



FUJINTO WHITEPAPER

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1. INTRODUCTION

In the past few years, the world tourism has much conditions to grow strong; the world is changing with scientific and technological leaps; The world economy continues to grow; The people's life is constantly improved. In this context, the demand for travel of the people is objective and fast growing demand. The development of information technology has changed the way people interact and share information, especially the impact of social networking and internet applications, mobile phones increasingly popular.

1.1 - TOURISM

By **Myhospeworld**, here are the brief numbers that show the importance and role of the Tourism Industry in the rest of the world, as well as the "bottom line" for sustainable development. And certainly of the potential economic sector remains "latent".

Tourism Industry in 2016

- Accounts for **9%** of global GDP
- In **11** people, has **1** person works in Tourism industry
- **1.3** trillion \$ in exports
- **6%** of the world export
- From **25** million international tourists in 1950
- **increased to 1,035** million visitors in 2012
- And **2016** the number of international visitors is **1,235 billion**.
- **1.8 billion** international visitors until 2030.

The crux of a sustainable development

- A large number of new tourism destinations are being formed and receiving investment from investors around the world, making Tourism a key factor of the socio-economic development process.
- Over the past six decades, the tourism industry has experienced and continues to grow, expand and become more diverse than ever, gradually becoming one of the fastest growing economic factors in the world. Many new destinations are being formed at the same time as continents, which have long been the cradle of world tourism, such as Europe or North America.

- Despite the crises is going on, international tourists have shown an unstoppable development, with 25 million in 1950, 278 million in 1980, 528 million in 1995, and 1.035 million in 2012

According to general perception of the World Tourism Organization (UNWTO), in the future, tourism continues to grow on a global scale. The number of international visitors is forecasted to reach 1.8 billion by 2030.

By 2030, tourist go with purpose of visits, health and religion will account for 31% of the total number of international tourists; For the purpose of sightseeing, relaxation, recreation, entertainment accounted for 54%; And for the purpose of job and occupation accounted 15%.

The development of information technology has changed the way people interact and share information of tourist, especially the impact of social networking and internet applications, mobile phones increasingly popular.

The experience of countries which has development tourism industry shows that when internet users are increasing, advertising using online payment tools is a channel that the tourism industry can not ignore.

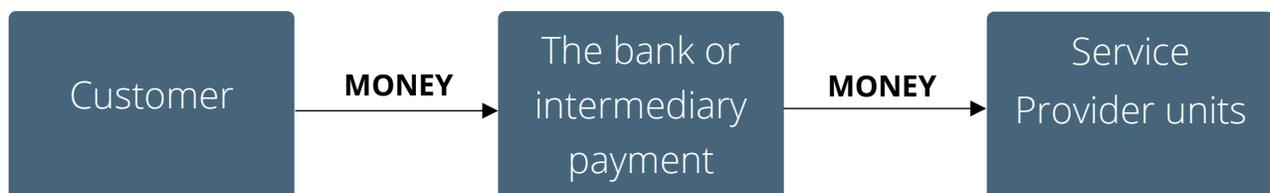
According to statistics, the collection of major travel companies around the world, more than 99% of people online before the selection of tours.

According to a Neilson report, global online travel sales in 2016 reached 565 billion \$, up 13.8%. Asia-Pacific and America-Latin are the two markets which contribute for this impressive growth. Even, Neilson forecast that in 2017, Asia-Pacific will first time surpass North America, becoming the world's largest online travel market.

1.2 - PROBLEM

With the development of social media, online applications, travelers can now easy to search and book their own hotels, motels and flight online rather than booking via service agencies.

However, there is a difficulty in paying method with the service provider, especially with international travel. Below is a description of the payment process when booking through the website or online payment application



The money that visitors use for booking must go through a provider of intermediary payment services (Banks, Paypal, Neteller, VISA ..) and then reach the service provider. This process leads to

- Long waiting duration
- Foreign currency exchange (when traveling internationally)
- High Fees
- No privacy (all your transactions may be tracked)
- Security risk. Your privacy and money rely on the payment service provider.

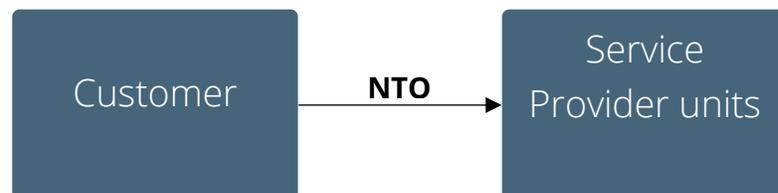
1.3 SOLUTION

FUJINTO is created to make the paying process in the website, online booking application easier and reduce the risk for the users.

The FUJINTO token is a decentralized cryptocurrency based on the Ethereum blockchain platform and is not controlled by any central authorities.

NTO is the symbol of FUJINTO token, like JPY or USD.

NTO was created to be a cryptocurrency to pay for hotel or travel ticket reservations. NTO is the open source cryptocurrency, using advanced blockchain technology. With NTO your money will be stored in your personal digital wallet, strictly confidential and absolutely private. At the transaction, money from the sending account will come directly to the recipient, not through any intermediaries. Here is the description when you use the payment with NTO



Using NTO makes payments much faster and more convenient

- Transaction is confirmed and completed almost immediately.
- Fees are much lower
- Privacy (no one can track your transactions or personal information)
- Proactive and less risky with blockchain technology.

2. VISION

NTO is created with the purpose of providing an alternative payment method for transportation and accommodation booking websites. By using NTO, the booking process would be simplified and more efficient for both providers and consumers. Furthermore, one does not need to pay a huge amount for transaction or change of currency fee because of using international transfer system. In addition, NTO is secured payment solution with minimal transaction fee and the amount will be transferred to user's account within milliseconds.

FUJINTO Team has many years of experience in building and developing online payment solution which is the foundation of introducing FUJINTO service.

Firstly, FUJINTO will be linked with accommodation and transportation websites which allows NTO to be used as one of the secured payment methods other than cash.

A number of potential partners that are

- Rome2rio.com, Goeuro.com, Skyscanner, Momondo, Seat61.com, Rail Europe, B-europe.com, Loco2.com, Captaintrain.com, Busradar.com, Eurolines, Megabus, Student Agency Bus, IC Bus, greyhound.com, amtrak.com, kayak.com, Traveloka.com (transportations)
- Airbnb.com, Only-apartments.com, Booking.com, Hotelscombined.com, Expedia.com, Agoda.com (accommodation booking)
- TripAdvisor, Foursquare (tourism services)

Secondly, introducing FUJINTO application that quicken accomdation and transportation booking services with NTO curruncy and it applied Blockchain technology which helps the FUJINTO to be more secured and safe for users.

3. FUJINTO

The intent of FUJINTO is to create an alternative protocol for building decentralized applications, providing a different set of tradeoffs that we believe will be very useful for a large class of decentralized applications, with particular emphasis on situations where rapid development time, security for small and rarely used applications, and the ability of different applications to very efficiently interact, are important. FUJINTO does this by building what is essentially the ultimate

abstract foundational layer: a blockchain with a built-in Turing-complete programming language, allowing anyone to write smart contracts and decentralized applications where they can create their own arbitrary rules for ownership, transaction formats and state transition functions. A bare-bones version of Namecoin can be written in two lines of code, and other protocols like currencies and reputation systems can be built in under twenty. Smart contracts, cryptographic "boxes" that contain value and only unlock it if certain conditions are met, can also be built on top of the platform, with vastly more power than that offered by Bitcoin scripting because of the added powers of Turing-completeness, value-awareness, blockchain-awareness and state.

3.1 NTO Accounts

In NTO, the state is made up of objects called "accounts", with each account having a 20-byte address and state transitions being direct transfers of value and information between accounts. An FUJINTO account contains four fields:

- The **nonce**, a counter used to make sure each transaction can only be processed once
- The account's current **NTO balance**
- The account's **contract code**, if present
- The account's **storage** (empty by default)

Ether is the main internal crypto-fuel of FUJINTO, and is used to pay transaction fees. In general, there are two types of accounts: **externally owned accounts**, controlled by private keys, and **contract accounts**, controlled by their contract code. An externally owned account has no code, and one can send messages from an externally owned account by creating and signing a transaction. In a contract account, every time the contract account receives a message its code activates, allowing it to read and write to internal storage and send other messages or create contracts in turn.

Note that "contracts" in NTO should not be seen as something that should be "fulfilled" or "complied with"; rather, they are more like "autonomous agents" that live inside of the NTO execution environment, always executing a specific piece of code when "poked" by a message or transaction, and having direct control over their own NTO balance and their own key/value store to keep track of persistent variables.

3.2 Messages and Transactions

The term "transaction" is used in NTO to refer to the signed data package that stores a message to be sent from an externally owned account. Transactions contain:

- the recipient of the message;
- a signature identifying the sender;
- the amount of NTO to transfer from the sender to the recipient;

- an optional data field;
- a STARTGAS value, representing the maximum number of computational steps the transaction execution is allowed to take; and
- a GASPRICE value, representing the fee the sender pays per computational step.

The first three are standard fields expected in any cryptocurrency. The data field has no function by default, but the virtual machine has an opcode with which a contract can access the data. As an example use case, if a contract is functioning as an on-blockchain domain registration service, then it may wish to interpret the data being passed to it as containing two "fields", the first field being a domain to register and the second field being the IP address to register it to. The contract would read these values from the message data and appropriately place them in storage.

The STARTGAS and GASPRICE fields are crucial for NTO's anti-denial-of-service model.^[17] In order to prevent accidental or hostile infinite loops or other computational wastage in code, each transaction is required to set a limit to how many computational steps of code execution it can use. The fundamental unit of computation is "gas"; usually, a computational step costs 1 gas, but some operations cost higher amounts of gas because they are more computationally expensive, or increase the amount of data that must be stored as part of the state. There is also a fee of 5 gas for every byte in the transaction data. The intent of the fee system is to require an attacker to pay proportionately for every resource that they consume, including computation, bandwidth and storage; hence, any transaction that leads to the network consuming a greater amount of any of these resources must have a gas fee roughly proportional to the increment.

Messages

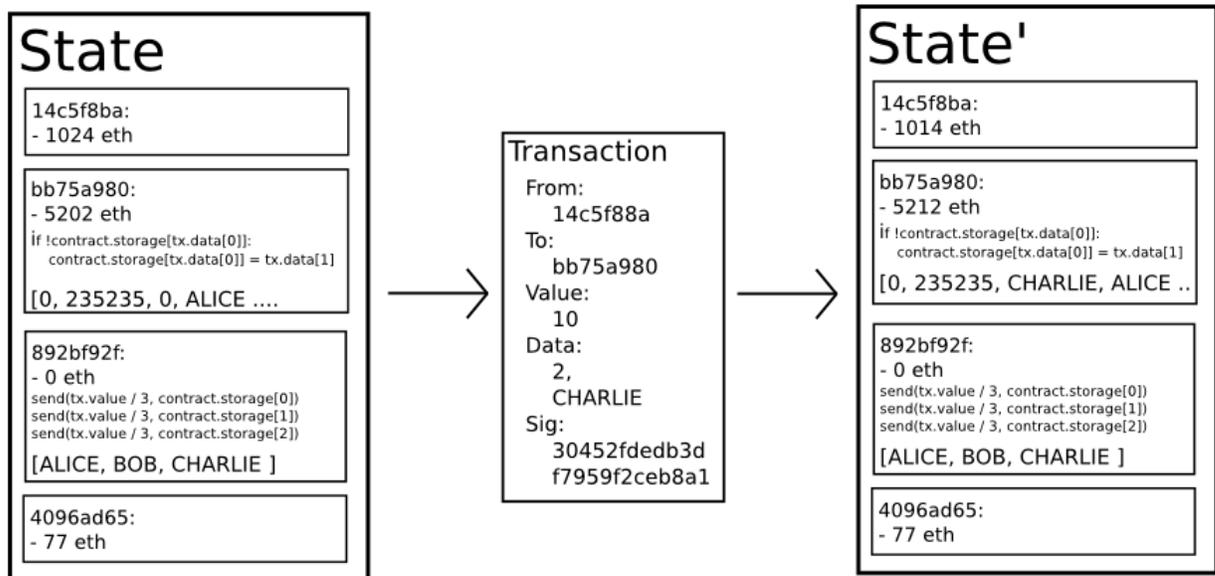
Contracts have the ability to send "messages" to other contracts. Messages are virtual objects that are never serialized and exist only in the FUJINTO execution environment. A message contains:

- the sender of the message (implicit);
- the recipient of the message;
- the amount of FUJINTO to transfer alongside the message;
- an optional data field; and
- a STARTGAS value.

Essentially, a message is like a transaction, except it is produced by a contract and not an external actor. A message is produced when a contract currently executing code executes the CALLopcode, which produces and executes a message. Like a transaction, a message leads to the recipient account running its code. Thus, contracts can have relationships with other contracts in exactly the same way that external actors can.

Note that the gas allowance assigned by a transaction or contract applies to the total gas consumed by that transaction and all sub-executions. For example, if an external actor A sends a transaction to B with 1,000 gas; B consumes 600 gas before sending a message to C; and the internal execution of C consumes 300 gas before returning; then B can spend another 100 gas before running out of gas.

NTO State Transition Function



The NTO state transition function, $APPLY(S, TX) \rightarrow S'$ can be defined as follows:

1. Check if the transaction is well-formed (ie. has the right number of values), the signature is valid, and the nonce matches the nonce in the sender's account. If not, return an error.
2. Calculate the transaction fee as $STARTGAS * GASPRICE$, and determine the sending address from the signature. Subtract the fee from the sender's account balance and increment the sender's nonce. If there is not enough balance to spend, return an error.
3. Initialize $GAS = STARTGAS$, and take off a certain quantity of gas per byte to pay for the bytes in the transaction.
4. Transfer the transaction value from the sender's account to the receiving account. If the receiving account does not yet exist, create it. If the receiving account is a contract, run the contract's code either to completion or until the execution runs out of gas.
5. If the value transfer failed because the sender did not have enough money, or the code execution ran out of gas, revert all state changes except the payment of the fees, and add the fees to the miner's account.
6. Otherwise, refund the fees for all remaining gas to the sender, and send the fees paid for gas consumed to the miner.

For example, suppose that the contract's code is:

```
if !self.storage[calldata[0]]:
    self.storage[calldata[0]] = calldata[32]
```

Note that in reality the contract code is written in the low-level EVM code; this example is written in Serpent, one of our high-level languages, for clarity, and can be compiled down to EVM code.

Suppose that the contract's storage starts off empty, and a transaction is sent with 10 FUJINTO

value, 2000 gas, 0.001 ether gasprice, and 64 bytes of data, with bytes 0-31 representing the number 2 and bytes 32-63 representing the string CHARLIE.^[Note 4]

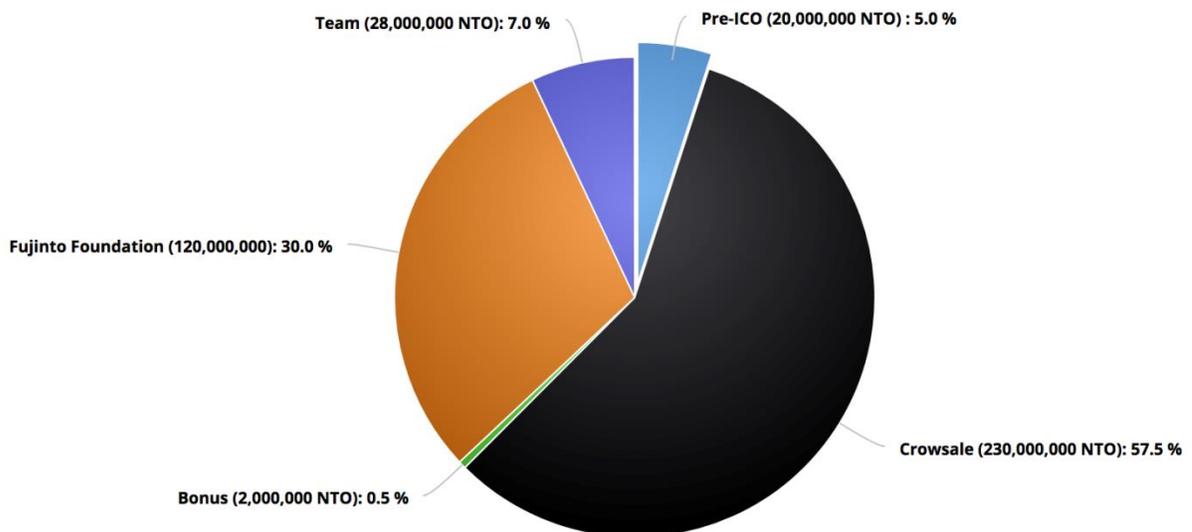
If there was no contract at the receiving end of the transaction, then the total transaction fee would simply be equal to the provided GASPRICE multiplied by the length of the transaction in bytes, and the data sent alongside the transaction would be irrelevant.

Note that messages work equivalently to transactions in terms of reverts: if a message execution runs out of gas, then that message's execution, and all other executions triggered by that execution, revert, but parent executions do not need to revert. This means that it is "safe" for a contract to call another contract, as if A calls B with G gas then A's execution is guaranteed to lose at most G gas. Finally, note that there is an opcode, CREATE, that creates a contract; its execution mechanics are generally similar to CALL, with the exception that the output of the execution determines the code of a newly created contract.

4. ICO

4.1 Token distribution

- 5% (20 million tokens) are reserved for early adopters in pre-ICO
- 57.5% (230 million tokens) will be available for crowdsale.
- 0.5% (2 million tokens) are reserved for ICO bonuses.
- 30% (120 million tokens) will remain in the FUJINTO Foundation until the official exchange is launched, the tokens will be used to form a stable market and for further development.
- 7% (28 million tokens) will be distributed among team members



4.2 ICO parameters

ICO Start Date 10 August 2017 12:00 UTC

ICO End Date 10 September 2017 12:00 UTC

ICO Tokens Amount 230 000 000 NTOs

Total Bonus Amount 2 000 000 NTOs

Token Exchange rate 1 ETH = 4 000 NTOs

Minimum transaction amount 400 NTOs (0.1 ETH)

Maximum transaction amount 12 000 000 NTOs (3 000 ETH)

Total Sale goal 60 000 ETH

Minimal Sale goal 5 000 ETH

Currency accepted Only ETH

ICO Bonuses

- 1st week 15%
- 2nd week 10%
- 3rd week 5%
- 4th week no bonus

4.3 Uses of funds raised

- 20% will be used for Support Market
- 30% will be used for Marketing, SEO, promos
- 10% will be used for Admin and Operation
- 40% will be used for Development.

FUJINTO tokens distribution is not available to U.S and Hong Kong residents.

After ICO NTO will be available for purchase in cryptocurrency exchanges.

5. ROADMAP

3rd quarter 2017

- Early August: presale period
- Mid August: Initial Coin Offering (ICO) period
- Late August: available for purchase in cryptocurrency exchanges
- Working on FUJINTO and introducing NTO on accommodation websites such as Airbnb.com, Only-apartments.com, Booking.com, Hotelscombined.com, Expedia.com, Agoda.com

4th quarter 2017

- Working on FUJINTO and introducing NTO on Rome2rio.com, Goeuro.com, Skyscanner, Momondo, Seat61.com, Rail Europe, B-europe.com, Loco2.com, Captaintrain.com, Busradar.com.

1st quarter 2018

- Working on FUJINTO and introducing NTO on greyhound.com, amtrak.com, kayak.com, Traveloka.com.
- Testing FUJINTO application.

2nd quarter 2018

- Working on FUJINTO and introducing NTO on Eurolines, Megabus, Student Agency Bus, IC Bus.
- FUJINTO BETA release.

3rd quarter 2018

- Launching FUJINTO application.