

12TRIP.NET

The first trustworthy travel review platform based
on blockchain technology

WHITEPAPER

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12Trip – The trustworthy travel review platform based on blockchain network

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1. OVERVIEW

1.1 Introduction of 12Trip

12Trip Joint Stock Company is a startup in the travel industry focused on the online services. 12Trip got the seed funding from Nexttech Group, one of the biggest technology companies in Vietnam. With the goal of bringing great value to customers and community, Nexttech is constantly creating new products to improve and facilitate peoples' lives. Nexttech is building a complete ecosystem, serving people in e-Commerce, e-Payment, shipping (e-Logistic). Products of Nexttech include: Shipchung.vn, Nganluong.vn, mPOS.vn, Weshop.com.vn, Vimo.vn, Teky. Nexttech Group now has 6 offices in the world including Vietnam, Indonesia, Thailand, USA, Phillipine, China

12Trip is an official partner of Booking.com in Vietnam. Booking.com BV, a division of The Priceline Group (Nasdaq: PCLN), owns and operates Booking.com TM, the world's leading hotel booking agency with 70% share of the online booking market worldwide.

With the diversified ecosystem of Nexttech Group, 12Trip inherits the most popular payment channels such as domestic cards, VISA, MASTER cards, payment methods via QR code or digital currencies such as Bitcoin and Ethereum. We even support the payments for overseas reservations via domestic cards.

1.2 What problems we are solving

According to an estimate of the World Tourism Organization (UNWTO), the number of international tourists in 2016 is about 1.235 billion visitors, and this number has been continuously growing for 7 consecutive years. Global tourism exports reached more than USD 1.4 trillion, representing 6.6% of total exports and nearly 30% of total world service



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exports. Investment in tourism and travel equals USD 806.5 billion, or 4.4% of the total investment of the world economy.

The global economic contribution of the tourism industry has been valued at more than 7.6 trillion US dollars in 2016, about 10% of world spending. According to the World Tourism & Travel Council (WTTC), tourism now provides more than 292 million jobs worldwide; which amounts to 10.2% of all the jobs in the world. By 2030, the UNWTO estimates that the number of international tourists will reach 1.8 billion visitors.

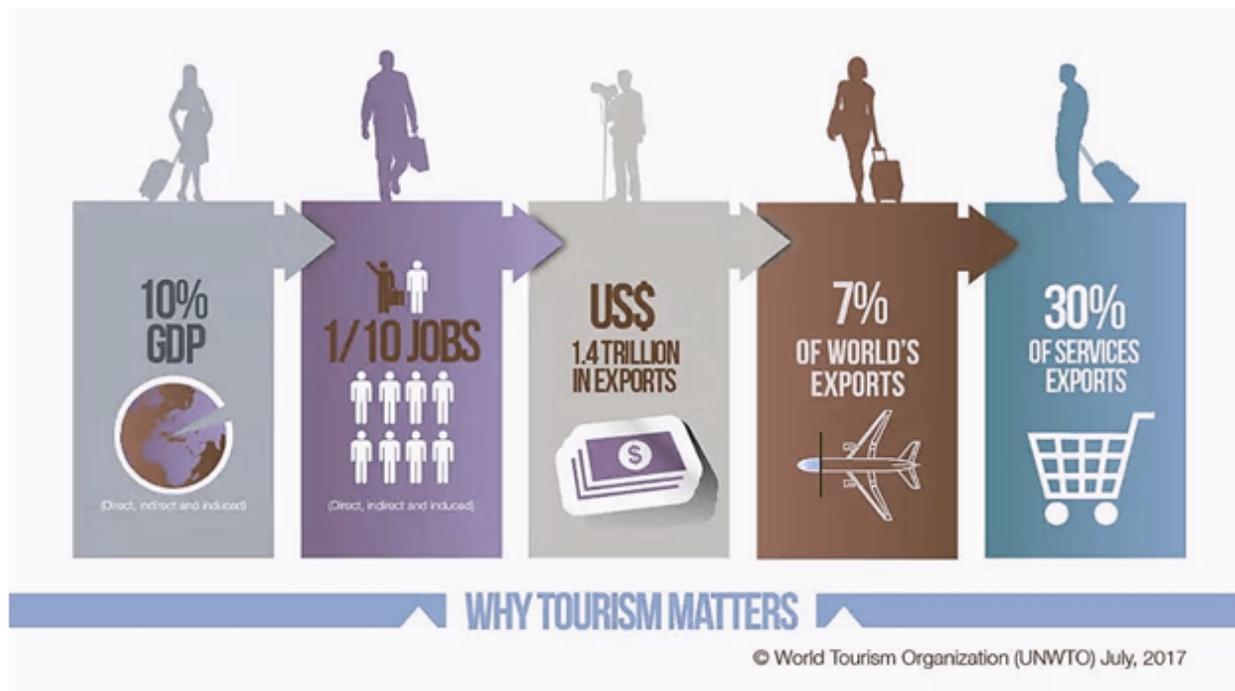


Figure 1: UNWTO Report 2017

In parallel with the strong growth in travel demand, so is the need for easy and reliable access to information about hotels or travel destinations, especially from comments, reviews or recommendations shared on the internet by service consumers. This popularity brings a great opportunity for online travel agency companies to expand their business rapidly both in terms of volume and scope of operations.



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In a random survey of 1031 participants in October 2017, 93% of respondents said they read comments to determine if a service provider is good or not, and 35% people always read reviews online before making decision. The most visited sites include Facebook, Yelp, Tripadvisor, Booking.com, Agoda, Expedia, Hotels.com, bbb.org, Ctrip...¹

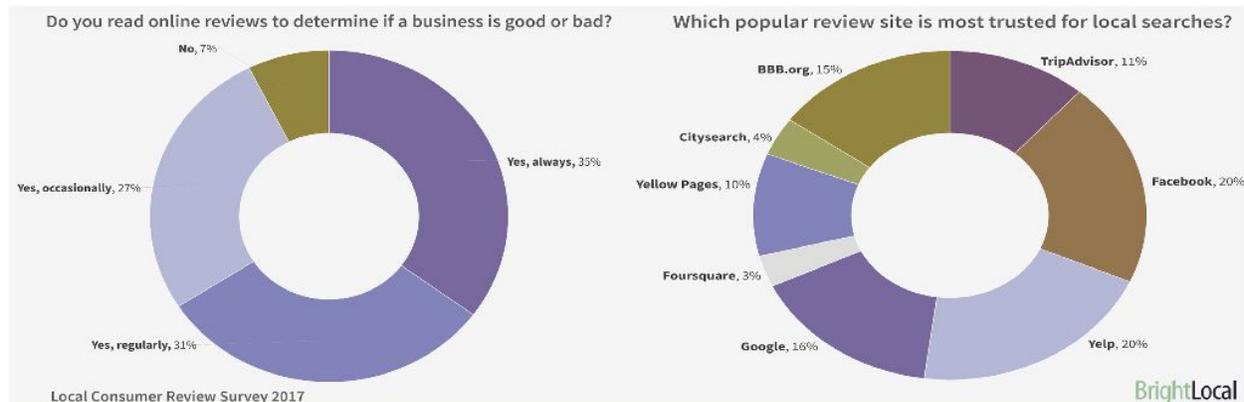


Figure 2: Local Consumer Review Survey 2017 – Bright Local

Although it's quite easy these days to search for reviews online, the quality of those reviews cannot be warranted. The poor evaluation mechanism of user reviews or the lack thereof, provides a loophole for bad, fake or hostile reviews to find their ways into the system. Moreover, the centralized review management model that most websites apply makes it an easy target for cyber attacks, which result in lost or corrupted review data. The problem is worsened by the fact that, based on the current rating scoring algorithms of most websites out there, a single (or a very small number of) bad review can strongly affect the rating of a business with otherwise mostly good reviews, and it's the sole responsibility of that business to prove it wrong².

¹<https://www.brightlocal.com/learn/local-consumer-review-survey/>
<http://rethinkhotels.com/how-travelers-use-online-hotel-reviews/>

²<https://www.trustpilot.com/review/www.booking.com>
<http://www.telegraph.co.uk/travel/hotels/8050127/Tripadvisor-reviews-can-we-trust-them.html>



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As a consequence, more and more service consumers lose faith in the traditional review system, while the service providers find it harder and harder to fairly protect and maintain their business reputation. The problem is not just about quality, but also about quantity. Writing quality travel or service reviews takes time and effort, and users generally are not willing to write reviews unless they can find a strong incentive to do so.

Global OTA (online travel agencies) networks with a centralized evaluation model such as Booking.com, Agoda, Expedia, Yelp, Tripadvisor, Ctrip, Hotels.com, own almost 80% online market share³. It has been told that websites may sell fake reviews, distort ratings, or hide bad reviews. In addition, the providers have to pay OTA a substantial amount of fees (banner ads, display preferences, advertising fees by click ...) to attract customers. For example, one hotel may be charged up to 40% of online room revenue for priority display on the OTA homepage⁴.

At the same time, the end-users and the service providers have almost no direct contact or interactions. Any such interaction, if exists, would be entirely through intermediaries like OTA or other sales sites which limits customer accessibility of the service providers. For example, in cases where the vendor has a loyalty program or promotion, they are not able to reach out to the customer directly but instead have to depend on the OTA

<https://www.reviewtrackers.com/online-reviews-survey/>

³<https://www.revinate.com/blog/2017/02/report-78-online-hotel-reviews-come-top-four-sites/>

⁴<https://nypost.com/2016/03/01/why-you-should-never-ever-trust-tripadvisor/>
<https://medium.com/choking-on-a-macaron/what-you-don-t-know-about-tripadvisor-15d31d745bdc>



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completely. We believe that this centralized model must be replaced by a decentralized trend in the 4th industrial revolution, and this may already be happening.

1.3 Solutions of 12Trip

We will address the aforementioned issues through invariant storage solutions and verifiable peer-review by the blockchain technology and use token mechanism to encourage users to participate in the ecosystem.

Each participant in the 12Trip network will use TRIP token to maximize their activities. Specifically end-users will get reward points by sharing review contents, that they can later exchange for TRIP tokens, or discounts when booking hotels or purchasing tickets at tourism attractions. The service providers can use TRIP to pay for advertising or priority display on top search results.

End-user benefits:

1. Having reliable information of destinations, hotel, etc based on peer review, all users are ensured that they are viewing the real reviews of other members and not the paid or edited reviews from the centralized model.
2. Earn reward points through writing reviews of the service providers. Redeem points for TRIP for payment or discounts when purchasing travel services.
3. Users are fairly recognized in the system, by being assigned different user levels in proportion to their contributions in the system. Higher levels correspond to token reward amounts.

Service providers' benefits:

1. Actively caring and directly branding with customers without the intermediaries and not being manipulated by any OTA.
2. Easily prove their service quality.
3. Use token to pay fee of priority display on 12Trip, similar to ads fees.
4. Use token to approach users more precisely based on the declaration of personal information on 12Trip website and app.



- Through our mediation service, service providers can receive notifications of negative reviews before they enter the system, giving them a chance to make it right to the end-users and prevent such negative reviews from damaging their reputation.

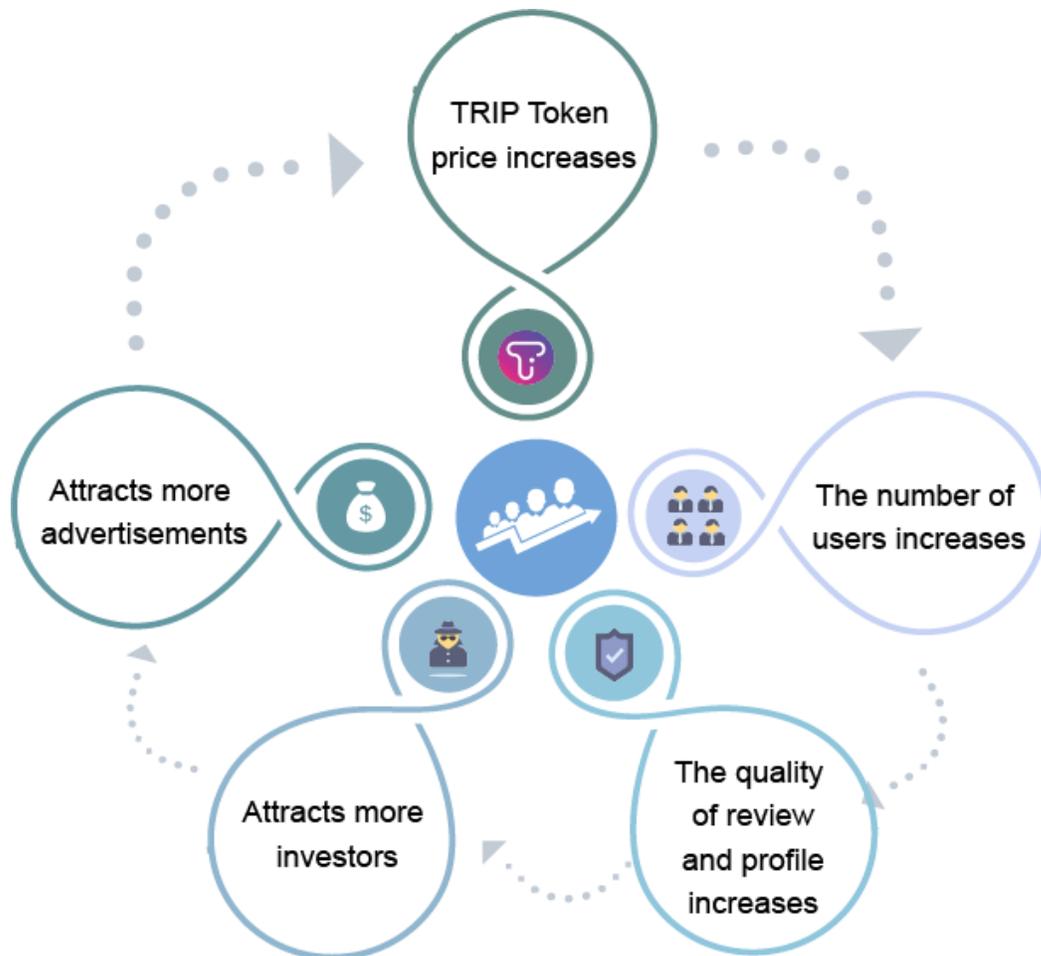


Figure 3: Token Economic

2. TECHNOLOGY

2.1 Peer review approach

Peer review is the evaluation of work given by one or more people of similar competence (peers) to the producer(s) of the work. It constitutes a form of self-regulation by qualified members of a profession within the relevant field. Peer review methods are employed to maintain standards of quality, improve performance, and provide credibility.



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As an example, in academia, scholarly peer review is often used to determine an academic paper's suitability for publication. Peer review can be categorized by the type of activity and by the field or profession in which the activity occurs, e.g., medical peer review.

Our proposed peer review approach is based on the following 2 high-level innovative technological ideas:

- 1) Peer review: Each user review of a provider's quality of service will be displayed to other users in the system for evaluation. If its evaluation score meets or exceeds the threshold of acceptance, the review will persist in the blockchain as the single source of truth, to ensure its authenticity and originality. This means it cannot be lost, vandalized or tampered with in any way. This is a key advantage of our approach compared to centralized review systems such as Yelp and TripAdvisor.
- 2) We apply a smart approach to match each review to the most suitable peer reviewers, using advanced Machine Learning techniques. This ensures the quality of reviews across the system, and the efficiency of the peer reviewing process.

2.2 Our peer review solution

Our peer review system guarantees that all review submissions will be evaluated by other users and therefore only qualified reviews will be recorded into the ecosystem and become valuable.

12TRIP uses machine learning techniques to distribute the most appropriate reviews to users based on multiple criteria such as the users' profiles and the review content (More details in section 2.3).

Create a review of products and services

+ Users only receive tokens for their review if it passes the evaluation process.

The duration of the peer review process, including review acceptance and token payout depends on a number of factors: the number of members in the system, the readiness



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and responsiveness of selected peer reviewers. The review creator will receive token payout as soon as the review is accepted.

Peer reviewers receive points for their work, which can then be redeemed for TRIP tokens. Note that besides being rewarded for their work, as TRIP users and owners, they are also strongly incentivized to take up the task of peer reviewing and to do a good job, for their own benefits:

- Reviews are the fuel that powers the entire ecosystem. Without peer reviewing, no new reviews would be accepted and added to the system.
- The TRIP value and price is strongly tied to the quality and the popularity of the system. By doing a good job, peer reviewers are gatekeepers that protect the overall quality of the system and prevent low quality or harmful reviews from coming in.

Peer review protocol

- + Each review submission will have one of two possible outcomes: accept or reject.
- + A review submission will only be admitted to the peer review process if all the required data fields are complete and accurate: provider name and location, business type, service name, photos taken at check-in time, etc.
- + A review submission will NOT be admitted to the peer review process in the following circumstances: required data fields are incomplete or inaccurate, spam or irrelevant reviews, reviews with copyright infringement.

Review evaluation protocol

- + A number of users will be selected by our Machine Learning algorithm to give evaluations to new reviews submitted to the system.
- + After evaluating the review, each peer reviewer will provide his/her evaluation in the form of an integer between 1 and 5, the higher the better. E.g.: (5 = strong accept, 4 = accept, 3 = borderline, 2 = reject, 1 = strong reject)



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- + Each peer reviewer can only provide one evaluation per review. The evaluation is final, and cannot be changed afterward.
- + Once all the peer reviewers have submitted their evaluations, an overall score will be computed and assigned to the review being evaluated. This is computed as a weighted average of all the evaluation scores from each peer reviewer.
- + If the score is greater than or equal to a predefined acceptance threshold, the review is accepted and the review creator will receive token rewards. Otherwise, the review is rejected. In both cases, a notification of the evaluation result will be sent out to the review creator.

Optional Mediation Process

In case the accepted review is classified as a **negative** review, which would damage the ratings of the associated service provider, we offer the following to the service provider:

- + Notify the service provider about the negative review before it's officially recorded into the system.
- + Propose a mediation process between the provider and the end-user, that allows the service provider a chance to make it right to the review creator.

This is a novel idea that we propose to integrate in our system. This idea was made possible thanks to the review evaluation process mentioned above.

2.3 Auto-suggestion based on content

Our Machine learning-based solution to matching reviews with peer reviewers:

To ensure the quality of reviews across the system, and to make the peer reviewing process more efficient, each review must be evaluated by the most appropriate peer reviewers. Each time a new review is submitted, we need to be able to efficiently and effectively find such group of peer reviewers for evaluation. Our solution to this problem is a content-based recommender system. The basic idea is to recommend the peer



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reviewers to the review (or assign the review to the peer reviewers) based on how much the review content matches with the user profile and the expertise of the peer reviewer. Our system is built with the following key components:

(a) Fast automatic spam review filter: When the system grows larger with millions of users, the number of daily review submissions will also become much higher. A portion of these are spam/junk reviews: reviews with irrelevant or inappropriate content, created either with malicious intent, or for personal or commercial gain purposes. To protect the long-term stability and minimize the workload of the system, we will build and deploy a Machine learning model to automatically detect and filter spam reviews before they are sent to the peer review process. A key requirement here is that the spam filtering model has shorter running time, and less computationally expensive than the subsequent peer review recommendation system. To achieve this, we will apply simple and efficient techniques, using the bag-of-words with tf-idf weights for feature representation, and using boosted trees method for the spam classification task. The model will be adjusted to minimize false positives (unintentionally rejecting valid reviews), while still successfully remove most of the spam reviews.

If the review is detected as spam, the review creator will be flagged. After a number of flags, the user will be blocked from the system.

(b) Review profiling: An algorithm that computes a vectorized representation of each review, based on its textual content and its metadata (business sector, business location, author's profile). Different advanced ML techniques such as word2vec, glove can be used for this purpose.

(c) User profiling: An algorithm that aggregates the historical activity data (e.g.: hotels or restaurants the user used to visit, reviews that the user used to evaluate) and computes a vectorized representation for each user in the system. Optionally, we can also leverage individual profile data (reviewer's rating score, domain and level of expertise) if available.



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(d) Hashmap-based search engine: For the reviewing task, it is crucial to know whether the reviewer has actually visited the business (e.g.: hotel, restaurant) being reviewed. This is an important feature that we want to keep specific, and will not abstract through components (b) and (c).

Here we propose using a simple hashmap-based search engine that quickly checks if a particular user has ever visited a particular business in our entire system. Given a pair of (reviewer, business), the search engine simply returns a binary value (True or False) in constant time.

(e) Reviewer ranking: For each available reviewer in the system, we use a matching function to compute the matching score between that reviewer and the review at hand, combining all relevant features in the review profile and user profile. For example, a review about a particular restaurant will match well with restaurant experts, and will match even better with a restaurant expert who used to go to that same restaurant.

We then rank all reviewers by descending order of the matching score. After ranking is done, review requests are sent to reviewers from the top down. Because the list of reviewers is already sorted, each time a reviewer is not available, or refuses the request, we can comfortably move to the next reviewer on the list. The process stops once a sufficient number of reviewers accept the request.

We also have to deal with the “cold start” problem, i.e.: at the beginning of time, we have not gathered any data about the users and services participating in our system. It’s easy to see that in a perfectly “cold start” scenario, our reviewer ranking algorithm would end up assigning the same score to every user, which renders the reviewer selection meaningless.

To solve this problem, we propose two solutions:

- User survey: users joining the system will be asked to fill out an optional short survey which asks questions about their interests, preferences, their geo-location and demographic info, how they rate themselves in different areas of expertise.



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- Leverage public data of existing businesses joining out system: for existing businesses/services providers, we will search and collect any data available online about them.

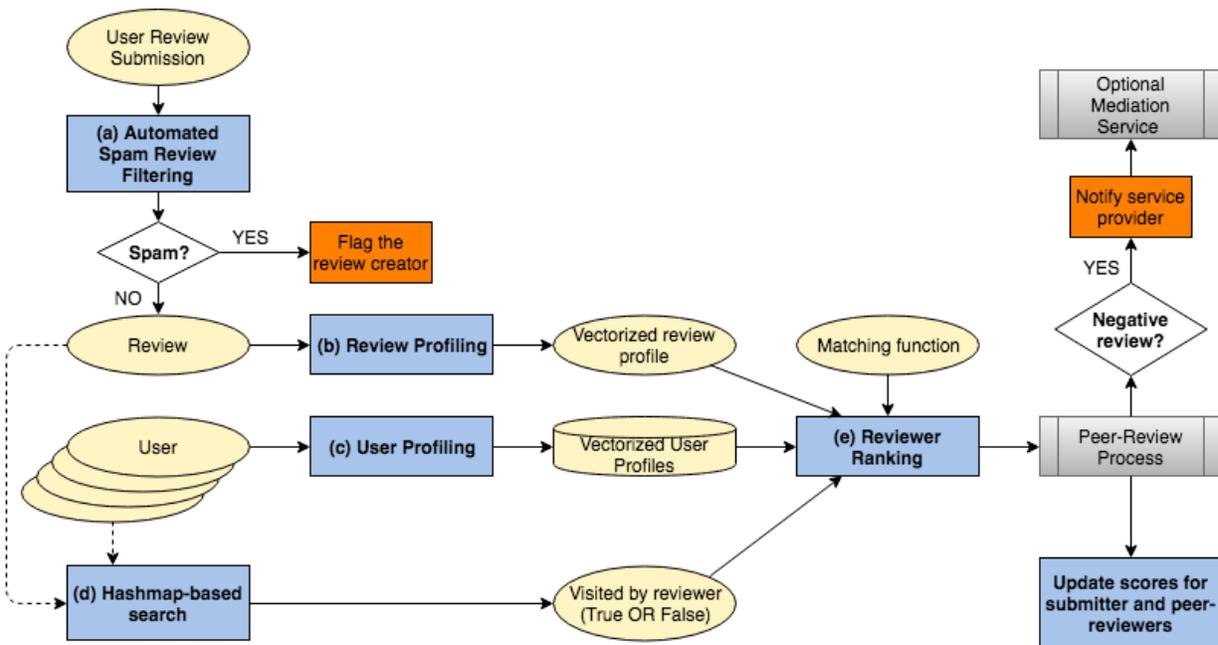


Figure 4: Overview of our content-based recommender system.

2.4 Smart Contract

Technical Solutions:

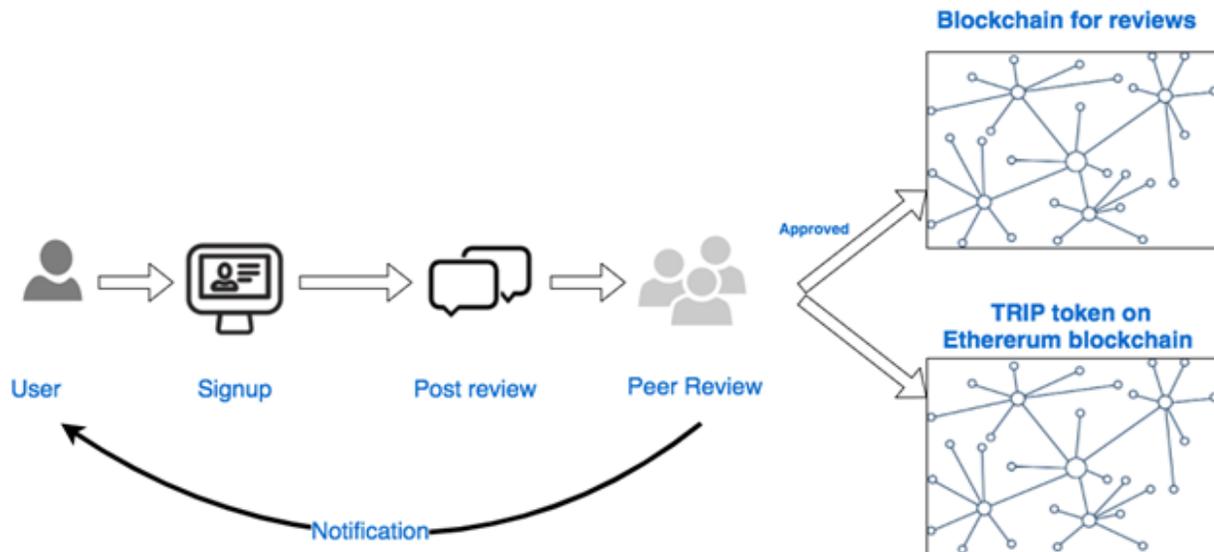


Figure 5: Technique Model

Our proposed solution includes two types of smart contracts and stores them on Ethereum's blockchain network:

- Smart contracts No.1 stores the checksum data about review contents on the blockchain system, so that anyone who wants to verify the reviews can download blockchain data and access them. Review creators may request to remove their own reviews from the system by using their private key.
- Smart contract No.2 stores the TRIP token.

3. HOW TRIPTOKEN WORKS

3.1 Token Model

TRIP token (TRIP) is an exchange method in 12Trip ecosystem to reward users for their reviews of the quality of service of providers participating in the system, after experiencing those services themselves. The system functions based on the blockchain platform and peer review technology.



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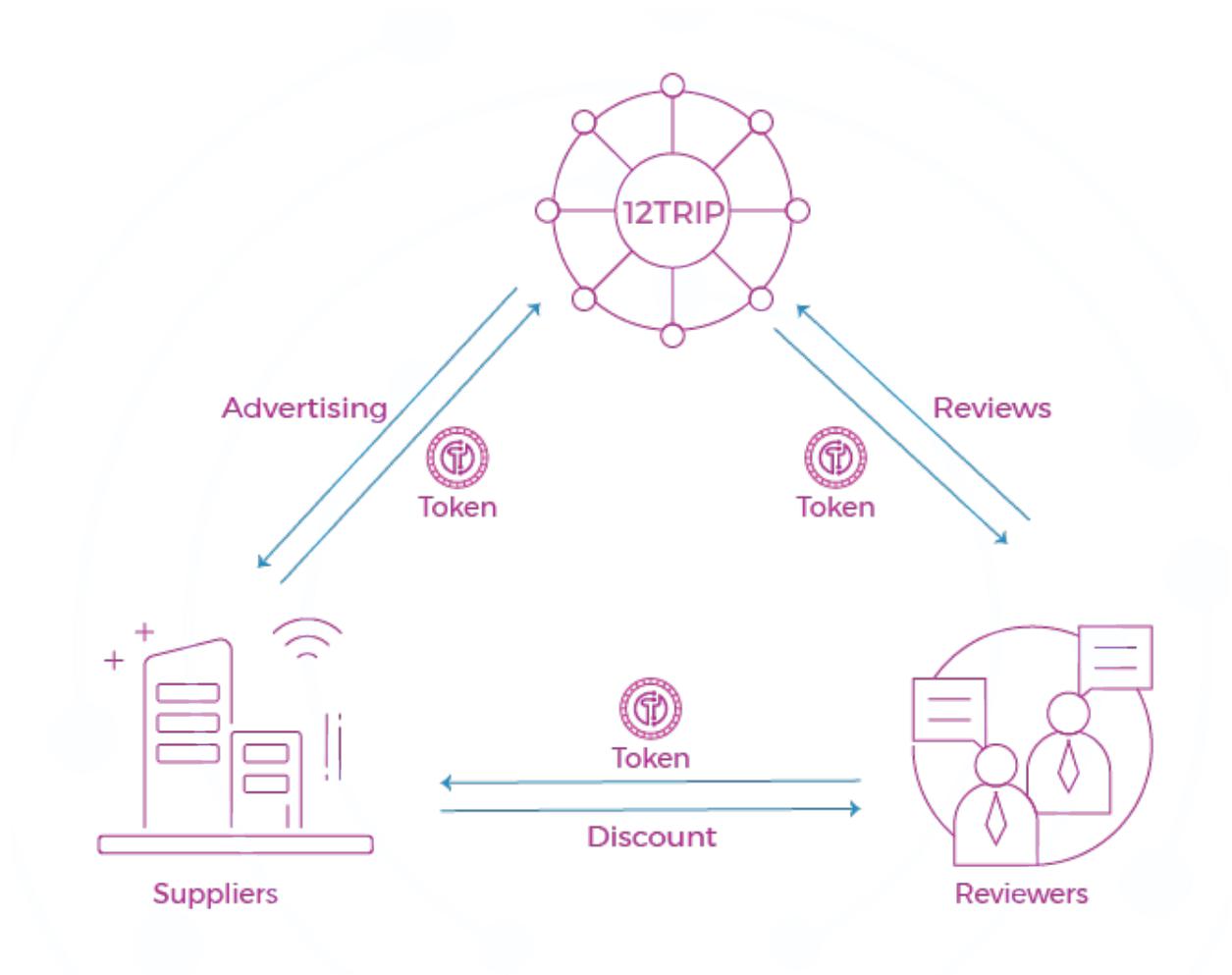


Figure 6: TRIP token usage circle

12TRIP encourages service providers such as hotels, restaurants, amusement parks, attractions, etc to own TRIP to be able to exchange tokens to increase their frequency of appearance in 12TRIP application.

Our platform also encourages users to post reviews and share their comments on the quality of services they used and other social activities related to their experience with those services, such as destination check-ins, or sharing their travel itineraries on the social networks. Users will get reward points for their accepted reviews. Depending on



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their demand, they can redeem points to tokens or accumulate those points to upgrade their member level. Token cannot be exchanged to points to avoid deranging the member ranking. 12Trip will deal with the service providers so that TRIP Token can be acceptable at their business.

There are many ways for 12TRIP to pull tokens out of the Token Circle. For example, vendors have to use tokens to cover the costs of increasing their presence in the ecosystem, or tokens acquisition through the exchange market.

TRIP can be stored in e-wallet or be exchanged for other tokens such as ETH, BTC, USDT. 12Trip will ensure that the TRIP Token can be exchanged to ensure the selection for all Token holders including the investors.

3.2 Reviewers



Figure 7: TRIP Token model for reviewers

Based on the criteria of member ranking (detailed in section 3.5), each member will receive some reward points corresponding to their level after posting a successful review. Members can convert points into TRIP if they wish to, but TRIP cannot be converted back to points. TRIP can also be added to the wallet of members as rewards from the Loyalty



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Program of the service providers to their service users. If the members want to use more services at a discount rate, they can buy more TRIP from the investors.

3.3 Service providers

The service providers earn TRIP that the users pay them in order to use their services, or to purchase promotions or discount codes offered by the providers. The service providers use TRIP to boost their visibility on the top search results. The number of tokens for this transaction will be determined by 12Trip. Besides, the service providers retain a part of TRIP tokens for the Loyalty Program. This program is set up to reward users when the users use their services and products or recommend to their friends. In case of TRIP tokens deficiency, the service providers can buy tokens from the investors.

3.4 Content creator reward model & TRIP Exchange

The users have multiple channels to create contents to collect TRIP, those tokens are sponsored by 12TRIP Incentive Fund.

- Validated contributors: reviewers who have passed a peer review will get rewarded points from our system.
- High quality review contributors: frequent contributors who perform on the top-reviewer (top 10%) are also rewarded 5 points. Top reviewers are determined based on accepted ratings as well as total likes, shares, and follow-ups over a period of time.
- For those who discover and add an unlisted new and valuable service provider into the system: they will be rewarded 5 TRIP directly to enhance members to diversify new service providers, verify vendor details. To maintain the objectivity of information in the system, service providers are not allowed to create listings about themselves, but can verify and/or update these listings once they have already been added to the system.
- Referral users: Each user will have a unique referral code to share with people in their own personal network. If a referred new user participates in this referral



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process and contributes to the platform, the referral user will be rewarded once only, with the reward amount equal to 50% of the bonus that the new user receives.

3.5 12Trip member ranking

The Member Ranking encourages and motivates all users to keep contributing to 12TRIP platform in order to be upgraded to higher levels (Silver, Gold, Diamond and Platinum). For each accepted review they create, the members will receive points based on their membership level.

- The users can collect points to upgrade their membership level. The higher level, the more points they will receive for posting accepted reviews.
- The system only considers the points that the user has earned by participating actively in the platform. Specifically, those points are earned by posting reviews and photos that are validated through the peer review process on 12 TRIP.
- If the users would like to convert points to TRIP to get discounts, and due to that no longer have enough points to maintain their current level, they will be downgraded to the lower level corresponding to the remaining points they possess. Point Convention: 1 point = 5 TRIP.

Example 1: Demonstration of Point Convention for each membership level:

- Silver: 0 - 9 points.
- Gold: 10 - 29 points.
- Diamond: 30 - 59 points.
- Platinum: 60 points up.

Example 2: Demonstration of Point convention for each review:

- Silver: 1 point.
- Gold: 2 points.
- Diamond: 3 points.
- Platinum: 5 points.

Note: These examples above are for illustrative purposes only. The amount of TRIP, bonus and rating will depend on the market conditions at that time and / or the growth of



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the platform. For simplicity, each individual member only provides a unique wallet address to check the amount of tokens they are holding.

3.6 Boost and burn TRIP

12TRIP is able to burn token (destroy a part of total TRIP out of the system) to raise the value of the remaining TRIP while the traffic increases and the users tend to keep their TRIP tokens. When the ecosystem is self-operating, based on the actual situation, 12Trip can extract and burn token. The number of burnt tokens will be considered at the time of implementation. The number of tokens pumped from the reserve fund is only applicable during the fundraising. Depending on the investor's interest and ability of research and development ecosystem, the value of distributed tokens will be changed accordingly.

12Trip releases TRIP tokens, a kind of cryptocurrency in 12Trip ecosystem. TRIP has many applications besides being a digital currency. It is clearly divided to avoid inflation. As other digital currencies, TRIP can also be exchanged and traded within the ecosystem. TRIP purchasers have to follow the rules and regulations in their jurisdiction.

4. ICO

4.1 TRIP token release

Total amount of tokens to be released is 1,250,000,000TRIP. Tokens will be created and sold in this fundraising according to the provision of the white paper and will be allocated as follows:

- 600,000,000 (48% of total token): public offering through an ICO campaign, including:
 - + 150,000,000 TRIP (25% of token sale) will be offered pre-ICO.
 - + 450,000,000 TRIP (75% of token sale) will be sold in ICO.
- 152,500,000 (12,2% of total token): reserved for Bounty & Affiliate program.
 - + 67,500,000 TRIP offer to the investors pre-ICO.
 - + 85,000,000 TRIP will be divided to the investors in ICO.



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- 250,000,000 TRIP (20% of total token): withheld for Reserve Fund in the future. The Reserve Fund will be frozen in 12 months after the ICO and will be added to the ecosystem to balance the operation activities. This will guarantee the growth and the transaction of Trip Token.
- 222,500,000 (17,8% of total token) : To be retained for Core Team and Advisors.
- 25,000,000 (2% of total token): be kept for Incentive Fund.

Core team and advisors' token will be locked in for 8 months.

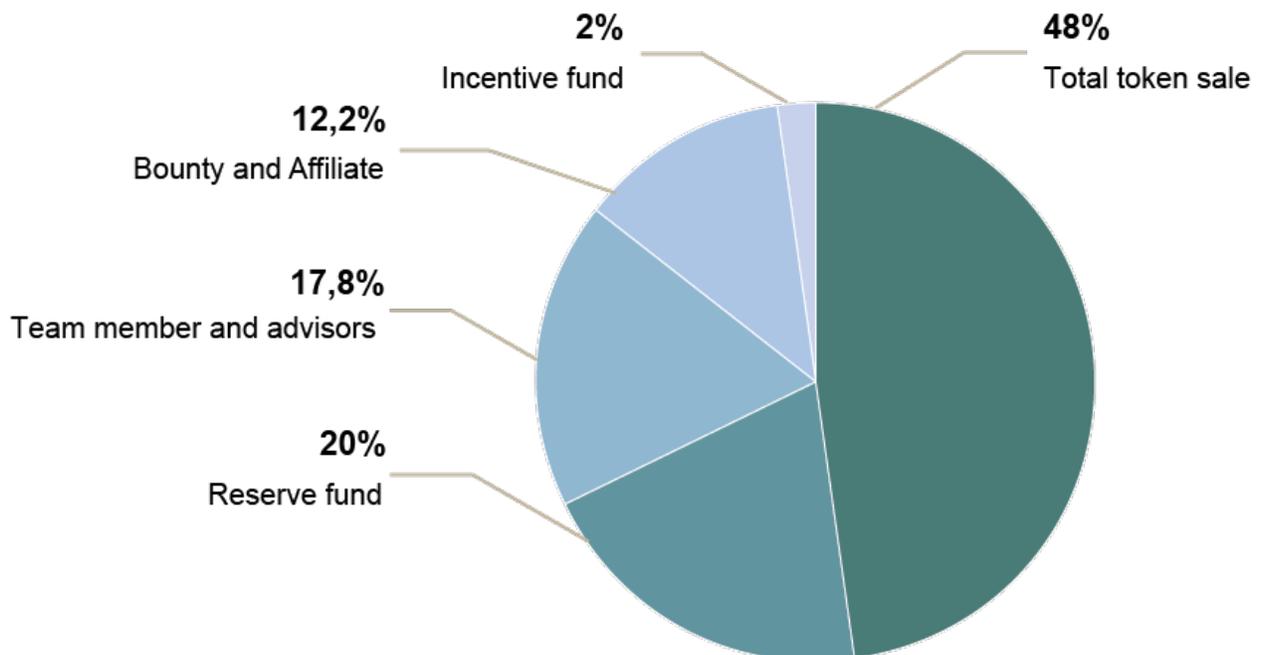


Figure 8: TRIP Token Allocation

4.2 Affiliate policy

12Trip has a special offer during both pre-sale and main sale periods. After buying their own TRIP, the investors will receive a unique referral URL link that they can send to their friends or colleagues as an invitation. As a reward for introducing 12Trip to secondary investors, the referral investors will receive a bonus equivalent to 10% of the token



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purchased by their friend. For instance, if, the investor's friend invests 100,000 TRIP then that investor will get a bonus of 10,000 TRIP.

4.3 ICO plan

There will be 2 sale periods for TRIP token which consist pre-sale and main sale and individuals can purchase token at an exchange rate of 1 token= 0.02 USD.

752,500,000 TRIP will be public allocated includes 600,000,000 sold TRIP and 152,500,000 TRIP reserved for Bounty and Affiliate program.

Pre-ICO:

- + Quantity: 150,000,000 TRIP.
- + Hot Bounty policy 35% (equivalent to 52,500,000 TRIP) and Affiliate 10% (equal 15,000,000 TRIP).

Main ICO:

- + Quantity: 450,000,000 TRIP
- First round: 200,000,000 TRIP will be sold plus 20% bonus (40,000,000 TRIP) and affiliate 10% (20,000,000 TRIP).
- Second round: 250,000,000 TRIP will be sold without sale bonus but referral bonus 10% (25,000,000 TRIP).

The investors have to buy at least amount of 10,000 token and can purchase many times during both sale periods.

The soft cap is 3,000,000 USD and the hard cap is 12,000,000 USD.

- **The hard cap:** The ICO campaign will be finished when the number of token meets the hard cap or ICO time is over.
- **The soft cap:** The fundraising will be returned if the total number of sold token cannot meet the soft cap at the time ICO finish.

The soft cap and hard cap are fixed in the system by smart contract and cannot be changed during and after the pre-ICO.

4.4 Use of funds

- 35%: Marketing, new users attracting and all promotion events for 12TRIP app on mobile devices.



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- 40%: Used for R&D team.
- 10%: Administrative, office, legal and other expenses to ensure 12TRIP is compliant with regulations in all countries.
- 15% will be support for maintenance and operation of the 12TRIP ecosystem.

5. ROAD MAP

From March- April, 2018

- Preparing for token issuance.
- Private sale.

From May- June, 2018

- ICO sale event.
- 12Trip App release – the worldwide hotel booking app.

From July- October, 2018

- Integrating the TRIP token in 12TRIP App.
- Develop review system
- Adding the travel guide functions to 12trip.

From November 2018- April, 2019

- Develop smart contract to store checksum of users reviews in the Ethereum blockchain network.
- Setup in-app wallet for end-users.
- Develop web-based wallet for supplier, then they can pay the advertisement fee by TRIP token
- Marketing plan implementation in Asia Pacific market.

6. HUMAN RESOURCES

6.1 Core team

Ngo Van Quan CEO – Founder 12Trip

Mr Quan is CEO and Founder of 12Trip, an expert with over 10 years experience in tourism software solution. Quan is passionate about programming and applying new



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technology to life who has been spending more than 3 years researching blockchain technology, smart contract, Dapp and developing applications on the blockchain platform.

Trinh Nguyen Hoang - Technical Director

Mr Hoang is technical director of 12Trip. He is currently data science team lead at eBay, spearheading machine learning and data science efforts across eBay Shipping. Before that, he gained hands-on work experience in both startup and large corporate environments, with a proven record of leading R&D projects to commercially successful products and product features. He co-authored multiple cited technical papers in the field of applied Machine Learning and Computer Vision, and was co-inventor of 7 issued US patents. He got his PhD in computer science from the Toyota Technological Institute in Chicago. He was the recipient of 2 Critical Talent Awards from eBay's CEO, and won a Best Poster Award at the IBM Research T. J. Watson.

Samson Tan is the incumbent president of GTMC, a Singapore travel company with offices in Thailand, Vietnam, Myanmar, Singapore and Malaysia. He is also the president of the Inbound Tourism Association of Singapore.

Moe Adili – Brand Director

Moe Adili - brand director of 12Trip and also Chairman and Chief Executive Officer of Air Sunshine, Moe has more than 35 years of successful airline business management experience. The efforts of Air Sunshine's father are recognized by the market as a private airline that never cancels flights, always ensuring passengers' satisfaction.

Stephan Earnhart – Strategy Director

Stephan Earnhart is Strategy Director of 12Trip and an educator with over 20 years of international experience leading higher education. He held many key positions at major hotel groups such as operation manager at The Ritz-Carlton, Sarasota, Oregon, United



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States; F&B manager at Hilton Worldwide Portland, United States. He is currently academic director at Swiss Hotel Management School, among the top 10 leading hospitality universities. He has a deep knowledge and understanding of global travel and hotel industry trends, from both academic and practical perspectives.

Rosa Luong – Investor Relationship Director

Rosa is 12Trip Investor Relationship Director with over 8 years dynamic experience in the Hospitality & Tourism Industry as Hotel General Manager, Director of Sales & Marketing and Senior Travel Consultant. She received her Postgraduate Diploma in Event Management from Swiss Hotel Management School. Hospitality career is all her passion and she always keeps study and updates the travel trends constantly.

Pham Minh Thanh – UI/UX Leader

Currently our UI/UX Leader at 12Trip, Thanh has over 4+ years of experience in Edtech & Ecommerce focused on design and development. He has been researching and applying blockchain technology in hotel and tourism industries.

Vuong Anh Duong – Senior Developer

Duong is currently the senior developer of 12Trip, he spent more than 4 years for travel agencies and airlines reservation management systems, database analysis and security. Duong's focus is to do research about blockchain-based applications and smart contract in both financial & non-financial.

Nguyen Cong Thang – Senior Developer

Thang, our senior developer, has 7 years experience in technology. He is known for the successful travel and resort business management softwares. Having spent a lot of time in management software, he has a keen interest in build-up scalable and high performance distributed systems.



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6.2 Advisors

Cedric Loue – Founder and General Director of Travelnet.fr, a professional software solution company specializing in transportation and the Tourism Market in France and French-speaking countries.

6.3 Organization seeder

NEXTTECH GROUP: NextTech (www.nexttech.asia) is a group of 30 businesses spread across the Asia Pacific region. The group employs more than 600 staff across 7 markets, under 3 main verticals: Digitized Commerce, Fintech and Digitized Logistics, with FY2017 estimated processing volume of **\$500 million USD** and **\$90 million USD in revenue**. NextTech specializes in Digital innovation, managing a wide range of businesses including Online Store Front & Marketplace, Cross Border Trade, Online Payment Gateway, Mobile Wallet, Mobile Point-of-Sale, Online Lending, Cryptocurrency Exchange, Online Payment Gateway, Warehouse & Fulfilment, Last Mile Delivery, STEAM Education, Cross-border remittance, Online Travel Agency, etc.

NextTech group has field operations in 8 world-wide offices: Hanoi, Vietnam (HQ), Ho Chi Minh City (Vietnam), Bangkok (Thailand), Kuala Lumpur (Malaysia), Jakarta (Indonesia), Manila (Philippines), San Jose (California USA), and Guangzhou (China).

7. OTHER MATTERS

7.1 Potential risks

Please carefully read every piece of information, understand and analyse the risks related factors, before deciding to participate in the investments and purchase of TRIP tokens. By purchasing, anyone holding, owning and using TRIP tokens should clearly recognize and presume the risks which are likely to be, including but not limited to:

- a) Risk of losing access to TRIP tokens due to loss of private keys, or any kind of custodial or purchaser errors.



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- b) The Partners and Customers need to have a private key, or a combination of private keys, which is necessary to control and dispose of TRIP tokens stored in your wallet.
- c) The funds raised in the token generation event are exposed to risks of theft.
- d) If in any case, 12TRIP is significantly and unfavorably affected, if it fails to efficiently administer its procedures as its business builds and progresses, which would have a direct effect on its capability to maintain the 12TRIP platform or even to launch any future platforms.
- e) Risks arising from lack of governance rights or any changes made to put restrictions over the cryptocurrency utilization in Vietnam, Singapore and any other territory all over the world.
- f) Risk of attacks, uninsured losses, from taxation, uncertain regulations and enforcement actions associated with markets for TRIP tokens, etc.
- g) Risks arising from dissolution of the company, unfavorable fluctuation of BTC or ETH values, hacking, cyber attacks and security weaknesses.
- h) Risks associated with the Ethereum protocol, because TRIP tokens and 12TRIP ecosystem are based on the Ethereum protocol, any malfunction, breakdown or abandonment of the Ethereum protocol may have an adverse effect on the platform or TRIP tokens.
- i) General global market and economic conditions may have an adverse impact on 12TRIP's operational performance, results of operations and cash flows.
- j) TRIP token holders can lose their investments if the TRIP tokens fall to zero, by any means of market forces.
- k) The risks related to the ICO investments should be carefully analyzed and speculated, so as to avoid any complications after or during the ICO stages.
- l) Regulatory risks: The regulation of tokens such as the TRIP tokens is still in a very nascent stage of development in Singapore. A degree of uncertainty as to how tokens and token-related activities are to be treated exists. The applicable legal and regulatory framework may change subsequent to the date of issuance of this White Paper. Such change may be rapid and it is not possible to anticipate with any degree of certainty



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the nature of such regulatory evolution. 12TRIP does not in any way represent that the regulatory status of the TRIP tokens will remain unaffected by any regulatory changes that arise at any point in time before, during, and after this offering.

m) No regulatory supervision: None of 12TRIP or its affiliates is currently regulated or subject to the supervision of any regulatory body in Singapore. In particular, 12TRIP and its affiliates are not registered with MAS in Singapore as any type of regulated financial institution or financial advisor and are not subject to the standards imposed upon such persons under the Securities and Futures Act, Financial Advisors Act, and other related regulatory instruments. Such persons are required to comply with a variety of requirements and standards concerning disclosures, reporting, compliance, and conduct of their operations for purposes or maximising investor protections. Since 12TRIP is not subject to such requirements or standards, it will make decisions on those issues at its own discretion. While 12TRIP will have regard to best practices on these issues, holders of TRIP tokens may not necessarily enjoy the same extent and degree of investor protections as would be the case should they invest with regulated entities instead.

n) No fiduciary duties owed: As 12TRIP is not a regulated financial institution, it does not owe investors in TRIP tokens any fiduciary duties. This means that 12TRIP has no legal obligation to always act in good faith in the best interests of holders of TRIP tokens. While 12TRIP will have regard to the interests of holders of TRIP tokens, it is also permitted to consider the interests of other key stakeholders and to prefer these interests over the interests of TRIP tokens holders. This may mean that 12TRIP is permitted to make decisions that conflict with the interests of TRIP tokens holders. Not owing any fiduciary duties to holders of TRIP tokens also means that holders of TRIP tokens may have limited rights of recourse against 12TRIP and its affiliates in the event of disputes.

o) Tax risks: The tax characterization of TRIP tokens is unclear. Accordingly, the tax treatment to which they will be subject is uncertain. All persons who wish to purchase TRIP tokens should seek independent tax advice prior to deciding whether to purchase any TRIP tokens. 12TRIP does not make any representation as to whether any tax consequences may arise from purchasing or holding TRIP tokens.



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p) Risks from third parties: The tokenized nature of TRIP tokens means that they are a blockchain-based asset. The security, transferability, storage, and accessibility of blockchain assets depends on factors outside of 12TRIP's control, such as the security, stability, and suitability of the underlying blockchain (in this case, the Ethereum blockchain), mining attacks, and who has access to the private key of a wallet where TRIP tokens are stored. 12TRIP is unable to assure that it can prevent such external factors from having any direct or indirect adverse impact on any of the TRIP tokens. Persons intending to purchase TRIP tokens should note that adverse events caused by such external factors may result in the loss of some or all TRIP tokens purchased. Such loss may be irreversible. 12TRIP is not responsible for taking steps to retrieve TRIP tokens lost in this manner.

q) Risks in purchasing TRIP tokens: 12TRIP cannot and does not guarantee or otherwise assure that there are no risks in relation to your purchase of TRIP tokens. The purchase of TRIP tokens may, depending on the manner in which the relevant purchase is affected, involve third parties or external platforms (e.g., wallets). The involvement of such parties or platforms may introduce risks that would not otherwise be present, such as misconduct or fraud by the third party, or your failure to receive TRIP tokens upon duly making payment because of a third-party wallet's incompatibility with TRIP tokens. 12TRIP is not responsible for any risks arising due to the involvement of third parties, including the risk of not receiving (or subsequently losing) any or all TRIP tokens you attempt to (or successfully) purchase.

7.2 Legal statement

a) The presentation of this whitepaper is solely for informational purposes. The participants interested in investing in TRIP tokens should analyse and consider various associated risks prior to making any kind of investment decisions in the 12TRIP pre-ICO & ICO.

b) The TRIP tokens are not securities or units in a collective investment scheme or business trust, each as defined under Singapore's Securities and Futures Act (Cap. 289) ("SFA"). Accordingly, the SFA does not apply to the offer and sale of the TRIP tokens.



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For the avoidance of doubt, this initial offering of TRIP tokens need not be accompanied by any prospectus or profile statement and no prospectus or profile statement needs to be lodged with the Monetary Authority of Singapore (“MAS”).

c) This White Paper does not constitute an offer of, or an invitation to purchase, the TRIP tokens in any jurisdiction in which such offer or sale would be unlawful. No regulatory authority in Singapore, including the MAS, has reviewed or approved or disapproved of the TRIP tokens or this White Paper.

d) This White Paper and any part hereof may not be distributed or otherwise disseminated in any jurisdiction where offering tokens in the manner set out this White Paper is regulated or prohibited.

e) The information in this White Paper is current only as of the date on the cover hereof. For any time after the cover date of this White Paper, the information, including information concerning 12TRIP’s business operations and financial condition may have changed. Neither the delivery of this White Paper nor any sale made in the related initial token offering shall, under any circumstances, constitute a representation that no such changes have occurred.

f) 12TRIP does not make or purport to make, and hereby disclaims, any representation, warranty, undertaking, or other assurance in any form whatsoever to any person, including any representations, warranties, undertakings, or other assurances in relation to the truth, accuracy, or completeness of any part of the information in this White Paper.

g) Whether taken as a whole or read in part, this White Paper is not, and should not be regarded as, any form of legal, financial, tax, or other professional advice. You should seek independent professional advice before making your own decision as to whether or not to purchase any TRIP tokens. You are responsible for any and all evaluations, assessments, and decisions you make in relation to investing in the TRIP tokens. You may request for additional information from 12TRIP in relation to this offer of TRIP tokens. 12TRIP may, but is not obliged to, disclose such information depending on whether (i) it is legal to do so and (ii) the requested information is reasonably necessary to verify the information contained in this White Paper.



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h) TRIP tokens are intended for use within applications available on the 12TRIP intermediary digital Validation-as-a-Service (VaaS) ecosystem and 12TRIP warrants that the TRIP tokens are fit for these purposes. However, 12TRIP is not responsible for compelling any person to accept TRIP tokens and disclaims, to the fullest extent permitted by law, all liability for any adverse consequences arising out of or in relation to such rejections of TRIP tokens.

i) Upon purchasing any TRIP tokens, you will be deemed to have reviewed this White Paper (and any information requested and obtained from 12TRIP) in full and to have agreed to the terms of this offering of TRIP tokens, including to the fact that this offering does not fall within the scope of any securities laws in Singapore and is not regulated by the MAS. You further acknowledge and agree that the TRIP tokens are not securities and are not meant to generate any form of investment return.

j) The TRIP tokens and related services provided by 12TRIP (if any) are provided on an as is and as available basis. 12TRIP does not grant any warranties or make any representation, express or implied or otherwise, as to the accessibility, quality, suitability, accuracy, adequacy, or completeness of the TRIP tokens or any related services provided by 12TRIP, and expressly disclaims any liability for errors, delays or omissions in, or for any action taken in reliance on the TRIP tokens and related services provided by 12TRIP. No warranty, including the warranties of non-infringement of third party rights, title, merchantability, satisfactory quality or fitness for a particular purpose, is given in conjunction with the TRIP tokens and any related services provided by 12TRIP.

k) 12TRIP will accept only ETH, BTC, USDT. Investors from United States are not allowed to invest in this ICO.