Closer Look
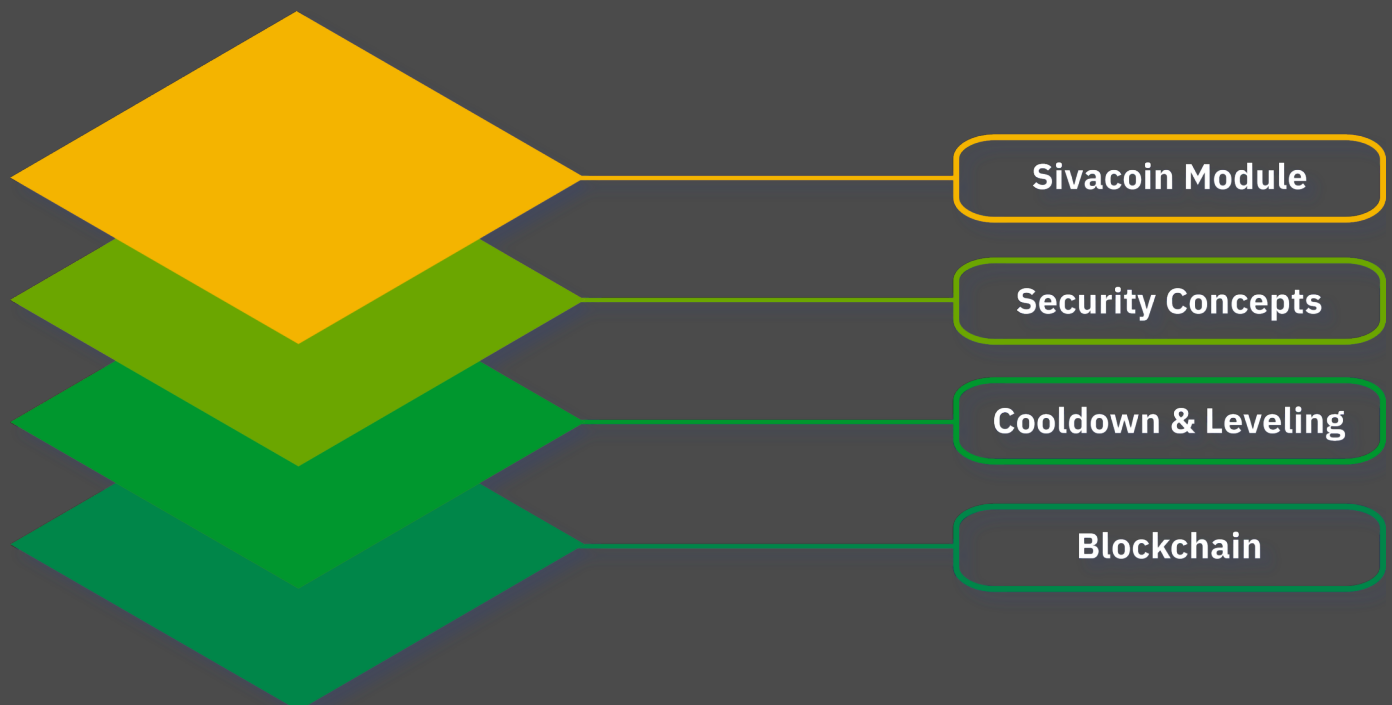
We'll discuss all the nuts and bolts of the Siva Ecosystem. Please notice, it might get pretty technical.

Sivacoin Module

Security Concepts

Cooldown & Leveling

Blockchain

Deep-Dive

Following is an in depth overview of how the Siva Engage2Earn Ecosystem works **behind the scenes**. You'll get an extensive explanation on how μSIVA and XP systems work, get insights of our **security strategies and measurements** and a more detailed overview of Ew0x Labs **IT-Landscape**.

This chapter gets pretty technical and is not required if you want to understand what Siva is, but how Siva works in greater detail.

E2E Module (μSIVA)

Ecosystem: API, Discord Bot, Polygon Blockchain, Database

μSIVA can be earned in every server housing Siva Bot, from a technical perspective, server admins click on an invite button and Discords build-in OAuth2 authentication and authorization system ensures Siva lands safely on the correct server.

After onboarding is done, Siva Bot - a headless node/express application - talks via http(s) requests to the Siva RESTful API and configures the MongoDB database for the new server.

To keep the Siva Bot most efficient API-Request wise, calls to the Polygon network will be made directly with ethers (a JavaScript library for communicating with an EVM compatible blockchain), circumventing the API completely, for example to check if the submitted wallet address of a user to withdraw μSIVA is a valid Ethereum address. This is just an example of Ew0x Labs build-in strategies to make the Sivacoin Ecosystem a serious, efficient and fun to use product.

As this document serves as a Whitepaper supplement and not as a technical documentation, more detailed questions can be asked any time in the Siva Discord server.

What is an API

A REST API (also known as RESTful API) is an application programming interface (API or web API) that conforms to the constraints of REST architectural style and allows for interaction with RESTful web services. REST stands for representational state transfer and was created by computer scientist Roy Fielding.

μSIVA System

μSIVA gain is global and progress can be tracked on Leaderboards and by entering the command ***/balance***. Nano SIVA (μSIVA) is the most important stat in the Sivacoin Ecosystem and translates directly to the mintableCoins and Tokens on a fixed, predefined rate.

Earned μSIVA can be spend to withdrawCoins and Tokens straight from within the Discord chat window or send to other community members as a reward or tip. Before users are able to withdraw, they have to purchase a Mintpass to unlock the withdraw/mint functionality in Siva Bot.

Cooldown

A cooldown timer prevents exploitation and mass μSIVA gains. On a random period (120s -240s) users get μSIVA based on the type of interaction. When we calculate the exact μSIVA value, we take many metrics into consideration. For example, the value depends on the user account age, guild age, active boosts and a secret security rating.

Security Rating

We won't reveal all details about the security rating publicly, to factor in security by obscurity strategies. KYC'd members holding a Founders Mintpass and selected individuals like technical advisors, will have access to the full Siva Ecosystem source code, including the security rating module.

We understood and are fully committed, that we have to take massive security considerations to operate the Siva Engage2Earn Ecosystem successfully. Even our Discord is known for its strong security implementations and settings.

First Client – Discord

Due to its massive adoption, Discord has surpassed the "chitty-chatty app for Gamers and Nerds" and the "just another Teamspeak alternative" state and should be seen, with 150 million active users, as a serious market contender to big social media companies.

Newest progressions and statements from within the company prove they changed their state-of-mind too, working towards a professional approach for letting third party developers build technically sophisticated Metaverse apps.

As an example, the company recently changed one of the core functionality from Discord, implementing so called Slash Commands, thus making it possible to react to user events in a professional way. Before this new implementation was released, developers had to analyze and read along every single message send by all users, to check if a command has been fired. A security and efficiency nightmare.

The new approach ensures a professional and reliable event management with minimal user privacy penetration can be implemented in Discord bots.

Level Module (XP)

Ecosystem: API, Discord Bot, Database

The leveling system works quite the same as the Engage2Earn system, with a few caveats. Experience Points (XP) can be earned per server only, not globally and there will be a per-server Leaderboard rather than a global one.

Server admins can set the amount of XP gained per engagement and setup roles that can be automatically assigned to users, once they reach a configurable threshold of XP, giving them for example access to new channels and contents. This system pushes community interactions to new heights and is a proven technique to enhance engagements for years. Basically every single game released these days, implements some kind of leveling system to provide players with a feeling of progression and reward them for engagements and playtime.

Currently there are only a few Discord leveling bots on the market, most of them having professional features hidden behind massive paywalls. The Siva Bot leveling system will be included for free and with advanced features like Paragon points, stylish badges and auto roles. Providing servers with yet another reason to invite Siva to polish their community engagements.

Some features include configuring no-XP channels and roles, effectively preventing users of gaining XP in selected channels or assigned roles. Booster roles are roles that give more XP to its assigned users, to reward them for customizable predefined actions like boosting the server with Discord's Nitro.

As already mentioned, the rest is technically quite close to the Engage2Earn system, minus the blockchain communication and plus a lot more configuration options. Please join our Discord if you have more questions about the leveling system, as we want to keep this document as short and informative as possible, without bloating it with unnecessarily repeated technical details.

Engagement Module

Ecosystem: API, Discord Bot, Database

Base utility module for the Engage2Earn and Level module, as both take user interactions into account. While talking to the same API endpoint, internally µSIVAand XP gains will be calculated and rewarded differently, considering separate cooldown times and amounts for both modules.

It's this module that makes the Sivacoin Ecosystem easily adaptable to new clients, like the already mentioned Telegram messenger or Slack app, and extendable to incorporate new features fast and efficient.

Discord Commands

Ecosystem: Discord Bot, Polygon Blockchain

At launch Siva bot will have around 5-10 basic commands, like displaying a user's current XP and µSIVA balance, the latter with automatic conversion to supported Coins and Tokens or to withdraw Coins and Tokens to an Ethereum compatible wallet address. More commands are already deployed to the test environment and will be released one by one as we see fit.

Discord's new slash commands are super easy to use and worked reliable during Ew0x Labs alpha tests. As it marks only the beginning of Discord's future plans to implement slash commands even more, we are excited about what comes next.

ERC Smart Contracts

Ecosystem: Polygon Blockchain

Every smart contract developed by Ew0x Labs is based on security audited OpenZeppelin (OZ) contracts, the standard for secure blockchain applications. Management is done with OpenZeppelin Defender, an administration and governance platform for upgradable smart contracts on EVM (Ethereum Virtual Machine) compatible blockchains.

Zero effort when withdrawing/minting µSIVA is an essential concept of the Sivacoin experience. Simply entering the wallet address that will receive minted Coins or Tokens is all it takes to successfully withdraw µSIVA. All transactions required to mint new tokens are signed by the above mentioned relayer wallet, making it incredibly easy, super fast and really fun to earn with Siva.

Blockchain Security

Besides using customized, battle tested and security audited smart contracts, our strict private key and multi signature wallet policies ensure safe operations on the blockchain and secure storage of digital assets.

All contracts are owned by multi signature wallets, of which the private keys are held by the founders of Ew0x Labs and at least one technical advisor.

All employees and affiliates of Ew0x Labs must meet our private key policy, containing the liability to store Siva related private keys in a secure hardware wallet or air-gapped system. In case new employees do not own a hardware wallet, Ew0x Labs will provide one free of charge.

At a later project stage, Ew0x Labs seeks to conduct regular security audits of all Sivacoin related systems, software and contracts, lead by external auditors.

Due to the IT-Security related history of one of the Ew0x Labs founders, a former security auditor at KPMG (IRM Division – Information and Risk Management) auditing, besides others, Top-10 German DAX companies, we can rely on deep technical security knowledge and precautions, while knowing that regular external audits are essential and incredibly valuable.

Sivacoin Withdraw Security

Aware that clients can be abused by malicious actors, Ew0x Labs build some security functionality into the Sivacoin Ecosystem core, to efficiently react to applicable security states.

These precautions include for example a security state (a private integer value), kept on the blockchain. The minting state includes the following conditions:

State = 0 (DISABLED) – withdraw is disabled (highest security)

State = 1 (PRIVATE) – withdraw enabled only in Sivacoin's Discord server (high security)

State = 2 (SELECTED) – withdraw enabled in Discord servers of our Partners, meeting our high security standards (medium security)

State = 3 (PUBLIC) – withdraw is globally enabled, effectively allowing minting in all servers – this will be the default value in the long-term (low security)

Security states of Siva's Ecosystem can be configured by the Ew0x Labs Security Response Team and depends on various monitored ecosystem metrics like API

requests, µSIVAor minting spikes, Network latency, Database load and much more. Again, if you are interested in technical details, please consider joining our Discord server.

Siva Governance and DAO

Following list shows features that will be included in the future governance stage of the Siva Ecosystem.

Cooldown period – SIVA token holders can propose and vote for new values of the cooldown period between each engagement. For security reasons, the value can only be increased and decreased in 1 second steps (starting at 120s/min. and 240s/max. at launch).

Tokens/Coins per µSIVA – Even the most influential factor of the Siva Engage2Earn Ecosystem will be given in the hands of SIVA Governance Token holders. To avoid misuse and to the protect digital assets of our community, the amount of SIVA per µSIVA can be increased or decreased and will be max. 0.0001 SIVA for every accepted proposal.

New features – Holders of SIVA Tokens can vote for new features that will be developed and implemented by Ew0x Labs, essentially allowing our community to create the future of Siva together with Ew0x Labs.

Housekeeping – The period in which unclaimed µSIVA are cleared from user accounts can be proposed by SIVA token holders, but is limited to a given range (1 week, 1 month, 3 month, 6 month, 12 month).

Important Links

Following is a list of official links to Sivacoin Ecosystem related websites, social media accounts and blockchain contracts.

Official

Website

https://siva.gg

Discord

https://siva.gg/join

Twitter

https://twitter.com/sivacoin

OpenSea

https://opensea.io/sivacoin

OnePlanet

coming soon

Siva Bot Invite Link

https://siva.gg/invite

Mintpass on OpenSea

https://opensea.io/starter-mintpass
https://opensea.io/founder-mintpass

Contracts on Polygon Mainnet

Sivacoin ($SIVA)

Address: 0x745005BB6bDB33b5C8f8b6BBE75781f99a8940b4

Mintpass: Starter Edition (SMP1)

Address: 0x8eDC54AE7361cDa41885f52D7AafaEda418B1481

Mintpass: Founder Edition (SMP2)

Address: 0x47bFA0Ae010b2C4D0CE8F3a3D5c997B15D0F989C

Sivacoin Engage2Earn Ecosystem

THANKS FOR YOUR ATTENTION