Proposal: RPC-node, Dwellir

Proponent: Dwellir
Date: 10/14/2022
Requested allocation: 3107.9 *(the DOT is based on EMA 7)*
DOT Account: `1MrurrNb4VTrRJUXT6fGxHFdmwwscqHZUFkMistMsP8k5Nk`
Short Description: Operate RPC service for the community in Q4 2022.

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Background

About Dwellir

Dwellir is an infrastructure provider for the decentralized web. We provide validator services for the networks Kusama, Polkadot and Kilt. We also run an RPC service for Kusama.

We participate in the Thousand Validator Programme for Polkadot & Kusama.

In Augusti and December 2021 we received a grant from the Kusama Treasury to build and further develop an RPC service for Kusama. We have since then developed an RPC performance toolkit which can be used by node operators.

The purpose of this proposal is to continue to run an RPC service for the Polkadot community. The service itself will benefit from the work we are already doing on the Kusama RPC service.

The Polkadot RPC service is online and is being used by the community.

Team

The Dwellir crew has over a decade of experience from the crypto domain and aims to expedite the development of web 3.0. We are experienced computer scientists,

entrepreneurs and crypto enthusiasts that share the ideas and philosophies around a free and decentralized web.

Gustav Nipe - CEO (https://www.linkedin.com/in/gustav-nipe-a61ab0102/)
Entrepreneur and political activist. Worked several years for the Swedish Pirate Party on privacy issues. Previous CTO at ImpactVision Inc (Acquired by Apeel Science 2020) a startup spawned from the Google Singularity University.

Erik Lönroth - DevOps lead (https://eriklonroth.com/cv/)
Technology Lead for High Performance Computing at Scania, past CIO ImpactVision Inc. Board member of Open Source Sweden.

Joakim Nyman - Solutions Architect (https://www.linkedin.com/in/joakim-nyman/)
DevOps engineer at Imint AB, past lead developer at ImpactVision Inc.

Ankan Anurag - Senior Engineer (https://www.linkedin.com/in/ankananurag/)
Senior engineer at Dwellir, past senior engineer at P.F.C. and Klarna

Christian Ander - Institutional Partnership (https://www.linkedin.com/in/christianander/)
President and founder of Goobit Group, a publicly traded crypto exchange in Sweden, BTCX.

Ben Chatwin - Operations (https://www.linkedin.com/in/ben-chatwin/) Has worked for several high-tech startups in drones, machine learning and more recently for deFi projects across multiple blockchain ecosystems.

Report

During Q3 2022 our Polkadot RPC node served on average **2,690,000** requests per day, and in total we served **250,200,000** requests.

During Q3 2022 our Statemint RPC node served on average **74,300** requests per day, and in total we served **6,687,000** requests.

During Q3 2022 our Westend RPC node served on average **43,700** requests per day, and in total we served **5,370,000** requests. dwqed d

Since our last proposal we have launched a Polkadot boot node. The node has been tested, added to the Polkadot binary and is being used by the community.

Problem #1 - Providing RPC services

The Polkadot network is today dependent on available RPC services for easy access to the network. When providing RPC endpoints it is critical for the network to stay decentralized, robust, and have different geo locations represented. Providing these RPC endpoints is not trivial and requires significant resources.

Proposed Solution to #1

MILESTONE 1

A) Run the RPC services on dedicated hardware. We will use different local ISPs for the co-location sites in order to help the Polkadot network to stay decentralized.
    a) Our ISPs operate in Sweden.

We seek a grant to finance Milestone 1 and in the next quarter we will file a new onchain submission to keep running the RPC services. At the next Treasury submission we include a report on the statistics of the usage of the service. Since we are running a similar service on the Kusama network, we have a good understanding of the costs associated with running an RPC service.

Alternatives and Other Proposals

- OnFinality's report for Q2 2022.

Fund Management

Fund Allocation Plan

DOT token price will be taken based on the 7 day average price on the day of submission.

Applicant*:	**Beneficiary:**
13u5odFdy7uFmRLpbgtYGWeFy8rFkcD3bYfad49B81C31pwL	1MrurrNb4VTrRJUXT6fGxHFdmwwscqHZUFkMistMsP8k5Nk
 GUSTAV 13u5odFdy7uFmRLpbgtYGWeFy8 rFkcD3bYfad49B81C31pwL	 DWELLIR DOT 1MrurrNb4VTrRJUXT6fGxHFdmw wscqHZUFkMistMsP8k5Nk

** The Applicant Account is signatory of the Beneficiary Multisig Account.*

DWELLIR

Costs Breakdown

MILESTONE 1
Develop, deploy and maintain the RPC-node on Polkadot

Running operational costs:

- RPC service, running on dedicated bare metal machines for Polkadot: $8900/quarter
- RPC service, running on dedicated bare metal machines for Statemint: $1780/quarter
- RPC service, running on dedicated bare metal machines for Westend: $1780/quarter
- Polkadot boot node service, running on dedicated bare metal machines: $400/quarter
- Running development to keep up with Polkadot (bug fixes, adjusting to new releases, security improvements, etc.): 12h / m*3 months * $165=5940/quarter
- Administration: $360
- Subscriptions for multiple DNS providers and registrars: $150/quarter

Total: $19310 (per quarter cost)

Total Polkadot Treasury contribution Q4 2022 = USD $19310
Total Polkadot Treasury contribution Q1 2023 = USD $19310

Total Polkadot Treasury contribution Q4 2022 = 3107.9 DOT

Communication channels

We plan to provide monthly updates with the Polkadot community and in various shared Matrix communication channels of the usage of the RPC services. We welcome any advice on how we can best communicate this to the Polkadot community. We plan to:

Deliver a report after completion of M1 for this quarter: including costs, developments and how the service has improved - including any usage metrics that support the service.