JAMTON

Funding Proposal - Milestone 1

1. General Project Information

Short description: JAMTON is a **parallelized layer 2** between the Polkadot ecosystem and the TON network with key features such as **DOT/TON liquid staking protocol** with **restaking**, a **cross-chain interaction mechanism**, EVM-compatibility, built-in DEX with the order book, and abstract accounts.
Project Category / Type: Software development / Parallelized layer 2 with liquid staking/restaking protocol
USDT address: 154cSL9sqcMFwv8ASkM1Bc7cTcLnBh5smmdQM92KYHCWKR7U (Polkadot Asset Hub)
Requested allocation: 78,800 USDT
Onchain publish date: 28.11.2024
Governance referenda origin call: medium spender

2. Problem Statement

The Polkadot ecosystem and its projects provide high transaction speed, scalability and excellent interoperability within the ecosystem. But there are problems such as **a low number of users** and **weak liquidity inflow into the ecosystem**. These problems are a consequence of **poor interoperability with other ecosystems** as well as **a high barrier to entry for new users**.

The TON ecosystem has access to **950M Telegram users**, **a low entry barrier for new users into** the ecosystem via Telegram Wallet and Telegram Mini Apps, and as a consequence a **constant inflow of liquidity**.

Thus, we need a solution that connects the Polkadot and TON ecosystems to solve the existing problems. The synergy between both ecosystems will enable:

- **Engaging Telegram users** and TON holders into the broad and future-proof Polkadot ecosystem.
- **Increase in incoming liquidity** into the Polkadot ecosystem and its growth.
- **Providing compatibility and cross-chain communication** between Polkadot-based projects and the TON ecosystem.

In this proposal, we suggest solving the existing problems with building a JAMTON solution and primarily **bring Telegram users** into the Polkadot ecosystem and give Polkadot ecosystem projects **access to liquidity** in the TON ecosystem.

3. Proposal

JAMTON is a cross-chain solution that **connects the TON and Polkadot ecosystems** and combines **better user experience**, high transaction speed, interoperability of parachains and EVM-compatibility. JAMTON is a **parallelized layer 2** between Polkadot-based projects (for example, Moonbeam, Hydration DeFi hub and others) and the TON network. This level provides a cross-chain interaction mechanism. JAMTON will be a gateway allowing these projects to **access the liquidity of the TON ecosystem and Telegram's user audience** and thus grow. JAMTON is currently a Polkadot parachain which provides high TPS value and will be favourable for TON-based projects that join JAMTON and even for new EVM projects that will be deployed on JAMTON.

To facilitate access for users from both ecosystems, JAMTON proposes to **use native tokens DOT and TON** with the addition of **liquid staking to incentivise users**. At the initial stage of the project, the main factor for users engagement from the TON ecosystem is the suggestion to transfer their TON liquidity to Polkadot staking to achieve a **higher APR**.

The JAMTON protocol will evolve across several major versions:

- In the first version, JAMTON will exist as a sidechain with a **multi-chain liquid staking protocol** and **gateway between TON and Polkadot networks** (see details in Appendix A).
- The second version of JAMTON will include **a new level of interoperability between ecosystems** (see details in Appendix B).
- JAMTON will then move to version 3, which will feature increased integration with other networks (see details in Appendix C).

This proposal covers the development of the first version.

Key deliverables of development covered in this proposal are the following:

- JAMTON is an EVM-compatible Polkadot parachain with built-in AMM DEX, order book DEX and OpenGov.
- JAMTON multi-chain liquid staking and restaking protocols.
- Easy entrance for TON users and liquidity to the Polkadot ecosystem by using the JAMTON gateway.
- Telegram Mini App and the possibility for TON users to get higher APR by participating in DOT liquid staking protocol as a mechanism of engaging TON users and liquidity to the Polkadot ecosystem.

JAMTON enables the following use cases:

- Fungible assets transfers:
    - TON jettons will get ERC-20 representation inside JAMTON EVM and could be transferred between the TON network and JAMTON as well as sent to other Polkadot parachains from JAMTON using XCM.
    - ERC-20 assets deployed on JAMTON EVM as well as tokens received through XCM will get corresponding jetton representation on the TON network and could be transferred back and forth.
- Cross-chain dApps:
    - JAMTON will be used for routing messages between dApps deployed on the TON network and from Polkadot ecosystem dApps reachable through XCM as well as dApps from JAMTON EVM. This opens a possibility for developers to build cross-chain protocols and decentralized applications including cross-chain swaps, governance, staking and more.

3.1. Scope of work

JAMTON development plan consists of two stages:

- **Stage 1** - JAMTON is an EVM-compatible sidechain for the TON network and a gate for TON users and liquidity to the Polkadot ecosystem.
- **Stage 2** - JAMTON upgraded to the TON-Polkadot interoperability layer enabling cross-chain transactions between the networks (see details in Appendix D). For Milestones/Budget/Duration of Stage 2, see this document. Stage 2 is not covered by this proposal. Stage 2 will take progress after Stage 1 has been completed.

The scope of work covered by this proposal is Stage 1 development. The scope of work consists of delivering the following components:

Multi-level liquid staking system

JAMTON includes 3 interconnected staking protocols:

1) TON liquid staking protocol

TON liquid staking protocol implementation consists of the number of smart contracts deployed on the TON network. The role of this component is to be an entry point for TON

liquidity to JAMTON. Users who participated in the protocol will get liquid jstTON jetton that can be used inside the TON DeFi ecosystem or sent to JAMTON via stTON bridge solution.

2) DOT liquid staking protocol

DOT liquid staking protocol is mainly implemented as a runtime module of JAMTON parachain. The protocol flow also includes interactions with the Polkadot relaychain using XCM and UMP/DMP protocols and with oracle service for synchronising the state of DOT pool on the relaychain.

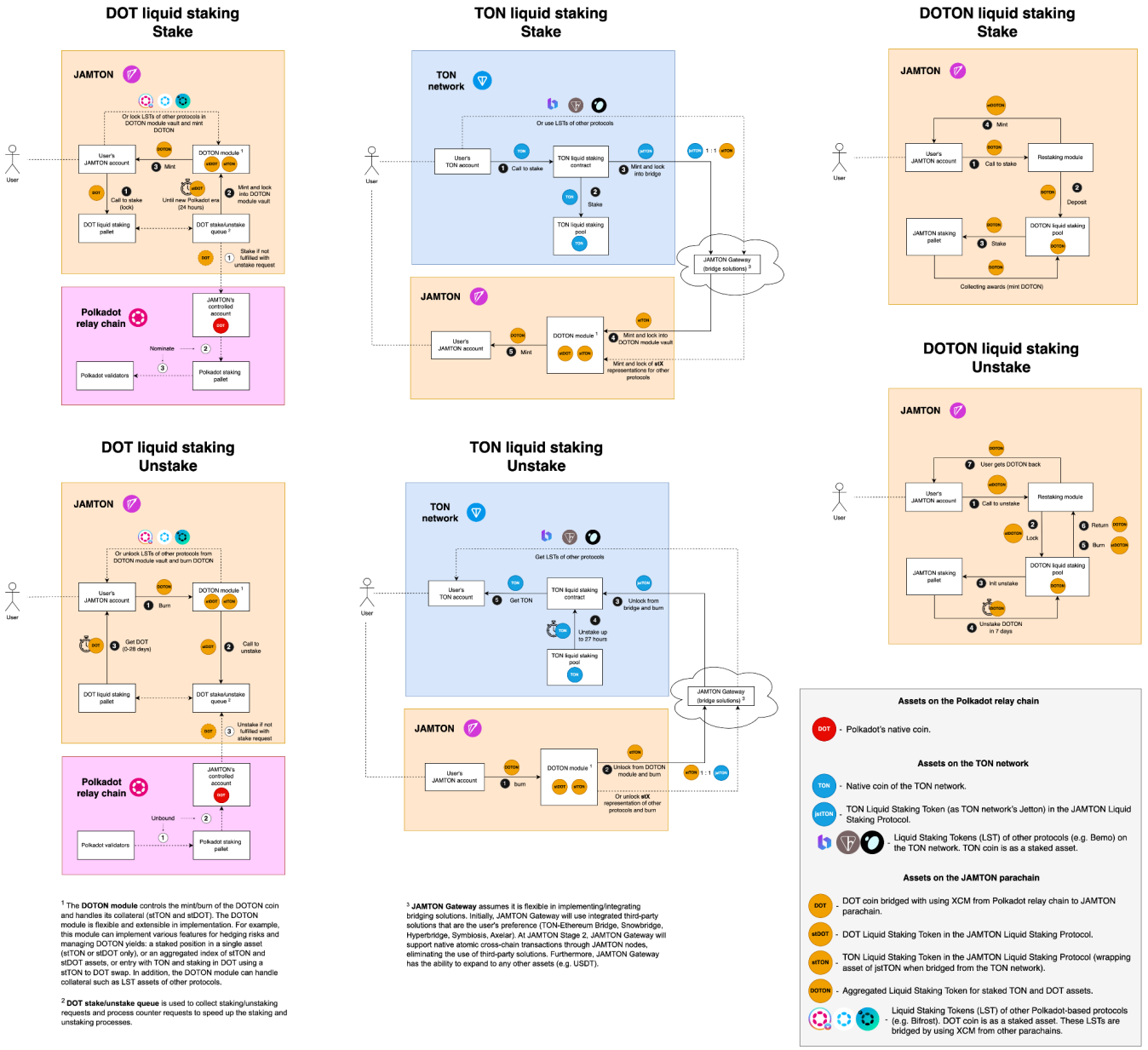
Both DOT and TON holders will be able to participate in the protocol. TON holders first get stTONs (jstTON jettons) from the TON liquid staking protocol on the TON network. After transferring stTONs to JAMTON via stTON bridge solution, users may enter the protocol through an isolated stTON-DOT pool. DOT holders enter the protocol by just transferring DOT to JAMTON parachain.

Users get a liquid staked token - DOTON. The token could be utilised around the Polkadot ecosystem, placed into DOTON liquid staking to nominate to JAMTON collators and receive additional rewards or returned to its protocol with an option to unstake either to stTON or to DOT.

3) DOTON liquid staking protocol

dPoS is implemented to ensure JAMTON parachain progressing and incentivising people to provide infrastructure resources by running nodes and participating in the collation process. This staking is also liquid and for staking DOTONs users will get stDOTONs.

See below for a diagram of how all tokens flow work:



[1] The **DOTON module** controls the mint/burn of the DOTON coin and handles its collateral (stTON and stDOT). The DOTON module is flexible and extensible in implementation. For example, this module can implement various features for hedging risks and managing DOTON yields: a staked position in a single asset (stTON or stDOT only), or an aggregated index of stTON and stDOT assets, or entry with TON and staking in DOT using a stTON to DOT swap. In addition, the DOTON module can handle collateral such as LST assets of other protocols.

[2] **DOT stake/unstake queue** is used to collect staking/unstaking requests and process counter requests to speed up the staking and unstaking processes.

[3] **JAMTON Gateway** assumes it is flexible in implementing/integrating bridging solutions. Initially, JAMTON Gateway will use integrated third-party solutions that are the user's preference (TON-Ethereum Bridge, Snowbridge, Hyperbridge, Symbiosis, Axelar). At JAMTON Stage 2, JAMTON Gateway will support native atomic cross-chain transactions through JAMTON nodes, eliminating the use of third-party solutions. Furthermore, JAMTON Gateway has the ability to expand to any other assets (e.g. USDT).

Link to the source file of the diagram:
https://gateway.pinata.cloud/ipfs/bafybeigndsa7hxldwrwumrzomfawga67tf6mnnbra6qlxuvtgastxjgnse

JAMTON parachain and system dApps

EVM-compatibility

JAMTON parachain is an EVM-compatible substrate-based network. Besides the possibility to deploy and execute EVM smart contacts and Ethereum RPC support EVM layer will be supplemented by functionality enabling wrapping assets presented by WASM runtime or speaking precisely by substrate pallets into ERC-20 compatible tokens that could be accessed from EVM smart contracts. Also, XCM transfers will be enabled for ERC-20 tokens.

Furthermore, JAMTON parachain will use Ethereum account addresses (AccountId20). This decision allows the development of a mapping between TON account and JAMTON account that could be controlled by the same secret and required for seamless transfer of stTON through Ethereum network. Also, Ethereum wallets could be easily used due to this feature.

AMM and order book DEX

JAMTON parachain will contain AMM DEX - JAMTON DEX. JAMTON DEX will be live as a Telegram Mini App for interactions with it. Orderbook functionality support is planned to be added to JAMTON DEX during JAMTON solution development.

OpenGov governance

The parachain will become community-driven with the use of the OpenGov system when enough people are engaged in the JAMTON ecosystem. Users will be able to vote with DOTON tokens for different system-wise decisions like runtime upgrades, opening HRMP channels, adding external assets, changing system parameters and more.

XCM-interoperability

JAMTON parachain is treated as an entry point to the whole Polkadot ecosystem. Therefore, a flexible XCM configuration system has to be set up. Communities and development teams of other parachains will be provided with a simple flow of opening HRMP channels, registering their assets, requesting to make it possible to pay fees with external assets and enabling transfers of JAMTON assets by submitting referendums on JAMTON's OpenGov system.

Flexible transaction fee payments

The system of flexible transaction fee configuration will be introduced to improve UX. It will make it possible to pay transaction fees with different tokens like stTON, DOT, DOTON and stDOTON.

stTON bridge solution

It's crucial to provide a simple experience of entering the JAMTON ecosystem for TON users. Two existing bridges - TON-Ethereum bridge (TonBridge) and Ethereum-Polkadot bridge (Snowbridge) - will be used to solve the task of delivering TON liquidity to the parachain. To make seamless transfers possible we have to supplement the infrastructure of this bridge with two elements: jstTON gateway contract that will handle sending jstTON through TonBridge to Ethereum network and stTON bridge proxy contract that will relay tokens arrived to Ethereum to JAMTON via Snowbridge.

Oracle service

Oracle service is required for proper work of DOT liquid staking protocol. The oracle will feed the state of TON and DOT pools and their prices.

Telegram mini-app

Users will mainly interact with the whole system using Telegram Mini App. User will be able to bridge stTON, stake and unstake stTON, DOT and DOTON, swap tokens on JAMTON DEX, send assets between JAMTON and other parachains, participate in governance and more. In addition, JAMTON dApp is planned to implement the functionality of interaction with JAMTON parachain using TON wallet, and also interaction with TON network using Polkadot wallet.

3.2. Milestones, Timeline and Budget

Milestone 1

Duration: 3 months
Completion: Q1 2025

During milestone 1, we plan to develop all main components of the stage 1 system either fully or partly and initiate a security audit (in Q1 2025).

Tasks:

1. **[JAMTON node]** Node development and deployment of the initial version of the JAMTON Mainnet parachain connected to Polkadot. Node development includes adding functionality: dPoS staking for native DOTON coin, basic EVM compatibility, XCM functionality. Deployment includes setting up the server infrastructure for JAMTON parachain.
2. **[UI/UX design]** UI/UX design for JAMTON dApp and JAMTON branding.
3. **[Liquid staking protocol: TON]** Development of the JAMTON liquid staking protocol: TON network side.
4. **[Liquid staking protocol: Polkadot]** Development of the JAMTON liquid staking protocol: Polkadot side.
5. **[Oracle services]** Development of oracle services for liquid staking protocols.
6. **[TON<>Polkadot gateway]** Developing a gateway solution to move stTON asset (liquid staking coin on the TON side) between the TON network, JAMTON chain and the Polkadot ecosystem as a whole.
7. **[Restaking protocol]** Development of the JAMTON restaking protocol: liquid dPoS staking for DOTON coin.
8. **[JAMTON DEX]** Development and integration of AMM DEX module and order book DEX in JAMTON node.
9. **[JAMTON SDK]** Development of JAMTON SDK for interaction of dApps with JAMTON parachain.
10. **[JAMTON dApp]** Development and deployment of front-end/back-end for JAMTON dApp (user's account, TON and DOT staking, DOTON restaking, AMM DEX and order book DEX, XCM bridge, Telegram Mini App, a single wallet connection (TON or Polkadot wallet) to interact with both networks (TON and Polkadot)).
11. **[OpenGov integration]** Integration of OpenGov mechanism into JAMTON parachain.
12. **[Monitoring services]** Setting up monitoring service (Prometheus/Grafana tools) for JAMTON parachain nodes.

Deliverables:

- The initial version of JAMTON is launched as **JAMTON Testnet** (in late October 2024)
- Early adopters sign-up is launched (in late October 2024):
    - Homepage: **https://jamton.network**
    - dApp: **https://app.jamton.network**
    - Telegram Mini App: **https://t.me/JamtonAppBot**
- The initial beta version of the JAMTON mainnet parachain is launched (in late November 2024):
    - **JAMTON already has a winning slot in Polkadot auction #80**
    - **JAMTON mainnet live explorer**
- UI/UX design for JAMTON dApp is ready
- The TON side of JAMTON's liquid staking protocol is live
- JAMTON parachain as well as general on-chain components enabling users to use TON's liquidity on JAMTON and particularly in DOT liquid staking protocol developed and live including:
    - DOT liquid staking protocol
    - DOTON liquid staking protocol
    - EVM-compatibility
    - AMM DEX
    - OpenGov governance
- Oracle service for liquid staking protocols is live
- stTON bridge solution is live
- JAMTON SDK for seamless interaction of dApps with JAMTON parachain is developed
- JAMTON dApp (with sign-in, staking/restaking, DEX, XCM bridge, a single wallet connection (TON or Polkadot wallet) to interact with both networks (TON and Polkadot)) and JAMTON Telegram Mini App is live
- Orderbook functionality added to the JAMTON DEX
- Orderbook DEX has been integrated into JAMTON dApp
- Security audit initiated

We plan to make public release announcements of updates in our channels mentioned below (see section "3.6. Project communication"). Planned frequency of releases/updates: every 10-14 days.

Budget allocation for the team in details

Tasks - Milestone 1 (3 months)	Product manager / Solution architect / Tech lead, days	Blockchain team, days	Front-end team, days	DevOps / Back-end dev, days	Project manager / front-end QA, days	UI/UX designer, days	**Total time/task, days**	**Total time/task, hours**	**Total cost/task, USD**
1. JAMTON node	0	8	0	4	0	0	12	96	$5,440.00
2. UI/UX design	1	0	0	0	0	20	21	168	$5,920.00
3. Liquid staking protocol: TON	3	8	0	0	0	0	11	88	$5,440.00
4. Liquid staking protocol: Polkadot	3	8	0	0	0	0	11	88	$5,440.00
5. Oracle services	2	5	0	5	0	0	12	96	$4,640.00
6. TON<>Polkadot gateway	3	8	0	3	0	0	14	112	$6,160.00
7. Restaking protocol	3	8	0	0	0	0	11	88	$5,440.00
8. JAMTON DEX	2	8	0	0	0	0	10	80	$5,120.00
9. JAMTON SDK	0	5	0	0	0	0	5	40	$2,800.00
10. JAMTON dApp	3	0	40	25	10	0	78	624	$24,560.00
11. OpenGov integration	0	2	0	0	0	0	2	16	$1,120.00
12. Monitoring services	0	0	0	3	0	0	3	24	$720.00
Total time/position, days	20	60	40	40	10	20			
Total time/position, hours	160	480	320	320	80	160	**Total days**	**Total hours**	**Total cost**
Total cost/position, USD	$6,400.00	$33,600.00	$16,000.00	$9,600.00	$1,600.00	$5,600.00	**190**	**1520**	**$72,800.00**

Total budget for the team: 72,800$

3.3. Other costs

Other costs require the following allocation of the budget:

- Infrastructure. This funding allocation will rent dedicated servers for the JAMTON parachain infrastructure and the periphery and pay for a Kubernetes cluster/databases for the JAMTON dApp and server services (indexers, monitors and others). This funding will cover the cost of servers in the initial development phase of JAMTON (at Milestone 1).

Other costs	
Infrastructure	6,000$
Total costs	**6,000$**

3.4. Payment condition

USDT address: 154cSL9sqcMFwv8ASkM1Bc7cTcLnBh5smmdQM92KYHCWKR7U (Polkadot Asset Hub)
Requested allocation: 78,800 USDT
Governance referenda origin call: medium spender

Final budget	
Milestone 1	72,800$
Infrastructure	6,000$
Final budget	**78,800$**

Treasury request	
Currency	USDT
Total amount requested	**78,800 USDT**

3.5. Objectives/Success criteria

Our target users can be different groups of players in the crypto ecosystem. An important factor will be their interest in the staking opportunities, higher transaction speeds and cost-effectiveness of the JAMTON solution.

The success of the JAMTON project will be estimated based on a combination of both technical and economic metrics. For example, key metrics such as:

- JAMTON network TPS.
- Number of collators and delegators in the JAMTON network.
- A number of DeFi applications integrated with the JAMTON and its liquid staking protocol. This is important for estimating ecosystem activity.
- Number of active users, wallets and number of transactions.
- TVL, DOTON supply, staking APY and other economic metrics showing the level of user trust in the project.
- DOTON coin liquidity on CEX/DEX, trading volumes and DOTON's usage in other DeFi protocols.

We plan to collect metrics from the start of the project. We will track it as milestones are completed and new features are released. Progress reports on the JAMTON project will be provided quarterly via Polkassembly so the Polkadot community can track the project's development.

In addition, after milestone completion or completion of key functionality development, a feature launch with marketing support and announcements for the community will be conducted.

3.6. Project communication

The JAMTON project team regularly communicates through the following channels:

- Each proposal is accompanied by a delivery report, which is documented in the Submission History.
- Blog posts are published alongside major releases and events on CurioDAO Medium.

- All announcements related to the JAMTON project are published on the official CurioDAO Twitter and CurioDAO Telegram group.
- **We plan to make public release announcements of updates in the channels mentioned above. Planned frequency of releases/updates: every 10-14 days.**

The project can be contacted at email: info@curioinvest.com and engineering@curioinvest.com

4. The Team

The JAMTON project is being developed by the CurioDAO team. Biographies of key members of the team are as follows.

Fernando Verboonen stands at the helm of CurioDAO, a cutting-edge venture he co-founded, revolutionizing the landscape of digital assets. With over a decade of diverse expertise, his journey encompasses:

Cryptocurrency & Blockchain: With a laser focus on Real World Assets (RWAs), Asset Tokenization, and the intricate cross-chain ecosystem, Fernando has navigated the complexities of this ever-evolving realm for more than 11 years.
Business Engineering & Scaling Savvy: Fernando's acumen extends beyond technology; he possesses a keen insight into the mechanics of business engineering and scaling, essential for steering ventures towards success in dynamic markets having worked for a Startup that was acquired by Qualcomm as well as for a VC fund.

Driven by a profound belief, Fernando sees RWA tokenization not merely as a technological advancement but as a catalyst for a profound digital transformation. He envisions a future where real-world DeFi liberates financial assets, enabling them to serve as collateral across diverse decentralized finance (DeFi) applications.

Vladimir Kislinskii is the CTO at CurioDAO. His journey in blockchain technology dates back to the launch of Bitcoin. Vladimir is the visionary behind all of CurioDAO's existing DeFi products and initiatives.

Vladimir has a strong experience in building teams to develop complex decentralized systems and protocols. He is designing the architecture of CurioDAO's decentralized ecosystem and connecting business and market requirements with technical development.

More recently, Vladimir has also been pioneering ideas for extending the Curio ecosystem to Bitcoin specifically using RGB and Taproot Assets Protocol technologies. As a result of bringing liquidity and community from Bitcoin to Curio's multi-chain ecosystem, including Curio Chain built on Polkadot technologies.

Vladimir Sushkov has joined CurioDAO since the company's launch in 2018 and is Head of Engineering.

Vladimir has an education in cyber security and a strong maths/engineering background. He started his professional career as a full-stack specialist in web development. Vladimir has 15 years of programming experience including 10 years of experience in

commercial/non-commercial web services development of different levels of complexity. His competencies include knowledge of such programming languages and technologies as C++, Assembler, Rust, Node.js/Nest.js, React/Vue.js/TypeScript. Also since the Ethereum era, Vladimir has been closely involved in the development of smart contracts on Solidity for EVM-compatible networks.

Vladimir has experience in leading CurioDAO's development team - under his leadership, CurioDAO products such as the world's first tokenized Ferrari, AMM DEX by CurioDAO - Capital DEX, RWA tokenization launchpad and marketplace - Rollapp, Curio Chain - CurioDAO's network for tokenization of real-world assets and other DeFi tools were successfully launched.

CurioDAO's technical team consists of experts in areas such as blockchain development and building of decentralized systems, web development, DevOps engineering and infrastructure, and UI/UX design:

- **Dmitry** - DevOps engineer (Senior), back-end developer (Senior) and back-end team leader.
- **Danila** - Rust/Substrate blockchain developer (Senior), Solidity developer (Senior) and blockchain team leader.
- **Victoria** - Front-end developer (Senior) and front-end team leader.
- **Pavel** - UI/UX designer. He is an ex-designer of 1Inch company and has great competencies in commercial UI/UX design.
- **Anastasia** - Project manager and QA engineer.
- **In-house blockchain team**, which consists of 2 Rust/Substrate/FunC developers (Senior/Middle).
- **In-house front-end team**, which consists of 3 front-end developers (Senior/Middle).

4.1. Kusama/Polkadot reputation

The CurioDAO team has been involved in the Polkadot/Kusama ecosystem since the launch of Curio's own solo-chain network (Curio Chain) in 2021. In 2023, Curio Chain marks a significant milestone in the evolution of asset tokenization - the launch of the Curio Chain as a parachain connected to Kusama. This move expands the accessibility and functionality of the Curio ecosystem, enabling seamless tokenization of real-world assets (RWAs) and innovative decentralized finance (DeFi) applications.

Key features of Curio Chain:

- **DeFi Lego for RWAs:** Curio Chain introduces a decentralized finance infrastructure tailored specifically for real-world assets.
- **AMM DEX (Capital DEX):** The Curio Chain incorporates an Automated Market Maker (AMM) decentralized exchange (DEX) called Capital DEX. With liquidity pools and farming functionalities, Capital DEX provides users with enhanced liquidity and yield-generating opportunities.
- **Staking Programs:** Curio Chain incentivizes participation through staking programs, where Curio Gas Token - CGT (a native token of Curio Chain) holders can stake their tokens to maintain the network's integrity and security. In return, participants receive CGT rewards for their contributions to the consensus mechanism.
- **Curio Parachain:** Integrated with the Substrate framework and connected to the Kusama network, Curio Chain operates as a parachain, benefiting from shared

security while maintaining its focus on real-world asset tokenization. This architecture ensures scalability, interoperability, and security for the CurioDAO ecosystem.

- **Hybrid Tokenization Protocol:** CurioDAO offers a hybrid tokenization system for real-world assets, supporting various token standards such as fungible tokens and non-fungible tokens (NFT and RFT). This flexible protocol enables the seamless tokenization of diverse assets, including collectible cars and fine art.

Capital DEX dApp on Curio Chain: https://capitaldex.exchange/
Curio Chain wiki: https://wiki.parachain.curioinvest.com/
Curio Chain page on Parachains.info: https://parachains.info/details/curio/
Explorer of Curio Chain:
https://polkadot.js.org/apps/?rpc=wss%3A%2F%2Fparachain.curioinvest.com%2F#/explorer
GitHub of Curio Chain node: https://github.com/CurioTeam/curio-parachain

The plan is to create a gateway between the CurioDAO ecosystem and the JAMTON project to transfer assets between them, for example, to transfer the native token of the CurioDAO ecosystem - Curio Gas Token (CGT).

4.2. Questions and comments

For any additional questions please do not hesitate to contact **Fernando Verboonen** at info@curioinvest.com or engineering team at engineering@curioinvest.com.

Appendix A

JAMTON is a sidechain with a multi-chain liquid staking protocol and gateway between TON and Polkadot networks

The task of engaging TON holders is solved by offering the possibility to stake their tokens on the Polkadot relaychain through a multilayer liquid staking protocol implemented on the JAMTON parachain and experience much higher APR the same time staying liquid inside a multi-chain Polkadot ecosystem with lots of products where their liquid staked tokens could be used. JAMTON's liquid staking protocol is a cascade consisting of three connected liquid staking protocols: for TON, DOT and DOTON (native coin of JAMTON, a derivative of TON and DOT).

TON holders enter the JAMTON ecosystem by firstly participating in the TON liquid staking protocol on the TON network and receiving stTON that can be bridged to the JAMTON parachain through the TON-JAMTON bridge.

On the parachain, both stTON holders and DOT holders can participate in DOT liquid staking receiving multi-collateral (stTON + DOT) DOTON tokens. Rewards coming from Polkadot relaychain staking are distributed between DOTON holders and users have an option to unstake either to DOT or to stTON. User's staking rewards will depend on the combined yield of TON, DOT and DOTON staking. A flexible fees setting system allows the project's team to customise fee percent at different levels: in JAMTON smart contracts for liquid staking on the TON network, in JAMTON liquid staking on the Polkadot side and also in dPoS staking on the JAMTON parachain.

DOTON token is a native coin of JAMTON parachain and can be delegated to JAMTON parachain collators to ensure chain progression. For participating in native JAMTON dPoS users get a liquid stDOTON token.

Delivering stTON jetton from TON network to JAMTON parachain implemented seamlessly using TON-Ethereum bridge - TonBridge, and Ethereum-Polkadot bridge - Snowbridge. In this scheme moving tokens between TonBridge and Snowbridge gateways on Ethereum network happens automatically and does not require having an Ethereum wallet.

One of the main goals of the system is to provide very simplified UX without additional complexity for users compared with their use of the TON network. All interactions with JAMTON and system dApps will happen with using Telegram Mini Apps. Users will not need to set up Substrate-specific wallets as JAMTON supports the same signing scheme as TON (ed25519) making it possible to sign parachain transactions with TON wallets.

Next, the JAMTON network should be friendly for users and developers from the Ethereum ecosystem, which means that JAMTON will have EVM compatibility and support for EVM wallets. The main UX vision of JAMTON is to allow users from different ecosystems to use their familiar wallets (Polkadot wallets, TON or EVM).

EVM compatibility of JAMTON opens access for EVM-based dApp to stTON holders and allows developers to deploy contracts on JAMTON EVM and provide their products to users coming from the TON network. Also technically JAMTON is a Polkadot parachain which means it's highly interoperable with other participants of the Polkadot ecosystem. Utilizing

XCM technology opens JAMTON’s functionality and liquidity to the whole Polkadot ecosystem.

Furthermore, it is planned that all architectural components of JAMTON will be flexible for implementation and extension, which implies horizontal scalability of the protocol.

Appendix B

JAMTON is a new level of interoperability between ecosystems

The vision of JAMTON development assumes turning it into a Polkadot-TON interoperability layer making it possible to build cross-chain protocols between TON and Polkadot ecosystems. This layer allows Polkadot-based projects to interact with TON-based projects and vice versa, as well as enabling the deployment of Ethereum-native dApps on JAMTON and interacting with both ecosystems.

JAMTON's cross-chain communication provides the following key features:

Parallelisation of cross-chain transactions

The JAMTON layer will provide the ability to execute transactions in parallel on the JAMTON and TON network. This increases transaction bandwidth and reduces latency for dApps. At the same time, JAMTON will support cross-parachain interoperability, allowing Polkadot-based projects to interact in parallel with TON ecosystem projects.

Composability

JAMTON creates a channel for transactions and smart contract execution in both ecosystems. This is achieved by the direct integration at the protocol level, allowing interoperability between projects of different architectures and code bases. This connectivity allows, for example, EVM smart contracts or Polkadot-based projects to access the liquidity of decentralised exchanges on TON natively via the Ston.fi protocol and integrate into the vibrant TON ecosystem.

Tools compatibility

JAMTON will have a set of cross-chain communication tools and interfaces for all platforms: Substrate, TON and EVM. This allows developers to seamlessly integrate cross-chain interoperability into dApps without extensive code refactoring. This compatibility extends to the use of familiar development tools and environments, ensuring a smooth migration and integration process. Using JAMTON, developers can take advantage of high performance and low transaction costs while maintaining the robust smart contract capabilities of each ecosystem.

Protocol modularity

We aim to support the concept of blockchain modularity. The goal is to separate resource-intensive operations into separate layers, ensuring that computation, storage, and consensus mechanisms operate independently. Separating the user layers from the execution and storage layers allows developers greater architectural freedom. With this modular layout, developers will significantly increase the bandwidth of their dApps.

High performance

JAMTON inherits high bandwidth, low latency and scalability capabilities from the Polkadot ecosystem. JAMTON's speed is enhanced by parallel transaction execution on different networks - Substrate-based and TON networks.

Shared security

JAMTON is a cross-chain communication network between TON and Polkadot. The basic security of the JAMTON network is provided by the Polkadot relay chain. The security of individual dApps is already provided by their native execution environment, be it other parachains, or the TON blockchain. Thus JAMTON gives a secure layer when dApps interact.

Appendix C

The future of JAMTON

Our future vision of JAMTON will include options such as:

Interoperability with the Bitcoin ecosystem

JAMTON will extend its cross-chain interaction functionality to the Bitcoin ecosystem and the RGB protocol (https://rgb.tech/). This will allow all projects using JAMTON to interact with Bitcoin liquidity and Bitcoin-based protocols. For example, it will be possible to call a JAMTON transaction that will be executed on Bitcoin, TON and other Polkadot parachains.

Account and chain abstraction

The core idea of JAMTON's future vision is to abstract blockchain technologies from the user experience - users of a dApp should not be aware of which network/networks that dApp is using.

JAMTON plans to provide a set of services for Polkadot ecosystem projects that enable:

- Create and restore accounts using email addresses.
- Use a zero-balance account. It will be available for dApps to sponsor gas charges for end users.
- Handle accounts on other networks (including multi-sig accounts). JAMTON will have a mechanism to facilitate signing transactions on other networks (initially for Polkadot parachains, TON and Bitcoin networks). It allows users to store assets and use applications on any network with a single account.

These services can be used as seamlessly as possible and within a single user interface, which will be provided either in a standalone JAMTON protocol application or can be integrated inside any Polkadot-based project's user interface.

JAMTON will create a smooth user experience where users can use dApps without recognising that they are using a blockchain. For example, it will allow Polkadot-based projects to give their users with Polkadot wallets (or even just via email) access to an account on TON, Bitcoin, and other networks.

Cross-chain DAO framework

One of the interesting things we plan to develop within JAMTON is a multipurpose tool to build a DAO for voting for proposals on all JAMTON-connected networks (e.g. the TON network). Initially, we plan to use JAMTON's cross-chain communication layer to manage part of the JAMTON network on the TON network via JAMTON's OpenGov referenda - e.g. accept executive proposals to manage fees in the JAMTON liquid staking protocol on the TON network's side. Further, we will give all Polkadot ecosystem projects (and dApp developers on Moonbeam, for example) the ability to create structural parts of DAOs on other networks.

Bridge to Polkadot's JAM

We want JAMTON to be one of the pioneering projects that will use Polkadot's JAM. Our vision for JAMTON in this area is a bridge between Polkadot ecosystem projects, the TON ecosystem, the Bitcoin network and JAM. We plan to extend all key developments to JAM, such as the abstraction of accounts and chain, so it will be possible to interact with JAM with Polkadot and TON accounts.

Appendix D

Vision for Stage 2 of the development

JAMTON is planned to be upgraded into universal Polkadot-TON interoperability layer enabling seamless assets transfers and cross-chain execution.

Integration of TON node to JAMTON parachain node

TON node functionality will be integrated into the JAMTON parachain node in a similar way how to the relaychain node is running alongside the parachain node. Each JAMTON parachain node will listen for events related to TON-JAMTON interactions therefore acting as a bridge relayer. Once the event has been captured, a consensus session will be started in the JAMTON runtime environment to verify that the event has been emitted on the TON network. On the other hand, to relay events happening on the JAMTON side the parachain nodes will have to provide their signatures to the JAMTON engine on the TON network which will then proceed with corresponding action. JAMTON is validated by Polkadot, making it a secure solution for interchain communication.

JAMTON engine on TON network

JAMTON engine on TON network is a set of smart contracts on TON network that act as a gateway to and from JAMTON enabling secure messages passing between two networks. The main action of the engine is to execute assets transfers and route cross-chain messages on behalf of the JAMTON network.

Polkadot-TON cross-chain framework

This framework consists of SDKs and smart contract libraries aimed to help developers build Polkadot-TON cross-chain applications with JAMTON. The example could be a set of Solidity contracts and interfaces that could be inherited to help developers in building a proxy contract that will build XCM messages to interact with dApps on other parachain that will be used during routing a message from TON through JAMTON.

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