



# Polkadot Decentralization Analytics

Project Delivery Report

2022 Q3

**Polkadot**  
Treasury Proposal

[#249 Polkadot decentralization analytics, Continued Operation and Improvements.](#)  
Valletech



Valletech AB, SE559067369401, Blamesv. 26, 186-37 Sweden



# About This Document

This report contains information about the execution of actions and milestones agreed in the referenced Treasury proposal, the deliverables, community engagement and potential next steps.

## Executed Actions and Milestones

### Continued Operation and Project Management

The system has been operated according to the agreed model without issues.

However, the required effort in both operations and project management was underestimated. Operating Polkawatch and managing the project took more effort than we anticipated (also in the Kusama branch), but this was not a major issue for us.

### User Engagement Stack and Content Marketing

We finalized the integration of Mautic with our DAPP, Landing Pages capability and outbound marketing email with proper email authentication and deliverability.

We have run several test campaigns with project Updates and implemented in-DAPP registration for project updates.

We published our [Polkadot State of Decentralization 2022 Report](#) which is distributed using Mautic and provides the possibility to register for future issues (non-mandatory).

The content marketing capability is being complemented with regular articles/announcements in [our blog](#) and announcements from our [twitter account](#).

We are also in regular contact with ecosystem social media actors. We have been featured and referenced in #AAG and are regularly retweeted by the ecosystem.

We think that our content strategy is working, and we see good growth in social media in particular considering the invested effort. We believe the reason is that the ecosystem has a high degree of interest in decentralization which makes content marketing ideal. For example, the announcement of our report reached more than 22K Twitter users in 24 hours.

### Distributed Data Pack Generation

The Data Pack was taking 17h to generate, and we proposed to escalate the ELK stack accordingly.

However, when we started with a bottleneck analysis we noticed that none of CPU, Network and Memory were a bottleneck in our cluster as a whole.



We decided to rework the client side used for DDP generation adding configurable parallelism. When running the DDP generation client at 400% increased concurrency we noticed that CPU in our cluster became the main bottleneck with memory following after it.

We increased our allocated CPU Cores and Memory to the Polkawatch cluster which resulted in the desired performance improvement of 300%.

We have also noticed that further improvement is possible by optimizing the index itself as data outside the last 60 eras starts to pile up. Eventually we will need to implement different indexing strategies for the tip of the chain and the rest (archive) as they feed different use cases, such as the DAPP and the Long term Reports.

## UX Improvements and Mobile users

We implemented a pack of generic UX improvements such as Skeleton pattern, clearer navigation and notifications.

IPFS direct DAPP links feature was also implemented after we participated providing feedback to the specification and later tested the implementation of “\_redirects” in [Kubo IPFS](#) content gateway.

However, after reaching out to some users we learned that the most requested UI feature was custom Account search for Nomination Analytics.

After implementing these set of features we can see that our mobile users achieve just as much as our Desktop users, in particular regarding key events such as Nomination analytics.

We are now getting new usability requests, the top one, which is also requested by partners, is multi-wallet integration.

## Partnership with other community projects

We have created a [client SDK](#), with auto generated [API documentation](#), [integration guide](#) and [Skeleton Sample project](#), which includes React UI Charts to facilitate as much as possible the integration with other ecosystem projects.

At least one Wallet project has already integrated our DAPP, and we can see traffic to Polkawatch from them, but the integration is at the bare linking level.

We have also been listed at: polkaproject, polkadot support, polkadot wiki and other community sites, and we can see traffic from them.

Meanwhile, we continue in active contact with 4 other projects.

Achieving feature rich integrations, such as embedded charting, will require additional effort from our side. We still consider this activity strategic and we are willing to implement PRs to other projects if required.



We think having Polkawatch data integrated in other community projects is key for increasing adoption and awareness.

Wallet providers are the most interested segment, but they also expect our DAPP to implement multi-wallet support. This is now a key feature for us.

## Community Feedback Implementation

We have sourced components for our data-center, and now we have one server with 5TB volume capability for archive nodes, with 2 more servers getting the same capability shortly.

## Project Next Steps

Generally speaking we feel we are contributing to raise awareness about the importance of effective decentralization which, at the same time, is driving change.

Several metrics in our decentralization report improved significantly, even more than we expected perhaps also aided by the [Solana deplatforming event](#).

## Changes in Project Structure

Polkawatch has now been rolled out to [Kusama](#) too.

Kusama, as the canary network to Polkadot, is ahead in the product roadmap, with newer functionality being rolled out in Kusama before Polkadot.

Going forward we will concentrate the core development under the Kusama umbrella, leaving everything else under the Polkadot umbrella.

Developments on Kusama will be ported to the Polkadot branch after they become available and once there is enough data to analyze and chart.

## Changes in Project Management

Project Management required much more involvement than anticipated, and now that we interact with both Polkadot and Kusama seems like a waste of resources for us and the rest of the community to interact too frequently.

Going forward we will try to interact with the treasury less often, perhaps every 6 months or more instead of 3 months, alternating between Kusama and Polkadot.

## Next Project Features

- Staking pools was released on Kusama and needs porting to the Polkadot branch. It is also convenient that Staking Pools have been running for some months and there is data to analyze.
- Multi-wallet is being requested by users and partner projects alike.
- Much more involvement is required regarding the integration in other ecosystem projects: wallets, dashboards, etc.



## Marketing Activities

We are happy with the results achieved by content marketing and cooperation with the rest of the ecosystem. We want to maintain this activity but would not increase the effort until we get more integrations with other projects. These two activities may be enough to engage the whole community. We will, however, start using the User Engagement infrastructure to reach other Projects too.

## Longer Term Project Features

- The Kusama treasury has approved funding for Parachain support. Once available it will be ported to Polkadot too.
- We are considering implementing other related analytics, such as Governance (v2) decentralization analytics.
- Depending on the community reaction to the State of Decentralization Report, the activity may be continued, improved or ported into the DAPP. But this is still unclear.

