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TOKEN
METRICS

Shardeum Investment Memo

By Jacob Koch-Gallup



Fundamental Scorecard *(all categories scored out of 10)*

Smart Money	Low Competition	Team	Use-Case	Investors
6.00	7.25	8.50	7.75	7.00
Distribution	Audit	ROI Potential	Tokenomics	Final Score
6.00	n/a	6.00	7.75	71.45%

Thesis

Overview

Shardeum is an EVM-compatible smart contract platform that is utilizing dynamic sharding and linear scalability to solve the blockchain trilemma. Unlike the majority of L1s on the market, Shardeum is not focused on consensus at the block level but instead at the transaction level. In the case of regular blockchains without Dynamic sharding, this would arguably slow down the network, but with Dynamic sharding at play and linear scalability, Shardeum hopes to one day achieve upwards of 100K TPS.

Features

- Linear scalability: Shardeum increases transactions per second (TPS) by adding more nodes (ex. 100 nodes = 100 TPS)
- EVM Compatability
- Low hardware requirements for node operators (Shardeum offloads historical data to archive nodes and adding more nodes to reduce the load on each validator)
- Low latency transactions and immediate finality
- Proof-of-Quorum (PoQ) and Proof-of-Stake (PoS) consensus algorithms with slashing, standby nodes, node rotation, and permissionless participation
- First-come, first-served transaction processing, with the same gas rate for all transactions to ensure fairness and eliminate miner extractable value.
- Currently, there are 10 shards with 128 nodes each equaling 1,280 nodes on the network that can process a maximum of 5,000 TPS

Thesis

Shardeum is introducing innovative sharding technology that will allow for high TPS. The founders of Shardeum have successfully created and scaled companies like WazirX, Yahoo, and NASA. Given their vast experience and technical expertise to create successful products, Shardeum (Shardus) is going to market at a \$406 million fully-diluted valuation. With Shardeum theoretically solving the scalability trilemma of layer 1 smart contract platforms their ability to garner ecosystem effects is strong and with increased composability, in comparison to the rest of the competition, the likelihood of Shardeum benefitting from EVM compatibility is arguably greater.

However, Shardeum's valuation is too high. Given Aurora's first raise's valuation of \$150M in a peak bull market and current market conditions, *Shardeum is not a viable investment*. There are not enough retail buyers to support its inflated valuation. Even in a thriving bull market, a valuation of \$406 million is exorbitant, especially for an unproven project.

Market Size & Compounding

Current Comps Valuations:

- NEAR - \$3.34B FDV
- Harmony - \$239M FDV

- Elrond - \$1.69B FDV
- Ziliqa - \$810M FDV
- Ethereum - \$134.1B FDV
- Aurora - \$1.53B FDV

Aurora raised \$12M in its first round at a \$150M valuation in October 2021 (peak market bull cycle). At its peak, Aurora had a \$37.4B FDV. If we assume similar growth from the last bull cycle to the next bull cycle, Shardeum has the potential to reach an addressable market cap of \$93.5B (this is under the assumption that the overall crypto market cap will do a 2.5x in line with the 2.5x return of last bull cycle).

Assumptions

- Shardeum is assuming that it will reach 100,000 unique node operators in order to sustain 100,000 TPS.
- Shardeum is assuming that the network can even handle more than 400 TPS. The maximum TPS they reached was 5,000 TPS with 1,000 nodes on AWS and 400 TPS with 40 nodes on its sharded network.
- Shardeum is assuming that 100,000 TPS will be necessary; however, Visa's peak TPS was 30,000. This project may be an overkill and not a necessary innovation.

Risks

Layer 1 Risk

- Layer 1 smart contract adoption has a possibility of not panning out.
- Lacking ecosystem incentives for other Dapps to build on top of, typically L1s dedicate more of their token allocation to ecosystem effects while Shardeum devoted it to block/node validation.

Competition

- Node validators could see more value in promoting consensus across other blockchains.
- NEAR launches Dynamic Resharding in the upcoming quarters and takes market share and the use case away from Shardeum.
- Shardeum is valued \$167 million more than Harmony & plans to raise further rounds (at higher valuations) this year. Harmony already has an existing ecosystem with at least 100 DApps including DeFi Kingdoms and has been around since 2018.

Organizational Structure

- Shardus accrues more value than Shardeum, giving founders incentive to prioritize Shardus.
- Shardeum Foundation dumps tokens due to no lock-up period.