Finance Innovative Network Leader

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finl.network finlchain.org

Hackers Holdings Co., Ltd.

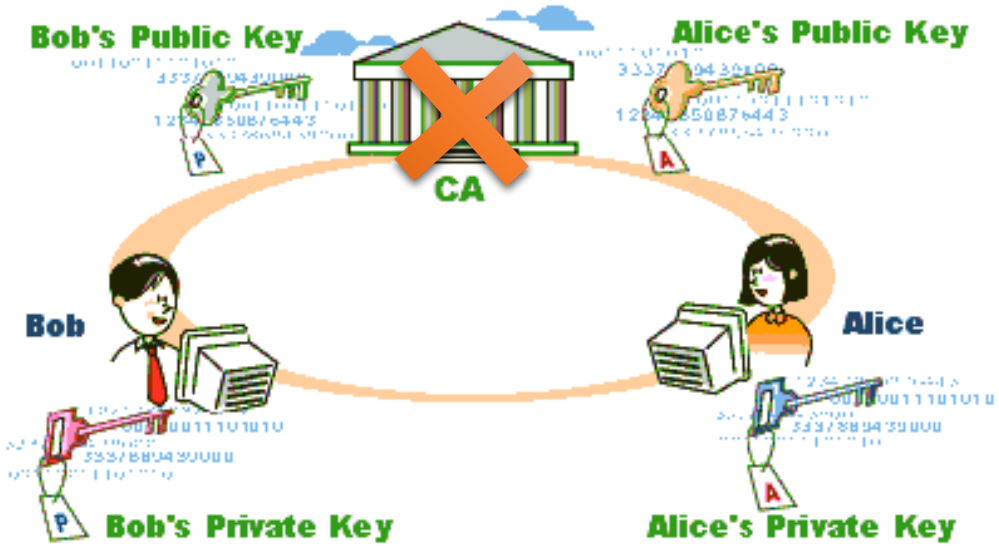
HACKERS HOLDINGS

Signature Technology & Authentication Technology

1 Decentralization

- **Cryptocurrency(Bitcoin)**
  - Decentralization of trust proof
  - Decentralization of financial transactions

- **Benefits of decentralization**
  - No single point of failure
  - Less censorship
  - No need to put trust in a central authority
  - Open development platform



CA : This refers to a **Trusted Third Party** that can be objectively trusted by anyone in e-commerce using digital signatures.

- Service provider/server that issues and manages digital certificates for electronic signatures and encryption

2 Certification Authority List

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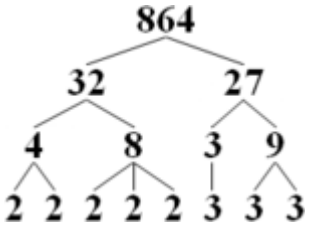
A W3Techs survey from May 2018 shows that IdenTrust, a cross-signer of Let's Encrypt intermediates,[14] has risen to be the most popular SSL certificate authority, while Symantec has dropped out of the chart, due to its security services being acquired by DigiCert:[15][16]

Rank	Issuer	Usage	Market share
1	IdenTrust	20.4%	39.7%
2	Comodo	17.9%	34.9%
3	DigiCert	6.3%	12.3%
4	GoDaddy	3.7%	7.2%
5	GlobalSign	1.8%	3.5%
6	Certum	0.4%	0.7%
7	Actalis	0.2%	0.3%
8	Entrust	0.2%	0.3%
9	Secom	0.1%	0.3%
10	Let's Encrypt	0.1%	0.2%
11	Trustwave	0.1%	0.1%
12	WISeKey Group	< 0.1%	0.1%
13	StartCom	< 0.1%	0.1%
14	Network Solutions	< 0.1%	0.1%

- Roles and functions of CA
  - Verify the identity of the signer of the digital signature
  - Keep his public key from the signer
  - Ensure the external relationship between the signer and his public key
  - Certifites and Certificate Revocation Lists (CRLs) can be issued
  - One or more Registration Authority (RA) can be designated

3 Public Key Base

- Public Key = asymmetric encryption key
  - Use 2 keys
  - Signature method : RSA, DES, DSA, ECDSA, EdDSA
- Private Key
  - For transmitter identification
  - Non-Repudiation
  - Private key encryption => Digital Signature
- Public key encryption
  - Encrypt with recipient's public key
  - Can be interpreted as the recipient's personal key
- RSA
  - Prime factorization base
  - Deterministic algorithm
  - Passwords, signatures

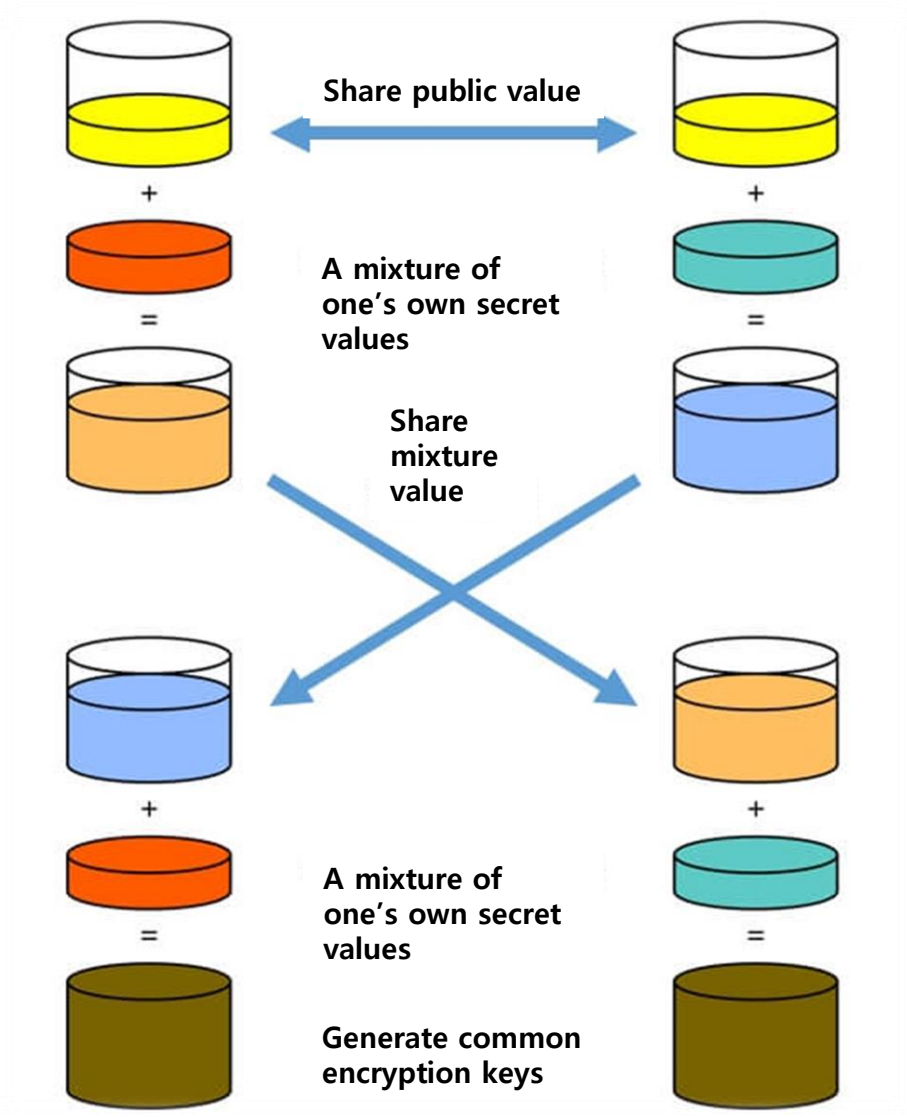


- DSA(Digital Signature Algorithm)
  - Logarithm
  - Probabilistic algorithm
  - Only signature available

$\log_2 8 = 3 \quad => \quad 2^3 = 8$

$\text{ind}_2 3 = 4 \pmod{13}$

- DSA vs RSA
  - Not much difference in encryption speed
  - DSA is faster in generating key whereas RSA is faster in verifying speed.



Agenda

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BLOCKCHAIN TECHNOLOGY OF FINL CHAIN

1. INTRODUCTION
2. HRR(Hash Round Robin)
3. OVERCOME EXSITING MODELS
4. DISTRIBUTED PROCESSING AND SPEED ENHANCEMENT
5. DPOR(Delegated Proof-of-Reputation)
6. NETWORK NODE
7. NETWORK FLOW
8. INCREASE MNEMONIC MEMORY CONVENIENCE FOR ADVANCED WALLET CREATION
9. PATENT
10. GOAL OF FINL CHAIN'S MAINNET
11. MAJOR FEATURES
12. CONSENSUS ALGORITHM COMPARISON
13. COMPETITIVENESS
14. GOAL

1 WHAT IS FINL CHAIN?

- **As a blockchain that overcame the limits of blockchain's trilemma with a unique model named Hash Round Robin and DPOR, FINL CHAIN is a speed-oriented consensus algorithm based on ultra-fast network operation and distributed technology, and a blockchain that combines high-frequency transaction technology**

HRR & DPOR — finlchain — Blazing Fast Controller Based

Hash Round Robin

First to apply pre-emptive hash test algorithm to blockchain technology
Overcoming Blockchain Limits by Applying Scheduling Algorithms Used in Operating Systems to Blockchain

DPOR
(Delegated Proof-of-Reputation)

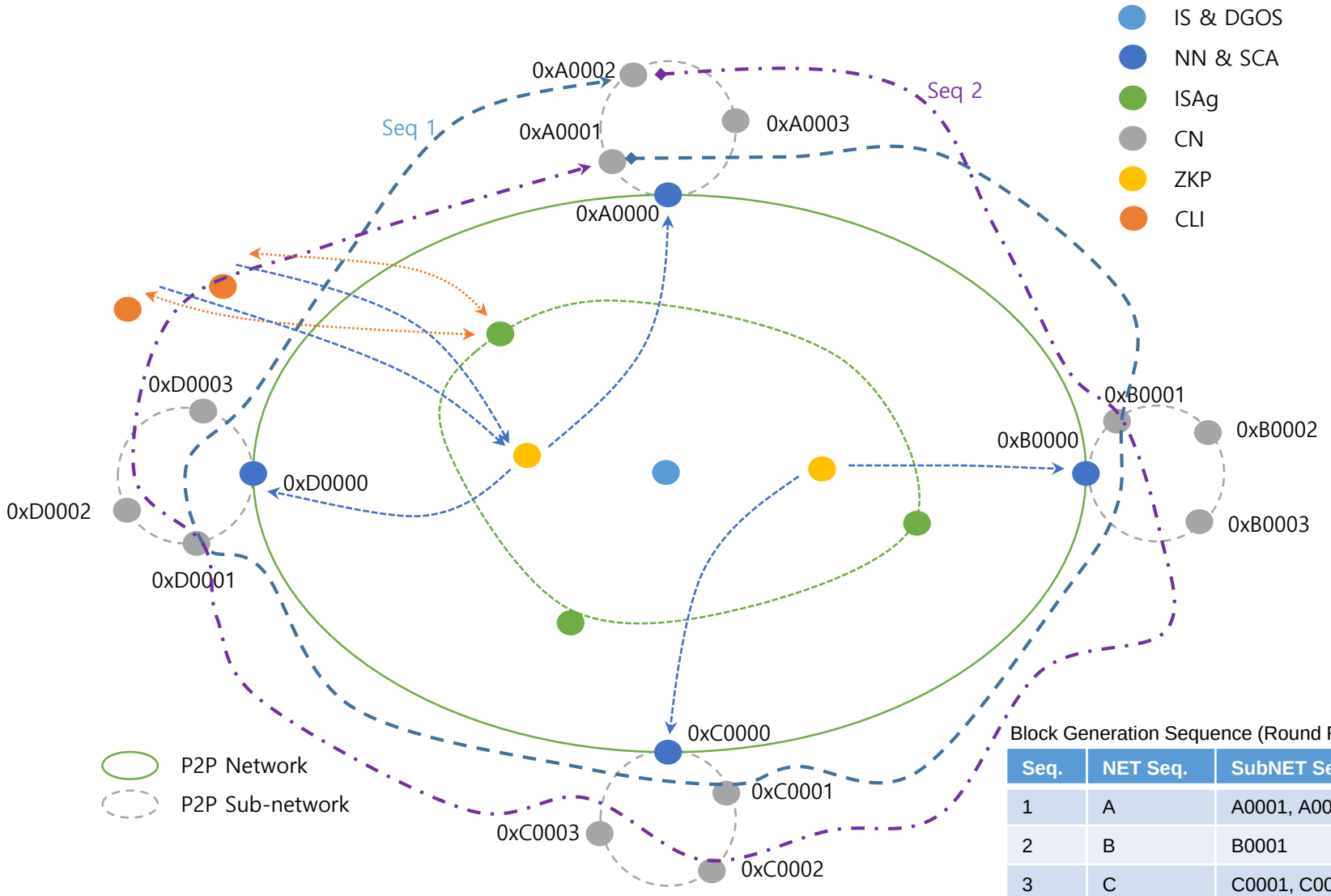
A DPOS model created by autonomous participation based on the reliability indicator of a node named **PRR (Peer Reliability Rate)**

High Speed Transaction

It is more than 20,000 TPS per consensus group and 1 million TPS if 142 global groups are formed.
Ultra-fast node configuration, quickly navigates the information chain of blocks and improves responsiveness.

2 HRR(Hash Round Robin)

1. High speed network
2. PubSub method
3. Blockchain network
4. Lower TCO, maximize ROI



Block Generation Sequence (Round Robin)

Seq.	NET Seq.	SubNET Seq.
1	A	A0001, A0002
2	B	B0001
3	C	C0001, C0002
4	D	D0001

Global PoP connect submarine cable

01

Global interconnection (Hong Kong, Japan)

Hong Kong's global PoP and submarine cable provide a fast and stable global internet connection and network connection through IDC used by major operators around the world.

3 Overcome limitations of existing models

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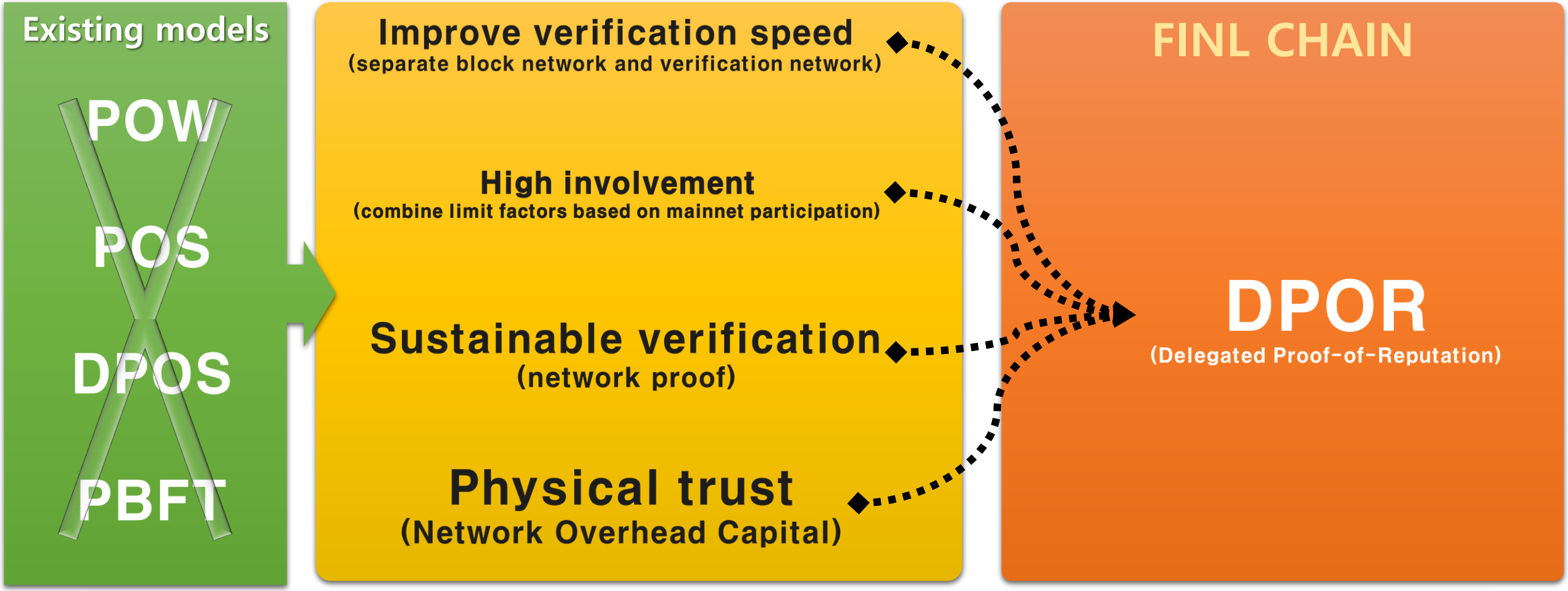


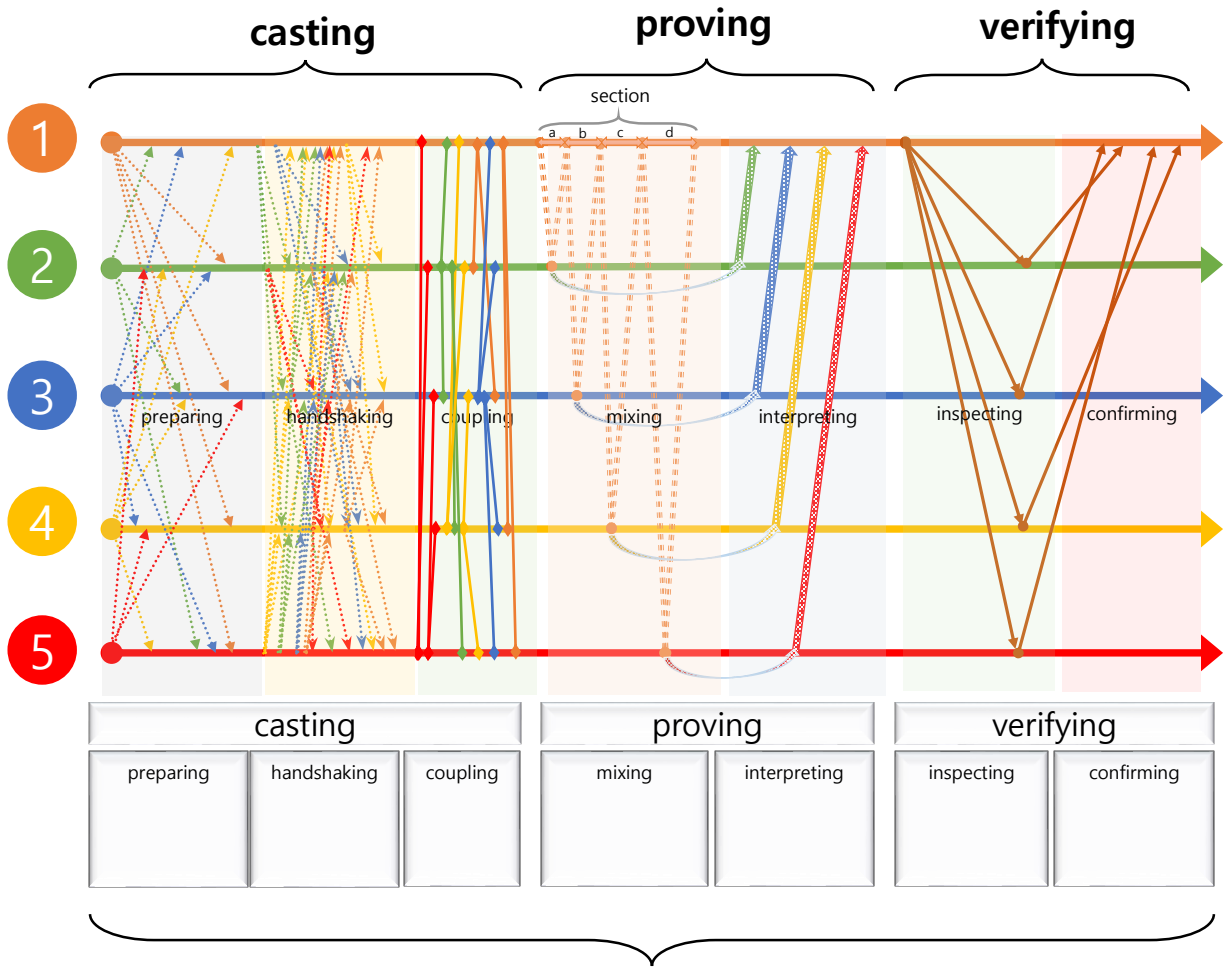
- Blockchain modeling best suited for the real world

4 Distributed processing and speed enhancement

- Network topology network based on IDC environment and HA nonstop server
- Real-time block synchronization between distributed database and nodes in IDC environment
- Dual NIC configuration with NIC bonding processing
- Separate hashing network and signature verification network
- Hot swap & PnP support of scale-out NAS

ITEM	Required node specification(Level1)	No.
CPU	Intel® Xeon® Processor Gold 6128 (6Core , 3.4 GHz)	2
RAM	32G DDR4 PC4-2666 RDIMM	4
OS.SSD	SATA3 S4510 2T 3DNAND	2
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	2
NIC	10G SFP+ Dual Port PCI-e Bounding Net Support (RDAM)	2
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	
Note	Advanced specification by introduction time according to PRR compensation formula Nvidia Tesla (AI GPU) with high-end nodes	

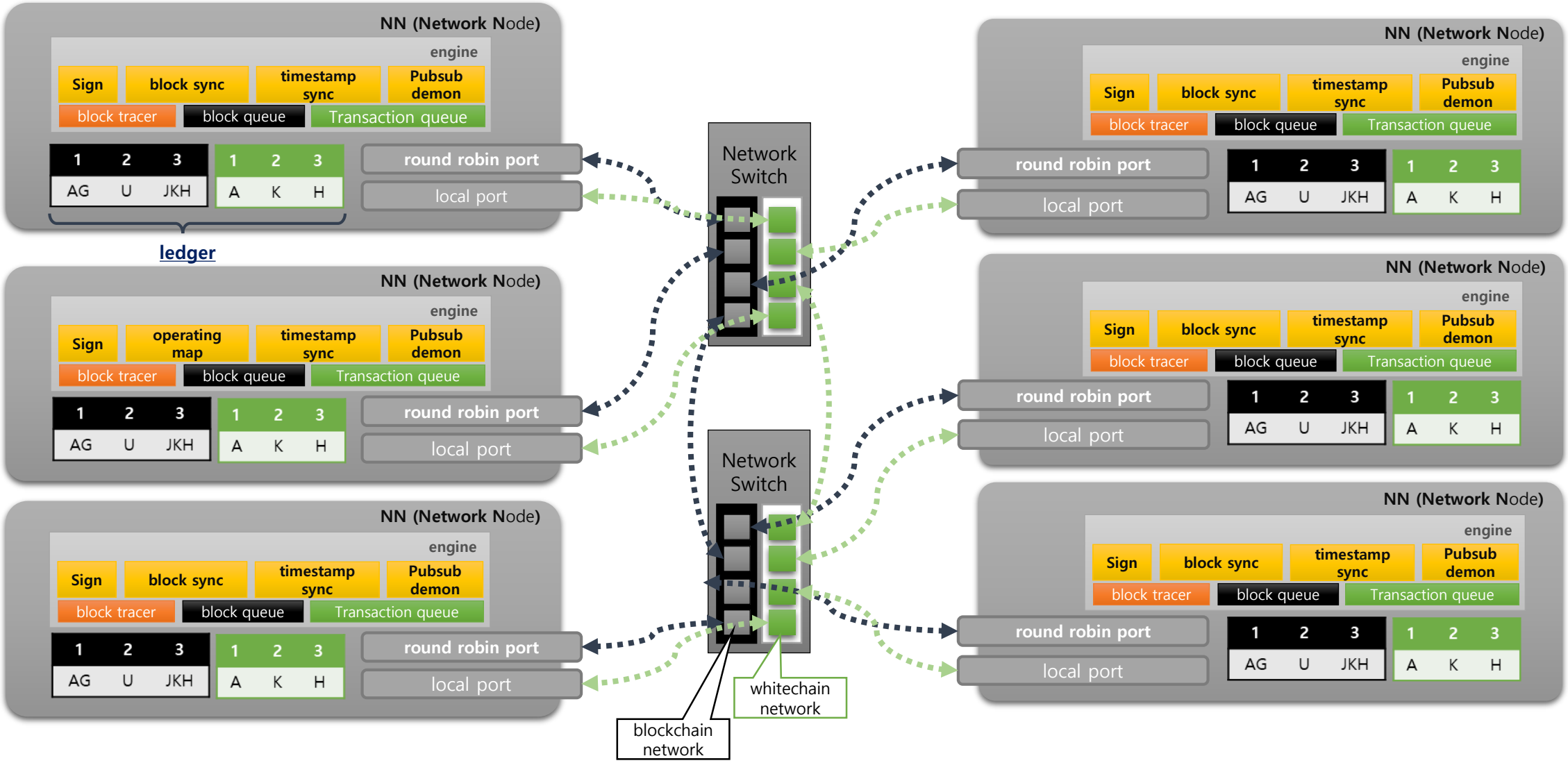
5 DPOR(Delegated Proof-of-Reputation) Flow



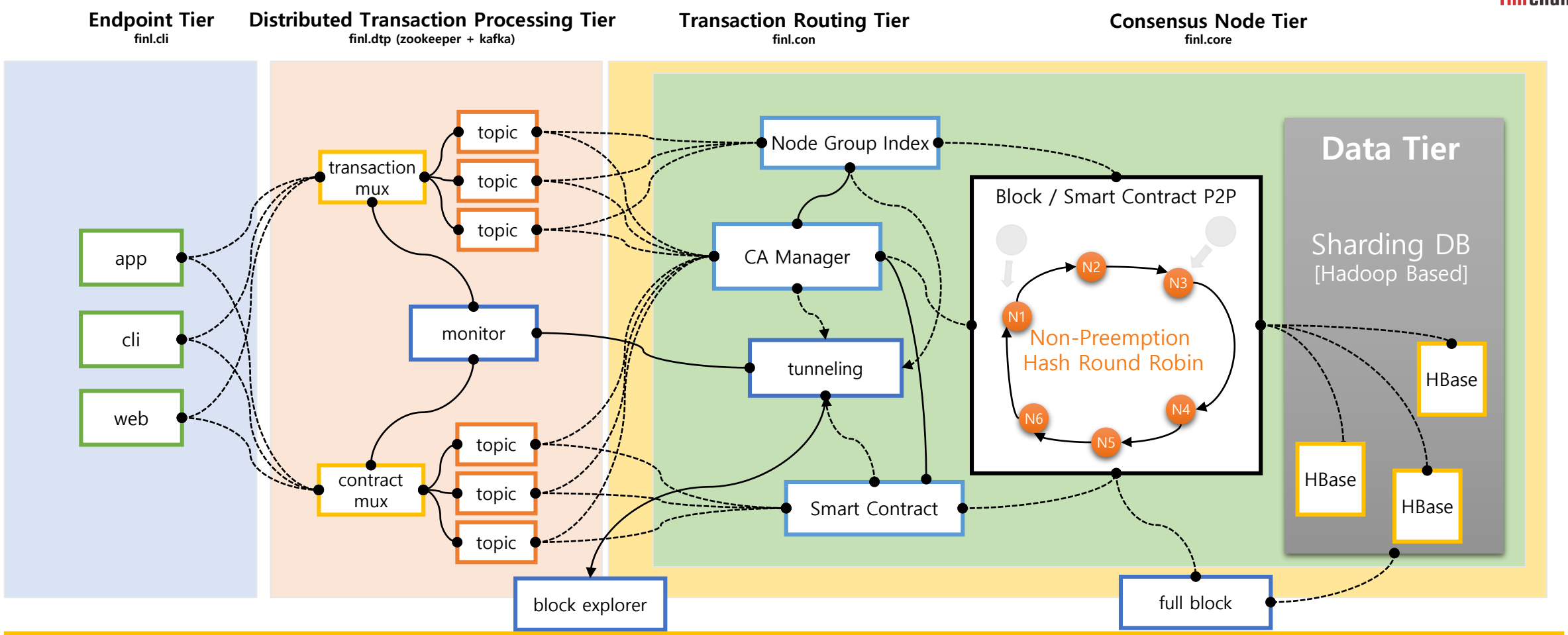
- casting : Role to create groups of nodes and cast delegators.
  - preparing
    - Network Hop Distance Identification for Group Node Formation
  - handshaking
    - Pairing between nodes to form a group
  - coupling
    - Consensus group formation
- proving : Prove transaction by creating a highly secure group attestation relationship
  - mixing
    - Reverse key generation and reversal of node-to-node transactions through hidden and obfuscated information
  - interpreting
    - Riverse key interpretation through group key created when consensus group is formed
- verifying : The process of storing the steps of a proven transaction in a block, confirming it, and notifying the group.
  - inspecting
    - The process of verifying the integrity of block
  - confirming
    - The process of notifying the group of block confirmation

Verification protocol for digital signatures

6 Network node



7 Network flow



Role	Description
Endpoint Tier	User application access section (application, command line interface, web application)
Distributed Transaction Processing Tier	As a gateway for domain access, it distributes transactions for high speed processing and monitors in real time.
Transaction Routing Tier	Fast Identification Network Processing Section of Target Cryptographic Address Scheme for Optimal Exchange with Distributed Routing Services
Consensus Node Tier	Operation of Block Reliability Process with Hash Round Robin and High Speed Delegation Proof of Stake

8 INCREASE MNEMONIC MEMORY CONVENIENCE FOR ADVANCED WALLET CREATION

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- Breaking the mnemonics of creating HD (Hierarchical Deterministic) Wallets such as BIP32 / 39/44

Existing method

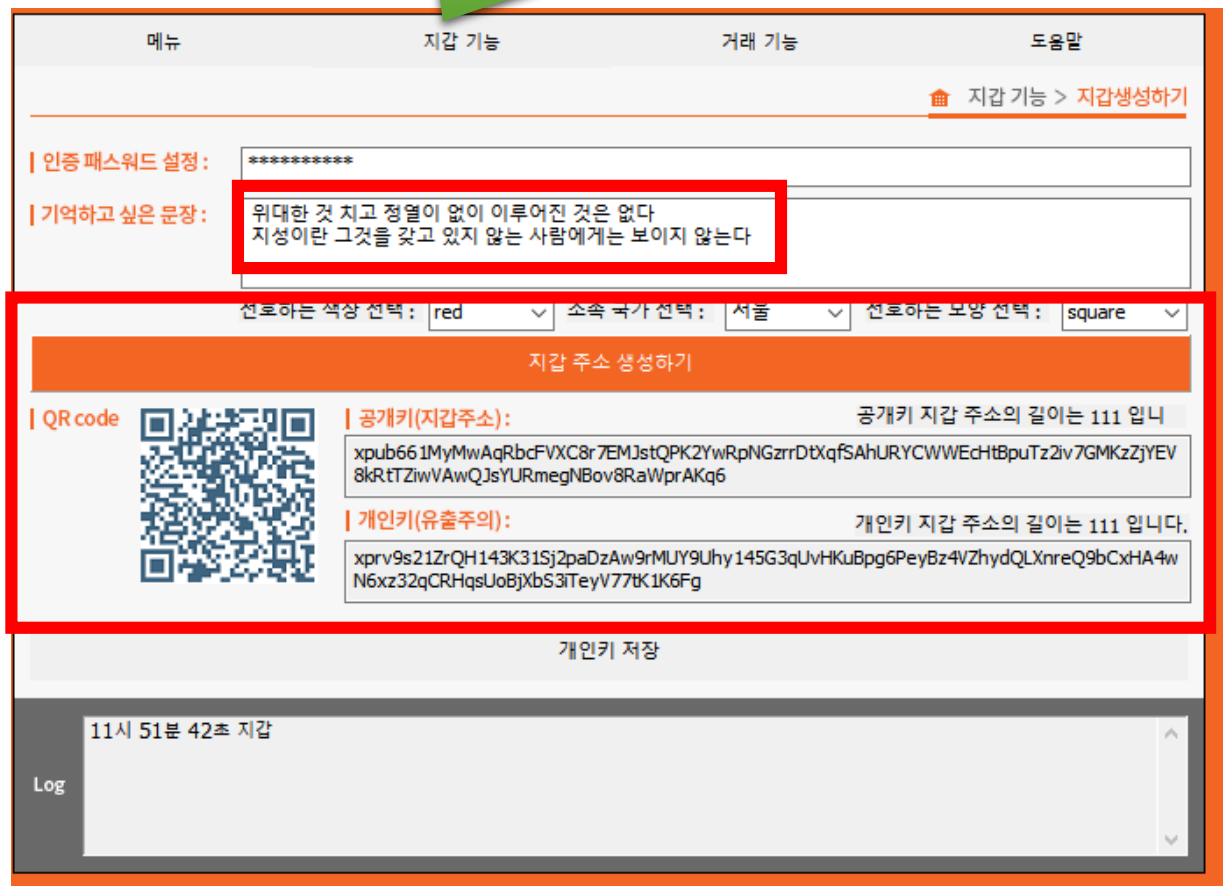
16진수 시드

```
FCCF1AB3329FD5DA3DA9577511F8F137
```

12개의 단어 니모닉 시드

```
wolf juice proud gown wool unfair wall cliff insect more detail
```

How wallets are generated by FINL CHAIN



9 PATENTS

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NAME	REGISTRATION NUMBER	PATENT HOLDER	ISSUER
Driver security system and method using virtual call path	10-2013-0128794	Hackers Holdings Co., Ltd	KIPO
A system that uses blockchain to generate smart contracts	10-2019-0020612	Roy Kim, Kay Kim	KIPO
Internet Content Management System using Blockchain	10-2019-0020461	Roy Kim, Kay Kim	KIPO
Peer Communication methods and devices for P2P handshake control	10-2018-0173003	Roy Kim, Kay Kim	KIPO
Blockchain smart contract methods and devices that use network reputation verification as a consensus algorithem	10-2019-0057467	Roy Kim, Kay Kim	KIPO
Blockchain-based compensation security system	10-2019-0057468	Roy Kim, Kay Kim	KIPO
A system that uses Blockchain to generate smart contracts	10-2019-0020612	Roy Kim, Kay Kim	KIPO
Blockchain-based non-face transaction fraud prevention system	10-2019-0057469	Roy Kim, Kay Kim	KIPO
Virtual currency transaction method with delegated equity verification agreement algorithm	10-2019-0020678	Roy Kim, Kay Kim	KIPO

10 GOAL OF FINL CHAIN'S MAINNET

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- Advancement of verification network (Proof of Reputation)
- Streamline block network operations (Hash round robin)
- Limited public & limited opening (Moore and Reed's Law)
- Contract proof (Including PGP algorithm elements)
- Streamline physical resource operations (IDC net utilization)
- Maximize your investment benefits (an autonomous half depending on the share of node participation)
- Pre-installed software & hardware (improve Oracle issues)
- Increased autonomy of node participation (logical ownership in physical possession)

11 KEY FEATURES OF FINL CHAIN

Node Role.	Hash Round Robin + DPOR(Delegated proof-of-reputation)						
	Stake Rate			Peer Reliability Rate			
Master / Consensus / Interchange	Voted	Capital	Retain	Responsibility	Availability	Observability	Controllability

Item	Double-linked	HFT Network	HASH ROUND ROBIN	FSBL
Note	Blockchain, Whitechain	10G Teaming/Bonding NIC, SSD Doubler Fiber Channel, Real-Time OS	Non-Preemptive Hash Round Robin Block Network	5GL-based smart contract

Div.	POW	POS	DPOS	DPOR
Consensus Range	Public	Public	Delegated Public	**Limited Public (Peer Reliability Rate)**
Mining Reward	Hash Rate	Skate Rate	Delegated Stake Rate	**Complexity Rate (steganohash)**
Physical Responsibility	Low (No Limited)	Low (No Limited)	Low (No Limited)	**High (Limited)**
Network Responsibility	Low	Middle	Middle	**High (Limited)**
Responsiveness	Low	Middle	Middle	**High**
Network Overhead Capital	-	-	-	**O**

12 CONSENSUS ALGORITHM COMPARISON

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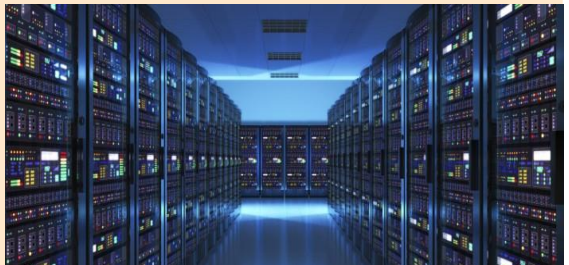
Div	POW	POS	DPOS	Hyper-DPOS
How to maintain trust	Proof of Work	Proof of Stake	Delegated Proof of Stake	Hyper Delegated Proof of Stake
Power level	High	Low	Low	Low
Hashpower unit	Hishrate	Stake rate	Delegated Stake rate	PRR + Delegated Stake rate
Remittance speed	Slow	Medium	Fast	Fast
Negative factors	Waste of electricity	Potential security threats by large stake holders	Lack of decentralization Security vulnerability Intentional reliability	Absence of global fandom Need market verification
Representative coin	Bitcoin, Litecoin, Zcash, Monero	Qtum, NEO	Steem,EOS	FINL
Proof device				

13 COMPETITIVENESS

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Div	Bitcoin	Ethereum	EOS	FINL CHAIN
Consensus Algorithm	POW	POW → POS	DPOS	**DPOR**
TPS	7	15	Single = 10,000 TPS Multi = 1,000,000 TPS	**1,000,000TPS (Global)** **HFT Based Node Server**
Block Interval	10 min	12 sec	3 sec	**2~5 sec**
Block Conform Time	3600 sec few min ~ few hour	180 sec few min ~ few hour	45 sec	**45 ~ 70 sec**
Confirm Count	6	12	15	**7 & (3 interchange group)**
Smart Contract	-	DAPP Solidity (DAO)	쉬운 스마트 계약(DAC)	**DAPP FSBL** **(DGOS)**

[DPOR : Delegated Proof of Reputation]

High-availability performance mechanism consisting of a speed-driven agreement between the physical confidence ratio of Peer Reliability Rate (PRR) and Byzantine general problem to overcome the limitations arising from equity delegation and to overcome the speed limits.

14 GOAL

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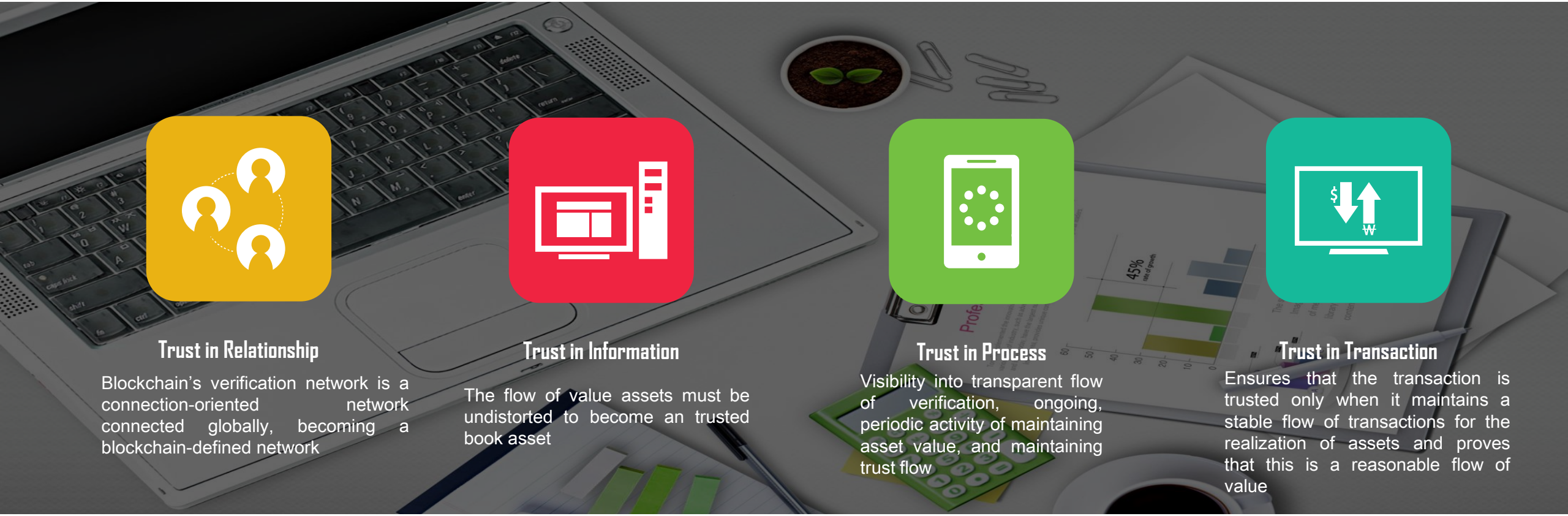

Trust in Relationship

Blockchain's verification network is a connection-oriented network connected globally, becoming a blockchain-defined network

Trust in Information

The flow of value assets must be undistorted to become an trusted book asset

Trust in Process

Visibility into transparent flow of verification, ongoing, periodic activity of maintaining asset value, and maintaining trust flow

Trust in Transaction

Ensures that the transaction is trusted only when it maintains a stable flow of transactions for the realization of assets and proves that this is a reasonable flow of value

디지털 신뢰 프로세스는 정보의 가치와 거래가 공정하고 투명한 프로세스 흐름을 유지해야 합니다. 의도적이지 않은 네트워크의 지배구조를 효과적으로 정립하고 이를 운영하는 신뢰 수단에 대한 전제된 가정을 투명하게 운영하게 된다면 디지털의 신뢰 프로세스의 안정화를 이루어 낼 수 있습니다.

아무리 좋은 암호화폐라 하더라도 오라클 문제는 발생할 수 있으며, 시장 시스템이 성숙한 프로세스를 유지할 정책과 운영 모델을 같이 제시되어야 진정한 암호화폐와 블록체인 생태계의 가치가 결정될 것입니다.

Agenda

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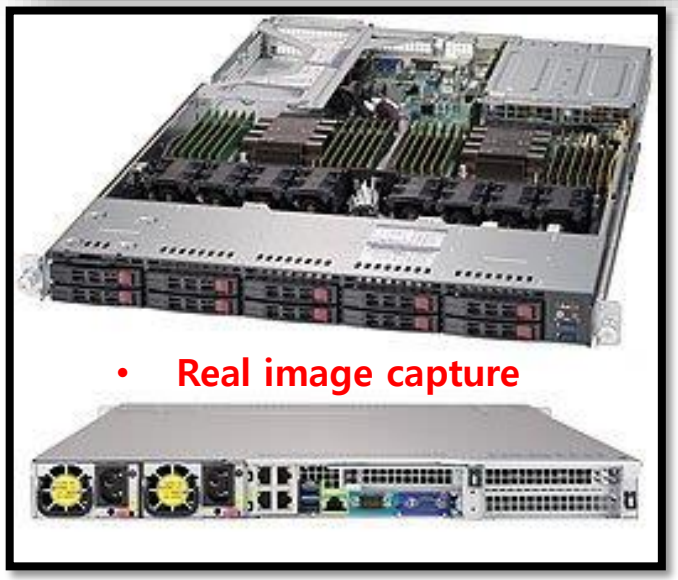
NODE METRICS OF FINL CHAIN

1. WHAT IS NODE ON FINL CHAIN?
2. NODE TYPE (LEVEL)
3. NODE CONSTRUCTION
4. COIN REWARD DESIGN STRUCTURE
5. MAJOR VARIABLES FOR COIN REWARD
6. TOKEN ECONOMY
7. DGOS
8. NODE COMPENSATION (40MIL FOR 9YEARS)
9. NODE COMPENSATION (187MIL FOR 9YEARS)
10. NODE REWARD FOR FINL CHAIN (420 NODES, CONSENSUS GROUP: 60)
11. NODE REWARD FOR FINL CHAIN (70 NODES, CONSENSUS GROUP: 10)
12. 1st-2nd YEAR REWARD FORMULA
13. 3rd-4th YEAR REWARD FORMULA
14. 5th-6th YEAR REWARD FORMULA
15. 7th-8th YEAR REWARD FORMULA
16. 9th YEAR REWARD FORMULA
17. ESTIMATED CIRCULATING SUPPLY AND VOLUME BASED ON NUMBER OF NODES

1 FINL CHAIN NODE

- Node of FINL CHAIN is the core proof network device of blockchain
- Highly available server unit with high performance security network and highly reliable physical devices
- Key holder serving as Senate of FINL CHAIN's network governance
- The principal responsible for generating blocks of FINL CHAIN
- Transaction processing network of FINL CHAIN

ITEM	NODE SPECIFICATION	NO.
CPU	Intel® Xeon® Processor Gold 6128 (6Core , 3.4 GHz , 19.25MB)	2
RAM	32G DDR4 PC4-2666 RDIMM	4
OS.SSD	SATA3 S4510 2T 3DNAND	2
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	4
NIC	10G SFP+ Dual Port PCI-e Bounding Net Support (RDAM)	2
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	1
Note	Advanced specification by introduction time according to PRR compensation formula	



- Real image capture

2 NODE TYPE (LEVEL)

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ITEM	Level1 (1U)	NO
CPU	Intel® Xeon® Processor Gold 6128 (6Core , 3.2GHz)	2
RAM	32G DDR4 PC4-2666 RDIMM	4
OS.SSD	SATA3 S4510 2T 3DNAND	1
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	4
NIC	10G SFP+ Dual Port PCI-e	2
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	
GPU	None	

ITEM	Level2 (1U)	NO
CPU	Intel® Xeon® Processor Gold 6128 (6Core , 3.4GHz)	2
RAM	32G DDR4 PC4-2666 RDIMM	8
OS.SSD	SATA3 S4510 2T 3DNAND	2
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	8
NIC	10G SFP+ Dual Port PCI-e Bounding Net Support (RDAM)	2
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	
GPU	NVidia Tesla M 모델	1

ITEM	Level3 (2U)	NO
CPU	Intel® Xeon® Processor Gold 6128 (8Core , 3.6GHz)	2
RAM	32G DDR4 PC4-2666 RDIMM	12
OS.SSD	SATA3 S4510 2T 3DNAND	2
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	12
NIC	10G SFP+ Dual Port PCI-e Bounding Net Support (RDAM)	2
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	
GPU	NVidia Tesla P MODEL	1

ITEM	Level4 (2U)	NO
CPU	Intel® Xeon® Processor Gold 6128 (12Core , 3.8GHz)	2
RAM	32G DDR4 PC4-2666 RDIMM	16
OS.SSD	SATA3 S4510 2T 3DNAND	2
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	16
NIC	10G SFP+ Dual Port PCI-e Bounding Net Support (RDAM)	2
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	
GPU	NVidia Tesla P MODEL	1

3 NODE CONSTURCTION

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01 principle

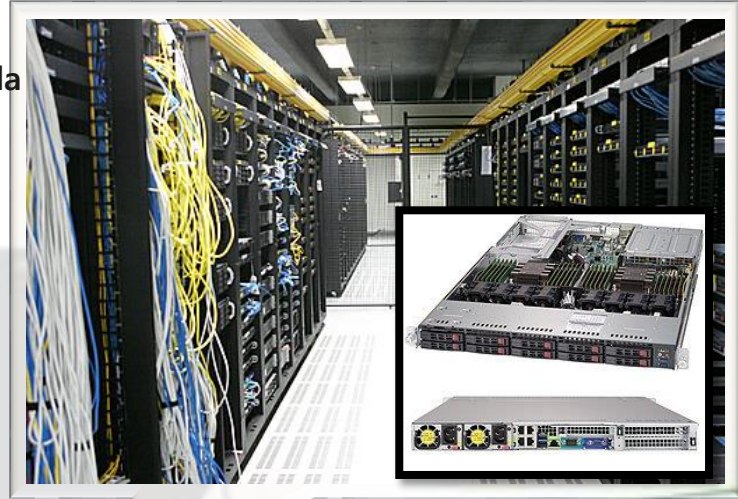
- Blockchain of FINL CHAIN is operated through stable network operating space such as IDC
- Rewards obtained through the operation of the node are continuously operated by autonomous formula

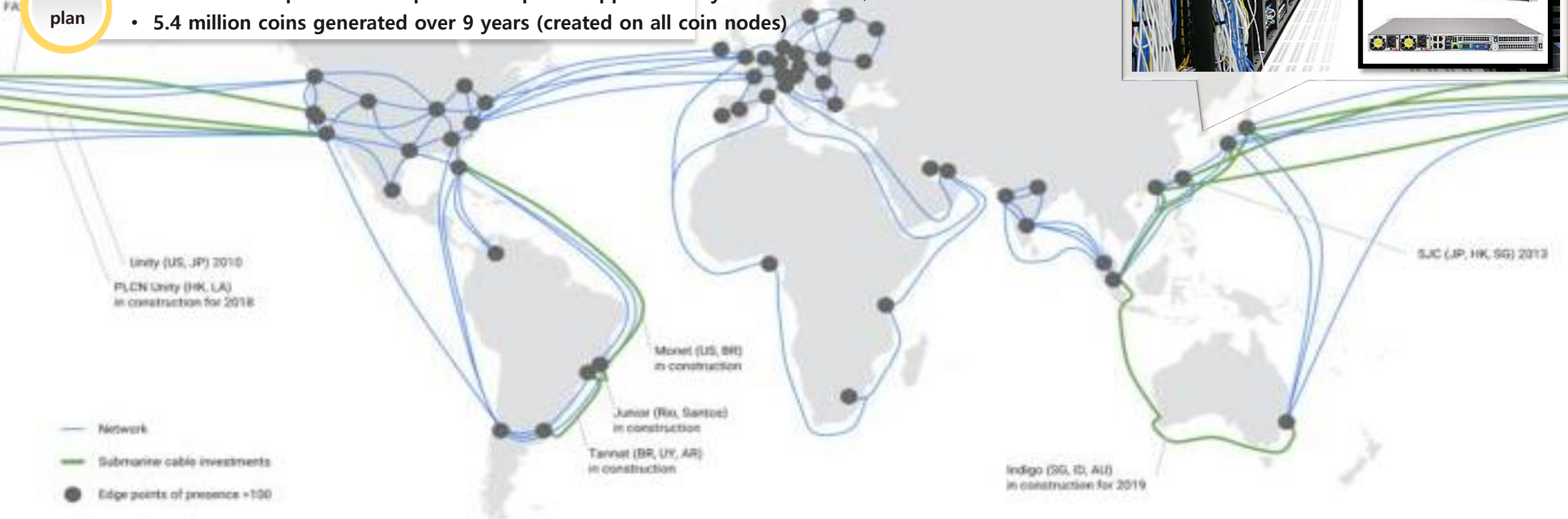
02 price

- Node is an HA-class high availability server, priced from 250 million WON to 300 million WON
- Server operation cost per node is expected to average 300,000-500,000 WON per country

03 plan

- Global node operation is expected to operate approximately 1000 units at $ 2
- 5.4 million coins generated over 9 years (created on all coin nodes)





4 COIN REWARD DESIGN STRUCTURE

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DESIGNED TO ISSUE 420MIL COINS IN 9 YEARS

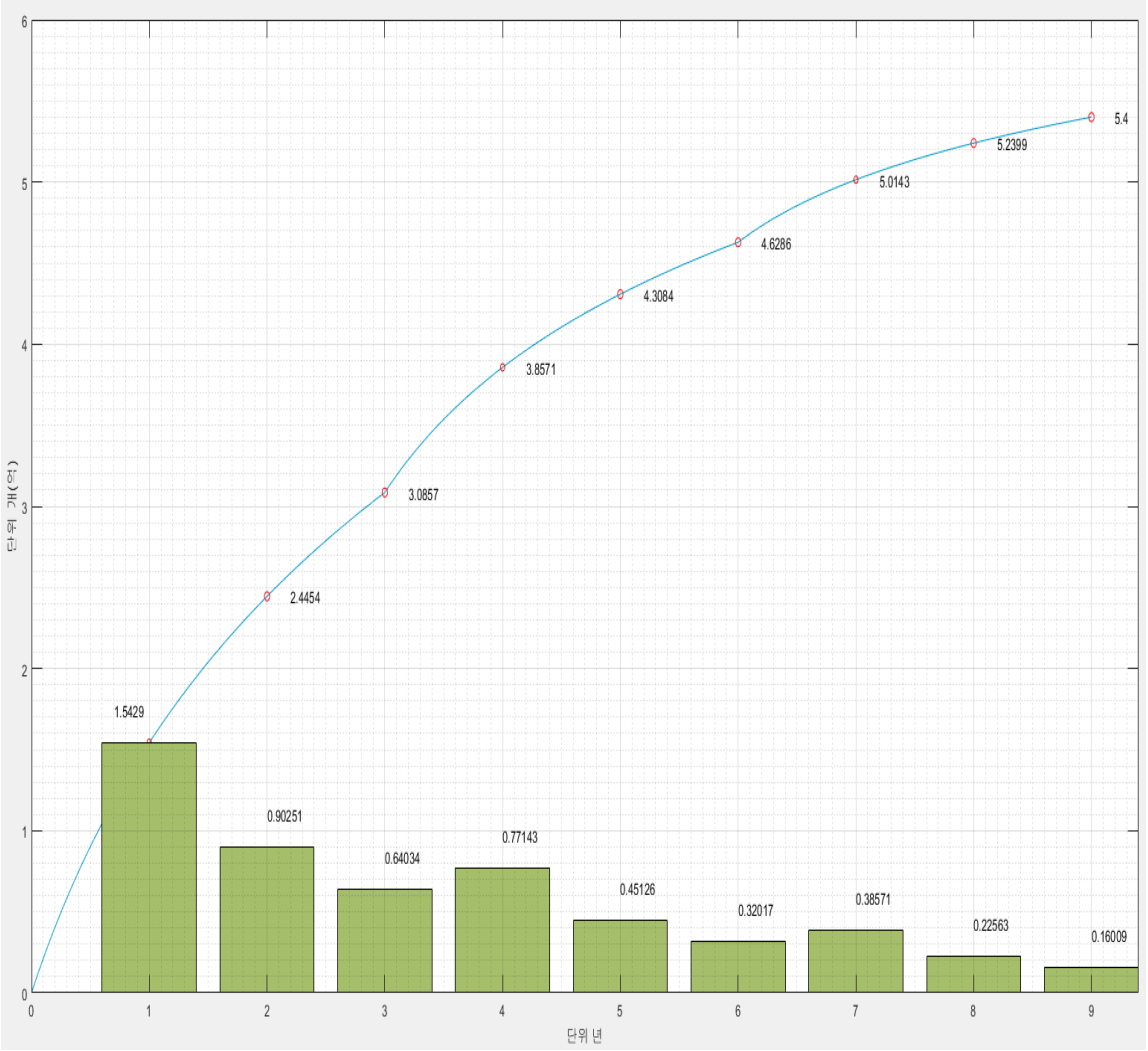
- Node operations that provide the greatest benefit to the initial node operator.
- Block rewards will be reduced every year based on our methodology
- Reward will be in the form of transaction fee after 9 years.

Block Generation and Confirmation Time

- Block creation time is every 2-3 seconds
- Block confirmation time is about 70 seconds

Apply various economic theory formulas

- First devised autonomous marginal curve.
- Create and stabilize markets through liquidity provider and interest rate maker models.
- Moore's law, Reed's law
- Digital labor, virtual object delegation voting, monetary means and liquidity supply.



5 MAJOR VARIABLES FOR COIN REWARD

HARDWARE SPEC(measure responsibility, and availability)

- If lower than the reference standard spec, the amount of compensation will be reduced and vice versa

NETWORK ENVIRONMENT(measure observability and controllability)

- Higher network responsiveness maintains rewards.

Delegation to consensus group (up to 9% reward interest rate)

- The higher the delegated stake, the higher the reward
- The longer the stake delegation period, the higher the reward
- The longer the node's stake, the longer the reward

REQUIRED PREREQUISITES

- Node memory must be ECC (Error Correction required)
- CPU must use 2 or more cores
- SSD(NVMe) must be at least 4TB RAID
- Must be two Dual Port NICs
- GPU crypto decoding operation rate should be high

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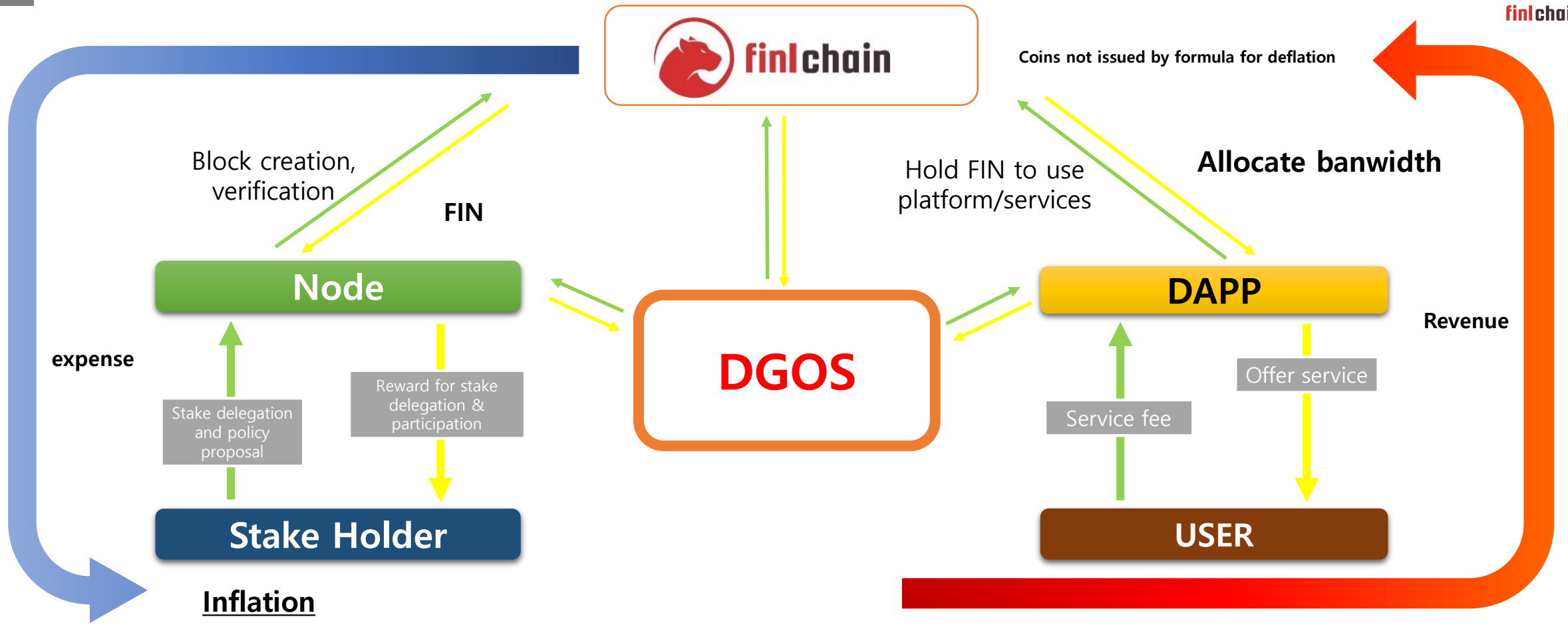
2 FINL CHAIN의 주요 특징

Node Role.	Hash Round Robin + DPOR						
	Stake Rate			Peer Reliability Rate			
Master / Consensus / Interchange	득표율 (Voted)	자본율 (Capital)	유지율 (Retain)	응답성 (Responsibility)	가용성 (Availability)	가관측성 (observability)	가제어성 (Controllability)

ITEM	STANDARD NODE SPECIFICATION	NO.
CPU	Intel® Xeon® Processor Gold 6128 (6Core , 3.4 GHz , 19.25MB)	2
RAM	32G DDR4 PC4-2666 RDIMM	4
OS.SSD	SATA3 S4510 2T 3DNAND	2
NVMe	U.2 NVMe 2TB P4510 (RAID 10)	4
NIC	10G SFP+ Dual Port PCI-e Bounding Net Support (RDAM)	2
GPU	NVidia Tesla(AI GPU)	1
Hidden	Secure Module (Not open)	1
OS	Cent or Ubuntu (RTOS 64bit) - Configuration Subscription(Permanent)	
Note	PRR 보상 수식에 따른 도입시기별 사양 고도화	

6 TOKEN ECONOMY



- Inflation has a design structure that is issued sequentially in the construction of 4.2 billion ecosystems over nine years.
- Created only through 100% consensus nodes
- If a small number of participating nodes are modelled on a yearly basis, the excess amount of issuance is not generated naturally, but is limited equally by compensation.

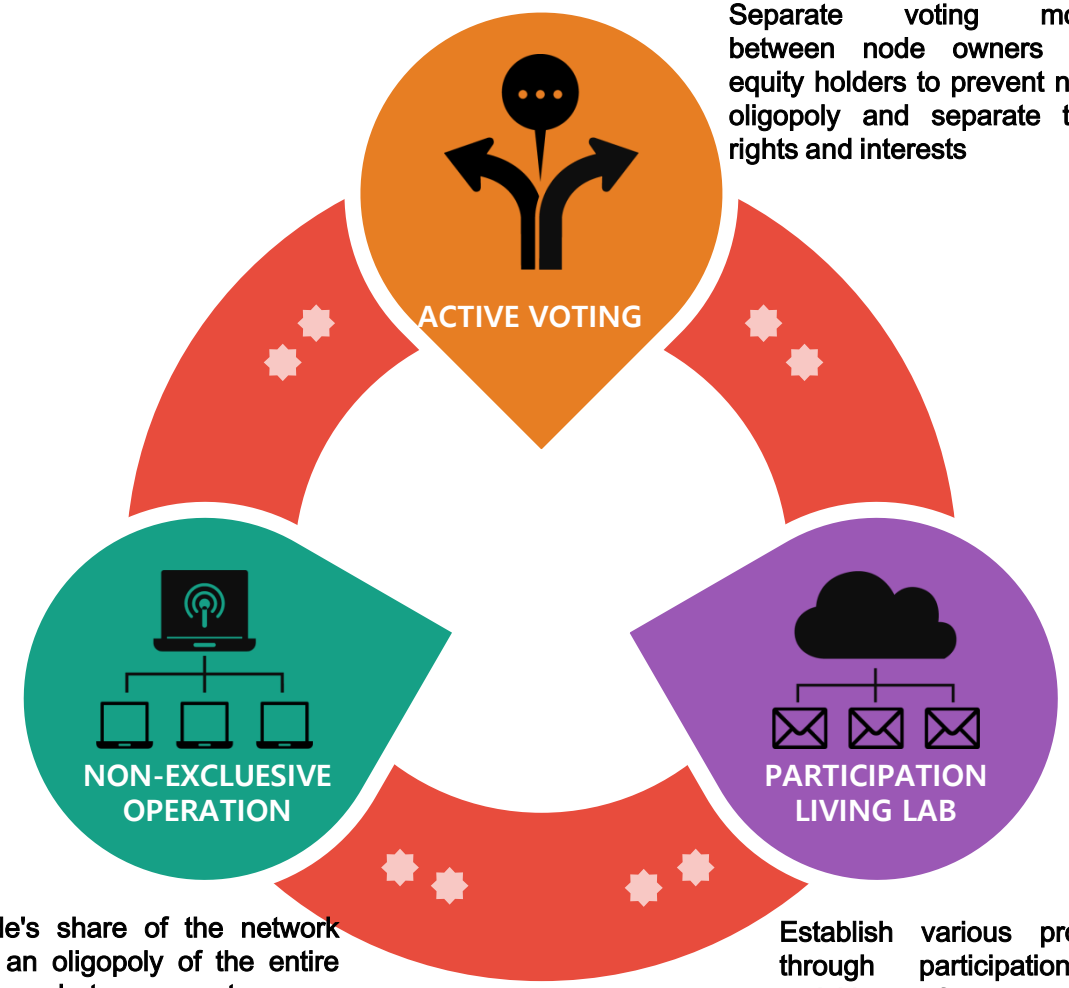
7 DECENTRALIZED GOVERNANCE ORGANIZATIONAL STRUCTURE (DGOS)

- **Trilateralize the governance of blockchain**
- **Senate (Node Owner) and House (Stakeholder Holder) Structures**
- **Blockchain Living Lab Operation through DGOS**

Providing compensation system and dividend rights based on the contribution and activities of the blockchain

Transparent transaction management through a non-exclusive governance governing body

Maintain democratic interests by trilateralizing the right to participation equal to the block definition network



Separate voting model between node owners and equity holders to prevent node oligopoly and separate their rights and interests

A node's share of the network forms an oligopoly of the entire share, but operates a compensation system that decompensates the network's compensation rights.

Establish various proposals through participation and activities for sustainable maintenance and operation of the FINL CHAIN network, and formulate the operating system

8 NODE COMPENSATION (40MIL FOR 9YEARS)

finlchain

10 to 14 consensus group composed of 70 nodes (Level 2 node) for 9yrs: 40,334,000 will be issued

Yr	Acc.(100MIL)	Total FIN	No. of FIN per node	70 nodes
1	1.03	103,333,333.33	141,763.49	9,923,444.30
2	1.77	74,280,708.38	101,906.06	7,133,424.20
3	2.40	62,385,958.28	85,587.59	5,991,131.30
4	2.87	47,500,000.00	65,165.48	4,561,583.60
5	3.25	38,161,656.27	52,354.16	3,664,791.20
6	3.60	34,338,343.73	47,108.94	3,297,625.80
7	3.83	23,750,000.00	32,582.74	2,280,791.80
8	4.02	19,080,828.13	26,177.08	1,832,395.60
9	4.20	17,169,171.87	23,554.47	1,648,812.90

9 NODE COMPENSATION (108.7MIL FOR 9YEARS)

finlchain

60 to 84 consensus group composed of 420 nodes (Level 2 node) for 9yrs: 187,305,014.40 will be issued

Yr	Acc.(100MIL)	Total FIN	No. of FIN per node	70 nodes
1	1.03	103,333,333.33	109,721.38	46,082,979.60
2	1.77	74,280,708.38	78,872.73	33,126,546.60
3	2.40	62,385,958.28	66,242.65	27,821,913.00
4	2.87	47,500,000.00	50,436.44	21,183,304.80
5	3.25	38,161,656.27	40,520.80	17,018,736.00
6	3.60	34,338,343.73	36,461.13	15,313,674.60
7	3.83	23,750,000.00	25,218.22	10,591,652.40
8	4.02	19,080,828.13	20,260.40	8,509,368.00
9	4.20	17,169,171.87	18,230.57	7,656,839.40

10 Consensus node reward (420 nodes, Consensus group: 60)

finlchain

445,964.32 for 9years (₩1,048,016,152) – Level2

Yr	Acc. (100MIL)	Total FIN	FIN received per group	FIN received per node	When FIN=$2
1	1.03	103,333,333.33	768,049.66	109,721.38	257,845,243.00
2	1.77	74,280,708.38	552,109.11	78,872.73	185,350,915.50
3	2.40	62,385,958.28	463,698.55	66,242.65	155,670,227.50
4	2.87	47,500,000.00	353,055.08	50,436.44	118,525,634.00
5	3.25	38,161,656.27	283,645.60	40,520.80	95,223,880.00
6	3.60	34,338,343.73	255,227.91	36,461.13	85,683,655.50
7	3.83	23,750,000.00	176,527.54	25,218.22	59,262,817.00
8	4.02	19,080,828.13	141,822.80	20,260.40	47,611,940.00
9	4.20	17,169,171.87	127,613.99	18,230.57	42,841,839.50

11 Consensus node reward (70 nodes, Consensus group: 10)

finlchain

576,200.00 for 9years (₩1,354,069,993) – Level2

Yr	Acc. (100MIL)	Total FIN	FIN received per group	FIN received per node	When FIN=$2
1	1.03	103,333,333.33	992,344.44	141,763.49	333,144,204.86
2	1.77	74,280,708.38	713,342.40	101,906.06	239,479,234.29
3	2.40	62,385,958.28	599,113.15	85,587.59	201,130,843.21
4	2.87	47,500,000.00	456,158.33	65,165.48	153,138,867.93
5	3.25	38,161,656.27	366,479.10	52,354.16	123,032,269.29
6	3.60	34,338,343.73	329,762.56	47,108.94	110,706,002.29
7	3.83	23,750,000.00	228,079.17	32,582.74	76,569,435.64
8	4.02	19,080,828.13	183,239.55	26,177.08	61,516,134.64
9	4.20	17,169,171.87	164,881.28	23,554.47	55,353,001.14

12 1st-2nd YEAR REWARD FORMULA

finlchain

• 1st YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	**70**	**7,233,333.33**	**9,923,444.42**	**141,763.49**
20	**140**	**14,466,666.67**	**18,824,430.43**	**134,460.22**
30	**210**	**21,700,000.00**	**26,803,266.32**	**127,634.60**
40	280	28,933,333.33	33,951,513.05	121,255.40
50	350	36,166,666.67	40,352,699.38	115,293.43
60	420	43,400,000.00	46,082,980.86	109,721.38
70	490	50,633,333.33	51,211,747.03	104,513.77
80	560	57,866,666.67	55,802,180.67	99,646.75
90	630	65,100,000.00	59,911,772.87	95,098.05
100	700	72,333,333.33	63,592,797.27	90,846.85
110	770	79,566,666.67	66,892,746.60	86,873.70
120	840	86,800,000.00	69,854,734.49	83,160.40
130	910	94,033,333.33	72,517,865.10	79,689.96
140	980	101,266,666.67	74,917,573.14	76,446.50
150	1050	103,333,333.33	73,415,177.77	69,919.22
160	1120	103,333,333.33	70,582,111.12	63,019.74
170	1190	103,333,333.33	67,934,336.49	57,087.68
180	1260	103,333,333.33	65,459,735.14	51,952.17
190	1330	103,333,333.33	63,146,980.97	47,478.93
200	1400	103,333,333.33	60,985,488.64	43,561.06
210	1470	103,333,333.33	58,965,365.12	40,112.49
220	1540	103,333,333.33	57,077,364.41	37,063.22
230	1610	103,333,333.33	55,312,845.24	34,355.80
240	1680	103,333,333.33	53,663,731.51	31,942.70

• 2nd YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	5,199,649.59	7,133,424.01	101,906.06
20	140	10,399,299.17	13,531,858.33	96,656.13
30	210	15,598,948.76	19,267,409.12	91,749.57
40	280	20,798,598.35	24,405,894.58	87,163.91
50	350	25,998,247.93	29,007,358.98	82,878.17
60	420	31,197,897.52	33,126,546.41	78,872.73
70	490	36,397,547.11	36,813,337.23	75,129.26
80	**560**	**41,597,196.69**	**40,113,150.09**	**71,630.63**
90	630	46,796,846.28	43,067,312.22	68,360.81
100	700	51,996,495.87	45,713,400.28	65,304.86
110	770	57,196,145.46	48,085,554.22	62,448.77
120	840	62,395,795.04	50,214,766.08	59,779.48
130	910	67,595,444.63	52,129,145.71	57,284.78
140	980	72,795,094.22	53,854,165.20	54,953.23
150	1050	74,280,708.38	52,774,174.94	50,261.12
160	1120	74,280,708.38	50,737,637.55	45,301.46
170	1190	74,280,708.38	48,834,296.49	41,037.22
180	1260	74,280,708.38	47,055,440.29	37,345.59
190	1330	74,280,708.38	45,392,927.21	34,130.02
200	1400	74,280,708.38	43,839,148.04	31,313.68
210	1470	74,280,708.38	42,386,991.20	28,834.69
220	1540	74,280,708.38	41,029,810.27	26,642.73
230	1610	74,280,708.38	39,761,393.49	24,696.52
240	1680	74,280,708.38	38,575,935.40	22,961.87

13 3rd-4th YEAR REWARD FORMULA

finlchain

• 3rd YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	4,367,017.08	5,991,131.51	85,587.59
20	140	8,734,034.16	11,364,969.01	81,178.35
30	210	13,101,051.24	16,182,072.14	77,057.49
40	280	17,468,068.32	20,497,719.45	73,206.14
50	350	21,835,085.40	24,362,340.19	69,606.69
60	420	26,202,102.48	27,821,912.14	66,242.65
70	490	30,569,119.56	30,918,328.20	63,098.63
80	560	34,936,136.64	33,689,734.02	60,160.24
90	630	39,303,153.72	36,170,839.00	57,414.03
100	700	43,670,170.80	38,393,202.55	54,847.43
110	770	48,037,187.88	40,385,497.73	52,448.70
120	**840**	**52,404,204.96**	**42,173,753.73**	**50,206.85**
130	910	56,771,222.04	43,781,579.10	48,111.63
140	980	61,138,239.12	45,230,367.03	46,153.44
150	1050	62,385,958.28	44,323,318.23	42,212.68
160	1120	62,385,958.28	42,612,896.52	38,047.23
170	1190	62,385,958.28	41,014,342.08	34,465.83
180	1260	62,385,958.28	39,520,338.44	31,365.35
190	1330	62,385,958.28	38,124,047.62	28,664.70
200	1400	62,385,958.28	36,819,078.87	26,299.34
210	1470	62,385,958.28	35,599,459.43	24,217.32
220	1540	62,385,958.28	34,459,607.18	22,376.37
230	1610	62,385,958.28	33,394,305.05	20,741.80
240	1680	62,385,958.28	32,398,677.25	19,284.93

• 4th YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	3,325,000.00	4,561,583.32	65,165.48
20	140	6,650,000.00	8,653,165.60	61,808.33
30	210	9,975,000.00	12,320,856.29	58,670.74
40	280	13,300,000.00	15,606,743.90	55,738.37
50	350	16,625,000.00	18,549,224.71	52,997.78
60	420	19,950,000.00	21,183,305.72	50,436.44
70	490	23,275,000.00	23,540,883.72	48,042.62
80	560	26,600,000.00	25,651,002.41	45,805.36
90	630	29,925,000.00	27,540,089.14	43,714.43
100	700	33,250,000.00	29,232,172.94	41,760.25
110	770	36,575,000.00	30,749,085.13	39,933.88
120	840	39,900,000.00	32,110,644.08	38,226.96
130	910	43,225,000.00	33,334,825.08	36,631.68
140	**980**	**46,550,000.00**	**34,437,916.69**	**35,140.73**
150	1050	47,500,000.00	33,747,299.46	32,140.29
160	1120	47,500,000.00	32,445,002.70	28,968.75
170	1190	47,500,000.00	31,227,880.48	26,241.92
180	1260	47,500,000.00	30,090,362.12	23,881.24
190	1330	47,500,000.00	29,027,241.25	21,824.99
200	1400	47,500,000.00	28,033,652.04	20,024.04
210	1470	47,500,000.00	27,105,046.87	18,438.81
220	1540	47,500,000.00	26,237,175.58	17,037.13
230	1610	47,500,000.00	25,426,065.96	15,792.59
240	1680	47,500,000.00	24,668,005.62	14,683.34

14 5th-6th YEAR REWARD FORMULA

finlchain

• 5th YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	2,671,315.94	3,664,791.05	52,354.16
20	140	5,342,631.88	6,951,981.71	49,657.01
30	210	8,013,947.82	9,898,616.48	47,136.27
40	280	10,685,263.75	12,538,509.39	44,780.39
50	350	13,356,579.69	14,902,508.16	42,578.59
60	420	16,027,895.63	17,018,737.50	40,520.80
70	490	18,699,211.57	18,912,823.42	38,597.60
80	560	21,370,527.51	20,608,099.72	36,800.18
90	630	24,041,843.45	22,125,798.22	35,120.31
100	700	26,713,159.39	23,485,223.91	33,550.32
110	770	29,384,475.32	24,703,916.15	32,083.01
120	840	32,055,791.26	25,797,797.09	30,711.66
130	910	34,727,107.20	26,781,308.14	29,430.01
140	980	37,398,423.14	27,667,535.56	28,232.18
150	1050	38,161,656.27	27,112,691.41	25,821.61
160	1120	38,161,656.27	26,066,421.91	23,273.59
170	1190	38,161,656.27	25,088,581.92	21,082.84
180	**1260**	**38,161,656.27**	**24,174,695.92**	**19,186.27**
190	1330	38,161,656.27	23,320,581.12	17,534.27
200	1400	38,161,656.27	22,522,328.27	16,087.38
210	1470	38,161,656.27	21,776,283.83	14,813.80
220	1540	38,161,656.27	21,079,033.17	13,687.68
230	1610	38,161,656.27	20,427,385.04	12,687.82
240	1680	38,161,656.27	19,818,356.87	11,796.64

• 6th YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	2,403,684.06	3,297,625.60	47,108.94
20	140	4,807,368.12	6,255,481.57	44,682.01
30	210	7,211,052.18	8,906,901.02	42,413.81
40	280	9,614,736.25	11,282,310.25	40,293.97
50	350	12,018,420.31	13,409,466.40	38,312.76
60	420	14,422,104.37	15,313,676.49	36,461.13
70	490	16,825,788.43	17,017,999.09	34,730.61
80	560	19,229,472.49	18,543,430.27	33,113.27
90	630	21,633,156.55	19,909,074.68	31,601.71
100	700	24,036,840.61	21,132,303.21	30,189.00
110	770	26,440,524.68	22,228,897.99	28,868.70
120	840	28,844,208.74	23,213,185.98	27,634.75
130	910	31,247,892.80	24,098,161.73	26,481.50
140	980	33,651,576.86	24,895,600.44	25,403.67
150	1050	34,338,343.73	24,396,344.61	23,234.61
160	1120	34,338,343.73	23,454,898.00	20,941.87
170	1190	34,338,343.73	22,575,025.14	18,970.61
180	1260	34,338,343.73	21,752,698.89	17,264.05
190	1330	34,338,343.73	20,984,155.53	15,777.56
200	**1400**	**34,338,343.73**	**20,265,877.47**	**14,475.63**
210	1470	34,338,343.73	19,594,577.18	13,329.64
220	1540	34,338,343.73	18,967,182.18	12,316.35
230	1610	34,338,343.73	18,380,820.90	11,416.66
240	1680	34,338,343.73	17,832,809.60	10,614.77

15 7th-8th YEAR REWARD FORMULA

finlchain

• 7th YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	1,662,500.00	2,280,791.66	32,582.74
20	140	3,325,000.00	4,326,582.80	30,904.16
30	210	4,987,500.00	6,160,428.15	29,335.37
40	280	6,650,000.00	7,803,371.95	27,869.19
50	350	8,312,500.00	9,274,612.36	26,498.89
60	420	9,975,000.00	10,591,652.86	25,218.22
70	490	11,637,500.00	11,770,441.86	24,021.31
80	560	13,300,000.00	12,825,501.20	22,902.68
90	630	14,962,500.00	13,770,044.57	21,857.21
100	700	16,625,000.00	14,616,086.47	20,880.12
110	770	18,287,500.00	15,374,542.57	19,966.94
120	840	19,950,000.00	16,055,322.04	19,113.48
130	910	21,612,500.00	16,667,412.54	18,315.84
140	980	23,275,000.00	17,218,958.34	17,570.37
150	1050	23,750,000.00	16,873,649.73	16,070.14
160	1120	23,750,000.00	16,222,501.35	14,484.38
170	1190	23,750,000.00	15,613,940.24	13,120.96
180	1260	23,750,000.00	15,045,181.06	11,940.62
190	1330	23,750,000.00	14,513,620.63	10,912.50
200	1400	23,750,000.00	14,016,826.02	10,012.02
210	1470	23,750,000.00	13,552,523.43	9,219.40
220	**1540**	**23,750,000.00**	**13,118,587.79**	**8,518.56**
230	1610	23,750,000.00	12,713,032.98	7,896.29
240	1680	23,750,000.00	12,334,002.81	7,341.67

• 8th YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	1,335,657.97	1,832,395.52	26,177.08
20	140	2,671,315.94	3,475,990.86	24,828.51
30	210	4,006,973.91	4,949,308.24	23,568.13
40	280	5,342,631.88	6,269,254.70	22,390.20
50	350	6,678,289.85	7,451,254.08	21,289.30
60	420	8,013,947.82	8,509,368.75	20,260.40
70	490	9,349,605.79	9,456,411.71	19,298.80
80	560	10,685,263.75	10,304,049.86	18,400.09
90	630	12,020,921.72	11,062,899.11	17,560.16
100	700	13,356,579.69	11,742,611.95	16,775.16
110	770	14,692,237.66	12,351,958.08	16,041.50
120	840	16,027,895.63	12,898,898.55	15,355.83
130	910	17,363,553.60	13,390,654.07	14,715.00
140	980	18,699,211.57	13,833,767.78	14,116.09
150	1050	19,080,828.13	13,556,345.70	12,910.81
160	1120	19,080,828.13	13,033,210.95	11,636.80
170	1190	19,080,828.13	12,544,290.95	10,541.42
180	1260	19,080,828.13	12,087,347.96	9,593.13
190	1330	19,080,828.13	11,660,290.56	8,767.14
200	1400	19,080,828.13	11,261,164.13	8,043.69
210	1470	19,080,828.13	10,888,141.91	7,406.90
220	1540	19,080,828.13	10,539,516.58	6,843.84
230	1610	19,080,828.13	10,213,692.52	6,343.91
240	**1680**	**19,080,828.13**	**9,909,178.43**	**5,898.32**

16 9th YEAR REWARD FORMULA

finlchain

- 9th YEAR

NO. OF GROUP	NO. OF NODE	TOTAL REWARD	WEIGHTED REWARD	NO. OF FIN PRODUCED
10	70	1,201,842.03	1,648,812.80	23,554.47
20	140	2,403,684.06	3,127,740.79	22,341.01
30	210	3,605,526.09	4,453,450.51	21,206.91
40	280	4,807,368.12	5,641,155.12	20,146.98
50	350	6,009,210.15	6,704,733.20	19,156.38
60	420	7,211,052.18	7,656,838.24	18,230.57
70	490	8,412,894.21	8,508,999.55	17,365.31
80	560	9,614,736.25	9,271,715.13	16,556.63
90	630	10,816,578.28	9,954,537.34	15,800.85
100	700	12,018,420.31	10,566,151.60	15,094.50
110	770	13,220,262.34	11,114,449.00	14,434.35
120	840	14,422,104.37	11,606,592.99	13,817.37
130	910	15,623,946.40	12,049,080.86	13,240.75
140	980	16,825,788.43	12,447,800.22	12,701.84
150	1050	17,169,171.87	12,198,172.31	11,617.31
160	1120	17,169,171.87	11,727,449.00	10,470.94
170	1190	17,169,171.87	11,287,512.57	9,485.30
180	1260	17,169,171.87	10,876,349.45	8,632.02
190	1330	17,169,171.87	10,492,077.77	7,888.78
200	1400	17,169,171.87	10,132,938.74	7,237.81
210	1470	17,169,171.87	9,797,288.59	6,664.82
220	1540	17,169,171.87	9,483,591.09	6,158.18
230	1610	17,169,171.87	9,190,410.45	5,708.33
240	**1680**	**17,169,171.87**	**8,916,404.80**	**5,307.38**

17 MAJOR ITEM

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DPOR (Delegated Proof of Reputaion)	**HRR** (Hash Round Robin)	**1MIL TPS** No. of global consensus node : 142 Avg TPS per group 2~3 TPS
Inexpensive fee	**DGOS**	**Dualized blockchain**
BDN	**Oracle Swap**	**Open Source**
Lower TCO, maximize ROI	**Block explorer** node.finlchain.org explorer.finlchain.org	**Blockchain patent map construction** (More than 30 registered patents within 3 yrs)

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THANK YOU

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