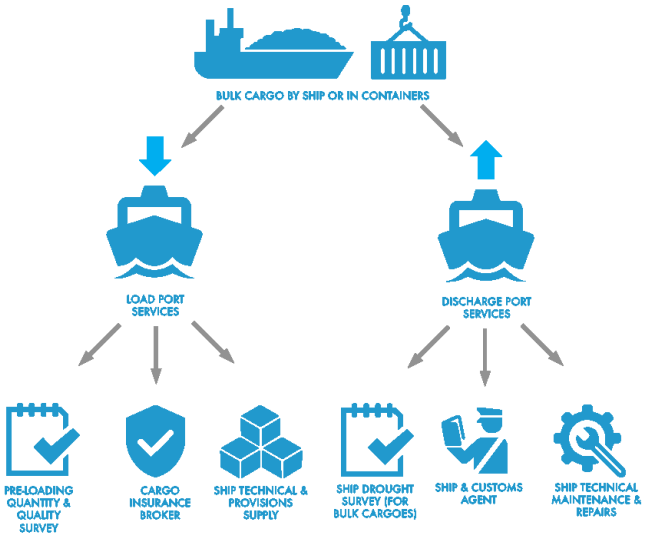
The order goes to subscribed participants, smartly selected, by region, by past destination coverage etc. NVOCC, Freight forwarders, Booking Agents, Container lines.

Offers are presented with details – freight cost, transit time, equipment availability etc. The importer proceeds to the chosen bid via the CargoCoin platform. Transparency is a priority. Full background and past performance of both parties are available. Communication via the smart platform is secure & instant.

Once transport terms and additional services are confirmed, the participants have options to facilitate the **Smart UTILITIES**. These include Smart B/L, Crypto Transactions (payments) and smart L/C escrow payments.

4.3. Dry Bulk/Break Bulk.

The general public is aware that a lot of goods are shipped by containers. The CargoCoin transport industry competitors cover mainly container trade. The UNCTAD 2016 statistics shows that 85% of the world sea born trade is shipped in vessels, non-containerized. CargoCoin platform covers this large, but niche market with almost NO competition. With experience of decades The CargoCoin Team knows exactly what online environment ship brokers, ship owners, charterers and traders would anticipate. The platform allows for a range of communication channels. It emphasizes on simple forms in order to keep it straight forward and save time. Detailed, optional fields-on-demand allow for in depth interaction, as the main terms negotiations develop.



This specific sector of the shipping industry involves a lot of large transactions. I.e. Freight payments, ship agent payments, surveyor payments. All those are time and cost sensitive. **The CargoCoin smart UTILITIES** fit smoothly and naturally into the environment.

Example of how it works. It works both ways:

Ship broker, ship owner, booking agent inputs a vessel position in the platform: (simple form)

- Vessel description / type / size etc.
- Vessel open position dates or vessel liner schedule
- Trader/Charterers can find the vessel by simple search: Type/Size/open dates

OR

Charterers, Ship broker, forwarder or booking agent list a cargo order.

- Load port / Discharge port
- Cargo nature, description,
- Requirements / details
- Shipping terms – i.e. FLT, FIOS l/s/d

Marketplace is created quickly & smoothly. It brings benefits to all participants at no cost.

4.4. Liquid Bulk (tankers, chemical carriers, LNG, LPG)

The capabilities of this section are identical to those in the previous section 4.1.2. The difference is that it is specially designed for Liquid Bulk cargoes shipped by Tankers, Chemical Carriers, LNG & LPG. Their specifics are reflected especially into a separate section.

4.5. Liner Services

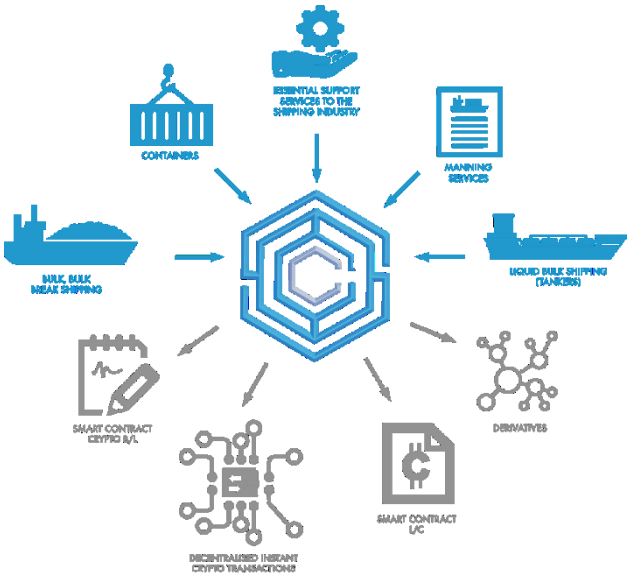
Liner shipping is the service of transporting goods by means of high-capacity, ocean-going ships that transit regular routes on fixed schedules. There are approximately 400 liner services in operation today, most providing weekly departures from all the ports that each service calls. Liner vessels are primarily muti-purpose and roll-on/roll-off ships.

Liner shipping connects countries, markets, businesses and people, allowing them to buy and sell goods on a scale not previously possible. The break bulk and RO-RO liner services allow customers that have limited cargo quantity per shipment to deliver at competitive price.

The liner services platform is designed to allow the booking agents to input the liner schedules and dates. The importers and exporters can search, compare and book suitable service for their parcels.

4.6. Essential Services to the trade & transport.

The international trade and transport demand a number of services. Some of them are vital for the verification of cargo quantity & quality, facilitating the physical trade process, while others are required by the carriers, facilitating the physical transport process. All of those are part of the CargoCoin natural Eco System. The service providers are specialized companies i.e. Cargo surveyor, insurance brokers, customs agents, ship agents, ship chandlers, technical suppliers, nautical suppliers. The transport industry requires additional services, performed by independent parties, in order to be feasible and smooth.



The CargoCoin features incorporated in sections 1 to 3 allow for the utilization of different service providers worldwide, as illustrated on the diagram. Most of the essential services are ordered on short notice and require prompt payments by the ordering party. Additional expenses arise in connection with the process.

The transport industry is an ever changing and unpredictable environment that often requires quick reaction. Complicated situations arise 24/7. Participants are proactive due to

An example would be when trader or carrier may urgently need a pre-loading cargo surveyor at Lagos, Nigeria during the weekend. It takes a click of a mouse to get a list of qualified, certified and approved surveyors with feedback on their performance. Payment can be arranged instantly via CargoCoin platform.
This is just an example of how registered CargoCoin users such as Cargo surveyors, Cargo Supervisors/Superintendents, Ship chandlers, Port Captains, technical suppliers, stevedoring companies and many others transport and trade related parties can interact in "The Essential services" section.

4.7. Manning services (seafarers / crew for ships).

Manning is a worldwide industry. There are millions of seafarers virtually from every country working on all kind of vessels with different skills, experience and qualification, ranging from yachts to super tankers and oil rig platforms.

The service allows them to promote their CVs, contact shipping lines or manning companies and maintain their attestations and references transparent and safe for future employment contracts. The crew management of a vessel is a complicated process due to strict international regulations in combination with human factor risk.

Transaction cost is a significant amount of seafarers' salaries. It is so due to the international nature of the business. Payments by CargoCoin decrease the cost and arrival without delay.

5. CargoCoin: Smart Utilities

The CargoCoin Smart utilities are designed to generate value to the ICO Supporters.

5.1. Traditional Bill of Lading (B/L) – explained.

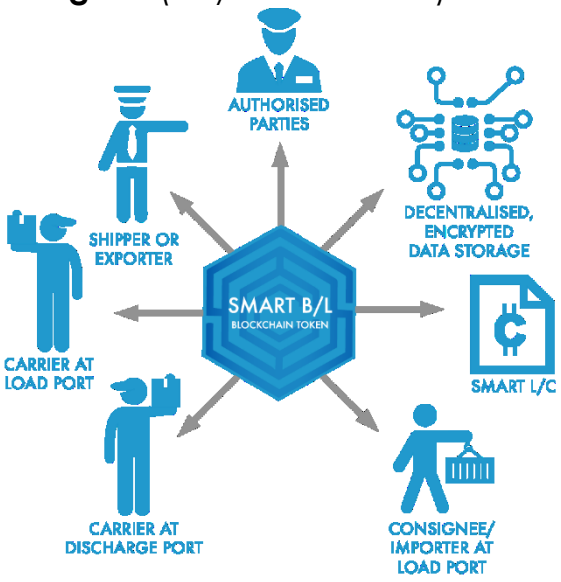
The B/L is the key document for the international trade. It is issued by the carrier or its agents for every shipment of goods. The 3 main functions of a B/L are:

- Document of Title. It shows the cargo owner. (The Consignee)
- Contract of Carriage.
- Document of receipt, certifying that the carrier has received the goods from the shipper.

Bill of Lading is a standard form document, transferrable by endorsement. Cargo ownership can be changed while in transit. The evidence of ownership change is a simple handwritten endorsement on a paper B/L document by the Consignee (receiver).

The 3 main parties involved in the B/L are Shipper, Carriers (or its agent) and Consignee. In our illustrative, simplified model they have following functions

- **The Shipper** (seller or exporter) send the cargo by ship or by containers.
- **The Carrier** (shipping line, container line, NVOCC,) receives the cargo for transport and take responsibility for the quantity & quality.
- **The Consignee** (buyer or receiver).



The diagram reviews how the system has been operating for centuries, including the courier part! B/L used to be sent from Europe to India and Vice – Versa by post to the Consignees, so Captains can release the cargo to the real receiver!

Original Bills of Lading are still being issued on paper in the Old-Fashioned way. There a number of disadvantages that can be improved with the introduction of block chain smart B/L.

5.1.1 Disadvantages of traditional B/L

Insecure. The B/L is not delivered in a secure way:

- Sensitive and confidential commercial information may flow out as too many individuals physically hold it along the way.
- Original B/L may be lost by the courier, in the office paper piles or between departments.

Slow. **It takes too long to be delivered:**

- International courier delivery may take up to 3-5 days.
- In cases when Original B/L is deposited in a Bank as per Letter of Credit Terms it has very little chances to be delivered before ship's arrival at destination.
- In many case of short sea trade vessels or containers arrive before the physical B/L.
- Slow delivery of B/L causes delays to the entire supply chain.

Cost. Expensive to issue & deliver

- International couriers cost USD 50 to USD 75. Trading companies send out thousands of Bills of Lading per annum.
- Contribution to global warming and office stationary cost is substantial. As per the practice for each B/L set 3 Originals and 7 copies are printed and issued on paper. Drafts for approval are printed beforehand by shippers, carriers, receivers and consignees.

There is no statistics on global scale how much B/L courier delivery cost, what is the amount of stationary used, and the amount of carbon foot prints created by the physical delivery. Considering that the international trade and transport is a multi-Billion industry the statistics figures would have been in billions of USD and millions of tons of Carbon Dioxide.

5.2. Smart contract – sB/L – Evolutionary Solution.

Smart B/L is incorporated to the CargoCoin Ecosystem as a smart contract utility. It is a 100% substitute to the "traditional" B/L.

The CargoCoin Smart contract, block chain based, crypto B/L ensures a number of advantages:

- **Secure and instant access.** All parties, with the relevel access level, at each stage of the shipment gain access.
- **Instant release**. Release terms, pre-set in the smart contract, allow for instant release between seller & buyer.
- **Instant and secure block chain delivery**.
- **Confidentiality.** Block chain technology increases the security in terms of **Industrial espionage**. Only authorised personnel gains access to the B/L.
- **Instant Endorsement** certifying Cargo Receipt or Ownership change or Destination change. It allows for infinite flexibility between the authorized parties.
- **Secure Endorsement** - **ONLY** the party that is in legal possession of the B/L as per the pre-set smart contract terms can perform endorsement.
- **Eliminates fraud.** It becomes impossible a 2nd set B/L to be issued or endorsed by non-authorized party.
- **Quick and secure draft approval** by all concerned and authorized parties.
- **Cheaper to issue.** Cuts cost. Average issuance tax is USD 50
- **Cheaper to send.** No international courier expenses USD 75
- **Cannot be physically lost** by courier or in the office paper piles.

5.2.1. How Smart Contract sB/L works:

The B/L is a key document in the international trade and transport. Since the platform participants already use the free services described in 4.1 it is natural to move on to the CargoCoin SMART UTILITIES. Smart B/L provides a number of advantages to the Eco System participant – i.e. saves time & money, brings security and confidentiality.

Most importantly the Smart B/L Utility boosts the demand for CargoCoin ICO Supporters, which is a primary objective of the Team and the CargoCoin ICO Supporters.

5.2.2. CargoCoin Smart B/L - explained

1. **The Shipper** sends B/L instructions to the carrier via CargoCoin blockchain, smart contract.
2. **The Consignee & the Carrier** review and confirm the draft Smart B/L on CargoCoin platform. Parties verify that terms in the smart contract B/L are as per the trade and transport contracts. Identical Information is instantly available to all 3 parties via CargoCoin platform. No one can make changes without consent and confirmation from the others. **The terms and conditions are set** and confirmed at this stage.
3. **The Carrier or Its agent at the load port** (for ships), or at the load address/port (for containers) **issues Smart B/L**, based on the shipper's instructions and on the Consignee confirmation of details. Change of details is not possible, without authorization from all 3 parties.
4. **The Consignee / Importer becomes cargo owner** once the B/L is issued and released by the carrier. The Crypto B/L is instantly in the Consignee's position.
   At this stage The Consignee has options how to manage and execute the Crypto B/L. It can be endorsed to another consignee/receiver if cargo is sold while in transit.
5. **The Shipper / Exporter** in the meantime has options to present Crypto B/L to Banks, Underwriters or other institutions, authorized in the pre-set conditions of the smart contract.
6. **The Carrier releases the cargo** at the discharge port/destination to the Consignee/Importer against Crypto verification of the **Smart B/L**

At all times the Smart B/L is in the block chain, secure and instantly accessible by all authorised parties, at any given stage, as per the pre-set smart contract conditions. The CargoCoin Smart B/L is an asset which the Ecosystem participants can use to utilize Smart L/C and Crypto Transactions.

5.3. Decentralised Blockchain Payments

The CargoCoin Ecosystem, its services and the Smart B/L utility provides sound foundations for decentralized instant crypto transactions by CargoCoin tokens. The Smart B/L security is an element that actively promotes further the Platform Crypto transactions.

The interaction between the platform users delivers strong demand for instant, secure payments at global scale facilitated by CargoCoin tokens. The trade and transport industry urgently require new, secure and instant payments. USD and EUR international transactions become increasingly slow, funds are often stopped by US intermediary bank. Transactions are expensive.

CargoCoin crypto payments can be used to utilise trade:
- Freight Payments
- Cargo value payments between traders, importers, exporters
- Services payments – i.e.: Insurance, surveyors, ship suppliers provisions/technical, brokers, ship agents, stevedores, crew salaries

5.3.1. Traditional L/C (Letter of Credit)

A **letter of credit** (**L/C**), also known as a **Documentary Credit**, is a commitment by an independent intermediary (usually a Bank) on behalf of a buyer that payment will be made to a seller provided that pre-set terms and conditions have been met.

Estimated 15% (USD 1.8 TRILLION) of the world trade volume is facilitated through L/C in 2015. (*BNP Pariba research). The statistics shows a potentially very big market for the CargoCoin token implementation.

A letter of credit is an important payment method in international trade. It is particularly useful where the buyer and seller may not know each other personally and are separated by distance, differing laws in each country and different trading customs. A letter of credit is generally regarded to provide a good balance of security between the buyer and the seller.

In a letter of credit transaction, the goods are consigned to the order of the issuing bank, meaning that the bank will not release control until the buyer has either paid or undertaken to pay the bank for their guarantee. In a smart contract L/C the bank is no longer required. The payment conditions and money release to the seller are pre-set in the smart block chain contract. The payment itself is guaranteed by the smart contract solidity code.

The standard L/C disadvantages that might be overcome by a smart contract L/C.
- **Fraud Risk.** The payment may be released for non-existent or worthless merchandise against presentation by the beneficiary of forged or falsified documents.
- **Regulatory Risks**. Performance of the L/C may be prevented by government action outside the control of the parties.
- **Failure of bank** issuing bank / collecting bank
- **Insolvency** of the applicant
- **Failure** of, or delays in payment from, the issuing bank

- **Expensive.** Banks charge taxes and high percentage fee of the total amount.
- **Non-Confidential**. A large number of individuals and institutions have access to sensitive trade information.

5.3.2. Smart Contract sL/C (Smart Letter of Credit) and Escrow

Complex Solutions, transformed into simplified and cost efficient smart contracts, accessible to everyone.

The CargoCoin platform is designed to provide complete solutions for the shipping and trading industries. The Eco System participants receive at their disposal the revolutionary **smart contract sL/C (smart Letter of Credit).** The Smart L/C is designed and optimized to perform in conjunction with the Smart B/L. This combination allows for secure and guaranteed transactions between the participants. The involved parties rely upon the security of smart contract crypto L/C (instead of a bank) and the crypto block chain system to ensure that payment is executed as per the pre-set terms and conditions. Smart L/C protects both sides – seller and buyer.

Smart L/C in conjunction with the Smart B/L is design by default to overcome most of the standard L/C disadvantages.

- **Eliminates Fraud risk** of falsifying documents or non-existent merchandise. With the introduction and implementation of the Smart B/L these ticks are already confirmed by exporter, carrier and other independent parties in the smart B/L contract - i.e. independent cargo surveyor.
- **Eliminates Bank failure or delay risk**. The block chain by default cannot bankrupt and payment cannot be controlled, provided that pre-set smart contract conditions are met.
- **Eliminates Insolvency risk.** Once the smart L/C contract is set and confirmed payment is guaranteed, provided that the pre-set conditions are met.
- **Cost saving.** Banks charge high taxes and percentage fees. Smart L/C cost is a fraction of bank charges.
- **Quick to set it up.** Counterparties agree terms on the CargoCoin platform and confirm them. (Time saving). The platform allows for pre-set simple terms, expandable to infinity according to participants requirements.
- **Instant funds release and receipt.** Upon meeting the pre-set conditions funds are released instantaneously and are available on the consignee disposal.
- **Confidential.** Smart L/C is based on Block Chain Crypto security. Only authorized personnel from the both parties have access to the complete trade terms and conditions. Access to large number of bank employees and other 3rd parties is eliminated. Smart L/C decreases the risk of Commercial Espionage.
- **Simple** pre-set smart L/C forms
- **Flexibility -** Infinite customisation options.

Considering the official global trade & transport statistics presented in section 2 the potential CargoCoin transaction volume is worth Billions of USD. The demand for CargoCoin utilities drives up the token demand, hence its value. This is the objective of the CargoCoin team and The ICO Supporters.

5.3.3. Blockchain implementation of the Smart Contracts

The CargoCoin Smart Contracts are based on the Ethereum blockchain and Solidity code and they represent DApp (pronounced Dee App). Solidity code is based on the ERC223 standard. The CargoCoin DApp is composed of two main layers:

1. Front-end application server and database storage
2. Solidity code, part of the Ethereum blockchain

The front-end or the CargoCoin platform initiates a Smart Contract creation in the blockchain, setting source and destination addresses. At the creation of the Smart Contract function **transfer(_to, _value)** is called to initiate the contract. The token talkback function is then called – **tokenFallback(_from, _value, _data)**, which checks connects to CargoCoin and checks if the Smart Contract negotiated terms and checks are complete. The initiator and the receiver communicate through the platform regarding their shipment and negotiated terms. Once a term is met it is checked off in the platform. When all checks are complete the tokenFallback function is fully executed and complete the transfer of tokens to the destination address. If a dispute over the process arises, then the tokenFallback does not complete the transaction until the issues are resolved. The transaction could not be completed and it is reversed.

ERC223 allows for a single call atomic function process, which makes it cheaper and faster than ERC20 and due to the nature of the process using tokenFallback allows for easy cancellation of disputed transactions, rather than calling a new transfer function with 0 balance to cancel out a disputed transaction.

We chose to use ERC223 to overcome ERC20 problems arising from lost tokens, due to misuse when sending tokens to wallets, rather than contracts and because of its lower energy and Ethereum gas costs associated. So far the usage of ERC20 is known to have resulted in a loss of over $400,000 in various tokens, being transferred the wrong way. ERC223 is a new standard that simplifies the process of token transfers and quite importantly reduces the gas used for each transaction, as there are less function calls. Additionally, ERC223 eliminates possible misuse of tokens and disallows sending of non-supported tokens to contracts, i.e. a sender cannot send non-CargoCoin tokens in an attempt to trick the system or by mistake.

As it is proposed ERC223 is the future of Smart Contracts and therefore we decided to skip and overcome the ERC20 problems and head on to the future of Smart Contracts, while taking advantage of the flexibility and added security in the ERC223 standard.

Following is the Solidity code for the smart contracts:

```
pragma solidity ^0.4.20;

library SafeMath {
  function mul(uint a, uint b) internal pure returns (uint) {
    if (a == 0) {
      return 0;
    }
    uint c = a * b;
    assert(c / a == b);
    return c;
  }
```

```
  function div(uint a, uint b) internal pure returns (uint) {
    uint c = a / b;
    return c;
  }

  function sub(uint a, uint b) internal pure returns (uint) {
    assert(b <= a);
    return a - b;
  }

  function add(uint a, uint b) internal pure returns (uint) {
    uint c = a + b;
    assert(c >= a);
    return c;
  }
}

interface ERC20 {
  function balanceOf(address who) public view returns (uint);
  function transfer(address to, uint value) public returns (bool);
  function allowance(address owner, address spender) public view returns (uint);
  function transferFrom(address from, address to, uint value) public returns (bool);
  function approve(address spender, uint value) public returns (bool);
  event Transfer(address indexed from, address indexed to, uint value);
  event Approval(address indexed owner, address indexed spender, uint value);
}

interface ERC223 {
  function transfer(address to, uint value, bytes data) public;
  event Transfer(address indexed from, address indexed to, uint value, bytes indexed
data);
}

contract ERC223ReceivingContract {
  function tokenFallback(address _from, uint _value, bytes _data) public;
}

contract StandardToken is ERC20, ERC223 {
  using SafeMath for uint;

  string public name;
  string public symbol;
  uint8 public decimals;
  uint public totalSupply;

  mapping (address => uint) balances;
  mapping (address => mapping (address => uint)) allowed;

  function StandardToken(string _name, string _symbol, uint8 _decimals, uint
_totalSupply, address _admin) public {
    name = _name;
    symbol = _symbol;
    decimals = _decimals;
    totalSupply = _totalSupply * 10 ** uint(_decimals);
    balances[_admin] = totalSupply;
  }

//TODO : implement a token fallback here

  function () { //revert any ether sent to this contract
    revert();
  }

  function balanceOf(address _owner) public view returns (uint balance) {
    return balances[_owner];
```

```
  }

  function transfer(address _to, uint _value) public returns (bool) {
    require(_to != address(0));
    require(_value <= balances[msg.sender]);
    balances[msg.sender] = SafeMath.sub(balances[msg.sender], _value);
    balances[_to] = SafeMath.add(balances[_to], _value);
    Transfer(msg.sender, _to, _value);
    return true;
  }

  function transferFrom(address _from, address _to, uint _value) public returns
(bool) {
    require(_to != address(0));
    require(_value <= balances[_from]);
    require(_value <= allowed[_from][msg.sender]);

    balances[_from] = SafeMath.sub(balances[_from], _value);
    balances[_to] = SafeMath.add(balances[_to], _value);
    allowed[_from][msg.sender] = SafeMath.sub(allowed[_from][msg.sender], _value);
    Transfer(_from, _to, _value);
    return true;
  }

  function approve(address _spender, uint _value) public returns (bool) {
    allowed[msg.sender][_spender] = _value;
    Approval(msg.sender, _spender, _value);
    return true;
  }

  function allowance(address _owner, address _spender) public view returns (uint) {
    return allowed[_owner][_spender];
  }

  function increaseApproval(address _spender, uint _addedValue) public returns (bool)
{
    allowed[msg.sender][_spender] = SafeMath.add(allowed[msg.sender][_spender],
_addedValue);
    Approval(msg.sender, _spender, allowed[msg.sender][_spender]);
    return true;
  }

  function decreaseApproval(address _spender, uint _subtractedValue) public returns
(bool) {
    uint oldValue = allowed[msg.sender][_spender];
    if (_subtractedValue > oldValue) {
      allowed[msg.sender][_spender] = 0;
    } else {
      allowed[msg.sender][_spender] = SafeMath.sub(oldValue, _subtractedValue);
    }
    Approval(msg.sender, _spender, allowed[msg.sender][_spender]);
    return true;
  }

  function transfer(address _to, uint _value, bytes _data) public {
    require(_value > 0 );
    if (isContract(_to)) {
      ERC223ReceivingContract receiver = ERC223ReceivingContract(_to);
      receiver.tokenFallback(msg.sender, _value, _data);
    }
    balances[msg.sender] = balances[msg.sender].sub(_value);
    balances[_to] = balances[_to].add(_value);
    Transfer(msg.sender, _to, _value, _data);
  }

  function isContract(address _addr) private returns (bool is_contract) {
```

```
    uint length;
    assembly {
      length:= extcodesize(_addr)
    }
    return (length>0);
  }
}
```

The smart contract code is an initial version and is subject to change without prior notice, until the final smart contract code is delivered. For up to date version of the smart contract code, please visit out Github repository at:
https://github.com/CargoCoinRepo/Cargo-Coin

6. Business Model & Financial Objectives – How the platform generates value to the ICO supporters

We have identified the vast added value that the CargoCoin ecosystem can achieve and generate. The platform links the physical trade and transport with the blockchain technologies. The objective is to create wide user base by introducing simple-to-use, but efficient, free online interaction services followed by incorporated smart contract Utilities. Smart contract utilities create demand for CargoCoin tokens. Demand for CargoCoin tokens is the ultimate objective.

The ECOSYSTEM participants receive benefits by using the free services and at the same time create the benefits to the CargoCoin ICO Supporters, i.e. synergy and chain reaction.

Demand for CargoCoin tokens.

1. Smart B/L is facilitated by CargoCoin tokens.
2. Decentralized crypto transactions drive up the demand for CargoCoin tokens.
3. Smart L/C and escrow services create demand for CargoCoin tokens.

Considering the statistics on trade and transport, the 3 points listed above can trigger unprecedented high demand for the CargoCoin tokens. At this stage there is NO competitor on the market that offers similar free services in combination with smart contract Utilities.

6.1. The Business Model

The CargoCoin platform links the physical world of trade and transport to the online crypto technologies.

The CargoCoin business model relies on rapid growth of user base. It is facilitated through the free services platforms. It is estimated that are at least 25 million active users worldwide involved in the trade and transport industries. These include importers, exporters, freight forwarders, ship brokers, charterers, shipping lines, NVOCCs, ship agents, ship owners, insurance agents, customs agents, private individuals and on. Presently there are few maritime transport platforms that are very limited in terms user base and geographical coverage. Some of them are expensive, others biased, owned by shipping lines with main purpose of controlling and collecting information for the enhancement of their own business. The CargoCoin platform is designed to be independent, secure and transparent, based on block chain technology. Presently there is NO competitor platform on the market that offers similar services in combination with smart contract Utilities.

By offering a FREE alternative platform with no monthly or annual fees, we aim to attract between 750,000 and 1,000,000 active users from the maritime transport community during the first 2 years. This is realistically achievable target to seize a 3% market share through active marketing campaign, while offering free and efficient services. The marketing will be conducted both off-line and on-line:

- **E-mail marketing.** We currently have in possession 250 000 e-mail addresses of active maritime industry participants. This is a part of the direct marketing campaigns.
- **Search engine marketing.** Mainly by Google adds for specific keywords. Hundreds of thousands of trading companies and individuals search for transport solutions globally. The CargoCoin platform provides solutions.
- **Social media advertising**. The main focus would be placed on LinkedIn advertising through niche targeting of members of relevant LinkedIn groups, pages and profiles.
- **Shipping Industry exhibitions**. By participating at various shipping and logistics exhibitions and seminars CargoCoin will create direct market awareness and market presence.

The CargoCoin platform activities will be self-financed through small, competitive transaction fees charged for the smart Utilities contracts. The fees charge for the Utilities pillar i.e. Smart B/L, Smart L/C, crypto transactions will be subject to the level of the utilisation of the smart contracts. The transaction fee will vary, but in any case it is designed by default to be significantly lower, than the current industry standards.

Additionally, The CargoCoin platform will monetise through the following channels:

- Banner and text advertising;
- Publishing press releases and news articles;
- Providing references to participants for their smart contracts if required;
- Providing unbiased market and industry related statistics to interested parties, such as news sites, researchers, universities, governments, etc.

6.2. SWOT analysis

Strengths – CargoCoin offers an integrated two pillar platform, providing a marketplace and smart contracts in conjunction with payment solution for the industry. It is a one of a kind all round project connecting all parties and covering the full supply chain in the transport industry – from the quotes, through offers, transport terms negotiations, issuing of smart Bill of Lading, insurance quotes and smart insurance policy generation, tracking of cargoes and ships through IoT (Internet Of Things devices), customs clearance, services at loading and discharging ports, and settling payment through escrow or Letter of Credit. It is an integrated platform to cover all types of cargoes – containers, bulk and break bulk, liquid bulk, unlike any other market players. A key strength is that the Platform services are free of charge for all users, without monthly or annual fees. The platform design provides a high level of security, while minimising delays and providing transparency to the parties involved in the smart contract.

Weaknesses – The transport industry and more specifically the shipping industry is moving slowly to digitalisation and it is expected that the blockchain technology will inevitably enter the shipping industry and optimise costs, while reducing delays. Currently the industry is unaware of the blockchain technology, its possible implications and usage. Users will be reluctant to try a completely new technology for a business that has existed in a similar fashion for hundreds of years.

Opportunities – Attracting a big user base through the free usage of the platform, sustaining rapid grow of users. Optimisation of the booking and chartering process through smart contracts, by minimising delays in document exchange and payment delays, thus increasing profitability and decreasing opportunity costs. Reduction of fraud by certifying issued documents and making it impossible to forge documents through the public blockchain, while retaining full archive of all transactions made.

Threats – Users will be slow in switching to digital documents as opposed to paper documents. A key factor will be the cost & time saving of using smart contracts. Public bodies will be even slower in adoption of the blockchain technology, but will inevitably follow the industry trends to comply with the market trend. External threats from competitive platforms will be tackled by the FREE services offered by CargoCoin.

7. Initial Coin Offering Terms

CargoCoin's designated short symbol: **CRGO**.

A total supply of 100 mln. tokens will be offered at stage 1, each with 18 decimals.

The ICO will be broken down in two stages – pre-ICO and an actual ICO.

The pre-ICO will run for a very short period of time and will be open to the public for a set period of time. The price of 1 CRGO will be fixed at 0.50 USD during the pre-ICO stage. A total of 10 mln. CRGO tokens will be distributed during the pre-ICO stage. During the pre-ICO, Supporters will be able to purchase CRGOs at 50% of its regular price. The pre-ICO will run for 15 days – from April, 1st 2018 @ 00:00 – April, 15th 2018 @ 23:59. The soft cap is estimated to reach USD 5 mil.

Following the pre-ICO an ICO will take place and 55 mil. tokens will be distributed each at a price of 1.00 USD. The ICO phase 1 will start on April, 16th 2018 @ 00:00 and ICO phase 5 will last not later than December, 31st @ 23:59 UTC. The hard cap is estimated to reach USD 55 mil.

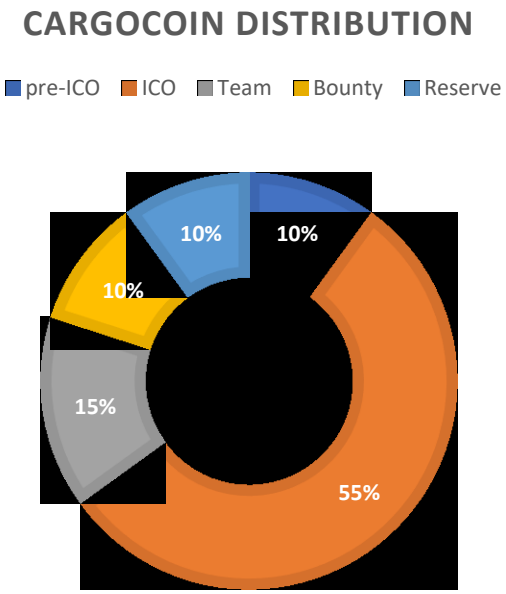
The total capitalisation of CargoCoin after completing the initial coin offering for stage 1 is estimated to reach USD 60 mil.

Since CargoCoin is ERC223 based, tokens will be distributed after the ERC223 standard is officially released on the Ethereum blockchain and smart contracts are fully developed and tested, as issuing the tokens is irreversible and further changes to the dApp's Solidity code cannot be made.

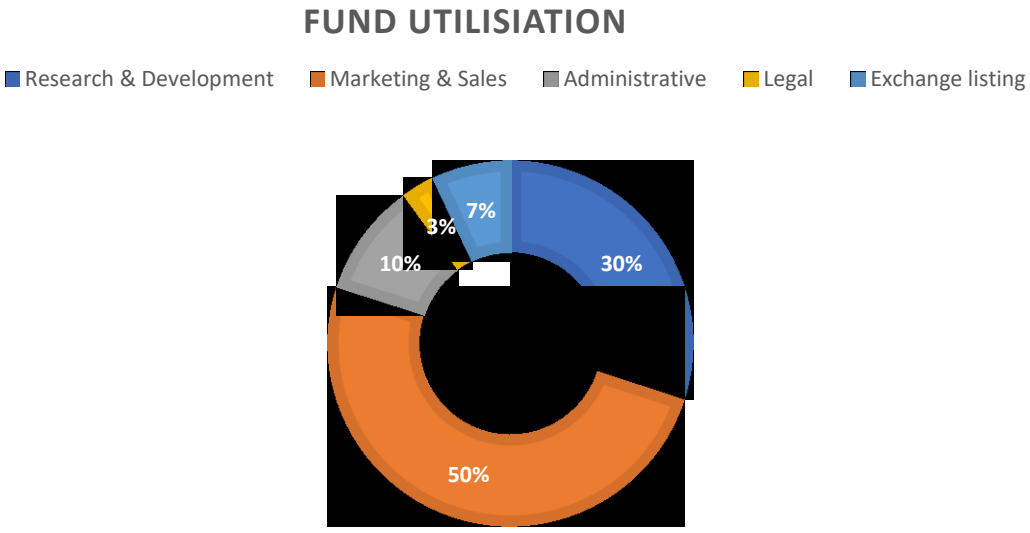
8. Token Distribution

CargoCoin will be distributed as follows:

- 10% pre-ICO (soft cap);
- 55% ICO (hard cap);
- 15% distributed towards the team and advisers. Available after up to 6 months following the successful completion of the ICO.
- 10% bounty & affiliate program
- 10% reserved for exchanges liquidity, etc.



100% of the raised funds from the token sale will be used for the development of stage 1 platform and for the implementation of the marketing strategies, as described in this white paper.



9. Participating in the Initial Coin Offering

To purchase **CargoCoin** visit https://www.thecargocoin.com after April, 1st 2018 and contribute to the project.

During the pre-ICO and ICO process **CagoCoin** tokens are available at the specified cost.

Follow us on Facebook for up to date news and information:
https://www.facebook.com/thecargocoin/

Follow us on Twitter for up to date news and information:
https://twitter.com/thecargocoin

Follow us on LinkedIn:
https://www.linkedin.com/company/cargocoin/

Follow us on YouTube:
https://www.youtube.com/channel/UCH6E328MCvBIKeHe71Yf16A

10. Roadmap of the CargoCoin Ecosystem development

The CargoCoin road map is based on its full cycle of preparation, development, implementation and marketing. The projected schedule is an estimate and it may vary, depending on various factors. Some stages could be completed earlier than projected, while others could take extra time. Year 2023 is anticipated as deadline for unfolding the full scale operations and capabilities. The CargoCoin project is divided into 5 stages, as outlined below. The present initial coin offering addresses the progress up to the end of marketing stage 1. It is anticipated that stages 2-5 will be funded from the platform's self-financing or through additional fund raising if required.

The roadmap is a summarised vision of the CargoCoin project. Minor stages are not outlined on the roadmap i.e. mobile applications development throughout the stages. Additional platforms and/or services required would be acquired or developed on as needed basis and are not included on the roadmap.

11. Advisers

The advisory board members are selected professional linked with the CargoCoin platform industries. They are all highly motivated and strongly believe in the success of the CargoCoin.

Michael E. Bryant

Chairman of the Advisory Board. CEO of Blockchain Ventures International; Executive Member, Blockchain Council; Adjunct Professor of International Corporate Finance at Russia's Higher School of Economics; Blockchain & Cryptocurrency Lecturer, Moscow University of Finance & Law; CEO & Publisher, "Blockchain Daily News"; Member, Council on Foreign Relations.

Simon Cocking

Senior Editor at Irish Tech News, Editor in Chief at CryptoCoinNews, and freelances for Sunday Business Post, Irish Times, Southern Star, IBM, G+D, etc. Number 1/18000 ranked member of the 'People of Blockchain. public speaker at events including TEDx, Web Summit, Dublin Tech Summit.

Anthony Abunassar

Anthony started at PricewaterhouseCoopers and then Rotschild & Co, Vice-President of Goldman Sachs and Vice-President of JPMorgan, before tackling the world of crypto trading and ICO investing. His pedigree in finance is unparalleled.

Savio Gomez

Marine consultant working in Japan and Korea, Certified inspector (OCIMF SIRE, CDI & CMID), Auditor (OCIMF SIRE, CDI-IMPCAS, ISM, QHSSE, TMSA & MTMSA). PhD, MBA, MSC, AdvDip, Professor in Maritime Studies, Certified Blockchain Professional.

Jonathan Chang

Co-Founder of Nauticus exchange, ryptocurrency entrepreneur with high level banking experience at ANZ, specializing in KYC, AML and CTF regulations as well as retail banking, merchant and eCommerce systems. An early investor in Bitcoin, he began his career as a marketing and sales manager for Playfair and Co.

Lin Hsiang Liao

Vice President at China Merchants New Energy, part of China Merchants Group, owner of: Shekou Container Terminals, Modern Terminals Limited, China Merchants Shenzhen Xunlong Shipping Co., China Merchants Energy Shipping, Hong Kong Ming Wah Shipping, Hua Jiang Transportation Economic Development Center, International Marine Containers Group.

Assoc. Prof. Dr. Clemens Bechter

Asian Institute of Technology, PhD, University of St. Gallen, Switzerland, MSc, University of St. Gallen, Switzerland, BSc University of Cologne, Germany.

Bryan Ng

Ng is the founder and CEO of First Accountants, a CPA practice with locations across Melbourne, Australia. A Licensed Tax Agent and member of CPA Australia he founded Australian Education Connections and held roles at SalmonGiles/Davidsons, Smarts Home Finance and ResolutionsRTK.

Edilson Navas

Founder at GBPA (Global Blockchain Pioneers Association), Community Manager of Enlte's South America, a decentralized social network and representative of medicohealth.io in Brazil and Latin America and BirdChain in Brazil.

Krasimir Georchev

Senior Business and IT Executive. 20+ years of experience IBM, Siemens and Atos at various management and executive positions. Sales Executive Director of Borica – Bankservice.

12. Bounty/affiliate program

CargoCoin bounty hunters and affiliate program is very simple.
We have allocated 10% of the tokens (10 mln. tokens) to this program, divided as follows:

- 3 mln. tokens for the bounty hunter campaign
- 7 mln. tokens for the affiliate/referral program

You can sign up as a bounty hunter at the following address:
https://thecargocoin.com/bounty.html

CargoCoin bounty program up to date terms and conditions are available at:
https://thecargocoin.com/bounty-terms.html

12.1. Affiliate program

Once you sign up, you will receive your unique bounty ID and bounty referral address. You have to use your bounty address in all posts and publications you make on social networks and when sending to people. Each sale generated through the referral address will get you 5% of the contributed amount in tokens. For example if an ICO participant buys 10,000 CRGO tokens, you will get 500 CRGO tokens as a referral bonus. We might introduce additional bonuses in CRGO/ETH for the most active affiliates.

12.2 Bounty program

In addition to the affiliate program, by providing word of mouth for CargoCoin, you will have to do certain actions and each action can earn you extra points. Actions are not limited to the list below, but these are the most often and most valuable types of action that you could perform. Each action will earn you different amount of points, but we will not disclose how many points are earned for each type of action in order to avoid fraudulent actions:

- **Youtube video** – create a youtube video review of CargoCoin in your language and upload it on your channel. The video has to be related to CargoCoin and talk about CargoCoin. The description of the video must contain a link to the CargoCoin website (you can use your affiliate ID as the link of course).
- **Youtube channel** – subscribe to our official youtube channel, post at least 1 comment per week under one of our official videos. Post a comment about CargoCoin under other videos related to ICOs or transport industry.
- **Blog post** – write your own unique blog post on CargoCoin and post to your personal blog, or to somebody else's blog. The blog post has to contain your affiliate address at least once.
- **Article** – write your own unique article about CargoCoin and publish it online. The article has to contain your affiliate address at least once.
- **Translation** – we will publish translation tasks later on our Telegram channel.
- **Facebook** – like and share CargoCoin Facebook page, rate it and write a review, while rating it. Share any post of CargoCoin Facebook page and include your affiliate address. Write a Facebook post about CargoCoin on your wall and always reference @theCargoCoin and add your affiliate address to your post.

- **Twitter** – follow and retweet CargoCoin twitter account. Retweet CargoCoin's tweets and include your affiliate address. Make a new tweet about CargoCoin and always reference @theCargoCoin in your post and if possible add your affiliate address.
- **Telegram** – follow CargoCoin telegram account and join our Telegram super group. Make at least 2 meaningful posts to the Telegram group each week. Facebook post or tweet about our Telegram group and reference @theCargoCoin.
- **Bitcointalk/Forums** – add CargoCoin signature to your Bitcointalk account for the duration of the ICO. Your account has to be a minimum junior member level. Make a post about CargoCoin on the official forum thread, or start your own thread. Especially valuable are threads in languages in other than English, i.e. in your native language. Make posts in alt discussion about CargoCoin.
- **Medium** – follow us on Medium and applaud any articles published.
- **Others** – we welcome any other activity you could do. Feel free to submit any other activity that you have done for the CargoCoin.

All posts/articles should be meaningful and make sense in the context of CargoCoin and the shipping/transport industry. Since quality is very subjective matter, CargoCoin team will be the sole arbiter in this process.

Each action that you do will earn you points for doing so. Points could be adjusted up or down based on manual review of CargoCoin team. Each action should be recorded in your bounty account by the bounty hunter. As you soon as you register you will receive access to your dashboard, where you can record and monitor your activity.

Every week we will give out a special price to the most active bounty hunter during that week. Weeks for the bounty program are considered as periods starting on Monday and ending on Sunday. Special prices will be distributed the following week.

CargoCoin official social channel are as follows:

Facebook page: https://www.facebook.com/thecargocoin/
LinkedIn page: https://www.linkedin.com/company/cargocoin/
YouTube channel: https://www.youtube.com/channel/UCH6E328MCvBIKeHe71Yf16A
Twitter: https://twitter.com/thecargocoin
Bitcointalk ANN: https://bitcointalk.org/index.php?topic=3224289
Bitcointalk BOUNTY: https://bitcointalk.org/index.php?topic=3565845
Medium: https://medium.com/@thecargocoin
Telegram channel: @thecargocoin
Telegram supergroup: @thecargocoingroup

12.3. Bounty Hunter Program Terms & Conditions

- Join our Telegram channel : http://t.me/thecargocoingroup
- We reserve the right to limit the amount of participants for any of the campaigns.
- We reserve the right to change the conditions of our bounty campaign.
- Only one account per one person.

- Using multi-accounts, cheating and spamming is not allowed.
- We will validate everything we consider to be fake or scam and we reserve the right to remove you from any campaign at any time if we think you are not honest, or spam the forum.
- We reserve the right to remove you from any campaign without any explanation.
- In case we remove you from the campaign for any reason, we reserve the right to delete your stakes.
- The distribution of the tokens to bounty participants will happen after the end of ICO. The actual amount of tokens you will get will be determined at the moment of such distribution. Token distribution will be gradually conducted over a period of six months, depending on the registration date for the bounty program.

12.4. Bounty Hunter Program Translation Terms

- ✓ Translations need to be proper in grammar and vocabulary.
- ✓ Translations must be original, no Google translate. If we will find that the text is translated with the help of automated translation tools, translator will be blacklisted, and no payments will be made
- ✓ We do not need any Single Post Dead Thread. If you failed to keep the thread active and up to date, your reward can be reduced to 50% of the actual payment or you could simply be disqualified.
- ✓ If there will be a lot of mistakes in translation, translator will be blacklisted, and no payments will be made
- ✓ Translators are expected to remain engaged in discussion about CargoCoin on the thread specific to their language.
- ✓ Translations have to be done professionally.
- ✓ For stake counting, only the posts of the OP are counted towards Moderation activity.

13. Partners

Exchange & Wallet Partners:

Shipping & Logistics Partners:

SKYFchain

RoadLaunch
Smart Digital Freight

FACTR

CargoLine

UK CHAMBER of SHIPPING

Member of Turkish - British Chamber of Commerce Industry

MINI PROJECT SHIPPING

BIMCO

Trusted Shipping Limited

KUZEY STAR SHIPYARD
Marine Technical Services

bankberry
Interface for your Business

CHRISMARE
SHIPPING AGENCY

DYLYVER

Sayaka Consultancy Services G. K.
サヤカ コンサルタンシー サービシズ ゴウドウガイシャ

Technology Partners:

IBM
IBM Global Entrepreneur

NOBAR

Media Partners:

IRISH TECH NEWS

FT Reporter

CryptoCoin.News

CryptoCentral
credible | comprehensive | swift

CoinStaker

COINCLARITY

Medium

MARKETBARKER

CRYPTORADAR

ICO Partners:

14. Glossary

Technology and business related terms used in the whitepaper:

Terms	Explanation
ICO	Initial Coin Offering. Similar to an Initial Public Offering, combined with crowdfunding is a process where, people supporting a project, decide to contribute funds for the project to be financed. In return the ICO supporters receive Tokens that are used on the platform for the utilization of transactions and/or Smart Contracts.
ICO Supporter	Token buyer, contributor to the project
pre-ICO	Often referred to as pre-sale is a process where tokens are offered for a limited time and/or to a limited set of people.
Blockchain	A public ledger of peer-to-peer transactions with crypto currencies that are organised in blocks that are connected to each other, hence blockchain. Block are connected in a forward way, i.e. each new block depends on the checksum of the header of the previous block, thus making it impossible to tamper a block, that has already passed, because all of the blocks that follow need to be recalculated or rehashed.
Smart Contract	A blockchain based transaction that allows for performing of verifiable digital contracts between two parties, without a necessity of a third party, while at the same time having the ability to timestamp and verify the transaction independently. Smart Contracts are superior to traditional contracts in terms of cost saving, ability to execute or cancel upon a clause or condition being or not being met.
DApp	Decentralised Application, is a piece of code that get executed on a blockchain. It is a central core of Smart Contract functionality and essentially makes it smart, i.e. it is interactive and could act differently depending on external conditions.
ERC	Ethereum Request for Comment, borrowing from RFC, these are standards for Tokens/Smart Contracts. ERC standards define the set of functions and events that tokens contain in order to function. The current standard in use is ERC20, but it is being replaced by the new ERC223.
B/L	Bill of Lading is a standard form document with 3 main functions: Document of title, Document of receipt, contract of carriage.
sB/L	Smart Bill of Lading is an electronic Bill of Lading based on a Smart Contract.
L/C	Letter of Credit is a commitment by an independent intermediary (usually a Bank) on behalf of a buyer that payment will be made to a seller provided that terms and conditions have been met
sL/C	Smart Letter of Credit is based on a Smart Contract. The involved parties rely upon the security of smart contract crypto L/C (instead of a bank) and the crypto block chain system to ensure that payment is executed at per the pre-set terms and conditions. Smart L/C protects both sides – seller and buyer.
Ethereum	Crypto currency based on blockchain technology, utilising the Solidity scripting language.
Token	A unit of Smart Contract on a blockchain.

Shipping terms related to the whitepaper:

Terms	Explanation
WTO	World Trade Organisation.
UNCTAD	United Nations Conference on Trade and Development.
IMO	International Maritime Organisation.
NVOCC	Non Vessel Operating Common Carrier.
TEU	Twenty-foot Equivalent Unit. Used to describe capacity of container ships and container terminals. Based on the volume of a 20 foot long (6.1 m) container.
FCL	Full Container Load. Booking of a whole container.
LCL	Less Container Load. Booking for a part of a container. Several cargoes are consolidated in a single container.
OOG	Out of Gauge refers to cargoes that are oversized, hence beyond the size of a standard container and usually surcharges occur.
Incoterms	International Commercial Terms are a set of terms used in international commercial law and issued by the International Chamber of Commerce.
CIF	Cost, Insurance, Freight is an Incoterm that the seller covers the costs of transportation of the goods to the destination port. The risk and responsibility for lost or damaged goods and any additional costs, once the goods are onboard are paid by the buyer.
FLT	Full Liner Term is a term for transportation of goods by sea and state what is included and not included in the freight price. (Loading, unloading)
FIOS	Free In Out and Stowed is a shipping term, meaning that only the transport is covered and all additional services, such as loading and unloading are paid separately.
L/S/D	Lashed Secured Dunnaged is a term referring to the freight rate and means that the in and out is free, but specifies that this is not for the account of the ship-owner. Normally is payable by the shipper and receiver of the cargo.
LNG & LPG	Liquefied Natural Gas & Liquified Petroleum Gas
SWIFT	Society for Worldwide Interbank Financial Telecommunication is the international system used by most of the banks in the world to transfer funds between accounts.
SWOT	Strengths, Weaknesses, Opportunities and Threats analysis is a planning technique related to project planning and business competition analysis.

15. Legal Terms

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Whilst every effort is made to ensure that statements of facts made in this paper are accurate, all estimates, projections, forecasts, prospects, expressions of opinion and other subjective judgments contained in this paper are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be

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