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Empirically Analyzing Ethereum's Gas Mechanism

Ethereum's Gas mechanism attempts to set transaction fees in accordance with the computational cost of transaction execution: a cost borne by default by every node on the network to ensure correct smart contract execution. Gas encourages users to...

The most notable things to me from this are:

- Several opcodes are currently vastly underpriced in gas. Particularly,
- SDIV
- SLOAD
- BALANCE
- SGT
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- Nodes with beefy RAM seem to have significant competitive advantages over more consumer grade nodes (16GB).
- There’s likely some database optimizations we could make in LEVELDB to improve performance and rreduce variability—particularly on lower-end machines.
- It may be sensible for client operators to publish suggested specs for minimal hardware.
- Verifiable computing methods will definitely help.