



Proposal: RPC-node services for Khala/Phala Q1/Q2 2025

Proponent: Dwellir

Date: 08/01/2025

Requested allocation: 80011 PHA

PHA Account: 46HeSZzkSfeaP3Z6JDbcyGsSHE5z5sPHuE1hGtGu1VuSHQDT

Short Description: Operate RPC service for the Khala/Phala communities for Q1/Q2 2025.

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TLDR

Dwellir is a leading IaaS (infrastructure as a service) team providing RPC infrastructure to more than 25 projects in the Dotsama ecosystem processing 1 billion requests per day. We are proposing to run a geographically distributed public Khala/Phala RPC API Service.

This service is currently available via:

<wss://khala-rpc.dwellir.com>

<https://khala-rpc.dwellir.com>

<wss://phala-rpc.dwellir.com>

<https://phala-rpc.dwellir.com>

This is a follow-up maintenance proposal to continue operating the RPC endpoints for the Khala/Phala communities.



Khala Dashboard

Start Date

10 / 01 / 2024

End Date

12 / 31 / 2024

Apply

252.93m

Total Requests for all Chains (92 Days)

2.75m

Average Daily Requests for all Chains (92 Days)

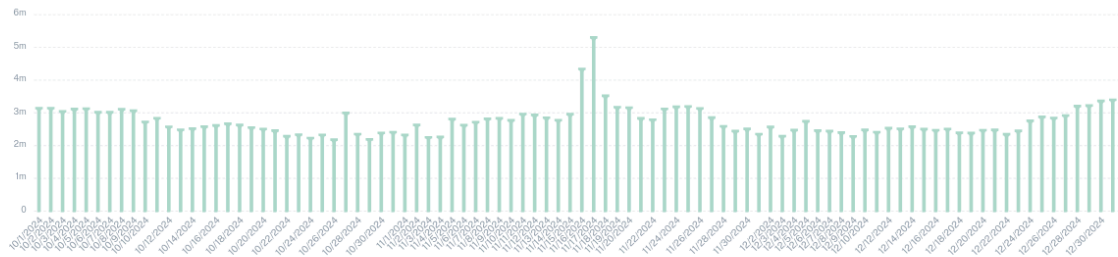
Data was last updated on Tue Jan 07 2025 05:22:21 GMT+0100 (Central European Standard Time)

Requests Per Day

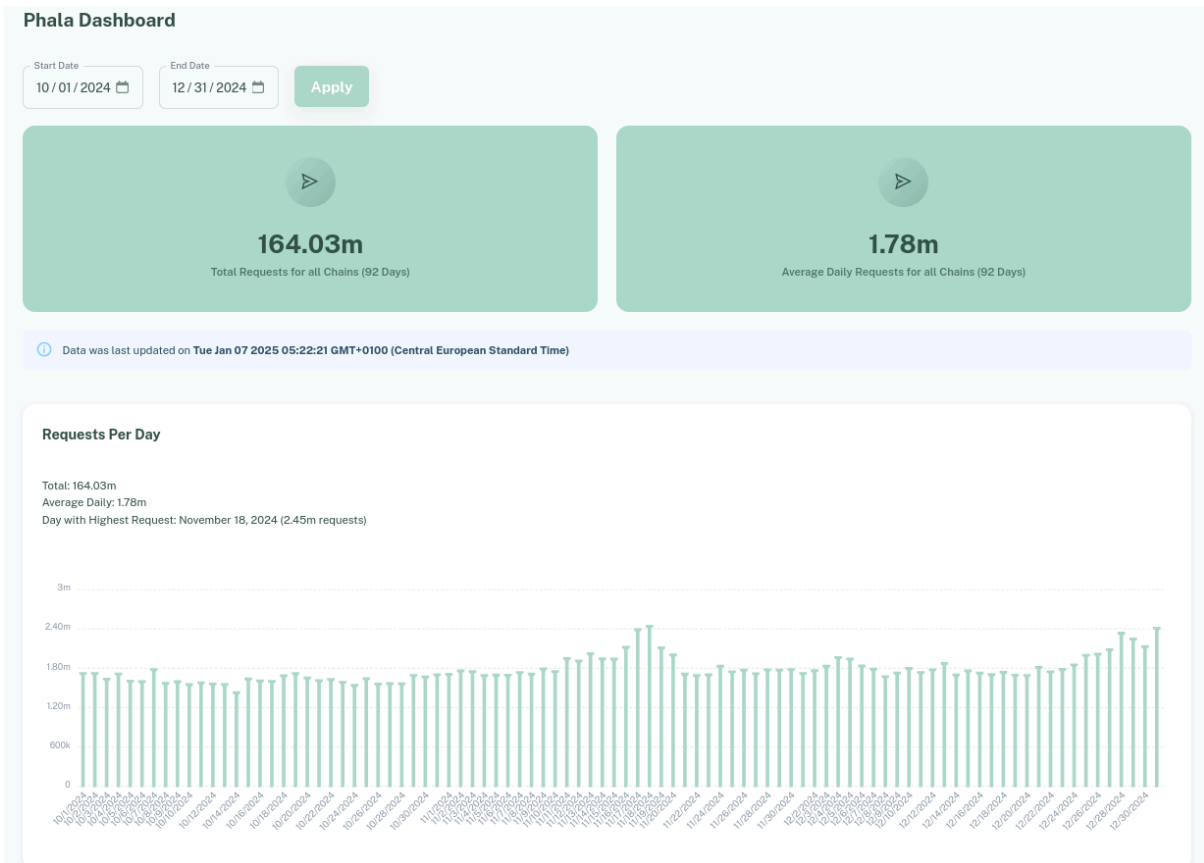
Total: 252.93m

Average Daily: 2.75m

Day with Highest Request: November 17, 2024 (5.31m requests)



Khala total RPC requests for 92 days Q4: 252.93m
Average amount of daily requests: 2,750,000



Phala total RPC requests for 92 days Q4: 164.03m
Average amount of daily requests: 1,780,000

Background

About Dwellir

Dwellir is an infrastructure provider for the decentralized web. We run RPC services for Kusama and Polkadot and more than 50 other projects, including Khala. Currently, we are processing 750 million JSON RPC requests per day.

We also provide validator/collator services for the networks [Kusama](#), [Polkadot](#) and KILT and participated in the Thousand Validator Programme for Polkadot & Kusama.

We own and operate our bare metal infrastructure, which has two significant effects. First, we directly contribute to the REAL decentralization of the network away from public cloud providers. The second is that we can deliver an often better functioning service at a fair price.

Lastly, we are builders. We are working on a suite of tools associated with our infrastructure that aim to give insights to the community. An example of this work is a report produced for Kusama Council (<https://github.com/dwellir-public/rpc-perf/blob/main/report.md>).



Team

The Dwellir crew has over a decade of experience in the crypto domain and aims to expedite the development of web 3.0. We have experienced computer scientists, entrepreneurs, and crypto enthusiasts that share ideas and philosophies around a free and decentralised 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.

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.

Problem Areas

Milestone 1 - Providing RPC services for Khala/Phala

Setting up blockchain infrastructure is difficult, time-consuming, and expensive:

- It requires a level of DevOps skills that many do not have. A Khala/Phala node, for example, requires knowledge of SSL certificate handling, WebSocket management, HTTPS management, firewall configuration, security measures, monitoring, reporting, upgrades etc.
- It's incredibly costly to run a node. Since we own and operate our infrastructure, our cost structures are fair and more sustainable than cloud providers, where one can expect huge price increases.
- Running production-level infrastructure is not trivial. You need to autoscale quickly to handle sudden traffic increases, which is very common when new projects launch. Our infrastructure uses a smart cluster stack whereby sudden traffic increases are expertly scaled up and down as needed without intervention.
- It requires time. Time is the most valuable resource for projects. Most projects simply do not have the time to spend on DevOps, especially in crunch moments.



Proposal

Scope

This grant will enable us to continue the service we currently provide, which entails:

- Hosting of the Khala and Phala nodes
- 24/7 Monitoring of core functions including scaling mechanism
- Continuous security improvements
- Continuous updates, upgrades, optimisations
- Communication with development teams (where necessary)
- Currently we operate two clusters in Northern Europe, one in North Africa and one in West Africa. In Q4 2024 we opened another cluster in Singapore.

Outcomes

There are three main outcomes:

1. Improve the decentralization of the polkadot ecosystem by providing our own bare-metal infrastructure
2. Improve the user experience within the Khala ecosystem by ensuring the reliable availability of the network.
3. Strengthen the team's ability to work on core business problems by reducing the strain on DevOps. We believe it's essential that parachain teams innovate on their core technology rather than spend time and resources on DevOps, where we are positioned to take the load.



Fund Management

Costs Breakdown

Providing RPC services for Khala/Phala

- Bare-metal machines in two locations (Europe)
- 24/7 Monitoring of core functions including scaling mechanism
- Continuous security improvements
- Continuous updates, upgrades, optimisations
- Communication with development teams (where necessary)

Per month / Per chain = \$2 350

Total costs Q1/Q2 2025: \$28 200

*15% 6 month discount applied: **\$23 970 = 80011 PHA***

Fund Allocation Plan

PHA token price is based on a 30-day average (\$0.299582/PHA) taken from https://www.coingecko.com/en/coins/phala-network/historical_data

Applicant and Beneficiary:

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