

# Verse Network by STP

September 2021

## 1 Introduction

Decentralized Autonomous Organizations “DAOs” are an organization of culture, community or workplace where the main set of rules and actions is hard-coded into smart contracts. Unlike traditional aggregations, where the choices of the few affect the outcomes of the many, in a DAO everyone can participate in the governance of the system. In Q4 of 2021, the total value locked (TVL) in DAO treasuries has increased by 90% since the beginning of October to \$15.2bn and the number of treasuries valued at \$1mm or more has increased almost 400%. DAO membership has also increased by 133% since August, with more than 1.6mm users across 164 entities. DAOs bring together all the great aspects available within Web3 and will further build upon them as more time and effort is spent building them out in the upcoming years.<sup>1</sup>

However,DAOs cannot reach their potential with the current state of layer 1 “L1” blockchains like Ethereum. To highlight a few striking issues, the unsustainable gas costs and slow transaction speed create friction for dApps leading to an inefficient, centralized and unscalable ecosystem that cannot support fast-innovating DAO concepts and activities. Currently, almost all DAO activity has limited functionality beyond voting and also lacks additional features besides governance. The current infrastructure for DAOs hinders user adoption, lacks incentives, and falls short of educating and converting market potential. Nevertheless, the stage has been set for greater adoption and support in the DAO concept.

**While many solutions exist for curbing these expensive gas fees, Verse Network is a Layer-2 solution specifically built for optimizing DAOs.** Verse will make DAOs more accessible to the masses, and remove many barriers to entry, such as high gas fees, complicated user experiences and complex methods of voting and governance.

---

<sup>1</sup>Source: The Defiant - “TVL in DAOs Almost Doubles to \$15B in Q4 Surge”, by Samuel Haig. As of 12/03/2021

## 2 The Verse Network

Verse is a censorship resistant, front running resistant, high performance, and interconnected cloud for next gen DAOs and DeFi. It enables networks, developers and organizations to decentralize decision making effectively and scale their communities and decentralized applications. It is highly scalable, through its Proof of Stake (POS) consensus. It is censorship-resistant, unlike ZK Rollups and Optimistic Rollups. It can also support multiple virtual machines, not only the EVM. Furthermore, it is resistant to front-running, meaning that nobody can pay a higher gas fee than someone in order to have their transaction approved/validated before them.

## 3 Verse Network Architecture

Co-Developed with the Meter Foundation, Verse Network is built on the upcoming Meter SDK, a HotStuff consensus-based framework scalable to 1000s of validators and with a throughput of 1000s of transactions per second on each chain. The Meter SDK is backward compatible with EVM and Ethereum RPC and will support containerized VMs like MOVE and WASM on the same consensus and network layers. The Meter SDK cross chain protocol enables the communication between parallel chains through a hub model while providing the ability to communicate across heterogeneous chains through Meter Passport infrastructure. With Meter SDK, you can interconnect with blockchain clouds like Ethereum, BSC and Polkadot.

### 3.1 Infrastructure

**Application Layer** - Smart Contracts, DAPPs, User Interface

- Ethereum Emulation – EVM & RPC emulation mode
- Cross-chain Interoperability
- DAPP Deployment – Low and stable Gas Costs

**Execution Layer**– Supporting multiple VMs (EVM, WASM, MOVE) inside separate containers

- High Throughput ( 1500 TPS per EVM chain)
- Front Running Resistant
- Low Gas Fees (5 to 50 Cents)

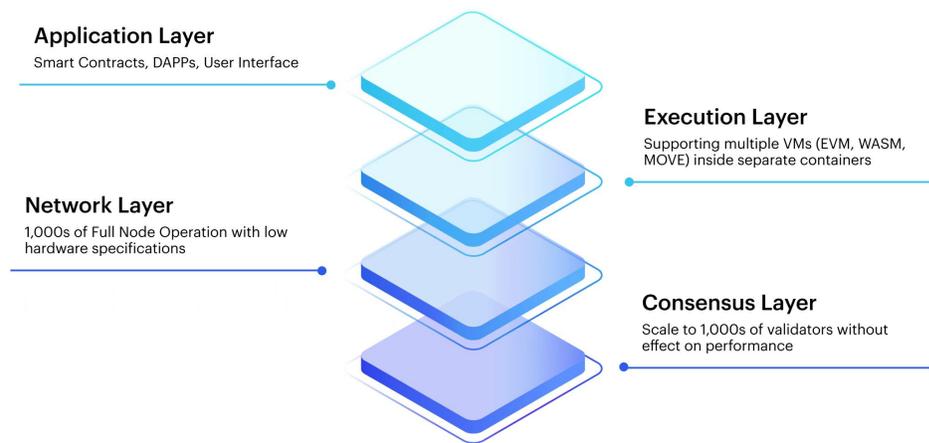
**Network Layer** – 1,000s of full node operation with low hardware specifications

- $O(\log(n))$  network communication overhead BLS and layered gossip network design

- Potential of further scaling through Sharding
- Potential of shared hub with parallel/shared chains with Instant Finality
- Low Hardware Specifications

**Consensus Layer** – Scale to 1,000s of validators without effect on performance

- High Sybil Resistance – 67%
- Instant deterministic finality – 2.4 Sec or lower
- Best performance for totally order linear blockchains



## 3.2 Platform Infrastructure

### Containerized Virtual Machine

- POS chain has the capability to run multiple Virtual Machines (EVM, MOVE, WASM) on the same consensus layer
- Projects can choose multiple VMs to meet diverse application requirements while benefiting from common set of consensus layer and network layer capabilities

### Parallel / Side Chain

- A parallel / side-chain infrastructure allows completely independent inter-chain communications

- A parallel / side-chain can choose its own set of validators or leverage the validator setup of the main chain
- Built-in cross-chain support: Communicate across all parallel/ side chains with instant finality
- External heterogeneous chain communications

## 4 Verse Network Token (STPT)

STPT is the main medium of exchange for Verse serving the function of fees and rewards for the network. All transactions on Verse require STPT as gas and the tokens will be carried over from the STP Network for this intended usage.

## 5 Verse Network DAO Ecosystem

The Verse ecosystem facilitates DAO activity from inception to maturity. To further enhance the functionality and utility of DAOs, Verse supports customized DAO tooling along with DAO-focused dApps in its ecosystem. There is an initial lineup of dApps that will provide full service tooling for DAOs and all their stakeholders. The first dApps are no-code and user-friendly and will immediately be able to service existing DAOs along with newly created DAOs and their communities.

The types of dApps and tools supported by Verse include:

- DAO builder dApps that allow organizations to create and manage their customized DAOs seamlessly
- DAO participation dApps that expand the ability and incentives for members to participate in DAOs in a frictionless way across platforms
- DAO reputation dApps that score credibility and reputation on past activity like voting
- DAO market data tools that provide DAO-related data to all types of users in an actionable and analytical way
- Future categories and tools to come including data & analytics, treasury management and tailored customization of DAO structures

## 6 Conclusion

Verse Network is an all-encompassing solution for any community, organization, company and collective to decentralize its decision-making effectively. DAOs on the Ethereum blockchain tend to have limited activity opportunities beyond just voting. With Verse, DAO developers can tailor their governance structure to fit

their needs and community. DAO participants will have a seamless experience buoyed by a comprehensive ecosystem of DAO tooling and infrastructure. Verse will allow DAOs to expand their activities beyond voting while incentivizing participation and engagement at low cost.