# [ARC] Deploy Aave V3 on Cronos chain

## Proposal

Launched in 2021 after years of open-source R&D, Cronos is #9

public blockchain by DeFi value locked according to <u>Defillama</u> (around 2.5 B\$ TVL to date). Cronos proposes to deploy Aave V3 to the Cronos chain and to incentivize liquidity in order to help fulfill the promise of a multi-chain future.

Cronos is the first Ethereum-compatible blockchain network built on Cosmos SDK technology. An open-source Layer 1 chain launched under the <a href="Crypto.org">Crypto.org</a> umbrella, Cronos aims to massively scale the DeFi and dApp (Web3) user community by providing builders with the ability to instantly port apps and crypto assets from other chains while benefiting from low transaction fees, high throughput, and fast finality.

In 2020 and 2021, hundreds of millions of consumers have purchased their first cryptos, the majority via a centralized exchange. Tens of millions of them are <a href="Crypto.com">Crypto.com</a> customers, holders of CRO or other tokens of the Cosmos ecosystem, and/or <a href="Crypto.org">Crypto.org</a> project supporters. These crypto users are now eager to take the next step in Web3. For these users, Cronos is a natural gateway into the broader world of self-custody, Ethereum and DeFi.

The cross-chain future that is such an integral part of Aave V3, resonates well with the motivations of Cronos users. Therefore, Cronos represents an ideal ground to demonstrate the promise of Aave V3.

Technical specifications of the network

## Network specifications

<u>Cronos</u> is an open-source project launched by <u>Crypto.org</u> that brings together many <u>open-source initiatives</u> of the Ethereum, Cosmos and IBC (Inter Blockchain Communication) ecosystems. At its core, it is a fully EVM-compatible alternative Layer 1 blockchain built using the Cosmos SDK (Ethermint implementation).

Cronos mainnet has been live since November 2021 and is already home to more than 100 partners and more than 340,000 DeFi and NFT users. Cronos is powered by the CRO cryptocurrency, which counts tens of millions of holders and users worldwide thanks to its support by <a href="Crypto.com">Crypto.com</a>. All key network statistics can be viewed on the Etherscan deployment, called <a href="Cronoscan">Cronoscan</a>, as well as on <a href="Defillama for TVL chart">Defillama for TVL chart</a>.

At the protocol level, Cronos relies on a Proof of Authority consensus where each validator's voting power is proportional to their stake in the protocol's staking token. There are currently 26 live validators, with room for more. The consensus delivers fast finality with block times between 5 and 6 seconds, low transaction fees (usually below 1 USD) paid in CRO token, and small environmental footprint.

Users and Dapp developers interact with Cronos primarily through the usual EVM Web3 JSON-RPC <u>endpoints</u>. They can deploy any EVM-compatible smart contract written in Solidity, and can use all the usual end-user and developer tooling: MetaMask, Etherscan block explorer (<u>Cronoscan</u>), Gnosis Safe, Truffle, Hardhat, Web3.js, Ethers.js, Web3.py, etc.

The Cronos team is actively in contact with the relevant teams to implement all the components needed for robust Aave V3 deployment and operations, specifically the Chainlink oracle, The Graph indexer, and commercial and JSON-RPC endpoints for Dapps (in addition to the existing <a href="free ones">free ones</a>). These teams are in process of assigning engineering resources to work on these projects and target launch date for these additional components is early Q2 2022. Cronos protocol engineering resources stand ready to support these projects.

There are several bridges between Cronos and other networks:

- Fast withdrawals from and to the <a href="Crypto.com">Crypto.com</a> app and exchange.
- Planned native bridge from and to the Ethereum mainnet via Gravity Bridge technology, currently in testing and planned for imminent launch.
- Live IBC transfers from and to the <a href="Crypto.org">Crypto.org</a> chain, Cosmos Hub, and Terra, with more IBC-compatible chains on the roadmap.
- Live EVM smart contract-based transfers from and to BSC, Polygon, and other EVM chains via 3 independent bridges, with more to come.
- · Security review of additional bridges is under way.

Cronos is an open ecosystem supported by a wide range of more than 100  $\underline{\text{contributors}}$ ,  $\underline{\text{validators}}$ , and  $\underline{\text{Dapp developers}}$ . This includes 2 large AMM/DEXes, VVS Finance (1.4 B\$ TVL) and MM Finance (320 M\$ TVL).

The <u>roadmap</u> is ambitious and includes protocol and database optimizations, further connectivity and interoperability, best-in-class tooling and infrastructure, further protocol governance decentralization, dozens of DeFi and GameFi Dapps, and

longer term plans to increase scalability.

## Aave V3 implementation

As part of this proposal, Aave V3 will be deployed to Cronos like any Web3 protocol, given that Cronos is fully EVM-compatible. Aave operations will rely on the Chainlink oracle and The Graph indexer (implementation under way).

The Aave V3 Portal will be able to leverage robust EVM-based cross-chain bridges (such as Connext and others, subject to further testing and security review) for the transfer of underlying assets backing aTokens.

#### Metrics and references

#### Chain data

- · 26 live validators.
- 14 M transactions to date (no transaction pumping!)
- 150,000 to 200,000 transactions per day, with potential to increase by 5x to 20x in the short term.
- 350,000 unique wallets.
- More than 75 Dapps deployed in the last 3 months, including VVS (DEX, 1.4 B\$ TVL), MM Finance (DEX, 320 M\$ TVL), Tectonic (decentralized lending, 275 M\$ TVL), and many others.

#### Audience data

- Twitter: 130k followers.
- Telegram: 7k subscribers.
- Discord: 19,000 members.

#### Links

- Cronos website
- Particle B ecosystem development program
- Blockchain explorer
- Particle B accelerator & jobs
- Cronos integration documentation
- · Github repository
- Overview of Cosmos SDK and Tendermint node architecture

#### Proposed list of initial collaterals

The proposed list of initial collaterals is: CRO, WETH, WBTC, USDC, USDT, DAI, ATOM, LUNA, DOT.

As indicated above, Chainlink price feeds are being scheduled for deployment.

Cronos already supports the <u>following cross-chain assets</u>: CRO, WETH, WBTC, USDC, USDT, DAI, SHIB, DOGE, ATOM, LINK, ENJ, ELON, TUSD, LUNA, DOT, BIFI, with more to come. Additional native tokens include VVS, TONIC, These tokens have between 10 M\$ and 700 M\$ of liquidity on Cronos. Daily volume for the corresponding pairs is between 20 and 30 M\$.

The proposed tokens have more than, or close to, 2 M\$ daily volume each. With respect to DEX statistics, see <u>VVS</u> <u>analytics</u> for history and liquidity per token, and <u>MM Finance analytics</u> for additional pairs.

# Incentives

Particle B, the Web3 accelerator of the Cronos chain, has an initial allocation of USD 100 million in CRO tokens for ecosystem development. A portion of these funds will be allocated to end-user incentives, commensurate with the large user and TVL growth potential of Aave V3 on Cronos.

In our experience, the effectiveness of liquidity mining incentives varies depending on market conditions, hence the exact programs and amounts (expected to be worth several M\$ initially) will need to be refined over time.

# Audits and security

Cronos mainnet was launched in November 2021 and has not experienced outages so far.

An audit of relevant components of the underlying Ethermint codebase (<a href="crypto">crypto</a>, <a href="JSON RPC">JSON RPC</a>, <a href="Ante handler">Ante handler</a>, <a href="EVM state">EVM state</a></a> <a href="transition">transition</a>) was commissioned by Foris Ltd and completed by Kudelski Security in November 2021, to be published soon.

A bug bounty program is <u>published</u>, with a maximum bounty of 1.3 M\$.