



Polygon – Avail

Substrate Pallet Security
Audit

Prepared by: Halborn

Date of Engagement: May 23rd, 2022 – July 20th, 2022

Visit: Halborn.com

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DOCUMENT REVISION HISTORY

VERSION	MODIFICATION	DATE	AUTHOR
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0.2	Document Updates	07/18/2022	Lukasz Mikula
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0.4	Draft Review	07/20/2022	Timur Guvenkaya
0.5	Draft Review	07/21/2022	Gabi Urrutia
0.6	Commit Hash Update	08/26/2022	Lukasz Mikula
1.0	Remediation Plan	09/05/2022	Lukasz Mikula
1.1	Remediation Plan Review	09/05/2022	Gabi Urrutia

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EXECUTIVE OVERVIEW



1.1 INTRODUCTION

Polygon engaged Halborn to conduct a security audit on their pallets beginning on May 23rd, 2022 and ending on July 20th, 2022 . The security assessment was scoped to the pallets provided in the GitHub repository [avail](#). Commit hashes and further details can be found in the Scope section of this report.

1.2 AUDIT SUMMARY

The team at Halborn was provided 8 weeks for the engagement and assigned 2 full-time security engineers to audit the security of the node in scope. The security engineers are a blockchain and smart-contract security experts with advanced penetration testing and smart-contract hacking skills, and in-depth knowledge of multiple blockchain protocols.

The purpose of this audit is to:

- Identify potential security issues within the code

In summary, Halborn identified some improvements to reduce the likelihood and impact of risks, which should be addressed by Polygon . Most vulnerabilities found were acknowledged by Polygon . Since the potential impact is insignificant, some of them will not be fixed currently, which should not affect overall security of the project. The crates update will be executed in the future, the unimplemented RPC issue has been fixed by updating the docs. Two remaining issues will not be fixed or will be fixed in the future, though the exact date is not known at the moment.

1.3 TEST APPROACH & METHODOLOGY

Halborn performed a combination of manual review of the code and automated security testing to balance efficiency, timeliness, practicality, and

accuracy in regard to the scope of the audit. While manual testing is recommended to uncover flaws in logic, process, and implementation; automated testing techniques help enhance coverage of pallets and can quickly identify items that do not follow security best practices.

The following phases and associated tools were used throughout the term of the audit:

- Research into the architecture, purpose, and use of the platform.
- Smart contract manual code review and walkthrough to identify any logic issue.
- Mapping out possible attack vectors
- Thorough assessment of safety and usage of critical Rust variables and functions in scope that could lead to arithmetic vulnerabilities.
- Finding unsafe Rust code usage (`cargo-geiger`)
- On chain testing of core functions(`polkadot.js`).
- Active Fuzz testing of the RPC-API using `ffuf`.
- Test coverage review (`cargo tarpaulin`)
- Scanning dependencies for known vulnerabilities (`cargo audit` and `cargo deny`).

RISK METHODOLOGY:

Vulnerabilities or issues observed by Halborn are ranked based on the risk assessment methodology by measuring the **LIKELIHOOD** of a security incident and the **IMPACT** should an incident occur. This framework works for communicating the characteristics and impacts of technology vulnerabilities. The quantitative model ensures repeatable and accurate measurement while enabling users to see the underlying vulnerability characteristics that were used to generate the Risk scores. For every vulnerability, a risk level will be calculated on a scale of 5 to 1 with 5 being the highest likelihood or impact.

RISK SCALE - LIKELIHOOD

- 5 - Almost certain an incident will occur.
- 4 - High probability of an incident occurring.
- 3 - Potential of a security incident in the long term.
- 2 - Low probability of an incident occurring.
- 1 - Very unlikely issue will cause an incident.

RISK SCALE - IMPACT

- 5 - May cause devastating and unrecoverable impact or loss.
- 4 - May cause a significant level of impact or loss.
- 3 - May cause a partial impact or loss to many.
- 2 - May cause temporary impact or loss.
- 1 - May cause minimal or un-noticeable impact.

The risk level is then calculated using a sum of these two values, creating a value of 10 to 1 with 10 being the highest level of security risk.

CRITICAL	HIGH	MEDIUM	LOW	INFORMATIONAL
----------	------	--------	-----	---------------

- 10 - CRITICAL
- 9 - 8 - HIGH
- 7 - 6 - MEDIUM
- 5 - 4 - LOW
- 3 - 1 - VERY LOW AND INFORMATIONAL

1.4 SCOPE

Code repositories:

1. Substrate Project Name

- Repository: [avail](#)
- Commit ID: [75930dd20fd95553d9802488ba3e0e883b8f7eb1](#)
- Code in scope:
 1. da ([pallets/dactr/](#))
 2. frame_system ([pallets/system/](#))
 3. frame_executive ([pallets/executive/](#))
 4. kate ([kate/](#))
 5. rpc-api ([rpc-api/](#))

Out-of-scope: External libraries and financial related attacks.

2. ASSESSMENT SUMMARY & FINDINGS OVERVIEW

CRITICAL	HIGH	MEDIUM	LOW	INFORMATIONAL
0	0	0	1	3

LIKELIHOOD

IMPACT

(HAL-01)				
(HAL-02) (HAL-03) (HAL-04)				

SECURITY ANALYSIS	RISK LEVEL	REMEDATION DATE
HAL01 - DEPENDENCY USAGE OF VULNERABLE CRATE	Low	FUTURE RELEASE
HAL02 - UNIMPLEMENTED RPC METHOD	Informational	SOLVED - 09/05/2022
HAL03 - UNIMPLEMENTED CUSTOM ORIGIN	Informational	ACKNOWLEDGED
HAL04 - MISSING REMOVE APP ID FUNCTIONALITY	Informational	ACKNOWLEDGED



FINDINGS & TECH DETAILS



3.1 (HAL-01) HAL-01 USAGE OF VULNERABLE CRATES - LOW

Description:

The following crates used in the `avail` have known vulnerabilities:

RUSTSEC-2021-0130	<code>lru 0.6.6</code>	Use after free in lru crate
RUSTSEC-2020-0071	<code>time 0.1.44</code>	Potential segfault in the time crate

Risk Level:

Likelihood - 1

Impact - 3

Recommendation:

RUSTSEC-2021-0130	<code>lru 0.6.6</code>	Upgrade to <code>>=0.7.1</code>
RUSTSEC-2020-0071	<code>time 0.1.44</code>	Upgrade to <code>>=0.2.23</code>

Even if those vulnerable crates cannot affect the underlying application, it is advised to be aware of them. Furthermore, you need to set up dependency monitoring to always be alerted when a new vulnerability is disclosed in one of the project crates.

Remediation plan:

PENDING: The issue will be addressed in the future with an upstream update.

3.2 (HAL-02) HAL-02 UNIMPLEMENTED RPC METHOD – INFORMATIONAL

Description:

The documentation describes an RPC method `get_blockConfidence` which is not implemented in the code. This can be confirmed by querying the node RPC endpoint at `http://127.0.0.1:9933`

Code Location:

Listing 1

```

1      curl -H "Content-Type: application/json" -d '{"id":1, "jsonrpc
↳  ":"2.0", "method": "rpc_methods"}' http://localhost:9933/
2
3      {"jsonrpc":"2.0","result":{"methods":["account_nextIndex",
↳  "author_hasKey","author_hasSessionKeys","author_insertKey",
↳  "author_pendingExtrinsics","author_removeExtrinsic",
↳  "author_rotateKeys","author_submitAndWatchExtrinsic",
↳  "author_submitExtrinsic","author_unwatchExtrinsic",
↳  "babe_epochAuthorship","chain_getBlock","chain_getBlockHash",
↳  "chain_getFinalisedHead","chain_getFinalizedHead","chain_getHead",
↳  "chain_getHeader","chain_getRuntimeVersion",
↳  "chain_subscribeAllHeads","chain_subscribeFinalisedHeads",
↳  "chain_subscribeFinalizedHeads","chain_subscribeNewHead",
↳  "chain_subscribeNewHeads","chain_subscribeRuntimeVersion",
↳  "chain_unsubscribeAllHeads","chain_unsubscribeFinalisedHeads",
↳  "chain_unsubscribeFinalizedHeads","chain_unsubscribeNewHead",
↳  "chain_unsubscribeNewHeads","chain_unsubscribeRuntimeVersion",
↳  "childstate_getKeys","childstate_getKeysPaged",
↳  "childstate_getKeysPagedAt","childstate_getStorage",
↳  "childstate_getStorageEntries","childstate_getStorageHash",
↳  "childstate_getStorageSize","grandpa_proveFinality",
↳  "grandpa_roundState","grandpa_subscribeJustifications",
↳  "grandpa_unsubscribeJustifications","kate_blockLength",
↳  "kate_queryProof","mmr_generateProof","offchain_localStorageGet",
↳  "offchain_localStorageSet","payment_queryFeeDetails",
↳  "payment_queryInfo","state_call","state_callAt",
↳  "state_getChildReadProof","state_getKeys","state_getKeysPaged",
↳  "state_getKeysPagedAt","state_getMetadata","state_getPairs",

```

```

↳ state_getReadProof", "state_getRuntimeVersion", "state_getStorage", "
↳ state_getStorageAt", "state_getStorageHash", "state_getStorageHashAt
↳ ", "state_getStorageSize", "state_getStorageSizeAt", "
↳ state_queryStorage", "state_queryStorageAt", "
↳ state_subscribeRuntimeVersion", "state_subscribeStorage", "
↳ state_traceBlock", "state_unsubscribeRuntimeVersion", "
↳ state_unsubscribeStorage", "subscribe_newHead", "
↳ sync_state_genSyncSpec", "system_accountNextIndex", "
↳ system_addLogFilter", "system_addReservedPeer", "system_chain", "
↳ system_chainType", "system_dryRun", "system_dryRunAt", "system_health
↳ ", "system_localListenAddresses", "system_localPeerId", "system_name"
↳ , "system_nodeRoles", "system_peers", "system_properties", "
↳ system_removeReservedPeer", "system_reservedPeers", "
↳ system_resetLogFilter", "system_syncState", "
↳ system_unstable_networkState", "system_version", "
↳ unsubscribe_newHead"] , "version":1}, "id":1}
4

```

Recommendation:

it is recommended to review the code and documentation to correct the state of one another.

References:

- <https://avail-docs.matic.today/docs/intro/#how-to-get-guarantees-that-the-data-behind-the-transaction-is-available>

Remediation plan:

SOLVED: This issue was fixed by updating the docs.

3.3 (HAL-03) HAL-03 UNIMPLEMENTED CUSTOM ORIGIN - INFORMATIONAL

Description:

It was noticed that Avail solution does not implement any custom origin. Custom origins can be used as authorization checks inside privileged functions, as well as to define custom access-control logic.

Code Location:

Listing 2: pallets/dactr/src/lib.rs (Line 145)

```

140     pub fn submit_block_length_proposal(
141         origin: OriginFor<T>,
142         rows: u32,
143         cols: u32,
144     ) -> DispatchResultWithPostInfo {
145         ensure_root(origin)?;
146
147         ensure!(
148             rows <= T::MaxBlockRows::get() && cols <= T::
149             ↳ MaxBlockCols::get(),
150             Error::<<T>>::BlockDimensionsOutOfBounds
151         );
152         ensure!(
153             rows >= T::MinBlockRows::get() && cols >= T::
154             ↳ MinBlockCols::get(),
155             Error::<<T>>::BlockDimensionsTooSmall
156         );
157         let _id = Self::next_block_len_proposal_id()?;
158         let block_length =
159             BlockLength::with_normal_ratio(rows, cols,
160             ↳ BLOCK_CHUNK_SIZE, NORMAL_DISPATCH_RATIO);
161         DynamicBlockLength::<<T>::put(&block_length);
162
163         Self::deposit_event(Event::
164             ↳ BlockLengthProposalSubmitted { rows, cols });
165
166         Ok(()).into()

```

```
164      }
```

Recommendation:

It is recommended to implement at least one custom origin mapped to collective/governance, so implementation of potential access-control logic is much easier if project is developed further and grows in codebase/utilities in the future.

Remediation plan:

ACKNOWLEDGED: The issue was acknowledged by the **Polygon team**. It could be addressed in later versions. The Polygon team is aware of the custom logic implementation and it could be implemented in future releases when the project actually uses governance or any other similar pallets.

3.4 (HAL-04) HAL-04 MISSING REMOVE APP ID FUNCTIONALITY - INFORMATIONAL

Description:

The `avail` does not have mechanism to remove unused `App_Id`. This could lead to unnecessary storage usage. Furthermore, `App_Id` is `uint32` and has a limited size, which means it could cause denial of the service if it reaches maximum value.

Code Location:

Listing 3: pallets/dactr/src/lib.rs

```
1 cat lib.rs | grep "pub fn"
2 pub fn create_application_key(
3 pub fn submit_data(
4 pub fn submit_block_length_proposal(
5 pub fn build_storage(&self) -> Result<sp_runtime::Storage, String>
↳ {
6 pub fn assimilate_storage(&self, storage: &mut sp_runtime::Storage
↳ ) -> Result<(), String> {
7 pub fn next_application_id() -> Result<AppId, Error<T>> {
8 pub fn next_block_len_proposal_id() -> Result<T::
↳ BlockLenProposalId, Error<T>> {
```

Recommendation:

Implement logic that will either enable to remove unused App Ids via consensus or clear them automatically after certain period of inactivity.

Remediation plan:

ACKNOWLEDGED: The issue was acknowledged by the `Polygon team`. It could be addressed with in later versions. Redesigning the `app_id` logic currently

could introduce more potential threats, while at this point the security impact is very limited.



AUTOMATED TESTING



4.1 AUTOMATED ANALYSIS

Description:

Halborn used automated security scanners to assist with detection of well-known security issues and vulnerabilities. Among the tools used was cargo audit, a security scanner for vulnerabilities reported to the RustSec Advisory Database. All vulnerabilities published in <https://crates.io> are stored in a repository named The RustSec Advisory Database. cargo audit is a human-readable version of the advisory database which performs a scanning on Cargo.lock. Security Detections are only in scope. All vulnerabilities shown here were already disclosed in the above report. However, to better assist the developers maintaining this code, the auditors are including the output with the dependencies tree, and this is included in the cargo audit output to better know the dependencies affected by unmaintained and vulnerable crates.

ID	package	Short Description
	lru 0.6.6	Use after free in lru crate, upgrade to >=0.7.1

Code Location:

Listing 4: Dependency tree for lru

```
1 lru 0.6.6
2   libp2p-identify 0.31.0
3     libp2p-metrics 0.1.0
4       libp2p 0.40.0
5         sc-telemetry 4.0.0-dev
6           sc-service 0.10.0-dev
7             sc-cli 0.10.0-dev
8               frame-benchmarking-cli 4.0.0-dev
9                 data-avail 1.0.0
10                  data-avail 1.0.0
11                    frame-benchmarking-cli 4.0.0-dev
12                      data-avail 1.0.0
13                        sc-finality-grandpa 0.10.0-dev
14                          sc-sync-state-rpc 0.10.0-dev
```

```
15         data-avail 1.0.0
16         sc-finality-grandpa-rpc 0.10.0-dev
17         data-avail 1.0.0
18         data-avail 1.0.0
19         sc-consensus-slots 0.10.0-dev
20         sc-consensus-babe 0.10.0-dev
21         sc-sync-state-rpc 0.10.0-dev
22         sc-consensus-babe-rpc 0.10.0-dev
23         data-avail 1.0.0
24         data-avail 1.0.0
25         sc-consensus-aura 0.10.0-dev
26         data-avail 1.0.0
27         data-avail 1.0.0
28         sc-consensus-babe 0.10.0-dev
29         sc-consensus-aura 0.10.0-dev
30         sc-cli 0.10.0-dev
31         sc-chain-spec 4.0.0-dev
32         sc-sync-state-rpc 0.10.0-dev
33         sc-service 0.10.0-dev
34         sc-rpc-api 0.10.0-dev
35         substrate-frame-rpc-system 4.0.0-dev
36         data-avail 1.0.0
37         sc-sync-state-rpc 0.10.0-dev
38         sc-rpc 4.0.0-dev
39         sc-service 0.10.0-dev
40         sc-finality-grandpa-rpc 0.10.0-dev
41         data-avail 1.0.0
42         sc-consensus-babe-rpc 0.10.0-dev
43         data-avail 1.0.0
44         sc-rpc 4.0.0-dev
45         data-avail 1.0.0
46         sc-basic-authorship 0.10.0-dev
47         data-avail 1.0.0
48         data-avail 1.0.0
49         sc-peerset 4.0.0-dev
50         sc-network 0.10.0-dev
51         sc-service 0.10.0-dev
52         sc-offchain 4.0.0-dev
53         sc-service 0.10.0-dev
54         sc-network-gossip 0.10.0-dev
55         sc-finality-grandpa 0.10.0-dev
56         sc-informant 0.10.0-dev
57         sc-service 0.10.0-dev
58         sc-finality-grandpa 0.10.0-dev
```

```

59         sc-cli 0.10.0-dev
60         sc-chain-spec 4.0.0-dev
61         sc-authority-discovery 0.10.0-dev
62         data-avail 1.0.0
63         data-avail 1.0.0
64         sc-network-gossip 0.10.0-dev
65         sc-network 0.10.0-dev
66         sc-consensus 0.10.0-dev
67         sc-service 0.10.0-dev
68         sc-network 0.10.0-dev
69         sc-finality-grandpa 0.10.0-dev
70         sc-consensus-slots 0.10.0-dev
71         sc-consensus-epochs 0.10.0-dev
72         sc-sync-state-rpc 0.10.0-dev
73         sc-consensus-babe-rpc 0.10.0-dev
74         sc-consensus-babe 0.10.0-dev
75         data-avail 1.0.0
76         sc-consensus-babe 0.10.0-dev
77         sc-consensus-aura 0.10.0-dev
78         data-avail 1.0.0
79         sc-cli 0.10.0-dev
80         sc-authority-discovery 0.10.0-dev
81     libp2p 0.40.0
82

```

ID	package	Short Description
	time 0.1.44	Potential segfault in the time crate, upgrade to >=0.2.23

Code Location:

Listing 5: Dependency tree for time

```

1 time 0.1.44
2   chrono 0.4.19
3     tracing-subscriber 0.2.25
4       sp-tracing 4.0.0-dev
5         sp-runtime-interface 4.0.0-dev
6           sp-tasks 4.0.0-dev
7             sc-executor 0.10.0-dev
8               sc-service 0.10.0-dev

```



```

9          sc-cli 0.10.0-dev
10          frame-benchmarking-cli 4.0.0-dev
11          data-avail 1.0.0
12          data-avail 1.0.0
13          frame-benchmarking-cli 4.0.0-dev
14          data-avail 1.0.0
15      sc-client-api 4.0.0-dev
16          substrate-frame-rpc-system 4.0.0-dev
17          data-avail 1.0.0
18      sc-transaction-pool 4.0.0-dev
19          sc-service 0.10.0-dev
20          data-avail 1.0.0
21      sc-tracing 4.0.0-dev
22          sc-service 0.10.0-dev
23          sc-rpc 4.0.0-dev
24          sc-service 0.10.0-dev
25          sc-finality-grandpa-rpc 0.10.0-dev
26          data-avail 1.0.0
27          data-avail 1.0.0
28          sc-cli 0.10.0-dev
29      sc-sync-state-rpc 0.10.0-dev
30          data-avail 1.0.0
31      sc-state-db 0.10.0-dev
32          sc-client-db 0.10.0-dev
33          sc-service 0.10.0-dev
34          kate-rpc 0.1.0
35          data-avail 1.0.0
36          frame-benchmarking-cli 4.0.0-dev
37          data-avail 1.0.0
38      sc-service 0.10.0-dev
39      sc-rpc 4.0.0-dev
40      sc-offchain 4.0.0-dev
41          sc-service 0.10.0-dev
42      sc-network 0.10.0-dev
43          sc-service 0.10.0-dev
44          sc-offchain 4.0.0-dev
45          sc-network-gossip 0.10.0-dev
46          sc-finality-grandpa 0.10.0-dev
47          sc-sync-state-rpc 0.10.0-dev
48          sc-finality-grandpa-rpc 0.10.0-
↳ dev
49          data-avail 1.0.0
50          sc-informant 0.10.0-dev
51          sc-service 0.10.0-dev

```

```

52         sc-finality-grandpa 0.10.0-dev
53         sc-cli 0.10.0-dev
54         sc-chain-spec 4.0.0-dev
55             sc-sync-state-rpc 0.10.0-dev
56             sc-service 0.10.0-dev
57             sc-rpc-api 0.10.0-dev
58             substrate-frame-rpc-system 4.0.0-
↳ dev
59             sc-sync-state-rpc 0.10.0-dev
60             sc-rpc 4.0.0-dev
61             sc-consensus-babe-rpc 0.10.0-dev
62                 data-avail 1.0.0
63                 data-avail 1.0.0
64                 sc-rpc 4.0.0-dev
65                 data-avail 1.0.0
66             sc-authority-discovery 0.10.0-dev
67                 data-avail 1.0.0
68                 data-avail 1.0.0
69         sc-informant 0.10.0-dev
70         sc-finality-grandpa-rpc 0.10.0-dev
71         sc-finality-grandpa 0.10.0-dev
72         sc-consensus-uncles 0.10.0-dev
73             data-avail 1.0.0
74         sc-consensus-slots 0.10.0-dev
75             sc-consensus-babe 0.10.0-dev
76                 sc-sync-state-rpc 0.10.0-dev
77                 sc-consensus-babe-rpc 0.10.0-dev
78                 data-avail 1.0.0
79             sc-consensus-aura 0.10.0-dev
80                 data-avail 1.0.0
81                 data-avail 1.0.0
82         sc-consensus-epochs 0.10.0-dev
83             sc-sync-state-rpc 0.10.0-dev
84             sc-consensus-babe-rpc 0.10.0-dev
85             sc-consensus-babe 0.10.0-dev
86                 data-avail 1.0.0
87         sc-consensus-babe 0.10.0-dev
88         sc-consensus-aura 0.10.0-dev
89         sc-consensus 0.10.0-dev
90             sc-service 0.10.0-dev
91             sc-network 0.10.0-dev
92             sc-finality-grandpa 0.10.0-dev
93             sc-consensus-slots 0.10.0-dev
94             sc-consensus-epochs 0.10.0-dev

```

```

95         sc-consensus-babe 0.10.0-dev
96         sc-consensus-aura 0.10.0-dev
97         data-avail 1.0.0
98         sc-client-db 0.10.0-dev
99         sc-cli 0.10.0-dev
100        sc-block-builder 0.10.0-dev
101        sc-service 0.10.0-dev
102        sc-rpc 4.0.0-dev
103        sc-network 0.10.0-dev
104        sc-finality-grandpa 0.10.0-dev
105        sc-consensus-aura 0.10.0-dev
106        sc-basic-authorship 0.10.0-dev
107        data-avail 1.0.0
108        sc-basic-authorship 0.10.0-dev
109        sc-authority-discovery 0.10.0-dev
110        kate-rpc 0.1.0
111        data-avail 1.0.0
112        frame-benchmarking-cli 4.0.0-dev
113        data-avail 1.0.0
114    sp-io 4.0.0-dev
115        sp-tasks 4.0.0-dev
116        sp-runtime 4.0.0-dev
117        substrate-frame-rpc-system 4.0.0-dev
118        sp-version 4.0.0-dev
119        sp-consensus 0.10.0-dev
120        sp-consensus-babe 0.10.0-dev
121        sc-consensus-babe-rpc 0.10.0-dev
122        sc-consensus-babe 0.10.0-dev
123        pallet-babe 4.0.0-dev
124        da-runtime 4.0.0
125        data-avail 1.0.0
126        data-avail 1.0.0
127        da-runtime 4.0.0
128        sp-consensus-aura 0.10.0-dev
129        sc-consensus-aura 0.10.0-dev
130        data-avail 1.0.0
131        sp-blockchain 4.0.0-dev
132        substrate-frame-rpc-system 4.0.0-dev
133        sc-transaction-pool-api 4.0.0-dev
134        substrate-frame-rpc-system 4.0.0-
    ↪ dev
135        sc-transaction-pool 4.0.0-dev
136        sc-service 0.10.0-dev
137        sc-rpc-api 0.10.0-dev

```

```

138         sc-rpc 4.0.0-dev
139         sc-informant 0.10.0-dev
140         sc-client-api 4.0.0-dev
141         sc-basic-authorship 0.10.0-dev
142         data-avail 1.0.0
143     sc-transaction-pool 4.0.0-dev
144     sc-tracing 4.0.0-dev
145     sc-sync-state-rpc 0.10.0-dev
146     sc-service 0.10.0-dev
147     sc-rpc 4.0.0-dev
148     sc-network 0.10.0-dev
149     sc-informant 0.10.0-dev
150     sc-finality-grandpa-rpc 0.10.0-dev
151     sc-finality-grandpa 0.10.0-dev
152     sc-consensus-slots 0.10.0-dev
153     sc-consensus-epochs 0.10.0-dev
154     sc-consensus-babe-rpc 0.10.0-dev
155     sc-consensus-babe 0.10.0-dev
156     sc-consensus-aura 0.10.0-dev
157     sc-consensus 0.10.0-dev
158     sc-client-db 0.10.0-dev
159     sc-client-api 4.0.0-dev
160     sc-cli 0.10.0-dev
161     sc-block-builder 0.10.0-dev
162     sc-basic-authorship 0.10.0-dev
163     sc-authority-discovery 0.10.0-dev
164     pallet-transaction-payment-rpc 4.0.0-
    ↪ dev
165         data-avail 1.0.0
166         pallet-mmr-rpc 3.0.0
167         data-avail 1.0.0
168         kate-rpc 0.1.0
169         data-avail 1.0.0
170     sc-service 0.10.0-dev
171     sc-network 0.10.0-dev
172     sc-finality-grandpa 0.10.0-dev
173     sc-consensus-slots 0.10.0-dev
174     sc-consensus-babe-rpc 0.10.0-dev
175     sc-consensus-babe 0.10.0-dev
176     sc-consensus-aura 0.10.0-dev
177     sc-consensus 0.10.0-dev
178     sc-client-api 4.0.0-dev
179     sc-basic-authorship 0.10.0-dev
180     data-avail 1.0.0

```

```

181         sp-api 4.0.0-dev
182         substrate-frame-rpc-system 4.0.0-dev
183         sp-transaction-pool 4.0.0-dev
184         sc-transaction-pool 4.0.0-dev
185         sc-service 0.10.0-dev
186         data-avail 1.0.0
187         da-runtime 4.0.0
188         sp-timestamp 4.0.0-dev
189         sp-consensus-babe 0.10.0-dev
190         sp-consensus-aura 0.10.0-dev
191         sc-consensus-slots 0.10.0-dev
192         pallet-timestamp 4.0.0-dev
193         pallet-session 4.0.0-dev
194         pallet-staking 4.0.0-dev
195         da-runtime 4.0.0
196         pallet-grandpa 4.0.0-dev
197         da-runtime 4.0.0
198         pallet-babe 4.0.0-dev
199         pallet-authority-discovery
    ↪ 4.0.0-dev
200         da-runtime 4.0.0
201         da-runtime 4.0.0
202         pallet-babe 4.0.0-dev
203         da-runtime 4.0.0
204         data-avail 1.0.0
205         sp-session 4.0.0-dev
206         sc-service 0.10.0-dev
207         sc-rpc 4.0.0-dev
208         pallet-session 4.0.0-dev
209         pallet-grandpa 4.0.0-dev
210         pallet-babe 4.0.0-dev
211         da-runtime 4.0.0
212         sp-offchain 4.0.0-dev
213         sc-rpc 4.0.0-dev
214         sc-offchain 4.0.0-dev
215         da-runtime 4.0.0
216         sp-finality-grandpa 4.0.0-dev
217         sc-network 0.10.0-dev
218         sc-finality-grandpa 0.10.0-dev
219         pallet-grandpa 4.0.0-dev
220         data-avail 1.0.0
221         sp-consensus-babe 0.10.0-dev
222         sp-consensus-aura 0.10.0-dev
223         sp-blockchain 4.0.0-dev

```

```

224 sp-block-builder 4.0.0-dev
225     substrate-frame-rpc-system 4.0.0-dev
226     sc-service 0.10.0-dev
227     sc-consensus-babe 0.10.0-dev
228     sc-consensus-aura 0.10.0-dev
229     sc-block-builder 0.10.0-dev
230     data-avail 1.0.0
231     da-runtime 4.0.0
232 sp-authority-discovery 4.0.0-dev
233     sc-authority-discovery 0.10.0-dev
234     pallet-authority-discovery 4.0.0-dev
235     data-avail 1.0.0
236     da-runtime 4.0.0
237 sc-transaction-pool 4.0.0-dev
238 sc-tracing 4.0.0-dev
239 sc-service 0.10.0-dev
240 sc-rpc 4.0.0-dev
241 sc-offchain 4.0.0-dev
242 sc-finality-grandpa 0.10.0-dev
243 sc-executor 0.10.0-dev
244 sc-consensus-slots 0.10.0-dev
245 sc-consensus-babe-rpc 0.10.0-dev
246 sc-consensus-babe 0.10.0-dev
247 sc-consensus-aura 0.10.0-dev
248 sc-consensus 0.10.0-dev
249 sc-client-api 4.0.0-dev
250 sc-block-builder 0.10.0-dev
251 sc-basic-authorship 0.10.0-dev
252 sc-authority-discovery 0.10.0-dev
253 pallet-transaction-payment-rpc-runtime-
    ↪ api 4.0.0-dev
254     pallet-transaction-payment-rpc 4.0.0-
    ↪ dev
255     da-runtime 4.0.0
256 pallet-transaction-payment-rpc 4.0.0-dev
257 pallet-mmr-rpc 3.0.0
258 pallet-mmr-primitives 4.0.0-dev
259     pallet-mmr-rpc 3.0.0
260     pallet-mmr 4.0.0-dev
261     da-runtime 4.0.0
262 kate-rpc-runtime-api 0.1.0
263     kate-rpc 0.1.0
264     da-runtime 4.0.0
265 kate-rpc 0.1.0

```

```

266         frame-system-rpc-runtime-api 4.0.0-dev
267         substrate-frame-rpc-system 4.0.0-dev
268         kate-rpc 0.1.0
269         data-avail 1.0.0
270         da-runtime 4.0.0
271     frame-benchmarking 4.0.0-dev
272         pallet-timestamp 4.0.0-dev
273         pallet-scheduler 4.0.0-dev
274             da-runtime 4.0.0
275         pallet-mmr 4.0.0-dev
276         pallet-membership 4.0.0-dev
277             da-runtime 4.0.0
278         pallet-grandpa 4.0.0-dev
279         pallet-democracy 4.0.0-dev
280             da-runtime 4.0.0
281         pallet-collective 4.0.0-dev
282             da-runtime 4.0.0
283         pallet-balances 4.0.0-dev
284             pallet-treasury 4.0.0-dev
285                 pallet-tips 4.0.0-dev
286                     da-runtime 4.0.0
287                 pallet-bounties 4.0.0-dev
288                     da-runtime 4.0.0
289                     da-runtime 4.0.0
290         pallet-offences 4.0.0-dev
291             da-runtime 4.0.0
292         frame-executive 4.0.0-dev
293             da-runtime 4.0.0
294             da-runtime 4.0.0
295             da-control 1.0.0
296                 data-avail 1.0.0
297                 da-runtime 4.0.0
298         pallet-babe 4.0.0-dev
299         frame-system-benchmarking 4.0.0-dev
300             da-runtime 4.0.0
301         frame-benchmarking-cli 4.0.0-dev
302         data-avail 1.0.0
303         da-runtime 4.0.0
304         da-control 1.0.0
305         data-avail 1.0.0
306         da-runtime 4.0.0
307     sc-service 0.10.0-dev
308     sc-rpc-api 0.10.0-dev
309     sc-rpc 4.0.0-dev

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```

310         sc-executor 0.10.0-dev
311         sc-consensus-babe 0.10.0-dev
312         sc-cli 0.10.0-dev
313         frame-system 4.0.0-dev
314             pallet-utility 4.0.0-dev
315                 da-runtime 4.0.0
316             pallet-treasury 4.0.0-dev
317             pallet-transaction-payment 4.0.0-dev
318             pallet-transaction-payment-rpc-
319                 pallet-asset-tx-payment 4.0.0-dev
320                 data-avail 1.0.0
321                 da-runtime 4.0.0
322             frame-executive 4.0.0-dev
323             data-avail 1.0.0
324             da-runtime 4.0.0
325             da-control 1.0.0
326             pallet-tips 4.0.0-dev
327             pallet-timestamp 4.0.0-dev
328             pallet-sudo 4.0.0-dev
329                 da-runtime 4.0.0
330             pallet-staking 4.0.0-dev
331             pallet-session 4.0.0-dev
332             pallet-scheduler 4.0.0-dev
333             pallet-randomness-collective-flip 4.0.0-
334                 da-runtime 4.0.0
335             pallet-offences 4.0.0-dev
336             pallet-mmr-primitives 4.0.0-dev
337             pallet-mmr 4.0.0-dev
338             pallet-membership 4.0.0-dev
339             pallet-indices 4.0.0-dev
340                 da-runtime 4.0.0
341             pallet-im-online 4.0.0-dev
342                 data-avail 1.0.0
343                 da-runtime 4.0.0
344             pallet-grandpa 4.0.0-dev
345             pallet-elections-phragmen 5.0.0-dev
346                 da-runtime 4.0.0
347             pallet-election-provider-multi-phase
348                 4.0.0-dev
349                 da-runtime 4.0.0
350             pallet-democracy 4.0.0-dev
351             pallet-collective 4.0.0-dev

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351 pallet-bounties 4.0.0-dev
352 pallet-balances 4.0.0-dev
353 pallet-bags-list 4.0.0-dev
354 da-runtime 4.0.0
355 pallet-babe 4.0.0-dev
356 pallet-authorship 4.0.0-dev
357 pallet-staking 4.0.0-dev
358 pallet-im-online 4.0.0-dev
359 pallet-grandpa 4.0.0-dev
360 pallet-babe 4.0.0-dev
361 da-runtime 4.0.0
362 pallet-authority-discovery 4.0.0-dev
363 pallet-asset-tx-payment 4.0.0-dev
364 kate-rpc-runtime-api 0.1.0
365 kate-rpc 0.1.0
366 frame-system-benchmarking 4.0.0-dev
367 frame-executive 4.0.0-dev
368 frame-election-provider-support 4.0.0-
    ↪ dev
369 pallet-staking 4.0.0-dev
370 pallet-election-provider-multi-phase
    ↪ 4.0.0-dev
371 pallet-bags-list 4.0.0-dev
372 da-runtime 4.0.0
373 frame-benchmarking 4.0.0-dev
374 data-avail 1.0.0
375 da-runtime 4.0.0
376 da-control 1.0.0
377 frame-executive 4.0.0-dev
378 da-runtime 4.0.0
379 sp-transaction-storage-proof 4.0.0-dev
380 sc-service 0.10.0-dev
381 data-avail 1.0.0
382 sp-transaction-pool 4.0.0-dev
383 sp-timestamp 4.0.0-dev
384 sp-staking 4.0.0-dev
385 sp-session 4.0.0-dev
386 pallet-staking 4.0.0-dev
387 pallet-session 4.0.0-dev
388 pallet-offences 4.0.0-dev
389 pallet-im-online 4.0.0-dev
390 pallet-grandpa 4.0.0-dev
391 pallet-babe 4.0.0-dev
392 frame-support 4.0.0-dev

```

```

393 pallet-utility 4.0.0-dev
394 pallet-treasury 4.0.0-dev
395 pallet-transaction-payment 4.0.0-dev
396 pallet-tips 4.0.0-dev
397 pallet-timestamp 4.0.0-dev
398 pallet-sudo 4.0.0-dev
399 pallet-staking 4.0.0-dev
400 pallet-session 4.0.0-dev
401 pallet-scheduler 4.0.0-dev
402 pallet-randomness-collective-flip 4.0.0-
    ↳ dev
403 pallet-offences 4.0.0-dev
404 pallet-mmr-primitives 4.0.0-dev
405 pallet-mmr 4.0.0-dev
406 pallet-membership 4.0.0-dev
407 pallet-indices 4.0.0-dev
408 pallet-im-online 4.0.0-dev
409 pallet-grandpa 4.0.0-dev
410 pallet-elections-phragmen 5.0.0-dev
411 pallet-election-provider-multi-phase
    ↳ 4.0.0-dev
412 pallet-democracy 4.0.0-dev
413 pallet-collective 4.0.0-dev
414 pallet-bounties 4.0.0-dev
415 pallet-balances 4.0.0-dev
416 pallet-bags-list 4.0.0-dev
417 pallet-babe 4.0.0-dev
418 pallet-authorship 4.0.0-dev
419 pallet-authority-discovery 4.0.0-dev
420 pallet-asset-tx-payment 4.0.0-dev
421 kate-rpc 0.1.0
422 kate 0.1.0
423     kate-rpc 0.1.0
424     fuzzing 0.1.0
425     frame-system 4.0.0-dev
426     data-avail 1.0.0
427     da-runtime 4.0.0
428     da-control 1.0.0
429 frame-system-benchmarking 4.0.0-dev
430 frame-system 4.0.0-dev
431 frame-executive 4.0.0-dev
432 frame-election-provider-support 4.0.0-
    ↳ dev
433 frame-benchmarking-cli 4.0.0-dev

```

```

434         frame-benchmarking 4.0.0-dev
435         data-avail 1.0.0
436         da-runtime 4.0.0
437         da-primitives 0.1.0
438         kate-rpc 0.1.0
439         kate 0.1.0
440         fuzzing 0.1.0
441         frame-system-benchmarking 4.0.0-dev
442         frame-system 4.0.0-dev
443         frame-executive 4.0.0-dev
444         data-avail 1.0.0
445         da-runtime 4.0.0
446         da-control 1.0.0
447         da-control 1.0.0
448         da-runtime 4.0.0
449         sp-session 4.0.0-dev
450         sp-offchain 4.0.0-dev
451         sp-npos-elections 4.0.0-dev
452         pallet-elections-phragmen 5.0.0-dev
453         pallet-election-provider-multi-phase 4.0.0-
↳ dev
454         frame-election-provider-support 4.0.0-dev
455         da-runtime 4.0.0
456         sp-keyring 4.0.0-dev
457         sc-cli 0.10.0-dev
458         pallet-indices 4.0.0-dev
459         data-avail 1.0.0
460         sp-inherents 4.0.0-dev
461         sp-transaction-storage-proof 4.0.0-dev
462         sp-timestamp 4.0.0-dev
463         sp-consensus-babe 0.10.0-dev
464         sp-consensus-aura 0.10.0-dev
465         sp-consensus 0.10.0-dev
466         sp-block-builder 4.0.0-dev
467         sp-authorship 4.0.0-dev
468         sc-consensus-uncles 0.10.0-dev
469         pallet-authorship 4.0.0-dev
470         data-avail 1.0.0
471         sc-service 0.10.0-dev
472         sc-consensus-slots 0.10.0-dev
473         sc-consensus-babe 0.10.0-dev
474         sc-consensus-aura 0.10.0-dev
475         sc-block-builder 0.10.0-dev
476         sc-basic-authorship 0.10.0-dev

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```

477         pallet-timestamp 4.0.0-dev
478         frame-support 4.0.0-dev
479         frame-executive 4.0.0-dev
480         data-avail 1.0.0
481         da-runtime 4.0.0
482     sp-finality-grandpa 4.0.0-dev
483     sp-consensus-vrf 0.10.0-dev
484         sp-consensus-babe 0.10.0-dev
485         sc-consensus-babe 0.10.0-dev
486         pallet-babe 4.0.0-dev
487     sp-consensus-slots 0.10.0-dev
488         sp-consensus-babe 0.10.0-dev
489         sp-consensus-aura 0.10.0-dev
490         sc-consensus-slots 0.10.0-dev
491         sc-consensus-babe 0.10.0-dev
492         sc-consensus-aura 0.10.0-dev
493     sp-consensus-babe 0.10.0-dev
494     sp-consensus-aura 0.10.0-dev
495     sp-consensus 0.10.0-dev
496     sp-blockchain 4.0.0-dev
497     sp-block-builder 4.0.0-dev
498     sp-authorship 4.0.0-dev
499     sp-authority-discovery 4.0.0-dev
500     sp-api 4.0.0-dev
501     sc-transaction-pool-api 4.0.0-dev
502     sc-transaction-pool 4.0.0-dev
503     sc-tracing 4.0.0-dev
504     sc-sync-state-rpc 0.10.0-dev
505     sc-service 0.10.0-dev
506     sc-rpc-api 0.10.0-dev
507     sc-rpc 4.0.0-dev
508     sc-offchain 4.0.0-dev
509     sc-network-gossip 0.10.0-dev
510     sc-network 0.10.0-dev
511     sc-informant 0.10.0-dev
512     sc-finality-grandpa-rpc 0.10.0-dev
513     sc-finality-grandpa 0.10.0-dev
514     sc-consensus-uncles 0.10.0-dev
515     sc-consensus-slots 0.10.0-dev
516     sc-consensus-epochs 0.10.0-dev
517     sc-consensus-babe-rpc 0.10.0-dev
518     sc-consensus-babe 0.10.0-dev
519     sc-consensus-aura 0.10.0-dev
520     sc-consensus 0.10.0-dev

```

```

521         sc-client-db 0.10.0-dev
522         sc-client-api 4.0.0-dev
523         sc-cli 0.10.0-dev
524         sc-chain-spec 4.0.0-dev
525         sc-block-builder 0.10.0-dev
526         sc-basic-authorship 0.10.0-dev
527         sc-authority-discovery 0.10.0-dev
528         pallet-utility 4.0.0-dev
529         pallet-treasury 4.0.0-dev
530         pallet-transaction-payment-rpc-runtime-api
    ↪ 4.0.0-dev
531         pallet-transaction-payment-rpc 4.0.0-dev
532         pallet-transaction-payment 4.0.0-dev
533         pallet-tips 4.0.0-dev
534         pallet-timestamp 4.0.0-dev
535         pallet-sudo 4.0.0-dev
536         pallet-staking 4.0.0-dev
537         pallet-session 4.0.0-dev
538         pallet-scheduler 4.0.0-dev
539         pallet-randomness-collective-flip 4.0.0-dev
540         pallet-offences 4.0.0-dev
541         pallet-mmr-rpc 3.0.0
542         pallet-mmr-primitives 4.0.0-dev
543         pallet-mmr 4.0.0-dev
544         pallet-membership 4.0.0-dev
545         pallet-indices 4.0.0-dev
546         pallet-im-online 4.0.0-dev
547         pallet-grandpa 4.0.0-dev
548         pallet-elections-phragmen 5.0.0-dev
549         pallet-election-provider-multi-phase 4.0.0-dev
550         pallet-democracy 4.0.0-dev
551         pallet-collective 4.0.0-dev
552         pallet-bounties 4.0.0-dev
553         pallet-balances 4.0.0-dev
554         pallet-bags-list 4.0.0-dev
555         pallet-babe 4.0.0-dev
556         pallet-authorship 4.0.0-dev
557         pallet-authority-discovery 4.0.0-dev
558         pallet-asset-tx-payment 4.0.0-dev
559         kate-rpc 0.1.0
560         frame-system-benchmarking 4.0.0-dev
561         frame-system 4.0.0-dev
562         frame-support 4.0.0-dev
563         frame-executive 4.0.0-dev

```

```

564         frame-benchmarking-cli 4.0.0-dev
565         frame-benchmarking 4.0.0-dev
566         data-avail 1.0.0
567         da-runtime 4.0.0
568         da-primitives 0.1.0
569         da-control 1.0.0
570     sp-application-crypto 4.0.0-dev
571         sp-runtime 4.0.0-dev
572         sp-finality-grandpa 4.0.0-dev
573         sp-consensus-babe 0.10.0-dev
574         sp-consensus-aura 0.10.0-dev
575         sp-authority-discovery 4.0.0-dev
576         sc-service 0.10.0-dev
577         sc-keystore 4.0.0-dev
578             sc-service 0.10.0-dev
579             sc-finality-grandpa 0.10.0-dev
580             sc-consensus-babe 0.10.0-dev
581             sc-cli 0.10.0-dev
582             data-avail 1.0.0
583             sc-finality-grandpa 0.10.0-dev
584             sc-consensus-babe-rpc 0.10.0-dev
585             sc-consensus-babe 0.10.0-dev
586             sc-consensus-aura 0.10.0-dev
587         pallet-staking 4.0.0-dev
588         pallet-im-online 4.0.0-dev
589         pallet-grandpa 4.0.0-dev
590         pallet-babe 4.0.0-dev
591         pallet-authority-discovery 4.0.0-dev
592     sc-executor 0.10.0-dev
593     sc-consensus-babe 0.10.0-dev
594     pallet-utility 4.0.0-dev
595     pallet-transaction-payment 4.0.0-dev
596     pallet-tips 4.0.0-dev
597     pallet-sudo 4.0.0-dev
598     pallet-staking 4.0.0-dev
599     pallet-session 4.0.0-dev
600     pallet-scheduler 4.0.0-dev
601     pallet-mmr 4.0.0-dev
602     pallet-membership 4.0.0-dev
603     pallet-indices 4.0.0-dev
604     pallet-im-online 4.0.0-dev
605     pallet-grandpa 4.0.0-dev
606     pallet-elections-phragmen 5.0.0-dev
607     pallet-election-provider-multi-phase 4.0.0-dev

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```

608         pallet-democracy 4.0.0-dev
609         pallet-collective 4.0.0-dev
610         pallet-bounties 4.0.0-dev
611         pallet-babe 4.0.0-dev
612         pallet-asset-tx-payment 4.0.0-dev
613         frame-system-benchmarking 4.0.0-dev
614         frame-system 4.0.0-dev
615         frame-support 4.0.0-dev
616         frame-executive 4.0.0-dev
617         frame-benchmarking 4.0.0-dev
618         da-runtime 4.0.0
619         da-primitives 0.1.0
620         da-control 1.0.0
621     sp-core 4.0.0-dev
622         substrate-frame-rpc-system 4.0.0-dev
623         sp-trie 4.0.0-dev
624             sp-transaction-storage-proof 4.0.0-dev
625             sp-state-machine 0.10.0-dev
626                 sp-io 4.0.0-dev
627                 sp-consensus 0.10.0-dev
628                 sp-blockchain 4.0.0-dev
629                 sp-api 4.0.0-dev
630                 sc-service 0.10.0-dev
631                 sc-consensus-slots 0.10.0-dev
632                 sc-consensus 0.10.0-dev
633                 sc-client-db 0.10.0-dev
634                 sc-client-api 4.0.0-dev
635                 sc-block-builder 0.10.0-dev
636                 frame-support 4.0.0-dev
637                 frame-benchmarking-cli 4.0.0-dev
638             sp-io 4.0.0-dev
639             sc-service 0.10.0-dev
640             sc-executor 0.10.0-dev
641             sc-client-db 0.10.0-dev
642             sc-client-api 4.0.0-dev
643             pallet-session 4.0.0-dev
644         sp-transaction-storage-proof 4.0.0-dev
645         sp-tasks 4.0.0-dev
646         sp-state-machine 0.10.0-dev
647         sp-session 4.0.0-dev
648         sp-runtime 4.0.0-dev
649         sp-rpc 4.0.0-dev
650             sc-tracing 4.0.0-dev
651             sc-rpc-api 0.10.0-dev

```

```
652         sc-rpc 4.0.0-dev
653         pallet-transaction-payment-rpc 4.0.0-dev
654         kate-rpc 0.1.0
655         data-avail 1.0.0
656     sp-offchain 4.0.0-dev
657     sp-npos-elections 4.0.0-dev
658     sp-keystore 0.10.0-dev
659         sp-io 4.0.0-dev
660         sp-finality-grandpa 4.0.0-dev
661         sp-consensus-babe 0.10.0-dev
662         sc-service 0.10.0-dev
663         sc-rpc 4.0.0-dev
664         sc-keystore 4.0.0-dev
665         sc-finality-grandpa 0.10.0-dev
666         sc-consensus-babe-rpc 0.10.0-dev
667         sc-consensus-babe 0.10.0-dev
668         sc-consensus-aura 0.10.0-dev
669         sc-client-api 4.0.0-dev
670         sc-cli 0.10.0-dev
671         sc-authority-discovery 0.10.0-dev
672         frame-benchmarking-cli 4.0.0-dev
673         data-avail 1.0.0
674     sp-keyring 4.0.0-dev
675     sp-io 4.0.0-dev
676     sp-inherents 4.0.0-dev
677     sp-finality-grandpa 4.0.0-dev
678     sp-consensus-vrf 0.10.0-dev
679     sp-consensus-babe 0.10.0-dev
680     sp-consensus 0.10.0-dev
681     sp-application-crypto 4.0.0-dev
682     sp-api 4.0.0-dev
683     sc-transaction-pool 4.0.0-dev
684     sc-tracing 4.0.0-dev
685     sc-state-db 0.10.0-dev
686     sc-service 0.10.0-dev
687     sc-rpc-api 0.10.0-dev
688     sc-rpc 4.0.0-dev
689     sc-offchain 4.0.0-dev
690     sc-network 0.10.0-dev
691     sc-keystore 4.0.0-dev
692     sc-finality-grandpa-rpc 0.10.0-dev
693     sc-finality-grandpa 0.10.0-dev
694     sc-executor-wasmtime 0.10.0-dev
695     sc-executor 0.10.0-dev
```



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696         sc-executor-wasmi 0.10.0-dev
697         sc-executor 0.10.0-dev
698     sc-executor-common 0.10.0-dev
699         sc-executor-wasmtime 0.10.0-dev
700         sc-executor-wasmi 0.10.0-dev
701         sc-executor 0.10.0-dev
702     sc-executor 0.10.0-dev
703     sc-consensus-slots 0.10.0-dev
704     sc-consensus-babe-rpc 0.10.0-dev
705     sc-consensus-babe 0.10.0-dev
706     sc-consensus-aura 0.10.0-dev
707     sc-consensus 0.10.0-dev
708     sc-client-db 0.10.0-dev
709     sc-client-api 4.0.0-dev
710     sc-cli 0.10.0-dev
711     sc-chain-spec 4.0.0-dev
712     sc-block-builder 0.10.0-dev
713     sc-basic-authorship 0.10.0-dev
714     sc-authority-discovery 0.10.0-dev
715     sc-allocator 4.1.0-dev
716         sc-executor-wasmtime 0.10.0-dev
717         sc-executor-wasmi 0.10.0-dev
718         sc-executor-common 0.10.0-dev
719     pallet-utility 4.0.0-dev
720     pallet-transaction-payment-rpc 4.0.0-dev
721     pallet-transaction-payment 4.0.0-dev
722     pallet-tips 4.0.0-dev
723     pallet-session 4.0.0-dev
724     pallet-mmr-rpc 3.0.0
725     pallet-mmr-primitives 4.0.0-dev
726     pallet-mmr 4.0.0-dev
727     pallet-membership 4.0.0-dev
728     pallet-indices 4.0.0-dev
729     pallet-im-online 4.0.0-dev
730     pallet-grandpa 4.0.0-dev
731     pallet-elections-phragmen 5.0.0-dev
732     pallet-election-provider-multi-phase 4.0.0-dev
733     pallet-collective 4.0.0-dev
734     pallet-bounties 4.0.0-dev
735     pallet-asset-tx-payment 4.0.0-dev
736     kate-proof 0.1.0
737         kate 0.1.0
738     kate 0.1.0
739     frame-system-benchmarking 4.0.0-dev

```

```
740         frame-system 4.0.0-dev
741         frame-support 4.0.0-dev
742         frame-executive 4.0.0-dev
743         frame-benchmarking-cli 4.0.0-dev
744         data-avail 1.0.0
745         da-runtime 4.0.0
746         da-primitives 0.1.0
747         da-control 1.0.0
748         sc-executor-wasmtime 0.10.0-dev
749         sc-executor-wasmi 0.10.0-dev
750         sc-executor 0.10.0-dev
751         frame-system 4.0.0-dev
752         frame-benchmarking 4.0.0-dev
753         da-primitives 0.1.0
754         sp-io 4.0.0-dev
755         sc-transaction-pool 4.0.0-dev
756         sc-tracing 4.0.0-dev
757         sc-service 0.10.0-dev
758         sc-rpc-api 0.10.0-dev
759         frame-support 4.0.0-dev
760         frame-executive 4.0.0-dev
761         data-avail 1.0.0
762         sc-tracing 4.0.0-dev
763         sc-tracing 4.0.0-dev
764         sc-telemetry 4.0.0-dev
765         sc-service 0.10.0-dev
766         sc-finality-grandpa 0.10.0-dev
767         sc-consensus-slots 0.10.0-dev
768         sc-consensus-babe 0.10.0-dev
769         sc-consensus-aura 0.10.0-dev
770         sc-cli 0.10.0-dev
771         sc-chain-spec 4.0.0-dev
772         sc-basic-authorship 0.10.0-dev
773         data-avail 1.0.0
774         sc-cli 0.10.0-dev
775         frame-benchmarking-cli 4.0.0-dev
776
```

Unmaintained dependencies:

ID	package	Short Description
RUSTSEC-2020-0016	net2 0.2.37	'net2' crate has been deprecated; use 'socket2' instead
RUSTSEC-2021-0127	serde-cbor 0.11.2	serde-cbor is unmaintained



THANK YOU FOR CHOOSING

 **HALBORN**

