PeerSafe SandComputing solution

1、What is SandComputing？

SandComputing is an innovative distributed computing method proposed by PeerSafe company.

By 2020 the total number of global Internet connection equipment will exceed 100 billion, Chinese citizens personal information had been leaked up to 5.53 billion in 2015, All the generic top-level domain root server was abnormal in January 2015, DNS failure leads to large area "network breakoff". As the era of Internet of things is coming, cloud computing based on the center of the Internet is facing an unprecedented challenge, the data center has become the bottleneck of the internet.

In order to meet the needs of the development of the Internet in the future, Via the renovation and transformation of traditional P2P technology, a subversive distributed decentralized internet appears，the network promote the ideas of participation together, open consensus, equal sharing, tens of thousands of units is connected each other with the equal status, the entire network does not rely

dedicated server, Using the decentralized network and blockchain technology, distributing the computing, communication, control and storage resources and services to the end user terminal equipment and system, this is the SandComputing.

2、Characteristics of SandComputing

SandComputing has the following 4 characteristics:

1)Decentralized: Multi nodes distributed computing, the failure of a single node does not affect the overall.

> The SandComputing node can be any form of network terminal equipment, multi nodes form a distributed self organizing network through the P2P communication protocol. There are multiple links between nodes, Single node failure does not affect the normal operation of the network, nodes automatically communicate through other routes.

2) Mobility: The computing source move with the node, low transmission bandwidth, low delay.

> SandComputing node has strong mobility, you can obtain or provide computing power with the nearest node, directly communicate with the nearest business nodes, avoid transmission bottleneck caused by a large number of nodes to access the cloud. Let

data transmission more secure and efficient, greatly enhance the end user experience.

3)Aggregation: Multi nodes contribute resources, convergence of powerful computing.

> The computing capability of SandComputing nodes is various, nodes automatically determine the usage of their own resources, connected with distributed network protocol, sharing the extra CPU, disk and bandwidth resources，more nodes joined, the higher computing capability convergence.

4)Persistence: massive node consensus computing, historical records can not be changed.

> The multi nodes can generate block data by consensus computing, which ensures the correctness of the calculation results and the create blockchain in time axis. The information can be permanently stored in blockchain, the illegal change of the information required to spend vast computing resources which almost impossible to provide.

3、SandComputing service type

SandComputing provides 2 types of services:

1)Decentralise as a Service, abbreviated as DaaS, the service need no central server, distributing the task to each node to execute.

Typical applications include PeerSafe PDFS, distributed authentication platform, ShadowTalk, ShadowDisk, other companies Bleep, Storj, MaidSafe etc.

2) Blockchain as a Service, abbreviated as BaaS, using block chain to achieve consensus mechanism, joint calculation between nodes to provide public trust service.

Typical applications: Bitcoin, Ethereum, Nasdaq Linq equity registration platform, PeerSafe asset management platform etc.

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4、PeerSafe SandComputing solution

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1)Identity authentication product: a distributed identity authentication system - the PeerSafe Password Guard. Encrypt the user name and password and split to pieces, distributed storage in the multi nodes, randomly selected node and authenticate each

other. It avoid the risk of information leakage that traditional centralized authentication server is compromised by hackers.

2)Encryption communication product: Private instant messaging software - ShadowTalk, Using the P2P communication method to send the text, voice, and pictures to their friends, No need store in the third party server and ensure the personal information is not be illegal monitored.

3)Secure storage product: Secure and reliable file sharing tools - ShadowDisk, Using P2P communication mode to construct the distributed file system network, addressing accord to the contents of the file hash and extract the files, It realize of freedom files sharing and protecting file content not be tampered.

4)Secure transaction product: Blockchain digital asset management platform - the PeerSafe asset. The platform based on innovative Blockchain technology, it can digitalize any asset and preserve to blockchain, achieve credible certification through the multiple nodes in decentralized blockchain network, with ZXCoin to do transaction. It save the high cost of the third party intermediate fee and prevent the transaction data be tampered.

PeerSafe gives people a better communication and life in internet era !