[TEMP CHECK] Aave V3 Deployment on Aptos Mainnet

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Date: 2024-07-01

Summary:

This Temperature Check seeks community input on deploying Aave V3 on Aptos to expand Aave's presence and tap into Aptos' growing DeFi ecosystem and user base.

Background:

The Aave Protocol has been EVM-native for over 6 years, ensuring widespread cross compatibility, a robust developer ecosystem, and significant network effects over the years both in terms of user base and liquidity. However, it also brings limitations, especially considering the existence of many non-EVM blockchains that offer different advantages such as lower transaction fees, higher throughput, and more advanced consensus mechanisms. In addition to purely technical advantages, many non-EVM blockchains can allow the Aave community to expand to an entirely new ecosystem, previously inaccessible user groups, and introduce new product possibilities.

Aptos is a blockchain designed for building scalable and secure dApps. Developed by former leaders of Meta's Diem blockchain project, it aims to address some of the limitations in existing blockchain systems such as throughput, scalability, and security. With a TVL of approximately $350m and growing rapidly, Aptos is the 17th largest chain by TVL (source: DeFiLlama). Its robust infrastructure offers high transaction throughput, low, predictable fees, and advanced security through the Move programming language, that make Aptos an ideal platform for DeFi applications. The chain has a diverse array of DeFi offerings, including prominent projects like Thala, Aries Markets, Amnis Finance, Econia, alongside primarily EVM-native projects such as Sushiswap and Pancake Swap. Aptos Labs Founders Mo Shaikh and Avery Ching have leveraged their extensive experience at Meta to propel Aptos towards becoming a leader in scalable and secure blockchain solutions. Moreover, Aptos has established high-profile partnerships with industry giants like Google Cloud, Microsoft, SK Telecom and many more others, further enhancing its technological capabilities and broadening its influence.

Advantages of Aptos

Aptos offers several significant advantages that make it an ideal platform for high-demand applications. With its ability to handle over 30,000 transactions per second (TPS), it excels in supporting DeFi, real-time financial services, gaming, AI and other use cases. The platform's agile governance allows for rapid upgrades and swift implementation of new features. Additionally, Aptos ensures low and predictable fees through a stable fee model, and its use of the Move programming language enhances security with formal verification and resource-oriented programming. Built-in security features and automated auditing tools streamline the security process, while advanced state management techniques optimize data storage and access. Furthermore, Aptos simplifies integration with other blockchains through built-in interoperability, creating a cohesive and efficient ecosystem for developers and users alike.

Motivation:

Deploying Aave V3 on Aptos represents a groundbreaking expansion as it marks Aave's first deployment on a non-EVM blockchain. This strategic move is significant as it opens up new technological frontiers, diversifies Aave's ecosystem, and underscores its commitment to innovation.

By leveraging Aptos' innovative technology and developer community, Aave can address diverse financial needs, attract new users, and drive greater innovation in the DeFi sector. This deployment aligns with the Aave community's strategic goal to explore new technological possibilities and tap into a wider pool of talent and resources.

Key benefits of deploying Aave V3 on Aptos include:

1. First Non-EVM Deployment:
2. This deployment is a significant milestone as Aave's first move beyond EVM-compatible blockchains. It positions Aave to explore and integrate with new blockchain ecosystems, enhancing its resilience and broadening its reach.
3. Early Mover Advantage and Strong Brand:
4. Aave is a leading brand in the DeFi space, with a strong reputation and market share. By deploying on Aptos, Aave captures early mover advantages on a high-performance blockchain, similar to its strategic expansions to Polygon and other L2s. This can attract both seasoned DeFi users and new participants exploring Aptos.
5. Aptos' Strategic Position:
6. The Aptos team, with their background from Meta's Diem project, has strong connections and expertise in finance, social and gaming sectors. Integrating Aave into Aptos complements these areas by adding a mature financial layer, essential for a complete blockchain ecosystem.

7. High Transaction Throughput:
8. Aptos supports up to 30,000 transactions per second (TPS), crucial for DeFi protocols like Aave that handle a high volume of transactions, including loans, repayments, and interest accruals. This high throughput can significantly enhance user experience and enable new use cases that require high-frequency transactions.
9. Enhanced Security with Move Language:
10. Aave v3 introduces sophisticated risk management tools and improved security protocols. The Move programming language used by Aptos has inherent security advantages, such as preventing reentrancy attacks. This alignment can lead to a more secure DeFi lending environment, leveraging Move's safety features and formal verification.
11. Transaction Cost Efficiency:
12. Aave v3 focuses on gas efficiency, critical for reducing transaction costs. Aptos' efficient processing capabilities further complement this by potentially lowering transaction fees even more. This makes Aave more accessible and attractive to a broader range of users, from retail participants to institutional players.
13. Modular and Flexible Architecture:
14. Aave v3's modular and flexible architecture facilitates easier upgrades and expansions. Aptos supports upgradable smart contracts and a flexible account model, enhancing this aspect. This allows for seamless implementation of updates and improvements without significant disruptions or migrations.
15. Economic Benefits for the Aave DAO:
16. Market Share Growth: Access to new markets and user bases, specifically in APAC and Korea where Aptos has a strong presence.
17. Revenue Growth: New markets and user bases can significantly increase transaction volumes and generate additional revenue streams.
18. Incentives: Aptos Foundation has committed to provide up to 2M APT in liquidity mining incentives and rewards depending on performance in order to attract users and liquidity providers, increase adoption and boost the ecosystem's growth. Aptos Foundation will work closely with Chaos Labs on determining the appropriate level of incentives relative to caps set.

The Move implementation on-going development code of Aave Protocol V3 can be foundhere.

The Aptos team is currently working with Aave Labs, Zellic, SpearBit and later in time with Certora and OtterSec on security reviews and improvements to the codebase to achieve high security standards. Aptos is sponsoring the audits.

ChainLink Integration:

We plan to integrate with ChainLink's Price Feeds as the oracle provider for the market (currently in development), and with the recently announced Cross-Chain Interoperability Protocol (CCIP) to enhance the functionality and security of Aave on Aptos.

Asset and parameter settings would be discussed during ARFC.

Disclaimer:

This proposal published by the Aptos Foundation is intended for community feedback and does not represent a final decision. The deployment of Aave V3 on Aptos is subject to successful completion of all technical reviews, audits, and governance approvals. Aave Labs has built substantial expertise in the Move programming language and is prepared to proceed with the deployment pending community approval and further development steps. Aave Labs has been engaged as a technical contributor to implement the code version of the Aave Protocol into the Move programming language. Any actions taken based on this proposal should consider the inherent risks associated with blockchain deployments, including but not limited to technical, operational, and market risks. The information provided in this proposal is for informational purposes only and should not be construed as financial, legal, or technical advice.

Next Steps:

1. If consensus is reached on this [TEMP CHECK], escalate this proposal to the Snapshot stage.
2. If the Snapshot outcome is YAE, this proposal will be escalated to ARFC stage
3. Publication of a standard ARFC, collect community & service providers feedback before escalating proposal to ARFC snapshot stage
4. If the ARFC snapshot outcome is YAE, publish an AIP vote for final confirmation and enforcement of the proposal