WHITEPAPER

EBSC - ICO

Ether Based Source Chain

The first blockchain Bill of Lading Reshaping the Future of Global Trade .

Sea-Shipping - Startling Specifics

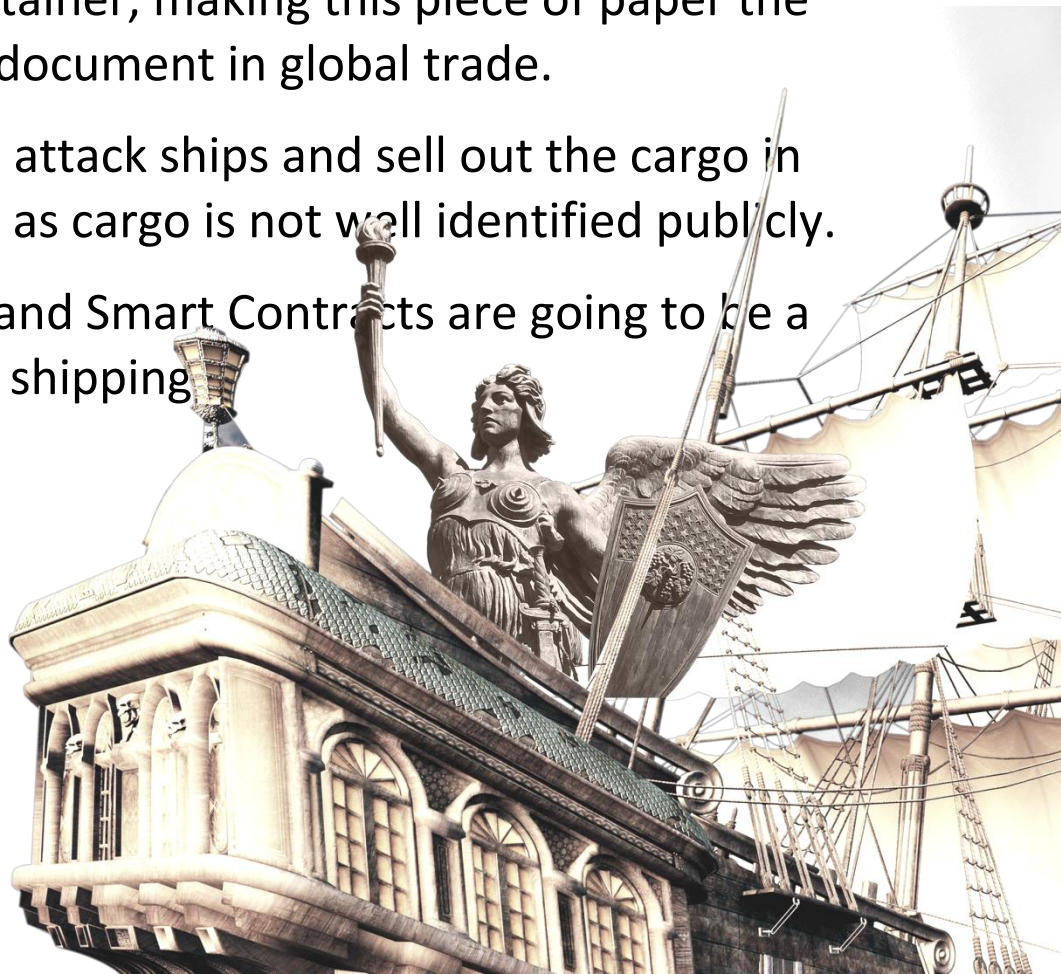
Logistics form the vital backbone of the international trade. About 90% of all the goods in the global trade are handled by the sea shipping industry each year, making shipping one of the world's biggest industries.

Yet, the crucial sea shipping industry still uses one of the world's oldest methods for issuing proof of ownership - Paper. About 400,000 trees are felled yearly just for the printing of Bills of Lading.

Whoever possesses the Bill of Lading owns the goods in the container, making this piece of paper the most important document in global trade.

Still, pirates attack ships and sell out the cargo in the grey market, as cargo is not well identified publicly.

Blockchain and Smart Contracts are going to be a boon for the sea shipping.



the sea was not
meant to be
controlled

the sea was meant
to be sailed

Abstract

Ether Based Source Chain (EBSC) will transform global shipping industry by securing the Bill of Lading documents using blockchain technology, thus providing a way for importers and exporters to exchange those documents digitally, securely and without counterfeit in an open environment.

EBSC aims to disrupt the container shipping industry through the creation of decentralized and open protocols, tools and utilities for the exchange of shipment ownership (Bill of Lading) documents in the logistics industry.

With Smart B/L we will change today's physical (paper) proof of ownership used for claiming cargo at the destination port with blockchain-assisted digital proof of ownership, making it more secure, instantly transferable, easier to archive and massively cheaper than the current (paper) solution.

EBSC will connect producers, importers, freight forwarders and other involved parties in a well-balanced ecosystem based on trust and frictionless interactions, providing tools for seamless exchange of documents, saving them time and money while giving them a high level of security, transparency and traceability–the logistics industry's top three pain points and problems.

EBSC will use the block chain technology to obtain "document extracting" to change the global shipping industry, so as to provide importers and exporters with an open environment and a safe way of digitally exchanging the bills of lading. With the smart bill of lading, we will change today's paper ownership certificate for the delivery of goods at the port of destination, and provide digital proof of block chain assistance to make it more secure, make it able to be transferred instantly, easier to file, and more cost effective.

Falsification of data would be no longer a concern with the development of blockchain. Advantages of the blockchain system are that information is safely stored and completely transparent to all the users. Our aim is to create “shipping in a pocket” — a smart blockchain based solution.

The EBSC Token Crowdsale will be open for three months or until the hard cap is reached. The ICO crowdsale contract will issue EBSC tokens instantly and users will get them in real time. Early backers will be rewarded with a discount, starting with 10% and ending with 0%.

Frequently Used Terms/Glossary

Bill of Lading (B/L)

A Bill of Lading (B/L or BoL) is a document issued by a carrier (or his agent) to acknowledge receipt of cargo for shipment. In British English, the term relates to sea transport only; and in American English to any method of transportation of goods.

Blockchain

The blockchain is an incorruptible digital ledger of economic activities that can be programmed to record (financial, bookkeeping and process) transactions; it provides trust in direct peer-to-peer interactions. By design, blockchains are inherently resistant to modification of the data.

Carrier

A common carrier or a public carrier usually called a carrier) is a person or company that transports goods or people for any person or company and that is responsible for any possible loss of the goods during transport.

Consignee

In a contract of carriage, the consignee is the entity who is financially responsible (the buyer) for the receipt of a shipment. Generally, but not always, the consignee is the same as the receiver.

DWT

Deadweight tonnage (also known as deadweight; abbreviated to DWT, D.W.T., d.w.t., or dwt) or tons deadweight (TDW) is a measure of how much weight a ship can carry, not its weight, empty or in any degree of load.

Exporter

The term export means the sending of goods or services produced in one country to another country. The seller of such goods and services is referred to as an exporter; the foreign buyer is referred to as an importer.

EBSC ERC20 token

EBSC Ethereum ERC20 utility token (ticker symbol EBSC) will be used as a core part of our digitalized business model; it will allow partners to interact with Smart B/L Dapp. Tokens will be used for sending, archiving, changing ownership and also as payment solution for logistic services offered by selected logistic partners. ERC20 defines a common list of rules that any token based on Ethereum has to implement.

Importer

An import is a good or goods brought into a jurisdiction, especially across a national border, from an external source. The party bringing in the goods is called an importer. An import in the receiving country is an export from the sending country. Importation and exportation are the defining financial transactions of international trade.

Incoterms

The Incoterms rules or International Commercial Terms are a series of predefined commercial terms published by the International Chamber of Commerce (ICC) relating to international commercial law. They are widely used in international commercial transactions or procurement processes as their use in international sales is encouraged by trade councils, courts and international lawyers.

IPFS

The InterPlanetary File System (IPFS) is a protocol designed to create a permanent and decentralized method of storing and sharing files. It is an open-source content-addressable, peer-to-peer hypermedia distribution protocol. Nodes in the IPFS network form a distributed file system.

Letter of Credit (L/C)

A Letter of Credit is a written commitment by a bank issued after a request by an importer that payment be made to the beneficiary (exporter), provided that the terms and conditions stated in the L/C have been met. A Letter of Credit is a method of payment that is an important part of international trade. An L/C works in similar way to an escrow (money held by a third-party on behalf of transacting parties).

NVOCC

A freight forwarder, forwarder, or forwarding agent, also known as a non-vessel operating common carrier (NVOCC), is a person or a company that organizes shipments for individuals or corporations to get goods from the manufacturer or producer to a market, customer or final point of distribution.

Permanent Encrypted Decentralized Data Storage

Storing any large amount of data, such as years' worth of documents on the blockchain, opens several potential security and scalability issues, and besides, could become prohibitively expensive. A two-tier approach offers much better flexibility and allows EBSC to focus on its core competence. For permanent storage one of the existing decentralized storage services or protocols will be used. Currently, IPFS has been identified as the most suitable candidate, but evaluation of Sia and Storj is still ongoing. Encryption will be mandatory, as all documents and non-public metadata will always be encrypted.

Shipper

Someone who sends goods for shipment or coordinates the transport of goods by packaging, labeling, and arranging for transit,

Smart contract

Smart (blockchain) contract is a distributed computer program that will execute when special conditions on the blockchain are met.

Smart B/L

The blockchain-based Bill of Lading developed by EBSC preserves all paper B/L legacy features and enhances them with benefits offered by the decentralized ecosystem, including speed, security and transparency. Additionally it provides a base for further integration of value-added features such as smart contract L/C, insurance, etc.

TEU

The twenty-foot equivalent unit (often TEU or teu) is a unit of cargo capacity to describe the capacity of container ships and container terminals. It is based on the volume of a 20-foot-long (6.1 m) intermodal container, a standard-sized metal box which can be easily transferred between different modes of transportation, such as ships, trains and trucks.

Introduction

Intelligent Shipping Chain (abbreviated as EBSC) aims to build decentralized global shipping and shipping database and an online portal. Through the introduction of block chain technology to achieve smart documents, it can integrate the global logistics industry. The system uses the block chain intelligent documents to simplify maritime procedures and transaction processes, makes it more efficient and time-saving, reduces costs, timely tracking and recording function make the leader respond in a shorter time, which is more efficient and safe. EBSC Token brings value interaction in block chain applications which makes all processes more efficient and convenient.

The Bill of Ladings value is equal to the value of the cargo inside a container. The Bill of Lading is issued by the carrier or NVOCC. Upon arrival of the vessel at the destination port, the carrier or NVOCC asks the importer (buyer) to present the original Bill of Lading in order to release the shipment to the importer.

Presently, each Bill of Lading has to be printed out on paper. This paper needs to be sent at least 3 times via express parcel delivery companies, which is time and money consuming. The original B/L can get lost or even stolen. It takes ages to receive a B/L in a conventional way. The issuer (carrier or NVOCC) sends it to the shipper (1–2 days), the shipper sends it to a bank of the importer or the importer (3–5 days), and at the end the importer sends it to destination carrier office for container release (carrier, forwarder, agent) 1–2 days. In total, each B/ is in transit from 5–10 days, making it more prone to loss or even theft.

Blockchain technology can transform Bill of Lading exchange, crew and ship maintenance logs, etc. It can take the practice of ship maintenance, safety and security to new levels. Blockchain technology can create new efficiencies and services models for shipping industry.

We believe that with strong current and future partners, EBSC token will be used beyond the EBSC ecosystem. Our mission is to modernize logistics

industry. Our open strategy is to allow interested partners to use and accept EBSC tokens as a payment mechanism.

Sea Shipping Industry Overview

For an industry that plays a considerable part in running the global economy, most people are unaware of the enormous complex system behind it that touches almost every single thing you use. From the chair you are sitting on to the computer you are typing on and to the steering wheel in your car, all those things were made possible thanks to an industry that has been operating since man learned to float.

At any given moment there are approximately 20 million containers travelling across the oceans, bringing goods from producers to local markets. The total annual global volume is 200 million TEU (Twenty-foot Equivalent Unit = 20’ container).

Dark clouds have appeared on the horizon for the global container shipping market. The Hanjin bankruptcy in combination with recent mergers, such as Maersk's acquisition of Hamburg Süd, can be seen as indicators of the lack of certainty which is roiling the industry. In light of growing protectionism and political instability, the dynamics of world trade are beginning to affect the global supply chain. While it remains difficult to change the capacity of a vessel, ship scrappage levels remain high and demand for smaller vessels appears to be on the increase.

As of October 2017, the world’s leading container shippers include the Danish company APM-Maersk, the Swiss company Mediterranean Shg Co and the French company CMA CGM Group. APM-Maersk is the world’s leading container ship operator with a fleet of over 600 container ships. APM’s terminal segment is counted among the leading marine terminal operators worldwide. Marine terminal operators provide management services for ports. The port of Shanghai is the busiest container port in the world. In 2016, about 37 million twenty-foot equivalent units were handled here.

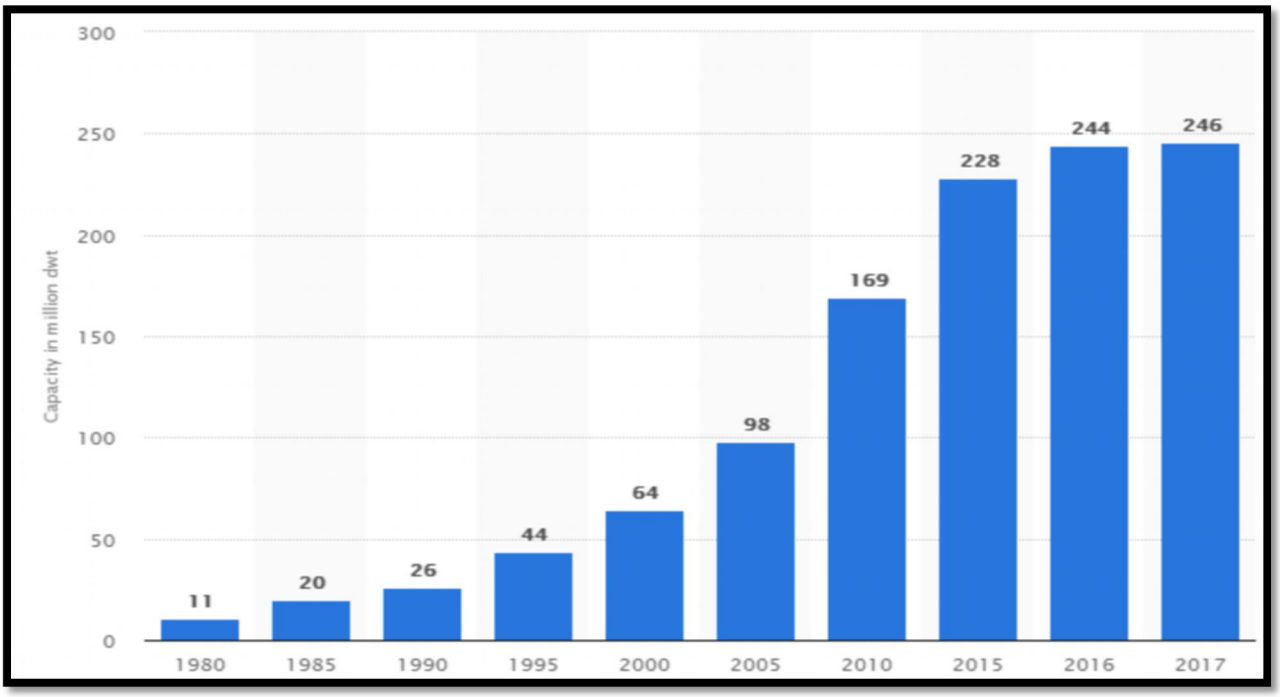
There are over 50,000 merchant ships trading internationally, transporting every kind of cargo. In 2015, for the first time in history, world seaborne trade volumes surpassed 10 billion tons. The world fleet is registered in over 150 nations, and manned by over a million seafarers of virtually every nationality.

The major features of shipping industry are as under:

- **Capacity of 200 million TEU**
- **More than 50,000 merchant ships**
- **Over 10 billion tons trade volumes**

In 2017, the world merchant container ship fleet had a capacity of around 246 million metric tons deadweight. As of January 2016, there were 5,239 container ships in the world's merchant fleet.

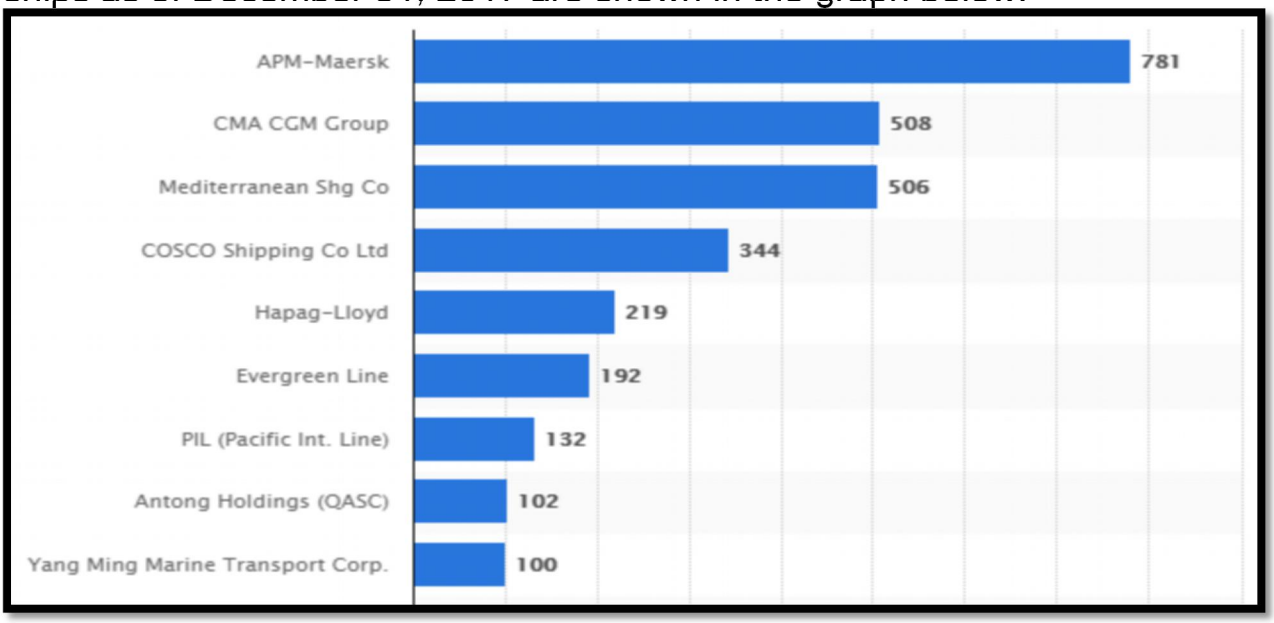
Capacity of container ships in seaborne trade from 1980 to 2017 (in million dwt) is shown in the graph below:



Data Source: Statista 2018

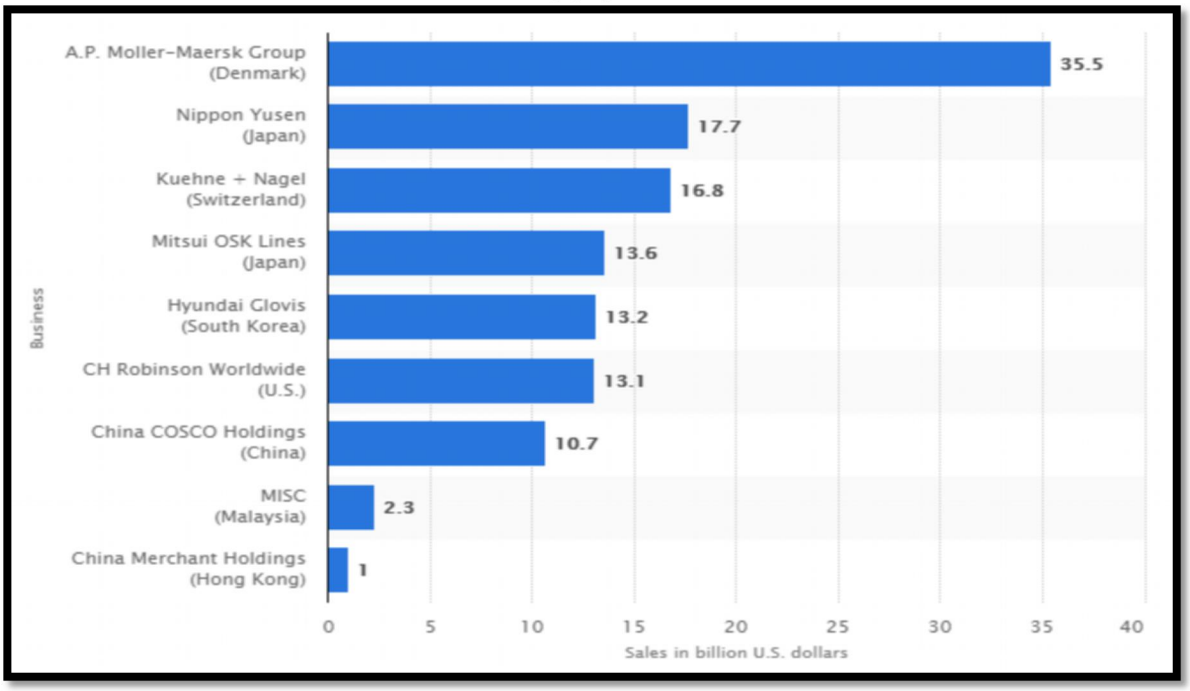
The world's largest container ship operator, APM Maersk, has the capacity to transport around 4.18 million TEU containers on its ships. The Danish shipper has some 781 ships in its fleet, about 480 of which are chartered ships. The number of Maersk's chartered ships exceeds the number of total ships in the fourth largest shipper's fleet: COSCO (China Ocean Shipping Company) has 344 ships in its fleet overall. Evergreen is one of the largest Asian shipping companies.

Leading container shipping companies in the world based on number of ships as of December 31, 2017 are shown in the graph below:



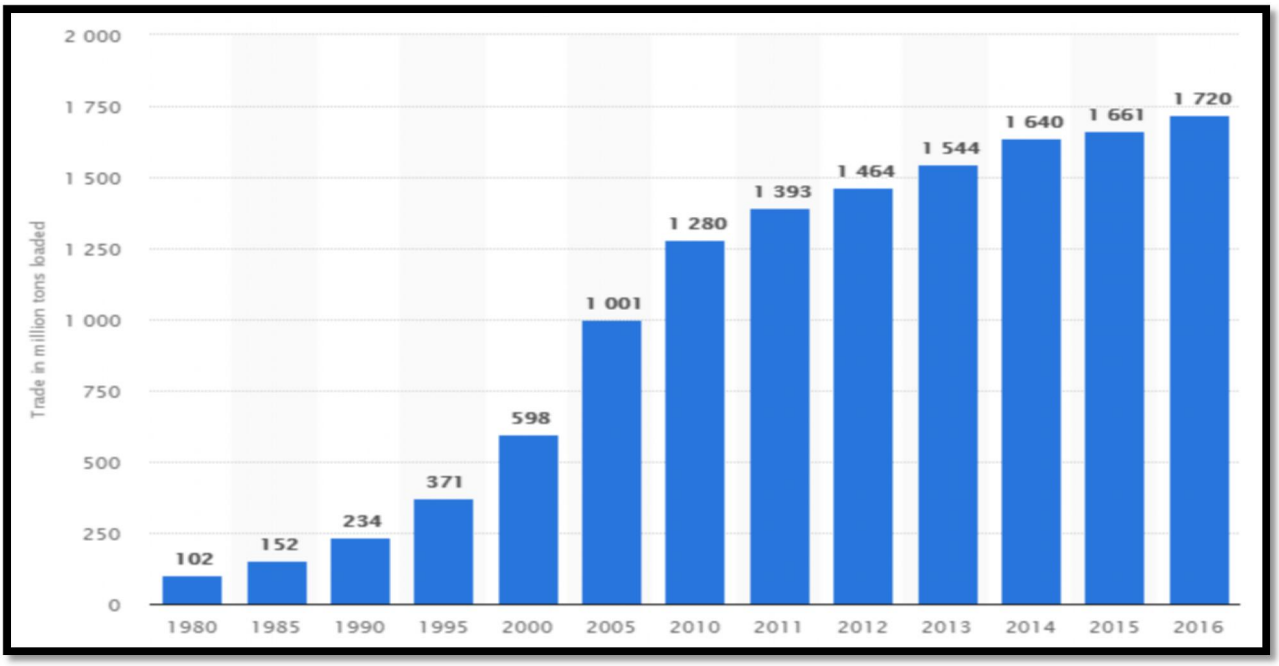
Data Source: Statista 2018

The list of the world's leading transportation companies in the shipping industry in 2017, based on sales was topped by Denmark's AP Moller-Maersk with sales of around 35.5 billion U.S. dollars. World's leading companies in the shipping industry in 2017, based on sales (in billion U.S. dollars) are shown in the graph below:



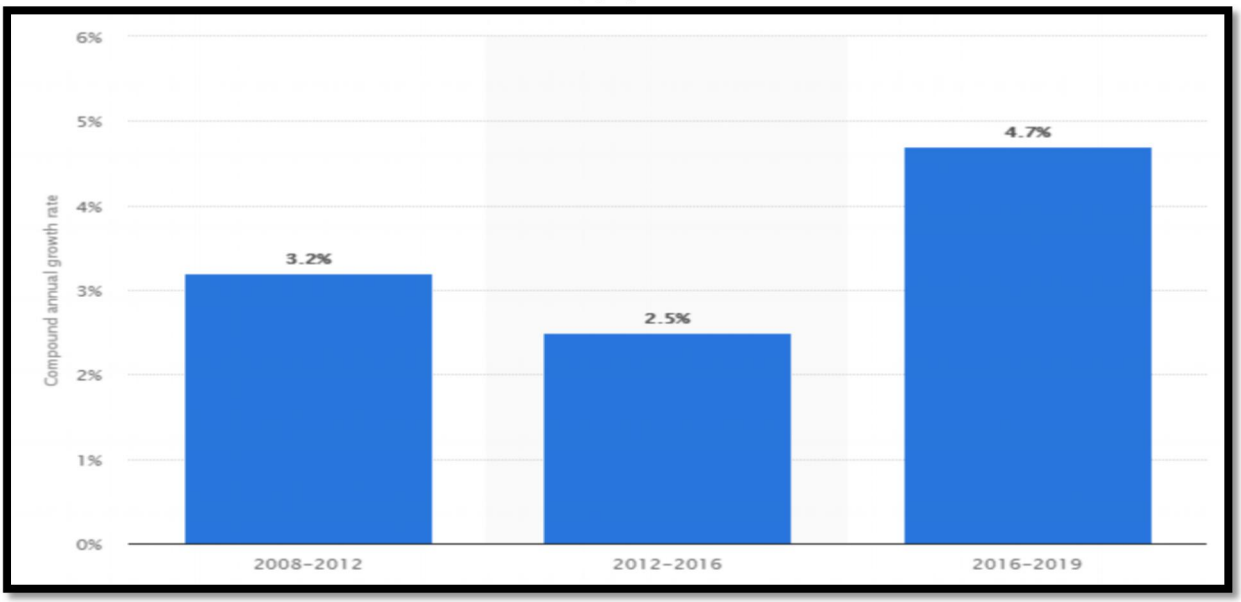
Data Source: Statista 2018

Globally, seaborne containerized cargo amounted to around 1.7 billion tons loaded in 2016. International seaborne trade carried by container ships from 1980 to 2016 (in million tons loaded) is shown in the graph below:

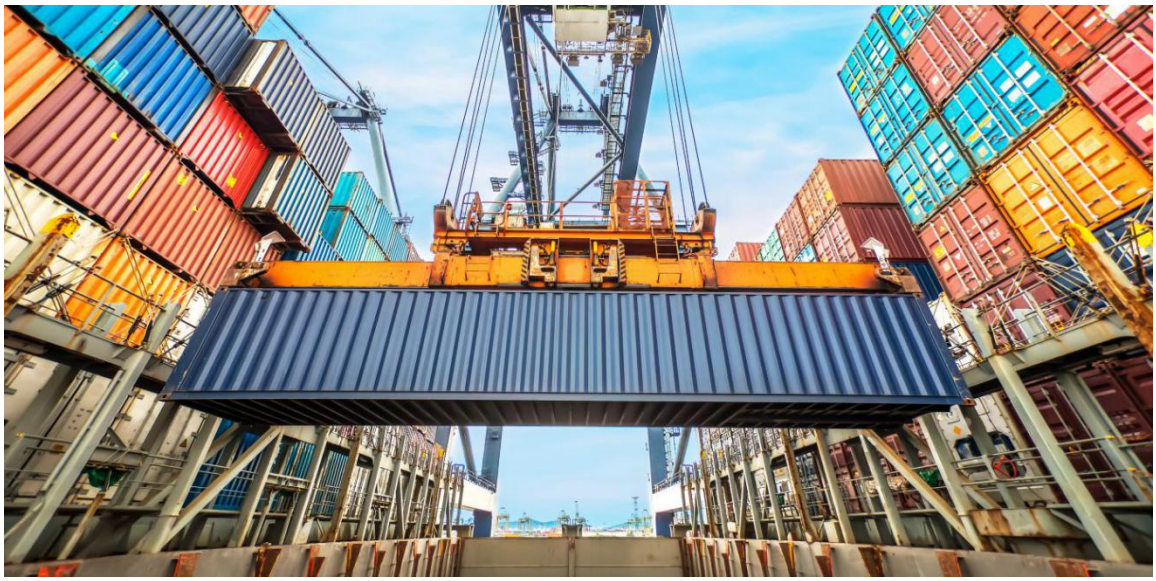


Data Source: Statista 2018

Between 2016 and 2019, global container market demand is projected to increase by around 4.7 percent. Projected global container market demand growth between 2008 and 2019 is shown in the graph below:



Data Source: Statista 2018



NVOCC vs. Freight Forwarder

NVOCC (Non-Vessel Operating Common Carrier) is the only entity that issues a Bill of Lading (B/L). A freight forwarder never issues a Bill of Lading. The Bill of Lading document interconnects several entities from world of logistics, but at its centre there are two main ones: Freight Forwarders and NVOCCs. Many of the big shipping companies act as NVOCCs and freight forwarders in full or to some extent.

An NVOCC acts as the carrier of the cargo being sent. A Bill of Lading is also known as a contract of carriage and is a legal document that binds both the parties to the terms agreed upon. A Bill of Lading is important as it holds the NVOCC liable if the cargo is lost or damaged while in transit, and compensation.

A freight forwarder only acts on behalf of the owner of the cargo to facilitate the passage of the cargo from the point of origin to the point of destination. Freight forwarders contract carriers to pick up the cargo, board it onto a ship, and then arrange for another carrier to pick it up at the port. They also handle all the entailing paperwork and documentation for their customers. A freight forwarder never issues a Bill of Lading, and is never liable for any damages or loss, beyond incorrect or incomplete paperwork.

It is also very common for smaller NVOCCs and freight forwarders to have long-standing contracts or agreements. It is beneficial for both parties to cooperate with one another.

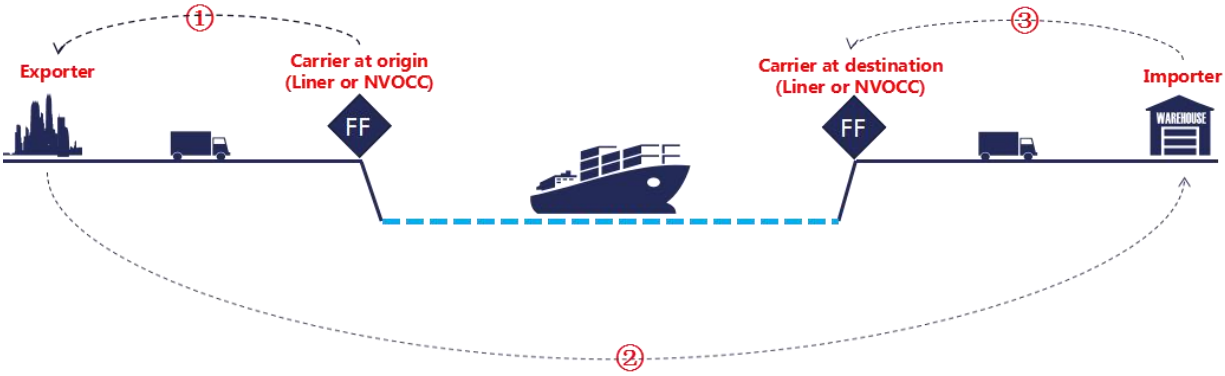
The Problem

Bill of Lading Documents

Every sea transfer in the world starts with the NVOCC (or carrier) issuing a Bill of Lading document that acknowledges the receipt of the cargo.

The Bill of Lading serves as a document of title to the goods in transfer. Anyone in possession of the document can claim the goods at a port, making it most important document in the shipping industry.

The following diagram illustrates the typical life-cycle of a Bill of Lading document.



1. The carrier or NVOCC issues the Bill of Lading for the receipt of the goods and sends it to the exporter or producer of the goods by courier service.

2. The exporter, usually after receiving the money for the goods from the importer, sends the Bill of Lading to the importer by courier service.

3. The importer takes over the goods at the final destination by presenting the Bill of Lading to the carrier or NVOCC. The Bill of Lading is usually again sent by courier service.

The Bill of Ladings value is equal to the value of the cargo inside a container, on average it is worth around USD 60,000. Once the cargo is received and the Bill of Lading is issued by the carrier or NVOCC, this document has to be sent to the owner (shipper) of the cargo. Once payment for the cargo has been received, the owner (shipper) sends this

original document to the buyer of the goods (Consignee, or in case of L/C a bank) by express courier service (UPS, DHL, FedEx). Upon arrival of the vessel at the destination port the carrier or NVOCC asks the importer (buyer) to present the original Bill of Lading in order to release the shipment to the importer.

Pain Points:

Cost: Today each Bill of Lading has to be printed out on paper. This paper needs to be sent at least 3 times via express parcel delivery companies such as UPS, FedEx, etc., which is time and money consuming. Average express courier costs are above USD 100 for each Bill of Lading.

Lost: The original B/L can get lost or even stolen. This pain is mostly felt by importers as they need to officially declare the B/L lost, which results in weeks of waiting for a new one and because of that additional costs along the way arise–such as demurrage at the port of destination, late cargo arrival, and in some cases total factory downtime which can all result in a multi-million dollar loss.

Slow: It takes ages to receive a B/L in a conventional way. The issuer (carrier or NVOCC) sends it to the shipper (1–2 days), the shipper sends it to a bank of the importer or the importer (3–5 days), and at the end the importer sends it to destination carrier office for container release (carrier, forwarder, agent) 1–2 days. In total, each B/L travels with at least 3 courier services and is in transit from 5–10 days, making it more prone to loss or even theft.

Digital Bill of Lading

There have been many attempts to introduce an electronic Bill of Lading, but none have generated a wide acceptance in the industry. Past attempts exhibited the following problems in their design:

- A central, trusted authority was required to run the system.
- An online settlement of value was impossible.
- The rules governing the B/L exchange processes were not transparent.

With the invention of blockchain it became possible for the first time in history to connect all the parties in the logistics industry in an open, trustless and decentralized ecosystem with transparently defined rules of operation. Ethereum-based smart contracts allow interaction automation and additionally lower transaction costs.

Size of the market

One of the biggest freight forwarders alone prints out more than 4 million paper sheets a year. The total cost for sending these documents from origin to destination is more than USD 80 million per year, which is covered by shippers, carriers or NVOCCs, and their consignees. And this is only one freight forwarder with a 2% market share. The size of the whole market is 50 times bigger!

Global trade paper B/L costs a lot in many respects viz. 5 billion USD in express courier service, 2 billion USD in printing, 400,000 trees cut, 750 million employees involvement, storage costs and efforts, and carbon emissions, etc.

All the global trading pain points have something in common. They are all a consequence of using a physical paper document. Digitalization is clearly the key.

EBSC Solution

EBSC will use the block chain technology to obtain "document extracting" to change the global shipping industry, so as to provide importers and exporters with an open environment in a safe, non-pseudo way of digitally exchanging these files. Through the exchange of transport ownership (document extracting) documents for the logistics industry, it creates decentralized and open agreements, tools and utilities to affect the container shipping industry. With the smart bill of lading, we will change today's paper ownership certificate for the delivery of goods at the port of destination, and provide digital proof of block chain assistance to make it more secure, make it able to be transferred instantly, easier to file, and more cost effective.

EBSC will connect producers, importers, freight forwarders and other interested parties in a well-balanced ecosystem based on trust and harmonious interactions, providing tools for the intangible exchange between documents, saving them time and money while providing a high level of security, transparency and traceability - Three major pain points and problems in the logistics industry.

EBSC can be supported by intelligent contracts that include logging, and can also carry out contracts or charters for shipping, or cost-sharing agreements between private shippers and customers; Combined with the user can allow interaction with the block chain, through the block chain intelligent EBSC can effectively and really record shipping carrier, shipping transactions, employees, natural scenes, route scenarios, and timely tracking shipping route, time node, carrier all real-time situation, etc, effectively control man-made or natural emergencies. So EBSC can make appropriate orders, suggestions, warnings, rescue, supply and other effective measures.

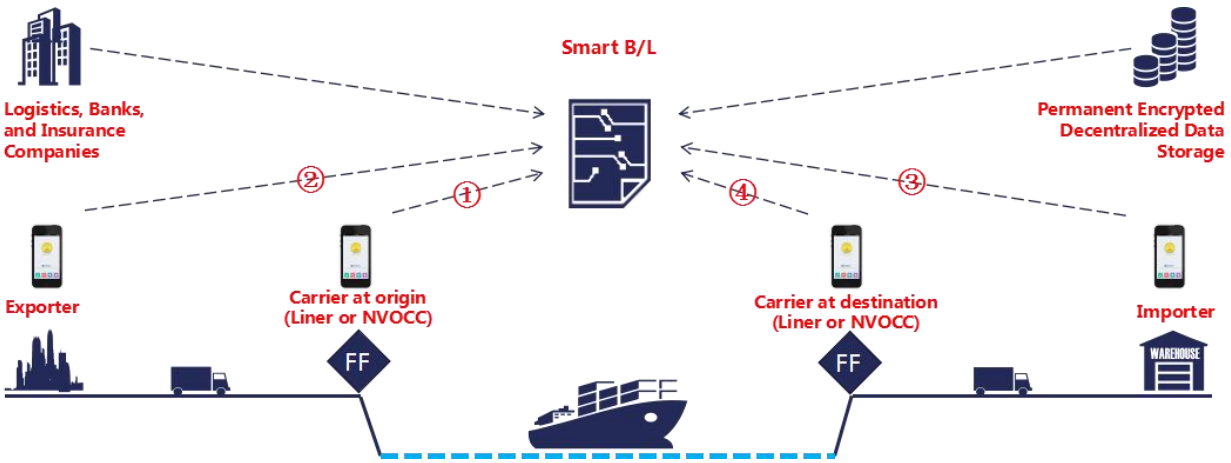
The innovative blockchain technology has revolutionized money and now securing over USD 500 billion of value in approximately 1500 different cryptocurrencies. Digitizing the Bill of Lading document is the perfect

application for the blockchain. Document traveling is speeded up and costs are decreased by over 90%, with native transparency and trackability ensuring that lost or stolen documents are thing of a past.

EBSC Solution Overview

EBSC will create an open system based on Ethereum and encrypted permanent decentralized data storage which will enable the creation and exchange of Bill of Lading documents.

The following diagram illustrates the workflow between different parties in the EBSC system.



The blockchain-based Smart B/L works in a similar way to tokens. The user can create/transfer/claim its ownership.

1. At the origin, the carrier uses our Dapp to create a blockchain-assisted Smart B/L with the exporter's address and sends it as a token to the exporter.

2. After receiving the money for the goods from the importer, the exporter transfers ownership of Smart B/L to the importer by using our Dapp.

3. The importer can claim ownership of the goods at the destination port by presenting the Smart B/L token to the carrier or NVOCC at the destination by using our Dapp.

4. At the destination, the carrier releases the goods to importer once importer proves ownership of the Smart B/L token.

All Global Trade sensitive information will be hidden from public view and only shown to the importer, the exporter and the issuer of the Smart B/L; special care will be given to properly secure all information about multiple business interactions between the same peers.

EBSC connect various entities. Pilots, ship schools, shipping companies,

Shipping industry, ship operators and maintenance companies and other businesses will be involved in one network.

We envisage the EBSC platform can add value as follows:

- Transparent relationship between Shipping businesses;
- Fast transactional speed;
- No intermediaries;
- High level of security;
- Trustful and verifiable records.

Blockchain technology can transform Bill of Lading exchange, crew and ship maintenance logs, which at best are in cumbersome databases and, at worst, are in paper binders. The blockchain will ensure that spare parts procured are legitimate and can offer an immutable record of the provenance of every part on the ship, every time it has been handled and by whom, from the beginning of the ship's existence. This visibility is profound, and can take the practice of ship maintenance, safety and security to new levels.

Blockchain technology can create new efficiencies and services models for shipping industry.

Advantages of blockchain

- A solid, distributed, inviolable and cryptographically secure database.
- The chain of blocks stores the encrypted code of the documents, and once saved, the data is recorded forever.
- The perfect place to store property rights, credentials, identities (of objects or people), agreements between parties, transmissions and transactions.
- No one can falsify, bribe or hack the data inscribed in the blocks of blockchain. Transaction history is transparent to all users.
- Blockchain supports Smart Contracts, which is a computer protocol that facilitates, verifies, and enforces agreements as well as execution of a contract in an automatic and transparent way.

EBSC is the new standard of shipping safety

Falsification of data would be no longer a concern with the development of blockchain. Advantages of the blockchain system are that information is

safely stored and completely transparent to all the users. It is secured by a multi-sig authentication system, preventing any alteration of vital data.

Our aim is to create “shipping in a pocket” — a smart blockchain based solution.

The way it works is simple. The crew application is used by the crew for personal ship logging. The company application collects and verifies data from shipping companies, carriers, freight forwarders, maintenance organizations, etc. In case of any mismatch in data between any EBSC data source with the shipping companies, carriers, freight forwarders, the shipping authorities can quickly detect and eliminate the problem. Shipping authorities can also detect any crew operating with an expired license. As a consumer, you have access to the verified global database through EBSC. Blockchain can really make a difference. Shipping is for everyone, and it is beneficial for every single person to get involved in making trips safer and cargo reach quickly and smoothly with fast and paperless correspondence and proof of ownership i.e. bill of lading.

The various use cases for the different users and stakeholders like importers, exporters, carriers, freight forwarders, shipping companies, crew members, etc. are as follows:

EBSC Application tracks location during ship and records the ship track

- Once the ship is completed, IN time is recorded
- Once the ship is submitted to blockchain, its status can be viewed, and validated against other log and data.
- Historical records are available for review, analysis and statistic summaries
- Convenient logging application,
- Compliance and transparency for Shipping authorities,
- Improved public trust in shipping operations
- User receives data about completed shipments

- User adds information about oil, refueling, and remarks on the technical condition of the Ship
- User can assign a task to a technical specialist or maintenance organization
- User can manage Ship bookings through the application
- Easy ship booking
- System, ship management and maintenance,
- Inflow of new customers introduced through the application
- Users can select the best offers (based on ship time, cost, etc) and perform booking
- Booking can be paid online with fiat or cryptocurrency
- User quickly receives a booking confirmation
- Once the shipping trip is completed, users can submit a report and feedback
- Booked ship data is validated against logs submitted by the crew
- Fast updating of the data on web portal .
- Users have access to the global database of ship offers
- Ability to pay with cryptocurrency,

Logs under control

Till date, crew logs mainly exist in paper form with manual signatures and stamps. National Shipping authorities have no universal mechanism to control integrity and authenticity of the pilot logs electronically. There are no international standards or comprehensive technology for electronic logging.

Each country maintains its own log book formats and establishes national rules for processing and validation of the logs. The legacy system is not equipped to handle the ever-increasing number and variety of small ship operating worldwide. This leads to a less than optimal experience for many people involved.

EBSC has a solution to this logging conundrum based on blockchain technology. It will enable an online system relying on EBSC database, built on Ethereum blockchain to track ship and pilot log records, as well as EBSC, a utility token to enable the development of a thriving, self-sustaining ecosystem around the database and token holders. It will be true “shipping in a pocket” with integrity, reliability and easy validation.

We believe that shipping safety is closely related to record integrity. Once the log records are stored in blockchain, available for public audit and can’t be forged, both authorities and passengers can be confident. Taking this a step further, the same system can be applied to ship maintenance records and tracking of spare parts, to confirm that spare parts are authentic, maintenance has been performed according to standards and there are no shortcuts.

The system described above could be supported by smart contracts that contain various log records, as well as execute rental deeds or charters for the ship, or cost sharing agreements users; combined with a sleek user interface to allow for engagement with the blockchain, and a defined protocol to ensure transactions occur in compliance with local regulations. EBSC utility token would be required for write access to the EBSC database and other on-chain events. A ship has transparent maintenance history stored in blockchain, increasing resale value.

EBSC token would also have a real-world application, as it could be envisaged as a means of payment for small ship charters, with ship owners having signed up for partnership arrangements with EBSC.

EBSC will work with national Shipping authorities and international Shipping agencies to promote acceptance of the electronic log records based on blockchain, to demonstrate integrity, reliability and transparency of record keeping. A smart phone application will ultimately replace obsolete paper records and would gain a global acceptance, enabling a single point of reference for ship owners and operators, shipping users interested in ship charters.

EBSC Ecosystem

To build the ecosystem and drive the market, the EBSC will create tools, initial rules and protocols to ease and incentivize the interactions between partners, to boost network growth and facilitate creation and exchange of Smart B/L by actively developing:

- A governing body comprised of industry leaders that will be responsible for the adoption of the standard in the industry and legislature.
- EBSC B/L Exchange protocol (EBLX) for exchange of Bill of Lading (B/L) documents.
- EBSC token will serve as a protocol utility token and allow decentralized transfer of digital ownership claim and facilitate a payment method for logistics services.
- Smart B/L Dapp is a web-based decentralized application allowing customers to interact with Smart B/L digital document.
- Smart L/C Dapp will allow depositing of money in accordance with smart contract and will be released when the buyer receives the goods. Banks and current L/C procedure such as escrows and payment intermediaries will become obsolete.
- Smart Booking Module–integrated at external shipping platforms

We believe that with strong current and future partners, EBSC token will be used beyond the EBSC ecosystem. Our mission is to modernize logistics industry, to fast forward it into the blockchain era, and do it in small, controllable, incremental steps.

Our open strategy is to allow interested partners to use and accept EBSC tokens as a payment mechanism for their products and services.

Utility of EBSC Token

We will issue the EBSC token that will be used as a core part of our digitalized business model; it will have multiple intrinsic utilities, such as: system access, payment for usage fees, gas for running Smart B/L contracts, usage incentives, bounty and reward mechanism, access and payment for advanced features (e.g. document archives, logistic and shipping services provided by partners on our platform, personalization), etc.

EBSC utility token is carefully structured in such a way as to empower our users, boost interactions with the EBSC system and facilitate usage of services provided by our partners. Using EBSC tokens for incentivizing usage and the EBSC service referral will give additional rise to network effects and hence facilitate better interactions.

The inherent utility of EBSC token is derived from core interactions, assisted by EBSC protocol services:

- EBSC tokens will be required to obtain access to the system and all core operations on the B/L Exchange protocol,
- additional EBSC tokens will be needed to enable archiving and other advanced features of the EBSC system,
- providing discounted usage fees if depositing / using EBSC tokens, including for services provided by our partners,
- EBSC token will be a preferred payment mechanism for sea freight and other shipments on selected web-logistics portals, providing discounts of up to 30%,
- EBSC tokens will have to be spent on powering Smart B/L contracts,
- EBSC tokens will be distributed through incentive mechanisms for facilitating network (user base) growth, increasing interactions with the system, tailored product development and personalization, onboarding and faster adoption, facilitating API integration to our system.

EBSC B/L Exchange Protocol (EBLX)

The EBSC B/L X Exchange Protocol provides the following services:

- Creation and storage of time-stamped B/L documents.
- Proof and transfer of ownership of B/L documents.
- Annexation of B/L documents.

The protocol connects the following parties:

- Carrier (typically an NVOCC), which acts as a B/L issuer and guarantor.
- Exporter (shipper)
- Importer (consignee).
- Banks, Insurance companies

In the protocol EBSC acts as the service provider that:

- Defines the protocol rules by updating the contract.
- Approves carriers or NVOCCs as issuers on the B/L Exchange protocol.
- Governs the network in accordance with the best interests of all parties:
    - acts as the dispute intermediary
    - Resolves unintended actions in cases of misuse (Smart B/L sent to the wrong address, etc.)
    - regulates the use of the protocol

The service provider collects EBSC tokens as a reward for its services and is allowed to sell them on open markets.

The protocol enables creation, annexation and exchange of B/L documents between the three parties listed above.

Ethereum and encrypted decentralized storage will act as the underlying technologies, offering an open and non-exclusive access to the B/L X protocol, fostering an open industry ecosystem.

Ethereum B/L exchange contract will define the rules for valid exchange and annexation of B/L documents. Encrypted decentralized storage will be used to store full B/L documents and annexes which will simplify referencing in Ethereum contracts, provide adequate security and lower storage costs.

Creation and storage of time-stamped B/L documents

B/L documents are formatted using an open B/L standard. Once created, they are stored in encrypted decentralized storage and referenced with a B/L hash number provided by the storage.

A B/L document is valid once it is stored in the decentralized storage subsystem and signed by a verified carrier, which acts as a B/L issuer.

A B/L document is issued when the hash and signature of the B/L are added to the B/L exchange contract on the Ethereum network or future sub-networks.

Only verified issuers can issue the signed B/L document on the B/L exchange contract.

Proof of ownership and transfer of ownership of B/L documents

The B/L exchange contract tracks ownership of B/L documents. Ownership of the B/L document is implemented as an Ethereum smart contract and runs on the top of Ethereum blockchain.

At any time the ownership of a B/L document can be proved using the following scheme:

- A challenge (random string) is created by the verifier.
- The owner of the document signs the random string using the Ethereum address that owns the B/L document and publishes the proof together with Ethereum address used to sign the challenge.
- The verifier checks that the signature is valid and that the Ethereum address used to generate the proof owns the B/L document by referencing the B/L exchange contract.

Proof of ownership can thus be implemented off the chain, making such transactions available free of charge.

Transfer of the ownership of B/L documents is implemented by use on the chain transaction which changes the owner of the B/L document. During the transfer of the B/L document the B/L exchange contract verifies that transferor of the B/L document is the owner and that the recipient's address is valid.

Annexation of B/L documents

Implementation of B/L document annexes is similar to implementation of B/L documents.

- A B/L document annex is valid once it is stored on the encrypted decentralized storage and signed by a verified party.
- A B/L document annex is issued when the hash and signature of the B/L is added to the B/L exchange contract on the Ethereum network.

An annex can be created by the issuer of the B/L document or owner of the B/L document.

The B/L contract takes care of linking annexes to original documents.

B/L exchange contract

The B/L exchange contract implements the services of the protocol.

At a minimum, the B/L contract implements the following functions:

Issue

This function issues and registers the signed B/L document to the B/L exchange contract. Only approved senders are allowed to perform this operation. EBSC takes care of managing the list of approved senders as set by governing rules and will be detailed in an announcement in Q2 2018.

Transfer

This function allows the parties to exchange a B/L contract, thus electronically exchanging ownership of the physical B/L document and rights pertaining to the holder of the B/L document. The B/L exchange contract tracks the ownership of the document. Only the current owner is allowed to call the transfer function.

Annex

This function allows the rightful party to annex the existing B/L document. Hash chaining is used in a similar way to how blocks in the blockchain reference the previous block.

Every call to the functions listed above will require EBSC tokens that will be collected on the service provider's account. A special contract will govern the current rates of B/L Exchange contract services (function calls), similar to GAS cost in Ethereum.

EBSC Decentralized Application (EBSCDapp)

EBSC will provide the implementation of the protocol and an application that will allow end users to interact with the protocol in a user-friendly fashion.

Technically, the B/L Exchange protocol is sufficient for transacting. Everything can be accomplished by following the protocol and contract definitions and transmitting the required transactions to the Ethereum network.

We believe that such approach makes it possible for any organization to participate in the EBSC ecosystem and integrate the services provided by the B/L Exchange protocol. We will prepare standardized APIs and SDKs for seamless integration with B/L Exchange protocol. Additionally, we will incentivize the integration with existing information systems and end-user applications. As a consequence, a large pool of organizations with varying degrees of complexity will participate which, in turn, will expedite the adoption of the B/L Exchange protocol.

The decentralized application of the B/L Exchange protocol will not only serve as a full-featured, production-ready implementation, but will also be used as a reference implementation for future industry partners (see the roadmap).

The decentralized application will provide the following core functionalities:

For the carrier or NVOCC:

- Issuance of B/L documents.
- Listing and retrieval of issued B/L documents, along with their owners and process status.
- Issuance of verified B/L document holder addresses.

For the importer and exporter:

- Listing and retrieval of owned B/L documents, along with their owners and process status.
- Transfer of B/L documents to other parties.
- Annexation of B/L documents.
- Arranging payment guarantees

EBSCDapp workflow

EBSCDapp provides seamless and user-friendly interaction with the Smart B/L Exchange.

1. The importer creates the transport order

The importer (after getting an offer for sea freight) makes a transport order to a carrier.

2. The carrier creates the digitally signed Bill of Lading document

The carrier acquires all necessary data from the exporter and creates a draft of the Smart B/L in a Smart Contract app. All the parties involved are added to participate. Once the B/L draft is confirmed by all the parties, the carrier seals it with a digital fingerprint. No relevant data can be changed after that.

3. The carrier transfers the digitally signed Bill of Lading document to the exporter

After receiving a payment from the importer, the exporter transfers the legal right of ownership to the importer with his digital fingerprint.

4. The importer proves the ownership of the Bill of Lading document

After the cargo's arrival at the destination port, the carrier at destination checks that exporter has no reason to withhold release of the container. The cargo is delivered to the importer after customs clearance.

EBSC Business Model

EBSC will push the adoption of EBSC Ecosystem from multiple sides– NVOCCs, Importers and Exporters. All parties will benefit from using EBSC Smart B/L due to lower costs, higher security, high transparency, fraud resistance and irreversibility of cargo time-stamped movements.

Additionally, we will incentivize the launch and the growth of the ecosystem by implementing an automated bounty rewarding mechanism based on active participation of end-users in ecosystem growth. At the beginning, special focus will be given to bring existing partnerships (where trust is already present) to the platform, by giving them tools for easing their existing cooperation.

EBSC tokens will be distributed to future partners for easier adoption on the market and for establishment and enhancement of the EBSC ecosystem. We will promote Smart B/L to the biggest logistics companies therefore adding value for customers, offering great benefits simultaneously to the biggest importers and exporters who choose Smart B/L as their first choice. Blockchain will allow us to fight counterfeits with greater precision and with wider range, bringing another benefit to big global brands.

The Business Model

Each Smart B/L creation event will cost an issuer (carrier or NVOCC) USD 10 or with 20% discount paid with EBSC tokens, which is considerably less than the current cost of issuing (paper) B/L. With this amount EBSC will cover 3 transaction costs on the Ethereum network; the rest will be used by EBSC.io for operational costs/financing further development/growth and expansion of the EBSC Ecosystem. Registration and use of Smart B/L Dapp will be free for importers and exporters, however in order to use various features of the platform, partners will need to hold certain amount of tokens on their account. The required amount of EBSC tokens will depend on the size of the partner.

For on-boarding purposes we have reserved a number of EBSC coins, which will be distributed to the first 100 logistics companies partnering with EBSC.

Benefits of using Smart B/L in contrast to Paper B/L

- ✓ Lower B/L fee (USD) 10 or EBSC amount with discount
- ✓ No Sending costs (USD)
- ✓ Instant Change of ownership from Dapp
- ✓ Instant with no time in transit
- ✓ It can't be stolen
- ✓ It can't be lost
- ✓ Archiving free for token holders
- ✓ Cargo information (location, temperature, etc) is easily available.

The SWOT Analysis

The best way to discuss the efficiency of an application or technology is by understanding its strengths, weaknesses, opportunities, and threats. So, let's make a quick SWOT analysis of Smart B/L on Blockchain.

Strengths:

- ✓ Decentralized network
- ✓ Resilient ecosystem
- ✓ User-friendly interface
- ✓ Highly experienced team
- ✓ Security and high-end cryptography

Weaknesses:

- Lack of development/marketing funding
- Weak media presence
- Smart B/L industry market unawareness
- Lack of reputation
- Lack of trust in new technology suppliers

Opportunities:

- ✓ Global Trade penetration
- ✓ Supply chain optimization
- ✓ Integration with major logistics players
- ✓ Counterfeit recognition
- ✓ Costs savings
- ✓ Transparency and irreversibility of data
- ✓ Lack of open industry B/L standard
- ✓ Smart B/L can be extended and complemented with IoT integrations

Threats:

- Lack of blockchain knowledge among our users from logistics and trade industries
- Logistics industry is not known as a fast-changing environment
- Customer perception of B/L as a paper document
- Institutional adoption barriers

EBSC Initial Coin Offering (ICO)

The EBSC Token Crowdsale will be open for three months or until the hard cap is reached. The ICO crowdsale contract will issue EBSC tokens instantly and users will get them in real time.

Early backers will be rewarded with a discount. The discount rate will drop with every month, starting with 10% and ending with 0% on the last month of the ICO.

EBSC has a simple-to-understand product that brings strong added value to its users and adopters. Using it, partners get a clear advantage that will help differentiate their own offerings from those of the competitors. EBSC remains a neutral entity with an all-inviting, open ecosystem, and is not a competitor to anyone in the global trade sea shipping industry.

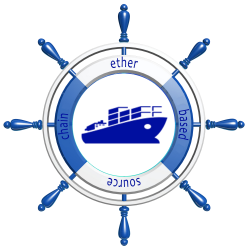
Blockchain is the perfect vehicle for B/L application. Our product is in final concept phase, and we believe it can be delivered to the market relatively quickly. Once deployed, it opens possibilities for functional upgrades and expansions, which will further enhance its value and broaden the user base. Our team is complete, and our development force is already hard at work. We have strong support from leading industry players, and we are in several partnerships talks.

We believe that with strong current and future partners, EBSC token will be used beyond the EBSC ecosystem. Our mission is to modernize logistics industry, to fast forward it into the blockchain era, and do it in small, controllable, incremental steps.

Our open strategy is to allow interested partners to use and accept EBSC tokens as a payment mechanism for their products and services. With every new partnership, with every new user, the value of EBSC will increase, and we believe this will reflect in the price of the EBSC token as well.

The project will be successfully crowdfunded if it raises a minimum of ETH 80,000 (soft-cap). The upper limit and our target amount to raise is set at ETH 120,000 (hard-cap). Both amounts will be calculated and expressed in USD based on the ETH/USD exchange rate on the date the ICO starts.

EBSC: A Sea-changing Token



EBSC Token (EBSC) is a cryptocurrency token based on blockchain technology. The EBSC token is built on the Ethereum blockchain. EBSC allows people to invest profitably and earn returns securely. With the value of the EBSC token being based on the steady income of the EBSC platform; the investors who purchase EBSC tokens will be protected with a more stable price. EBSC would be listed on the leading cryptocurrency exchanges giving EBSC tokens high liquidity, and thus, benefiting token holders with a wide range of uses.

Decentralized token exchange facilitates trading and exchange of the financial instruments and currencies on the blockchain. The Ethereum platform will facilitate the launch of our currency for use as a common standard. The ERC20 standard allows EBSC to immediately work with all the apps that conform to the standard, which means that any digital currency wallet can hold EBSC. It also means that EBSC is easily exchangeable with other cryptocurrencies that comply with the ERC20 rules. EBSC will be exchangeable with other currencies on various cryptocurrency exchanges.

Token Features:	
EBSC Tokens - Initial Issue Quantity	1,000,000,000
Type EBSC	Ethereum
Price of EBSC Token	1 ETH = 6000 EBSC
Acceptable Kind of Currency	ETH
Minimum Acceptor Unit	0.5 ETH
Hardtop	120,000 ETH
Softtop	80,000 ETH

Road Map and Milestones

The roadmap for the EBSC ICO in the pre-ICO, ICO and post-ICO phases is shown below:

The EBSC management would strive to achieve these milestones in a time bound manner. The implementation of some of these milestones may depend on the total funds raised through the ICO. The EBSC operations and management would be fully transparent and accountable. We aim to run the operations with best management practices to ensure high growth.

The maximum tokens i.e. 80% are earmarked for the investors as shown below:

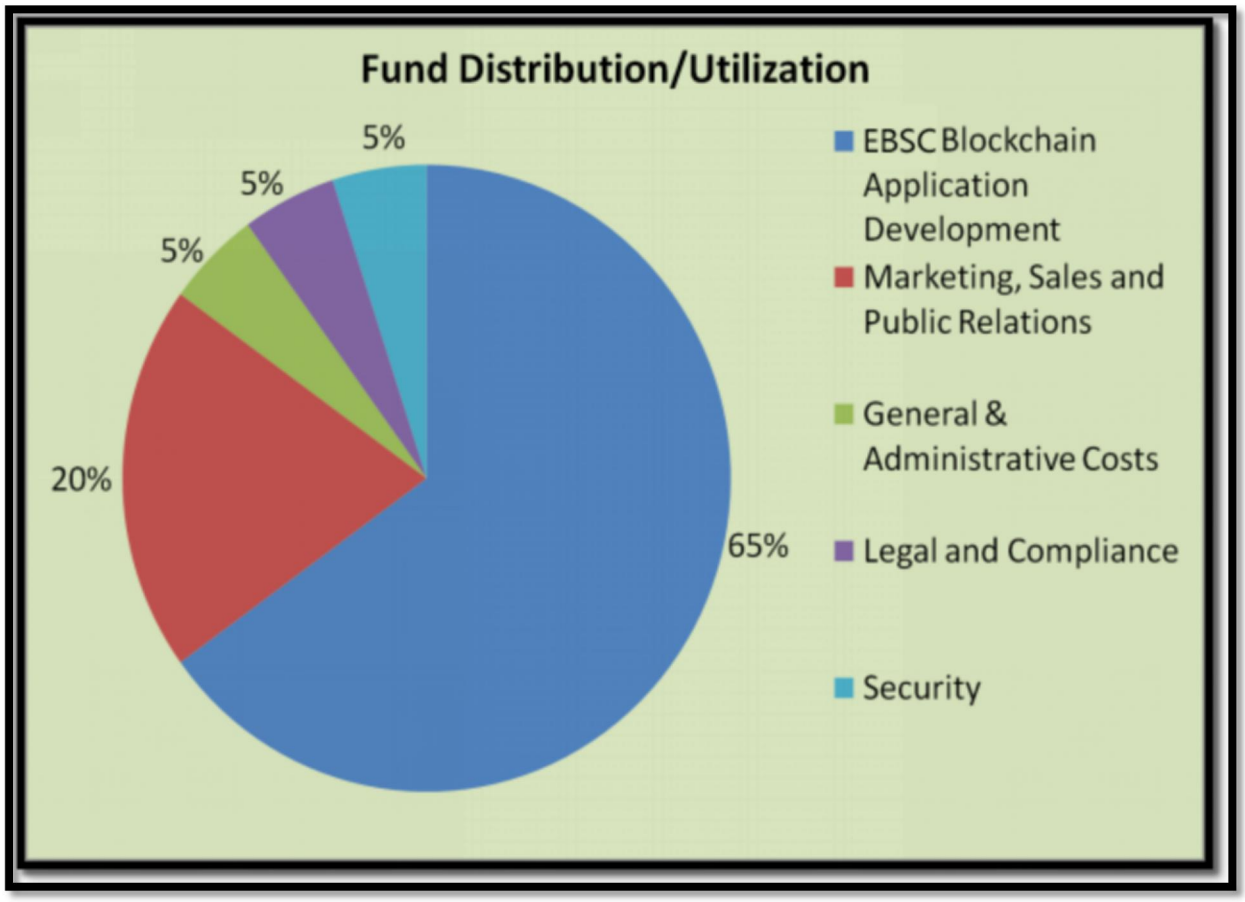
Token Distribution (%)		
20%		**80%**
17%	3%	**Investors**
EBSC Teams	Operating Costs	

Financial Plan

EBSC has a sound financial plan and strategy. In its operations, EBSC will focus on the profitability from the very beginning to achieve the future growth and sustainability.

We have prepared a detailed strategic plan with regard to the future operations of our company. We are raising the resources through our ICO and would implement our strategy depending on the amount of the funds raised through the ICO.

The allocation of funds raised through ICO is as follows:



We intend to have full transparency and all the project expenditures will be made public on the blockchain itself. We will keep the operating costs at the minimum. Taking into account this commitment, we have allocated only 3% of the tokens towards the operating costs or expenses.

Marketing Plan

EBSC will implement a comprehensive plan for marketing. We will list the ICO on the major cryptocurrency exchanges. We will also place ads on the various popular and relevant digital platforms.

Our strategy is focused on getting the maximum attention on the right type of platforms suitable to our image of a professional digital currency domain company. We will list our ICO on the leading cryptocurrency. This will help us in attracting the desirable number of investors for our ICO. EBSC will constantly review the exchanges and partner with them to increase the liquidity of EBSC worldwide.

EBSC executives have solid reputation and excellent relationships with a number of influential people. They would act as a source of word of mouth publicity for our ICO. The media and press would be used to help us in attracting sufficient number of investors in our ICO.

We have well thought out sales plan for ICO. There would be bounty campaigns to ensure an exceptional response to the ICO. This will encourage the campaigners. We may plan to offer up to 3% of all the tokens released during the ICO for the bounty campaigns. This large bounty pool would spur the various stakeholders and affiliates for the sale and marketing of our coin sale. We also have an attractive referral plan. We will provide a referral bonus up to 10%.

We have lucrative bounty plan/scheme to attract the investors, users, and campaigners. We would intend to utilize up to 3% of the ICO funds for bounty. The details of the allocation of the bounty plan/scheme are as follows:

Facebook Campaign (25%)

Twitter Campaign (15%)

Instagram/ Youtube Campaign (15%)

Thread Support / Bloggers Exclusive Campaign Support (15%)

Other Campaign/Miscellaneous (30%)

EBSC Management

The EBSC management has highly experienced and qualified professionals with great exposure and hands-on experience in cryptocurrency/digital currency space, latest technologies, finance, marketing, etc.

Sam Balabon

Founder and CEO

Sam Balabon is the founder and CEO of EBSC.He is an investor, financial markets commentator and private financial consultant. He is an expert in global financial markets, macro-economics and digital currencies. He had a successful career at Credit Suisse and Flossbach von Storch and has more than 25 years of experience in strategy and finance and accumulated $1B+ in Corporate Finance transactions and $100M+ in Private Equity investments.Peter is a graduate of The Julius Maximilians University of Würzburg where he received a BS in Finance and BBA.

AleKirill Kazakov

Founder and CTO

Alexander Barkovskiy is the founder of EBSC. Finom ideologist and CTO. Also responsible for development of software products, long-range planning, representation of new technologies and corporate culture. Holds a Bachelor and Masters degree in System Analysis and Control degrees from Peter the Great St. Petersburg Polytechnic University, Faculty of Technical Cybernetics. In his 4th year of study he started his career at GeoPhysTechno as a developer for oil prospecting working on software able to solve complex tasks in GPU. Experienced in development of Java, C/C++, Python, Perl, Objective C, Go, Fortran, CUDA. Started mining in 2012. In 2015 alongside Anton Trusov and Vlad Alushkin founded Nanopool.

Reijnaldo Marino Twerda

Chief Operating Officer

MBA Finance, UC Berkeley Haas School of Business

His passion is brainstorming and integrating impactful ideas on FutureSmartTech, top 1% talents, high performance and creative organizations, and strategic and innovative financing accessing integrated capital markets, i.e., Public/ICO/Venture Funding through Blockchain Infrastructures. Thus, creating an integrated centralized legacy structures with decentralized new generational structures. Currently Engaged in Cyber Exec Retained Executive Search, Global Chairman and Partner Boutique global retained executive search based in Miami, focusing on FutureSmartTech. Has strong advisors experience in International ICO leading (Extravaganza International (Japan ICO Marketing), Tokyo and Silicon Valley KickICO’s Japan portion and others).Co-founder of Numerous Influential Silicon Valley Firms.

Tonya Zimmerman

CMO Chief Marketing Officer

After obtaining a bachelor’s degree in marketing communications,Tonya got her first job in a communication management agency. She pursued a career in event management, achieving the position of an Account Director and partner, and managing projects for many international clients in the Adriatic region. In the meantime, she obtained a master’s degree in marketing from the Faculty of Economics. After 8 years of event management, she decided to further develop her career in digital marketing.

Yassine Benkirane

Senior Blockchain Developer

Vladimir has a master's degree in physics. He has been working as a lead programmer in financial, aerospace and data analysis sectors. His biggest project was development of the derivatives matching engine and risk management systems for Moscow Exchange. Vladimir was a CTO of trueflip.io leading a successful ICO and developed many other projects related to cryptocurrencies and blockchain.Vladimir helps Aeron to drive technical strategy and design architecture of the blockchain based database for navigation.

Natalie Furness

LEGAL ADVISOR

Natalie Furness is an attorney with over 15 years legal experience with emphasis on electronic discovery, information governance, and data privacy. She holds law degrees from UC Davis, CA and Kazan Federal University, Russia, and she is licensed to practice law in both jurisdictions . Since 2010, as a member of KPMG LLP's US Forensic practice, Natalie has been advising clients on complex litigation and investigation matters involving electronically stored information (ESI). On multiple occasions, she has successfully navigated international privacy law challenges and developed strategies for multi -jurisdictional data management and attorney reviews.As an active member of the community, Natalie serves on the board of Disability Rights Legal Center, a non-profit advocacy organization committed to protecting civil rights of people with disabilities. Natalie's wealth of experience offers attention to detail, outreach, and analysis in different regions of the world. She provides distinguished leadership, support, and insight to help guide the DateCoin activities.

Legal Disclaimer

The purpose of this whitepaper is to present EBSC and EBSC token to potential token holders in connection with the proposed crowdsale. This whitepaper is for information purposes only and it does not create any contractual relationship between EBSC and you as the recipient of this whitepaper.

The sole purpose of this whitepaper is to provide relevant and reasonable information to potential token holders in order for potential token holders to determine whether to undertake a thorough analysis of EBSC with the intent of acquiring EBSC token. An updated version of the whitepaper may be published on a date yet to be determined and announced by EBSC.

EBSC makes no warranties or representation as to the successful development or implementation of the project, or achievement of any activities noted in the whitepaper, and disclaims any warranties implied by law or otherwise.

Nothing in this whitepaper shall be deemed to constitute a prospectus of any sort or a solicitation for investment, nor does it in any way pertain to an offering or a solicitation of an offer to buy any securities by EBSC in any jurisdiction.

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