TraffiCK (TFX) Whitepaper

TraffiCK(TFX) Technical White Paper

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Abstract: The TraffiCK (TFX) software and network will introduce a transportation architecture designed to enable vertical and horizontal scaling of a decentralized transportation application. This will be achieved by creating an operating system-like construct which upon applications can be built and running on. The software provides accounts, authentication, databases and asynchronous communication. The resulting technology is a transportation platform and architecture that can employ and serve the population worldwide with a direct payment interface due to the blockchain technology. This results in a traveling platform and society where FIAT money will no longer be mandatory to travel. Users of the network can travel anonymous, safe and in any state they prefer. The main user and provider interaction will be based on mobile applications for Android and Apple.

PLEASE NOTE: CRYPTOGRAPHIC TOKENS REFERRED TO IN THIS WHITE PAPER REFER TO CRYPTOGRAPHIC TOKENS ON A LAUNCHED BLOCKCHAIN THAT ADOPTS THE TraffiCK (TFX) SOFTWARE. THEY DO NOT REFER TO THE ERC-20 COMPATIBLE TOKENS BEING DISTRIBUTED ON THE ETHERIUM BLOCKCHAIN IN CONNECTION WITH THE TFX TOKEN DISTRIBUTION.

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1. Background

1.1 Blockchain

Blockchain technology was introduced in 2008 with the launch of the bitcoin currency, and since then entrepreneurs and developers have been attempting to generalize the technology in order to support a wider range of applications on a single blockchain platform. Platforms differences from each other with the value they can add to the community or humanity. TraffiCK (TFX) is mainly focusing on transportation and sustainability of transport in the near future.

1.2 TraffiCK Tokens

While a number of platforms and ICO's coming up we think we can differentiate our platform within the Ethereum blockchain. We are offering the opportunity to travel around the globe while being attached to the blockchain technology and stay anonymous for both parties (drivers and costumers). The service will be based on our TFX tokens and this will come with many advantages regarding to speed of transaction, safety and anonymity.

1.3 TraffiCK Vision

The TFX project was initially started by a group of young and dedicated developers/designers who took the initiative to develop the platform on a nonprofit based basis. The idea is to create and fund a new platform that within ten years will be a well-known and mass adopted way of transportation that literary anyone with a smartphone and tokens can use.

The goal of the TFX project is to provide society with a service that can either be used to earn money or to travel all over the globe for a fair price regarding the local standards. Next to that we hope to make shared and combined traveling the new standard that will be facilitated and made as easy as possible due to the blockchain technology.

As a final we hope to make the earth a little bit more sustainable and prevent annecessary pollution of the air or environment. The global expansion of humanity will in the near future reach levels of overcrowdings that will force us to a new way of traveling...or better said traveling 2.0...or maybe better said, TraffiCK.

2.TFX List of demands and requirements

2.1 Support millions of users

Disrupting businesses or digital services such as Ebay, Uber, AirBnB or Facebook, require blockchain technology capable to support the handling of simultaneously multiple millions of active users. TFX network will be based on a similar strategy but with a different system of payment for service and a completely new technologically structural environment of the application e.g. databases and back-end development platform.

2.2 Easy Upgrades and Bug Recovery

Businesses building blockchain based applications need the flexibility to enhance their applications with new features.

All non-trivial software is subject to bugs, even with the most rigorous of formal verification. The platform has to be developed with such a way of robustness fix or compensate bugs when they inevitably occur.

As we strongly demand, receive and process feedback, we will be able to adjust on the upcoming technologies (e.g. splits in cryptocurrencies) and adjust our application on the demand of the users on both parties (drivers and costumers)

2.3 Safety First

One of the main focus areas of the project will definitely lays within guaranteed safety of our users, transporters and services. First off all there will be a blacklist for malicious users of the network. Due to the blockchain technology any form of malicious and unwanted behaviour can be traced back to the specific persons involved. The TFX team will immediately freeze their wallets and kept them locked down until further investigation to the matter is processed. Also reckless or unsafe driving can be reported and the status of this particular user will be publicly visible to warn other users in the future.

2.4 Sustainability and environement friendly based application

TraffiCK (TFX) has a big focus on sustainability and environement friendly transport. Sharing rides would be literally the same idea as carpooling but with a wider spread of connecting people with each other. Next to that there is a financial effort to gain for the supply and the demand side of the network.

2.5 Sequential Performance

There are some applications that just cannot be implemented with parallel algorithms due to sequentially dependent steps. Applications such as exchanges need enough sequential performance to handle high volumes and therefore a platform with fast sequential performance is required. So therefor we cannot promise anything with participation within other platforms, but we will try to provide everything on our own.

2.6 Parallel Performance

Large scale applications need to divide the workload across multiple CPUs and computers. That's why we are building on the blockchain technology. Payment systems are quite complicated and therefore we will build a system to secure that all payments are fluently transferred.

2.7 Guaranteed anonymity

There will be an extra encrypted layer added to maintain the security and anonymity of our user accounts and payment details.

2.8 Separating Transaction costs from Token Value

One of the major benefits of the TraffiCK (TFX) software is that the amount of the fee available to an application is dependent of the token price. If an application owner holds a relevant number of tokens on a blockchain adopting TraffiCK (TFX) software, then the application can run indefinitely within a fixed state and bandwidth usage. In other words, a blockchain that adopts the TraffiCK (TFX) software enables block producers to naturally increase bandwidth, computation, and storage available per token.

2.9 Community Benefit Applications

Other applications/services can also benefit through our software. E.g. train companies who are participating with new payment systems, bus companies who can participate. Simply said our ideal situation is to pay every travel destination you have, you will be able to pay through TFX tokens or different crypto currencies.

2.10 Web Assembly (WASM)

Web Assembly is an emerging web standard for building high performance web applications. With a few small modifications Web Assembly can be made deterministic and sandboxed. The benefit of Web Assembly is the widespread support from industry and that it enables contracts to be developed in familiar languages such as C or C++.

3.Conditions of payment

The TFX network will search for requests and demanding parties and couple them by request or by preferences.

When a travel agreement has been met and committed from both or multiple parties the sub joint schedule will be put into action by the TFX network. All wallets will be temporarily frozen until all joining parties have confirmed to the requested service.

Due to the blockchain technology any form of malicious and unwanted behavior can be traced back to the specific individuals involved. The TFX team will immediately freeze their wallets and kept them locked until further investigation to the matter is processed.

4. Long-term business plan

4.1 Multiple forms of traveling

The TraffiCK (TFX) network will literally provide any form of none (major) public transport that we have seen today and forms of transportation that will develop in the far or near future.

4.2 Set new standard

TraffiCK is aiming to be the new standard in traveling on crowded areas over the glove. Traveling alone will in the long term be replaced to traveling together

4.3 Make the earth a little bit more green and sustainable

When traveling together rather than alone becomes the new standard every ride literally contributes to a greener environment by saving out other rides. Next to that the bike rental service will maybe replace a lot of unnecessary automotive traffic on the small distance.

4.4 Connect society and start networking

Next to the practical purpose TraffiCK will also serve a social and networking purpose in the near future. People looking for new business networking, romance, friendship or maybe just some small talk can add this in their travel preferences.

4.5 Reduce traffic jams

Instead of the load of traffic jams that we see in every crowed area over the globe today we hope to see TraffiCK jams instead. That means loads of people in line to share rides and transport themselves via the TFX platform.

4.6 NFC payment system

TraffiCK users can pay or charge for their ride by just holding their smartphones together and click on the approve button within the TFX app. From that moment on both or multiple wallets will be frozen and released if all parties confirmed the service as satisfied.

5. Conclusion

The basic idea off the TFX network is to offer the crowd a new decentralized way to move themselves from point A to B without having to own a car and this at relatively low expenses. Next to that people who own and ride and want to make money or safe on their travel expenses can use the network to offer a service as a transporter.

We even believe that in the far future the platform and app can even replace 40% of public transportation at this very moment and with self-driving cars this rate could even go up. The development team will build an android and macOS app which make the whole platform easy accessible and to understand.

This includes an TFX Driver locator map and a TFX-Traveler locator next to a decentralized payment method which also allows drivers to pay with NFC by smartphone. This also bypasses many legal concerns in a lot of countries, where currently charging "real" FIAT money for a ride would be conserved as illegal.

We hope in the future to offer society a platform that everyone with a smartphone can access and use and hope to not only offer engine driven services but also services like rental bikes or water cycles.

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