FORCE Tokenomic White Paper (EN)

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Notice

It is advisable to have read the general white paper and technical white paper to gain a broader understanding of the project. Additionally anyone wishing to purchase FORCE should read and agree to all legal documentation here.

Introduction

This white paper discloses the economic structure that has been pre-determined and built into the utilisation, production, destruction and various economic factors that relate to the FORCE cryptocurrency and more specifically the FORCE blockchain.

It describes first the distribution of FORCE as an ERC-20 ethereum based token during the token sales, the token allocation, how and when it will be distributed to all relevant parties.

Next it will explain the swap process for the ERC-20 FORCE token to the native FORCE blockchain token.

Finally it will explain the various reward and supply structures relating to the FORCE blockchain and how the FORCE token will operate on the network.

Contents

1.0 Existing Economic Structure

Since the start of the project in August 2017 the company has conducted two independent token offering events, raising around $750,000 in predominantly Ether at the time. This was achieved via both private placement and a public offering, with distribution of the ERC-20 FORCE token taking place February 2018.

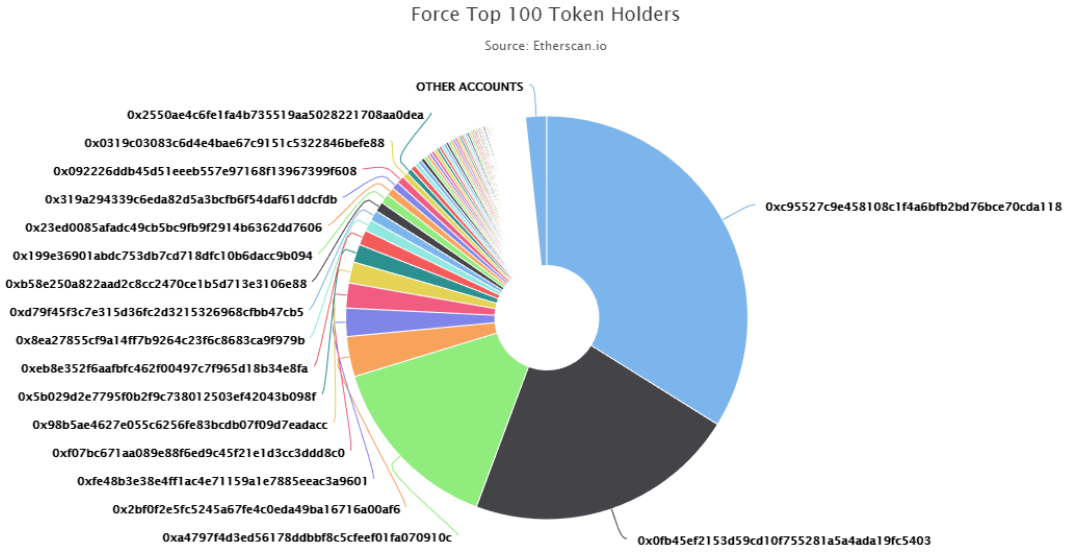
The total supply at the time had been fixed to 2,000,000,00, with 75% to be distributed publicly. However, after careful analysis and review, the team have taken the decision to reduce the supply available due to market variants to 200,000,000 (a 10x factor reduction). Thus, the available supply for the public will be set to 175,000,000.

Full details and verification of existing distribution can be found at the verified token contract listing on Etherscan at the following link:

https://etherscan.io/token/0x794eb1f985f472c0b44c4041b4198478366f9940

ERC-20 Token Summary

Total Supply	200,000,000
Public Supply	175,000,000
Team, Advisors and Project	25,000,000
Symbol	FORCE
Fungibility	Fungible
Decimals	18
Supply Distributed	9,344,975.597
Supply Inflation	Currently Fixed
Contract Address	0x794eb1f985f472c0b44c4041b4198478366f9940
Contract Audit	https://www.techracers.com/smart-contract-security-audit-triforce



Some factors above will change according to the new implementation on the FORCE blockchain that is being developed (currently private state on GitHub).

The nominal value of FORCE is set to **$0.15 USD** and will continue to be set at this rate for the duration of the token sale events.

2.0 Token Offering Details

2.1 Token Sale Summary

The final public token sale and distribution will occur between 8th October at 12:00pm UTC and 11th November 12:00pm UTC. Any interested party wishing to own FORCE should visit https://triforcetokens.io/token-sale.

Public purchase of FORCE will only be accepted via Bitcoin or Ethereum and will be converted to its equivalent value in $USD.

Example:

User purchases 1 ETH worth of FORCE.

1 ETH = $300

$300 / $0.15 = 2,000 FORCE

An additional bonus will be applied according to rates defined in section 2.2.

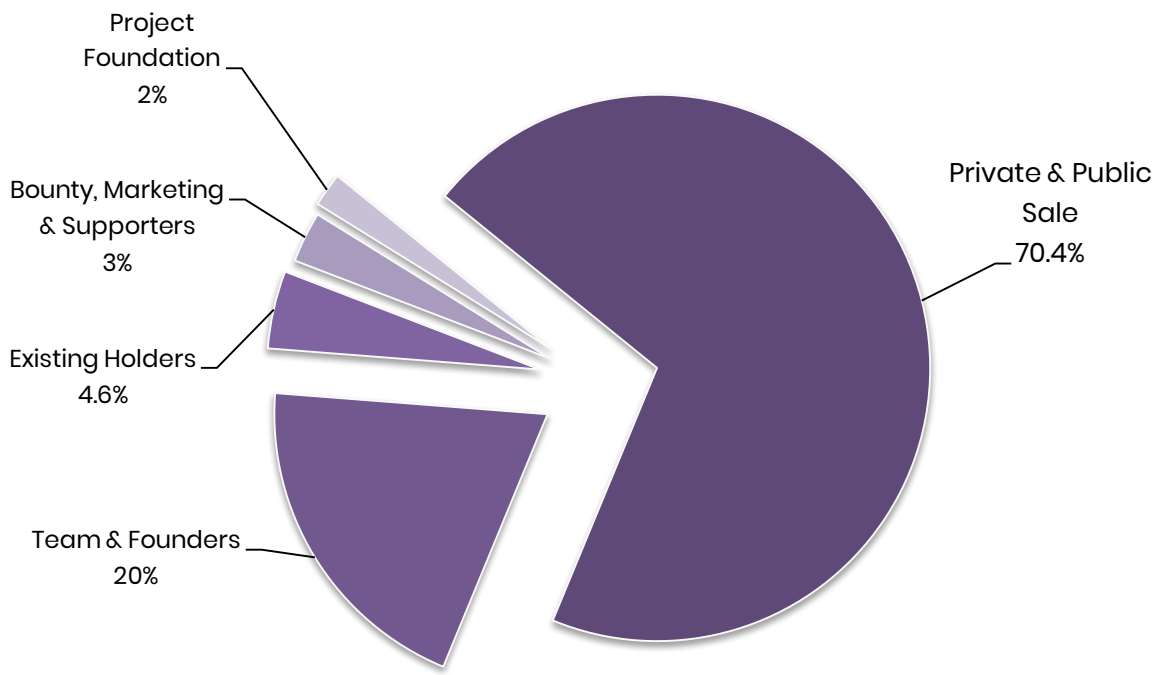
Private Sale Open	3rd September 2018
Public Sale Open	8th October 2018 at 12:00pm UTC
Public Sale Close	11th November 2018 at 12:00pm UTC
Symbol	FORCE
Max. Supply	200,000,000
Available Supply	175,000,000
Price	1 FORCE = $0.15
Min. Buy	$100 =
Accepted Currencies	BTC, ETH
KYC Process	Required. Conducted by Cynopsis Solutions PTE
Token Distribution	Tokens distributed immediately to buyer
Bonus Structure	Refer to section 2.2

2.2 Bonus Structure

Start	End	Price	Bonus	Total FORCE per $100
8th October	14th October	$0.15	15%	766.7

15th October	21st October	$0.15	10%	733.4
22nd October	28th October	$0.15	5%	700
29th October	11th November	$0.15	0%	666.7

2.2 Token Allocation



Token Allocation Table

Party	Estimated FORCE	Percentage of Supply
Private & Public Sale	140,800,000	70.4%
Team & Founders	40,000,000	20%
Existing Holders	9,200,000	4.6%
Bounty, Marketing & Supporters	6,000,000	3%

Project Foundation	4,000,000	2%
Total	**200,000,000**	**100%**

The above allocation is based on the total FORCE supply created being 200,000,000. Should this total supply not be created, the percentages will remain the same, effectively ensuring all parties receive the correct allocation.

3.0 Transition to FORCE blockchain

3.1 Summary

Due to the limitations of the Ethereum network and lack of specific function that the TriForce Tokens project requires, the team have worked tirelessly over the past few months to research and strategise the most effective route to tackle these issues.

The result has been to engineer our own blockchain, based purely in JavaScript (as has been done by Lisk).

JavaScript has become an incredibly powerful and versatile programming language, offering front-end libraries, back-end servers and even native desktop applications. Used in combination with other technologies such as WebRTC, WebAssembly, Electron V8 it is entirely feasible to engineer a production level blockchain.

The advantage not only gives the team incredible flexibility over how the technology is engineered, but vastly increases the available talent pool since JavaScript is the most popular programming language used globally at the time of creating this document and for the foreseeable future.

This decision means that all existing ERC-20 token holders and future buyers will need to perform a token "swap" to exchange their ERC-20 FORCE token to the native FORCE blockchain token.

The swap rate will be set to 1:1. Meaning 1 ERC-20 FORCE token will be exchangeable for 1 FORCE token on the FORCE blockchain network.

3.2 The Swap Process

To ensure a smooth and fair transition period, the team have devised a simple strategy for all token holders to conduct the swap.

1. Ensure user has a verified token holder account, created at https://triforcetokens.io
2. Complete the token swap form (pending deployment), that will:
    1. Generate a new FORCE blockchain address for the user
    2. Request the user to send all their ERC-20 FORCE tokens to a specific company controlled wallet for verification.
3. All ERC-20 FORCE tokens received to the specific address will be destroyed
4. FORCE tokens will then be generated on the FORCE blockchain and distributed automatically to the same token holder, based upon the new wallet address generated for that user.

The result will be a secure, simple and transparent process for conducting the token swap.

3.3 Key Dates

The dates defined below are subject to change according to the deployment schedule of the FORCE blockchain. We assure all users that adequate information and information will be given throughout the entire process. Communication will be delivered by; direct email communication to users, social media accounts and the project website.

Token Swap Schedule

Event	Est. Start Date	Est. End Date	Details
Ensure KYC and Account Created	Now	N/A	Create your account and complete the KYC at the following link: contributor signup
Complete Token Swap Form	4th January 2019	3rd May 2019	Completion of this form will enter the user into the registry for token swap and generate their new FORCE account upon mainnet launch automatically.
Send all ERC-20 FORCE tokens	18th March 2019	3rd May 2019	The final step required is for the token holder to send their ERC-20 tokens to be destroyed, and new FORCE tokens to be distributed.

* N/A - Not Applicable

This schedule has been designed to give all users ample opportunity to complete each step. The final date for swap is set to at least the 3rd May (pending any future updates).

Should any existing holder wish to learn more they can discuss with the team directly.

4.0 FORCE blockchain

4.1 Principle

FORCE blockchain is being engineered as a delegated Proof of Stake system (dPoS) with an element of Proof of Play. The dPoS system will be similar to that of EOSIO that the team have spent many hours studying.

The key benefits of engineering our blockchain using similar principles to EOSIO are:

- A balance between complete "code is law" decentralisation and governance system providing a level of control
- Ability to perform high transaction throughput (target of 10,000 TPS)
- One-second transaction finality
- Zero network fees
- Easier third-party development / high interoperability
- Better user experience improvements (such as account recovery, sending funds)
- Tokens represent network ownership, creating a fungible resource with ability to earn interest
- Ability to pause the network to make key updates without requiring hard-forks
- Ability to protect users from theft/scams

However, some of these points raise some fair criticism in the cryptocurrency community, namely:

1. There is a flawed 'constitution' that adds a human element and control meaning it is a less decentralised solution and open to corruption
2. Limited number of block producers (21 on EOS) can lead to decentralisation
3. Cost of network resources can fluctuate to the point of it becoming commercial impractical to use.

However, the fact remains EOSIO has made blockchain history with events such as recovering users funds, pausing the blockchain to make critical updates and prevention of DDoS attacks and has achieved the highest transactions throughput

with low latency. It's also worth noting, that every blockchain has its inherent flaws, which is analogous to software in general.

So the question becomes, why build our own blockchain instead of using EOSIO?

Ultimately because EOSIO is run by a community whose goals and objectives do not align with those of a dedicated game industry framework, means certain functionality that is both required and beneficial for this objective will never exist.

Additionally, having already run on an existing blockchain, our team have carefully considered the future objectives. Simply moving and building on top of another blockchain opens the project up to future challenges beyond our control.

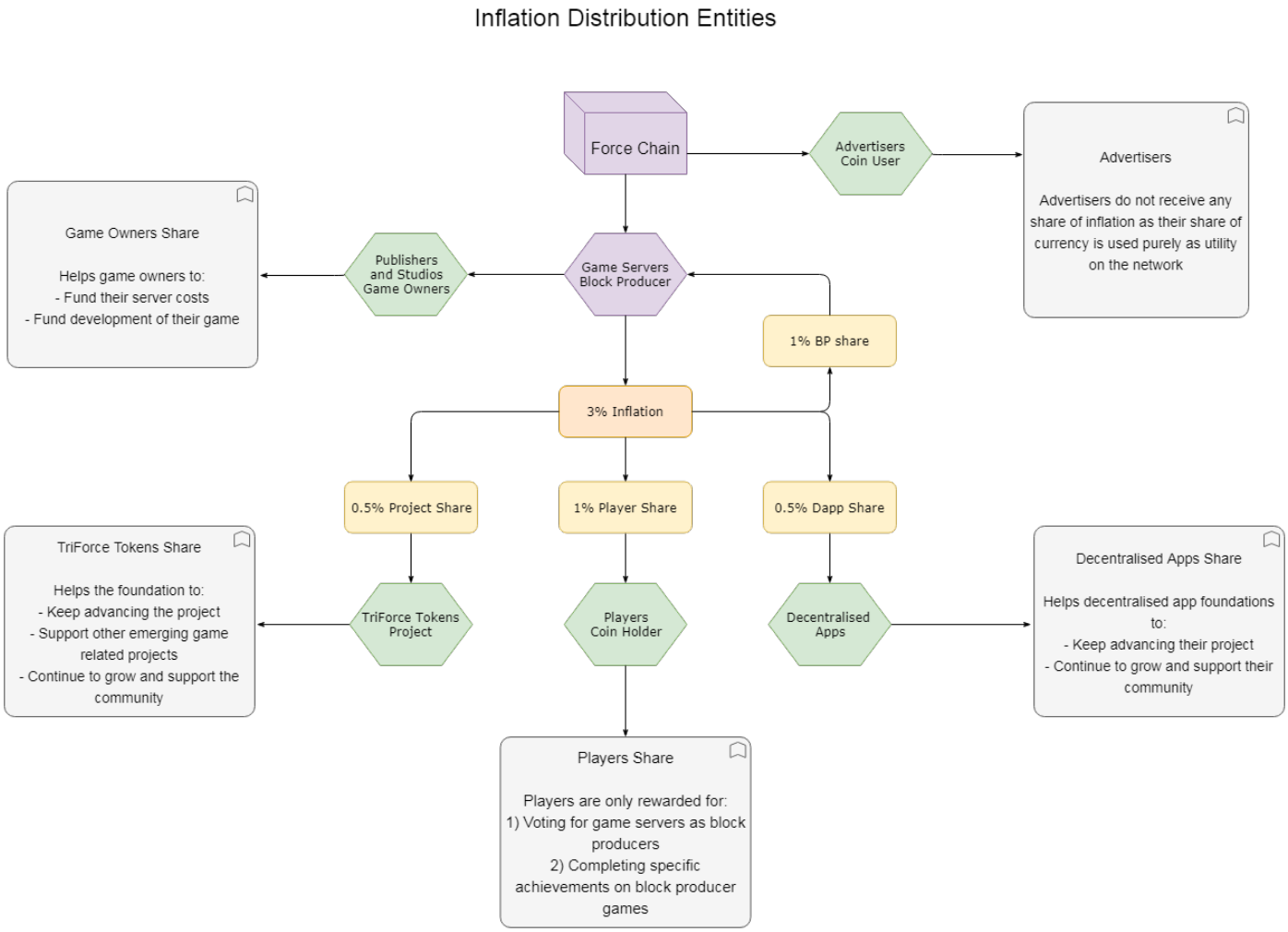
Having secured qualified and experienced team members that have already engineered a blockchain, together with our blockchain specialist partners Techracers (who also have thousands of hours of blockchain development experience, including development on Decred, HowDoo), and a Bachelor of Engineering biotech engineer, it is well within the teams capacity to deliver this goal.

4.2 Reward Mechanisms

An intrinsic model to the FORCE blockchain is that of rewarding active participants across the games industry spectrum. Not only will players earn rewards, but game studios and publishers alike.

This is achieved via a voting system, where community approved games become the nominated block producers and players that are part of that ecosystem.

Rewards are distributed by in-built inflation (initiated at 3%) that will occur as described in the model below:



Games will first go into a voting zone where the community will be able to vote against the game they want to support. Games that achieve votes to place them above the 22nd voted game will become the block producers. This effectively gives the network 21 block producers.

Players who then become active on these games will be additionally rewarded a percentage of the tokens that are generated by the game.

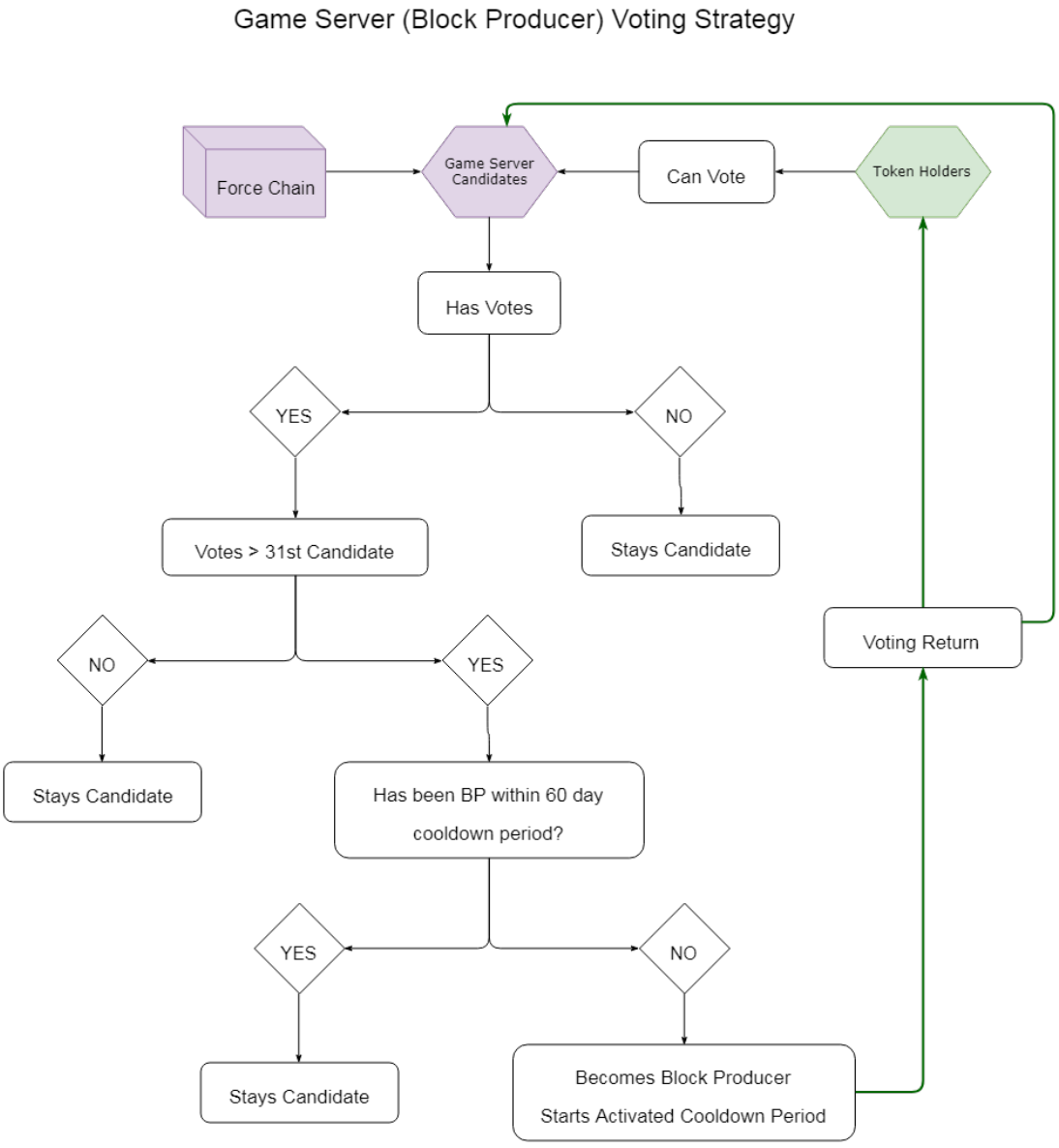
The purpose of which is to provide emerging indie games;

1. An active community with high retention
2. Funds to support server running costs
3. Funds to utilise on development or other activities

To stop certain games from maintaining a high position indefinitely, games can only remain block producers for a limited period of 90 days. The game will then be in a lockout period of a further 60 days. This allows enough time for a game to grow an active community and advance on its own merit. It also gives other games the opportunity to attract community support.

Additionally specific challenges can be set by the game that will give players boosted rewards, as has been demonstrated on the projects RaidParty technology.

The below diagram explains the voting strategy:



Summary

Game Servers will be voted on by the community to become a block producer based on whether the community wish to support that particular game.

This ensures that most relevant games become funded through the ecosystem.

Additionally cooldown periods are introduced to refresh the active block producers, giving new up-coming game studios and publishers an opportunity to grow. This stops certain game studios/publishers having a monopoly on returns.

Token Holders will also receive rewards for voting on active block producers.

4.3 Decentralised Third-Party dApps

Other third parties will be able to build on top of FORCE blockchain as long as they are related to the industry and offer the community value. Although the technology will be open for third parties to integrate with, it will be up to the community to approve these applications as to whether they are permitted on the network. This will utilise a similar voting mechanism as described in section 4.2.

As a suggestion, such dApps that could be built include (but not limited to):

- Community marketplaces
- Unique game promotion channels
- Alternative reward platforms
- Streamer services

The advantages for building on top of the FORCE blockchain are;

- Ease of integration due to JavaScript global adoption and versatility (high interoperability)
- Instant access to a focussed community within the games industry
- Community support and funding
- Access to utilise other third-party services deployed on the blockchain
- Support from the project foundation to launch their services

In order to run dApps on the network will require owning and holding FORCE tokens to access network resources, creating utility and a limited resource as the network grows.

This also provides the ability for community members to loan FORCE tokens to be used by third-party organisations to run their applications.

4.4 Advertisement Utility

An element that is intrinsic to the more corporate world of the games industry is that of advertisement. Advertisement, as with everything else, has its pros' and cons in the industry. However, it does provide studios and publishers a revenue model outside of charging players directly.

Advertisement itself comes in many forms, from static popups, dynamic and advergaming (a completely branded game that acts as a form of advertisement).

Add to this the various parties involved in revenue share for games can create a complicated process of contract negotiation and revenue share distribution.

FORCE blockchain will include the ability to facilitate this entire process, reducing the complications of contract negotiation and revenue distribution. Our team have already developed a dynamic advertisement platform ready to integrate , which has run several real-world campaigns with global brands.

The benefits of utilising the FORCE blockchain and the native token in this manor allows advertisers to validate and verify real placement of their campaigns in a trustless way, while creating a seamless process of revenue distribution to the relevant parties. This removes many complications through the level of automation the network serves.

4.5 Non-Fungible Tokens

Fungibility definition according to Wikipedia:

"In economics, fungibility is the property of a good or a commodity whose individual units are essentially interchangeable."

In essence, FORCE cryptocurrency is a **fungible** token. It shares the same properties as all other FORCE tokens in existence, and so therefore no single FORCE token is unique. This makes it perfect as a form of unified value transfer.

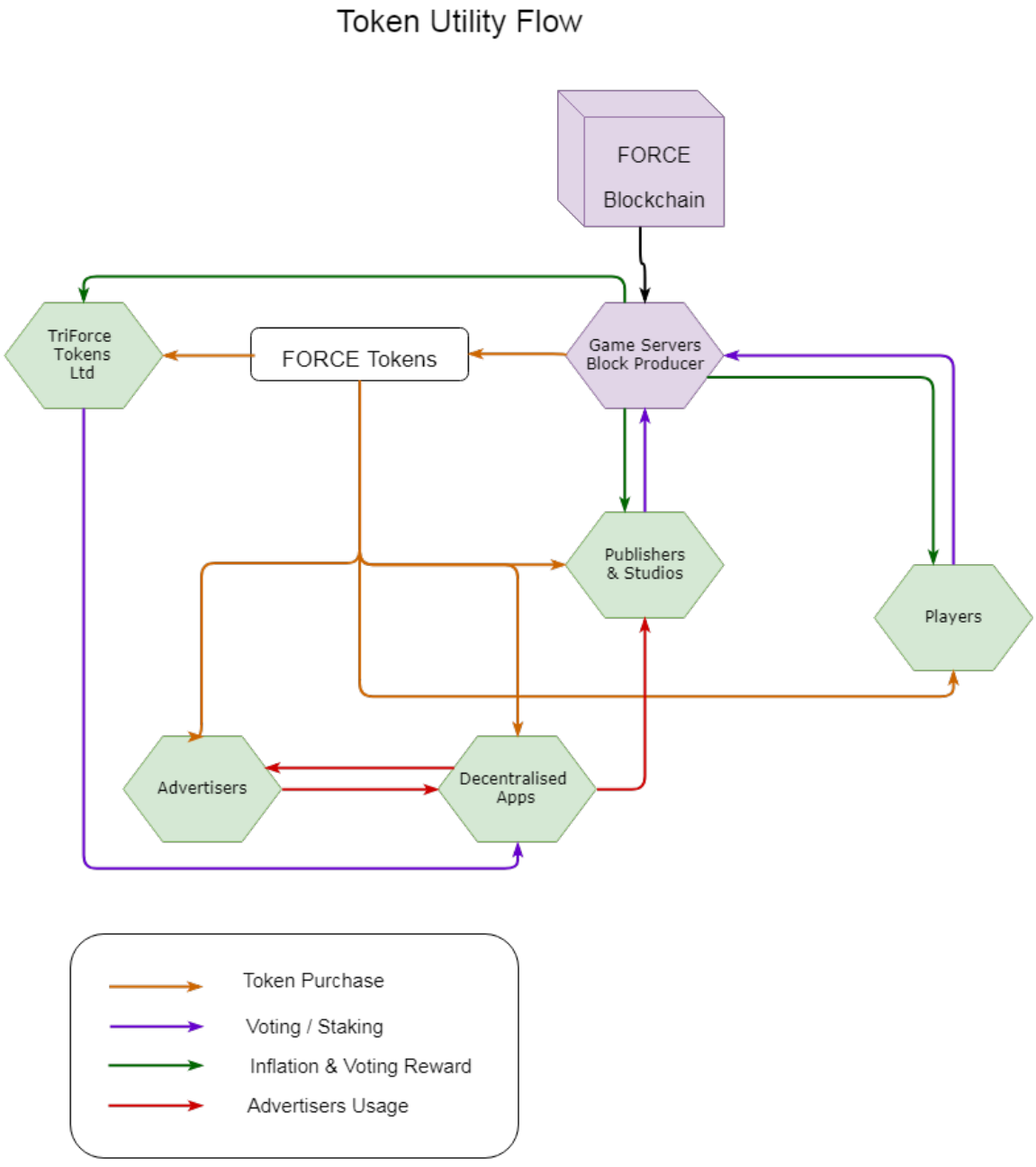
However, one particular element within games is that of unique and valuable in-game items (assets). Thus, the fungible FORCE token would not be an appropriate fit for providing real-world ownership of these assets to individuals.

Due to this our team will engineer the ability for users of the network to generate unique non-fungible tokens, to be used for asset exchange and verification.

This also provides the opportunity for the community or third-party organisations to develop unique dApps relating to the use of these non-fungible tokens, as well as providing studios the ability to create a completely new asset class for their players.

4.6 Token Utility Summary

The diagram below shows the token utility foreseen on initial launch of the FORCE blockchain.



5.0 Regulatory Compliance

Due to the blockchain industry having no official international regulatory framework, TriForce Tokens will be structuring the sale of FORCE tokens under a self-regulatory process. This means our token sale is structured on the principles of transparency and clear legal disclosures that must be agreed to prior to entering into an agreement to purchase FORCE cryptocurrency from TriForce Tokens Ltd.

Note:
Since the company is officially formed as a Limited Company operating out of the United Kingdom, the company sought guidance with the FCA (the United Kingdom's Financial Conduct Authority). After review the FCA stated that our particular activities would not fall under their remit.

Registry at Companies House

Company Number: 10844811

https://beta.companieshouse.gov.uk/company/10844811