Dear Polkadot and Kusama Community,

As we continue to expand and enhance the IBP network, we are pleased to share the recent developments and achievements of the Kusama Bounty Program. This program aims to fund independent infrastructure service providers, contributing to the robustness and decentralization of our network. For detailed monthly contributions and ongoing activities, please visit our repository at GitHub - ChildBounties.

## Origin and Funding

The Infrastructure Builders Program (IBP) originated as Bounty 19 on Kusama, approved by Referendum 35 in December 2022. It was initially funded with 52,000 KSM (equivalent to $1.3M at the time), intended to cover operations for one year. Due to good administrative practices, favorable market conditions, and a staggered onboarding of members, as of June 2024, the bounty still retains approximately 10,535 KSM, extending beyond the initial duration planned in Bounty 19.

**Members**

| Identity | Sum KSM | 01/2023 | 02/2023 | 03/2023 | 04/2023 | 05/2023 | 06/2023 | 07/2023 | 08/2023 | 09/2023 | 10/2023 | 11/2023 | 12/2023 | 01/2024 | 02/2024 | 03/2024 | 04/2024 | 05/2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stake Plus | 6401 | 1158.93 | 761.86 | 456.94 | 512.65 | 458.41 | 341.40 | 293.29 | 391.24 | 403.13 | 430.69 | 304.51 | 256.97 | | 197.28 | 167.19 | 266.38 | |
| Metaspan | 5952 | 784.82 | 812.04 | 496.62 | 521.85 | 654.55 | 518.12 | 278.43 | 317.15 | 326.78 | 315.05 | 204.39 | 208.30 | | 141.73 | 145.11 | 227.43 | |
| Helikon | 4076 | 672.92 | 471.60 | 227.51 | 371.61 | 239.47 | 202.99 | 223.82 | 280.48 | 289.00 | 278.62 | 180.75 | 184.22 | | 124.73 | 128.00 | 200.57 | |
| Gatotech | 5245 | 553.35 | 513.92 | 240.34 | 361.73 | 424.86 | 337.87 | 330.83 | 456.31 | 388.41 | 429.63 | 234.80 | 285.80 | | 262.15 | 160.25 | 264.67 | |
| Amforc | 4139 | 573.02 | 423.11 | 194.23 | 196.40 | 214.85 | 187.72 | 202.86 | 359.51 | 370.43 | 357.12 | 258.88 | 250.02 | | 145.71 | 158.27 | 246.92 | |
| Coinstudio | 1029 | | 53.26 | 65.06 | 66.25 | 85.13 | 73.98 | 81.33 | 105.79 | 109.01 | 105.09 | 68.18 | 69.48 | | 41.51 | 40.59 | 63.85 | |
| Turboflakes | 3810 | | 830.24 | 233.88 | 213.03 | 429.24 | 275.97 | 240.10 | 264.29 | 288.67 | 262.54 | 170.32 | 173.59 | | 118.11 | 120.93 | 189.53 | |
| Dwellir | 3937 | | | | 508.17 | 806.70 | 198.13 | 283.88 | 361.41 | 372.39 | 359.01 | 232.91 | 237.37 | | 157.84 | 163.34 | 255.78 | |
| RadiumBlock | 2337 | | | | | | | | | 817.55 | 67.43 | 769.24 | 125.93 | | 156.52 | 155.83 | 244.78 | |
| Rotko | 1851 | | | | | | | | | | 824.95 | 30.03 | 125.93 | | 495.25 | 127.65 | 247.46 | |
| Polkadotters | 1372 | | | | | | | | | | | 564.04 | 52.74 | | 350.37 | 147.32 | 257.30 | |
| LuckyFriday | 971 | | | | | | | | | | | | 521.13 | | 161.36 | 101.60 | 187.02 | |
| Pablo (Contractor) | 174 | | | | | | | | | 76.30 | 84.07 | | 13.90 | | | | | |
| ChildBounty Sum | 41295.08 | 3743.03 | 3866.02 | 1914.58 | 2751.68 | 3313.22 | 2136.18 | 1934.55 | 2536.18 | 3441.66 | 3514.19 | 3018.05 | 2505.38 | 0.00 | 2352.58 | 1616.07 | 2651.69 | 0.00 |

**Hobbyist**

| Identity | Sum KSM | 01/2023 | 02/2023 | 03/2023 | 04/2023 | 05/2023 | 06/2023 | 07/2023 | 08/2023 | 09/2023 | 10/2023 | 11/2023 | 12/2023 | 01/2024 | 02/2024 | 03/2024 | 04/2024 | 05/2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| aperturemining | 39 | | | | | | | 6.52 | 4.34 | 5.29 | 5.10 | 4.06 | 3.37 | | 2.19 | 2.14 | 3.29 | 3.17 |
| dozenodes | 39 | | | | | | | 6.52 | 4.34 | 5.29 | 5.10 | 4.06 | 3.37 | | 2.19 | 2.14 | 3.29 | 3.17 |
| stkd | 39 | | | | | | | 6.52 | 4.34 | 5.29 | 5.10 | 4.06 | 3.37 | | 2.19 | 2.14 | 3.29 | 3.17 |
| mathcrypto | 39 | | | | | | | 6.52 | 4.34 | 5.29 | 5.10 | 4.06 | 3.37 | | 2.19 | 2.14 | 3.29 | 3.17 |
| paradox | 39 | | | | | | | 6.52 | 4.34 | 5.29 | 5.10 | 4.06 | 3.37 | | 2.19 | 2.14 | 3.29 | 3.17 |
| ChildBounty Sum | 197 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.59 | 21.72 | 26.46 | 25.50 | 20.31 | 16.87 | 0.00 | 10.96 | 10.69 | 16.43 | 15.84 |

| | | 01/2023 | 02/2023 | 03/2023 | 04/2023 | 05/2023 | 06/2023 | 07/2023 | 08/2023 | 09/2023 | 10/2023 | 11/2023 | 12/2023 | 01/2024 | 02/2024 | 03/2024 | 04/2024 | 05/2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bounty Status | 52000 | 48257 | 44391 | 42476 | 39725 | 36411 | 34275 | 32308 | 29750 | 26309 | 22770 | 19731 | 17209 | 17209 | 14845 | 13219 | 10551 | 10535 |
| Payouts KSM | 41465 | 3743 | 3866 | 1915 | 2752 | 3313 | 2136 | 1967 | 2558 | 3441 | 3540 | 3038 | 2522 | 0 | 2364 | 1627 | 2668 | 16 |
| Remaining KSM | 10535 | | | | | | | | | | | | | | | | | |

| | Average | 01/2023 | 02/2023 | 03/2023 | 04/2023 | 05/2023 | 06/2023 | 07/2023 | 08/2023 | 09/2023 | 10/2023 | 11/2023 | 12/2023 | 01/2024 | 02/2024 | 03/2024 | 04/2024 | 05/2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KSM/USD | 30.35 | 35.435 | 38.68 | 32 | 31.173 | 25.602 | 24.825 | 23.015 | 19.472 | 18.898 | 19.602 | 24.62 | 29.647 | 38.568 | 45.612 | 46.773 | 30.423 | 31.560 |
| ChildBounty USD | 71277 | 132634 | 149538 | 61267 | 85778 | 84825 | 53031 | 45274 | 49807 | 65028 | 69385 | 74804 | 74777 | 0 | 107806 | 76089 | 81172 | 500 |
| Total payouts USD | 1211715 | | | | | | | | | | | | | | | | | |

The future member service payments will be issued and tracked through  Bounty 50 on Polkadot.

## Expansion and Achievements

IBP has successfully established 12 global locations, surpassing our initial target of 10, all while maintaining budgetary constraints. Here's a breakdown of the current status across various regions:

| Member | Level | Region | Country | Status |
|--------|-------|--------|---------|--------|
| Dwellir | 5 | Africa | Nigeria | Active |
| Gatotech | 5 | Central America | Costa Rica | Active |
| Helikon | 5 | Middle East | Turkey | Active |
| Lucky Friday | 5 | North America | USA (West) | Active |
| Stake Plus | 5 | North America | USA (East) | Active |
| Metaspan | 5 | Europe | Great Britain | Active |
| Turboflakes | 5 | Europe | Portugal | Active |
| Amforc | 5 | Europe | Switzerland | Active |
| Radium Block | 5 | Asia | India | Active |
| Rotko Networks | 5 | Asia | Thailand | Active |
| Polkadotters | 5 | Oceania | New Zealand | Active |
| STKD | 0 | South America | Chile | In Progress |

Each member is important in advancing network decentralization, providing vital support to both the Polkadot and Kusama ecosystems.

## Geolocation Diversity

The IBP focus is on its geolocation diversity, ensuring robust and reliable service across the globe. Below is a map image showcasing our current distribution:

**KUSAMA**
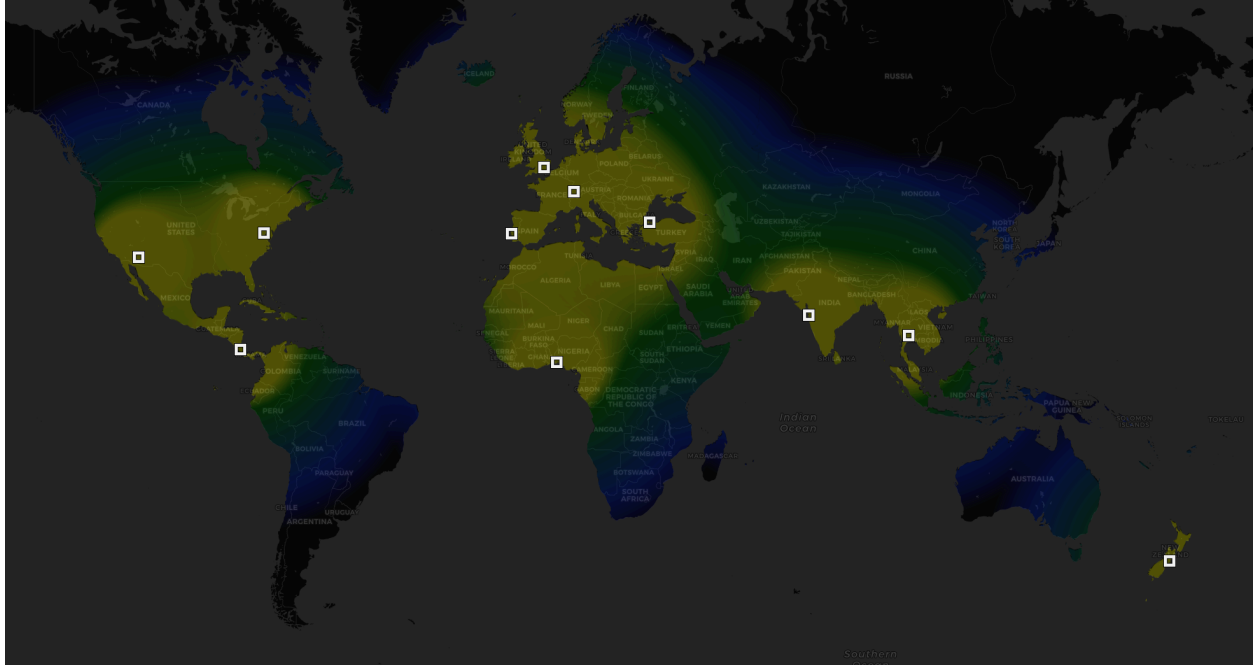


This diverse distribution allows us to route requests to the closest active member, significantly reducing latency and improving performance. Using Subsquare measurements, the IBP has demonstrated superior speed and efficiency due to its design based on GeoDNS. Below is a an image explaining how latency results for several different locations confirm this:

| #20,183,466 | | #20,183,127 | | #20,183,389 | |
|---|---|---|---|---|---|
| Parity | 23 ms | Parity | 125 ms | Parity | 416 ms |
| Dwellir | 50 ms | Dwellir | 144 ms | Dwellir | 351 ms |
| Dwellir Tunisia | 255 ms | Dwellir Tunisia | 151 ms | Dwellir Tunisia | 292 ms |
| Automata 1RPC | 301 ms | Automata 1RPC | 417 ms | Automata 1RPC | 1450 ms |
| IBP-GeoDNS1 | 12 ms | IBP-GeoDNS1 | 21 ms | IBP-GeoDNS1 | 69 ms |
| IBP-GeoDNS2 | 11 ms | IBP-GeoDNS2 | 22 ms | IBP-GeoDNS2 | 68 ms |
| RadiumBlock | 34 ms | RadiumBlock | 46 ms | RadiumBlock | 369 ms |
| Stakeworld | 40 ms | Stakeworld | 132 ms | Stakeworld | 293 ms |
| LuckyFriday | 108 ms | LuckyFriday | 43 ms | LuckyFriday | 301 ms |
| OnFinality | 111 ms | OnFinality | 27 ms | OnFinality | 105 ms |
| **Switzerland** | | **Ohio, USA** | | **Philippines** | |

## Monthly Usage

For March 2024, the following metrics reflect the IBP's performance over the last 30 days, serving over 7.5 billion requests across all relaychains and system chains:

| Network | Websocket | HTTP |
|---|---|---|
| All | 7,468,221,408 | 58,650,019 |
| Polkadot | 2,838,689,127 | 4,527,745 |
| Polkadot - Asset Hub | 52,157,657 | 48,341,301 |
| Polkadot - Bridge Hub | 29,145,545 | 113,046 |
| Polkadot - Collectives | 31,577,962 | 111,865 |
| Kusama | 3,353,597,133 | 4,302,183 |
| Kusama - Asset Hub | 47,366,380 | 134,965 |
| Kusama - Bridge Hub | 37,177,292 | 134,531 |
| Kusama - Encointer | 66,789,682 | 133,638 |
| Westend | 902,833,757 | 158,093 |
| Westend - Asset Hub | 4,622,778 | 112,199 |
| Westend - Bridge Hub | 5,819,505 | 111,958 |
| Westend - Collectives | 17,528,312 | 228,770 |
| Paseo | 54,494,854 | 187,987 |

## Membership Status

Currently, we have reached our operational goal of 12 geo-distributed locations. As a result, we are not accepting new members at this time. However, we have received several pending applications. These applicants are on a waitlist pending further program expansion and the introduction of additional locations. To follow up future IBP developments, please refer to Bounty 50 on Polkadot.

## Ecosystem Integration

The IBP has been successfully implemented by multiple ecosystem applications, including:

- Polkadot.js
- Talisman Wallet
- Nova Wallet
- Subsquare
- Polkassembly
- Staking Dashboard

## Contributions from Hobbyist Members
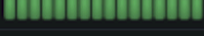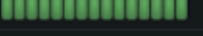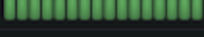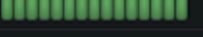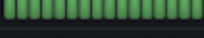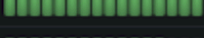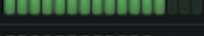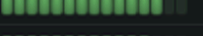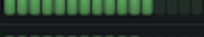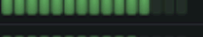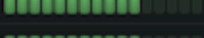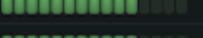
The contributions of our hobbyist members further contribute to the IBP. These members will not be part of the Polkadot Bounty but will continue their valuable work within the Kusama Bounty by running a decentralized service monitor. Looking forward, hobbyist members are expected to support and learn by providing services to parachain teams on the Paseo test network.
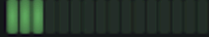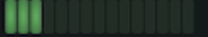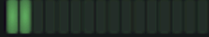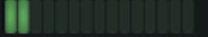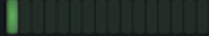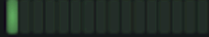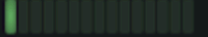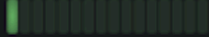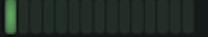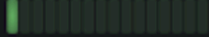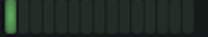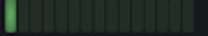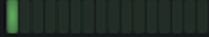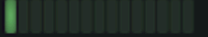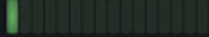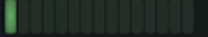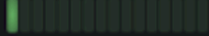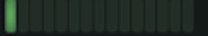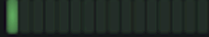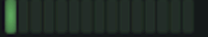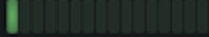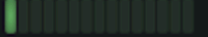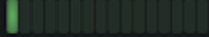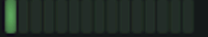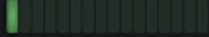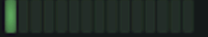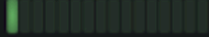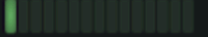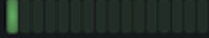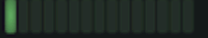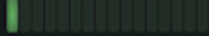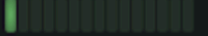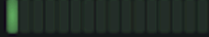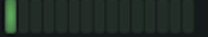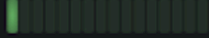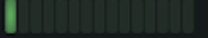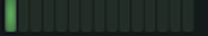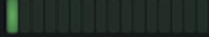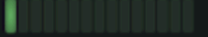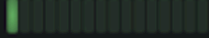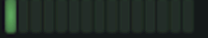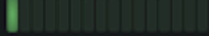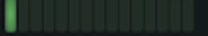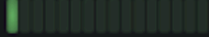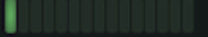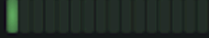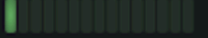
It is important to note that it is not possible for members to participate in both the hobbyist and professional tracks simultaneously. All payments for hobbyist members will remain under the Kusama bounty, ensuring a clear and distinct separation from the professional track.

Our current hobbyist members running decentralized monitoring solutions include:

| Member | Role/Service |
|---|---|
| Aperturemining | Hobbyist Monitor |
| Dozenodes | Hobbyist Monitor |
| STKD | Hobbyist Monitor |
| Mathcrypto | Hobbyist Monitor |
| Paradox | Hobbyist Monitor |

**KUSAMA**

Detailed RPC request by method:

| method | calls started | Request count ↓ |
|---|---|---|
| state_call | 2,844,873,159 | 2,844,883,590 |
| state_getRuntimeVersion | 1,846,114,400 | 1,846,120,609 |
| system_health | 725,391,565 | 725,394,792 |
| chain_getHeader | 710,811,511 | 710,813,729 |
| state_getStorage | 651,084,093 | 651,072,151 |
| state_queryStorageAt | 192,940,366 | 192,941,262 |
| chain_getFinalizedHead | 120,058,721 | 120,058,963 |
| state_subscribeStorage | 89,824,206 | 89,823,354 |
| chain_getBlockHash | 84,958,553 | 84,958,080 |
| chain_getBlock | 52,663,300 | 52,662,860 |
| childstate_getStorage | 45,618,239 | 45,618,071 |
| childstate_getStorageEntries | 43,191,536 | 43,191,395 |
| state_unsubscribeStorage | 35,641,875 | 35,641,768 |
| state_getKeysPaged | 33,451,820 | 33,451,613 |
| system_chain | 24,768,253 | 24,767,955 |
| chain_getHead | 16,845,128 | 16,845,186 |
| system_properties | 10,831,175 | 10,830,986 |
| state_getReadProof | 10,827,811 | 10,827,860 |
| state_subscribeRuntimeVersion | 9,735,058 | 9,734,897 |
| rpc_methods | 8,632,827 | 8,632,656 |
| state_getMetadata | 8,219,380 | 8,218,956 |
| system_version | 7,648,105 | 7,647,914 |
| system_syncState | 5,177,886 | 5,177,750 |
| system_name | 4,060,309 | 4,060,184 |
| state_getStorageAt | 3,726,882 | 3,726,209 |
| system_chainType | 3,401,378 | 3,401,236 |
| system_localPeerId | 3,366,258 | 3,366,117 |

| Method | | Count 1 | | Count 2 |
|---|---|---|---|---|
| chain_subscribeNewHead | | 894,146 | | 894,034 |
| chain_unsubscribeNewHead | | 353,910 | | 353,877 |
| childstate_getKeysPaged | | 228,514 | | 227,990 |
| chain_getRuntimeVersion | | 199,476 | | 199,476 |
| chain_subscribeFinalizedHeads | | 83,655 | | 83,515 |
| system_accountNextIndex | | 41,371 | | 41,312 |
| author_submitAndWatchExtrinsic | | 25,616 | | 25,576 |
| chain_subscribeAllHeads | | 22,242 | | 22,130 |
| author_unwatchExtrinsic | | 15,877 | | 15,842 |
| chain_unsubscribeFinalizedHeads | | 12,901 | | 12,870 |
| payment_queryInfo | | 10,693 | | 10,679 |
| chain_subscribeNewHeads | | 7,403 | | 7,316 |
| state_unsubscribeRuntimeVersion | | 7,173 | | 7,173 |
| author_submitExtrinsic | | 5,367 | | 5,338 |
| chain_subscribeRuntimeVersion | | 3,585 | | 3,575 |
| state_getKeys | | 2,093 | | 2,015 |
| eth_chainId | | 1,955 | | 1,949 |
| chain_unsubscribeNewHeads | | 1,015 | | 1,005 |
| chain_unsubscribeAllHeads | | 917 | | 910 |
| payment_queryFeeDetails | | 410 | | 410 |
| author_pendingExtrinsics | | 129 | | 127 |
| system_peers | | 104 | | 102 |
| chain_unsubscribeRuntimeVersion | | 45 | | 45 |
| sync_state_genSyncSpec | | 2 | | 2 |
| mmr_root | | 0 | | 0 |

## Curator Set Update

Starting in July, the curator set will consist of the following members in our new Bounty Multisig (with a threshold of 3 out of 5):

- CoinStudio
- Otar
- Anaelle
- Erin (replaced Will 04/2024)
- S3krit (replacing bLd 07/2024)

Will ceased his curator duty when he left Parity in March this year and was replaced by Erin. Erin is Parity's Technical Head of Infrastructure. In June, bLd announced his departure due to an extended scope of work and lack of time to fulfill the duty, and he was replaced by s3krit, who was the release manager at Parity for parity-ethereum and Polkadot for several years.

For more information, please visit our resources:

- [IBP Network](#)
- [IBP Wiki](#)
- [Monitor Dotters Network](#)

We look forward to continuing our progress and achieving new milestones in the second half of the year. Thank you for your ongoing support and contributions.

Sincerely,

CoinStudio,
Part of the IBP Bounty Team