PARADOT

W https://peradot.in/

INTRODUCTION

In a world where people are increasingly using the internet as their main form of connection and self-expression, the metaverse is logically the next step in the way we create, consume, and interact digitally. The popular rise of non-fungible tokens (NFTs), play-to-earn, increased interest and focus on the metaverse from Facebook and other companies, and a world driven physically apart by a pandemic all indicate a clear trend towards the need for a more comprehensive online platform than what currently exists. Defining the metaverse can be challenging as it can encompass anything we currently do online, but in a simulated 3D digital environment, taking advantage of the digital connectivity we have rapidly developed in the last century.

The metaverse will combine online experiences in a fluid and connected way that more accurately reflects the human experience. To do this, we will use tools in the technical world to represent, and improve upon, what we encounter and experience in the physical world. Immense virtual worlds, augmented reality, virtual reality, and the internet will be used as a shared virtual 3D space connecting to all the social, gaming, shopping, research, education, and financial programs we use - all interconnected and interacting in a digital ecosystem. The metaverse will be the hub of it all, a universe in itself.

Decentralized networks (cryptocurrency) provide an unparalleled degree of assurance and security with finances in response to a decline in trust towards institutions. It appears inevitable that cryptocurrency may play the most important role in the emergence of the metaverse. PERADOT aims to anticipate this coming evolution revolution by combining cryptocurrency with the metaverse and building an ethical, decentralized, entertaining, and innovative project: The Peradot Metaverse.

This is a virtual world that will exist as a space to host data and ideas within the blockchain, while creating new opportunities for the creation and collection of NFTs as a form of self expression, utility, or real estate in the metaverse. In addition, it will act as a hub for marketing, entertainment, socialization, gaming, and education.

The Peradot token launch was very unique compared to most other cryptocurrency projects. There was no pre-sale or announcement.

It was a stealth launch; released with zero notice, making it completely fair and equal.The project has no team or dev token allocations and no tokenomics such as taxes or reflections. Woof Decentra deployed Peradot without notice, burning the initial liquidity to assure this would always be a project dedicated to the people that believe in its vision and community.

THE PERADOT ECOSYSTEM

Peradot is an ERC-20 token with a total supply of 10 trillion. All tokens are in circulation, with the initial liquidity and contract ownership burned. This means that no further Peradot tokens can be minted into circulation. Also, as Peradot was 100% fair-launched, all tokens have always been publicly tradable. Unlike most projects, there are no token unlocks for private investors to dilute the current circulating supply, which often results in more stagnant price action as increased buying power is needed after each unlock to further increase the price per token. Peradot is fully transparent, completely safe, and 100% community owned and driven. Peradot will be used as the medium of exchange within the metaverse. No tax, no fee No presale or private unlocks No dev token wallet Total supply 100% circulating Initial liquidity added 100%

PERADOT value is derived from the following:

- Peradot gained from assets acquired by treasury;
- Peradot produced from active play of treasury's virtual assets;
- % of APY token rewards generated from treasury's farming activities;
- Rewards generated from esports;
- Rewards generated from raids;
- Rewards generated from sponsorships;
- Rewards generated from subscription fees;
- Rewards generated from merchandise sales

Blockchain as a database

The main role of a blockchain in a decentralized application context is to manage data in a secure and consistent manner. Thus, a blockchain can be understood as a database, more specifically as a secure decentralized database. Another major role of a blockchain is prevention of double-spending, but this is a special case of data consistency constraints. Blockchains which are optimized for payments, such as Bitcoin, can adopt highly specialized (and optimized) data models. But a platform designed for hosting diverse decentralized applications needs a general-purpose data model. Most blockchain platforms nowadays use key-value data stores (examples: Ethereum, NEO, Fabric). This model is, in theory, complete, and enables the use of high-performance data stores such as LevelDB. However, this model is very low-level and requires application developers to implement core functionality like serialization and indexing, a daunting challenge. Compounding this, blockchain platforms typically do not expose the full functionality of key-value stores, such as the ability to use arbitrary-sized keys and iterate through keys. For example, in the Ethereum Virtual Machine (EVM) all keys are 256-bit integers and iterating through stored keys is impossible. For these reasons, implementing proper indexed data access on the EVM is both difficult and inefficient.

Relational model

The relational model has been the gold standard for database management for the last five decades. Rooted in mathematics and logic, it is known to be able to model complex data in an efficient way. For this reason, and the reasons stated above, we consider the relational data model to be the lynchpin of our blockchain platform.

As decentralized applications deal with increasingly complex data structures, the advantages of the relational model become ever more apparent. Further, most software engineers are already familiar with it so they won't have to learn new concepts in order to implement an application.

A relational model also allows us to leverage the power of SQL database management systems (DBMS) which have been optimized for decades. Instead of dapp code which traverses memory cells one by one, we can send a query to the DBMS and let it use its sophisticated query planning, data structures and caching capabilities to carry out the query as fast as possible. Of course, the choice of data model is a trade off.

The relational model might have the following disadvantages:

- Performance is hard to predict and depends on the query planner. This is not a ignificant disadvantage in the context of Chromias because each dapp will be run in an isolated manner; slow queries will affect only the dapp which performs them rather than the system as a whole.

- It is impossible to impose hard bounds on query execution time. Again, this is not a problem in Peradot because it affects only the performance of the application which issues slow queries.

- Parallelization of SQL databases is a complex area of active research. As far as we know, no blockchain platform offers 100% fully automatic parallelization on a massive scale. Thus there is no evidence that a relational model is worse than other models. In addition, we believe that the relational model will make logical sharding and sidechain mechanisms easier to implement.
  Peradotsolves this issue by provisioning resources on the decentralized application level:

- Each dapp has its own blockchain (sidechain)

- Fees (collected to maintain nodes) are paid by the dapp as a whole, not by end-users directly Consequently, dapps are free to implement their own resource management policies, which can be aligned with economic rather than technical needs.
  Every blockchain needs an anti-spam mechanism, but this mechanism doesn't have to be tied to fees. For example, a dapp might allow only 1 action from a user each 15 seconds, thus a single user won't be able to spam the blockchain with billions of transactions. A dapp can also mitigate Sybil attacks through limiting new user registration to some reasonable rate and/or requiring invitation or a deposit.
  In this model, we do not need to measure the resources used by each operation. Instead, we provision resources to the application as a whole: each dapp blockchain will run on a specific set of nodes and typically will have its own dedicated CPU thread. If a dapp needs more than one execution thread, it can consist of multiple shards each of which will be a sidechain.
  Indeed, the fact that the cost for the user increases as more people join the network (greater network congestion -> higher fees) is totally at odds with the economies of scale upon which computing technologies thrive.

Governance

Peradot supports different governance structures on the system and application levels. Peradot system governance System-level governance covers the following topics:
1. System updates, that is, updates to system blockchain structures, their rules and so on.
2. Tuning parameters such as the price of running a dapp according to economic realities.
3. Acceptance of new members into the system.
4. Exclusion of bad actors.
Obviously, governance must be decentralized, a single entity shouldn't have control over the system. We believe that providers are in the best position to perform governance duties:
• They can professionally review the proposals.
• They are motivated to keep Peradot interesting both for users and for application developers. A bad governance decision will affect revenues and profits collected by providers.
Thus we can require ⅔ of providers to vote in favor of a governance proposal to approve it.

Initial centralization

The initial launch of Peradot MVP will likely not have a sufficient quantity of independent providers. Thus at the initial stage governance will be centralized: all decisions will be made by PerqdotWay in consultation with system stakeholders. Transition to proper decentralized governance will happen when the system is ready from a technical perspective and the provider ecosystem is healthy.
Rejected alternatives Stake / coin voting. A widespread governance model in blockchains which do have on-chain governance is stakeholder vote or "coin voting". This is particularly common in DPoS blockchains since stakeholder voting is an essential part of Sybil control & consensus mechanisms. We thoroughly considered this model and rejected it for the following reasons:
1. Usually it is not possible to control stake decentralization, i.e. tokens might be concentrated in a few hands, therefore it cannot guarantee decentralized governance.
2. It's not fair in the sense that rich stakeholders have more power.
3. Many users keep their tokens on exchanges, essentially allowing exchanges to vote for them.
4. DPoS style voting seems to be particularly prone to problems with bribes, cartels and centralization. These problems have been actually observed in the wild.
5. Even if tokens were more-or-less evenly spread, few users actually go through a hassle of voting, few users can understand the proposals, etc. This was demonstrated in the DAO case.

Application governance

Different applications have different governance needs:

1. Some are designed to be immutable and thus would require no governance at all.

2. Other might exercise direct democracy and give each user a right to vote.

3. Another option is to implement weighted voting, e.g. proportional to tokens one has.

4. Dapp developers can also play a role in governance, and either:

    a. Maintain full control

    b. Work together with users through voting, e.g. developer makes proposals which users can approve or reject.

We want to give developers and users an ability to decide for themselves and experiment with different forms of governance as they please.However, we want to ensure that users always have certain freedoms:

1. The freedom to access and copy application data. This is an inherent property of a public blockchain.
2. The freedom to fork the application. This is an inherent property of free and open source software and public data: anyone can make a modified copy of software and run it on a copy of data.

Thus we do not impose any restrictions which aren't an inherent property of applications running on public blockchains.
Peradot will provide tooling which would give users the ability to fork a dapp if they are displeased with its governance or just want to experiment with something different. Our goal is to make sure that this forking can be done in a smooth and civil manner.

USES

Peradot is a general purpose platform suitable for a wide range of applications. But we live in a world with many competing blockchains, thus it makes sense to focus on relative strengths:

- Peradot is database-centric, as such it is particularly suited for applications which are similar to databases in their nature, or deal with complex data schema, complex queries, indexing and so on.
- Peradot has excellent data read-write capacity, thus it's uniquely suitable for applications which require operating on large amounts of data.
- Peradot allows both fast queries and fast confirmations. Thus it is suitable for interactive applications where data needs to be displayed and updated within seconds.
- Peradot is very flexible in terms of resource use policies, thus it can accommodate different business models which do not work on the previous generation of blockchains.

Tokens

Tokens are the bread and butter of blockchains.

- High capacity: we aim to support 50 million token transfers per day per blockchain in MVP version of software. This isn't a world record, but it should be enough to support large user bases. Token transfer capacity can be further improved in future versions.

- Low latency: transfers can be confirmed within 2 seconds which should be enough to support in-person payments.

- Flexibility: token implementation is fully programmable, any imaginable feature can be implemented.

- Custom fee policies: fee policy is decided on a per-dapp basis. This means that transfers can be free, or subject to a flat fee, or a fee proportional to the trade amount.

- Native multi-token support and atomic swapping: trustless token exchange is implemented on transaction format level, it doesn't even require any special support in the dapp.

- Inter-blockchain transfer: tokens can be moved between different blockchains within Peradot. Non-Peradot blockchains can be supported in future.

- Thin wallet support: a thin wallet (e.g. mobile or browser wallet) can validate transfers within seconds, without syncing with a blockchain.