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DDK Whitepaper V1.2
www.ddkoin.com

Be The Future By Our Innovation

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Overview

DDK is a community platform aiming to create economic opportunities through the development of blockchain solutions. Since 2015, our community has enthusiastically contributed to a number of blockchain platforms. This includes projects such as Universal Blockchain Wallet (UBW), Blockchains.My (BCMY), Blockchains.My Merchant Application, BCMY NFC Smart Card and DinarCoin (DNC). The community network has actively spread across a number of countries including Malaysia, Singapore, Cambodia, Vietnam, Thailand, Indonesia, Brunei, Philippines, Japan, Yemen, USA and other countries worldwide. The dedicated effort of our community's teamwork has played a major role in the success of our blockchain platforms. Presently, our community has 46 leading teams. By supporting our community with economic incentives to spread and adopt our platforms through ETPS Pre-order mode, we are able to sustain blockchain projects which continuously benefit the community in a way that works and benefits for all.

The DDK platform uses the Delegated Proof of Stake (DPoS) mechanism within its core. One of the major advantages of a DPoS blockchain for our community is that it depends on community members to participate in the maintenance and security of the platform so that each member's participation provides benefit for all.

Through the DDK platform, our objective is to provide economic opportunity for our community members and continue to innovate and contribute to build blockchain solutions.

History of DDK

The team developed an idea for a pre-ICO project, based on the ETPS technology called DNC (DinarCoin) which represents 4.25-grams of 999.9 karat gold (24k) on which the team started working on. Furthermore, the board decided to make ETPS technology more focused towards the community, rendering ETPS more community-centered.

The team worked full hours on the Pre-ICO project and the first instance of ETPS was developed for the public.

To further increase awareness the team developed websites and used every marketing technique, the security was also greatly improved to secure the system from malicious attacks.

The DDK team developed teams of traders called MICE (Masters of International Crypto Exchanger) and ICE (International Crypto Exchanger) to grow the pre-ICO community and further increase research on the target markets. The team also participated in multiple international conferences to promote ETPS and DNC.

The team launched UBW (Universal Bitcoin Wallet) London in which DNC can be exchanged with BTC and ETH.

The Universal Bitcoin Wallet London was rebranded to Universal Blockchain Wallet Singapore, security patches were also applied.

This was the transition phase from ETPS to DDK coin, the team also decided on making the consensus system based on DPoS (Delegated Proof Of Stake)

The ETPS platform ceased and development of the interface of DDK started. DDK voting DPoS systems were thoroughly tested for their user-friendliness and functionality. DDK Documentation v1.0 was also prepared to make users understand the concept of DDK.

The DDK Documentation v1.0 was released and the pre-introduction to the web wallet interface made users familiar after the migration.

The pre-ICO has finished.

DDK has passed through it's initial stages with flying colours, and we are aiming to continuously expand in the right direction with our team working on protocols and modules to further propel DDK in the market.

Our Platforms | ETPS - DDK

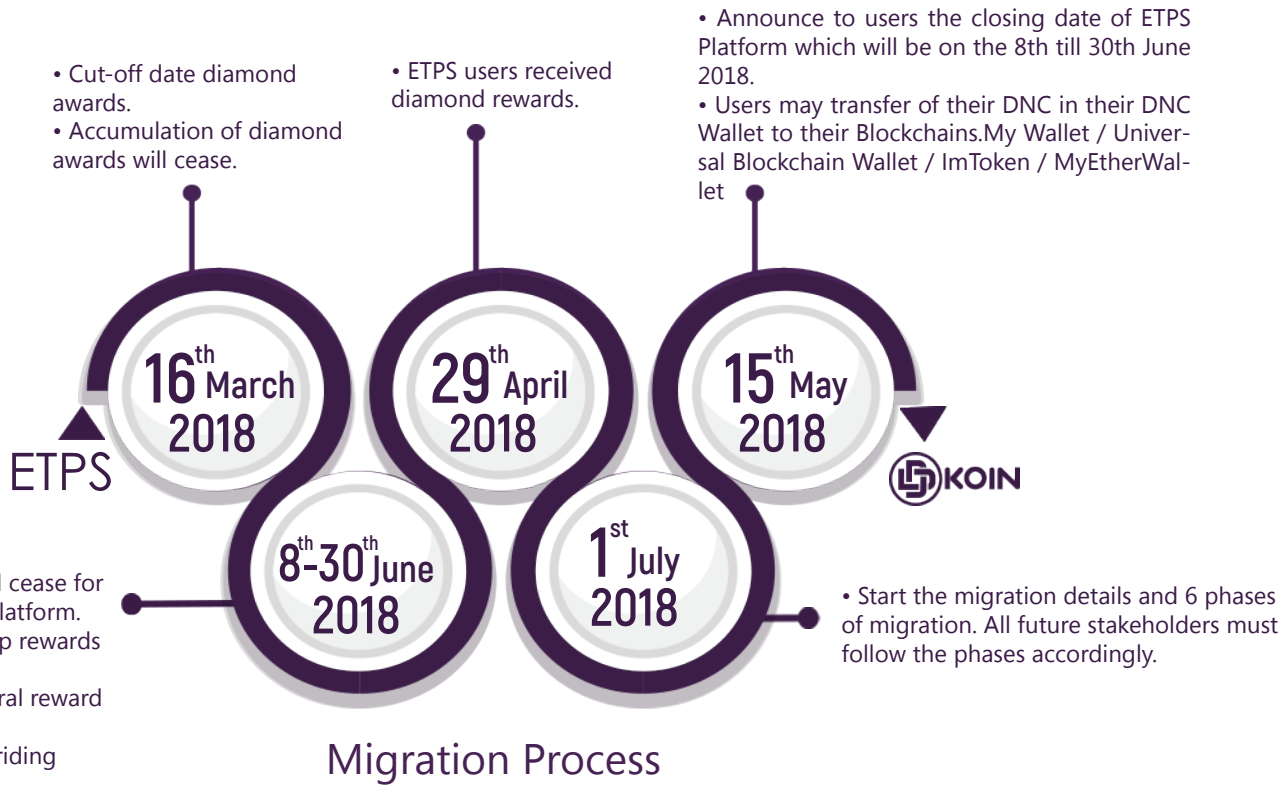
DDK is a community centered platform that provides the economic opportunity through the development of blockchain solutions. From 2015, our community has worked on many different ideas where users can collaborate in a business partnership using our platforms and currency. DDK is an extension of our platform ETPS (Estimated Time Pool Sharing) where we launched the currency - DNC (DinarCoin). DNC is a digital asset pegged to the value of 4.25 grams of 999.9 Karat gold (24K).

Setting their eyes on another milestone, the community has decided to excel by increasing the number of their users who use ETPS. For the execution of this goal, our community has decided to launch DDK platform with the integration of the revolutionized technology - Blockchain.

With the integration of blockchain technology, the ETPS platform has been converted into the DDK platform where delegated proof of stake will be used to establish consensus, making the platform secure, faster and democratic.

Note:
For the initial migration phase, current users need to log in using the same username and password.Then they will receive a passphrase, in which they must keep security. Current users are also not required to click on the stake button for the first stake as it will be automated. The voting process is a must for users to receive staking rewards. After migration, the remaining ETPS Contract will be in the DDK platform.

Example : If the user has undergone 3 months contract in the ETPS Platform, user may continue another 3 months in the DDK Platform.



Migration Process

Comparison between DDK and ETPS

Characteristics	DDK	ETPS
Coin	• DDKoin	• ETPS DNC
Components	• DDKoin holder - The community who own DDKoin • Stakeholder - The individual who 'stakes' DDKoin and 'does' the voting • Delegates - the individual who validate all transactions in DDKplatform	• 'ETPS DNC holder - community who 'owns' ETPS DNC' • ETPS pool partner – individual who 'joins' ETPS pool • International Crypto Exchanger – individual who 'handles' the exchange • Exchanger – individual who 'handles' the exchange
Technology	• Decentralized network by using LISK technology	• Centralized server based network
Structure	• DDK using the DPoS strucure and interchain	• ETPS using php structure
Exchanger	• Using global exchanger	• Using International Crypto Exchanger(ICE) or Master International Crypto Exchanger (MICE)
Profit generation	• Voting the delegates who distributed Token through blockchain	• Gains automatically run through server
Regulation	• Bound to Singapore rules and regulation	• Bound to offshore rules and regulation

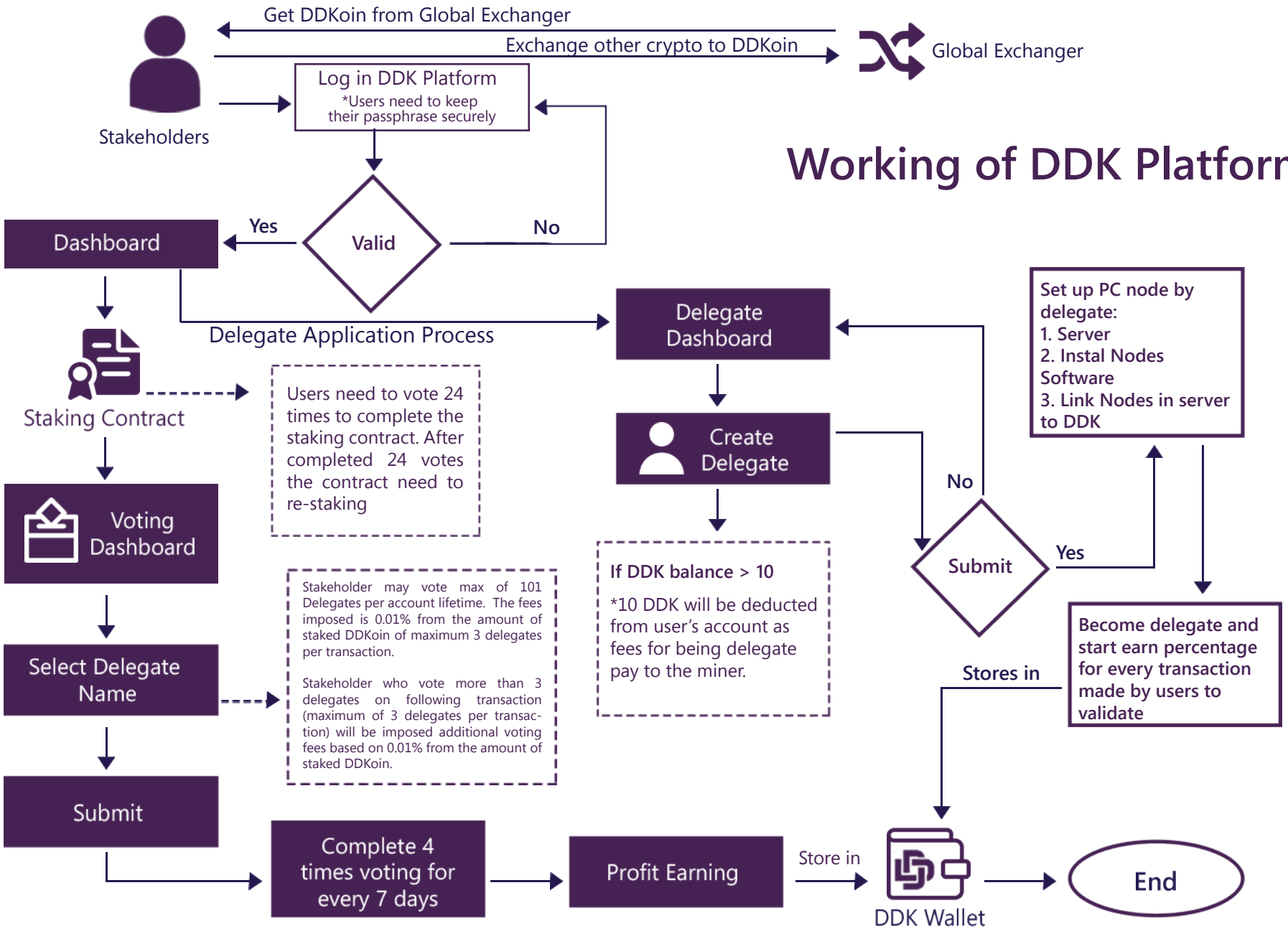
The DDK Platform

DDK uses a Delegated Proof of Stake (DPoS) blockchain for its platform. This perfectly fits in our active community because it allows stakeholders to participate in the voting process as to whoever is elected to verify and maintain transactions on the platform. This means that community members have a democratic voice in deciding who is responsible for processing and managing transactions on the platform. This is done using a unique voting system to achieve consensus - the process of verifying that transaction data is valid based on the general agreement of the trust-elected network.

DDK platform with its innovative concept, facilitates its users with,

- Creating opportunities for supporting economic growth
- Faster and efficient transactions
- Global exchanger
- High security
- Suitable for micro payments
- Decentralized Autonomous Organization (DAO) through DPoS
- Distributed database through delegates (Block Producer)

Working of DDK Platform



Elements of DDK Platform

The DDK user platform consists of five main elements:

The Stakeholder

The Delegates

Reward Incentives

Fees

Forum Discussion & Campaign Platform

The Stakeholder

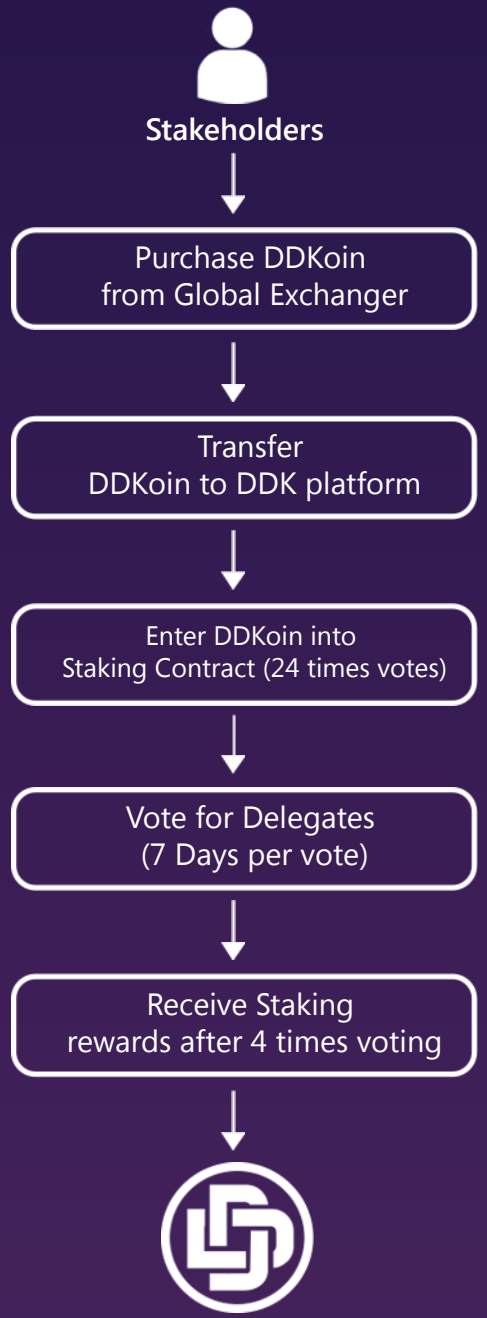
DDK users are those who have DDKoins in their wallet. Users can get DDKoin from a global exchanger on which DDKoin is listed. By default, every DDK user on the platform, staking DDKoin in their account, is a stakeholder. Stakeholders participate on the platform by voting for delegates. In return for voting, stakeholders are rewarded DDKoins because their participation helps in securing the network.

Role on the Platform

- Staking DDKoin
- Participation in the governance and voting of the block producer

Activity Flow

- Purchase DDKoin from a global exchanger
- Transfer DDKoin to DDK platform
- Enter coins into staking
- Vote for delegates
- Receive staking rewards

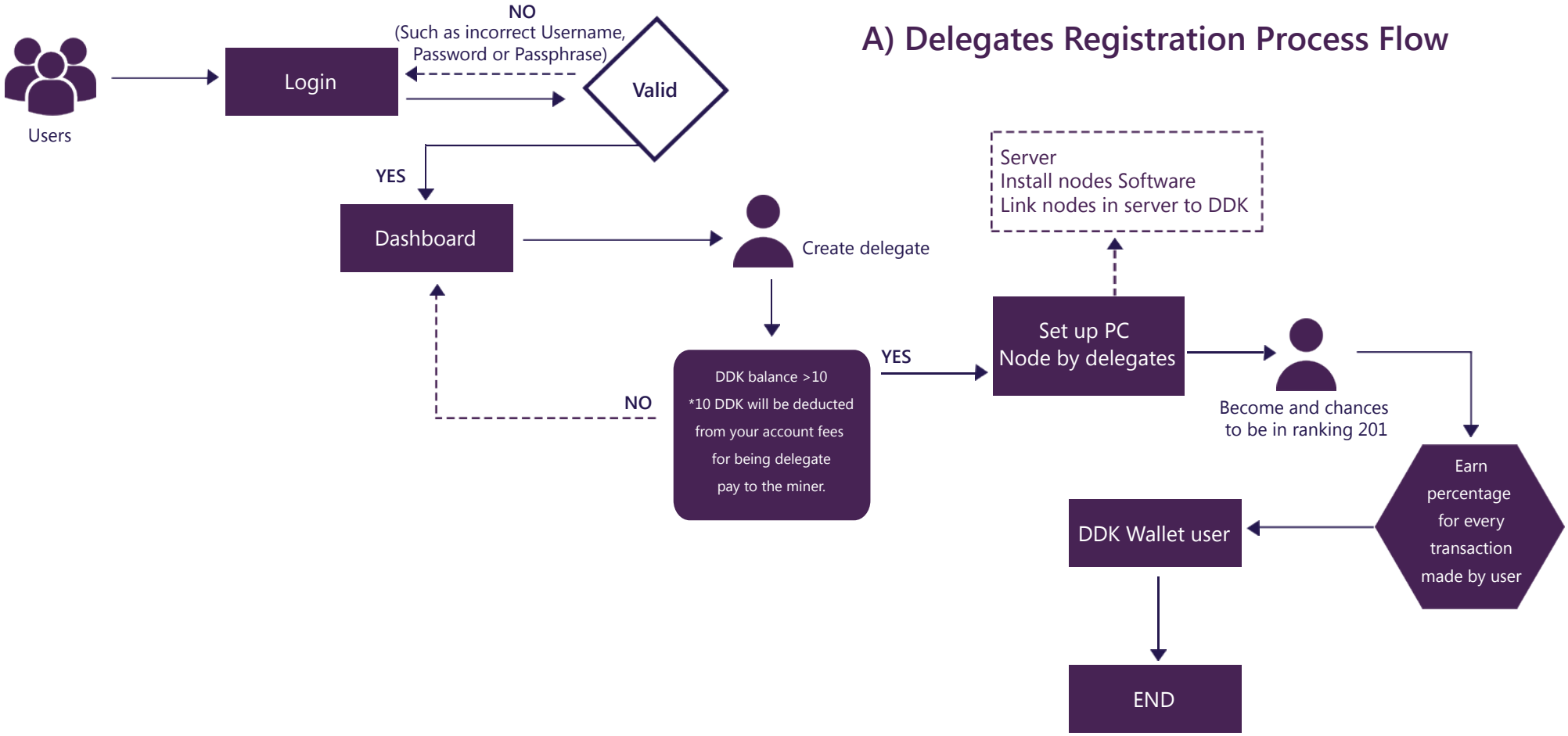


The Delegates

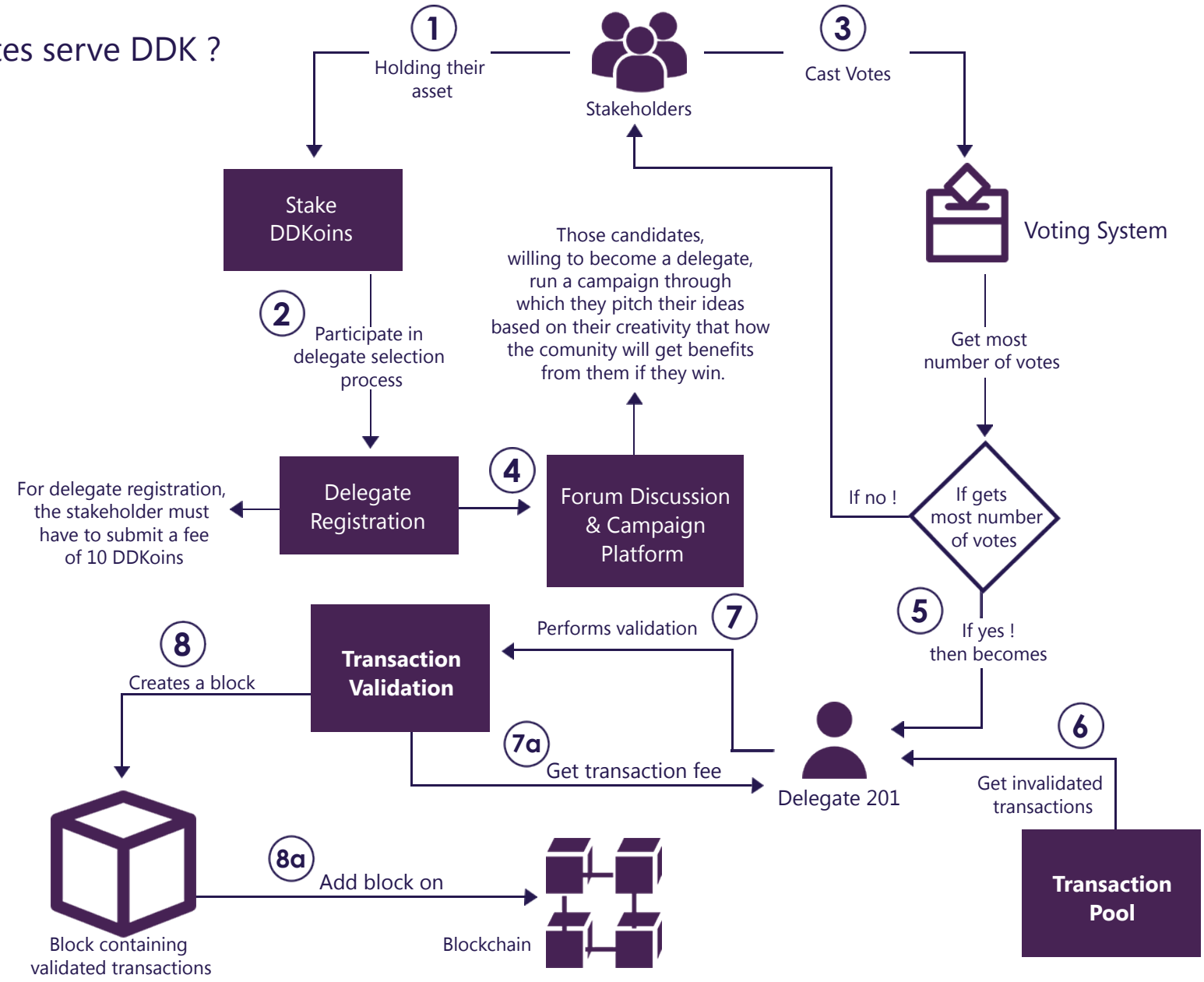
Based on the outcome of the voting process, a stakeholder can become a delegate. A delegate is a democratically-elected stakeholder who is given the trusted position to process and manage transactions on the DDK platform. In return for processing transactions, the delegate is rewarded DDKoin(s) because his participation, as delegate, provides the operation and record of transactions.
Delegates digitally sign the transactions on the network. They, (like default stakeholders) also provide security to the network by operating as trusted delegates to process transactions.

Role on the Platform

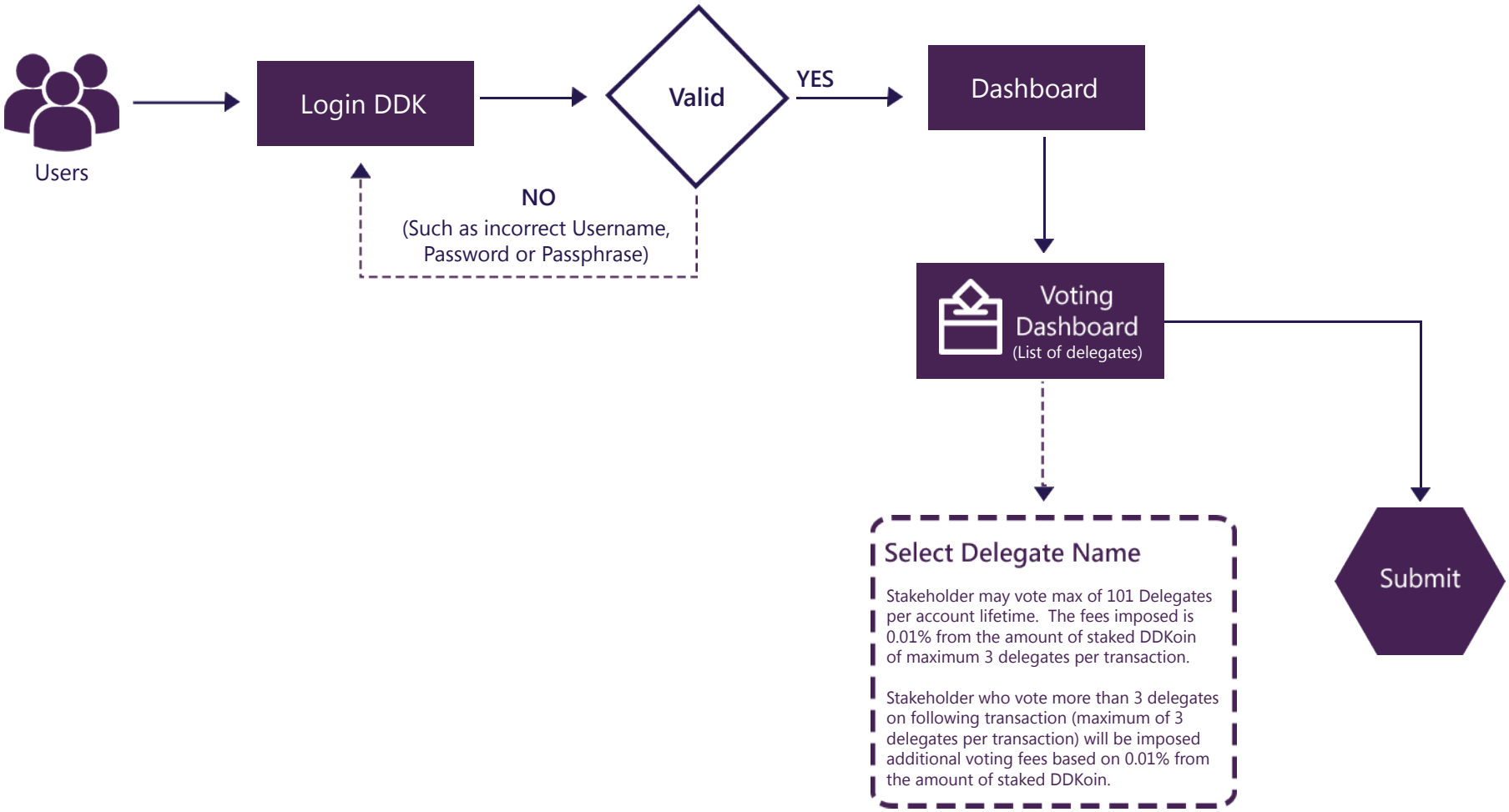
- Keeping and maintaining own node(s) running
- Collecting transactions across the network into blocks
- Processing and validating transactions



How delegates serve DDK ?



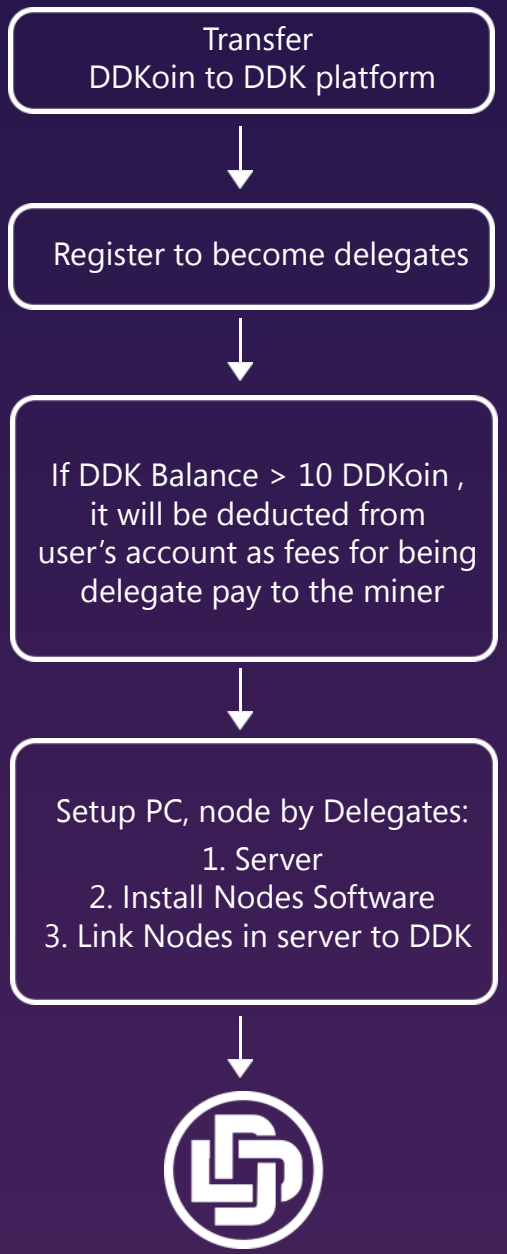
B) Delegates Voting Process Flow



Delegates Registration Flow

Activity Flow

- Must be an existing stakeholder on the platform
- Register to become a delegate
- Campaign on forum



Once the voting mechanism is completed and a stakeholder becomes a delegate, the delegate sets up a personnel PC node and starts getting invalidated transactions from transaction pool and validate these transactions. On validating these transactions, the delegates get reward in DDKoin.

	Transaction amount (DDKoin)	Fee per transaction	Amount Earning per transaction (DDKoin)
1	5	0.01%	0.0005
2	30	0.01%	0.003
3	100	0.01%	0.01
4	80	0.01%	0.008
5	300	0.01%	0.03
6	500	0.01%	0.05
7	10	0.01%	0.001
8	200	0.01%	0.02
9	3	0.01%	0.0003
10	60	0.01%	0.006
		Total Earning	0.1288

Reward Incentives

Giving rewards plays a significant role in our community because it creates an incentive for all of the community to participate and contribute to the security and productivity of the DDK platform. It is the active participation of the community that empowers the platform to operate and continue effectively.

Rewards Mechanism

DDK incentivizes its community members with multiple types of rewards such as,

- Un-mined
  - Staking rewards
- Pre-Mined
  - Airdrop rewards
    - Direct referral
    - Chain referral
  - Delegate rewards

Un-mined DDKoins:

Staking Rewards

This reward is given to community members who freeze their DDKoins in a staking contract for 6 months or more. They will receive a reward of 10% on staked amount, which will decrease in the first year and then every 6 months, by 2%. The staking reward will be given only if the stakeholder will complete 4 times voting in a month. Each time on voting, a stakeholder can select minimum 1 and maximum of 3 delegates with the same fee and 0.01% will be deducted from the amount staked from the stakeholder, as fee. On completing the target of voting 4 times in a month, the stakeholder will get the DDKoin as reward.

For example:
A stakeholder freezes 50 DDKoins for 6 months. For the first 12 months, every 30 days (for the period of 6 months) they will receive 5 DDKoins. Stakeholder must have to complete 24 times vote per staking contract, in order to gain rewards.

The initial staking rewards begins at 10% for the first 12 months, then declines gradually to 2%. This is all dependent on the voting of delegates which are applicable up to 4 times.

Reward scale for staking

Months	Num of DDK	Rewards amount	Staking rewards
0	1,710,000	0.1	171,000
1	1,881,000		188,100
2	2,069,100		206,910
3	2,276,010		227,601
4	2,503,611		250,361
5	2,753,972		275,397
6	3,029,369		302,937
7	3,332,306		333,231
8	3,665,537		366,554
9	4,032,091		403,209
10	4,435,300		443,530
11	4,878,830		487,883
12	5,366,713	0.08	429,337
13	5,796,050		463,684
14	6,259,733		500,778
15	6,760,512		540,841
16	7,301,353		584,108
17	7,885,461		630,836
18	8,516,298	0.06	510,978
19	9,027,276		541,637
20	9,568,913		574,135
21	10,143,048		608,583
22	10,751,630		645,098
23	11,396,728		683,804
24	12,080,532	0.04	483,221
25	12,563,753		502,550
26	13,066,303		522,652
27	13,588,955		543,558
28	14,132,514		565,301
29	14,697,814		587,913
30	15,285,727	0.02	305,715
31	15,591,441		311,829
32	15,903,270		318,065
33	16,221,336		324,427
34	16,545,762		330,915
35	16,876,677		337,534
36	17,214,211		344,284
37	17,558,495		351,170
38	17,909,665		358,193
39	18,267,858		365,357
40	18,633,216		372,664
41	19,005,880		380,118
42	19,385,998		387,720
43	19,773,718		395,474
44	20,169,192		403,384
45	20,572,576		411,452

46	20,984,027	419,681
47	21,403,708	428,074
48	21,831,782	436,636
49	22,268,418	445,368
50	22,713,786	454,276
51	23,168,062	463,361
52	23,631,423	472,628
53	24,104,051	482,081
54	24,586,132	491,723
55	25,077,855	501,557
56	25,579,412	511,588
57	26,091,000	521,820
58	26,612,820	532,256
59	27,145,077	542,902
60	27,687,978	553,760
61	28,241,738	564,835
62	28,806,573	576,131
63	29,382,704	587,654
64	29,970,358	599,407
65	30,569,765	611,395
66	31,181,161	623,623
67	31,804,784	636,096
68	32,440,879	648,818
69	33,089,697	661,794
70	33,751,491	675,030
71	34,426,521	688,530
72	35,115,051	702,301
73	35,817,352	716,347
74	36,533,699	730,674
75	37,264,373	745,287
76	38,009,661	760,193
77	38,769,854	775,397
78	39,545,251	790,905
79	40,336,156	806,723
80	41,142,879	822,858

Block Reward Reduction

Note:

Possible to be 10 years because:

Not all DDK users are continuously staking since users could possibly withdraw or exchange to other coins.

The allocation for both direct and chain referral rewards will come out from Airdrop Rewards reserved until the 2% is finished.

For staking rewards, the distribution will be based on voting activity by stakeholders until all reach 41 million total DDKoin supply for staking.

Pre-mined:

Airdrop Rewards

These are rewards that are distributed to community members for specific activities carried out on the platform. The airdrop rewards on the DDK platform include:

Stakeholder rewards table

No.	Type of rewards	Rewards	DDKoin Allocation for Rewards
1	Referral reward	10% from referral staked amount	2% of 45 Million DDKoin (Pre-mined for Airdrop Rewards)
2	Chain referral	15 level	

Direct Referral

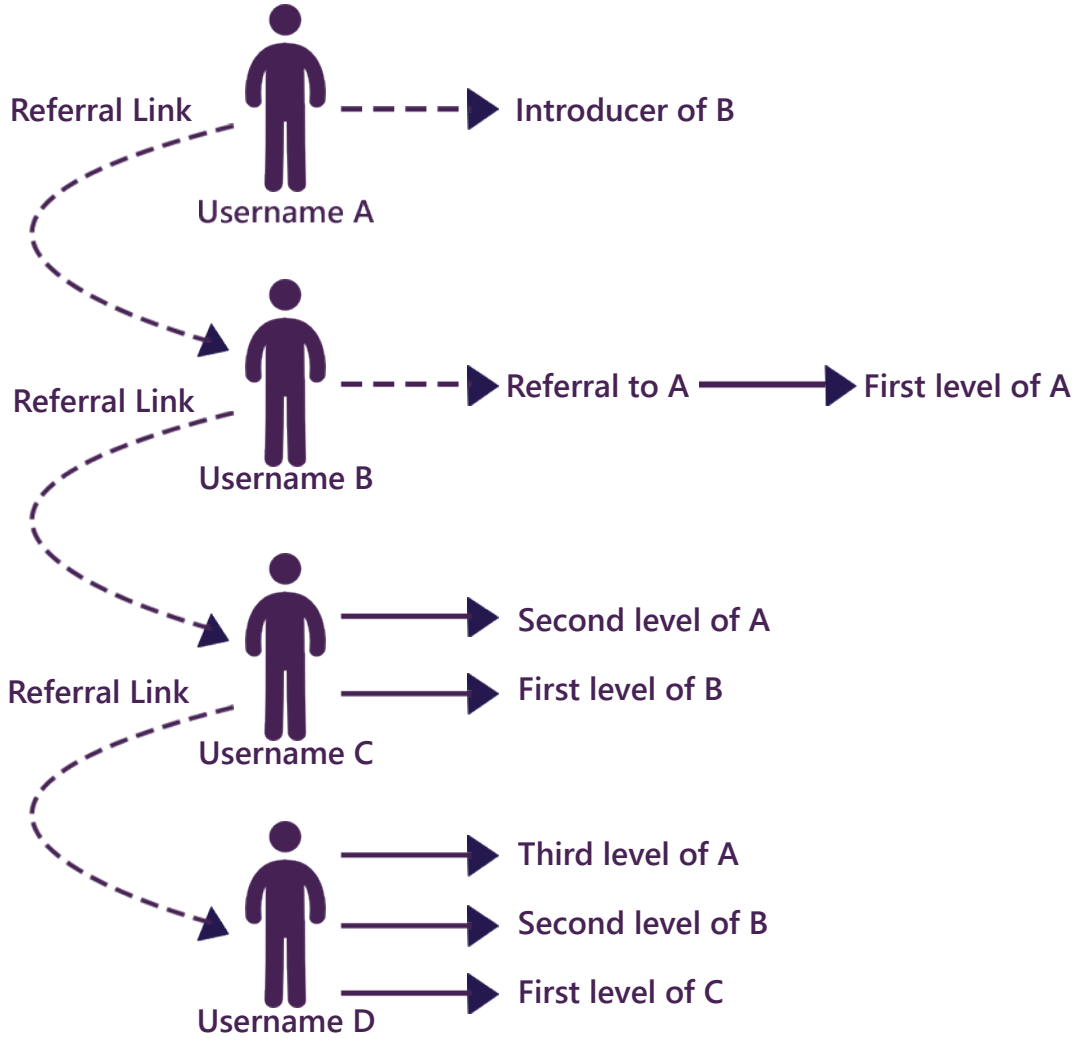
This reward is given to community members for referring new stakeholders to the platform. Whenever their new referral member freezes DDKoins for staking, they receive a 10% referral reward based on their referee's staking amount.

For example:

A new referee gets 100 DDKoins, then takes 50 of those DDKoins and freezes them in 6 months staking contract. In this case, the referral will receive 5 DDKoins as a direct referral reward because 5 DDKoins is 10% of the amount staked by their referee.

Chain Referral

This is a reward that community members will receive from their chain of referees. In other words, community members are rewarded indirectly from the referee's of their direct referrals. DDK has a 15 level chain referral reward. This reward is based on staking and it is received by "chain network" registered users through their referral links. Here is a complete example explaining how chain referral system of DDK works.



Chain Referral System

Based on diagram above,

- 'Username A' gives his referral link to 'Username B'.
- 'Username B' registers under 'Username A'.
- Hence, 'Username A' is called the 'INTRODUCER' to 'Username B' and 'Username B' is called the 'REFERRAL' to 'Username A'.
- As the extension goes on, let 'Username C' registers using the referral link of 'Username B' and in the same way, 'Username D' registers using the referral link of 'Username C'. In other words, we can say that 'Username B' is the first level of 'Username A', 'Username C' is the second level of 'Username A' and First level of 'Username B' while 'Username D' is the third level of 'Username A', second level of 'User name B' and first level of 'Username C'.

Example:

'Username D' stakes 10 DDKoins.
After complete voting for 4 times, **'Username D'** will receive the 10% from 1 DDKoin as staking reward.

From 1 DDK (the staking reward),

- **'Username C'** (first level of username D) will receive 5% from 1 DDKoin earned by 'Username D' which is equal to **0.05 DDKoin**.
- **'Username B'** (second level of D) will receive 3% from 1 DDKoin which is equal to **0.03 DDKoin**.
- **'Username A'** (third level of D) will receive 2% from 1 DDKoin which is equal to **0.02 DDKoin**.

Hence, the reward received for all levels is,

- A (third level) = 0.02 DDKoins
- B (second level) = 0.03 DDKoins
- C (first level) = 0.05 DDKoins
- D (staking reward) = 1 DDKoin

Therefore, the first level of a chain referral begins with one's direct referrals referee. As those referees gain their own referrals, the chain of referees extends onward, level by level, until the 15 levels are completed. Furthermore, as the chain extends, one still gets benefit from each level.
Here is a list of the percentage for each chain referral level:

Levels of chain referral rewards

Level	Chain Referral Rewards (%)
1	5
2	3
3	2
4	2
5	1
6	1
7	1
8	0.9
9	0.8
10	0.7
11	0.6
12	0.5
13	0.5
14	0.5
15	0.5

Delegates Reward

Delegates will get reward in a percentage amount deducted from the amount being transferred.

Type of Delegates Reward

	Type of transaction	Rewards
1	Validate peer-to-peer transfer	0.01% from the amount transferred
2	Validate transfer to global exchange	0.01% from the amount transferred
3	Validate registration of second passphrase in DDK wallet	0.01 DDKoin
4	Validate registration of multi-signature	0.1 DDKoin
5	Validate stake DDKoin	0.01% from amount of DDKoin to be staked
6	Validate transfer of staked DDKoin	10% from amount of staked DDKoin
7	Voting	0.01% from amount of staked DDKoin

Fees

There are a number of fees for the services and maintenance that occur on the platform. Some of which are applied to the stakeholder, and the delegate:

About Stakeholder Fees

In order to come on the DDK platform, stakeholders are required to submit a registration fee for second pass-phrase in DDK wallet, for multisignature, and peer-to-peer transfer. Moreover, a registration fee is to be paid for those who wish to become delegates in order to participate in verifying transactions.

Fee Amounts

The minimum amount of DDKoins that can be transferred through one transaction is 0.0001 DDKoins and the transaction fee that will be charged on transacting 0.0001 DDKoins is, 0.00000001 DDKoin.

Type of transaction	Description	Fees
Peer-to-Peer transfer	This is a transaction on non-staked coins from a DDK user to another DDK user on the platform.	0.01% from the amount transferred
Transfer to Global Exchange	This is a transaction from DDK Platform to global exchanger.	0.01% from the amount transferred
Second passphrase registration in DDK Wallet	This is a security option that requires an account to have an additional passphrase for backup security.	0.01 DDKoin
Multi-signature registration	This is a security option that requires the signature of multiple key in order for backup security.	0.1 DDKoin
Stake DDkoin	This is the fee paid for entering DDKoins into staking contract.	0.01% from amount of DDKoin to be staked
Transfer of staked DDKoin	This is a Peer-to-Peer (P2P) transaction of staked DDKoin.	10% from amount of staked DDKoin
Voting	This is a fee paid for the act of voting for a delegate	0.01% from amount of staked DDKoin

About Delegate Fees

When stakeholders are applying to become a delegate,
they have to get themselves registered first by submitting a registration fee.

Registration fee	This is the fee paid for those who wish to become delegates in order to participate in verifying transactions.
Delegate registration fee	10 DDKoin

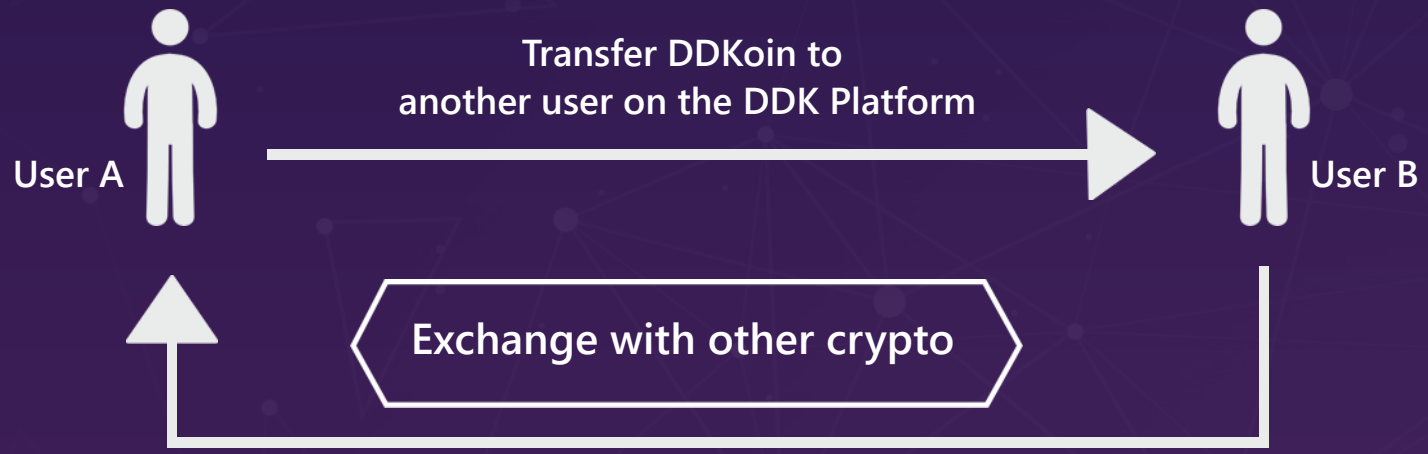
Forum Discussion & Campaign Platform

This platform is a community forum where those interested in becoming delegates post their campaigns to encourage the DDK community to vote for them. Those who are already delegates can also use the forum to encourage community members to continue voting for them. Campaigning usually includes writing articles and updates about why voting for you as a delegate is beneficial for the community.

Once the stakeholder gets successfully registered, then he/she will run a campaign on a campaign platform where he/she can pitch his/her unique idea of how he/she will give benefits to the stakeholders who are casting votes for him. It is a community forum for the people interested to become a delegate. The delegates post their campaigns through the forum to motivate the community to cast votes for them. Those who are already delegates, can use the forum to encourage community members for keep voting for them. The campaign includes writing articles and updates on the forum about why casting votes for you would be beneficial for the community. For example, campaigns can include topics such as promising to share a percentage of the delegate's transaction rewards with those who vote for them, informing the community about their success rate of processing transactions on the platform which helps everyone benefit from speedy transactions, informing the community that a percentage of their transaction rewards will go to a specific charity or just cause. There are numerous ways to pitch a campaign to the community which is left to the creativity of the delegate.

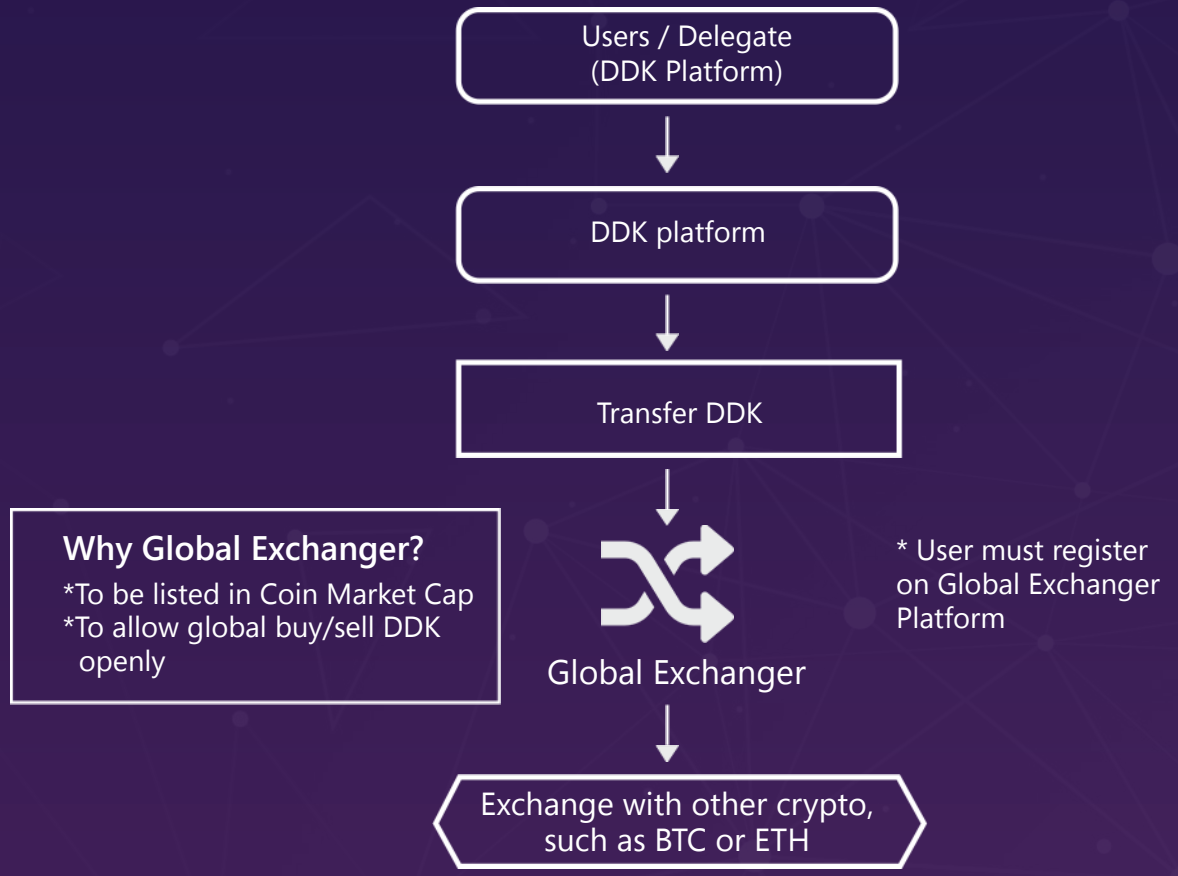
Process Flows for transferring DDKoins

A) Process flow for DDKoin Peer 2 Peer (P2P) Exchange



Transfer of DDKoin

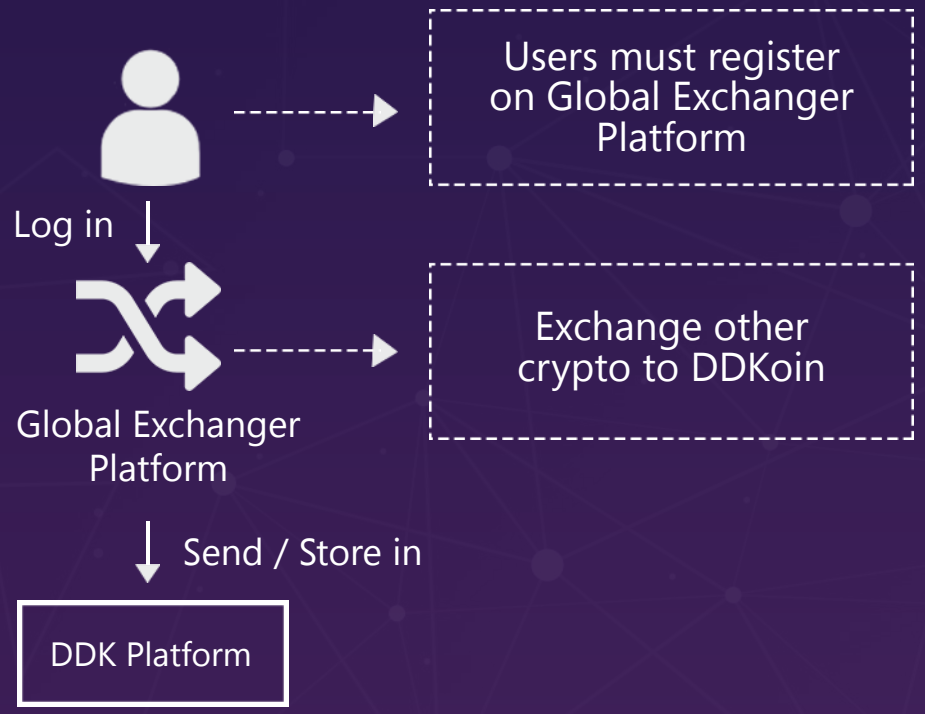
B) Process flow from DDK Platform to Global Exchanger



Process flow from DDKoin to Global Exchanger

Through global exchanger, the stakeholders can exchange their DDKoins with other digital currencies like BTC, LTC, ETH etc.

C) Process flow from Global Exchanger to DDK Platform



Process flow from Global Exchanger to DDKoin

Through global exchanger, the stakeholders can exchange their other digital currencies like BTC, LTC, ETH etc with DDKoin.

D) Process flow of DDKoin from DDK Platform to Blockchains.My Wallet through Global Exchanger

Process flow of DDKoin from DDK Platform to Blockchains.My Wallet

E) Process flow of DDKoin from DDK Platform to DNC Wallet through Global Exchanger

Process flow of DDKoin from DDK Platform to DNC Wallet through Global Exchanger

Market Opportunity

Community-centered businesses have proved themselves to be the most successful in several aspects. The opportunities and challenges for customer-centric businesses are,

- Barriers to market entry are lower.
- The value of data only continues to grow.
- The need to strengthen customer loyalty and attract new customers is intensifying.
- More opportunities with new data-driven, personalized products and services.

A community can play a vital role in the longevity of a product's lifecycle, as its engagement can increase market growth or more community members, which in turn can also make the community more aware about blockchain, cryptocurrencies and its benefits.
The market size and opportunity of community centered cryptocurrencies combined are far more greater than Bitcoin's current market cap. It is because the basis of cryptocurrencies are under the governance of decentralization, where the community reaches consensus on transactions and blocks alike in a unison manner. There are rewards in place for keeping up this type of unity in the form of transaction fee and block rewards, which are awarded to the community. Moreover, the market size for the businesses increases who incentivize their community with rewards.

"56% of consumers said receiving a personalized incentive would improve consideration of the brand" - Virtual Incentive

Community centricity provides,

- Builds trust, credibility, and solid reputation
- To expend community through referrals
- Gives your business a competitive advantage
- Saves money
- Increases customer retention and loyalty
- Leads to growth
- Increases revenue and profits

Increase customer retention rates by 5% increases profits by 25% to 95%

A 2% increase in customer retention has the same effect as decreasing costs by 10%

On average, loyal customers are worth up to 10 times as much as their first purchase

The current market size is approximated between $627,343,389 to $138,661,522 and will continue to grow over the current market trend.

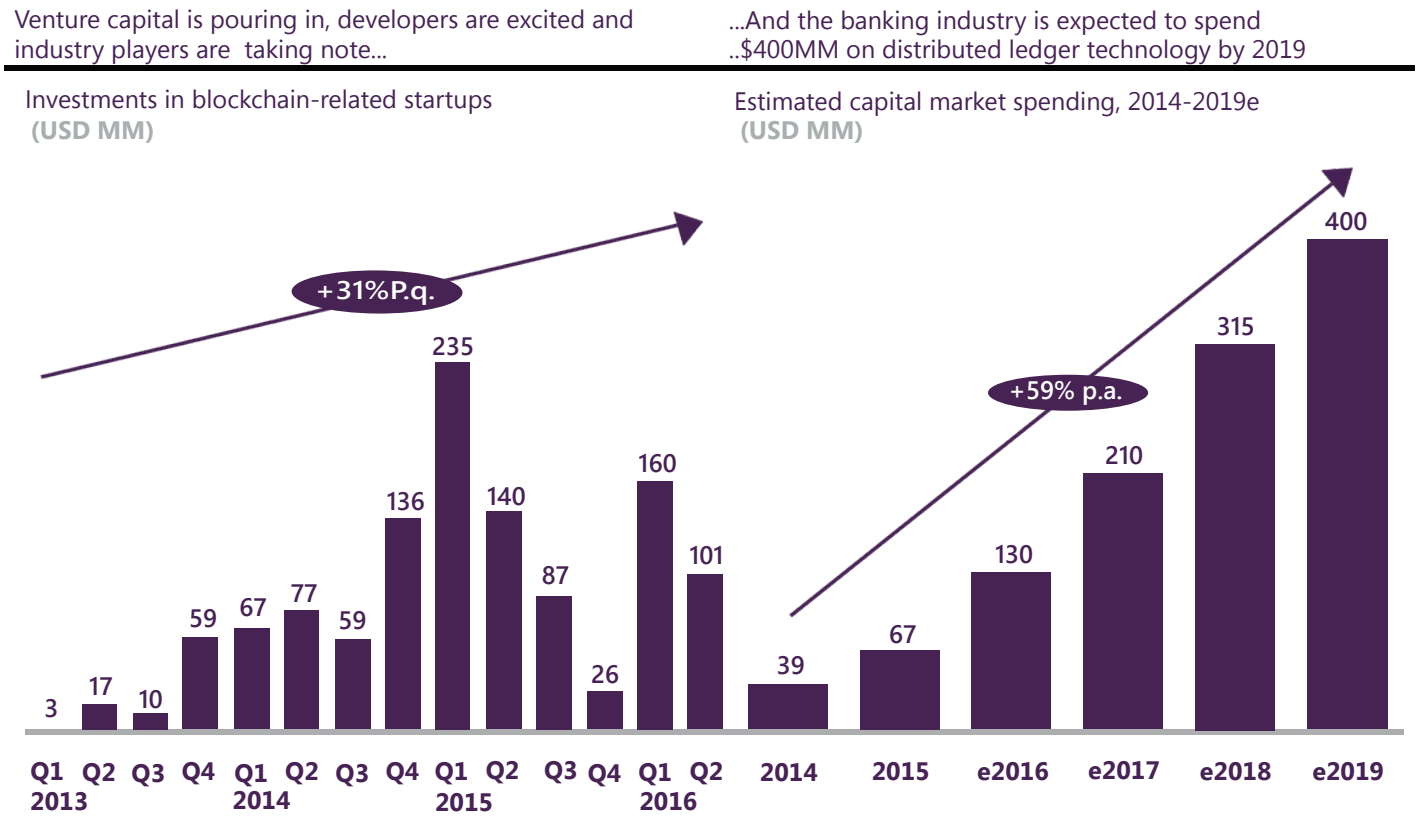
A product is more likely to sell 47% more after a community is engaged

A longevity is estimated up to 4 years onwards

Broadly expand community

In addition, the Blockchain technology has a growing market rate due to its wide range of use-cases. For community-centered businesses, blockchain provides a very efficient mechanism with its decentralized nature in the form of a protocol - Delegated Proof of Stake.

With Blockchain technology, the business are likely to earn more revenue as the investment in blockchain has already started to gain momentum and is expected to grow at a very high pace in the near future. An analysis provided by ATIE group, Tabb group, and coinDesk shows how blockchain technology will increase the investment rate by 2019.



Being a community-centered and a blockchain technology based platform, DDK can expect a huge market for it to grow its community by accelerating the economic opportunities.

Competitor Analysis

Our direct competitors within the cryptosphere are social coins and community engagement coins. Specifically speaking ReddCoin and Celsius and many more whose core principals are the same with ours to put the communities interest before profits, we have made a table to show the difference between us and our competitors.

Items	DDK	ReddCoin	Celsius
Consensus	DPOS	POW	POW
Proof of Stake	Yes	No	No
Community	Yes	No	Yes
Awareness	Yes	Yes	Yes

Why DDK ?

- Limited supply of 45 million.
- Pre-mined only 8.6% .
- Existing community of 180k users.
- DDK is built using Java & JScript most adopted programming language.
- Suitable for mirco-payment due to low fee charges.
- DPoS is a democratic protocol and the most decentralized consensus.
- Increase staking reward to compensate stakeholders instead of focusing on miners/delegates like other crypto. Forging reward is not applicable.
- Wide ecosystem: wallets, office/branches, media, Apps, system & developers.
- 100% open source-four(4) wallets, two(2) blockchain explorers, DDK Core, relevant document and all related source code will be published in Github & Gitlab. Everyone will be able to fork and validate.
- Listing in worldwide public crypto exchanger based on demand & supply.

Delegated Proof of Stake

Delegated Proof of Stake is a fast, secure, and relatively cost-efficient consensus mechanism than other existing algorithms like Proof of Work and Proof of Stake as it does not require very high computational power and the mining opportunity depends on the number of votes for the miners from stakeholders. In terms of reward incentives, DPoS incentivize the miners with the transaction fees on validation and block reward on block generation. Unlike DPoS, in PoW, the miner gets reward on block generation while in PoS, the miners only get the block's pooled transaction fees.

Why DPoS ?

	Proof of work (Pow)	Proof of Stake (Pos)	Delegated Proof of Stake
Participants	Called miners; open to everyone on the network	Called forgers: created of a new block is chosen based on the amount of stake	Called delegates; creator of new blocks are chosen based on the number of vote casted by stakeholers.
Requirements	Requires burning an external resource (mining hardware, Power)	Requires a high stake on the cryptocurrency to be determind as a block validator	To set up a personal node and holds a specific amount of coins in his/her wallet.
Creation of Cryptocurrencies	New cryptocurrency coins are created each time a transaction is validated; serves as a block reward	Has a set amounts of circulating cryptocurrency; coins were Pre-mined in advance	Coin are created on the generation of new block.
Validation process	All miners completed with one another to solve a cryptographic puzzle to validated the transaction	Set validators participate in a consensus algorithm to vote on the next to be forged	The one who gets most number of votes will earn the opportunity to validate transactions.
Incentivization	Block reward is given	No block reward; the forger takes the block's pooled transaction fees	The delegate gets the transaction fees and reward on block creation.

PoW

Proof of Work is a consensus protocol for achieving a unanimous validation of the member devices on a distributed network.

In PoW, the validators are those who solve the complex hashes and validate the transactions for adding them into the blocks they are creating. The whole process is carried out in 3 steps: a very complex mathematical challenge is proposed to the network of blockchain, the miners then compete to solve the given problem which takes time and resources making it more expensive for them, the first miner to solve the problem gets the chance to validate transactions, create a block, and receive reward afterwards.
As the mining process requires a high computational power and time to solve the complex problems, therefore PoW is considered as a costly consensus mechanism. Proof of Work is effective for large systems like bitcoin only, ensuring security for them as the attackers require 51% of the whole network power to get their attack successful making it difficult. In fact, it is impossible to temper. But for small systems, PoW cannot ensure the security because it is relatively easier to own more than 51% of the computational power, at lower cost.

PoS

PoS is the consensus mechanism in which the number of coins held by a miner is directly proportional to the chances to mine the block or transactions.

This means that the more coins a miner owns, the more mining power he/she has. As compared to the PoW consensus protocol, PoS requires less computational power as the opportunity to mine now depends more on the number of coins a miner holds and less on the computational power he/she has. This makes PoS a relatively cost-efficient consensus protocol. Besides its cost efficacy, PoS has a disadvantage in terms of authority where the stakeholders who own more coins, enjoy the extensive control in both technical and economic aspects of the network, which let them to make any changes they like without considering the will of the community, developers, and miners. This defeats the purpose of a distributed network where everyone gets involved in making consensus.

DPoS

DPoS is the decentralized, fast, secure, and efficient consensus mechanism, which leverages the power of stakeholder approval voting to resolve consensus issues in a fair and democratic way.

In DPoS, those who hold the network token are given the opportunity to cast votes to elect block producers. For selecting the block producers, the votes from the stakeholders are weighted by the stakeholder's stake, and the block producer candidates who receive the most votes are those who become delegates. The delegates are the community members who validate the transactions and add them to the block. On block creation, the delegates get reward. While there are problems with both democracy and corporate governance, one important feature of DPoS that sets it apart from other consensus mechanisms is the open-source nature of these protocols which means that if users disagree, they can fork. The flexible and transparent nature of DPoS makes it useable for entire blockchains or as a consensus algorithm for sidechains, private blockchains, and more. In addition to this, the lower fees, fast confirmations and the potential for increased profitability make the DPoS a perfect democratic consensus mechanism.

Why Fork Lisk?

One of the main problems in DPoS lies in getting delegates to come and secure the blockchain. To guarantee an ultra-secure network, the delegates need to compete with each other in order to be within the top 101 delegates. Without fierce competition, individual delegates will never strive to be faster, more secure and always-on. Forging rewards create this necessary competition. In much the same way the arms race at Bitcoin has pushed miners to compete even more. Forging rewards will create a battle amongst the best performing delegates.

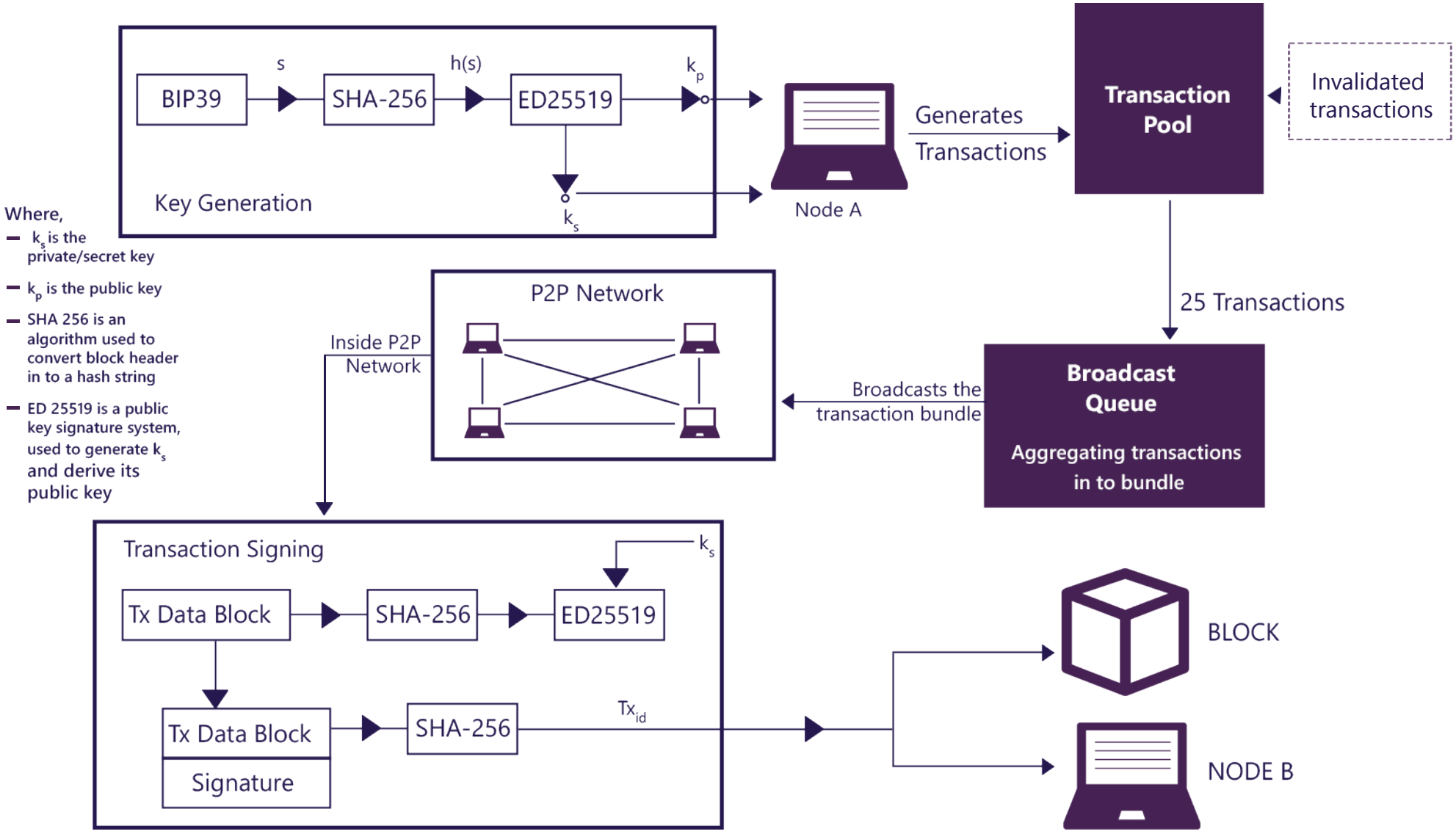
One of the biggest problems with Lisk (and the reason why many are forking it) is that these wallets have unlimited votes. Each node can cast all 101 votes to select a total number of 101 active delegates at the same time. This has led to the creation of cartels. The majority of all Lisk delegate nodes are owned by 2 cartels that demand their voters vote for all of their nodes if they want to receive forging reward payments. This makes it incredibly hard to ever unvote a delegate in Lisk and if one of the cartel nodes go down it's very hard to knock them out of the top-101 and let a more attentive delegate with a more stable server take their spot.

In Ark on the other hand, a wallet can only vote for one delegate at a time. This makes cartel creation much harder and is easier to remove bad delegates from forging. Due to very low ICO price of Ark ($0.01), a private investment group bought a lot of Ark very early and owns at least 4 forging nodes at time. Instead of their bad nodes which result in slowing down the network one cannot unvote them because nobody but they themselves are voting in the network.

DDK DPoS

It seems like the number of votes per participant is a good tuning parameter in deciding the fate of the network and keeping it as far from cartel creations and monopoly as possible. DDK charting out the best way possible has forked lisk so that the community can invest and earn in a more transparent and democratic way. In DDK, Delegated Proof of Stake provides the community members to select the best from the candidates who are willing to become a delegate (miner), through voting. The candidate with the highest number of votes gets the opportunity to validate the transactions and get block reward on block creation. In DDK DPoS, if the number of votes for two candidates is equal, then the decision takes place with the amount of stake the voter accounts hold - weight of vote. This makes the DDK DPoS consensus mechanism more efficient because the vote count is considered prior to the vote weight.

Technical Concept of DDK



Key Generation

Edward Digital Signature Algorithm

Edward Digital Signature Algorithm EdDSA, is a digital signature scheme which is faster than the existing digital signature schemes. In DDK, EdDSA is used to generate keys.

Key-pair

A key-pair consists of,

- A private key
- A public key

Private key: is a piece of information known only to the owner of the key.

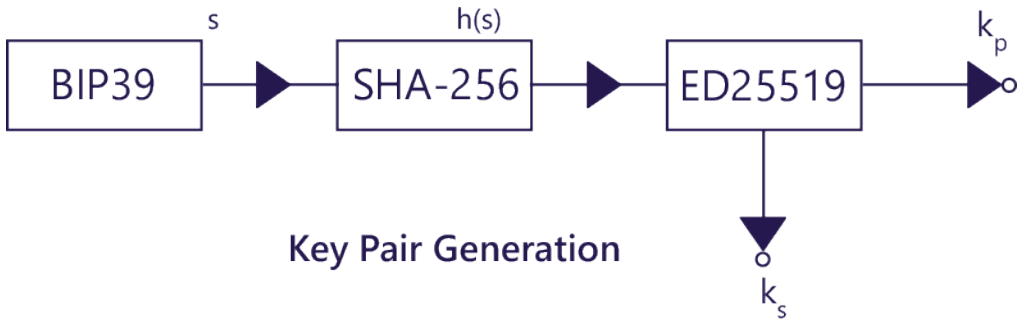
Public key: is derived from the private key and can be used to validate that the private key belongs to the owner, but not provide access to the owner's private key.

The user signs the transactions using private key into a transaction object and broadcasts that object to the network. The receiving nodes will verify the validity of the signatures using the public key which is attached with the transaction. This provides an efficient mechanism for securing the network as Ks (secret key/private key) is known only to the user while Kp(public key) is used to validate that either the signature is valid or not valid.

How Key-pair is generated?

The process used to generate the key pair operates under the following assumptions:

- When a user creates an account, a BIP39 mnemonics (the passphrase) is generated for the user.
- This hash is subsequently used as a seed in ed25519 to generate the private key (ks) and derives its public key kp.



Key Pair Generation

Transaction Pool

Transaction pool serves the DDK network for three purposes,

- Reducing Unspent Transaction Output (UXTO)
- Mechanism for transaction propagation
- Holding transactions with pending signatures

Reducing UXTO

The transaction pool is a solution for preserving unconfirmed transactions that have overflowed into the next block. The transaction pool could be thought of as a memory pool keeping transactions ready until they are signed into a block.

Mechanism for transaction propagation

Transaction pool provides a mechanism for propagating transactions. When a node prepares a transaction bundle, that node draws transactions from the pool and performs validation on those transactions. These transactions are then broadcasted to other nodes in a bundled JSON object.

Holding transactions with pending signatures

Transaction pool keeps transactions with pending signatures, on hold. These transactions with pending signatures follow the same model as unconfirmed transactions. In order to keep the transaction pool tidy, all transactions are assigned a time to live. Like unconfirmed transactions, these transactions will expire out of the pool based on the lifetime specified when the transaction is first generated.

Transactions

DDK involves the following four types of transactions which include,

- P2P transaction
- Rewards transaction
- Referral transaction
- Staking contract transaction

The transactions taking place in the DDK network consists of,

Name	Data Type	Size
Transaction type	Integer	8 bit
Timestamp	Epoch	32 bit
Public key	String	256 bit
Amount of DDKoin	Integer	64 bit

The minimum amount of DDKoins can be transferred through one transaction is 0.0001 DDKoins and the transaction fee that will be charged on transacting 0.0001 DDKoins is, 0.00000001 DDKoin.

Broadcast Queue

Broadcast queue serves the functionality of keeping the transactions gathered from transaction pool. After getting transactions from transaction pool, the broadcast queue aggregates these transactions into a bundle. This bundle is then broadcasted to the network on an interval. To prevent over broadcasting of the object, the bundle is assigned a relay limit. In the current implementation, the relay limit is 2, that means every bundle will be broadcasted once from the originating node, and twice more from the receiving nodes.

P2P network Communication

Peers communication is an essential component within the DDK network. The peering mechanisms provide the required architecture to facilitate network consensus, block propagation and transaction propagation. The DPoS mechanism further helps in the efficiency of communication between peers.

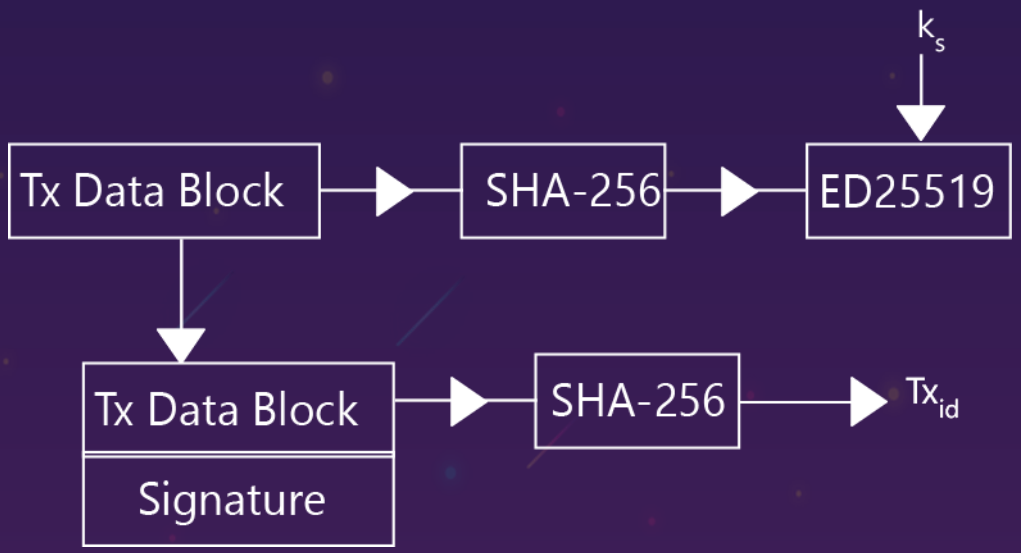
Inside P2P network

Transaction Signing

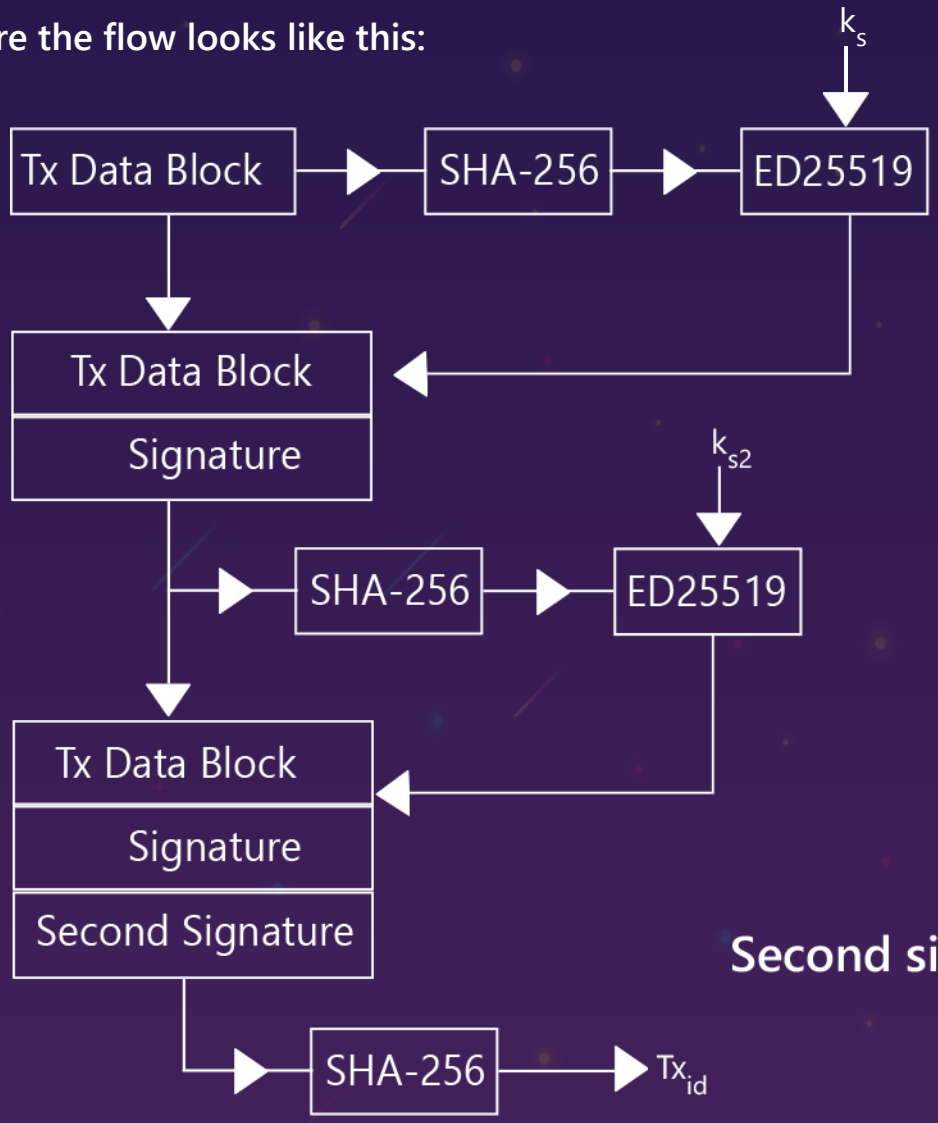
Regardless of the type, every transaction must be signed by the sender before it gets accepted by the network. The process of signing the transaction is identical for every transaction and it includes the following steps,

- First, a data block representing the transaction must be generated.
- Once the data block has been generated, it is hashed using the SHA-256 algorithm, and this hash is signed using the key pair of the issuer.
- If the issuer has enabled a second passphrase, the first signature is appended at the end of the data block, and the process is repeated, generating a second signature.

A signed transaction uses the following flow:



With a second signature the flow looks like this:



Second signature flow

Block Generation

Blocks

A blockchain consists of a series of blocks that are linked together in an orderly sequence hence the name 'Blockchain'. A block is a structure of data that consists of,

- A list of transactions
- A blockheader – metadata that contains a specific set of information about the block.

The Block Header

The blockheader consists of the following data information:

In DDK, the size of each block ranges from 300 Kb to 1 Mb. This is because the block stores the transactions in the form of hashes which are of the type string.

Name	Data Type	Size
Block version	Integer	32 bit
Timestamp	Epoch	32 bit
Previous block ID	String	64 bit
Number of transactions processed in the block	Integer	32 bit
Total amount of DDK transferred	Integer	64 bit
Total amount of fees associated with the block	Integer	64 bit
DDK reward for the delegate	Integer	64 bit
Payload length	Integer	32 bit
Payload hash	String	256 bit
Public key of the delegate who generated block	String	256 bit

How is block generated ?

In DDK, block generation happens through the DPoS consensus mechanism -- Where every block generation happens through a delegate that has been given the permission to generate blocks by the election process held between stake-holders and the coin-holders. When a candidate becomes a delegate by getting the most number of votes through DPoS consensus, he/she will be assigned the unvalidated transactions from the transaction pool. Each block can contain a maximum of 25 transactions in it. The delegate will validate the transactions and add them in the block . When the block is completed, the delegate broadcasts it on the network and gets block reward in DDKoins.

Block Propagation

Block propagation takes place when a block is created and broadcasted to all existing nodes on the network to establish consensus. Once generated, a block is broadcasted to peers which broadcast the block to other peers on the network. In this way, the block propagates through the whole network so that all the existing nodes can update and make consensus. Otherwise, the system would grind to a halt and the blockchain would cease to be functional.

Consensus mechanism DPoS

DDK uses Delegated Proof of Stake (DPoS) as the consensus system of the chain, the delegates are the nodes that have the ability to generate blocks. The delegates are selected by rigorous voting between the stakeholders. In DDK, the delegates' ranks depend on the VOTE COUNT where VOTE COUNT is, only one vote per account. A stakeholder can vote for a delegate using a vote transaction. However, when vote count is the same among other delegates, the vote weight will eventually put into rank. Stakeholders may unvote delegates with fees imposed
Consensus is a required aspect of any blockchain system. It serves a vital purpose for the system where there are many nodes and all nodes must agree on the integrity of the data. All nodes participating must agree on what transactional data is legitimate in order to move the block-chain forward.

Delegates

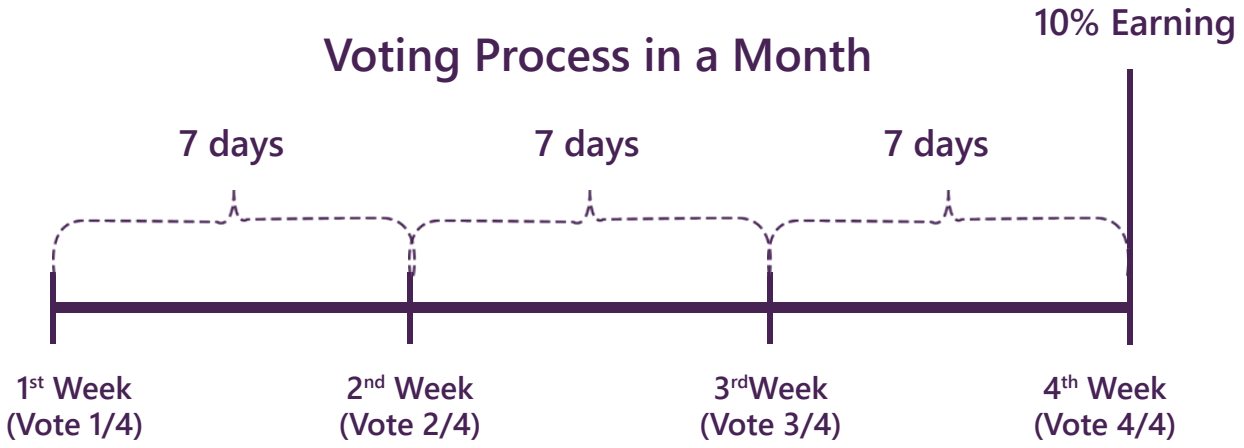
A delegate is a type of node that has been registered by the transaction delegate registration. These nodes have a special purpose within DDK, as they are allowed to generate blocks for the system, if the delegate has been allocated enough stake by other users of the system. Any node may become a delegate, but only if the pre-conditions of the required stake are allowed to generate blocks.

Voting Mechanism (DPoS)

DDK implements DPoS consensus algorithm for the selection of delegates. For this, the stakeholder who wants to become a delegate, registers on the platform and submits a fee of 10 DDKoins.

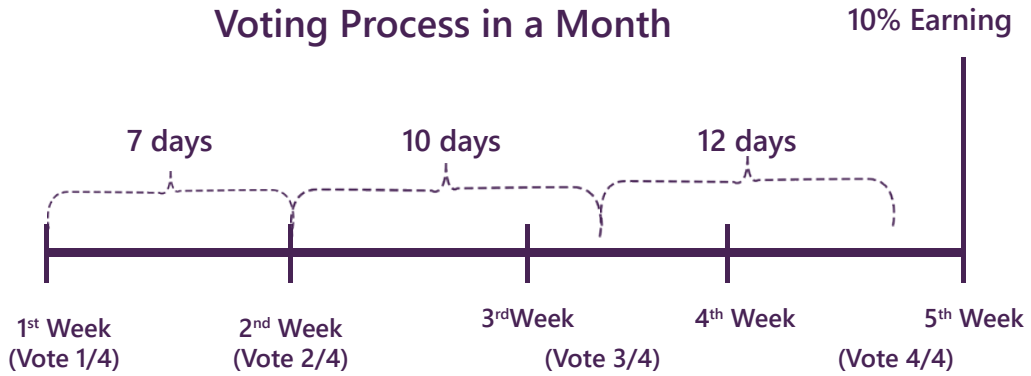
Perfect Scenario

Voting mechanism



Delay Scenario

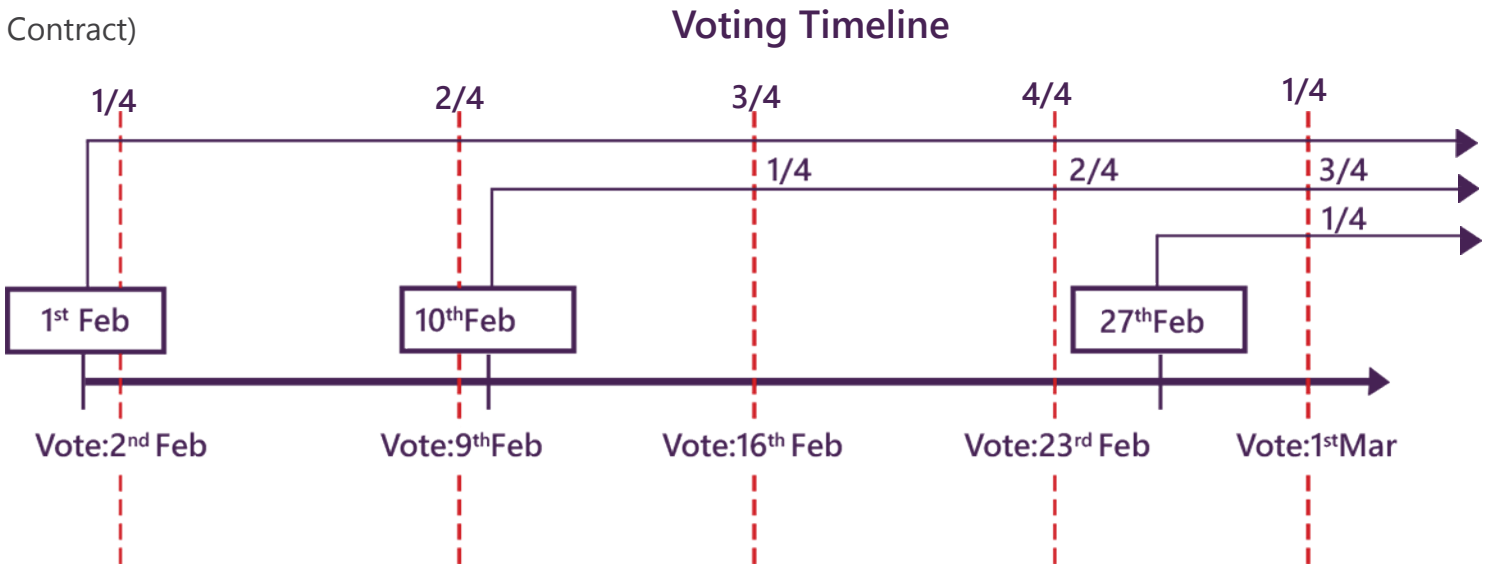
Voting process



Multi-contract Scenario in one account

Example:

- 100DDK = 1st February (1st Contract)
- 200DDK = 10th February (2nd Contract)
- 300DDK = 27th February (3rd Contract)



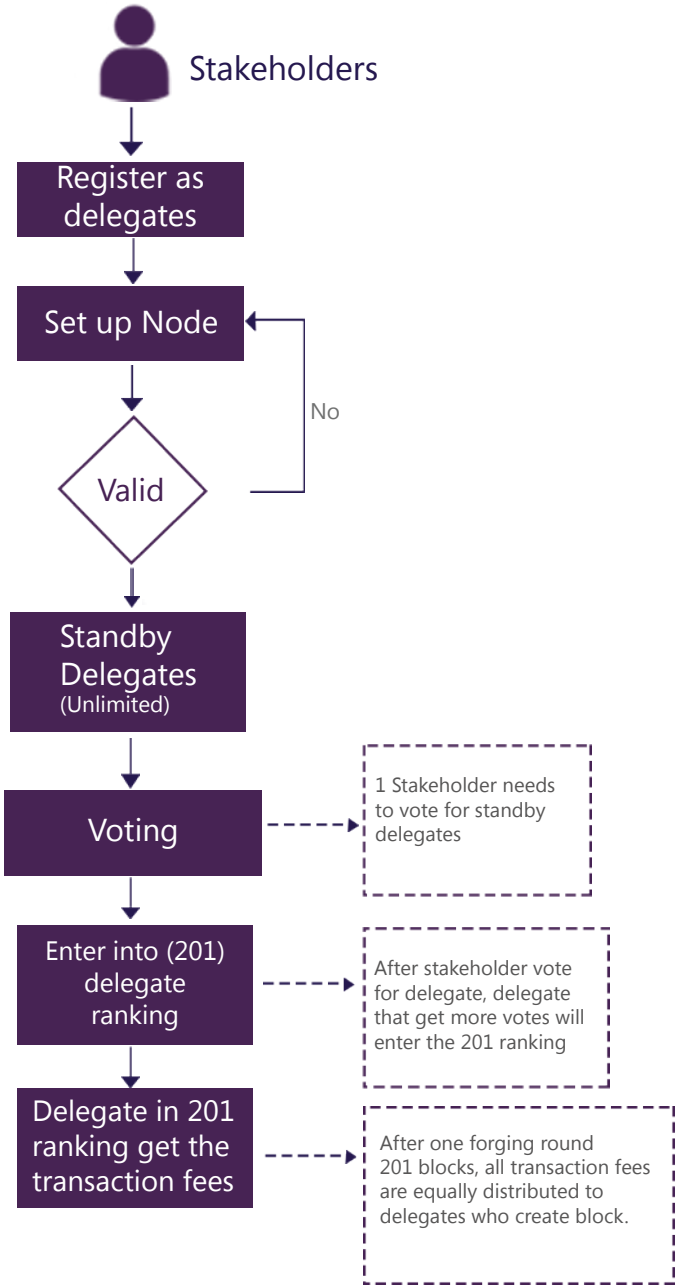
Staking Rewards

- 10% for the first 1 year (Start from DDK Launch)
- 8% for the next 6 months
- 6% for the next 6 months
- 4% for the following 6 months
- 2% for the remaining years until allocation for staking rewards is finish.

Stakeholders stake their DDKoins on the platform and gets 10% on the staked amount after every 6 months for one year. After that, the percentage reward will deplete by 2% every month and it will stop decreasing when it will reach at 2%.

For example: a community member put 50 DDKoins on staking, they will receive

5 DDKoins after they are done with 4 times voting.



DDK asset issuing (interchain) development

In the world of cryptocurrencies there are no easy mechanisms for managing the funds in various life circumstances or according to your business needs. DDK platform is dedicated to solving this issue.

For example, currently, there are over 15 millions of Bitcoin wallets from which more than a quarter of all existing bitcoins were lost forever. Running customer's own side chains with their own blockchain and cryptocurrencies is not a solution.

To solve this issue, DDK decided to use smart contracts: making crypto-assets quick, safe, and convenient.

Smart Contracts are the special computer software on the blockchain, which will be executed by a network of computers. They are the key to unlock the world, where any computer-oriented task can be performed completely autonomously and correctly, without fear of external manipulation or imitation.

Using smart contract technology, our customers' financial tasks become available to all who can use it in a fully automated, independent way, which records these tasks directly to the blockchain.

Although smart contracts are unambiguous in their meaning, only those who are familiar with the programming language can understand them, so, it makes it difficult to reach an agreement with any party that does not have technical knowledge.

This technology excludes the possibility of closing banks or financial institutions and changing, deleting transactions, and also ensures that each payment will be made exactly as indicated, without any risk of misuse or malicious interference.

Companies strive to use smart contracts in their work, correcting their various faults. Without easy-to-use, proven and reliable methods to

effectively create accurate smart contracts, their widespread adoption will never happen. Simply put, smart contracts will allow you to use advanced locking options for the widest audience.

Logically, the DDK generating platform may be represented by the following parts:

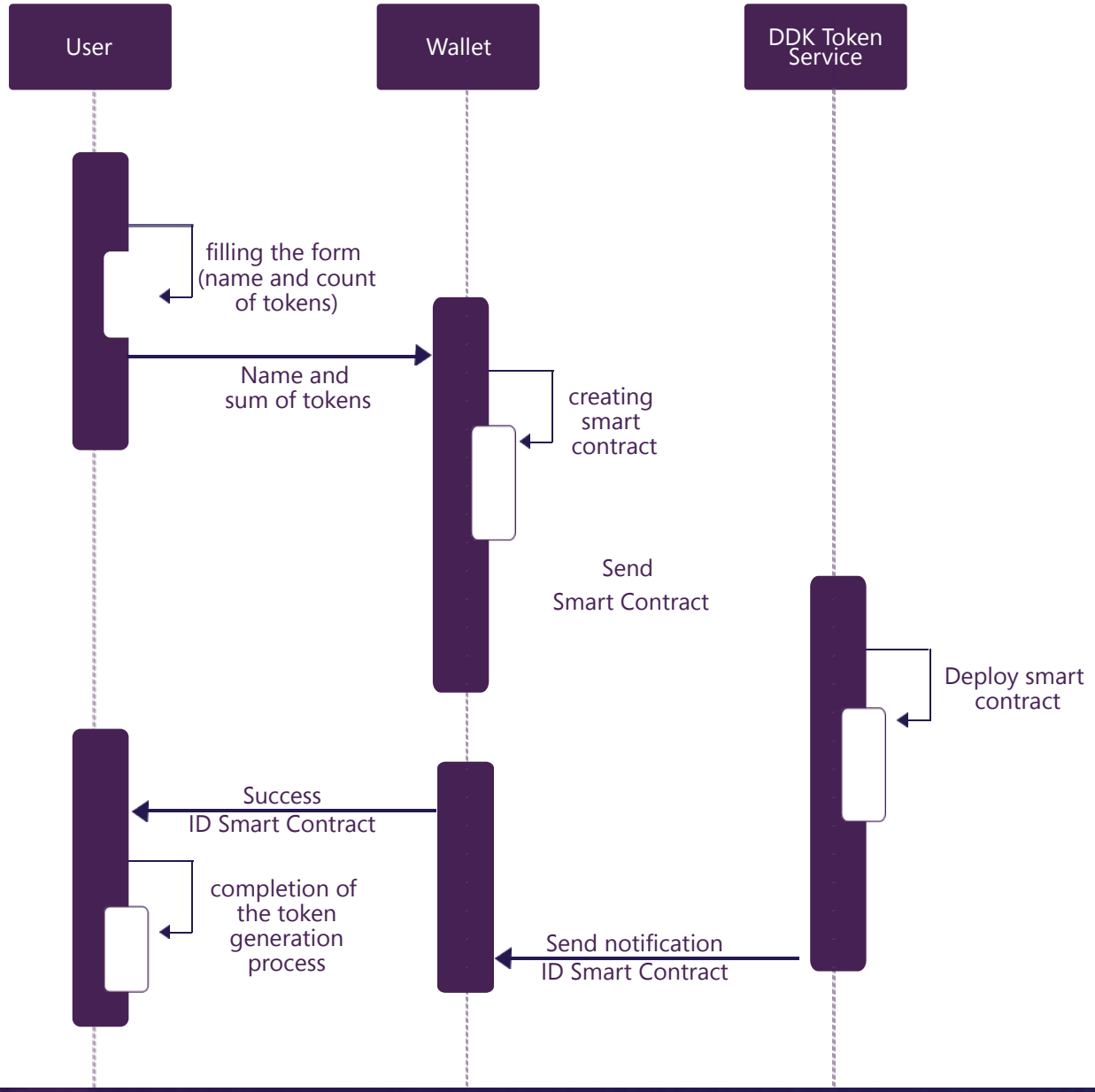
Front-end: start of token generation process and filling the forms (names and count of tokens)

Back-end: creating a smart contract, deploy smart contract ID, and name and sum of tokens to Node DDK, Deploy Smart contract onto the Node DDK, sending ID Smart contract notification to Back-end, and completion of the token generation process

DDK platform is a complete solution from the viewpoint of the contract life cycle, starting from contract creation till its completion, either due to its execution or expiry.

Also this technology excludes Web Wallet allowing customers to store and create their own coin. They can create, issue, send, and receive these coins across DDK network. Users can also use Web Wallet as a normal wallet to store, send, and receive cryptocurrencies.

Flow of token generation



Process Overview

1. Fill the form to generate a token.

User (the token holder) fills the page with the parameters of the token generation.
Selects a token, enters the amount (number) of tokens.
To Easy Coin Creator transfers the token ID, the amount (number) of tokens.

2. Data transfer for the token generation.

User transmits data to Easy Coin Creator to generate a token: Token ID, amount (number) of tokens.

3. Creating a Smart Contract.

Easy Coin Creator generates a Smart Contract, which records data about generating of token.This will be used for creating smart contract.
For this will used tool for Smart Contract creating.
Data will be transferred to the smart contracts: For this will be transfered data for smart contract : the ID of the token, the amount (number) of tokens, the ID (Address) of the wallet to which the tokens will be credited.

4. Deploy a Smart Contract.

The DDK Node confirms the operation of generating a token and fixes the parameters of the Smart Contract (token ID, amount (number) of tokens, ID (Address) of the wallet to which tokens are credited).

5. Confirmation of token generation.

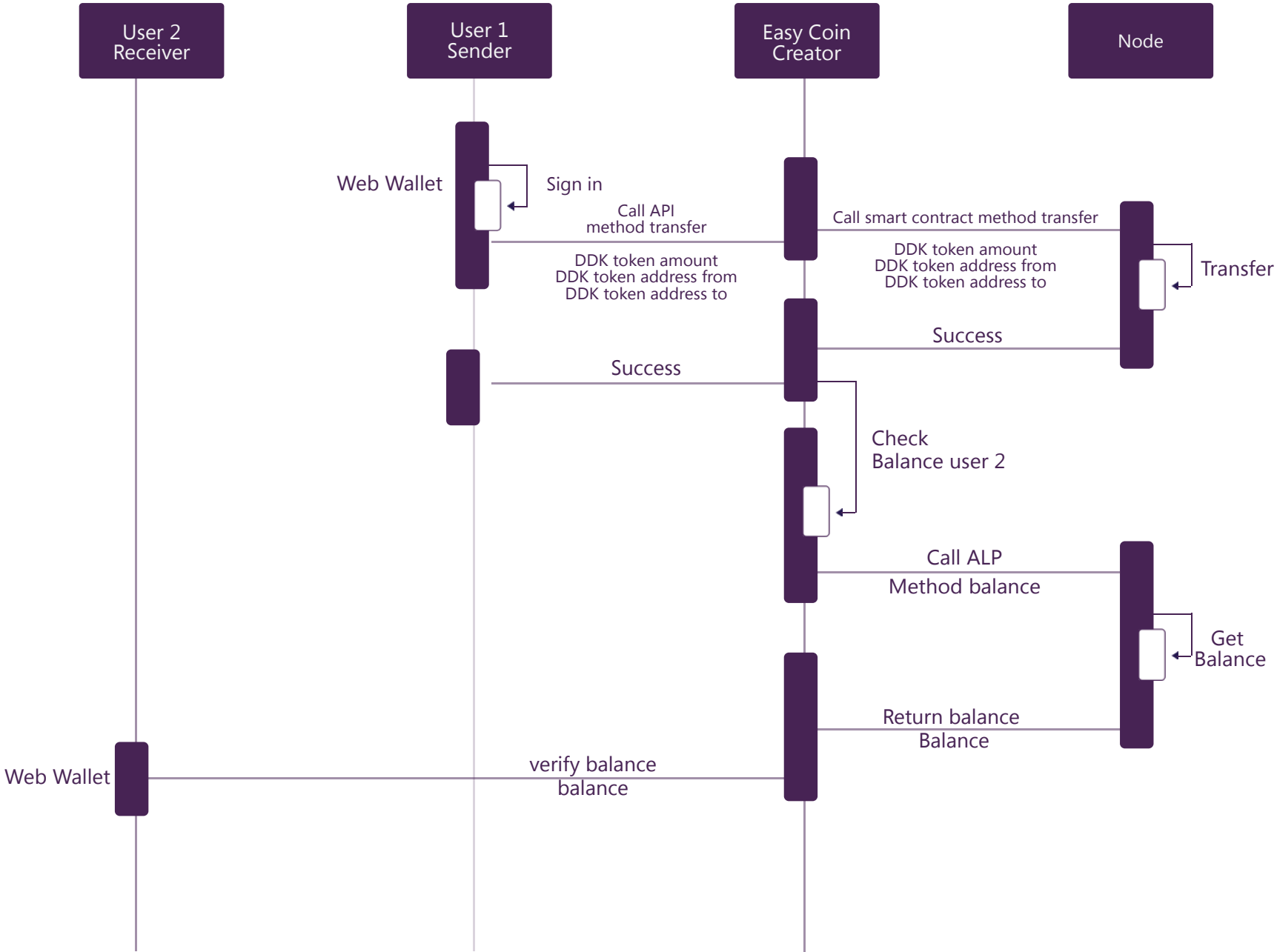
DDK Node sends a confirmation about successful transaction to Easy Coin Creator.
Data of the Smart Contract is fixed. The Smart Contracts ID is transmitted.

6. Confirmation of the token generation.

Easy Coin Creator sends a notification to the holder of the token about the successful operation. Token ID, the amount (number) of tokens, Smart Contract ID are transmitted.

7. Token generation process on the DDK platform is Complete .

Flow of transfer transaction



Process Overview

1. Preparing information for transferring tokens.

The token holder (source) logins into the wallet,
Selects a token,
Enters the amount that they want transfer,
Enter target wallet for transfer.

2. Transfer operation.

The token holder (source) transfer tokens to each other's wallet (target).
The API used (the method of transferring the money on the DDK platform).
Transmitted data about: token ID, transfer amount, Token ID (source), Token ID (target).

3. Smart Contract Creating.

Back-end of the System, generates a Smart Contract and traces data about operation of transferring tokens from source wallet to target wallet.

Smart contract creating tool and the transferring method is used to. transmit data about Smart Contract (token ID, amount of transfer, wallet (source) ID, wallet (target) ID).

4. Transfer funds.

DDK Node confirms the tokens transfer operation and traces the parameters of the Smart Contract (token ID, transfer amount, wallet ID (source), wallet ID (target)).

5. Tokens transfer Confirmation.

DDK Node sends a confirmation to the back-end of the successful transaction. Smart Contract data is traced. Transmitted the wallet ID (source), the wallet ID (target).

6. Tokens transfer Confirmation.

Back-end sends a notification to the token holder (source) about successful transfer operation.Transmitted token ID, the transfer amount, wallet ID (source), wallet ID (target).

7. Preparing a request to verify the balance of target wallet.

Back-end from smart contract parameters (token ID, transfer amount, wallet ID (target) prepares a request for verification of the fact of crediting tokens to the target wallet.

8. Checking the balance of the target wallet.

Back-End sends to DDK Node request to verify the fact of crediting of tokens to the target wallet.

API is used for obtaining wallet balance on the DDK platform. The ID of the Transmitted data about token ID, the transfer amount, target wallet ID.

9. Confirmation of the target wallet balance.

The DDK Node sends the back-end result of the request to verify the crediting of tokens.

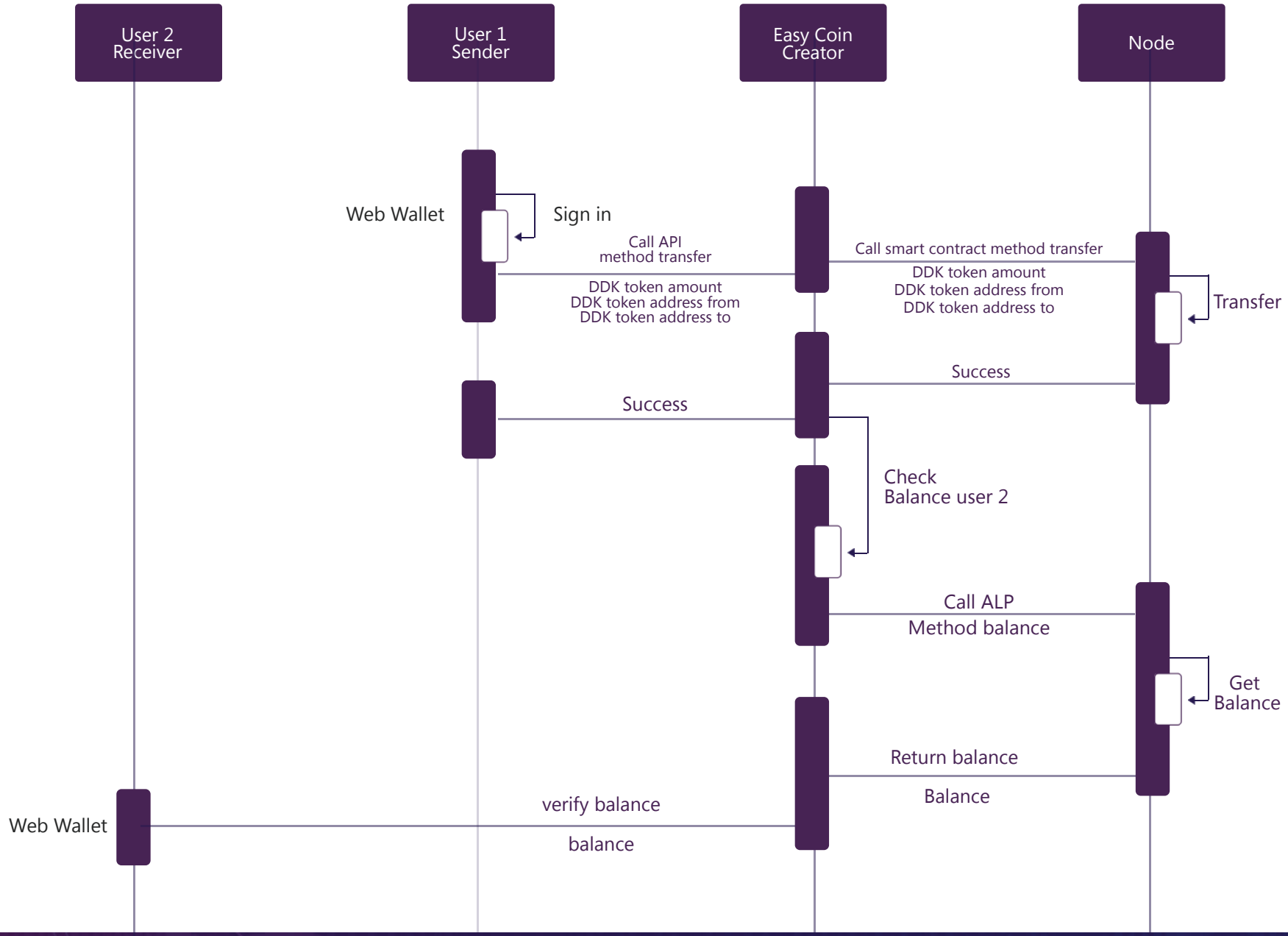
Transmitted token ID, target wallet ID to which the balance (remnant) of the target wallet.

10. Sending confirmation of the executed operation for transfer of tokens.

Back-End generates and sends to the (target) token holder, a confirmation of the successful completion of the transfer operation and verification of the balance of the target wallet.

11. Completion of the transfer of tokens from source wallet to target on the DDK platform.

Flow of token migration



Process Overview

1. Choosing the type of smart contract.

Before migration process you need to choose (old) smart contract, with exact parameters.

Token migration process is starting and DDK Token Service is transmitted to (old) smart contract Type ID and (old) smart contract ID.

2. Preparing data to create a new smart contract.

DDK Token Service requests a list of (old) tokens holders that must be migrated, from old smart contract. The list of token holders is nec essary for the correct distribution of new tokens by wallet in the new smart contract.

In DDK Node transmits a request to provide a list of holders of old tokens of old smart contract and old smart contract ID.

3. Data transfer for creating a new smart contract.

DDK Node prepare a list of token holders of the old smart contract, and transmitted it to DDK Token Service for the creation of a new smart contract.

Transmitted a list of old token holders from old smart contract to new smart contract ID.

4. Creating a new smart contract.

DDK Token Service creates a new smart contract.

Parameters of the new smart contract, which is also transferred from the old smart contract list of token holders.

The list of holders of the tokens to be sent to the Node DDK, which must be migrated, according to the valid smart contract, the ID (ad dress) of the new smart contract. This action is the initialization of the Deploy operation of the new smart contract.

5. Deploy a new smart contract.

For new tokens, it is necessary to create a new smart contract with the following characteristics: list of new token holders, the amount (num ber) of new tokens.

DDK Node started the procedure for deploying a new smart contract. The parameters of the new smart contract (token ID, list of token holders for the new smart contract, the ID of the new smart contract, the amount (number) of new tokens) are fixed.

6. Start the migration procedure.

DDK Node starting the process of token migration from old smart contract in a new smart contract (transfers the new smart contract to the migration mode). Being used the (old) token ID, the new token ID, the old smart contract ID (address), the new smart contract ID.

7. Send notification of the beginning of migration.

DDK Node sends to the old token holders (holders from list of holders of tokens under the current smart contract), from which the migration occurs, notification of the beginning migration and the need to implement it.

The ID of the transmitted token, the ID of the new token to which the migration occurs, the ID (address) the current smart contract and the ID (address) of the new smart contract are transmitted.

8. Voting of token holders

To start the token migration procedure, the token holders must perform the action in their electronic wallet.

It is inadmissible to anyone, even the owner of the smart contract, to "burn" the tokens of other token holders. This kind of operations on their tokens can only be carried out by their holder.

Therefore, the token holder of the current smart contract must also migrate the tokens. For example, to migrate to a token holder, it is sufficient to transfer any amount (number) of tokens to the ID (address) of the new smart contract in the migration mode. The token holders confirm the fact of the migration of their tokens using the voting method and fix their decision.

The ID of the electronic purse, the ID of the token from which the migration occurs, the ID of the token to which the migration occurs, the amount (number) of tokens, the ID (address) of the valid smart contract, the ID (address) of the new smart contract, the voice (confirmation) of the holder are transmitted.

9. Fixing the decision of the holders of the tokens.

Based on the information received (see clause 8), the Node DDK captures the confirmation holders of the token for conducting a token migration operation and launching directly functionality of token migration.

10. "Burning" of tokens, creating new tokens.

Node DDK using the list of holders of the token from which the migration occurs, and confirmation of their holders "burns" the tokens from which migration occurs and creates new tokens on the new smart contract.

The amount of new tokens created should correspond to the amount of "burned" tokens in the holder's section (ID of Web wallets).

11. Preparation of data to verify the completeness of the migration.

To verify the correctness of generation of new tokens and the correspondence of their amount (number) of old tokens,

To verify the compliance of the distribution of new tokens by electronic purses of tokens holders Node DDK uses the parameters: ID (address) the current smart contract, the ID (address) of the new Smart Contract, the amount (number) of tokens under the smart contract,

the amount (number) of tokens under the new smart contract.

12. Checking the correctness and completeness of the token migration.

Node DDK checks the correctness of the distribution of new tokens by electronic purses of holders, equality of the total amount (number) of new tokens to the sum (amount) tokens from which the migration was made (the amount (number) of tokens and new tokens is not should change). The data which is used: the ID (address) of the current smart contract, ID (address) of the new smart contract, amount (number) of tokens for the Smart Contract, amount (number) of tokens under the new Smart Contract, ID of electronic purses.

13. Fixing the parameters of the migration operation

The Node DDK sends a confirmation to DDK Token Service that the operation has been completed migration of the token and transmits the ID (address) of the new smart contract, the list of the holders of the token for new smart contract.

14. Completion of the token migration operation

In the DDK Token Service, a confirmation from the Node DDK is fixed and a characteristic is set completion of the token migration opera tion. The data is used: the ID (address) of the new smart contract, list of holders of the token under the new smart contract. All holders of the new token and smart contract Owner will be notified.

15. Sending a confirmation to the holder of a new token of the performed migration operation token

DDK Token Service forms and sends a new token to the holder, a notification with confirmation of successful execution of the operation of the token migration with indication of the amount (number) of new tokens and the ID (address) of the new smart contract. The data is used: the ID (address) of the new smart contract, the list of holders of a new security key for the smart contract, the amount of new tokens in context of electronic wallets

16. Sending confirmation to Owner about completed token migration operation

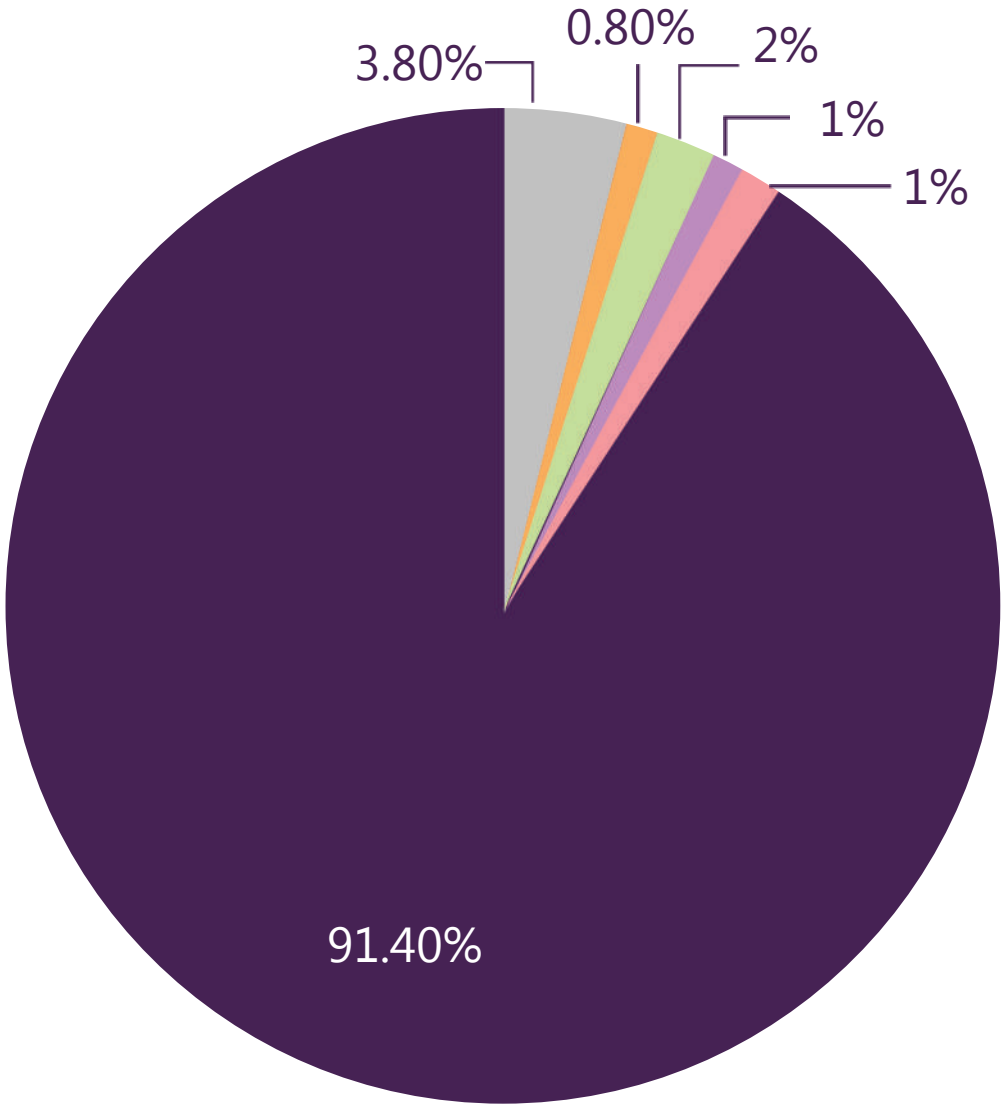
DDK Token Service generates and sends to smart contract Owner a response with confirmation about successful execution of the opera tion of the token migration with indication of the amount (amount) of new tokens and the ID (address) of the new smart contract. The data is used: the ID (address) of the new smart contract and list of holders of the token under the new smart contract.

17. Complete the process of performing the operation of token migration on the DDK platform

Coin Allocation

No	Allocation	DDKoin Amount	Percentage (%)
1	Total DDKoin Supply	45,000,000	100
Pre-Mined			
2	Existing from active users (ETPS)	1,710,000	3.80
3	Pending ETPS group bonus	360,000	0.80
4	Airdrop Rewards -Referral Reward -Chain Referral	900,000	2
5	DDK Foundation -Contributors (0.20%) -Bounty Program (0.05%) -Advisor (0.25%) -Team (0.25%) -Founder (0.25%)	450,000	1
6	Reserved in Global Exchanger	450,000	1
Unmined			
1	Staking Rewards	41,130,000	91.4

- Existing from active users(ETPS)
- Staking Rewards
- Pending ETPS group bonus
- Airdrop rewards
- DDK Foundation
- Reserved in Global Exchanger



DDK Foundation

Overview

DDK Foundation is an independent, non-profit and democratic body for the members of this community. DDK Foundation will provide funding mechanism for DDK's community and to attract users by enhancing and to grow open digital services. The fund will be provided for an open and sustainable platform for the developers to develop, deliver and enhance the services, while the community will benefit by gaining knowledge of blockchain technology by attending education from training events.

DDK Foundation Missions and Goals

Good Governance

The fund will be created to establish fair and transparent process related to the management,membership, the rewards, rules, and legal matters. Foundation will provide support for the maintenance and improvement of DDK.

Community-Centric

DDK's community will be given a chance to start up any project for the improvement of DDK. Grant will be provided to those selected proposals which are based on excellent ideas in blockchain technology and DDK platform. The fund will be created through transparent procedures and process upon request by the members of the community. The Foundation will hold an event for the members to meet the founder for Q&A. The event will benefit members to meet, socialize and share opinion with each other.

Education, Promotion, and Research

Foundation will be funded to promote DDK, to educate the public about blockchain technology and to ensure them to understand and create awareness on the importance of this Foundation. This is in order to achieve the missions and goals. The foundation will also fund the research for DDK by working with a team to test new ways to participate in the ecosystem.

Support and Developer

The foundation will provide fund to the team and developer to contribute in ideas, to enhance and to expand the DDK, to build and grow the ecosystem.

Bounty Program

The bounty programs are carried out before the actual ICO. They are usually done to get the buzz going and to give the cryptocurrency project an improved presence on social media platforms. It is all about creating awareness for the cryptocurrency ICO and to get the word-of-mouth going. The framework is such that informal advertising channels are utilized to increase market penetration. The aim of such bounties is that as participants go about carrying out the various activities, the people in their circle begin to know more about the cryptocurrency. DDK Platform is providing a phase by phase "distribution" of bounty on Bounty Program from the allocation on-hand. These bounty programs could be promoted and posted in our own DDK Forum Discussion (https://forums.ddkoin.com/forum/bounty-contest). We give this further opportunity towards the existing community from Pre-ICOs for most of our users/community, who are active in social media. We offer huge allocation of bounty rewards for this. We take this opportunity to promote using social media by offering good and interactive bounty program.

Translation & Moderation: 20%

- Translate and moderate the local thread about DDK. It includes the translation of official announcements, news and updates on a regular basis. Un-moderated threads will be disqualified.

DDK Forum : 20%

- You can join by upgrading your signatures or avatars on DDK Forum to any of the categories: "DDK Hero," "DDK Sifu," "DDK Champion," "DDK Master," etc.
- Posts you would send, must be a creative, informative and worth-sharing post that related to DDK.
- Post that get high amount of respond from other users in terms of like and comment will be rewarded.

Facebook: 10%

- You can participate by posting in your own Facebook account a creative, informative and worth-sharing post that related to DDK.
- Try to get as much as can amount of sharing for that Facebook Post. Post that get high number of shares are able to claim for bounty rewards. Amount of rewards will be given is based on the quality of the post content and number of shares gained.

Twitter: 10%

- You need to follow our official Twitter account and posting informative and worth-sharing tweet mentioning DDK Official Twitter account and/or official hashtag and/or website link in their tweets.
- Try to get as much as can amount of retweet for that Twitter Post. Post that get high amount of retweet are able to claim for bounty rewards. Amount of rewards will be given is based on the quality of the tweet content and amount of retweet.

Telegram: 10%

- You need to create a telegram channel and keep on posting news or update about DDK.
- Channel that have high number of subscribers are qualified to claim for bounty rewards.

YouTube and Media: 20%

- You have to create an informative and worth-sharing video related to DDK.
- Only video that have high amount of views will be qualified to claim for Bounty rewards.

Contributors

Contributors is one of allocation in DDK Foundation purposely to give an appreciation for anyone that have contribute to our platform.

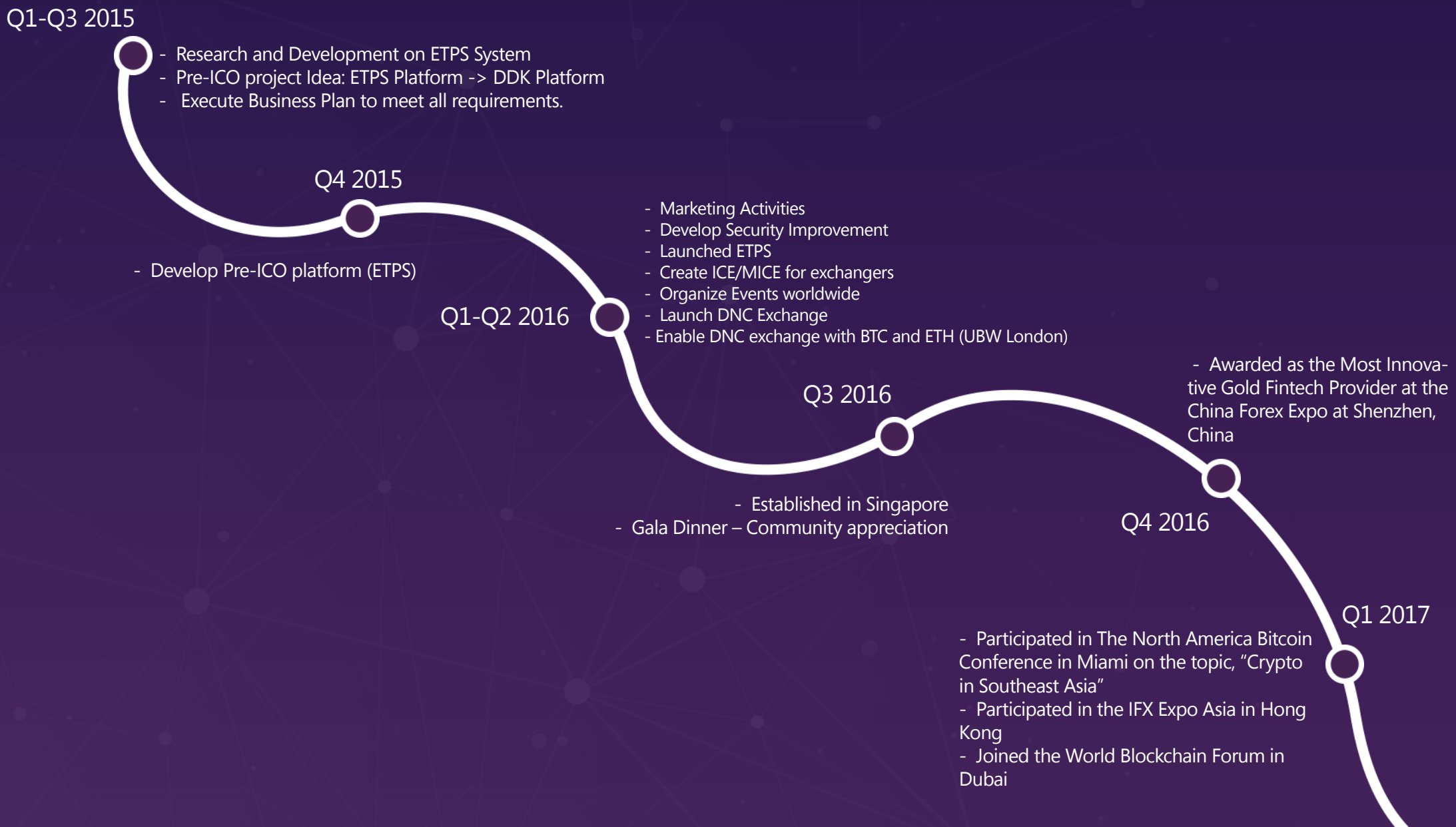
President Awards

These are achievement rewards that were given to community members for recognition and appreciation of their dedicated commitment and contributors to the DDK community.

President Award

Awards	Requirement
President Award	35% of 45 million
Deputy President Award	25% of 45 million
Director Award	20% of 45 million
Senior Executive Award	15% of 45 million
Executive Award	5% of 45 million

Roadmap


Q1-Q3 2015
- Research and Development on ETPS System
- Pre-ICO project Idea: ETPS Platform -> DDK Platform
- Execute Business Plan to meet all requirements.
Q4 2015
- Develop Pre-ICO platform (ETPS)
Q1-Q2 2016
- Marketing Activities
- Develop Security Improvement
- Launched ETPS
- Create ICE/MICE for exchangers
- Organize Events worldwide
- Launch DNC Exchange
- Enable DNC exchange with BTC and ETH (UBW London)
Q3 2016
- Established in Singapore
- Gala Dinner – Community appreciation
Q4 2016
- Awarded as the Most Innovative Gold Fintech Provider at the China Forex Expo at Shenzhen, China
Q1 2017
- Participated in The North America Bitcoin Conference in Miami on the topic, "Crypto in Southeast Asia"
- Participated in the IFX Expo Asia in Hong Kong
- Joined the World Blockchain Forum in Dubai

Q2 2017

- Upgrade DNC Exchange (UBW London changed to UBW Singapore)
- Upgrade the Security
- Joined the Brussels parliment on the topic of "The Future of Blockchain"
- Our Co-Founder was awarded with Anugerah Tun Putih organized by Srikandi Malaysia

Q3 2017

- Awarded as Champion of Swiss Innovation Challenge (SIC) Asia
- Participated in the World Blockchain Forum, London

Q4 2017

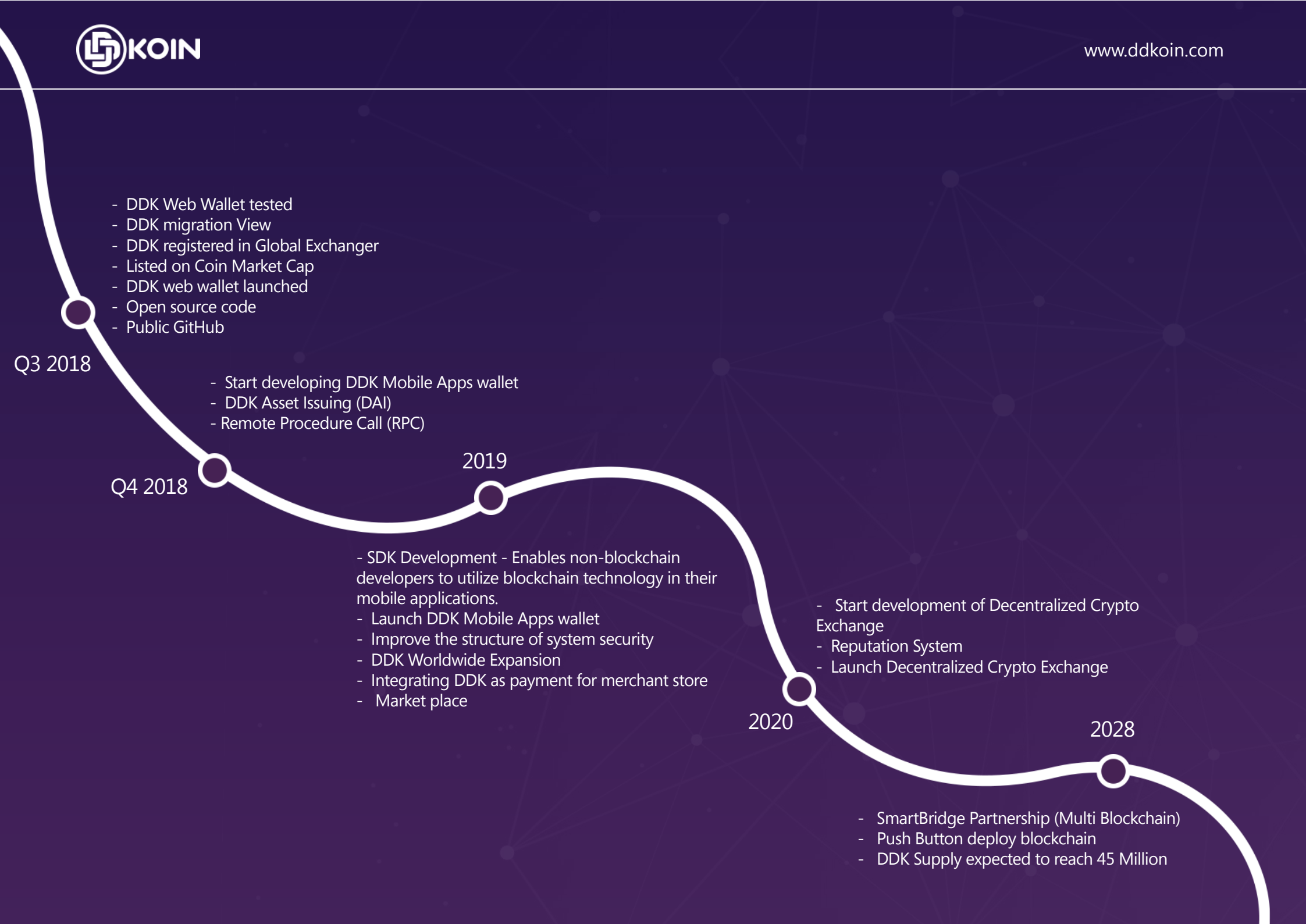
- Participated in the IT Pro Expo Japan
- Penetrate Japan Market
- Joined the World Blockchain Summit in Dubai
- DDK Development [the transition phase ETPS -> DDK]
- Decided that DDK will be based on the DPoS Platform
- Participated at the Singapore Fintech Festival
- Penetrate London Market

Q1 2018

- Development of interface for DDK
- Study the legal part of DDK
- Tested DPoS System
- Tested Voting System
- Preparation of DDK Documentation V1.0

Q2 2018

- DDK Web Wallet pre-introduction
- Release DDK Documentation v1.0
- Pre-ICO Finished
- Migrate Pre-ICO to DDKoin
- Develop DDK desktop
- Develop DDK forum


- DDK Web Wallet tested
- DDK migration View
- DDK registered in Global Exchanger
- Listed on Coin Market Cap
- DDK web wallet launched
- Open source code
- Public GitHub
Q3 2018
- Start developing DDK Mobile Apps wallet
- DDK Asset Issuing (DAI)
- Remote Procedure Call (RPC)
Q4 2018
2019
- SDK Development - Enables non-blockchain developers to utilize blockchain technology in their mobile applications.
- Launch DDK Mobile Apps wallet
- Improve the structure of system security
- DDK Worldwide Expansion
- Integrating DDK as payment for merchant store
- Market place
2020
- Start development of Decentralized Crypto Exchange
- Reputation System
- Launch Decentralized Crypto Exchange
2028
- SmartBridge Partnership (Multi Blockchain)
- Push Button deploy blockchain
- DDK Supply expected to reach 45 Million

Management Team

DATO' ARAI EZZRA

Founder

Dato' Muhd Azrainuddin also known as Arai Ezzra, is the founder of Blockchains.My and Dinarcoin, two brands which bring global innovation for gold storage and utilisation through fintech and blockchain technology. He has been involved in the industry for over 10 years in technology, sales, marketing, and advisory roles, focusing predominantly on forex and ecommerce products. With intense passion in fintech and cryptocurrency, Dato' Arai has set his own company to start the development of his own idea and innovation.

LinkedIn: https://www.linkedin.com/in/araiezzra/

DATIN NUR EZDIANI

Co-Founder

Datin Nur Ezdiani binti Baharoddin is the Co-Founder of Blockchains.My and Dinarcoin, two brands which bring global innovation for gold storage and utilisation through fintech and blockchain technology. She has a vast experience in multimedia and publication while at the same time has an intense passion in technology and gold investment. She combines her knowledge and passion to establish the brands to dive deeper into the world of gold and technology and spread the beauty of it to others.

Linkedin: https://www.linkedin.com/in/yanie-ezzra/

NURSHUHADA ZAINAL

Project CEO

Attained Diploma in Business Studies (UiTM) along with a Degree in Human Sciences Majoring in Political Science, International Islamic University Malaysia (IIUM). Recently completed Oxford Blockchain Program and professionally certified.
Recognized with 10 years of solid experience in financial advisory, wealth management and a Human Resources practitioner. Committed in exploring entrepreneurship and management leadership for more than 5 years.
For more than 3 years, have dedicated to utilize knowledge, skills and experiences in managing Financial Technology companies which enable the business to expand globally.

LinkedIn: http://www.linkedin.com/in/nurshuhada-zainal

KALAM AZAD

Head of IT

16++ years of development experience, manage and lead projects for desktop, web and mobile platforms. Love to learn and still learning.

LinkedIn: https://www.linkedin.com/in/kalam-azad-22151129/

RAGULA SUMAN

IT Officer

Experienced PHP Developer with a demonstrated history of working in the information technology and services industry. Skilled in PHP, WordPress, Query Optimization, Web Design, and HTML. Strong media and communication professional with a Bachelor of Engineering (BE) focused in Computer Science from Bachelors (BE) in Computer Science Information Technology Engineering from Osmania University.

LinkedIn: https://www.linkedin.com/in/ragula-suman-980aa628/

SHANAFISHA

Asst Manager Business Operation

A Computer Science and Mathematics graduate, majoring in Mathematics Management from Universiti Teknologi Mara (UiTM). Committed in bringing the best outcome with the team in contributing to company's growth, recognition and expansion. Fully dedicated in learning and utilize the knowledge of cryptocurrency and blockchain.

LinkedIn: https://www.linkedin.com/in/shanafisha-mohd-hanafiah-60b6b2152/

NAZATUL ATIKAH

Asst Manager Education & Marketing

Pursued Bachelors' Degree in Marketing at Universiti Teknologi MARA, Malaysia. Utilizing my experiences, skills and knowledge to manage International Crypto Exchanger. Had the golden opportunity to spread awareness of company's products, cryptocurrencies and blockchain technology in Japan, Australia and throughout ASEAN.

LinkedIn: https://www.linkedin.com/in/nazatul-atikah-614005169/

MUHD KOVIN ABD KOHAR

Project Executive

Someone who thinks positively and who can execute on difficult tasks. I'm not an individual who needs to be micromanaged. Rather, when given a specific task, I can figure out the best ways to solve the problem in an autonomous manner.

LinkedIn: https://www.linkedin.com/in/muhd-kovin-abd-kohar-32204b11b/

HUSSAINI ZAHARIN

Senior Executive Education & Marketing

Expert in developed business opportunities local & international market. Expert in all the company products and devise a viable marketing strategy. Monitored and managed extensive international market to include Dubai, Japan, Hawaii, Cambodia, Indonesia, Singapore, Brunei, Thailand and Australia. Understand in regulations of Crypto in many countries. Assist developing crypto products and one of the company's official speaker for various company events.

LinkedIn: https://www.linkedin.com/in/hussaini-zaharin-6a049b145/

HAFIZ NADZRI

Project Executive

Committed in ensuring the sustainability, market relativity and high competitive value of the company. Desired to improve the society's quality of life through Innovation, Technology Breakthroughs and Internet of Things.

LinkedIn: https://www.linkedin.com/in/hafiznadzri/

SITI MAISARAH

Legal & Compliance Officer

Maisarah holds a Bachelor of Legal Studies (Hons) and Bachelor of Laws (Hons) from Universiti Teknologi MARA, Malaysia. Prior to joining our legal team, Maisarah began her legal career in 2017 where she enrolled as an Advocate and Solicitor of High Court of Malaya in 2017. Her experience includes general advisory works, conveyancing matters and drafting commercial agreements which includes amongst other shareholders, joint venture, sale of business, tenancy, and service agreement.

IZ SOFIAN

Risk Dealer Analyst

Assessing and identifying the potential risks that may hinder the reputation, safety, security and financial prosperity of the organisation. Highly analytical and large part of my time will be focused on conducting detailed risk assessments, evaluating the effects of any proposed risks. Currently dealing with financial risk of cryptocurrency, studying how the market works and controlling the price.

LinkedIn: https://www.linkedin.com/in/iz-sofian-788003169/

ROSNIDALIANA ROSLAN
Head of Finance

Have a previous experience in organisational financial management. Recognized as a good team player with excellent interpersonal skills, great multitasking abilities and can be relied in completing the given tasks within the time frames.

LinkedIn: https://www.linkedin.com/in/rosnidaliana-roslan-04500a169/

Developer Team

Blockchain Developer

OODLES (India)

Project Manager
Raj Wadwa

Desktop Wallet Development
Shashwat

Joined as a NodeJs Developer
Satish Joshi

Developer
Hotam Singh
Manu Thakur
Navin Purohit

Blockchain & Marketing Team

MIRANZ (Pakistan)

Project Manager
Shurjil Butt

Solution Architect
Ghufran Ahmed

Research Team
Faryal Qazi | Ammad ul Islam

Blockchain Experts
Junaid Mushtaq | Talha Yusuf
Zain Ul Abiden | Aqeel Kazmi

Senior Software Engineers
Rizwan Ud Din | Arslan Imran

Quality Assurance
Zainab Ghafoor

Design Team
Afzal Akram | Maham Aamer

Digital Marketers
Shehreyar Qureshi | Maira Zafar

Auditing Developer

SK CONSULTING (Ukraine)

CEO
Ivan Skrypka

Team Lead
Dmitriy Mekhed

SENIOR FULL STACK DEVELOPER
Oleg Knish
Bogdan Pidoprygora

Support Team

ARINA NONAKA

I have been providing customer service over 5 years. I am good at Customer service, Store administration, graphics design and ecommerce platform: Amazon, Shopify, woocommerce. I am capable of handling work under pressure.

LinkedIn: www.linkedin.com/in/arinanonaka

HEITOR PEREIRA

I am a programmer with a focus on web, the languages I dominate are Javascript, ReactJS and also the web as I mentioned (HTML and CSS). I also have good knowledge on cryptocurrencies and their technologies since I have been studying this since 2016 and I am also an investor. Now I also believe that I have the necessary knowledge to serve the users since I have studied all the documents that have sent us.

LinkedIn: https://www.linkedin.com/in/heitor-pereira-2b5262169/

HANNAH OLA

Hannah Ola has a service-oriented mind with a passion for creative expression, curiosity for new knowledge, and an IT background. She now has about 5 years of experience in the Customer Service industry since graduating with a Bachelor's degree in Information Technology in 2013. She had provided varied customer support and personal assistance in all avenues of communications in the past. She also dabbles in different creative hobbies outside work life.

LinkedIn: http://linkedin.com/in/hannahola

PAUL DELA CRUZ

I have a Bachelors Degree in Computer Science with 12 years work experience in the customer service and support industry. I am proficient in using MS Office applications and in Web Design. I am knowledgeable in Adobe Photoshop, HTML, CSS, Javascript, and PHP.

LinkedIn: https://www.linkedin.com/in/paulo-rico-dela-cruz-77181937

DIANE SALAS

I have been working remotely full time for the past 7 years. I am knowledgeable with MS Office applications, research tools, software and online tools.
A great team player with high motivation to finish the tasks at hand.

Linkedin: https://www.linkedin.com/in/diana-salas-78142567/

NELISSA HELEN DELLEZO-OLIVEROS

Skills in People management, team leading, customer experience/support, conversational to professional English communication skills, reports analysis, very detailed when it comes to documents and agreements Professional Experience: 3 years in Product-Consumer Support
(2008-2010), 6 years in Global IT Support as engineer, data analyst and technical leader (2010-2016).

LinkedIn: https://www.linkedin.com/in/nhdoliveros/

Auditing Developers SK Consulting (Ukraine)

IVAN SKRYPKA
CEO

Strategic technology advisor and entrepreneur with an acute sense for business opportunities. In SK-Consulting Ivan is responsible for driving the overall sales, business strategy and execution. With more than 10 years' of assiduous immersion in IT, he is a very experienced and also very creative leader with excellent understanding of business needs and leadership skills. Always fully transparent with the clients with regards to development status, risks and issues, providing a holistic project experience to our customers.

Linkedin: https://www.linkedin.com/in/ivan-skrypka-6b35bb43

DMITRIY MEKHED
Team Lead

With over 9 years of experience in IT. Agile Coach at the Team and organization levels capable of delivering large-scale software development projects on time and on budget by effectively coding, collaborating, leading, and coaching agile teams. Having big interest in Blockchain technology. He is an expert in sourcing innovative technological solutions and choosing the right technology for the right business need. He can quickly define IT and infrastructure's road map, needs, tools, work protocols and find the best approach for implementation in the company's operations.

Linkedin: https://www.linkedin.com/in/dima-mehed-369a49113

OLEG KNISH
SENIOR FULL STACK DEVELOPER

Oleg is a Senior PHP/JavaScript Developer with over 10 years of experience in full project lifecycle, application design and technical architecture, web development, blockchain development. He has a Bachelors in Software Engineering from Kiev National Technical University. Oleg has strong references, over 20 successful projects and he can offer competitive and flexible pricing policy and great quality.

Linkedin: https://www.linkedin.com/in/oleg-werdffelynir-69b235101

BOGDAN PIDOPRYGORA
SENIOR FULL STACK DEVELOPER

Bogdan is experienced and versatile Senior Software Developer with 4+ years of experience in full project lifecycle, application design and technical architecture and web development. He has extensive experience with various web frontend technologies. Python, JavaScript and related frameworks are one of his core areas of competence. He can handle all aspects of product development: from the initial phases of the product life cycle straight through to the launch phase. He can also lead a development team of dedicated web developers for long-term projects.

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Blockchain & Marketing Team Miranz (Pakistan)

SHURJIL BUTT
Project Manager

Muhammad Shurjil Butt, is the Senior Project Manager. He has been involved in IT industry for over 12 years managing multiple projects of diverse domains. He has extensive experience in project management resulting in successful delivery for multiple top-tier software projects; well in access of $10 million worth in total.

LinkedIn: https://www.linkedin.com/in/muhammad-shurjil-butt-63515518/

GHUFRAN AHMED
Solution Architect

Having a vast experience in diverse technologies, Ghufran is currently working as a Solution Architect at Blockchain Experts Solutions for past 6 months. He has done his Bachelor's degree in Computer Science from National University of Emerging Sciences , FAST. Previously, Ghufran has worked at Mentor graphics for 4.5 years as senior software engineer where he gained a vast knowledge of technologies including java, C, and C++ alongside the working experience on ready-start IDE as well.

Linkedin: https://www.linkedin.com/in/ghufran-ahmad-9850a7120/

FARYAL QAZI

Lead Research Analyst

Faryal is a competent researcher and blockchain business analyst. She has 5 years of experience in content writing, editing, and public speaking. She is efficient in white paper writing, blockchain researching, Initial Coin Offerings, and excels in Ethereum, Quorum, Hyperledger and private blockchains with a number of successful projects. She is a public speaker and spreads blockchain awareness in various seminars and summits. She is a tech enthusiast currently pursuing her Master's degree in Data Sciences from Information Technology University, Lahore and holds a Bachelor's degree in Computer System Engineering from University of Engineering and Technology.

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AMMAD UL ISLAM

Research Analyst

Ammad is a passionate, research oriented blockchain enthusiast. He is currently working as a Research Analyst at Blockchain Expert Solutions where he is efficiently involved in white paper writing, business analysis, market analysis, and designing technical models. He has grip over public, private and permissioned blockchains excelling in Ethereum, Hyperledger, LISK and IOTA as well. He has done his Bachelors in Computer Sciences from Government College University, Lahore.

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JUNAID MUSHTAQ

Blockchain Expert

Junaid is working as a Senior Software Engineer at MIRANZ Technologies (Pvt.) Ltd. He has his interests in blockchain development with expertise in Solidity, Ethereum, Quorum, Hyperledger Fabric, Electron, MeteorJS, NodeJS and Private Blockchains. He has experience in software development and blockchain development where he has a number of successful Blockchain projects and ICO's deployed. Junaid holds a Bachelor's degree in Computer Sciences with core focus on Computer Software Engineering from University of Central Punjab.

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TALHA YUSUF

Blockchain Expert

Talha Yusuf is an experienced developer, speaker and a blockchain expert. He is known for conducting blockchain awareness campaign at several well-known platforms in Pakistan. He entered in blockchain industry in 2017 and in that very short period of time he developed his skills in three different Blockchains like Ethereum, Hyperledger Fabric and Stellar. He also worked on tackling scalability issues in blockchain using IPFS.

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ZAIN UL ABIDEN

Blockchain Expert

Zain Ul Abedin is currently working with Miranz Technologies (Pvt.) Ltd as a Software Engineer. He is proficient at integrating multiple languages which includes Java, Swift, Angular, Node JS, Hyperledger Fabric (IBM), .Net, Solidity, C#, C, C++, SQL / No SQL Databases. Moreover, he is also efficient in developing digital currency wallets & smart contracts. He is highly inclined towards big data knowing of its benefits for enterprise Business Solutions.

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AQEEL KAZMI

Blockchain Expert

Aqeel is graduated from Government College University Lahore in Computer Sciences and have experience in PHP and its related frameworks. He is well versed in the technology stack and have been currently expanding since, he has branched out into Blockchain as a Blockchain developer as of and has developed a keen interest in Blockchain and Decentralized systems. Major works include ethereum smart contracts, ethereum web3, ethereum crowdsales, ethereum POA Fork, explorers, wallets, Stellar crowdsales, Hyperledger fabric and Setting up AWS servers for public and private blockchain.

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RIZWAN UD DIN

Senior Software Engineer

Rizwan ud Din is a lead web developer at Blockchain Expert Solutions. He is highly devoted towards his work and has been involved in software development industry for last 5 years. He has vast knowledge and hands-on experience in Java, PHP, Node.Js, Angular, Vue.js and has knowledge of AWS deployment as well. He holds a Bachelor's degree in Computer Sciences from Punjab University.

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ARSLAN IMRAN

Senior Software Engineer

Arslan Imran is a detail oriented front end developer currently working in Miranz (.Pvt) Ltd. as Senior Software Engineer. He has experience in HTML, CSS, Bootstrap, Wordpress, PPH, Laravel, Material Design, Vue.js and other languages. He has a number of successful projects developed on various platforms. He holds a degree in IT Sciences from University of Education.

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ZAINAB GHAFOOR

QA Engineer

Zainab is a Software Quality Assurance Engineer, having vast knowledge of software development lifecycle processes, and testing embedded software. She is proficient in creating test plans and analyzing test results, coding automated tests and documented test cases, agile development processing and web-based testing applications, and interpreting technical and business objectives and challenges. She has done Bachelors in Computer Sciences from Government College University, Lahore. She is efficiently delivering her services as a Quality Assurance engineer at Blockchain Expert Solutions where her expertise include ETL testing, functional testing, data integration, and unit testing.

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AFZAL AKRAM

Senior UX/UI Designer

Having 10 years of experience in web designing, Afzal is a professional graphic designer, with expertise in Adobe photoshop, Illustrator, and Indesign. He has previously served as a Senior Graphic Designer in DevBatch, Cryptex and Techverx. In addition, he has strong HTML/CSS skills including cross power compatibility issues and extensive knowledge and understanding of SCO. He has completed his bachelor's degree in Computer Sciences from Skyline College, Dubai. He is currently working as Sr. Graphic Designer at Blockchain Expert Solutions, where he creates designs for whitepapers, mobile application designs and websites front end.

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MAHAM AAMER

UI/UX Designer

Driven by curiosity of creative details in human computer interaction, Maham Aamer is one of the finest UI/UX designer in the industry. She did her Bachelors in Computer Sciences from University of Central Punjab. Being a creative enthusiast, she believes that an attractive and user friendly design always lead to the success of products. She believes a good design always focuses on user needs, feels and goals.

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SHEHREYAR QURESHI

Digital Marketing Manager

Shehryar Qureshi have more than 10 years of experience in Digital Marketing. He has worked with multinational brands helping them to grow from startups to complete multinationals. He has served in multiple industries including real estate, health, media and IT. In his vast experience, he has developed liaison with top news agencies including Reuters, Bloomberg, Forbes, BBC, Huffington Post and many more.

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MAIRA ZAFAR

Social Media Manager

Maira Zafar is a passionate social media manager with experience in different social media marketing campaigns. She is currently working with Miranz Technologies (Pvt.) Ltd. where she is efficiently managing various social media handles. She has managed global marketing projects where she has played her part in marketing content, generating organic followers, SEO, and managing leads. Previously, she has worked as graphics designer and is well versed with photoshop, Illustrator and 3D Designing. She has secured her degree in IT from University of Education, Lahore.

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Regional Representatives

Mr Zaheer (Indonesia)

Mr Kanazawa (Japan)

Mr Preap Sakal (Cambodia)

Advisory Board

Legal Advisory Team

IT Advisory Team

Academician Advisory Team

Business Advisory Team

Corporate Advisory Team

Partners

YOTPO.

CMY BLOCKCHAINS.

RHTLaw TaylorWessing
International Capabilities Delivered Locally

Official Channels

Facebook

Instagram

YouTube

Reddit

Linkedin

Medium

Steemit

Git

Telegram

Bitcointalk Forum

Glossary

Terms	Description
A	
Airdrop rewards	These are rewards including direct referral, chain referral, and president award that are distributed to community members for specific activities carried out on the platform.
Ark	Ark is a cryptocurrency that's focusing on interoperability and user adoption.
B	
Back-end	Server-side of an application.
BCMY NFC Smartcard	The smartcard which can be used for liquidation crypto into fiat.
Block	A block is a structure of data which consists of transactions stored in it.
Blockchain	A decentralized distributed ledger consists of blocks containing transactions, and these blocks are connected with eachother in a cronological order using hashes.
Blockchains.My Merchant Application	Provide many payment options that allow merchant customer more flexible ways in the term of payment. By being a merchant in Blockchains.My Application, customers are able to make payment by using NCF card and Visa Card. payment by using NCF card and Visa Card.
Blockchains.My Wallet	A web wallet in ich users can transfer all their DNC from DNC-wallet.
Blockheader	The block header consists of the data information including block version, timestamp, previous block ID, Number of transactions processed, total amount of coins transferred etc.
Bounty program	The bounty programs are carried out before the actual ICO. They are usually done to get the buzz going and to give the Cryptocurrency project an improved presence on social media platforms.

Broadcast queue Broadcast queue serves the functionality of keeping the transactions gathered from transaction pool.

C

Centralized server A type of network where all users connect to a central server, which is the acting agent for all communications.

Chain referral This is 15 level rewards that community member received from their referral.

Community-centered Networks where the community members tend together for group activities, support, and other purposes.

Computational power The sources required by miners to perform validation process.

Consensus A mechanism in which every member of a network participates in making any decision.

Cryptoassets Cryptoassets are digital assets which utilize cryptography, peer to peer networking, and a public ledger to regulate the generation of new units, verify the transactions, and secure the transactions without the intervention of any middleman.

Crypto. A digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.

Customer loyalty Customer loyalty indicates the extent to which customers are devoted to a company's products or services and how strong is their tendency to select one brand over the competition.

D

DAO Decentralized Autonomous Organization: an organization that is run through rules encoded as computer programs called smart contracts.

DDK	DDK is a community centered platform that provides the economic opportunity through the development of blockchain solutions.
DDK Asset Issuing (Interchain)	Using smart contract technology, our customers' financial tasks become available to all who can use it in a fully automated, independent way, which records these tasks directly to the blockchain
DDK champion	This is ranking for DDK Forum. User will get this rank when users reach 5000 posts in the forum.
DDK hero	This is ranking for DDK Forum. User will get this rank when users reach 2000 posts in the forum.
DDK master	This is ranking for DDK Forum. User will get this rank when users reach 10, 000 posts in the forum.
DDK Examplar	This is ranking for DDK Forum. User will get this rank when users reach 7500 posts in the forum.
DDK sifu	This is ranking for DDK Forum. User will get this rank when users reach 1000 posts in the forum.
DDKoin	DDKoin is the crypocurrency being used on the DDK platform for staking, reward incentives, and fees.
DDKoin holder	The one who holds DDKoins.
Decentralized network	A network which does not depend on any one party but it is managed by more than one parties.
Delegate	The one who has been selected by stakeholders through voting system, for the validation of the transactions within the network.
Delegates reward	Delegates will get reward in a percentage amount deducted from the amount being transferred.
Direct referral	This reward is given to community members for referring new stakeholders to the platform.
Discussion forum & campaign platform	This platform is a community forum where those interested in becoming delegates post their campaigns to encourage the DDK community (stakeholders) to vote for them.
DNC	Crypto Asset built from Ethereum Blockchain (ERC223) which represents pegged value or price of 4.25grams, 999.9 karat gold (24K)

DNC wallet	DNC wallet is used to transfer DDKoin from DDK platform to DNC wallet through global exchanger; as one of medium exchange from DDKoin to DNC
DPoS	DPoS is the decentralized, fast, secure, and efficient consensus mechanism, which leverages the power of stakeholder approval voting to resolve consensus issues in a fair and democratic way.

E

ED25519	Algorithm used to generate private key and public key.
EdDSA	Edward Digital Signature Algorithm provides a robust and fast mechanism for hashing and providing security.
Electronic wallet	E-Wallet allows you to store multiple credit card and bank account numbers in a secure environment, and eliminate the need to enter in account information when making your payment.
ETPS	Estimated Time Pool Sharing: technology used behind DNC (DinarCoin) as the mechanism of promoting DNC worldwide for Private ICO project
ETPS DNC holder	Community who owns ETPS DNC.
ETPS pool partner	Individual who joins ETPS pool.
Exchanger	Individual who handles the exchange.

F

Fiat	Fiat money is currency that a government has declared to be legal tender, but it is not backed by a physical commodity.
Forgers	Known as delegates who are receive the transaction fees as rewards.
Forging	Forging (or minting) in cryptocurrencies is the creation of new blocks in blockchain based on the Proof-of-Stake algorithm with the opportunity to receive a reward in the form of new cryptocurrencies and commission fees.vv

Fork	A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project.
Front-end	The interface through which user interact with the system is called front-end.

G

Global exchanger	The global exchanges like Binance, Bitrex, etc. on which DDKoin is listed and can be sold, purchased, and exchanged with other crypto as well.

H

Hash	A string of random characters.

I

ICE (International Crypto Exchanger)	Team developed by DDK to grow the pre-ICO community worldwide and further increase research on the target markets capable to handle crypto exchange and developing market expansion.
ICO	An unregulated means by which funds are raised for a new cryptocurrency venture.
Incentive	An incentive is something that motivates an individual to perform an action.
Introducer	The person whose referral link is being used by others to get registered. If A joins a network and then gives referral link to B for joining the network, then A is called the introducer of B.

L

Liquidation	Exchange of crypto to another crypto or another medium of exchange such as to fiat currency
Lisk	Lisk is an open source blockchain platform powered by LSK tokens that will allow developers to write decentralized applications in the JavaScript programming language.
Longevity	Longevity refers to something that is long lasting.

M

Malicious attacks An attempt to forcefully abuse or take advantage of someone's computer, whether through computer viruses, social engineering, phishing, or other types of social engineering.

Market cap Refers to the market value of a company's outstanding shares.

Master card The card that is connected to users' account in the app which will allow them to make payment at any merchant that accept Master Card, which is well-known to be widely accepted worldwide.

Metadeta Set of data that describes and gives information about other data.

MICE(Masters of International Crypto Exchanger) The DDK team developed teams of traders called MICE (Masters of International Crypto Exchanger) to grow the pre-ICO community and further increase research on the target markets.

Micro-payments Small amount payments

P

PC node A computer system connected with the network is referred as one node of the network.

Peer A user, a PC node, or a peer is one participant of the network who can participate in the core activities of the network.

PoS PoS is the consensus mechanism in which the number of coins held by a miner is directly proportional to the chances to mine the block or transactions.

PoW Proof of Work is a consensus protocol for achieving a unanimous validation of the member devices on a distributed network.

Pre-ICO ICO Presale or also known as Pre-ICO, is the token sale event that Blockchain enterprises run before the official crowdsale or ICO campaign goes live.

Premined coins The coins that are bought in the presale ICO and then mined as part of the genesis block.

President awards	These are achievement rewards that we give to community members for recognition and appreciation for their dedicated commitment to the DDK community.
Private key	A piece of information known only to the owner of the key.
Protocol	The special set of rules that end points in a telecommunication connection use when they communicate.
Public Key	Is derived from the private key and can be used to validate that the private key belongs to the owner, but not provide access to the owner's private key.

R

Referee	Who refers others using referral link.
Referral link	Link of the referee used to refer others on a platform.

S

Second passphrase	Second passphrase is a 12-word mnemonic, similar to the first passphrase, and can be registered as an additional layer of authentication to the user ID.
SHA-256 algorithm	SHA-256 algorithm is used to generate hash against any data.
Smart contract	A computer program that directly controls the transfer of digital currencies or assets between parties under certain conditions.
Stakeholder	The one who stakes DDKoins.
Staking contract	The contract (smart contract) in which the community members stake their DDKoins.

Staking rewards	This reward is given to community members who freeze their DDKoins in a staking contract.

T

Transaction pool	Contains unvalidated transactions generated by a node.
Transaction signing	Three step process for every transaction to be signed by its sender before it gets accepted by the network.

U

Universal Bitcoin Wallet	UBW (Universal Bitcoin Wallet) London: in which DNC can be exchanged with BTC and ETH.
Universal Blockchain Wallet (UBW)	UBW (Universal Blockchain Wallet): an extension of Universal Bitcoin Wallet, in which DNC can be exchanged with BTC and ETH.
Unmined coins	Coins not generated yet or coins to be generated.
UXTO	Unspent Transaction Output

V

Vote count	In DDK, the delegates' ranks depend on the VOTE COUNT where VOTE COUNT is, only one vote per account.
Vote weight	When vote count is the same among other delegates, the vote weight will eventually put into rank. Stakeholders may unvote delegates with fees imposedW

W

Web wallet	Web wallet provides easy access to funds and makes spending easier.

KOIN
www.ddkoin.com