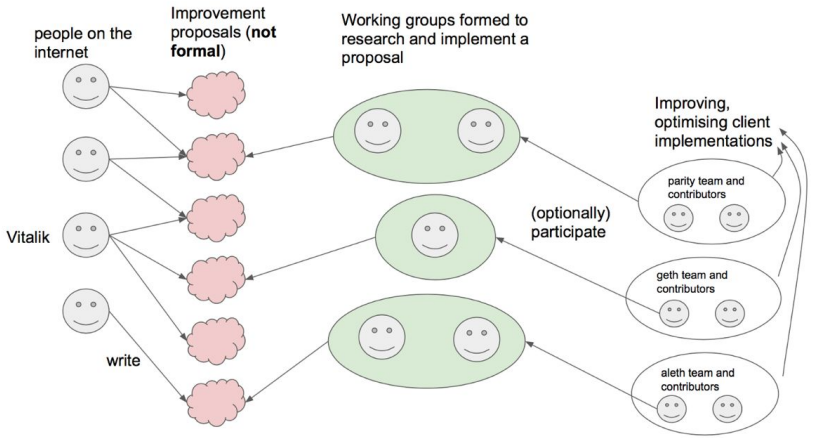
Future of eth1

Permissionless development

Previous attempts

Ethereum 1x as an attempt to change the “process”

Alexey Akhunov May 8, 2019 · 6 min read



Lessons learnt:

1. ETH Core development != implementing EIPs
2. Working groups did not “own” any code
3. There are a lot of nuances

AllCoreDevs calls summer 2020

2020-06-26 **#90** 2020-07-10 **#91** 2020-07-24 **#92**

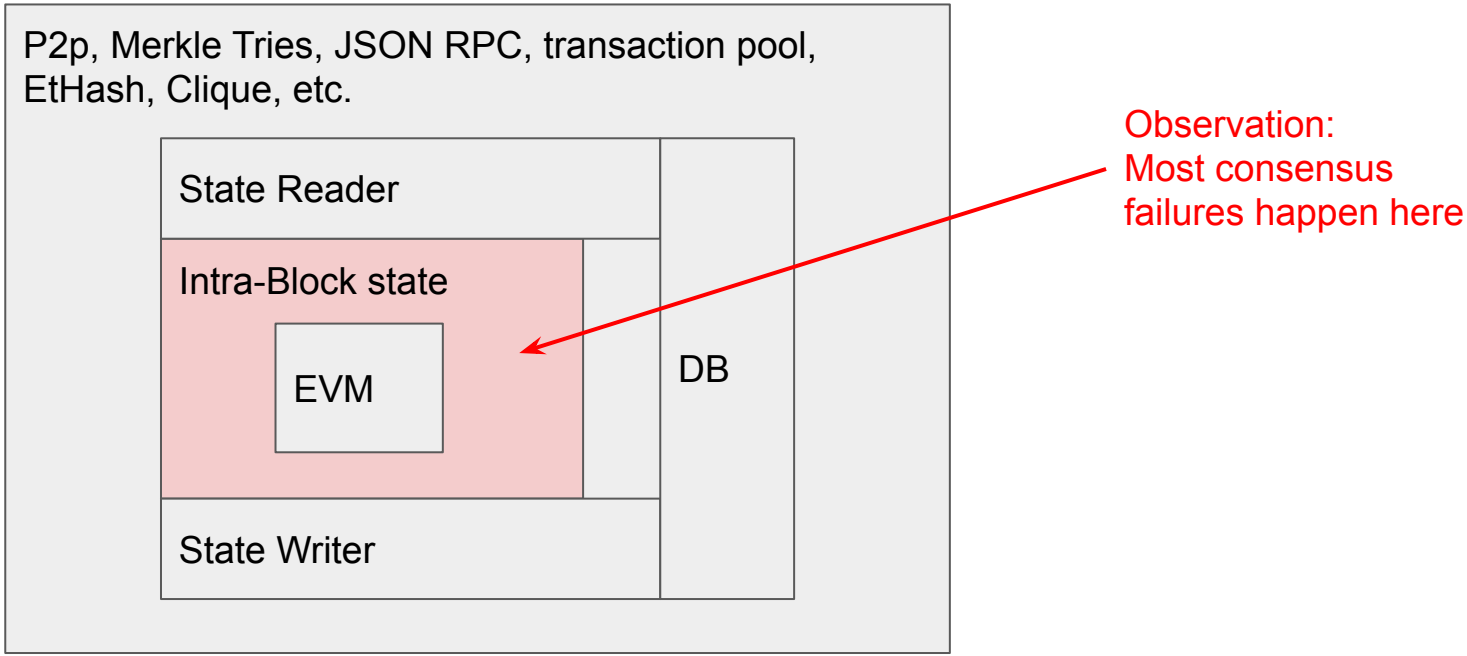
Selected topics:

- Burnout of core developers

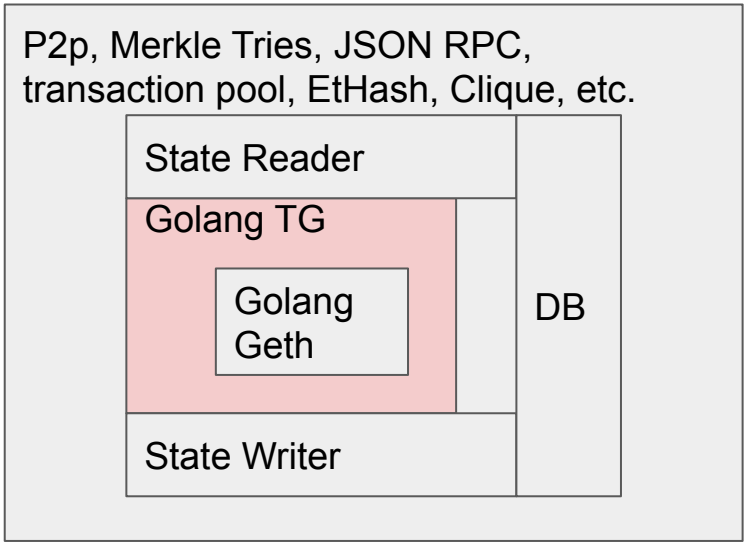
- Diversity of implementations

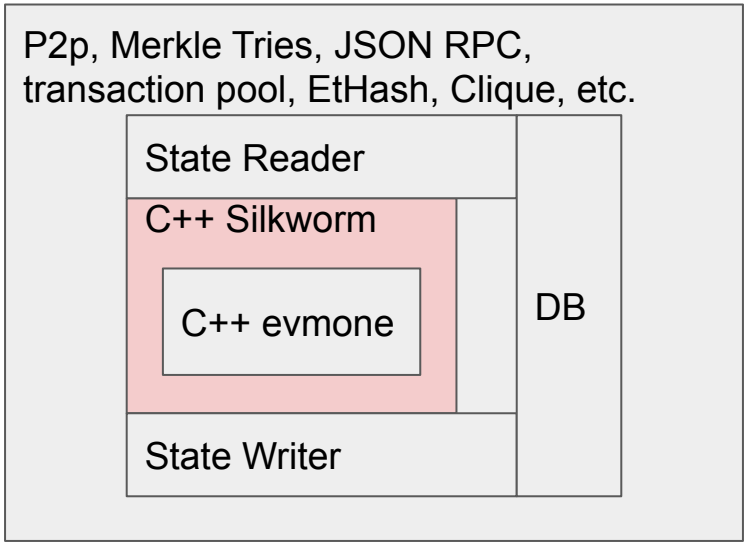
- Barrier to entry into developing a “new” implementation

Diversity of implementations and consensus failures

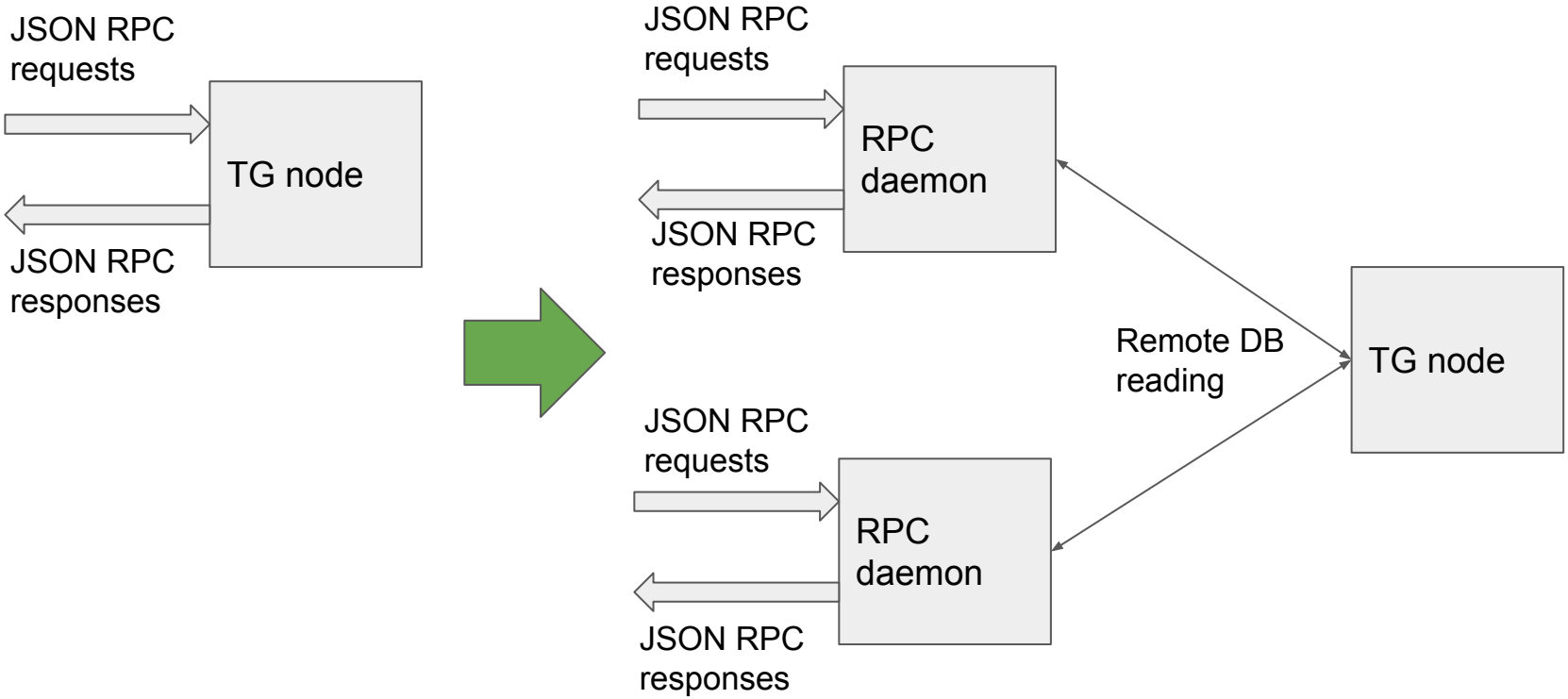


Practical examples: Silkworm execution engine





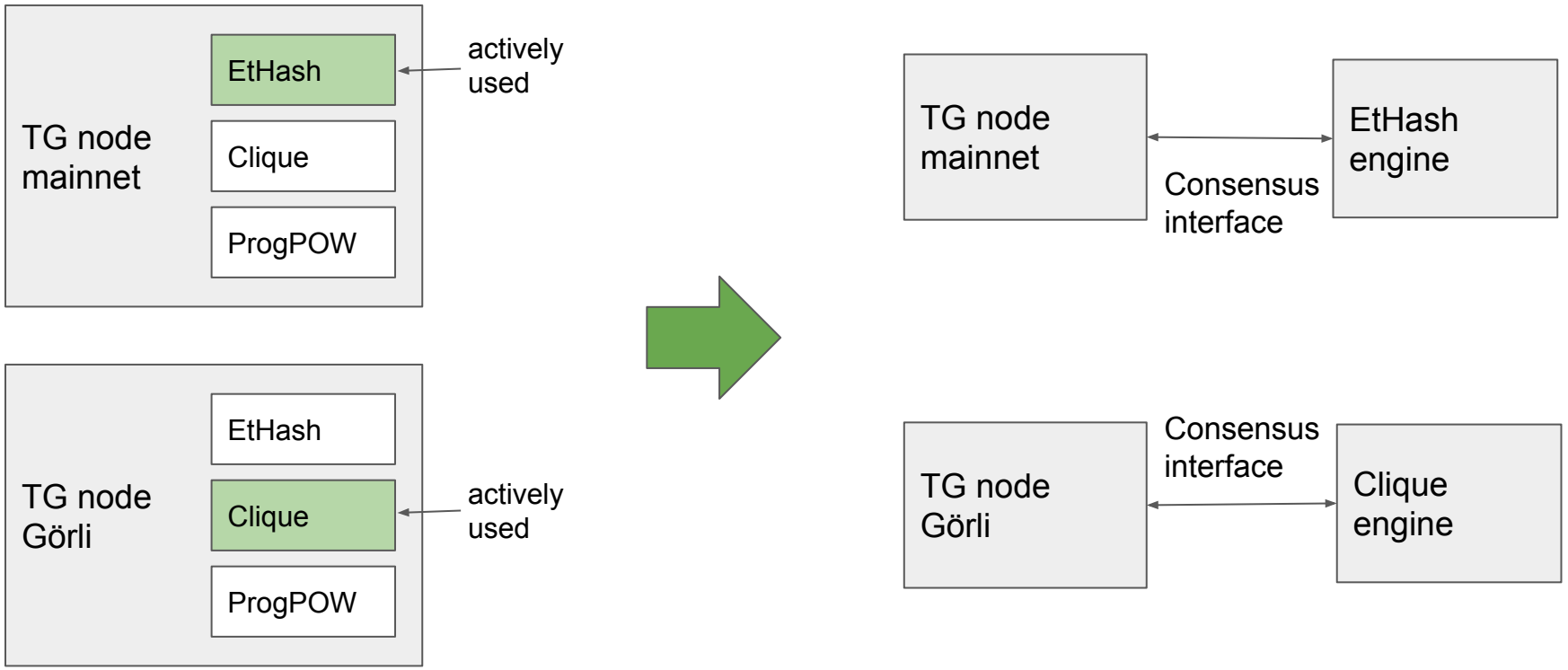
Practical examples - RPC daemon split



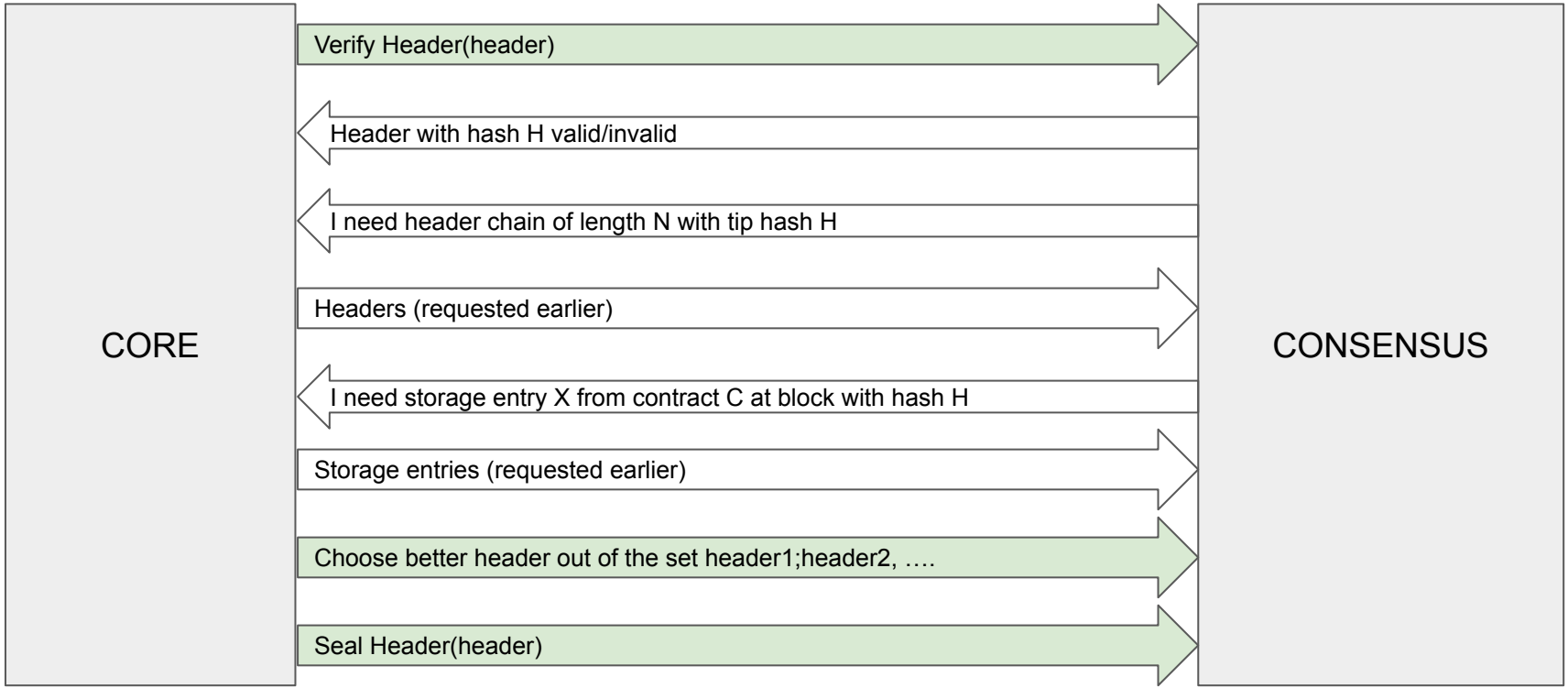
RPC daemon - interface

```
service KV2 { rpc Tx(stream Cursor) returns (stream Pair2); }

message Cursor { Op op = 1;  string tableName = 2; uint32 cursor = 3;
bytes k = 4; bytes v = 5; }

enum Op { FIRST = 0; FIRST_DUP = 1; SEEK = 2; SEEK_BOTH = 3; CURRENT = 4;
GET_MULTIPLE = 5; LAST = 6; LAST_DUP = 7; NEXT = 8; NEXT_DUP = 9;
NEXT_MULTIPLE = 10; NEXT_NO_DUP = 11; PREV = 12; PREV_DUP = 13;
PREV_NO_DUP = 14; SEEK_EXACT = 15; SEEK_BOTH_EXACT = 16;  OPEN = 30;
CLOSE = 31; }

message Pair2 { bytes k = 1; bytes v = 2; uint32 cursorID = 3; }
```

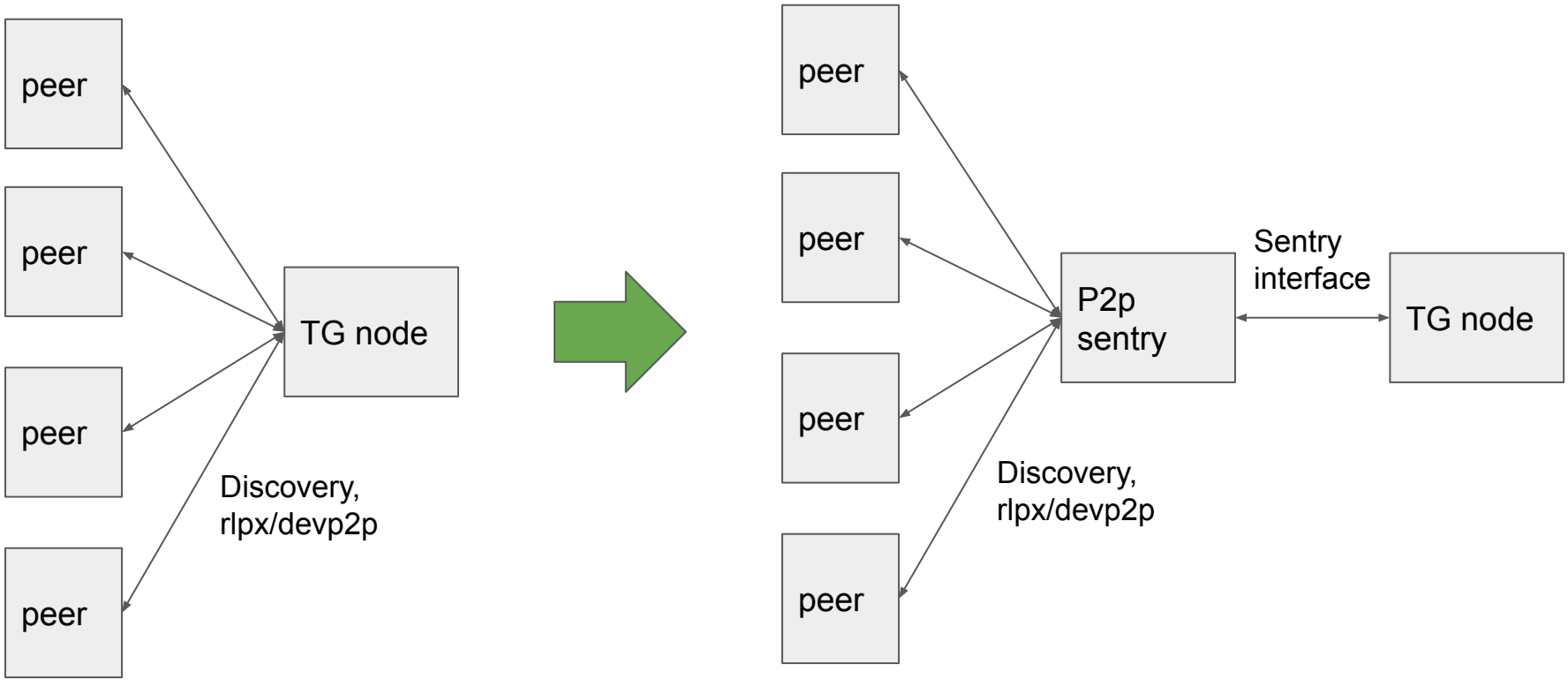
Practical examples - Consensus Engine split



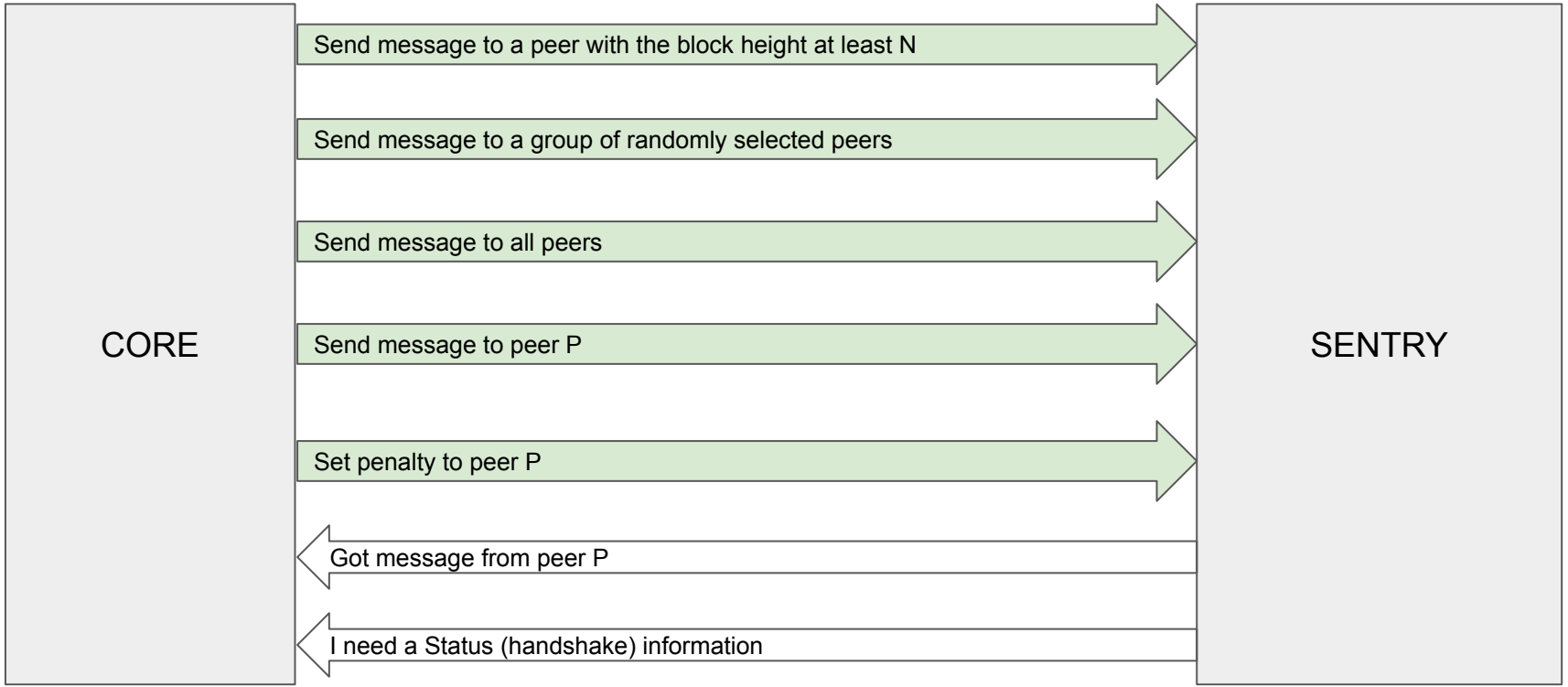
Consensus Engine split - interface (conceptual only)



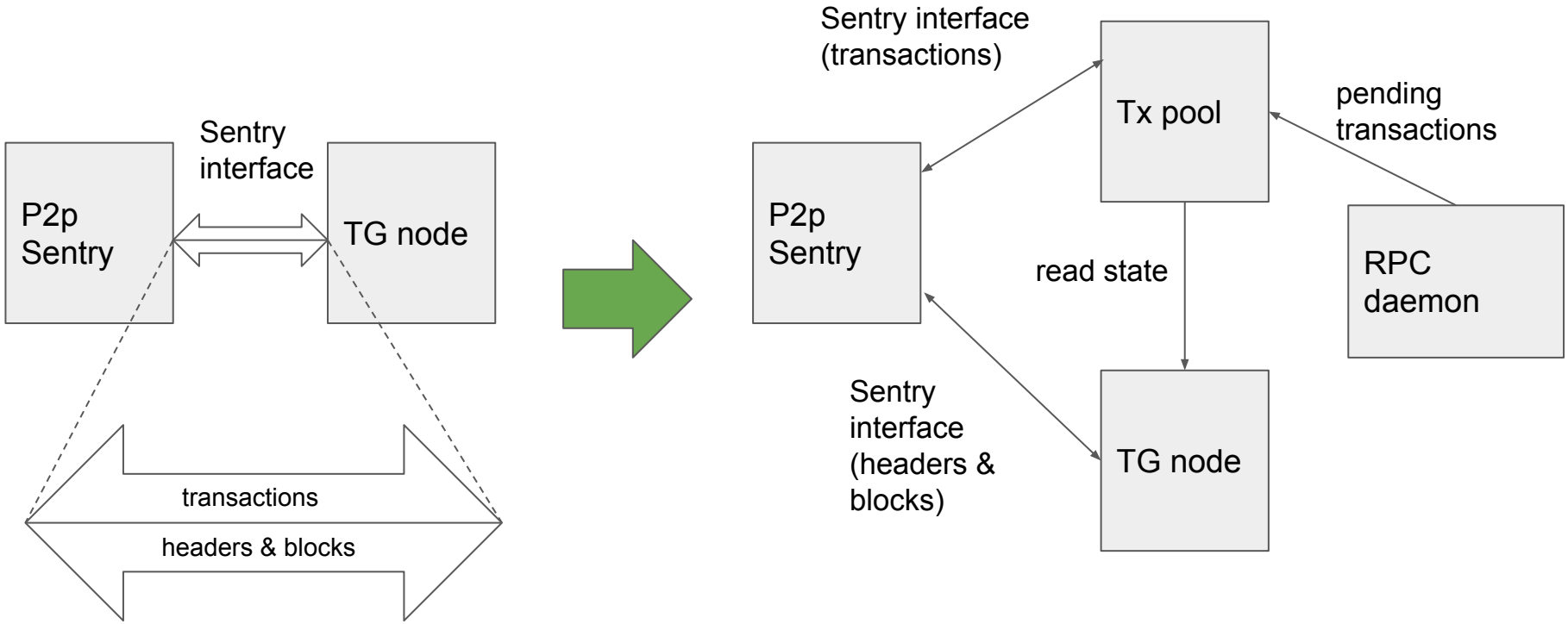
Practical examples - P2P sentry split



P2p sentry split - interface (conceptual only)



Practical examples - Transaction pool split



Conclusion

Implementation diversity can take various forms (e.g. diversity of parts and relative number of parts)

Working groups can (and should) own the code

Innovation happens elsewhere