

# Building the Blockchain Logistics Protocol

How OpenPort's Blockchain Ecosystem is Creating a New Era in  
Emerging Markets Enterprise Transportation and Logistics

8 JANUARY 2018

# Contents

## Executive Summary

### 1.0

## Digital Logistics for Emerging Markets

- [1.1](#) Market Overview
- [1.2](#) Market Demand
- [1.3](#) OpenPort's Vision
- [1.4](#) Company Overview
- [1.5](#) Who We Sell To
- [1.6](#) Core Technology

### 2.0

## Our Blockchain Infrastructure for Digital Logistics

- [2.1](#) Value for Our Clients
- [2.2](#) The OpenPort Token
- [2.3](#) Token Use Cases and Process Flow
- [2.4](#) Token Economics
- [2.5](#) Use of Token Sale Capital: Incentives and Rewards
- [2.6](#) Distributed Apps
- [2.7](#) Green Supply Chain
- [2.8](#) Timeline

### 3.0

## Management Team

- [3.1](#) Primary Investors
- [3.2](#) Advisors & Partners



# Executive Summary

At OpenPort, **we are committed to solving one of the greatest challenges in the modern supply chain** - the cash flow problem.

Business to business transfer of ownership of retail goods accounts for over 6 trillion USD in Asia alone. Approximately 150 billion USD is spent on domestic road freight to move these goods. Transfers are made by outsourced transportation providers, who have limited technological capabilities as their core competency is the utilisation and management of transport assets (i.e. trucks and drivers).

Proof of Delivery (POD) is made by paper records, which are slow and open to dispute, affecting customer satisfaction and delaying the cash flow between shippers, retailers and transporters, impacting their ability to operate these businesses.

With paper POD as the de facto standard, we aim to change the industry through the adoption of electronic records. We are already doing this today, with our digital ePOD (electronic proof of delivery) being used to improve cash flow for clients across Asia. This technology is facilitated by our ecosystem which includes our OpenTM (transport management) software and Driver App, an application that allows truck drivers to use their phones to capture ePOD and send data shipment data during transport.

Now, we have begun using blockchain technology in our ecosystem to create an immutable ePOD with an indisputable record of the freight's history, linked to a digital agreement – a 'smart contract'.

Digital payment via OpenPort's token (OPN), made upon fulfilling the conditions of the smart contract and successful ePOD, will drastically accelerate the payment cycle to the benefit of all parties.

This is the potential of blockchain for enterprise transportation with OpenPort's logistics protocol.

A blurred image of a highway with a truck in the distance, overlaid with a dark blue gradient.

1.0

# Digital Logistics for Emerging Markets

# Digital Logistics For Emerging Markets

Logistics and transport management is as old an industry as the economy itself and generates approximately 13% of GDP globally (The World Bank, 2016). To transform any industry is a bold goal to have, but in this age of growing demand for consumer goods in emerging markets, a space has opened for a provider who can effectively deal with the excessive levels of fragmentation in the supply chain, and offer a more transparent, cost effective platform for solving the basic problems of distribution to the new consumers of India, China, Indonesia, Philippines, Pakistan and elsewhere.

OpenPort has already achieved a beachhead in the new space of digital logistics for Asia's 4 billion consumers, establishing ourselves as the only multi-market provider of ERP (Enterprise Resource Planning) integrated ePOD services from any transporter. While driving consistent revenue growth, which has given us traction and proof of our system's capability in the market, OpenPort has identified the greatest business problem in our industry to be the constraints of paper, and the need for secure, timely data to drive cash flow from retailer to brand owner and brand owner to transporter.

Blockchain, as the technology driving a revolution in the transfer of financial ownership, now has an opportunity to fundamentally change the way physical movement of goods is managed (AffinityBlockChain, 2017). OpenPort will utilize blockchain to lead a paradigm shift in the security and traceability of goods in the supply chain, and create a token connecting payment to movement within our transport marketplace. This transformation will optimize the flow of working capital through the supply chain, and set in motion a transformation of how goods and payments flow from one party to the other.

OpenPort's innovative business model and technology unleashes the potential in emerging markets by targeting the inefficiencies of the legacy model – sub-contracting without visibility, paper-based proof of delivery and lengthy payment terms. Instead, we focus on maximizing existing transport asset utilization through a neutral, data driven procurement marketplace and delivering real-time status updates from tender through to delivery for lower costs, increased control and improved cash flow.



# Market Overview

Emerging markets in this context refers to the developing economies of Asia. The consumer class in emerging markets is growing at an unprecedented pace (the retail markets where we operate are worth over 6 trillion USD) (PwC, 2016) and projections through 2050 put emerging market growth, led by China, India, and Indonesia, at twice that of developed economies (PwC, 2017). Companies attempting to meet this demand are facing extraordinary logistics challenges. The shift to domestic raw material sourcing, manufacturing and distribution to meet growth in consumer demand exceeds the capacity of current supply chain infrastructure and supply of logistics services, creating challenges related to cost, performance and sustainability as the cost of logistics rises at the same rate or faster than new sales.

Buoyed by demographic growth in the consumer class, GDP growth in many of our targeted markets is 5% or greater (International Monetary Fund, 2017), which when combined with the opening of new sales channels in the same countries results in Fast Moving Consumer Goods companies (FMCGs) and distributors experiencing steady growth in their base sales. The growth in topline sales leads to a similar growth rate in transportation volumes and spending. This demand is not well met by existing supply chains, driving up cost in developing economies where transport spend can reach as high as 25% of GDP (The World Bank, 2016).

We estimate the current outsourced spend on trucking in Asia is over 143 billion USD per year<sup>1</sup> and the world's largest FMCGs are paying for this through a manual process that is weighed down by a slow cash flow process, lack of visibility and procurement inefficiency. Adding to this challenge, paper-based proof of delivery exacerbates payment disputes, delays both the invoicing and payment between retailers, brand owners (shippers) and transporters, and impacts overall customer service.

The reliance of global consumer goods manufacturers on sales in emerging markets is reflected by sales levels for the three largest companies (excluding electronics makers): Nestlé, Procter and Gamble (P&G) and Unilever. About 42% of Nestlé's annual sales of \$93.75 billion in 2016 were in emerging markets (Nestlé, 2017), with 35% of P&G's (P&G, 2017) and 57% of Unilever's sales (Unilever, 2017) in 2016 also coming from emerging market economies. While the current growth level varies amongst different emerging market countries, overall consumption of consumer products is growing much faster than in the developed world.

<sup>1</sup> PwC Retail in Asia 2015-16 report puts retail sales in OpenPort's markets at 6.3 trillion USD. Transport spend is 3% on average of sales (191 bn), of which 75% (143 bn) is outsourced – OpenPort's addressable market.

## Current Focus on Fast Moving Consumer Goods (FMCG's) and Road Freight

FMCG products are items that are relatively inexpensive, purchased frequently, consumed quickly, and sold from retail outlets that are easily accessible by consumers. Examples include soft drinks, toiletries, grocery items and cleaning products. In emerging markets, increased turnover of merchandise in retail outlets has resulted in over-extended distribution networks



Due to their relatively low manufacturing cost, distribution costs are a more significant portion of the total delivered cost to the retailer than is the case with other higher-price product offerings. Lack of secure supply chain control in the distribution channel, particularly in less developed markets, can drive distribution costs up due to lost sales, penalties from later delivery, theft or pilferage, and product damage.

Practically all emerging market FMCG demand is fulfilled through domestic sourcing and manufacturing. Transport of raw materials to manufacturing sites, and of finished goods to primary distribution centers, secondary distributors and retailers (point-of-sale or tertiary distributors, the bulk of OpenPort's current business) is done through road freight. These high volumes of road freight are outsourced to local asset owners in a process that is made more efficient by OpenPort's rapidly expanding digital solutions for road procurement, POD and settlement. We believe most deliveries to distributors and retailers in Asia are negatively impacted (delayed, disputed, short paid, or not settled) because of problems related to the paper process, easily a 1 trillion USD business problem as part of Asia's 6 trillion USD annual retail sales market. OpenPort's innovative and trusted ePOD solution has already begun to solve this problem in China, India, Indonesia, Pakistan, and other Asian countries.

Road freight forms the core of all logistics movements, and the path to digitalization is easier than international ocean or air freight which involve more participants and complexity. Extension of OpenPort's business model to cover international freight transactions is something we envision once we have begun to generate several million USD of gross revenue per month (early to mid-2019 at current growth rates).

## 1.2

# Market Demand

OpenPort has identified the following major challenges facing multinational FMCGs as they expand sales in many emerging markets:

- Late, inaccurate, or missing proof of delivery significantly reduces cash flow and increases administrative costs and transport rates through late invoicing, slow payments, and increased disputes.
- The local transport and distribution supplier base is fragmented and difficult to manage.
- 3PL (large logistics provider) distribution networks are limited and sub-contracted by at least one level (adding 5-10% additional cost).
- There exists little or no transparency into sub-contracting by local transporters.
- Sub-optimal asset utilization, low levels of achievement and compliance for sustainability standards.
- Logistics costs as a percentage of sales are very high.
- Lost sales, excess inventory and penalties hurt both top and bottom line.

Transporters, constrained by limits that delayed cash flow places on their fuel, labor and other operating costs, face many issues of their own. Lack of IT infrastructure to service large shippers directly results in layers of subcontracting, and working capital challenges which are often exacerbated by delayed and inconsistent payments as they wait for paper-based proof of delivery (which triggers payment) to be accepted by the shipper.

We believe there is a need to directly connect the movement of goods with payment, providing proof of pick-up and delivery via a secure digital medium for speed and traceability.

A universally applicable aspect of blockchain is that it enables more secure, transparent monitoring of transactions. Supply chains are ultimately a series of transaction events linked to move products from raw material through to retailer.

With blockchain, the transactions between parties in the supply chain can be documented in a permanent and public decentralized record, creating transparency, security and trust.

We are not alone in this belief. IBM has begun work on a blockchain solution for food safety, creating a system of traceability that would allow dangerous food in the supply chain to be tracked down in seconds. A consortium of consumer goods companies and retailers, including Unilever, Nestlé and Walmart, have signed on to pilot the solution (Coindesk, 2017). This level of traceability, according to IBM, will not only save costs due to greater efficiencies but also costs to human life caused by tainted food in the supply chain.

IBM has also teamed with Capgemini to create a prototype for Smart Containers using blockchain technology. The aim is to place sensors in shipping containers to transmit quality data to an integrated IoT platform, visible to all parties and guaranteed reliable (Capgemini, 2017).

The applications for blockchain technology in the supply chain are immense, and we are only beginning to see the ways in which it will shape the supply chains of the future as early prototypes and pilots are being rushed to market by some of the world's largest companies.

## 1.3

# OpenPort's Vision

OpenPort has begun transforming the logistics industry in the era of emerging markets consumption, becoming a leading force shaping the supply chains of the future by leveraging blockchain technology for improved visibility, reliability, security, trust and cash flow in road transport.

We are realizing this vision by building a functional "logistics protocol", making the potential of blockchain a reality for road transportation in emerging markets. Over time, we will extend this approach to address the entire global logistics industry (road transport is a core component of multi-modal movements and alone is larger than either the ocean or air freight markets).





The world of opaque sub-contracting by logistics intermediaries, and cumbersome paper processes which delay cash flow for all stakeholders is now being replaced by clear visibility and faster settlement on the OpenPort platform.

## 1.4

# Company Overview

OpenPort is the digital logistics platform that transforms domestic distribution in emerging markets by creating a direct, transparent relationship between shippers and transporters through our Open Enterprise Logistics (OEL) model. Fitting neither the industry conventions of “3PL” (third party logistics provider, subcontracting services) nor “4PL” (a fourth party used to manage 3PLs), OEL means distributed technology that can be accessed by any transporter, with detailed electronic proof of delivery (ePOD) and shipment visibility at the individual unit level.

The fully scalable platform enables a direct data connection between the shipper and the actual transport provider creating unmatched visibility and significant savings for multinational companies, while local transporters gain a direct relationship with their largest clients.

OpenPort is initially focused on domestic distribution and cross-border trucking by FMCG multinationals in emerging markets in Asia, based on management’s extensive experience in the region and the high opportunity level presented by transport volume and annual spend.

OpenPort operates fully owned and licensed for transport and software sales businesses in China, Hong Kong, India, and Pakistan, plus a subsidiary in Philippines which will obtain transport licensing by Q1 2018, a dedicated agent model in Indonesia, and offices in Singapore. These initial markets meet our criteria for growth and can be serviced easily from our existing bases.

## 1.5

# Who We Sell To

OpenPort is already supporting many of the world’s largest shippers (we are engaged with all top 10 of the largest multinational FMCGs), integrating with their ERP systems, and providing services in multiple countries with plans for rapid business expansion to be accelerated with new investment capital and blockchain-focused infrastructure.

We have built a high-growth multinational business (over 20% top line revenue growth month on month since inception, over 400k USD in August 2017, and expected to approach one million USD/month by the end of Q1 2018) which generates revenue through two simple models; either shippers purchase transport via OpenPort, or they use the system standalone, and pay per transaction. This hybrid system and/or service model allows us to scale rapidly and embed our ePOD system to improve core business cash

flow for both shippers and transporters by linking payments to ePOD. At current growth rates, we will exceed 10 million USD gross revenue per month in 2019 (projected), driven primarily by the buyers of transport services (the shippers). We also generate transaction-based revenue from the transport asset-owners who benefit from increased yield on assets derived from the high-volume market-leading multinational shippers who are utilizing our platform for procurement. As market rates and historical performance ratings of providers will be available to OpenPort clients, we will incrementally create a marketplace which brings highly sought-after transparency to a fragmented and fast-growing industry, fundamentally changing how goods are distributed to new consumers in emerging Asia and beyond.

Since early 2017, OpenPort has also been generating business from international logistics companies who purchase transport on a “first-mile” basis from OpenPort for factory-to-port services on consignments to international retail brands. This new service model shows signs of rapid development with large logistics providers recently agreeing to new projects in China and elsewhere.

## 1.6

# Core Technology

OpenPort has built a neutral and digital network for enterprise logistics in emerging markets. Active location tracking and status updates, via our purpose-built Driver App applied to the phones of truck drivers to provide data during transport, creates new opportunities for the enterprise shipper to control security, product quality and cost.

The OEL model features a free-to-use neutral marketplace for transport procurement where transporters publish rates and collaborate directly with large shippers for tenders, both for smart contracts and on-demand ad-hoc transport procurement. Independent performance ratings are assigned to the transporter based on performance data gathered by the platform, which encourages better service quality and value for shippers while opening greater volumes of business to deserving transporters. The marketplace allows shippers to negotiate directly, in-housing their supply chain procurement while gaining unprecedented visibility and tracking.

OpenPort also offers a set of standard and customizable “Operations Dashboards” for each client which allows visibility into the evaluation and ranking of providers on any selected trade lane, and new perspectives over the trove of ERP-integrated shipment, cost and milestone data available in OEL. As we continue to grow visibility and widen the scope of transport services we provide to our clients, we have put increasing effort into integrating with customer’s ERPs due to the universal usage of ERP systems among multinationals. We have direct integrations whereby delivery requests from the ERP are executed in OpenPort’s OpenTM (transport manager), consolidated and dispatched using the OpenDispatch tool, and fulfilled by drivers via the OpenPort Driver App. Throughout the process, shipment tracking events can be fed back to the customer’s internal systems.

Other integration scenarios include OpenPort shipment tracking events fed back into individual ERP Sales Order or Stock Transfer Orders.

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To support the growth outlined in this whitepaper, the OpenPort platform must be globally scalable and leverage proprietary and differentiating technology. The platform infrastructure is our foundation and drives the customer experience. The success of our system is measured by how effectively we serve the needs of both complex multinationals and micro-sized locally based transport providers in emerging markets. Therefore, OpenPort technology is built to deliver against these three strategic imperatives:

- Scalable, secure and robust delivery platform.
- Disruptive and differentiating solutions.
- Serving the largest multinationals and the smallest local trucker.

To successfully deliver against these three imperatives we leverage modern cloud based Software as a Service and Platform as a Service systems together with mobile technology.





2.0

# Blockchain for Digital Logistics

# Blockchain For Digital Logistics

As a non-technical document, the purpose of this section is to outline OpenPort's vision of using blockchain technology to complement and strengthen OpenPort's disruptive business model, and to serve as a roadmap for the business process and future capabilities.

Blockchain, as a distributed ledger, and its supported infrastructure - smart contracts and tokens – enable radical business changes that mirror those of OpenPort's OEL model:

- Eliminate reliance on intermediaries: using blockchain to transmit orders, letters of credit, bills of lading and delivery receipts without the use of bonded couriers.
- Drive market efficiency, transparency and cost savings: using an immutable and auditable public ledger for recording shipping documents and events and smart contracts to trigger payments.
- Facilitate fluid demand and supply side relationships: reducing reliance on brokers and clearing houses (AffinityBlockchain, 2017).

OpenPort aims to maximize the benefits and opportunities provided by blockchain to further cement our position as the only ERP-integrated multimarket logistics and software provider in Asia.



# Value For Our Clients

Blockchain is inherently suited to many of the key issues facing supply chains. It enables secure, end-to-end supply chain tracking and monitoring from raw material to customer. The primary issues facing shippers with large supply chains, and the solutions presented by OpenPort and our blockchain technology, are focused on the following three core benefits:

**1**

## SECURITY AND TRUST:

Irrefutable, immutable and auditable ePOD and provenance answers the question “exactly what got delivered, when, and how”?

- The use of a validated, consensus-driven and immutable public ledger with the ability to encrypt sensitive data for shipment tracking and event reporting reinforces the credibility of our ‘breadcrumbs’ technology.
- Smart contracts on Ethereum mated to OpenPort’s ePOD process ensures the validity and provenance of digitized shipment documents. This introduces efficiencies to the whole supply chain by reducing paperwork required in document transmission, change of ownership procedures and customs clearances.

**2**

## FASTER AND CHEAPER:

Improved cash flow allows for better rates and real-time visibility, in that:

- Payments and clearance processes are facilitated because supplier terms, letter of credit, trade finance and ePOD triggered payments are all contained in smart contracts.
- Cash flow is vastly increased via a digital currency off-ramp as the immutable ePOD triggers payments from retailer to shipper and shipper to transporter, improving working capital. The result to the shipper is better rates and service, while the transporter receives faster payment and increased volumes.

**3**

## SCALABLE:

Blockchain technology extends across borders and modes of transport, thus establishing OpenPort as a supply chain partner of choice for multinationals. OpenPort’s technology is already localized and supporting shippers and transporters in India, Pakistan, Indonesia, Philippines, China and Hong Kong as the only multimarket digital logistics providers in Asia. Further, a road freight solution is already scaling to support the “first mile” of international shipments for US retail brands sourcing from China and India – we can start where a customer needs us most, and scale across markets and mode of services with a common standard of business process and system integration which leverages for improved value delivery to the world’s largest supply chains.



## DIRECT ECONOMIC INCENTIVES

OpenPort will use the OPN (OpenPort token) (discussed in section 2.2 below) and blockchain processes supporting our platform to create two primary incentives to drive activity from offline traditional means of transportation sourcing over to our unique multi-market enterprise platform:

- Transporters must utilize OpenPort technology to receive payment, which improves their cash flow to support asset operating costs and, at the same time, drives value to other supply chain stakeholders especially the shipper of the goods, by improving visibility and providing real-time ePOD.
- Meanwhile, enterprise shippers procuring logistics receive savings in improved transport rates made available by transporters, on the basis of low payment risk and improved settlement of freight rates, (plus discounts on transport offered initially by OpenPort).

### 2.2

## The OpenPort Token

Blockchain is about the secure transfer of ownership, and logistics is about planning and executing the physical movement of a transfer. OpenPort will generate the OpenPort “Open” token (OPN), a secondary asset built on smart contracts within the blockchain ecosystem and used in running OpenPort’s decentralized applications. Tokens will fuel smart contracts.

Further, the OPN and platform are designed to deliver the following specific benefits:

- **Speed and Cost Controls:** OPN allows better control of speed and lowered transaction costs in an industry where margins for transporters can be slim (less than 5%, improving over time with the adoption of OpenPort technology). The need for controlled and responsive customer service timelines for OpenPort’s growing volume of shipment activity requires a solution where transactions can be completed more rapidly than with other existing solutions.
- **Security:** OPN is the principal mechanism of exchange in the OpenPort marketplace, allowing real-time spot bidding and contract settlement between shippers and transporters, and access to a full range of other services including the supply chain dashboard, ePOD, and Transport Management System (TMS) on a stand-alone basis. It is critical that these smart contracts be safe from external threats and that agreed rates and sales information be kept confidential and secure – a blockchain with proprietary tokens optimizes this security and reduces risk of improper data access.



## DEVELOPING AND CONNECTING THE LOGISTICS ECOSYSTEM - THE VALUE OF dAPPS

Shipper and transporter requirements vary from market to market, and industry to industry. The exact data needed for Hong Kong – Macau – China cross border shipments for consumer goods is different from cement transport in Pakistan, or the needs of pharmaceutical suppliers and transporters in India. OpenPort will support our core mission bringing transparency to the often-opaque logistics industry with the power of decentralized technology, but at the same time use the OPN to connect this ecosystem, through basic licensing fees on participants in the transportation ecosystem. See section 2.6 below for more detail.

## Token Use Cases and Process Flow

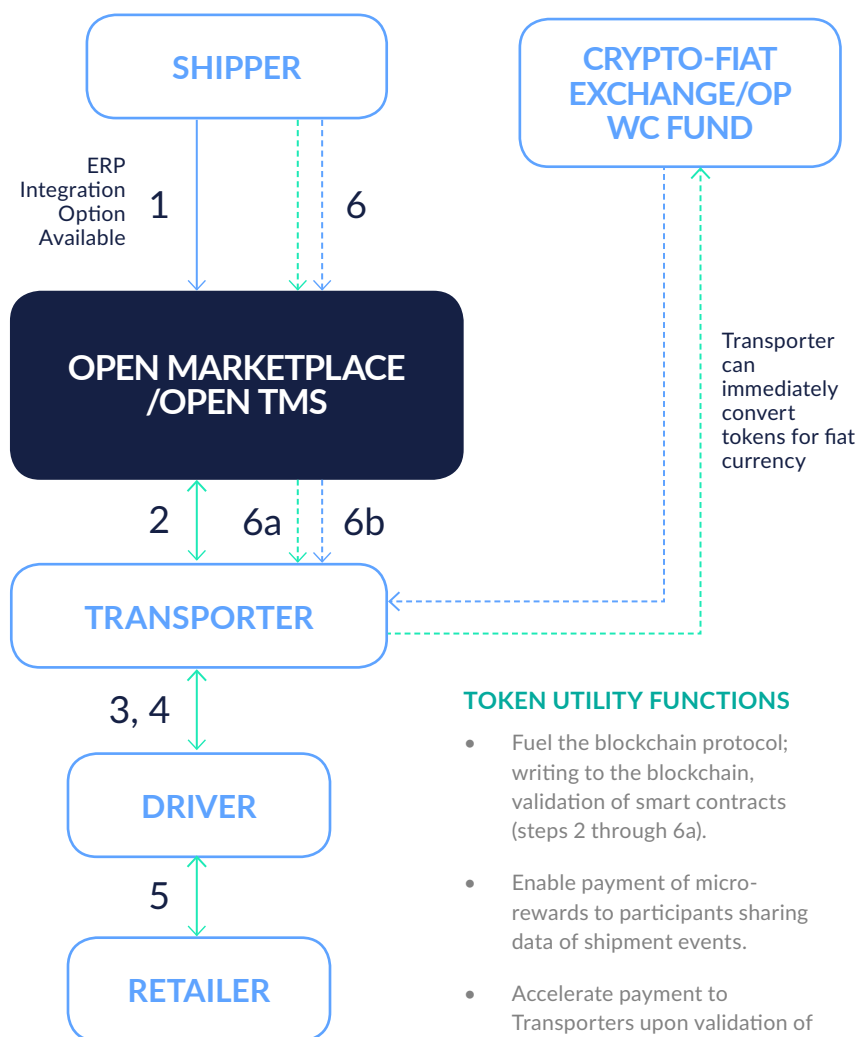
OpenPort understands that this is a complex undertaking involving many stakeholders within a dynamic ecosystem, and proposes to introduce new blockchain elements to our current platform in phases and by country - based on market readiness, existing customer base and platform maturity - starting with the Philippines, India and then also Pakistan.

OpenPort already operates a critical element of this ecosystem – our ePOD with Driver App for drivers – which we will leverage to provide identity and 2-factor (2F) consignee authentication on shipments, triggering payment from the escrow account held by the marketplace. We will also further develop the following system elements to complete the platform:

- **Utility Token (OPN).** The role of OPN is to facilitate the fast transfer of funds between parties with no delay after a shipment is received. OPN will operate on an openly accessible blockchain with a permission layer to secure confidential data.
- **Token Exchange.** OPN will be convertible to fiat currency.
- **Transport Marketplace with Smart Contracts.** The already existing marketplace (deployed in Indonesia and Pakistan to start) will include performance ratings and direct procurement operations.

Within this ecosystem, the process of transport procurement and payment would thus be:

1. Shipper browses Open Marketplace and creates a tender, or uses Open TMS to create an order.
2. Agreement is made with Transporter, smart contract is initiated and fueled by the OPN token.
3. Transporter receives and assigns the order to a Driver using OpenPort Dispatcher.
4. Driver moves shipment with pickup, key events & delivery to Retailer recorded to the blockchain. Driver receives micro-rewards in OPN for data sharing via Driver App.
5. OpenPort ePOD issued by the Driver and confirmed with 2F authentication by the Retailer validates the smart contract. Transporter invoices the Shipper.
6. Transporter either accepts a) immediate payment in OPN or b) payment in fiat as per credit terms.



## CLOSING THE LOOP

OPN transfer to transporter links together the ERP integrated smart contract, writing of events to the ledger from pick up to delivery, and the ePOD confirmation and digital signature. Payments between all parties is made on completion of conditions contained in the smart contract, within hours of completed delivery as opposed to weeks if not months of delay in the legacy payment process.

Building an ecosystem that incentivizes transport procurement by OPN will drive cost reduction for shippers and improved cash flow for transporters, as OPN are instantly released by smart contracts to the transporter upon successful ePOD. Transporters will have the option to be paid with an immediate release of OPN upon ePOD which can be converted to fiat currency via the local exchange.

Payment by OPN brings further benefits to the multinational shipper beyond working capital. Transparency will increase, and the possibility for corruption within the procurement process is negated using OPN, as all transaction history and payments are recorded to distributed ledgers accessible by authorized consensus nodes running the logistics protocol.

Furthermore, as a multi-market provider, OpenPort multinational clients who opt to make payments in OPN will benefit from fewer international capital constraints, freeing up the movement of both capital and goods for cross border freight (see interoperability above).

- ← Protocol
- ← OPN payment
- ← Fiat payment

## CASE STUDY: MICRO-REWARDS AND IRREFUTABLE TRANSPARENCY

### How to Seed the Market, Solve a Problem and Drive the Value of OPN at the Same Time

Transporters throughout Asia subcontract their services to the owners and operators of 'market-hired vehicles'. This practice offers the capacity and pricing desired by the high-volume shippers that purchase transport from these providers, but until now there has been no reliable way to track any of these market-hired vehicles during transit, with the truck itself often not confirmed (via brokers) until hours before pick-up, and the identity of the driver subject to change at the last minute.

With the advent of smartphones, we now have a cost effective and ubiquitous tool not only for confirming driver identity, but for gathering a wealth of event-driven data from the truck. We can do this by deploying the free-to-use OpenPort Driver App in conjunction with our ePOD technology. However, usage of this technology needs to be incentivized.

To encourage adoption, OpenPort will reward individual drivers under a micro-reward scheme (estimated at 1% of the transport revenue) on these required events, all of which OpenPort tracks and captures today through its innovative mobile application:

- Pick-up.
- Phone powered on with GPS enabled during transit.
- Delivery and use of ePOD (highest reward).
- Handling exceptions accurately, digital signature for SKU level adjustments.
- Confirming availability for new marketplace loads.
- Accepting new bookings.

Micro-rewards will be paid with OPN, built on the same blockchain as our Driver App and ePOD, and drivers can cash out from the local exchange when they desire. The OPN micro rewards system will extend to supply chain participants (drivers, warehouse operators) other than the company to whom transport is contracted (transporters). This increases transparency, as more supply chain events are made available through the OpenPort platform, but the consensus protocols around the blockchain also improves trust in the accuracy of this data. An irrefutable transparency is created, for extended value to shippers.

Identifying the driver and tracking events in this way is essential to the irrefutability of the ePOD, which is a core KPI for the transporter and triggers payment to the transporter, which will be done significantly quicker than

legacy payments (and even faster if the transporter accepts OPN vs. cash), thus creating incentives for both transporter and driver.

Shippers want drivers in the supply chain to use smartphones, but do not want to directly involve themselves in driver incentive programs, which may be practically impossible to execute due to the myriad number of small payments required. Instead, shippers will continue to pay for the freight directly to the transporter via OpenPort and our smart contracts.

The transaction value of these micro-payments (in the one-tenth of USD0.01 range, for example) cannot be easily supported by established cryptocurrencies, as their minimum transactions costs would make the process prohibitively expensive to manage. The consensus creation mechanism will be faster on OpenPort's blockchain. Tracking the driver identity, rewards paid and automatically assigned performance ratings also builds value in the blockchain and OPN exchange.

We can further use OPN to secure capacity on behalf of the shipper. While full transfer of OPN is made on completion of the smart contract, an agreed amount can be placed on deposit once a booking is made, securing the transport. Mirroring real business use cases, if the shipper cancels the booking, a percentage of the deposit is transferred to the transporter. This helps to protect both parties' interests.

## 2.4

# Token Economics

OPN is a Digital Token Driving the Data Economy of the Logistics Protocol

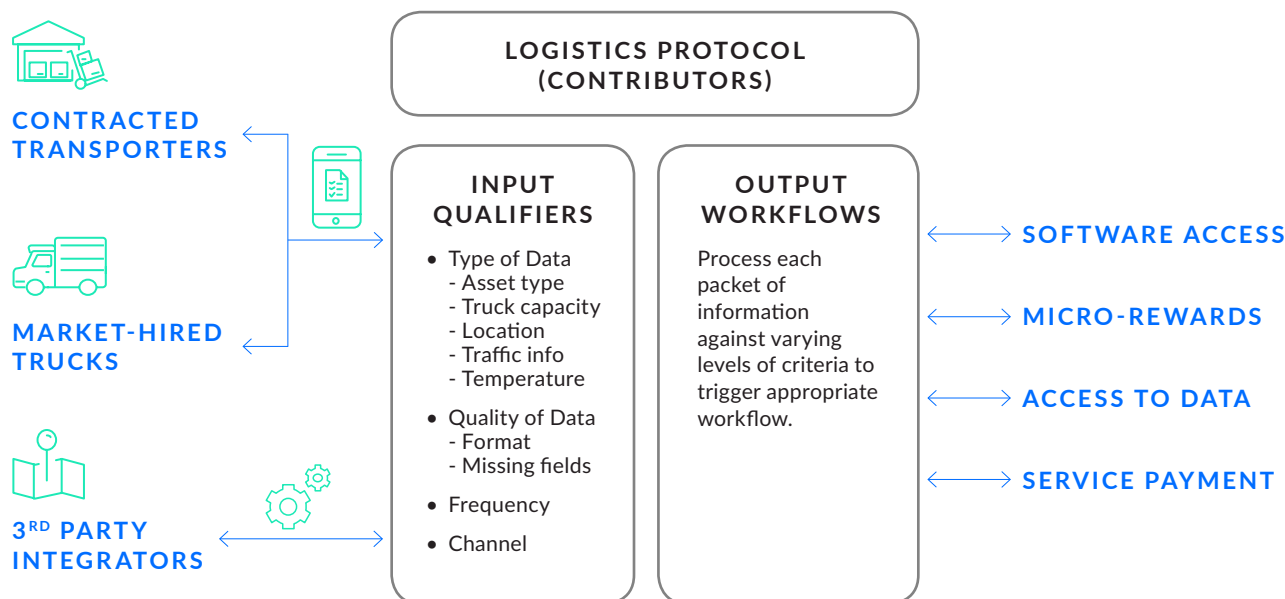
OPN may be exchanged for transport and redeemed by transporters and drivers.

OPN adoption will largely be fueled by contributions from the network of active drivers on either the OpenPort Driver App or OpenBroker, as well as business partners and 3rd party integrators connected via OpenLink.

Information from these various sources are qualified against multiple criteria before packets are packaged into blocks that make up different parts of available workflows, or they are connected to active shipments to form supporting data types like tracking information, shipment events, or as part of the resulting ePOD.

Ultimately, the distributed nature and granularity of the information enables various stakeholders in the supply chain with access to varying levels of data. The unique application of micro-rewards to the transport network drives adoption and subsequently increased validity of various data points, thereby contributing to the ability to generate various recommendations such as (1) most cost-effective delivery windows, (2) optimized goods to asset type, (3) or sustainability recommendations like CO2 impact per freight movement.





## VALUE OF EXCHANGE AND MICRO-REWARDS:

- A key function of OPN is to reward logistics operatives for submitting information to the network:
  - Active Micro-Rewards:** incentivise sharing of information for specific shipments (pick up events, picture uploads, delivery events etc.) as determined by the principals.
  - Passive Micro-Rewards:** encourage sharing of information for the benefits of all actors on the network. The OpenPort Marketplace governs passive micro-rewards.

## CURRENCY AND STORE OF VALUE:

OPN can be used as a currency for:

- Fast payment for transport services secured by smart contracts linked to the Protocol.
- Payment for SAAS powered by the Protocol.

## RIGHTS:

- Shipper, transporters and other third party need to hold a minimum of one token to access OpenPort's Protocol and Platform.
- Access to OpenPort analytics and dashboard.

# Use of Token Sale Capital: Incentives and Rewards

OpenPort will set up a foundation to issue tokens in the token generation event (TGE). OpenPort Limited will have control over the activities of the foundation, in compliance with the foundation's mandate to be set out in its Articles of Association. The foundation's mandate will be to promote the use of the OpenPort blockchain protocol and token, and OpenPort Limited's support (through the allocation of staff, resources, and licensing of IP) will be critical in achieving this mandate.

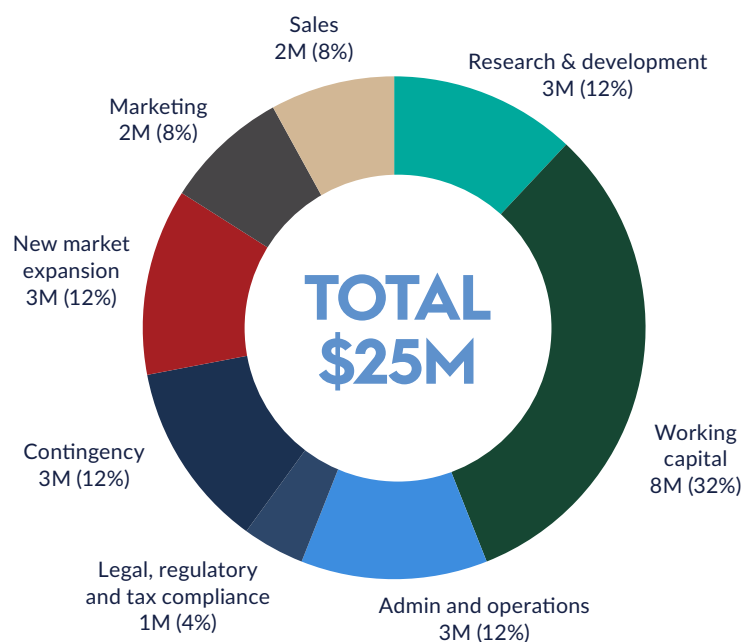
The OpenPort Foundation will create 100 million OPN tokens at the TGE and make 25 million available at the time of the pre-sale and main crowd-sale. The remainder (75 million OPN) will be held in reserve by the foundation to provide required liquidity at a future date and an option for sale of additional tokens, later in 2018 or at a subsequent date. The token will be priced at 1 US\$.

Security in TGE planning and execution being a critical priority, OpenPort will work with an intermediary to ensure that the latest anti-hacking solutions will be implemented in parallel with the blockchain implementation to insulate the company and the foundation from potential hacking threats.

A majority of the working capital generated from the token sale will be used to encourage adoption and participation in the OpenPort marketplace.

OPN are purely utility tokens, carrying no rights other than access to OpenPort's platform. To position the OPN as the preferred reward system to the transporter community, we will offer immediate payment in OPN (upon fulfilment of smart contract conditions) versus a payment in cash that can be delayed due to payment terms (30, 60, 90 days) specified by a legacy payment process.

## PLANNED FUND ALLOCATION



# Distributed Apps

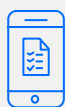
## De-centralized “ERP for Truckers”

OpenPort works across several national markets, each with its own set of unique requirements and demand for localization of our core technology (language, freight charge types, etc.). In addition to requests for new market entry (Vietnam, Dubai, and Bangladesh are planned for Q1 2018) and the localization and customization required, we also see opportunities for customization across different industries (from consumer goods to automotive, pharmaceuticals and life sciences), and for large shippers (customized ePOD) and larger transport companies and 3rd party logistics providers who want to adopt OpenPort technology for their own use.

For these transportation companies, many of whom work on a manually intensive dispatch, asset management, tracking and billing process, OpenPort has already started to sell and implement our system on a standalone basis. After the token generation event, OpenPort will allow truckers to access our system to manage shipments in exchange for OPN. This fulfils demand for a (blockchain compatible) system which helps truckers to manage these core business processes and expand OpenPort's role as a leading functional operator in this ecosystem.

To further build out our new ecosystem for digital logistics, OpenPort will support the development of software development kits (SDKs) and distributed apps (dApps), leveraging fat protocols around crucial logistics use cases. Full utilization of these dApps, interoperability, and capacity to interface with the OpenPort platform will require OPN to enable distributed transactions, ePOD, and payment services. This licensing fee equivalent of OPN required for network, software and service access, while initially waived, will grow over time and further increase demand for the OpenPort token.

### PLANNED dApps INCLUDE:



#### OpenBroker

A mobile app enabling drivers, regardless of working for a large transporter or independently as a single asset owner, to view Shipment Requests (aka shipment tenders, transport tender requests, shipment booking, etc), then bid or offer rates for transport on either immediate need, pre-scheduled shipments in advance, or regular seasonal schedules. With its intuitive mobile-only touchpoint, OpenBroker shippers and drivers can fulfil the movement of goods with a small tech footprint and immensely trusted Smart Contracts ultimately paying out in OPN.

The freight brokerage industry for small “mom and pop” asset owners with 1-3 “market-hired” trucks relies on a manual and labour intensive paper-based process, which deploys a heavy allocation of working capital (up to 80% or 90% of the total freight bill prepaid, followed by months of delayed payment from the shipper due to the time delays of manual invoicing) to secure capacity from the asset-owners and re-sell that trucking capacity and service for a 5%-10% margin. Using digital payments on completion of smart contracts will allow a more effective use of working capital and competitive transport rates from the improved cash flow for payment completion. The fragmentation of the industry for market-hired freight creates a strong demand for distributed apps linked by a common token framework.



### OpenLink

A set of APIs enabling shippers, transporters and solutions providers to interact with common shipment records using a unified platform based on Ethereum. OpenLink provides key integration points such as Shipment Management, Map Tracking, GPS integration, Shipment Events and most importantly ePOD. Built on blockchain to validate record types and sources, OpenLink significantly extends the ability of OpenTM users to achieve a true collaborative supply chain and connect external applications such as retail e-commerce, large store chain OMS (order management systems) or traditional ERP/ MRPs employed by large multinational manufacturers with little overhead on technology and learning curve.

Today OpenPort is integrated with JD Edwards, Oracle, GTNexus, SAP TM and other SAP modules and expanding this integration to several different protocols. This integration consists primarily of inbound delivery order data and the reciprocal flows of shipment and ePOD data back to the shipper's ERP environment. Integration to the GPS units and related software infrastructure of leading transport providers for Nestlé in Pakistan, as another example, has been completed giving the transporters a means to work with OpenPort as a “single dashboard” provider to a large multinational shipper's logistics operations team.

Other integration proposals and requests such as WhatsApp or WeChat APIs for our ePOD product are brought to OpenPort's sales and management teams from current and prospective clients across Asia. This variety of integration requests, combined with the interest in OpenPort shown by very large platforms mentioned above, merits a commercialized (token license fee) distributed application structure of its own. Additional developer tools would include hardware products to OpenPort and IOT sensor, where we have already completed pilot projects.



# Green Supply Chain

## Sustainability – Improved Emissions Monitoring and Asset Utilization

One of the factors making supply chain and distribution costs higher in emerging markets than in developed markets is less efficient asset utilization. This manifests as a reduction in cargo carried per transport kilometre, essentially requiring more trucks and related emissions per kg than in more efficient and developed markets.

After completing deliveries, truckers in Indonesia, India, Pakistan and elsewhere can spend several days trying to find a new “backhaul” shipment, working through a layered and manual system of freight brokers. Today, OpenPort is allowing Mondelez and Unilever to reduce costs as well as their environmental footprint by utilizing the same truck on their Karachi to Lahore route (Mondelez), then Lahore to Karachi (Unilever). In addition to this “co-shipping” model between non-competitive consumer goods companies, OpenPort also works to impact the extended supply chain, allowing trucks used by raw materials suppliers delivering to consumer goods manufacturing locations to pick up finished goods instead of leaving empty, and for distributor to point-of-sale utilization of trucks used by the consumer goods manufacturer. Fewer trucks spending time empty or below capacity in the extended supply chain yields lower costs and emissions, and an improved environmental impact for all stakeholders.

In addition to asset utilization, visibility through the OpenPort system allows supply chain managers to plan and execute on decisions which reduce emissions. Accuracy in transport information provided by drivers using OpenPort technology provides the data integrity needed to make data analysis useful.

OpenPort will extend additional sustainability benefits with planned distributed application features, enhancing our current neutral platform’s capability to drive sustainability.

1. Marketplace for decentralized bidding on backhaul opportunities
  - a. Incentives for driver to participate supported by OPN.
  - b. OPN utilized as deposit for payment.
  - c. Allow shippers to identify transporters and trucks with available assets.
  
2. Global Asset Tracking Emissions Dashboard
  - a. Truck type, fossil fuel consumption and emissions.
  - b. Optimized stock movement based on consolidated capacities (impacts green supply chain management and shipper costs equally).
  - c. Decrease the time a hauler needs to be on the road by evaluating historical movements.
  - d. Carbon footprint of each warehouse qualified as transport moves to and from that facility.
  
3. OpenPort as a decentralized platform - consolidating numerous supply chain stakeholders on a single logistics operating system that not only gives them access to the same data from all angles, but also benefits all parties with overall less total cost of ownership and CO2 footprint.



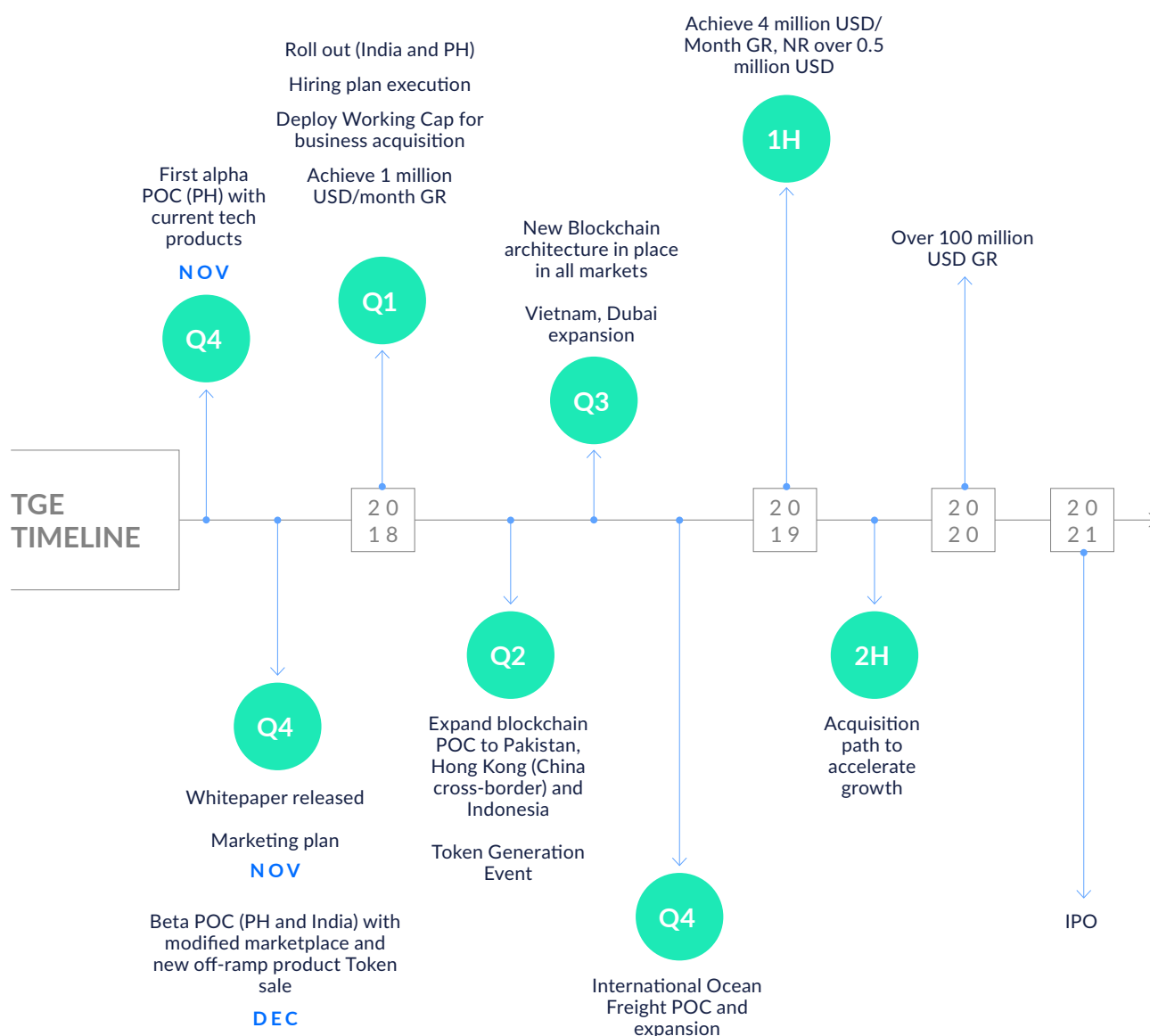
# Timeline

## BUSINESS GROWTH AND REVENUES

Since inception OpenPort has grown over 20% month on month, recently reaching over 400k USD of top-line revenue in August of 2017. We anticipate that the working capital availability from our new token, and increase in value to shippers and transporters from the new system functionality and processes will accelerate this growth curve to approximately 30% month on month, resulting in 10 million USD per month by 2019.

## TOKEN SALE AND KEY INITIATIVES

OpenPort will follow the key milestones and phases of new product implementation in the timeline below to accelerate our already rapid growth.





3.0

# Management Team

Previously the Vice President of Business Development APAC at Agility Logistics and the Head of Consumer Retail Asia at DHL, Max has over 10 years' executive business development experience with leading logistics service providers in Asia, solving board-level supply chain problems for multinationals focused on the retail and consumer goods industries. Prior, Max spent approximately 10 years in the I.T. arena at multiple "dot-com" start-ups in California's Silicon Valley, trained as a systems engineer and worked for product development software companies in the US and Europe, before entering the logistics industry as a software product manager at APL Logistics in 2000. Max is originally from the US, and holds an MBA from the Thunderbird School of Global Management.

Max is thus one of the few individuals in the industry with a combination of technical I.T. knowledge and commercial sales management experience, and a true passion for combining the two in this exciting time for the logistics industry.

**MAX  
WARD**  
CEO, Founder

Previously the CEO of Agility Logistics South East Asia, and prior to that the SVP of Sales and Marketing and VP of Strategic Accounts, also at Agility, Morten brings a wealth of experience managing large-scale complex organizations in emerging Asian markets, most recently managing 7 countries with a turnover in excess of 350 million USD and 3,500 employees. Morten has further executive experience as the Senior Director for North Asia at Damco, and as a Director and General Manager for Maersk Logistics, with executive education from the Columbia University Business School.

**MORTEN  
DAMGAARD**  
COO

Relly has over 20 years of experience in the I.T. industry, 16 years of which has been focused on logistics, specifically on transportation and warehousing. In his early years, Relly was a Cobol programmer working on mainframe systems and transitioned as a DBA for Oracle based applications. He was part of a Y2K remediation (the "Y2K Bug") team that was sent over from the Manila to California to transition IBM legacy systems in the banking and Insurance sectors to be Y2K compliant. Notable clients were Chase Manhattan and Kaiser Permanente. Afterwards, Relly worked for APL Logistics (APLL) for 15 years, developing TMS and YMS systems for N. America and the U.K. Relly also managed the development and implementation APLL's Global Freight Forwarding system in the Americas, Europe, Asia, the Middle East and Australia. Before joining OpenPort, Relly was a Senior Logistics Specialist for APLL, managing the IT solutions of customer implementations in the US, China and Australia. Relly has a working background in Cobol, PowerBuilder & Java languages, DB2, Oracle, SQL Server & MySQL RDBMS's and data integration using standard and non-standard EDI.

**RELLY  
NOMAN**  
Global Head of  
Engineering

Nicolas joined OpenPort in its very early days. Prior to joining OpenPort, Nicolas worked for BNP Paribas APAC investment banking division focusing on cross border merger and acquisition transactions in the Energy and Natural Resources sector in Asia. Nicolas is a French national who graduated from Ecole Centrale Paris and Tsinghua University (MSc. in Industrial Engineering and Applied Mathematics) where he notably conducted quantitative supply chain optimization projects for Mitsubishi and PSA Peugeot Citroen.

**NICOLAS  
HUSSON**  
Vice President of  
Finance

Johanne is responsible for product strategy and delivery at OpenPort, where he works on leading edge supply chain and logistics technologies. Prior to OpenPort, he was a senior product manager at NetSuite and led multiple teams in the innovations group working on ecommerce, enterprise collaboration, retail and other verticals including a patented technology that spawns then tracks auditable notes that interconnect business records and disparate fields (Application US20170200018A1). Johanne served since 1997 in various capacities in the technology space around retail distribution and commerce, from warehousing and freight logistics to ERP and mobility solutions.

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**JOHANNE  
LIM**

Vice President of  
Product Management

Sam is responsible for marketing and communications at OpenPort. He joined the company as an early-stage startup and has built and guided the brand through periods of rapid evolution in product and service offerings across multiple markets. Prior to OpenPort, he was marketing manager at the fastest growing supply chain quality control company in Asia. Originally from Ireland, Sam is based in Hong Kong and holds B.Comm. & M.B.S. degrees earned in Ireland, China and Singapore.

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**SAM  
COYNE**

Vice President of  
Marketing

Olga is OpenPort's General Counsel, overseeing all things law and compliance, from corporate governance to human resource management. Previously, Olga was in private practice at a boutique Hong Kong law firm where she split her focus between commercial transactional matters and dispute resolution. Olga hails from Russia via the US and is a Hong Kong solicitor.

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**OLGA  
DONTSOVA**

General Counsel

Eusebio has over 20 years of software development experience, with 15 years spent in the e-Banking and payments space. He has extensive experience developing banking and payment solutions, co-engineered a military-grade Secure Cryptographic Device, and authored BIM-ISO8583, .NET and .JAVA libraries. He is also a co-founder in three alpha-stage blockchain startups, including the Philippines first offline Bitcoin Wallet.

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**EUSEBIO  
GARCIA**

Blockchain Specialist

Christian has over 14 years' experience designing and developing Object Oriented applications, including 8 years of Java/J2ee development of distributed and e-Commerce Systems. His in-depth knowledge extends to relational databases (Oracle 9i, 10i, 11i), Servlets, EJB, Spring, JSF, Oracle CC&B and Hibernate, with additional front-end experience in JSP, xhtml, html, JavaScript and xml. He has extensive experience Agile development and the role of Scrum Master, and spent 6 years managing a team of over 15 developers.

**CHRISTIAN  
NOEL ALVAREZ**

Chief Systems  
Engineer



Paul W. Bradley is the Chairman and CEO of Caprica International, and Vice Chairman and Board Member of Supply Chain Asia. Mr. Bradley's career spans senior management positions in Fortune 1000 companies, the creation of 7 start-up companies and the launching of two IPO's. Previously the Managing Director of IDS International (Li & Fung Group) and President of Arshiya International, he has also held senior management positions with NYK Line, HAVI Group and APL Logistics. Designated one of the forty "New Asian Leaders" by the World Economic Forum and presented the Asian Supply Chain Manager of the Year Award by Lloyds Publications, he has attended Wharton/AIM and Stanford Executive Programs and holds an MBA from the Thunderbird School of Global Management.

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**PAUL W.  
BRADLEY**

Independent Director

Hans is the founder and CEO of Ellipsis Advisors, LLC, providing C-Level advisory services to large-cap, mid-cap and early stage businesses. In the last 14 years, he has served as CEO on three multinational corporations. Prior to starting his own business, Hans was Chief Executive of Asia Pacific for Agility Logistics, where his responsibilities spanned more than 20 countries, over 7,000 employees, and where he served on Agility Logistics' Global Management Board. He also served as DHL's CEO for Global Customer Solutions, leading development and sales across major verticals of customer solutions across the DHL Supply Chain, Warehouse & Distribution, and Forwarding and Express Business Units. Prior to that role, Hans was CEO of DHL Express USA, CEO of APL Logistics, and served on the global boards of both organizations. Originally from the US, Hans studied at Brown University and has lived and worked in Europe, the US, Latin America, Asia and the Middle East.

**HANS  
HICKLER**

Global Board of  
Directors



# Primary Investors

OpenPort is backed by leading global private equity funds Susquehanna International, Caldera Pacific Ventures and Wavemaker Partners. Other investors include the former Chairman of GoGoVan, the first major mobile logistics company in Asia, valued at over 1 billion USD.



## Susquehanna International Group of Companies (SIG)

Since 1987, the Susquehanna International Group of Companies (SIG) has grown from a trading firm on the Philadelphia Stock Exchange to one of the largest privately held financial institutions in the world. With more than 1,500 employees worldwide, SIG sits at the helm of the latest trends and developments in trading and market making, institutional sales, research, private equity, and venture capital. SIG has offices across North America, Europe, Asia, and Australia.



## Caldera Pacific Ventures

Caldera Pacific Ventures provides growth capital to early-stage companies in Asia Pacific. Caldera Pacific aspires to be the partner of choice for high quality companies that seek long-term capital to execute a growth strategy. Through active involvement, Caldera Pacific works with management teams to develop their businesses, implement strategies and adapt to inevitable market changes.



## Wavemaker Partners

Wavemaker Partners is an early stage venture capital firm established in 2003 with offices in Los Angeles and Singapore. Its founders are entrepreneurs who've built and exited businesses themselves. US-based investments include MindBody (NASDAQ: MB), DigitalGlobe (NYSE: DGI) and StyleHaul (acquired by RTL). Singapore-based investments include Luxel (acquired by LVMH), ArtofClick (acquired by Xurpas) and Pie (acquired by Google). Wavemaker is the Southern California and Southeast Asia representative of the Draper Venture Network (DVN).



## Gabriel Fong

Global Board of Directors, Seed Investor

An experienced private equity, hedge fund and real estate investor, Gabriel is the Chairman of Fenix Global Investors and a prominent angel investor, advisor and board member to numerous start-ups, including GogoVan where he served as Executive Chairman. Gabriel started his career at Goldman Sachs, moving to Donaldson, Lufkin & Jenrette and later Morgan Stanley, before becoming Managing Director, Head of Asia Special Situations at Och-Ziff Capital Management. A resident of Hong Kong, Gabriel received a BA from Cambridge University.



## 3.2 Advisors & Partners

### Haroon Oppal

Technical Blockchain Advisor, AffinityBlockChain

Haroon is a highly experienced senior technologist in strategic change, P&L management, business and enterprise architectures, design and implementation of complex target operating models, business and corporate strategy formation. He has domain knowledge and experience of financial services, global supply chain management, retail and investment banking, risk management, asset management and broadcast media. Haroon has previously held senior management positions with Deloitte Consulting, Accenture and Capgemini and holds a degree in Mathematics and an MBA both gained in London, UK.

### Arno Nieuwland

Technical Blockchain Advisor

Arno has a 20+ year career in logistics and technology in Asia and Europe and is currently the director of e-Commerce Hong Kong, a leading advisory firm providing technical consultancy on blockchain topics including Ethereum coin protocols. Arno is passionate about creating FinTech applications helping the financial and insurance industry transform, all based on the implementation of blockchain technology. Arno and his team are trusted advisors of some of the leading retail banks, insurance and logistics/transportation companies. His firm has valuable experience applying protocol coding structure to utilize the power of Ethereum for applications in different industries. Arno has held senior management positions in several FTSE 100 companies and holds a Master of Science degree from Delft University of Technology and a MBA Strategic Marketing degree from Yale School of Management.

### Garrett MacDonald

Technical Blockchain Advisor

Garrett started the first publicly traded bitcoin mining company in 2012, when he was 15 years old, by conducting a token sale. After learning about the banking system through consulting for venture and financial firms in Germany and Switzerland, he decided to focus on applying blockchain three sectors that have great potential to positively impact the world: energy, transportation, and agriculture. Garrett is most experienced in hardware development and technical blockchain architecture, and advises blockchain-utilizing companies in Europe, Asia, and North America.

### Bryan Feinberg

CEO, Etheralabs

Bryan is the CEO and founder of Etheralabs, Zephyr, and P2Primex, all three early-stage launchpads catering to the blockchain industry. Mr. Feinberg is a licensed investment banker holding series 7, 63, and 79 FINRA license designations, and is a founding partner of The-blockchain.com, a leading news source for digital assets. Mr. Feinberg is also on the board of the Blockchain Intelligence Group and provides advisory services to mature and emerging fintech startups within the blockchain industry.

## **Parvis Hanson**

President of Manor Group

Manor Group advises leading corporations and governments from Asia, Europe and North America. Growing 10 companies from millions to multi millions USD turnover and implemented innovation economies for Singapore, Switzerland and Philippine Governments. Prior to founding Manor Group, Parvis Hanson was Senior Manager of the World Economic Forum, Asia; ICT corporations and New Asian Leaders. Mr Hanson is also Managing Director, Book Hill Partners; President, East West Bridge Switzerland; President, Swiss China Partnership and senior advisor to United Nations, INTERPOL, Brookings Institute and Horasis.

## **World Economic Forum (WEF)**

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation. The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas. It was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland. It is independent, impartial and not tied to any special interests. The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance.



# Risk Disclosure

This whitepaper is for informational purposes only and is not an offer or solicitation to sell shares or securities or any other investment instrument in OpenPort or any affiliated company in any jurisdiction.

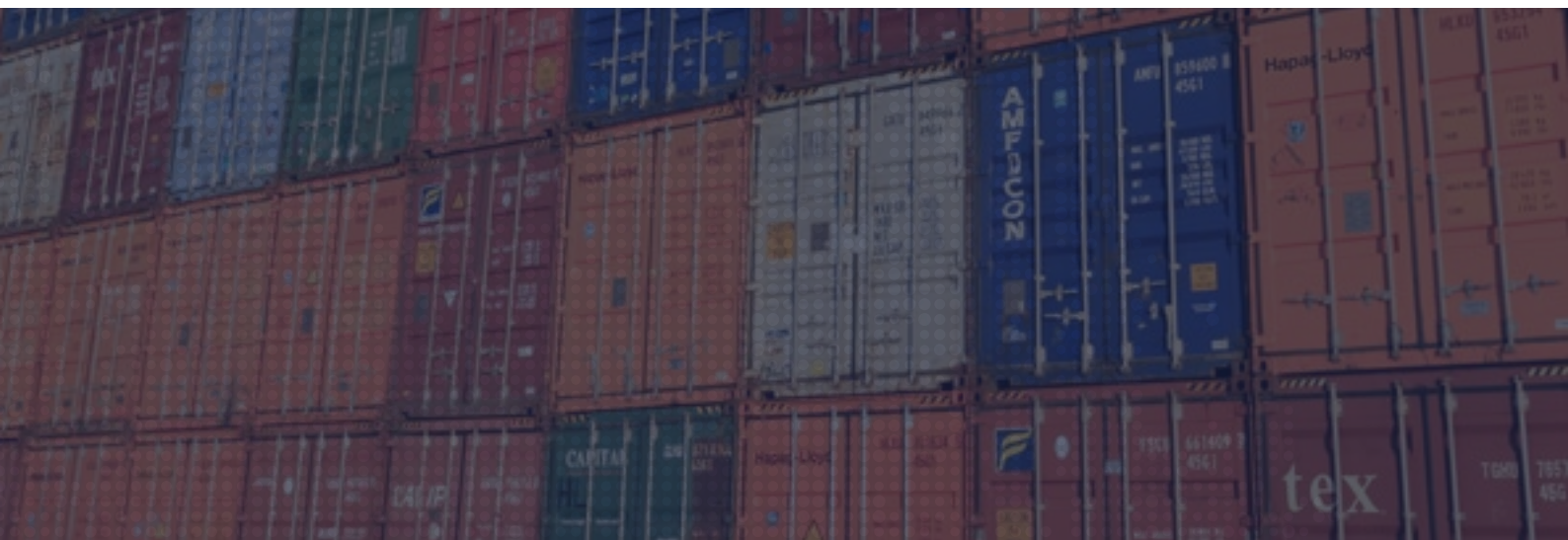
OpenPort Tokens are not securities, nor are they intended to resemble a security (debt or equity) in any form or in any jurisdiction. As such, OPN holders will not have any ownership rights in OpenPort Limited, or in its group of companies (including the yet to be set up foundation – see section 2.5). This follows that OPN holders will not have voting rights, right to dividends, or a right to share in the revenue. Instead, OPN are intended to fuel smart contract linked to logistics and transport services as well as reward information sharing to the OpenPort decentralized network. OPN are not intended for speculative use and any speculative buyers do so at their own risk of possible financial loss. OpenPort Tokens are not evidence of ownership or right to control. Holders of OpenPort Tokens are not granted ownership or equity in OpenPort, or in the OpenPort platform, nor do OpenPort Tokens grant any right to participate in the control, direction or decision making of OpenPort or the OpenPort application.

The information and analyses presented in this whitepaper should not be relied upon to form the basis of any investment decision. Potential buyers of OPN should seek appropriate legal, tax, financial and other professional advice as to the implications of buying OPN.

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## REGULATORY ISSUES

This whitepaper has not been examined or approved by any regulatory agency of any jurisdiction. The publication and distribution of this whitepaper does not imply that the applicable laws, rules or regulatory requirements in any jurisdiction have been complied with.



## CAUTION REGARDING 'FORWARD-LOOKING STATEMENTS'

This whitepaper discusses the plans and forecasts of OpenPort as regarding the development of its business through blockchain technology. It must be emphasized that these forward-looking statements do not, necessarily, reflect historical facts but instead discuss OpenPort's future plans.

These forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual future results, performance or achievements of OpenPort to materially differ from those discussed or anticipated in the whitepaper. These risk factors include, among others:

- OpenPort may be unable to realize the plans for product development discussed in this whitepaper due to:
  - Poor investment decisions.
  - Changes in customer preferences or market conditions.
  - Unavailability of talented and qualified workforce.
  - Insufficient capital to fully develop products.
- Changes in legal, social, and economic conditions in the countries where OpenPort operates which could negatively impact OpenPort's operations.
- Changes in the regulation of crypto-currencies and blockchain networks which could limit OpenPort's ability to legally operate as planned in certain countries or jurisdictions. The functioning OpenPort tokens could be impacted by one or more regulatory inquiries or actions, including the licensing of or restrictions on the use, sale, or possession of digital tokens, which could impede, limit, or end the development of the OpenPort platform.
- Catastrophic or long-term technical or security failures in the Ethereum Blockchain.
- Dramatic changes in exchange rates between OPN and other crypto or fiat currencies.
- Force Majeure circumstances such as wars, acts of terrorism, or natural disasters.

The above risk factors and others could have a negative impact on OpenPort's ability to fulfil its business plan. This could lead to significant deterioration of value of OpenPort tokens.



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