



TRAVEL BLOCK

Vacationing Through The **Blockchain**

travelblock.io

This whitepaper has been prepared for distribution solely for information purposes only, and is not intended as investment advice.

Its purpose is to describe the anticipated plans of TravelBlock for developing a new blockchain token (“Token”) that will be used on a platform sponsored by TravelBlock (“Platform”). Nothing in this document should be treated or read as a guarantee or promise of how TravelBlock’s business, the Platform, or the Tokens will develop or of the utility or value of the Platform or the Tokens. While this whitepaper does represent TravelBlock’s current plans, in the future those plans could be altered at TravelBlock’s discretion in response to technical, regulatory, or market changes, and the ultimate success of those plans hinge on many external factors outside of TravelBlock’s control. Although TravelBlock strives to be as accurate as possible in the facts and analysis contained within this document, those facts or analysis may prove incorrect. This whitepaper does not constitute or form part of any opinion on advice to sell, or any solicitation of any offer by TravelBlock to purchase any TRVL tokens. Like all cryptocurrency, purchasing TRVL tokens is subject to many potential risks, and purchasers of those tokens could lose some or all of their value of the funds used to make that purchase.



01 Overview

02 Problems with GDS

- 2.1. GDS Cost
- 2.2. The GDS Security Nightmare

03 Problems with OTAs

- 3.1. OTA Cost
- 3.2. OTA Security
- 3.3. OTA Lack of Transparency

04 General Reliability Issues

- 4.1. Overbooking
- 4.2. Unreliable Reviews

05 The TravelBlock Solution

- 5.1. Cost-Plus Model Directly Connecting Customers to Providers
- 5.2. Secured through the Blockchain
- 5.3. Enabling A Closed Consumer Group
- 5.4. Online Distribution
- 5.5. Validated Reviews

06 Other Benefits

- 6.1. TravelBlock Rewards Program
- 6.2. TravelBlock Referral Program
- 6.3. Concierge Service

07 The TRVL Token

08 ICO and Allocation

09 Roadmap

10 Affiliates

11 Team



TravelBlock will revolutionize travel booking by directly connecting travelers to providers through the blockchain, resulting in 30%-60% savings on travel purchases, as well as substantial increases in reliability, transparency, and transaction security.

The current travel booking ecosystem is caught in a stranglehold by two sets of powerful intermediaries that stand between customers and providers: Global Distribution Systems (GDSs) and Online Travel Agencies (OTAs).

GDS is a primarily B2B computerized reservation network, utilized as a single access point for making and tracking airline, hotel, and rental cars reservations by travel agents, OTAs, and consortiums like American Express. Together Sabre, Galileo, Amadeus, and Travelport control most of the GDS industry. These companies extract substantial fees to use these networks – for example, the average added cost of an airline ticket booked utilizing GDS is \$12 (USD), and the average hotel booking commission is 20%.

Developed initially in the 70s and 80s, GDS predates the modern web, and unfortunately, the security of their antiquated systems predates any modern notion of web security as well. Passenger private information can be accessed utilizing a just single 6-digit identifier coupled with the traveler's last name, allowing anyone with this information to modify reservations or acquire that traveler's home address or email.

On the OTA side, two companies dominate: the Priceline Group (which includes Booking.com), and Expedia (which includes Travelocity and Orbitz). Online global travel booking in 2016 exceeded \$523 BN (USD), which was over half the market of all travel sales, and their share of the market continues to grow. This effective duopoly has allowed OTAs to impose “rate integrity” agreements on travel providers, ensuring that no one can publicly list lower prices than they themselves offer, even on those providers' own websites.

TravelBlock will replace this morass of hidden fees and artificial pricing with a straightforward cost-plus model, powered by the blockchain. Inventory is purchased at a bulk discount from elite travel providers, and listed on a secure platform. Members (anyone who has purchased one TRVL token) may make airline, hotel, cruise, or car rental reservations on this platform using TRVL tokens, and the resulting transactions are executed immediately and recorded securely on the blockchain. Since TravelBlock's platform is members-only with a website that requires a log-in, it is effectively private, allowing TravelBlock to circumvent rate-integrity agreements and their bloated margins and thereby offer its customers a considerably lower price.

In addition to significant savings and genuine security, TravelBlock will provide numerous additional benefits and advantages over current booking systems. TravelBlock's Rewards program will offer a substantial rebate on every purchase, in some cases as high as 35%, returning TRVL tokens to members that can be used for future travel purchases. TravelBlock's Referral program will award up to 5% of all TRVL token spent by the person referred to the referrer. Its platform will also feature premium concierge services that will allow members to maximize the enjoyment and success of their travel plans.

Worldwide, the travel industry is a staggering \$7.6 TRL (USD) enterprise, which creates a tremendous opportunity for technological disruption for anyone with the right combination of experience, connections, insight, and technical savvy. Travel providers and consumers alike are frustrated with the status quo, frustrated by high commissions and fares, frustrated by monopolistic intermediaries extracting rent on every booking. Comprised of a set of industry specialists with over 50 years of travel and hospitality experience, TravelBlock's team is uniquely positioned to seize this opportunity. Their experience has already been leveraged to form partnerships with most premier travel providers, ensuring access to the best inventory. Moreover, the booking platform is already developed, and ready for conversion to blockchain. For GDS and the OTAs, the writing is on the wall.



1.1 GDS Cost

As noted above, GDS functions as an intermediary connecting travel providers with other businesses involved in the distribution of travel services, such as travel agents, OTAs, and large travel consortiums like ABC, BSI, American Express, BCD, CCRA, Carlson Wagonlit, Radius, and Thor. GDS functions as a centralized digital database for assigning and tracking reservations for its clients, allowing them to coordinate travel bookings worldwide in real-time.

In return, GDS companies charge their clients a fee for each transaction. Depending on the deal the travel provider is able to strike, and the price structure of the specific GDS company, booking fees range from about 2-4% of an airline ticket's cost, and between 15-20% for a hotel booking. This cashes out roughly around \$12 (USD) per airline ticket, which is about twenty times greater than the cost of selling through direct channels. For hotels, the cost nets out between \$10-15 (USD) per hotel reservation. While travel providers might directly pay the fees, it is consumers that bear the eventual burden, since in order to remain profitable, the fee costs must be factored into the purchase price.



1.1 GDS Cost

In addition to charging per transaction, GDS companies also collect a series of ancillary fees, including a start-up fee, annual maintenance fees, and fees for accessing and utilizing their database.

One thing is certain, GDS companies have grown fat on siphoning off the profits of providers, raking in billions of dollars each year. Looking just at Travelport, revenues have increased 7% year-on-year.

There is growing resistance in the industry to the steep costs imposed by using GDS. There has been a huge if not terribly successful push within the hotel industry to amp the level of direct sales through their own websites, with the stated intention of escaping the grip of GDS and OTAs. Airlines, especially European airlines, have been leading a revolt of their own. Ryanair cancelled its agreement with Amadeus, citing the exorbitant fee structure as the reason. Lufthansa now imposes a \$16 surcharge for fares booked using GDS, joining Air France KLM and British Airways who also impose GDS surcharges. Carriers have also started employing the strategy of unbundling food and baggage from their fares as a way of reducing the percentage they are forced to pay GDS (and OTAs).



2.2 The GDS Security Nightmare

Few people are aware of how easily and deeply exposed their personal information whenever they make a travel reservation that utilizes GDS. The reason for this is the Personal Name Record (PNR) data ecosystem that GDSs, and through them tens of thousands of travel providers, employ to track reservations.

Whenever someone makes a reservation, a PNR is created for that transaction. PNRs store:



Reservation details:

:including car rentals, hotel, and baggage



Personal Information:

including phone numbers, date of birth, email, and possibly postal address and passport information



Frequent Flier information

And for someone who has or can hack to obtain GDS access:



Credit card or other payment information*

2.2 The GDS Security Nightmare

GDS was one of the earliest “cloud” data storage systems, in use long before the advent of the modern web. As a result, The PNR system was not designed with security in mind. Instead, it was designed to maximize frictionless transmission of information back when the communications infrastructure could only manage much smaller packets of information.

PNRs are referenced by a single 6-digit alpha-numeric pin, familiar to anyone who has used one to retrieve a boarding pass at an airline kiosk. That code is printed on everything from boarding passes to bag check-ins, sometimes concealed behind a bar code (which can easily be translated with a phone app), but often just explicitly displayed on travel documents.

Only two things are required for anyone to access a PNR: the 6-digit identifier, and the traveler’s last name. Not only does this yield that traveler’s personal information, but it also allows you to modify or cancel that reservation. Researchers at Berlin-based Security Research Labs quipped, “While the rest of the Internet is debating which second and third factors to use, GDSs do not offer a first authentication factor.”

Security experts Karsten Nohl and Nemanja Nikodijevic demonstrated how trivial it is to access and alter PNRs illicitly at a talk the 33rd Chaos Communications Congress in Hamburg, breaking down the security issues in this manner:

Coarse access control	A few global databases keep information on travelers, in systems that have grown for decades and now lack modern IT security
Weak authentication	Passengers authenticate only with their last name and a low-entropy (often sequential) booking code, which is also printed on passes and tags
Insufficient rate limiting	Numerous web interfaces permit brute-forcing of these booking codes, putting travelers’ privacy at risk
No logging	Travelers will never know who accessed their information, since PNR access is internationally not logged

2.2 The GDS Security Nightmare

GDS security was so feeble that at the beginning of the talk, Nohl apologized to the audience for how little hacking technique would be revealed, since so little was actually needed.

Despite pressure from numerous security watchdog groups and concerned governments, GDS companies have balked at improving the security of the PNR system, either by adding another authentication step, or even just logging who accesses PNR records. The cost of the restructuring would be vast, however, with some estimating it would require as much as \$2 BN (USD) to make the necessary changes.



3.1 OTA Cost

Although OTAs charge a comparable fee to GDSs for airline bookings, between 2-4%, they charge an even higher commission for hotels, averaging between 20-30%. On top of that, hotels pay an additional commission of about 3% if they want “preferential listing”, which basically means that a hotel’s available accommodations will be displayed closer to the top of the search list. The fees are so exorbitant that one expert commented that “it makes hoteliers wonder if they are in fact operating a franchise under Expedia’s control.”

OTAs’ commissions on hotels were not always so steep – at their inception, their commissions were closer to 5-10%. But as they have grown to dominate more than half the market for travel booking, that commission rate has increased by leaps and bounds.

Like GDSs, hotels chains have recently attempted to push back against reliance on OTAs, striving to drive potential clientele to their own websites for direct sales. But for hotels at least, challenging OTAs’ web presence is a nearly insurmountable task. While hotels only spend 6-9% of their revenue on marketing, while OTAs, taking advantage of the reduced infrastructure costs inherent in being an online company, spend 35-40%. In 2016, the Priceline group spent \$3.5 Bn (USD) in Google Adwords alone. Even searching for a hotel by name will often instead take you directly to one of the OTAs’ numerous “shell sites” that bear a close resemblance to that hotel’s webpage. Put simply, hotels simply cannot compete with OTAs for web presence on their own.



Airline
3-4%



Hotel
20-25%

+3% for preferential search listing

3.1 OTA Cost

Fully aware of their commanding position in the market, OTAs have not been hesitant in exploiting it. In order to list, hotels are forced to accept unilateral “rate integrity” agreements, which guarantee that they will never publicly offer a better price than the one listed on the OTAs’ sites, even on their own websites. OTA’s have not been shy about enforcing those agreements either. In a survey, 40% of UK hotels report that they had been threatened by an OTA for violating pricing agreements. Commenting in an EU report on problems in the industry, one expert noted that rate parity clauses, “could have the same effect as a cartel,” because “if one major firm says, ‘We employ a price parity clause’, the price is more or less fixed in the market.”



3.2 OTA Security

Although OTAs utilize a more robust security strategy than GDSs, it has not been sufficient to keep them from being hacked repeatedly. This year Orbitz acknowledged that in the last quarter of 2017, over 880,000 payment card records were accessed, with exposed information including name, payment card information, date of birth, phone number, email address, physical and/or billing address and gender.

Both Expedia and Booking.com have acknowledged that their records have been hacked as well. Utilizing the personal data gained from these sites about their customer's recent reservations, hackers created phishing schemes in which they masquerade themselves as the hotel in order to gain credit card information.



3.3 OTA Lack of Transparency

In addition to high commissions and poor security, OTAs have been accused of numerous deceptive practices in relation to both their pricing and listing structures, including:

Bait and Switch Pricing

Users find that the initially low rate that they were attempting to reserve is replaced by a substantially higher rate upon check-out, a problem that OTAs attribute to how frequently their sites can update availability.

Advertised rates do not include fees and taxes, misleading user about how much they actually will have to pay at check-out.

“Personalized” Pricing

Undisclosed algorithms adjust listed price based on user’s browser history and spending patterns.

Misleading Availability Claims

Rooms are listed as “No more rooms available at this hotel”, when in fact they are just unavailable on the site.

Offers are listed as, “Tonight Only!” when in fact the offer exists in perpetuity.

Opaque Search Result Algorithms

Undisclosed algorithms adjust search result order.

Hotels pay additional commission for higher listing.

Inadequately screened favorable reviews result in higher placement.

4.1 Overbooking

Viral videos of a ticketed passenger being forcibly “walked out” from a United flight have recently brought airline overbooking practices to the forefront of the public’s attention. The practice, however, has long been both legal and the industry standard. Nor is overbooking the sole province of the airline industry; the hotel industry routinely engages in it as well.

The dilemma for travel providers is that some percentage of the time, customers simply fail to show. To combat what would otherwise just be lost revenue, both industries have developed algorithms that attempt to forecast the actual percentage of no-shows depending on the anticipated volume of traffic, and overbook accordingly.

Since this forecasting is probabilistic, inevitably some passengers will be forced to take a different flight, or to find other accommodations. Although customers are compensated for the inconvenience, the practice of overbooking decreases consumer confidence in the overall reliability and integrity of the travel industry.

4.2 Unreliable Reviews

Customer reviews are one of the single biggest drivers to consumer online purchases: 61% of consumers read reviews before making a purchase, and conversion rates increase by 133% after reading a favorable review. The stakes are even higher in the travel industry, since favorable reviews result in higher OTA search result listing.

Unfortunately for consumers, fake or planted reviews plague most online sites – some estimates placing the number of false reviews as high as 15%, and OTAs are no exception to the rule. In an analysis of over 40,000 TripAdvisor reviews, a study determined that around 20% of them were either unreliable or fake. The Bed and Breakfast Association stated that OTAs frequently do not validate that reviews were in fact written by someone who booked an accommodation.

Although OTAs have recently attempted to improve screening, the problem is difficult to manage since validation is not built into the fundamental structure of the reviewing process, especially since reviews can be left anonymously.

TravelBlock's solution to the issues posed by the GDS/OTA dominance of travel booking can be illustrated by examining its business model in detail. Expressed succinctly, that model consists of four main elements:



A Cost-Plus Model Directly Connecting
Customers to Providers



Secured by Blockchain



Closed Consumer Group



Online Distribution

5.1 Cost-Plus Model Directly Connecting Customers to Providers

In contrast with GDS/OTA, TravelBlock does not function as an intermediary agency facilitating transactions between providers and customers. Instead it embraces a straightforward cost-plus retail model.

TravelBlock purchases inventory directly from elite travel providers at a discounted bulk wholesale price. It then sells that inventory at a profit directly to its members on its website, offering them a price significantly below the prices mandated by OTA rate integrity agreements. (see also 5.3 below)

By avoiding the GDS/OTA ecosystem altogether, TravelBlock members pay no commissions or hidden fees.

Because members directly purchase travel inventory, as opposed to just reserving it, there is no possibility of overbooking.

Because TravelBlock only lists its own inventory, providers are not charged additional commission for preferential listing. Searches on the platform are instead ordered by a member's preferred sorting filter.

Cost Plus Means:

- ✓ No Commissions
- ✓ No Hidden Fees
- ✓ No Overbooking
- ✓ No Preferential Listing
- ✓ No Dynamic Pricing

Prices on TravelBlock's platform are generated straightforwardly by cost plus; they will never be "personalized" or dynamically adjusted based on a member's spending patterns or browser history. Since inventory is not interchangeable, bait-and-switch pricing will be eliminated as well.

Finally, TravelBlock's industry connections have allowed it to secure partnerships with many elite travel providers already, ensuring desirability of its inventory, as well as its immediate availability upon launch. (see the list of Partners below) Members will have access to inventory as unlimited as that of the major OTAs, as well as over 500,000 bookable private resort weeks at any given time.

Closed Consumer Group

Online Distribution

5.2 Secured Through Blockchain

Blockchain is at its most basic a cryptographically secured, decentralized, distributed ledger. Sets of entries on this ledger are recorded in blocks, each of which contains a cryptographic hash of previous blocks in the series, linking them together in a chain. These blocks are not housed on a central server, but are instead housed by each node in the entire distributed network. New entries on the blockchain can only be made if all network validators reach consensus that the integrity of the chain is preserved, and since each new block contains a hash of the previous block in the series, it is very difficult to maliciously alter the ledger's contents without first subverting most of the network.

TravelBlock will be built as a DApp (decentralized application) on the Ethereum blockchain. Its token, the TRVL token, will be a standard ERC20 token that members can exchange for travel inventory on the platform. Since not all of its members will be crypto-savvy, TravelBlock has also partnered with Processing.com to provide seamless conversion between fiat and TRVL tokens directly on the platform.

The Blockchain Advantage

Decentralized Cryptographically Secured Ledger protects members from having their transaction data stolen in a way that the centralized platforms that OTAs employ cannot.

TravelBlock will use this implementation of blockchain to forge an indelible and secure ledger for all member transactions, protecting this information from attack and forming a reliable record that can be consulted in case of any problem or dispute.

In stark contrast to GDS's outdated and vulnerable systems, blockchain represents the cutting edge of cryptographic security. Centralized platforms present a single point of failure, increasing their vulnerability to hackers. The decentralized and encrypted nature of how transaction information will be recorded and validated on TravelBlock's blockchain ledger will shield it from precisely the sort of attacks that allowed hackers to raid personal and credit card information from the centralized platforms utilized by Expedia and Booking.com.

5.3 Closed Consumer Group

OTA's rate integrity agreements prevent travel providers from allowing anyone to list prices publicly that are lower than those available on their site. But fortunately, there exists a loophole, namely, one can opt to form a Closed Consumer Group. Closed Consumer Groups require membership in the group in order to access their inventory – a familiar American example would be Costco. Because offers made inside the group are not publicly available, they are “fenced off” from the rate integrity agreements, and thus can be offered at a significantly lower price.

Closed Consumer Group

Owning one TRVL token = membership in TravelBlock
Members have access to privately listed inventory on TravelBlock's website.
Private membership allows TravelBlock to ignore rate integrity and reduce margins,
providing members a combined savings of 30%-60%.

TravelBlock's blockchain implementation provides the basis for forming a Closed Consumer Group through the TRVL token. Owning one TRVL token is sufficient for becoming a member and gaining access to TravelBlock's website. Since that website requires a log-in and is open to members only, the listing is not public, allowing TravelBlock to circumvent the artificial prices that OTAs have imposed on the market through their rate integrity agreements.

When you combine the savings accrued by the removal of OTA/GDS fees and commissions together with the reduced mark-up on travel inventory, TravelBlock's member can expect to save between 30-60% on every travel purchase.

5.4 Online Distribution

As we saw in the OTA Cost section, travel providers have been unable to compete with the online presence of OTAs, in large part due to the vast difference in resources that OTAs can dedicate to marketing – 35-40% as opposed to the 6-9% travel providers can manage. OTAs have two advantages:

1

The focal point of their business is sales and marketing, and

2

Existing solely online radically reduces their infrastructure costs relative to brick-and-mortar counterparts.

Without another option, travel providers are locked into the viscous cycle with OTAs, needing the revenue stream that OTAs are able to tap for them, but vulnerable to their unilateral price setting demands and ever-increasing fees and commissions. As this cycle worsens, travel providers' dissatisfaction with the existing ecosystem has become stronger and more vocal, but this in and of itself has not allowed them to escape the trap.

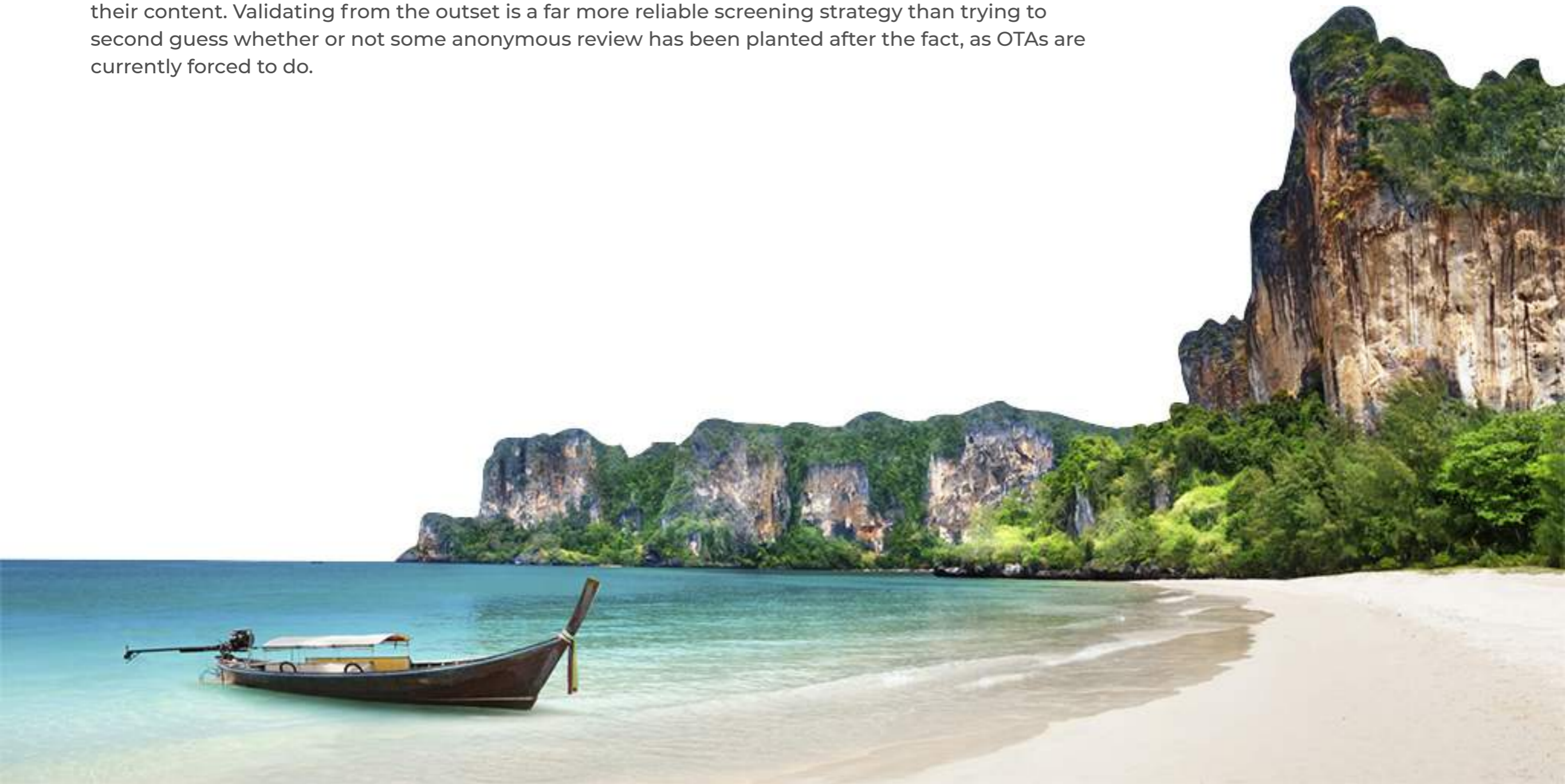
Fortunately for them, TravelBlock can leverage precisely the same advantages as the OTAs, while at the same time rejecting their monopolistic and predatory business model.

Like OTAs, TravelBlock employs an online distribution model, reducing the amount it has to spend on infrastructure. Because of this, TravelBlock can spend an equivalent amount on marketing, the current plan being 40% of revenues. This, however, is where the commonality ends as we saw in detail in the last three sections.

To combat OTAs already entrenched position in the market, TravelBlock has three main weapons: superior price, genuine security, and the dissatisfaction of travelers and travel providers with the status quo. By offering a more attractive deal to both providers and customers using state-of-the-art technology, TravelBlock aims to challenge the OTA monopoly on its own turf.

5.5 Validated Reviews

Last but not least, TravelBlock's members-only platform, when combined with its indelible record of all transactions, allows it to ensure that all reviews created for the site are genuine. Restricting reviews to members who have actually purchased that specific travel service guarantees the authenticity of their content. Validating from the outset is a far more reliable screening strategy than trying to second guess whether or not some anonymous review has been planted after the fact, as OTAs are currently forced to do.



6.1 TravelBlock Rewards Program

The way the TRVL token is implemented in Ethereum allows TravelBlock to offer a unique reward system to its members. On top of the already substantial savings provided, members can receive a discount of up to 35% through TravelBlock's Reward Program, a discount which is awarded in the form of Reward TRVL tokens that can be used to make future travel purchases on the platform. The way it works is as follows:

- ✓ **Members purchase travel inventory using TRVL tokens**
- ✓ **A portion of those tokens, depending on the Reward rate for that item, is returned to that member's wallet as Reward TRVL tokens.**
- ✓ **Reward TRVL Tokens can only be used to make new travel purchases on the platform. They cannot be sold or transferred.**
- ✓ **Being returned through the Reward Program is the only way that TRVL can be locked.**

6.2 Referral Program

As an additional marketing strategy, and as an additional incentive to its most enthusiastic customers, TravelBlock offers an extremely generous Referral Program.

The system is simple:

Up to 5% of every purchase made with TRVL tokens by the person referred is given to the referrer on every transaction on the booking platform.

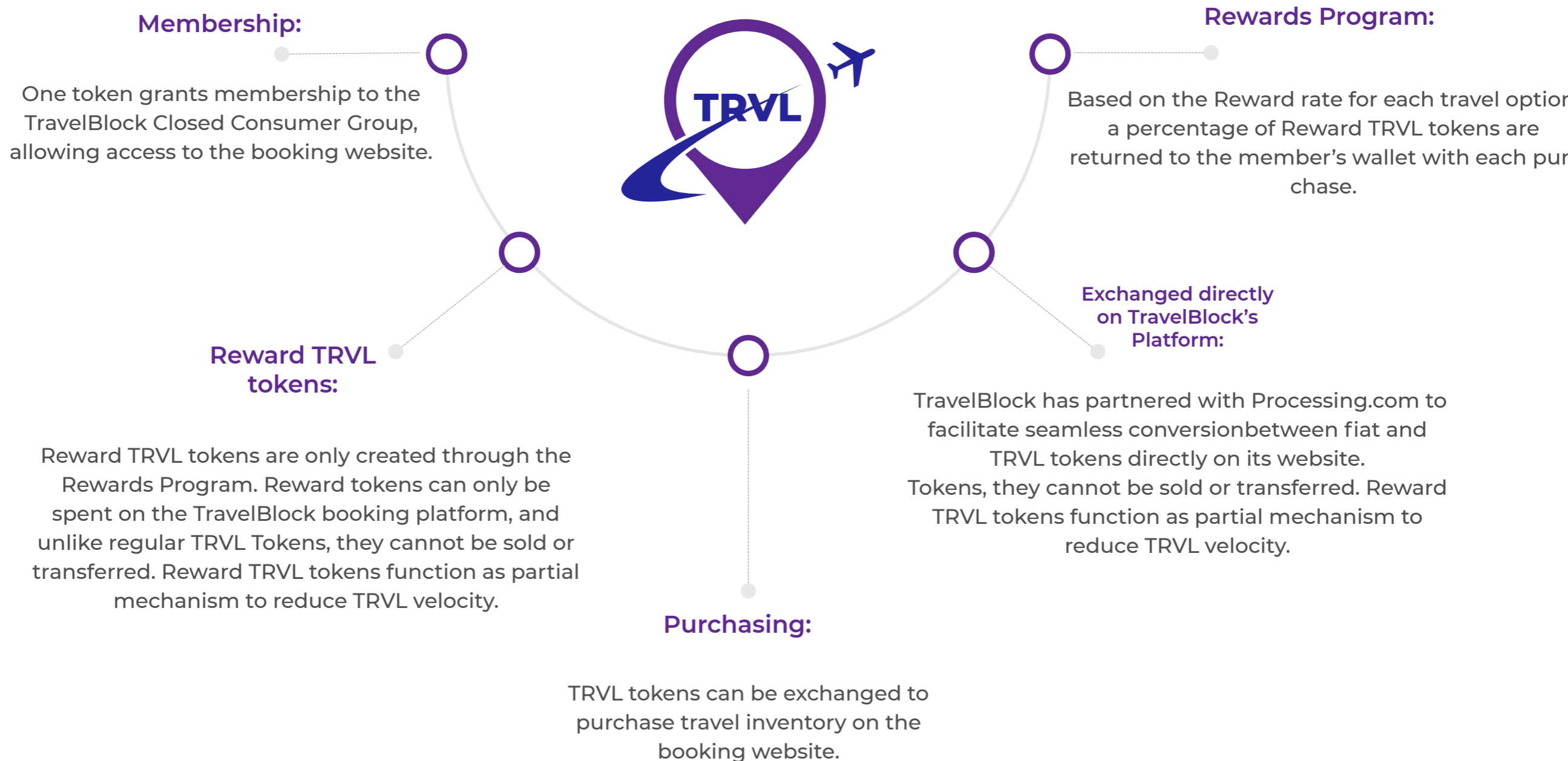
Tokens given in this way are normal tokens, not locked like those from the Reward Program. Spending locked reward tokens does not trigger the referral bonus.

6.3 Concierge Service

Reviews can only take you so far. Knowing just where to go, and having someone that can ensure you actually get there are the keys to successful travel plans, whether they be business or leisure.

TravelBlock will offer premier concierge services on its platform to ensure that its members maximize their chances for a perfect trip.

The TRVL token is an ERC20 token that serves the following functions on the TravelBlock platform:



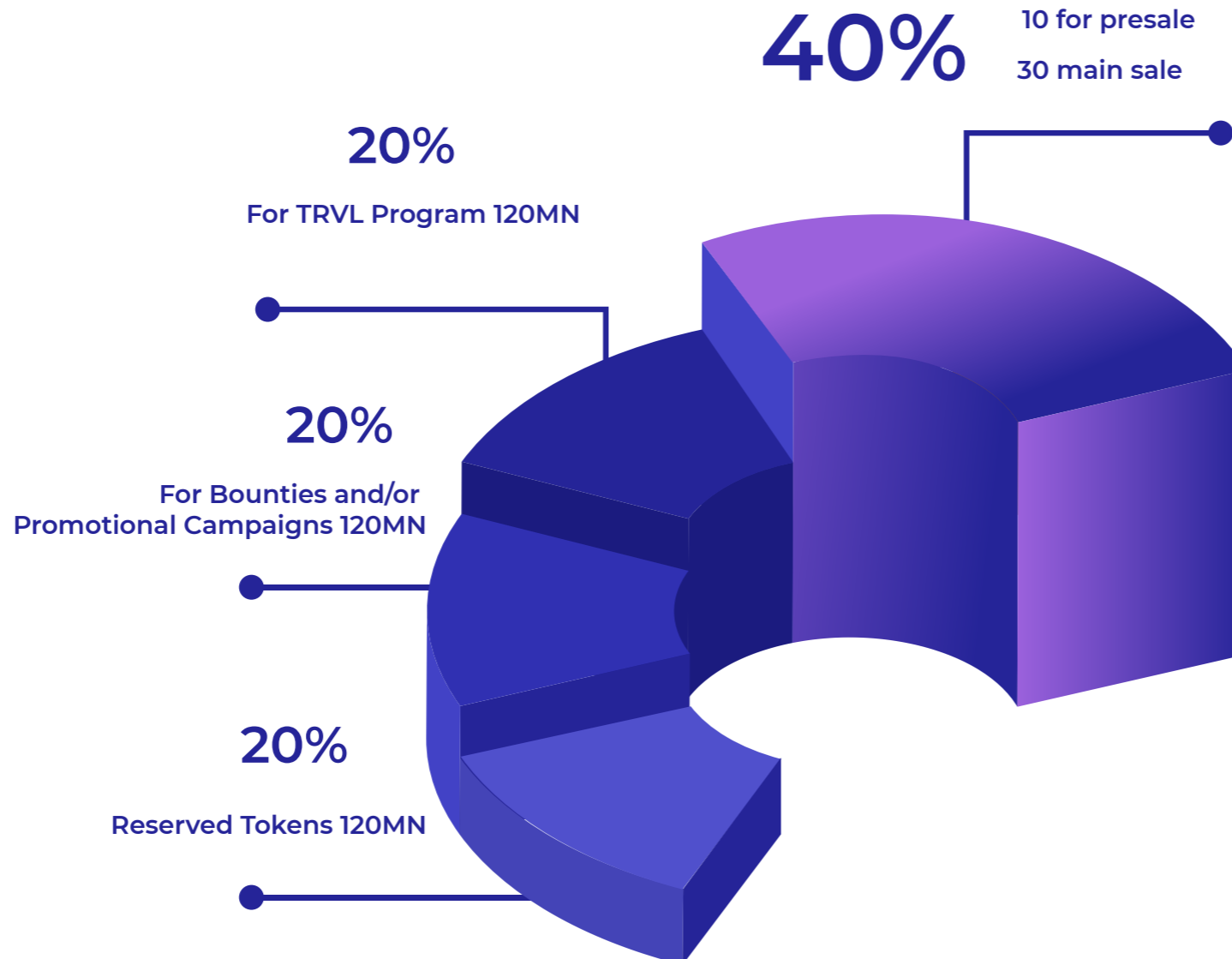
MIN:
0.1 ETH
The maximum purchase will be:
250 ETH
Gas limit:
25,000
Emission Rate:
No new tokens will ever be created

Hard Cap:
\$28,200,000

Soft Cap:
\$4,500,000

Stage 1
TOKEN PRE-SALE 3/3/2018 - 4/18/18
60,000,000 Tokens at 11.5 cents + 15% bonus:
\$6,900,000 Total

Stage 2
TOKEN SALE June 18th to July 18th
180,000,000 Tokens at 14 cents + 10% bonus:
\$25,200,000 Total





SECURITY PARTNERSHIP WITH TOP TRAVEL PROVIDERS

TravelBlock has connected with the leading companies in the industry to ensure success.

ESTABLISHING THE NETWORK

The TravelBlock technology was established and developed.



DEVELOPING THE INFRASTRUCTURE

TravelBlock's platform will be finished to prepare for the coins and for user experience.



MIDST OF PRE-SALE PREPARATIONS

The TravelBlock team is getting ready to attend and sponsor multiple Bitcoin conferences.





TRVL CROWSALE

Pre-Sale March 3rd, 2018,
Sale June 18th, 2018.

COIN/NETWORK INTEGRATION

TravelBlock will connect TRVL coins to the TRVL platform.



TRVL DEBIT CARD

TravelBlock will partner up with one of the leading providers of card services to build a BTC/ETH/TRVL capable service.

WORLD EXPANSION PROGRAM

We will introduce a new campaign to increase our grip on certain popular destination and to further open up offices in those places.





Industry Experience
and Connections

Douglas Saunders
Co-Founder and CEO



Jeff Bredy
Co-Founder and COO



Steve Knight
VP / Director of Business
Development

Superior Marketing Skills



Anna Martinez
Chief Marketing Officer



Geoff Hughes
Strategic Marketing
& Planning Advisor



Chris Woulds
Marketing advisor



Alberto Enríquez
Marketing Advisor

Technical Prowess



Zsolt. T
System Integration



Gengis Cetina
Senior Developer



Spencer Cheng
Blockchain Advisor



Brian Hacker
Blockchain Advisor



Jonathan Horta
Web Developer

Camilleri, M. A. (2017). *Travel Marketing, Tourism Economics and the Airline Product*.

European Travel Technology Services Association. (2017). *Airline Distribution Costs*, (October). Retrieved from <http://www.ectaa.org/files/cms/20171024-infrata-airline-distribution-myths-full-report.pdf>

WTTC. (2017). *Travel & Tourism Economic Impact 2017*, 1–24.

Duran, J. (2015). *Website, GDS and OTA: the right mix in distribution channel investments* - eHotelier. Retrieved April 25, 2018, from <https://ehotelier.com/insights/2015/06/16/website-gds-and-ota-the-right-mix-in-distribution-channel-investments/>

Vellapath, R. (2018). *GDS surcharges and the evolving distribution landscape*. Retrieved April 17, 2018, from <https://www.tnooz.com/article/gds-surcharges-and-the-evolving-airline-distribution-landscape/>

Camilleri, M. A. (2017). *Travel Marketing, Tourism Economics and the Airline Product*.

Ibid.

Vellapath, R (2018).

Ibid.

Nohl, K., & Nikodijevic, N. (2017). *Where in the World Is Carmen Sandiego? (33c3)* - talk at 33rd Chaos Communications Congress, Hamburg. Retrieved from <https://www.youtube.com/watch?v=n8WVo-YLyAg&feature=youtu.be>

Hasbrouck, E. (2015).

Paganini, P. (2017). *#33C3 - Changing travelers flight bookings is really too easy for hackers*, Security Affairs. Retrieved April 16, 2018, from <https://securityaffairs.co/wordpress/54969/hacking/flight-bookings.html>

Auchard, E. (2016). *Flight booking systems lack basic privacy safeguards, researchers say*. Retrieved April 16, 2018, from <https://uk.reuters.com/article/us-cyber-travel/flight-booking-systems-lack-basic-privacy-safeguards-researchers-say-idUKKBN14G116>

Nohl, K., & Nikodijevic, N. (2017).

Hasbrouck, E. (2015).

EU. (2016). *Online Platforms and the Digital Single Market*. Com(2016) 288/2, 10th Report of Session 2015-16. <https://doi.org/10.1017/CBO9781107415324.004>

Clampet, J. (2016). *Everything You Wanted to Know About the Hotel Industry's Gripes Against OTAs* – Skift. Retrieved April 24, 2018, from <https://skift.com/2016/04/25/everything-you-ever-wanted-to-know-about-hotel-industrys-complaints-against-otas/>

Page, V. (2015). *How Expedia Makes Money* | Investopedia. Retrieved April 24, 2018, from <https://www.investopedia.com/articles/investing/080315/how-expedia-makes-money.asp>

Clampet, J. (2016).

Gaggioli, A. (2015). *Analysis of Major Online Travel Agencies - OTAs - Cloudbeds*. Retrieved April 26, 2018, from <https://www.cloudbeds.com/articles/analysis-of-major-online-travel-agencies-otas/>

Tnooz Staff. (2017). *Google can rejoice: Priceline Group spent \$3.5 billion on PPC in 2016*. Retrieved April 26, 2018, from <https://www.tnooz.com/article/priceline-group-3-5-billion-advertising-2016/>

EU (2016).

Clampet, J. (2016).

EU. (2016).

Associated Press. (2018). *Orbitz says travel booking platform likely hacked - Chicago Tribune*. Retrieved April 16, 2018, from <http://www.chicagotribune.com/business/ct-biz-orbitz-hack-data-breach-20180320-story.html>

Sullivan, B. (2015). *Expedia warns users about "unauthorized access" of name, phone, email and booking info - bobsullivan.net*. Retrieved April 26, 2018, from <https://bobsullivan.net/cybercrime/expedia-warns-users-about-unauthorized-access-of-name-phone-email-and-booking-info/>

Howard, B. (2014). *Scammers target leading online travel agent Booking.com - BBC News*. Retrieved April 26, 2018, from <http://www.bbc.com/news/business-29942503>

Source 9: Elliot, C. (2018). *The mystery of bait-and-switch airfares*. Retrieved April 23, 2018, from <http://www.elliott.org/blog/the-mystery-of-the-missing-airfare/>

EU (2016).

Ibid.

Ibid.

Freed, J. Q. (2016). *Hotel Revenue Strategy: When to give OTAs your best rate*. Retrieved April 23, 2018, from <http://duettocloud.com/ota-get-best-rate/>

Zdanowicz, C., & Grinberg, E. (2018). *Passenger dragged off overbook United flight - CNN*. Retrieved April 26, 2018, from <https://www.cnn.com/2017/04/10/travel/passenger-removed-united-flight-trnd/index.html>

Weinberg, T. (2016). *Are fake online reviews killing consumer confidence? - Marketing Land*. Retrieved April 24, 2018, from <https://marketingland.com/fake-online-reviews-killing-consumer-confidence-194239>

Ibid.

Schuckert, Markus, Liu, Xianwei and Law, Rob. (2016). *Insights into Suspicious Online Ratings: Direct Evidence from TripAdvisor*. *Asia Pacific Journal of Tourism Research*, 16(3), 259-272.

EU (2016).



TRAVEL
BLOCK

travelblock.io