



DWELLIR

Hydradation RPC Services Q2 2024



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Summary

Proponent: Dwellir

Date: 04/07/2024

Requested allocation: 2,595 USD

Requested allocation: HDX 214864

BSX Account: 7JFHj3QnKVi1tNZFhfYBsTjycHg7bfrHqRoEQvc59RVJkX41

Short Description: Retroactive payment for RPC services during Q2 2024

Background

About Dwellir

Dwellir is an infrastructure provider for the decentralized web. We run RPC services for Kusama and Polkadot and more than 30 other parachains and solochains. Currently, we are processing 700 million JSON RPC requests per day and our goal is to process **one billion requests per day** before the end of the year.

We own and operate our own bare metal which has several important effects.

Performance: Bare metal servers offer superior performance and low-latency communication, essential for decentralized networks to efficiently process transactions and reach consensus.

Security: Bare metal servers provide enhanced security and isolation, safeguarding sensitive data and assets in a decentralized network.

Control: With bare metal servers, node operators have full control over hardware and software configurations, ensuring adherence to network rules and consensus mechanisms.

Reliability: Bare metal servers offer robustness and stability, making them reliable choices for continuous operation in decentralized networks.

Expertise: Our team has a proven track record of creating tailor-made blockchain infrastructure that align with Kusama specific needs.

Support: We don't just build and leave – our team stands by the community for the long haul. We engage with ongoing support, maintenance, and optimization services to keep the networks running smoothly and efficiently.

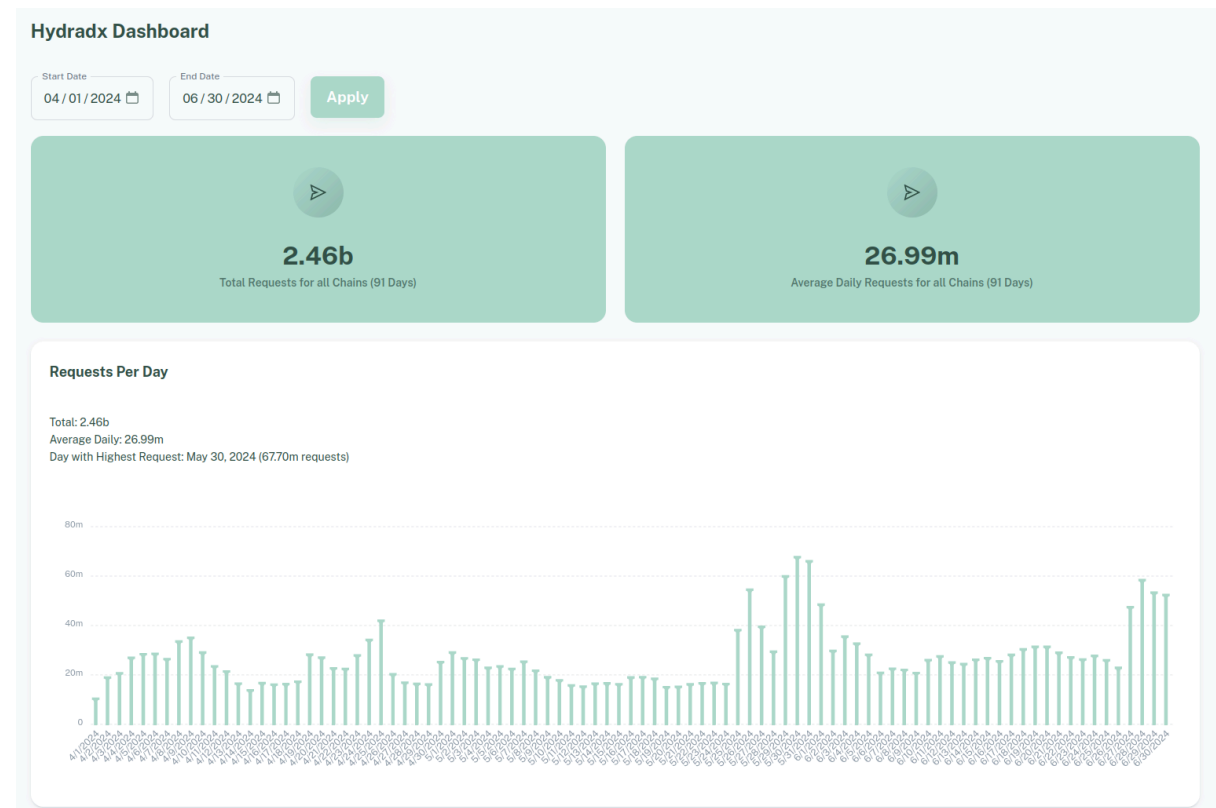
Since 2021 we have participated in the Thousand Validator Programme. In 2021 we also started to run RPC services for Kusama and Polkadot. We have since then developed an [RPC performance toolkit](#) which can be used by node operators.



Summary of Key Statistics

At Dwellir, we place a high value on transparency, understanding that it fosters trust and facilitates informed decision-making. To this end, we openly share our operational statistics with the community.

Here, stakeholders can gain insight into our service to the various Polkadot communities. We believe this transparency not only promotes accountability but also underscores our commitment to maintaining the highest standards of service delivery for the communities we serve.



Hydration total RPC requests for 91 days Q2: 2.46b
Average amount of daily requests: 26,990,00



Problem Statements

1.0 - RPC infrastructure is difficult, time-consuming, and expensive

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.

- It requires a level of DevOps skills that many do not have. A Hydration node, for example, requires knowledge of SSL certificate handling, WebSocket management, HTTPS management, firewall configuration, security measures, monitoring, reporting, upgrades etc.
- It's extremely 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 increases in price.
- Running production-level infrastructure is not trivial. You need to autoscale quickly to handle sudden increases in traffic which is very common when new projects launch. Our infrastructure uses a smart cluster stack whereby sudden increases in traffic are expertly scaled up and down as needed without the need for 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.

1.1 - Proposed Solution - A fully managed RPC service

Managed DevOps Services: With our professional DevOps team, we will handle all aspects of node management including SSL certificate handling, WebSocket management, HTTPS management, firewall configuration, security measures, monitoring, reporting, upgrades and more. This will ensure smooth and seamless functioning of the Hydration node and other similar nodes, eliminating the need for our clients to have specialized DevOps skills.

Cost-Effective Infrastructure: Since we own and operate our infrastructure, we can offer sustainable and fair cost structures. This is in stark contrast to many cloud providers that often introduce unexpected price hikes. Our model ensures predictable and controlled costs, helping our clients focus on their core project without financial distractions.

Intelligent Auto-Scaling: Our smart cluster stack is designed to efficiently scale up and down depending on the traffic needs. This technology ensures that even during high traffic periods like new project launches, the nodes function optimally without requiring manual intervention.

Time-Efficient: As time is a valuable resource, we aim to save our clients' time spent on DevOps by providing a comprehensive infrastructure solution. This would allow the project teams to focus their efforts on project development and growth.

Global Decentralization and Robustness: Our solution maintains the decentralized nature of the Polkadot network by providing nodes across different geo-locations. This will ensure that the network remains robust and resistant to localized disruptions.



Fund Management

Costs Breakdown

Description	Per Month Cost (USD)
Hydration RPC Services	\$865
Total cost for quarter	\$2,595
*HDX EMA30	\$0.01208
Total HDX for quarter	HDX 214864