Zeepin Chain

A decentralized public chain for creative assets

Technology white paper

V1.1

11th March, 2019

ZEEPIN FOUNDATION

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1. Overview

Zeepin Chain is a decentralized public chain catering for creative industries as well as entertainment industries. To serve the creative industries, it's dedicated to providing a solution that will create a fair, transparent,and efficient landscape in a way to benefit all creatives. In order to revolutionize entertainment industries as well, Zeepin Chain, is also capable of incorporating various entertainment related assets and systems based on any third party. With the integration of in-system and third-party gaming assets, a free trading market and exchange platform can be developed.

Zeepin Chain will be providing core protocols concerning distributed ID authentication, distributed data storage, smart contract and consistency.

By using a unified smart contract, Zeepin Chain is able to abstract the realization and interaction of underlying virtual machine, so as to provide an abstract protocol enabled by a pluggable smart contract. In addition, consistency in a distributed system ensures the reliability and validity of underlying data.

There is a variety of applications accessible to users now, including transactions of digital assets, handling of transactions, authentication of user registration and mapping of digital assets. Based on the smart contract and underlying protocol, an integrate and easy-to-use application protocol is structured.

To cater for the creative industries, Zeepin Chain is designed with a variety of application modules in efforts to help developers construct a set of feasible decentralized applications. Through the application of API and SDK, Zeepin Chain includes a wide range of application modules such as copyright protection, asset-transaction validation and gaming service. The copyright protection module, using the distributed ID identification provided by the core protocol of Zeepin Chain, enables services like copyright validation and authentication of digital assets in order to secure transactions of digital assets.

Zeein Chain will release cross-chain synergy protocol to support cross-chain interactive application, in a move to integrate the distributed multi-source assets into the public chain and build up a distributed peer to peer trust mechanism. What's more, it is scalable to support varied ledger system and a set of fundamental applications like ID identification, data interaction and asset transfer.

2.Goals and visions

Zeepin Chain is a decentralized public chain for creative and entertainment assets, build standardized infrastructure with blockchain technology, it can provide solutions for creators, boost productivity and growth. Zeepin is committed to accessing the untapped potential and spreading the value in creative industries in a borderless, transparent and efficient way.

Zeepin Chain Goals:

· Standardized infrastructure of public chain for global creative industries, based on Galaxy Consensus

· Distributed creative new economy, an ecosystem for leading the whole value chain

· A standardized platform that enables mapping and transactions of assets and applications for cultural, creative and entertainment industries

3.Technical structure

Figure 1. Framwork Technology of Zeepin Chain

Application	Decentralized Copyright Protection		Decentralized Asset Transaction		Decentralized Game
Application Modules	Module Service	API	Digital Copyright Protection Module		Data Synchronization Module
		SDK	Asset Trade Module		Game Service Module
Application Protocols	Service Communication	RPC	Data Exchange Protocol		Transaction Flow
		REST	Registration/Verification Protocol		Digital Asset Mapping
Core Protocols	Distributive Identity	Identity Verification		User ID Mapping	Smart Contracts
	Distributive Data Storage	Data Protection		Data Partition	Consistency of Transaction

Distributed Ledger Layer

ZPT   Gala   Zeepin Chain Ledger   NSQ

3.1 The distributed ledger technology

3.1.1 GBFT-POS (Galaxy consensus)

GBFT, Galaxy Byzantine Fault Tolerant[1], is the distributed consensus ledger that governs Zeepin Chain. GBFT-POS refers to a Galaxy consensus mechanism, on the basis of VBFT, relying on Galaxies that feature digitized democratic autonomy. Being low-cost, DDOS-resilient and high-involvement, GBFT can meet what's required for the running of a huge size of Zeepin Chain ecosystem.

GBFT-POS tends to generate candidate Galaxy nodes by planets democratized autonomy based on POS and VRF[2][3][4]. A specific consensus participation node is selected in the candidate Galaxy node. Each consensus participant, depending on the result of GBFT voting, selects the ledger planet nodes while BA [1][5-9] being applied to reach the final consensus.

In GBFT-POS mechanism, probability of a single galaxy node becoming a selected one is equivalent to the proportion between its own weight and total weight. The randomness of drawing comes from VRF and the random verifiable Seed. The random Seed will help each galaxy node to verify whether it has been selected or not.

The definition of VRF: VRF will calculate the hash value and verify the result based on any random string.

<hash,π> ← VRFsk(seed||role)

The hash value will be solely conditioned by private key sk and a specified string (seed || role). By learning from the result π, a node can tell whether there is any connection between hash value and string of seed.

Drawing algorithm rules all Galaxy nodes, by which they will know whether or not they are selected. The selected nodes will broadcast the result to other nodes through peer-to-peer network.

What makes BA algorithm special is that only a private key is required. That is to say, participant nodes are less likely to be attacked since steps involved can be replaced. If the network allows robust synchronization, BA algorithm can guarantee a final consensus reached within few steps of interaction provided that the initialization of all honesty nodes is processed with same content. In this case, even if there are a handful of attackers, all honesty nodes can reach a final consensus with finite steps of interaction.

Noticeable advantages of high currency and low latency feature Zeepin Chain. Based on POS consensus mechanism and Algorand[2][10][11][12] algorithms invented by Micali (Turing Prize Winner), Zeepin Chain has formed its customized consensus mechanism called GBFT. It provides a comprehensive set of distributed-ledger system, including smart contract, security verification and distributed data storage.

Execution and algorithm of GBFT-POS:

The selected node, according to the Gossip protocol, shall broadcast data of transaction requests that include signed transactions by initiators across the P2P network, other nodes will cache received data from Gossip protocol in this node.

Nodes in P2P network will independently calculate the amount of time contributed. While the next round of consensus is reached, nodes can propose new blocks:

(1) First of all, a node needs to combine the Q value of the prior block and current block for signature, calculating the hash value. Meanwhile, local calculation by the node itself tells whether or not it's capable of being a backup proposer of the current block height;

(2) If a node proves to be the prosper of current block height according to the result of calculation, it can round up data of transaction requests failing to reach consensus in local cache in an effort to create a new block.
Besides, it should calculate the hash value, sign the hash and broadcast the data to P2P network via Gossip;

(3) If a node is not the proposer of current block height, it can monitor the network requests;

(4) All nodes shall wait for announcement of T_block in order to receive block proposals from P2P network as well as cache those block proposals;

(5) Verification of block proposals after announcement of T_block:
    a) Nodes in P2P network, decide by themselves to see if they are qualified as verified nodes of current block-height proposal:
    b) If so, it should
    -verify the validity and integrity of block-height proposal as well as Q value
    -verify the legitimacy of the block proposer
    -hash Q-value signatures of all proposals, pick up a block proposal with smallest hash value as the valid block selected by nodes
    -broadcast the block hash via Gossip and signature on hash of this block-height proposal
    c) A node can update the state of step after announcement of T_hash to see if it is the verified node of the current step
    d) If so, it can proceed with verification as steps mentioned above

(6) All nodes shall listen for verification messages broadcast by verified nodes of block-height proposals, proceeding with the following steps:
    a) Verify the validity and integrity of consensus message
    b) To put a signature to verify the identity of the node that has released consensus message
    c) Cache the consensus message

(7) Voting on new block via BA will be carried out after announcement of T_hash and updated Step (algorithm) :

    a) A node will know if it can be seen as a voting node by means of local calculation

    b) If a node proves to be a voting node, it shall

    - calculate votes for consensus verification received from each block proposal

    - cast votes on result of consensus based on Quorum

    - put a signature to the result of voting, calculate the hash of voting block, broadcast the result of voting as well as the signature

(8) Each node shall listen for voting messages via Gossip broadcast so as to verify the validity of these messages;

(9) Final round of signature of the new block:

    a) After the completion of final round of BA voting, Step (algorithm) shall be updated accordingly. Then, local calculation will have the final say on whether or not it's included in the final round of signature

    b) If a node enters into the final round of signature, it shall decide if the voted block proposal can reach consensus according to the result from Quorum:

    - Any failure to meet what's requested by Quorum will leave this round of consensus an empty block.

(10) Other nodes shall continue to listen for signature messages in P2P network and verify the validity;

    a) they can, based on received messages of blockchain signature, acquire the hash of current block height

    b) hash of block and received block proposal will eventually contribute to the final block of current consensus

  (11) The next round of consensus will begin with Q value of the final block.

3.1.2 The smart contract and virtual machine

API and Contract

As Zeepin Chain has a comprehensive interactive protocol of distributed ledger, APIs based on this protocol are more versatile and easier to access. In addition, Zeepin Chain also fully supports other generic interactive protocols including REST-JSON, RPC, WebSocket, which enables the upper-layer application to function as creation of accounts, modification, asset review, transfer, pledge, ledger query and deployment of smart contract.

Furthermore, Zeepin Chain runs WASMVM- a mainstream virtual machine with Turing advanced smart contract, which allows users to select the virtual machines and programming language as they see fit to develop. As far as it goes, mainstream languages including /C++, JAVA, Python C#, Javascript can be applied and a variety of peripheral devices that are versatile and user friendly will be added to nourish the ecosystem of Zeepin Chain.

3.2 Core protocol

Zeepin Chain will be providing core protocols concerning distributed ID authentication, distributed data storage, smart contract and consistency. Distributed ID authentication includes two modules, distributed ID labeling and mapping of user ID. As a distributed data storage makes the most of data-storage function that is powered by an underlying distributed ledger, it can well protect the privacy of data when processing the sharding of data. By using a unified smart contract, Zeepin Chain is able to abstract the realization and

interaction of underlying virtual machine, so as to provide an abstract protocol enabled by a pluggable smart contract. In addition, consistency in a distributed system ensures the reliability and validity of underlying data.

3.3 Application protocol

There are a variety of applications accessible to users now, including transactions of digital assets, handling of transactions, authentication of user registration and mapping of digital assets. Based on the smart contract and underlying protocol, an integrate and easy to use application protocol is structured.

3.3.1 Digital asset transaction protocol

In an age of digital disruption, a digital asset transaction protocol provides a framework for digital asset transaction that is safe, reliable and two way verifiable. When incorporated into end-users, they can access a number of transaction scenarios in a cost effective way, such as distributed digital asset transactions, settlement, risk control, tracking of transactions and anonymous transactions.

3.3.2 Transaction protocol

It is the rise of distributed transactions and synergy & interaction that makes on-chain business possible in creative industries. Transactions, such as version management, content release, copyright agreement and escrow, that are handled based on transaction protocol, feature consistency, traceability and customization.

3.3.3 User registration authenticity protocol

User registration authentication protocol structures a set of standards that are applicable to cross-chain application, cross-chain user ID identification, ID authentication, character management and user-relation management and user ID management. With the help of this protocol, users can more easily and readily complete on-chain process and manage related function modules.

3.3.4 Mapping protocol

Mapping and validation of assets are the priorities to be reckoned with when it comes to the application of digital assets. Mapping protocol, as capable of providing an exclusive and reliable GID(Galaxy Identity) for off-chain physical and digital asset's transformation into on-chain asset, defines an array of standards for validation, escrow and usage of the digital assets. Finally, users can manage the rights of ownership, rights of usage, rights and obligations of escrow of digital assets.

3.4 Application modules

To cater for the creative industries, Zeepin Chain is designed with a variety of application modules in an effort to help developers construct a set of feasible decentralized applications. Through the application of API and SDK, Zeepin Chain includes a wide range of application modules such as copyright protection, asset-transaction validation and gaming service. The copyright protection module, using the distributed ID identification provided by the core protocol of Zeepin Chain, enables services like copyright validation and authentication of digital assets in order to secure transactions of digital assets. Asset transaction validation module, recording and validating copyright transactions, provide robust technology support for the circulation of digital assets. In addition, gaming service

module, that enables key functions such as mapping, identification, validation and transaction of heterogeneous assets, serve to revolutionize current business model of gaming industries.

Specialized & customized underlying API and application modules are designed for entertainment industry. Helped by general purpose API and SDK, Zeepin Chain allows smooth operation of crypto-asset transactions decentralized games.

Zeepin Chain pros in comparison with others

	Centralized exchanges	Transactions made on traditional blockchain	Transactions made on Zeepin Chain
Transparency	Transactions processed inside the exchanges, less transparent	Transactions processed and stored on blockchain; transparent	Transactions processed and stored on blockchain, transparent
Speed	Fast	slow	fast
Security	Centralized deployment, not safe	safe	safe
Difficulty	Easy to operate. API call can be made directly	Complicated to operate while a self defining contract by users is required	Easy to operate. API call can be directly made

3.5 Zeepin ecosystem synergy

Zeein Chain will release cross-chain synergy protocol to support cross-chain interactive application, in a move to integrate the consortium chain to the consensus network of the public chain. With two-way, high-frequency and reliable features, a swift confirmation is allowed. What's more, it is scalable to support various ledger systems and a set of fundamental applications like ID identification, data interaction and asset transfer.

4.dApps

Application Scenarios of Zeepin Chain include: basic technical applications, basic ecosystem applications and creative industry applications.

4.1 Application of underlying technology

4.1.1 ZeeWallet

As being a key component in Zeepin ecosystem, ZeeWallet will help users to manage their digital assets via private key. Users can process asset transaction, keep track of asset movements and data feeds by using ZeeWallet. In addition, it can be more versatile in updated versions that will interact with more Zeepin dApps, in order to provide more user-friendly, smart and transparent service to manage digital assets.

Figure 4. ZeeWallet interface
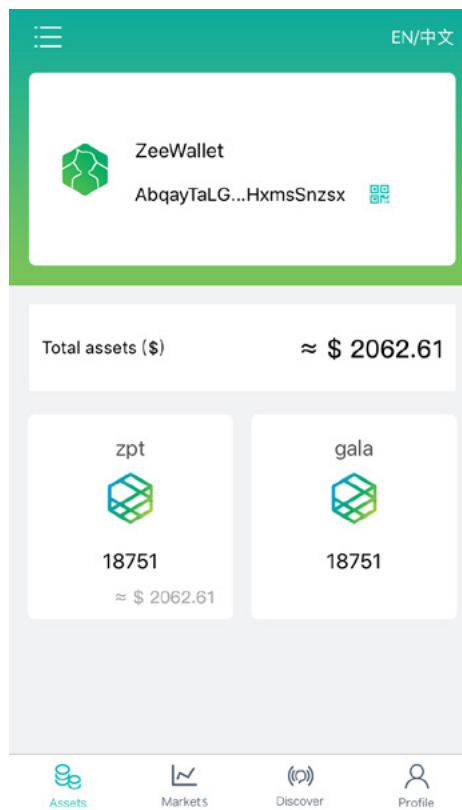
4.1.2 Galaxy DEX--Free exchange market

Galaxy DEX, acting as a built-in exchange market under Zeepin Chain and adopting secured-transaction mechanism, allows users for matchmaking transactions between native coin-Gala and third-party crypto assets from the entertainment industry. Besides, more functionalities are being developed, such as cross-chain protocol and transaction authentication. As it's born to be distributed, high-currency and safe, Zeepin Chain has been designed to enable decentralized and reliable transactions. Helped by transaction protocol and order book protocol of Zeepin Chain, users can easily access transactions and real-time market data feeds,etc. While transactions and assets being stored on blockchain, users are most likely to make transactions in a safe, transparent and fair way.

Figure 5.Plant asset transactions
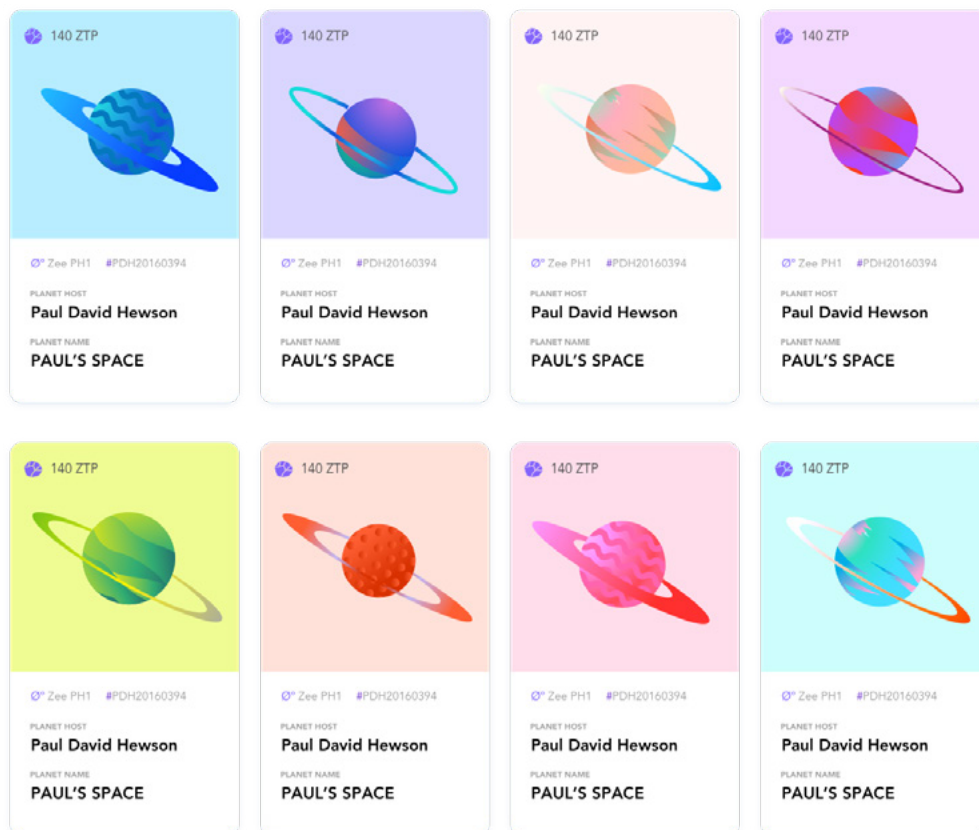
4.2 Applications of Zeepin Ecosystem

4.2.1 ZeeRights - digital IP protection and transaction

Creative copyright plays a very important role in the Zeepin ecosystem. The existing difficulty of rights confirmation and protection limits the innovative impetus for innovators. The Zeepin Platform's solution to this issue is to digitize and record these creative assets through the usage of "Copyright Pro" and "Authorization Pro". The Foundation aims to reduce the actual cost of the user for copyright certification to close to zero. Zeepin Platform aims to offer the dApp ZeeSure to support innovators and to ensure the protection of their copyrights.

ZeeRights is also a decentralized transaction site. It can achieve decentralized creativity protection and transactions by harnessing the breakthrough technology of the blockchain Internet platform with smart contract.

4.2.2 ZeeCrew

Zeepin Platform will introduce ZeeCrew, which is designed to be a key public facility in the community that enables organisations or individuals to form decentralized and autonomous project teams. ZeeCrew is an efficient and cost-effective way to set up the team running a separate legal entity. With the blockchain-based smart contract and Zeepin's public facilities, the founders are able to outsource various tasks such as office administration, legal services, accounting services, and sharing of profits from the project. Participants can set up a new team contract address as the team's public account. Then new team participants can be added by directionally sending out a profit distribution proportion. Meanwhile, the team can apply for a name and bind its name with its address through Zeepin Name Service, hence enhancing the team's credit standing.

ZeeCrew applies to individuals and organisations. For example, it can be used to flexibly establish new operations or project groups with joint efforts between different companies, between different individuals as well as between individuals and companies. It is a modern eco-friendly and effective operation model as an alternative to the traditional company operation system. The essence of efficiency lies in the fact that you can find project required resources and partners around the world through the community. For example, you can take advantage of the quality copyright of creators to drive the excess capacity of small and medium-sized manufacturers.

4.2.3 CryptoGalaxy

CryptoGalaxy can be understood as an entertaining application to tap into the creativity and explore the infinite possibilities in blockchain under Zeepin's ecosystem. It's a first ever virtual universe that is empowered by blockchain and composed of countless planets. Each planet is unique in attributes. CryptoGalaxy dApp will become more playable and profitable at the second stage of development, which will include planet trading, exploration, etc. In addition, in game planets are closely connected to consensus nodes of the main chain in an interesting way to involve more people into the management and exploration of Zeepin Chain.

Figure 6. CryptoGalaxy

GCP-30 protocol:

> Gala application
>
> Planets and in-game tools are digital assets based on GCP-30 protocol

Zeepin Chain, on a basis of GCP-30 (Galaxy Consensus Proposal), is able to map out the entertainment assets, in-game tools, design work and other non-fungible assets will become unique, traceable and have verifiable ownership. Furthermore, it provides APIs for users to access conversion of non-fungible assets, change of ownership, authorization of usage, validation of assets, management of workflows, verification of user credit system, heterogeneous based protocols.

The rapid development of blockchain has led to an explosion in the number of various crypto assets and application scenarios. Zeepin Chain fully supports applications related to the non-fungible assets of entertainment industries, which allows transactions of cross-chain in game tools, rarity query, mapping physical collections. Any entity and developer can come up with a set of non-fungible assets that belong to themselves.

CryptoGalaxy will be the first crypto game that connects to GCP-30 protocol.

An unique and inseparable token will be generated under GCP-30 protocol to represent non-fungible assets

4.3 Applications in creative industries

4.3.1 ZeeCreate

As a decentralised design interconnection platform on Zeepin Chain, ZeeCreate uses ZPT as the medium of exchange on embedded smart contract, and is able to quickly connect / bridge creative contents and people in need of creative ideas. The Foundation will work with Arting365 to enable over 1.2 million designers worldwide to provide creative services for their customers, and possibly even the whole industry in the Zeepin community. ZeeCreate's matchmaking mechanism makes decentralised peer-to-peer transactions possible.

4.3.2 ZeeFund - Crowdfunding

Compared with traditional fund-raising models, ZeeFund Crowd-Funding on the Zeepin Platform is designed to be more open and effective. After the evaluation of projects by the Foundation (or its affiliates or third-party service providers), autonomous project teams may quickly launch project crowd-funding for their project on ZeeFund, and project parties can obtain support for the project (to be paid in ZPT and other coins).

4.3.3 ZeeSure Asset Insurance

As a blockchain-based IP insurance platform, ZeeSure will provide creative thinkers/ practitioners with a one-stop insurance service for various digital intellectual property, as well as legal consultation.

Comparing the Zeepin Platform to traditional transaction models, it is very difficult for traditional transaction models to achieve financial innovation. For projects on the Zeepin Platform, insurance or other financial products / requirements are integrated into the entire chain, covering digital copyright development, needs and production, and corresponding protection and services are provided for the participants to improve the security, circulation, and transaction of digital assets.

4.3.4 Zeepin ID

Each participating user of the community on the Zeepin Platform will have an independent digital identity ZEEPIN ID, incorporating second-time authentication on the real name authentication through KYC and external identity, in order to ensure completeness of the community information system.

It provides a low-cost talent recruitment service, a fast and international communication method. Project parties can recruit teams worldwide using ZeeCrew too.

5. The development of ecosystem

Zeepin Chain aims to build an underlying infrastructure in realms of entertainment industry and become a platform where fundamental value can be shared and transferred worldwide. Serving as the underlying infrastructure, Zeepin Chain provides specialized & moduling application protocol, API and a complete set of solutions that technically support the development of upper layer applications. That means, those who shall run business under Zeepin Chain can focus more on how the applications help their business rather than development & research on blockchain or other underlying enabling technology; In addition, Zeepin Chain will apply underlying digital asset mapping, data exchange and other protocols to cascade various data subjects so as to accommodate multi-source scenarios.

With the help of Zeepin Chain, any brilliant team or entity from creative, entertainment or gaming industries can easily and readily start a business.
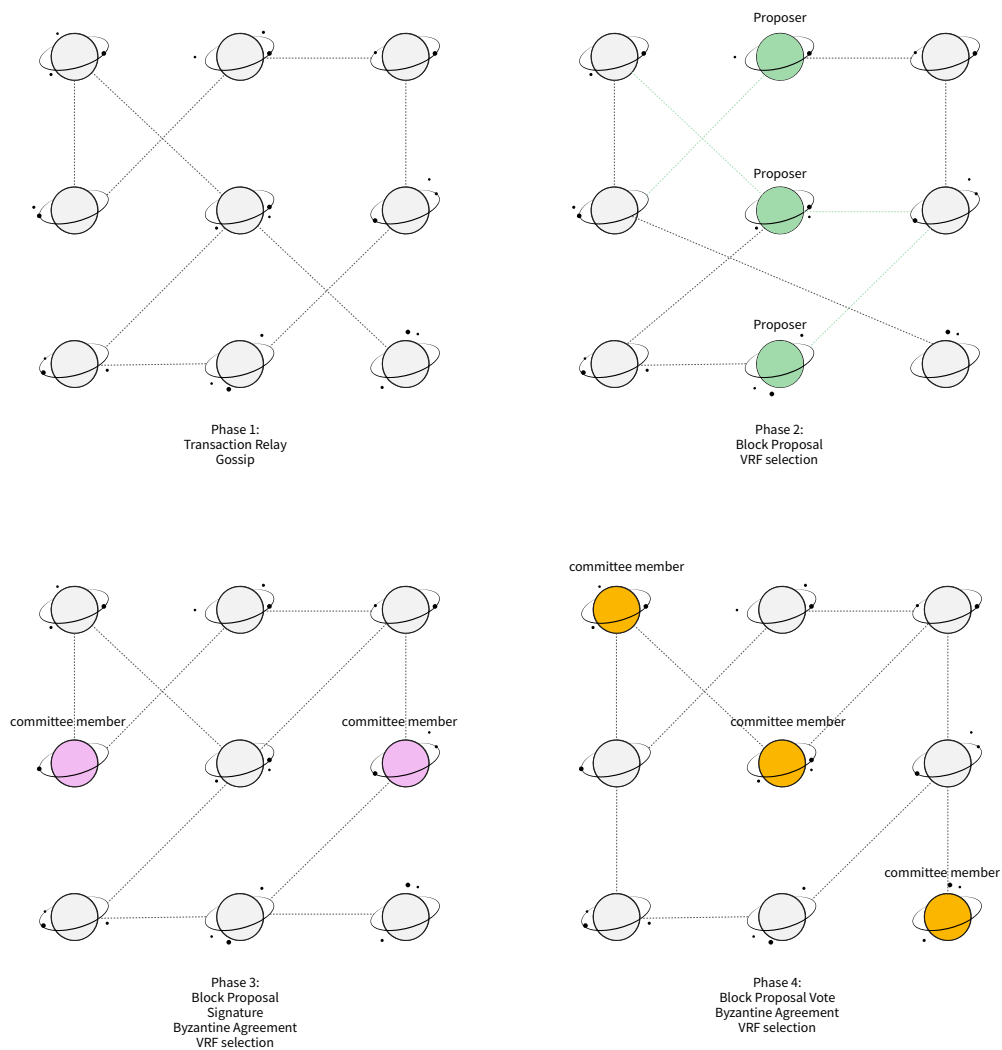
Figure 7.Demonstration on Zeepin Chain Ecosystem
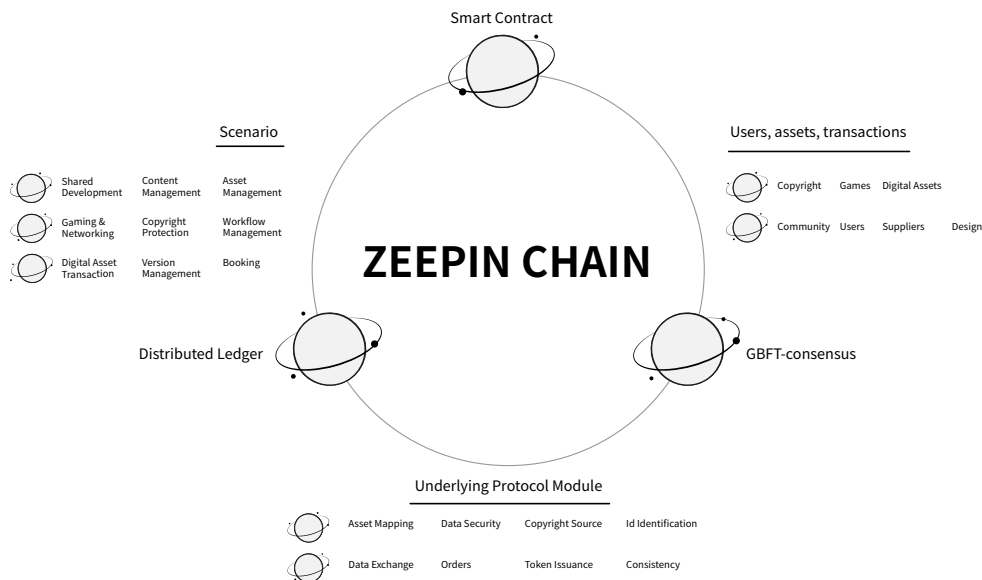
6.Zeepin Chain management model of planet nodes

Zeepin Chain will be launching a Galaxy Consensus Cluster model framework, which means a Galaxy Consensus Network composed of 51 Galaxy consensus nodes that will be selected according to votes run by Zeepin Chain from 2100 planets stage by stage. Galaxy Consensus Network is an innovative management model that can balance the level of distributiveness, high performance scaling and incentive mechanism.

A democratic autonomous mechanism based on the orchestration of GCC, DAO and GBFT works for Zeepin Chain. Empowered by this invincible mechanism, Zeepin Chain will be bound to lead the ecosystem grow from strength to strength.

Figure 8. Galaxy consensus workflow

Phase 1:
Transaction Relay
Gossip

Phase 2:
Block Proposal
VRF selection

Phase 3:
Block Proposal
Signature
Byzantine Agreement
VRF selection

Phase 4:
Block Proposal Vote
Byzantine Agreement
VRF selection

7. Economic model

As being a significant component of Zeepin ecosystem, economic model structured with reasonability and feasibility can substantially improve the security and stability and lead to a benign and speedy development of the Zeepin ecosystem.

7.1 Incentive mechanism

Here are the factors that affect incentives in Galaxy Consensus Network:

Proof of stake: As GBFT-POS rules Zeepin Chain, Proof of Stake plays an important role in terms of incentive plans for nodes.

Node performance: The capability of blockchain network varies from hardware to hardware. The variation in hardware performance affects the capability of blockchain network. The performance of a single node largely depends on its handling capacity, storage throughput and computational power to handle business and provide service on blockchain.

Fairness: Fairness in management, timeliness of adjusting the scale of network (expansion and contraction), the configuration of nodes and flexibility of adjusting the incentive plans.

7.2 Incentive factors

There is a variety of incentives in Galaxy Consensus Cluster. At an early stage, they mainly stem from the following:
Basic costs
-Network consumption
-Cost of deployment and operation of smart contract
-Cost accrued from other potential value-added service
Nodes incentive: Zeepin Foundation will compensate certain amount of incentives which will be adjusted according to popularity of the application.

7.3 Incentive model

Zeepin economic model is designed with a framework of compensation and lease, which allows ZPT holders to unlock Gala gradually. In order to gain access to the resources in Zeepin system, one has to consume a certain sum of Gala. As a result, the consumed amount of Gala will be distributed to each node in Galaxy Consensus Cluster. Different node will be rewarded with different amount of Gala proportionate to levels of its contribution to Zeepin network. Besides, Zeepin Foundation will compensate each node at an early stage.

7.3.1 Total supply and distribution of ZPT

Initial total supply of ZPT-1 billion:
R&D Foundation: 10%
Founding team: 20%
Community development: 20%
Crowdfunding: 50% (completed)
7.3.2 Total supply and distribution of Gala

Initial total supply of 100 billion Gala:
· Gala Foundation: 50 billion (Release of lock-up depends on the need for further development on a yearly basis)
· Community development: 30 billion (node development, node incentives, development of application and strategic partners)
· Distribution to ZPT holders at initial stage: 2 billion (completed)
· Unlocking to ZPT holders by year: 18 billion

7.3.3 Unlocking model of Gala

Token model in Zeepin system includes a total supply of 1 billion ZPT with accuracy of 4 digits which is tied to an total amount of 20 billion Gala with accuracy of 4 digits as well. 2 billion Gala has already been distributed to ZPT holders at initial stage without any lock-up. Once the system is operating, all ZPT will be distributed to assigned addresses while the rest of the 18 billion Gala will be unlocked to ZPT holders. If and only if any transaction of ZPT is processed, unlocked part of Gala authorized by smart contract can be distributed to those who have sent and received ZPT. How much Gala ZPT holders can get depends on the proportion between the amount of ZPT they have and the total amount of ZPT. In case of failure of any single transaction, Gala that is supposed to be distributed to ZPT holders will be added to the next round of transaction. ZPT holders need to add this part of Gala to his own wallet manually.

Here is the rule for unlocking 18 billion Gala:

The unlocking will happen every second with a variable amount following a diminishing curve of Fibonacci sequence. To be specific, you can refer to this pattern (89, 89, 55, 55, 55, 34, 34, 34, 21, 21, 21, 13, 13,13, 8, 8,5,5,). According to curve of unlocking, there will be a change on the unlocking value of Gala after every 31536000 seconds. It will take 18 years to unlock all Gala, which means no more Gala will be generated in the future.

7.3.4 Zeepin cost model

Zeepin cost model includes system cost and network cost. By network cost,it refers to the basic cost covering the usage of the system. Each transaction that enters into the transaction pool must cover the network cost. System cost means the charge for usage of computational resource and storage. In case of failure to cover system cost, the smart contract will not work.

The cost model is controlled by GalaStep and GalaFee. GalaStep plays a role as step width while GalaFee simply means the unit price mirrors each step width.

The total cost of consumption for a user is decided by GalaStep and GalaFee.

$$Sum_{tf} = \sum_{i=1}^{n}(sf_i + nf_i) = \sum_{i=1}^{n}\sum_{j=1}^{m} f(tx_{ij}, gs_{ij}, gf_{ij})$$

Parameters:

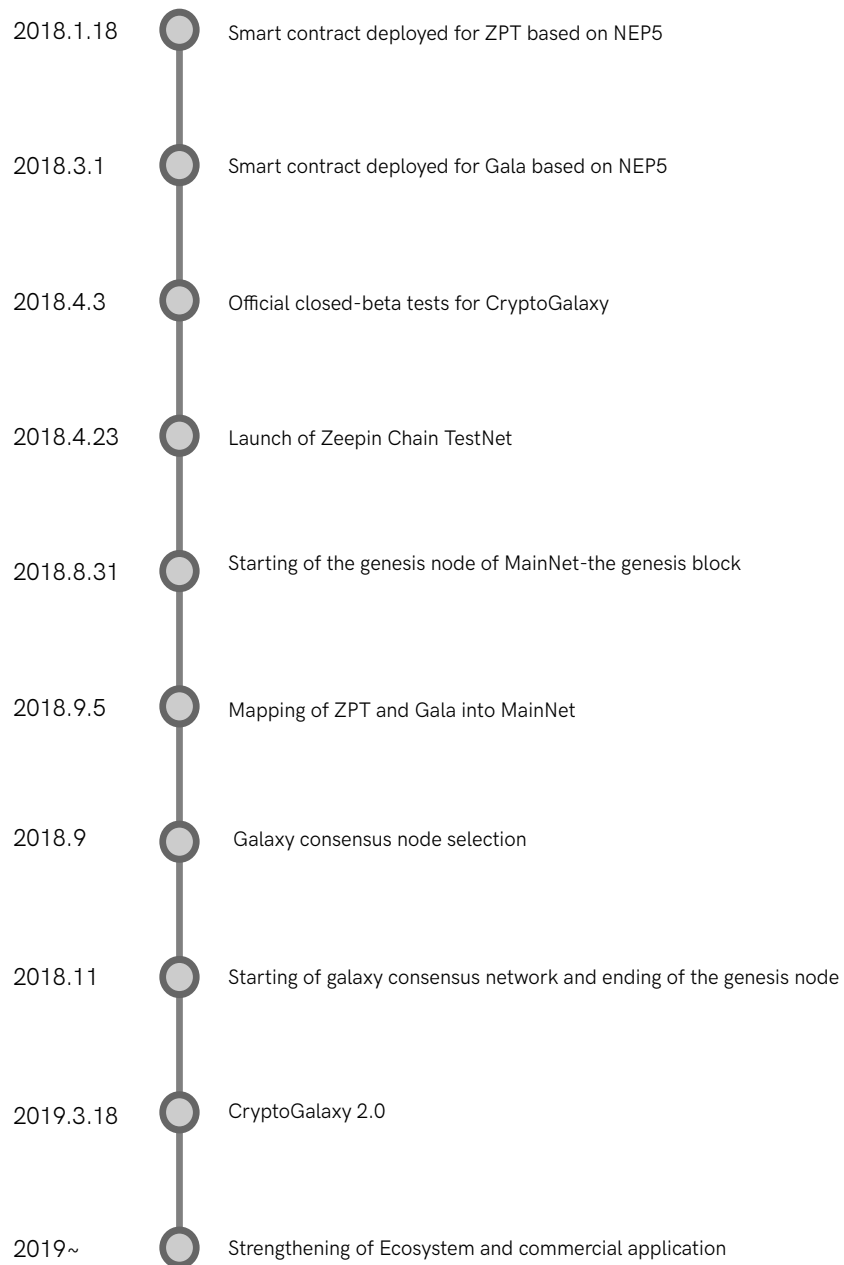|	
tf:	Total Fee
sf:	System Fee
nf:	Network Fee
gs:	GalaStep
gf:	GalaFee
i:	block height
j:	block transaction number
n:	block number
m:	The amount of block transactions

8. The creation of Zeepin Chain

Zeepin chain was initiated by teams from Zeepin community, customized for creative and entertainment industries. Zeepin Chain will be significantly contributing to the extension and expansion of Zeepin ecosystem.

Zeepin Chain defines itself as a decentralized public chain customized for creative and entertainment industries, in a way to provide an array of protocol support for digitized asset transactions. Both ZPT and Gala, functioning as native tokens, drive Zeepin Chain. Galaxy Consensus ensures safe, transparent and fair transactions.

ZPT, acting as an asset token, fuels all decentralized dApps and allows smooth circulation of assets among all dApps.

Gala, as a utility token with versatile functions being developed, fuels the on-chain transactions, cross-chain transactions, entertainment applications, smart contract deployment and circulation of distributed storage.

9.Road Map:

2018.1.18	Smart contract deployed for ZPT based on NEP5
2018.3.1	Smart contract deployed for Gala based on NEP5
2018.4.3	Official closed-beta tests for CryptoGalaxy
2018.4.23	Launch of Zeepin Chain TestNet
2018.8.31	Starting of the genesis node of MainNet-the genesis block
2018.9.5	Mapping of ZPT and Gala into MainNet
2018.9	Galaxy consensus node selection
2018.11	Starting of galaxy consensus network and ending of the genesis node
2019.3.18	CryptoGalaxy 2.0
2019~	Strengthening of Ecosystem and commercial application

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