weak censorship

part 1—definitions

part 2—problems

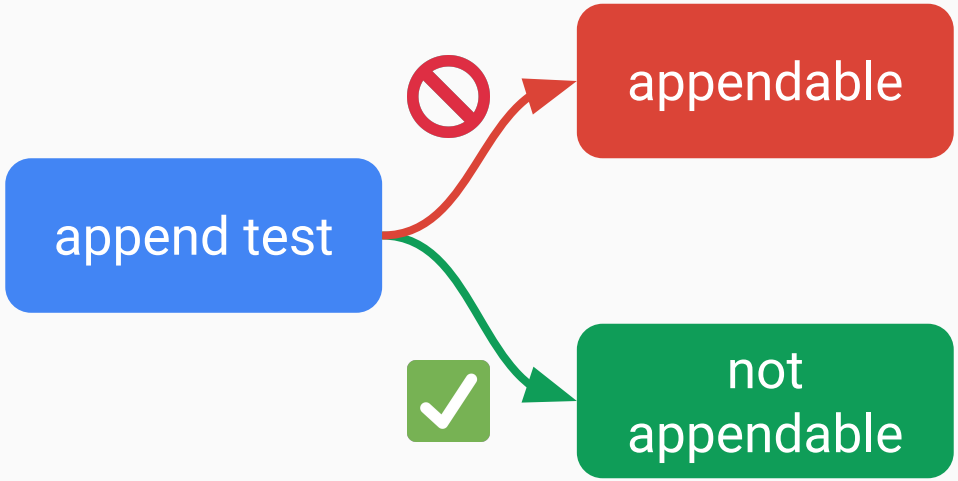
part 3—solutions

part 1—definitions

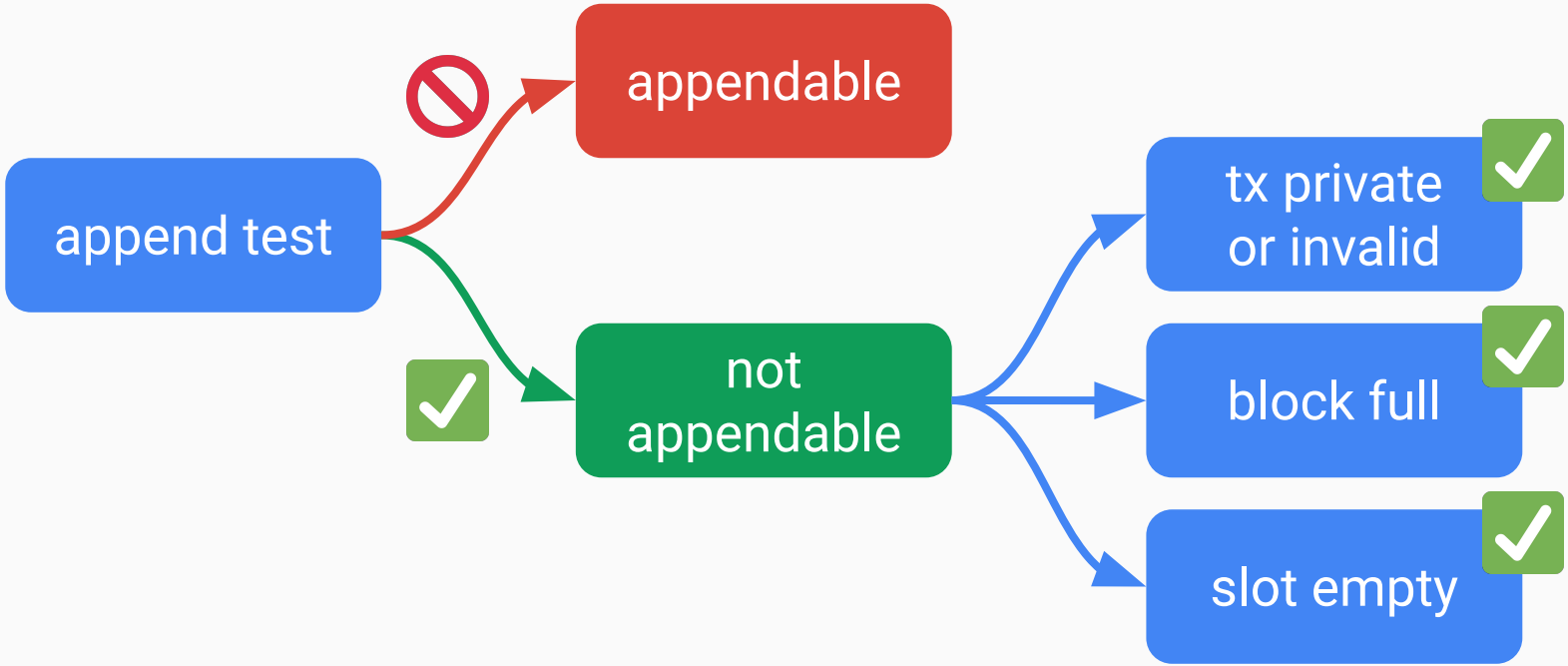
part 2—problems

part 3—solutions

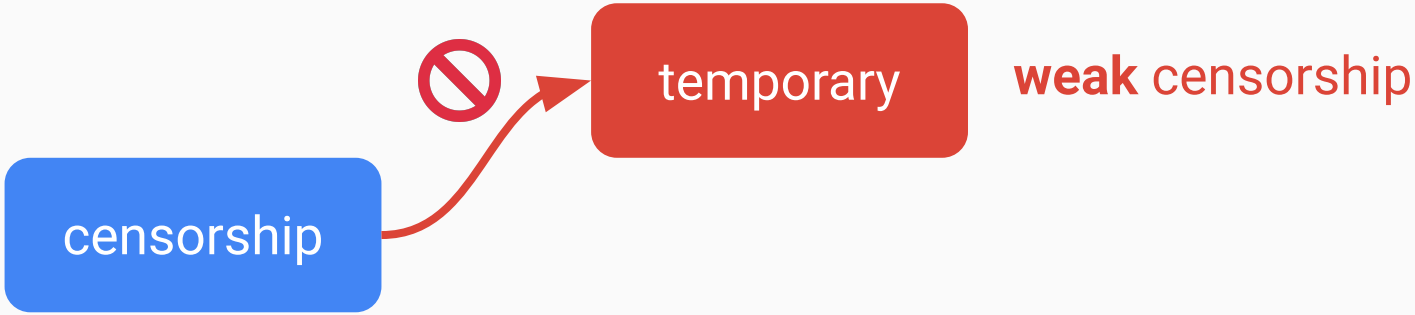
censorship definition



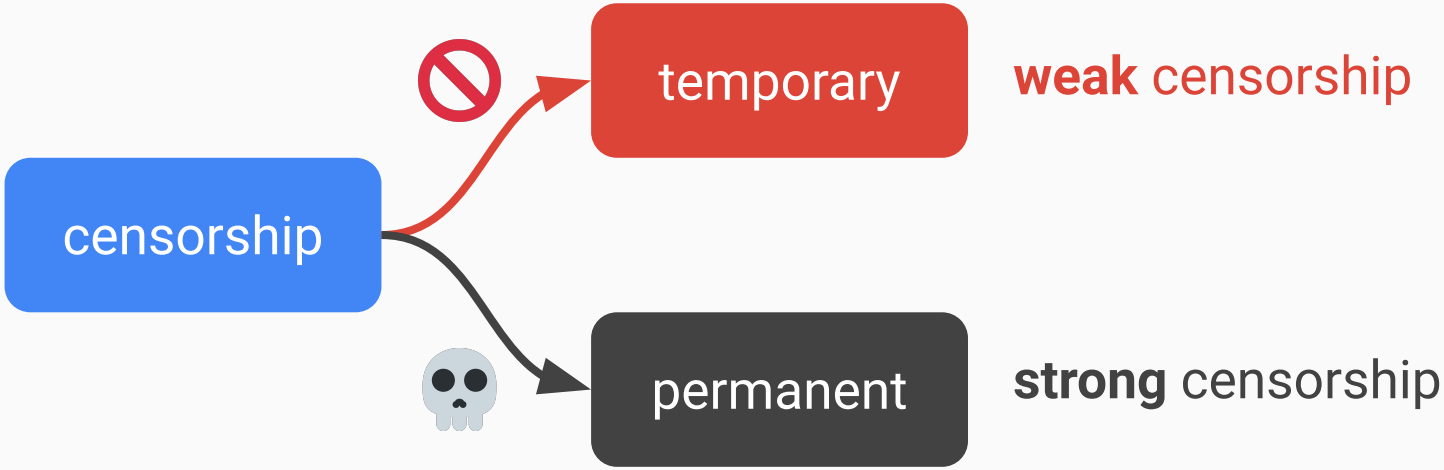
censorship definition



weak and strong censorship



weak and strong censorship



MEV pipeline

user

wallet

searcher

builder

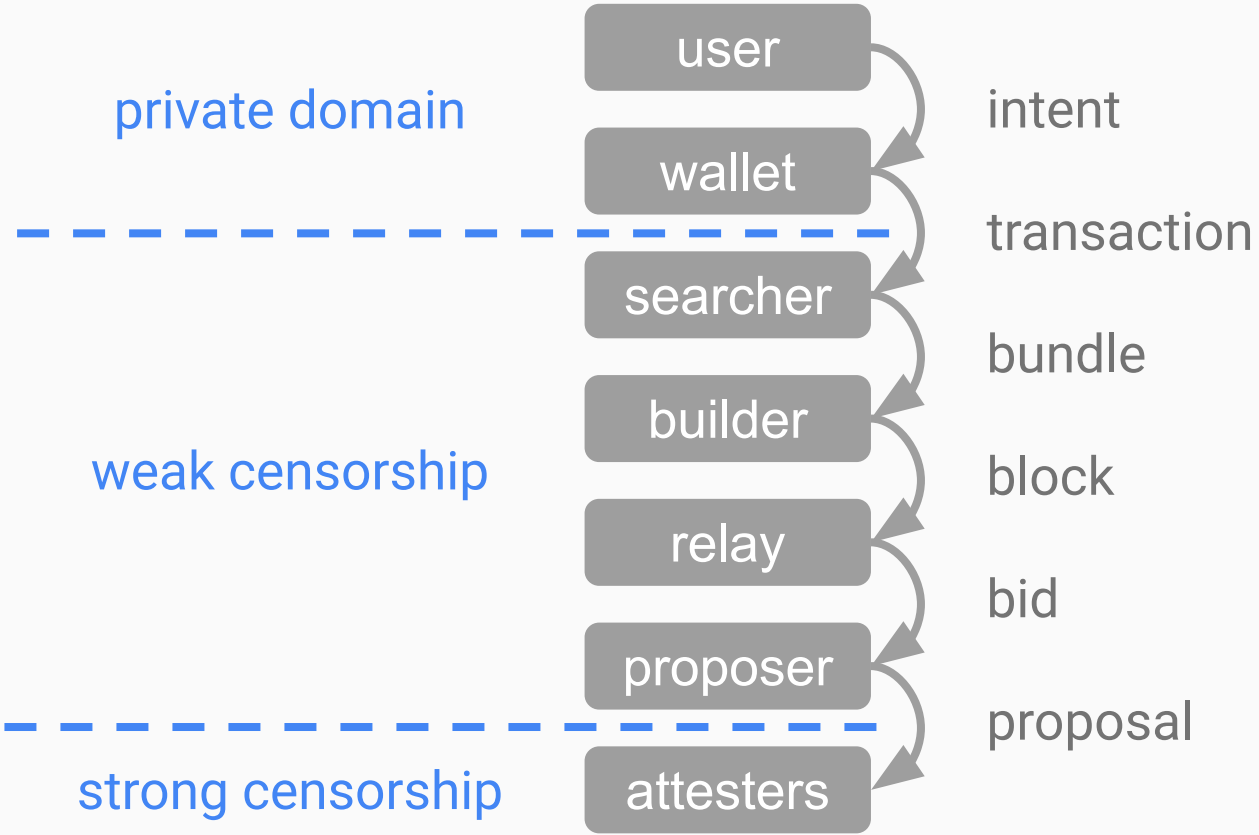
relay

proposer

attesters

MEV pipeline

MEV pipeline

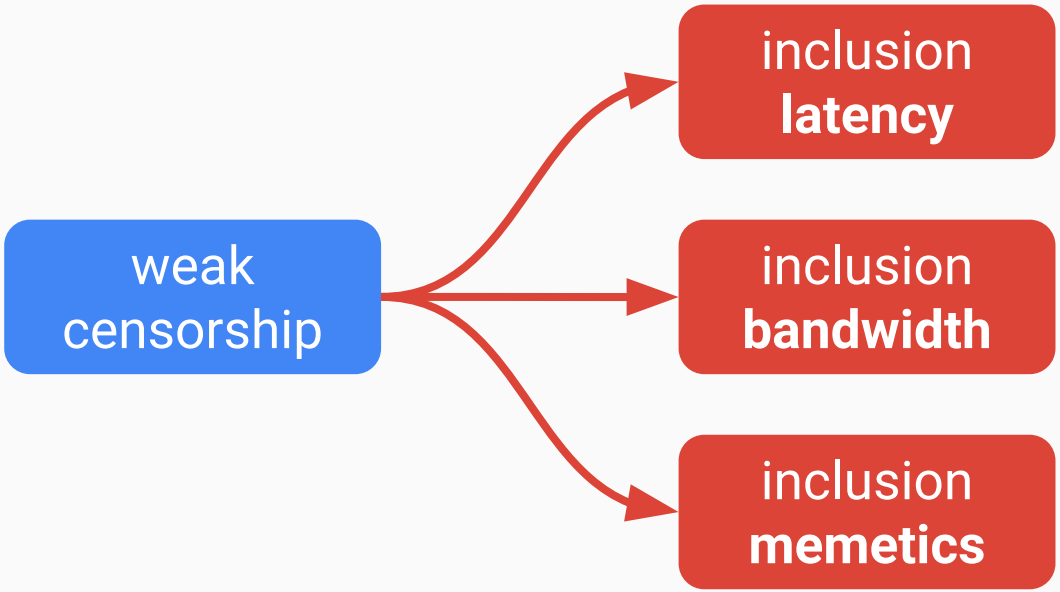


part 1—definitions

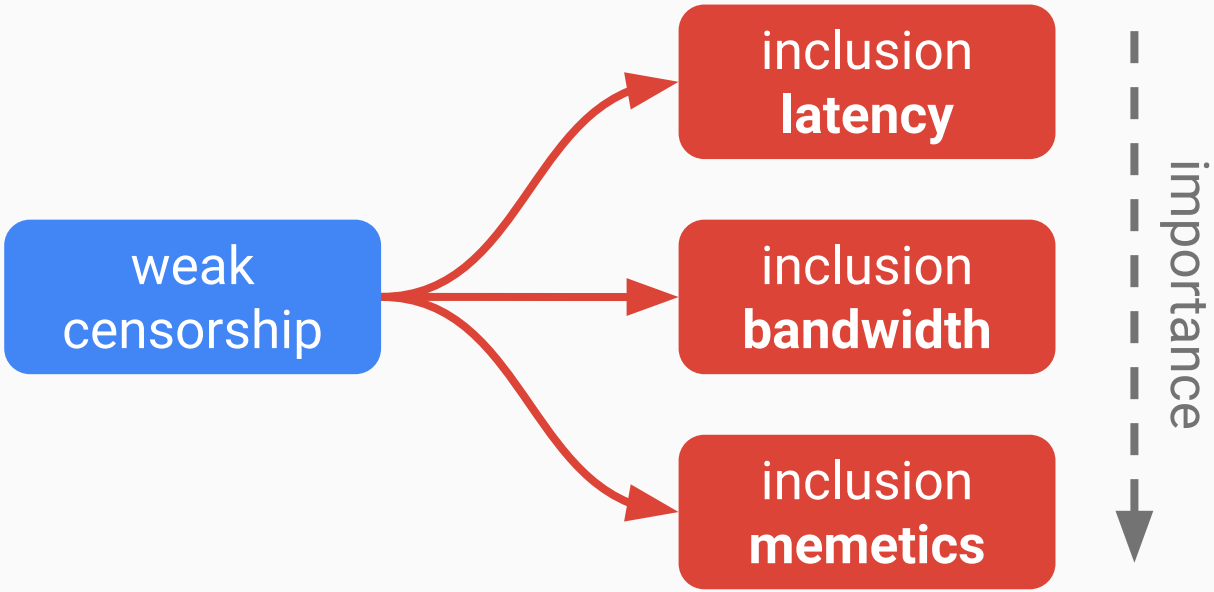
part 2—problems

part 3—solutions

overview


weak
censorship
inclusion
latency
inclusion
bandwidth
inclusion
memetics

overview


weak
censorship
inclusion
latency
inclusion
bandwidth
inclusion
memetics
importance

inclusion latency

$$\texttt{censored_transaction_latency} = \texttt{l1_latency} \div \texttt{l1_neutrality\%}$$

inclusion latency

$$\texttt{censored_transaction_latency} = \texttt{l1_latency} \div \texttt{l1_neutrality\%}$$

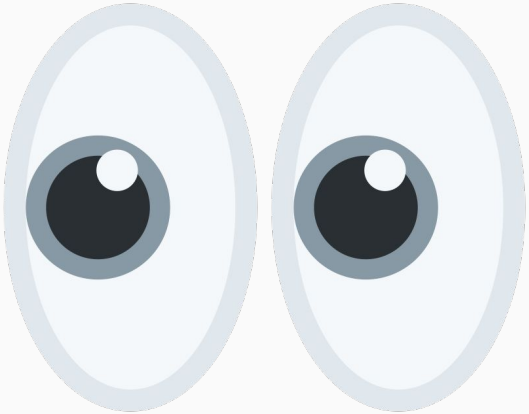
inclusion bandwidth

$$\texttt{censored_rollup_bandwidth} = \texttt{l1_bandwidth} \times \texttt{l1_neutrality\%}$$

inclusion bandwidth

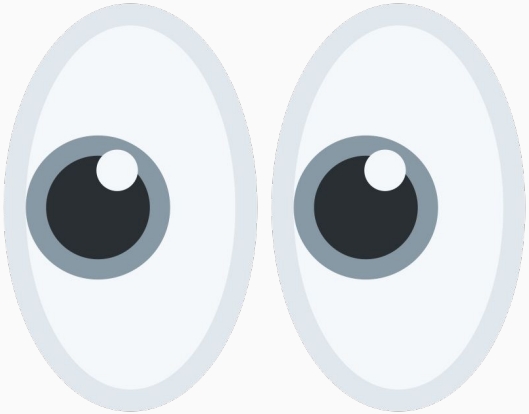
$$\texttt{censored_rollup_bandwidth} = \texttt{l1_bandwidth} \times \texttt{l1_neutrality\%}$$

inclusion memetics

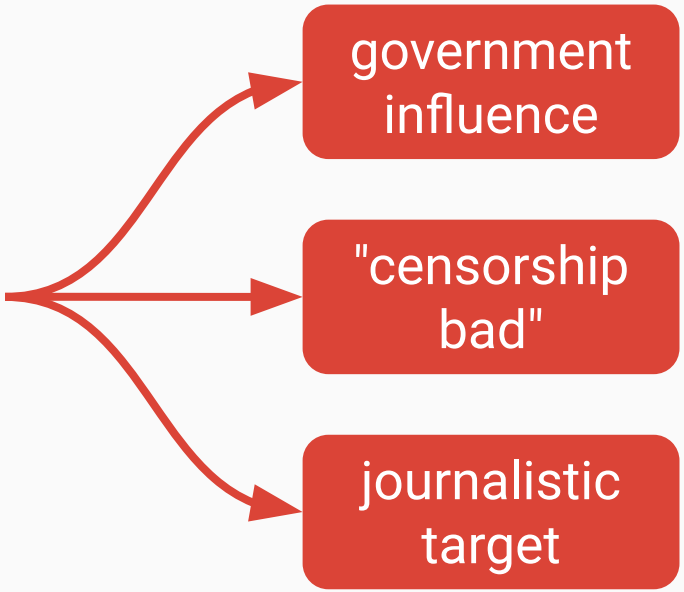


a bad look

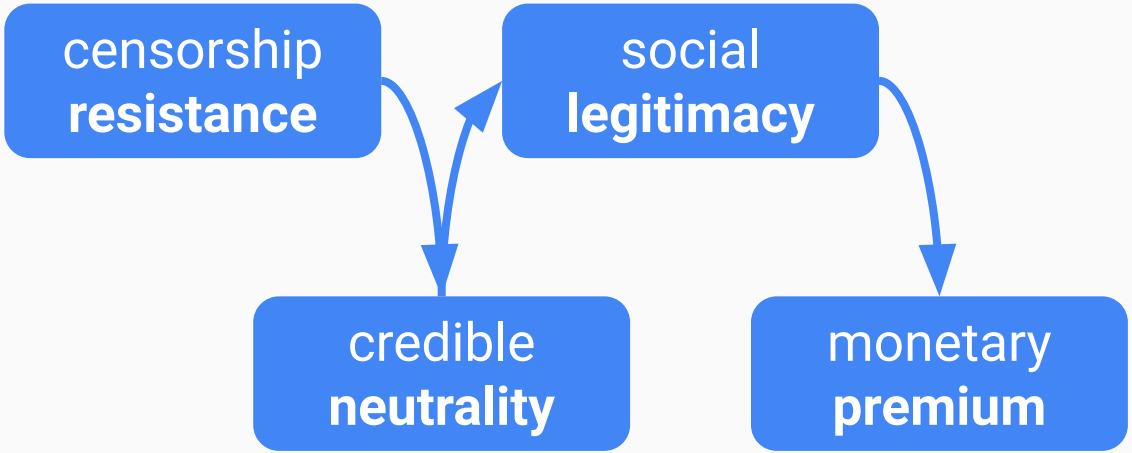
inclusion memetics



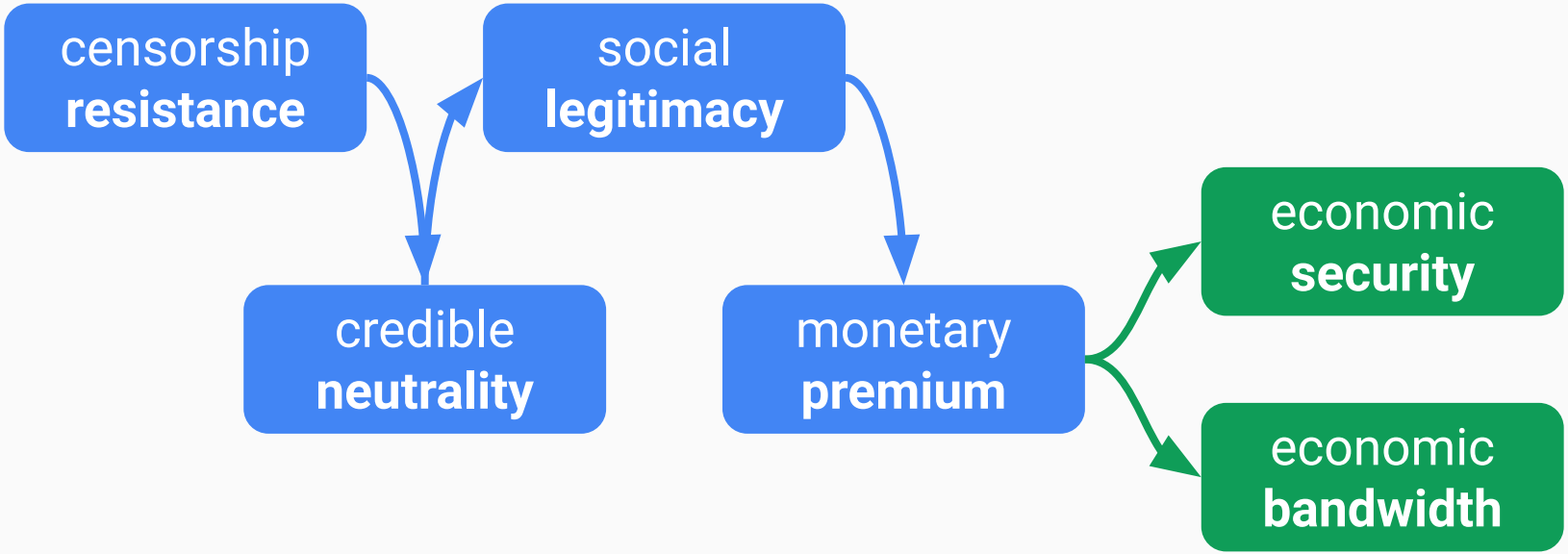
a bad look



memetic chaining



memetic chaining



L1 censorship today

	censoring
rsync-builder.xyz	yes
beaverbuild.org	yes
titanbuilder.xyz	no
flashbots.net	yes
self building	no
builder0x69.io	yes
gambit.co	yes

L1 censorship today

	censoring	7d dominance
rsync-builder.xyz	yes	**30.7%**
beaverbuild.org	yes	**29.8%**
titanbuilder.xyz	no	**17.0%**
flashbots.net	yes	**8.0%**
self building	no	**6.0%**
builder0x69.io	yes	**4.0%**
gambit.co	yes	**1.8%**

L1 censorship today

	censoring	7d dominance
rsync-builder.xyz	yes	**30.7%**
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builder0x69.io	yes	**4.0%**
gambit.co	yes	**1.8%**

75%

precarious situation

precarious situation

precarious situation

precarious situation

`l1_neutrality%`

`= 1 - mev_boost% = 6%`

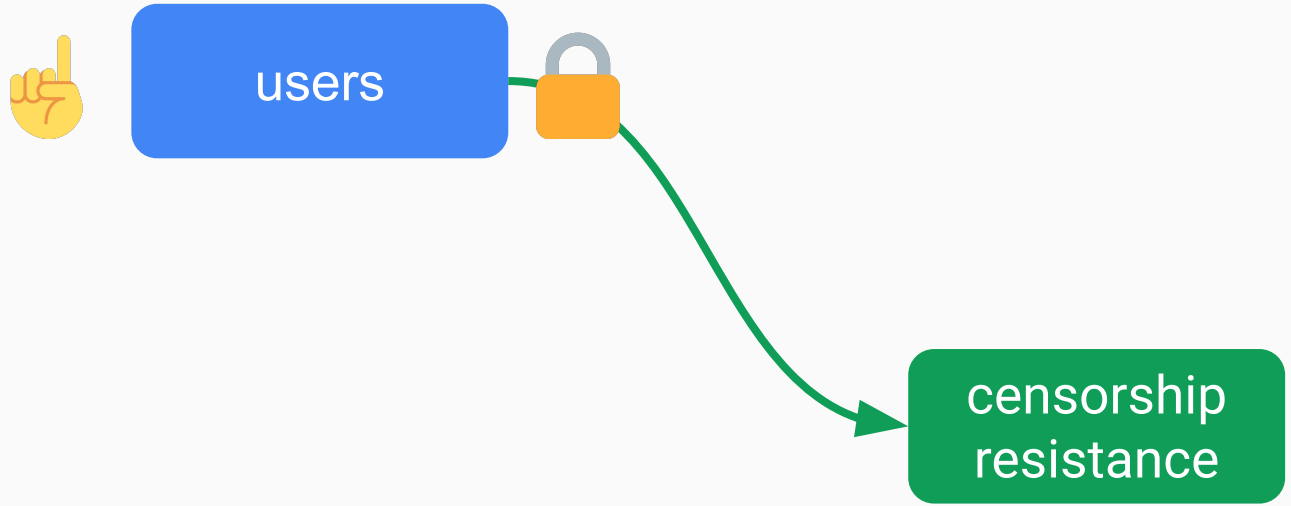
part 1—definitions

part 2—problems

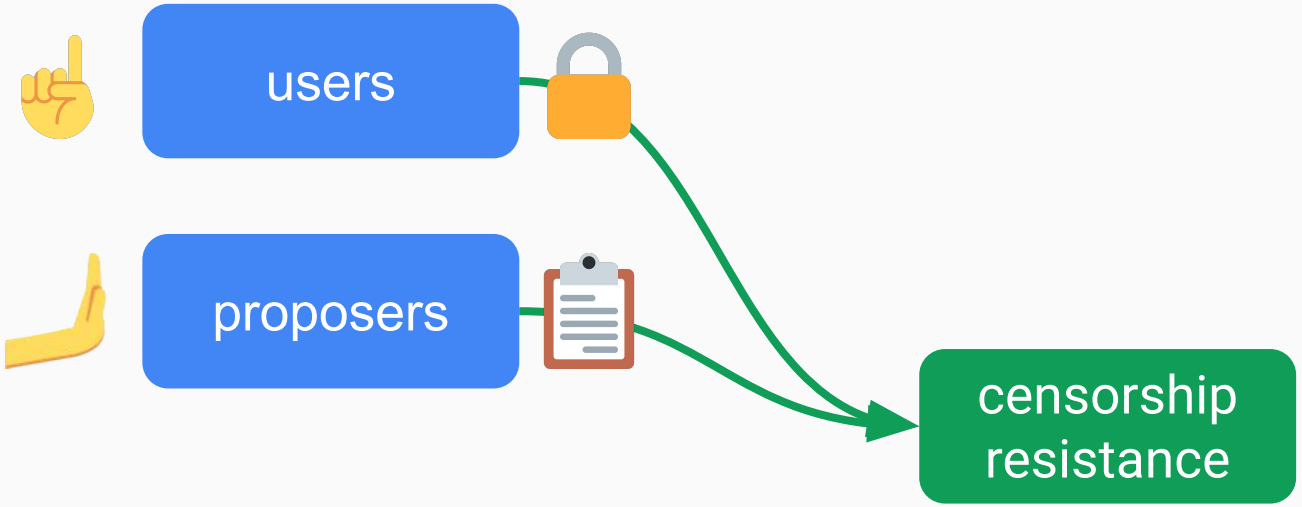
part 3—solutions

four solutions

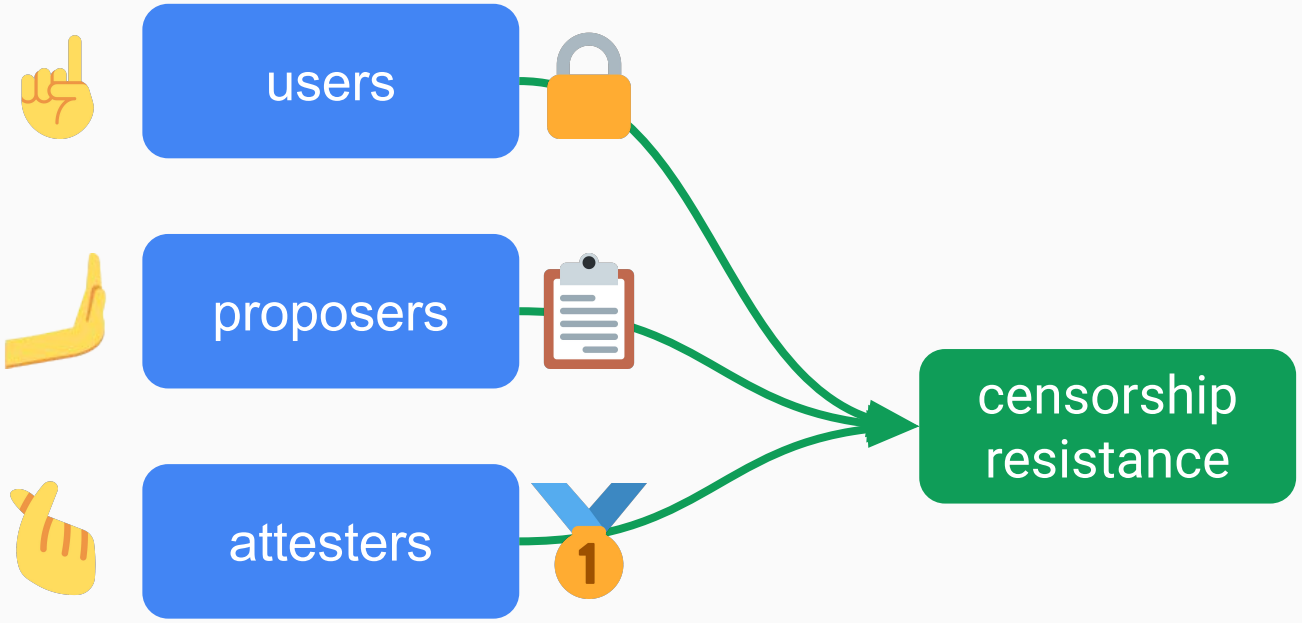
overview



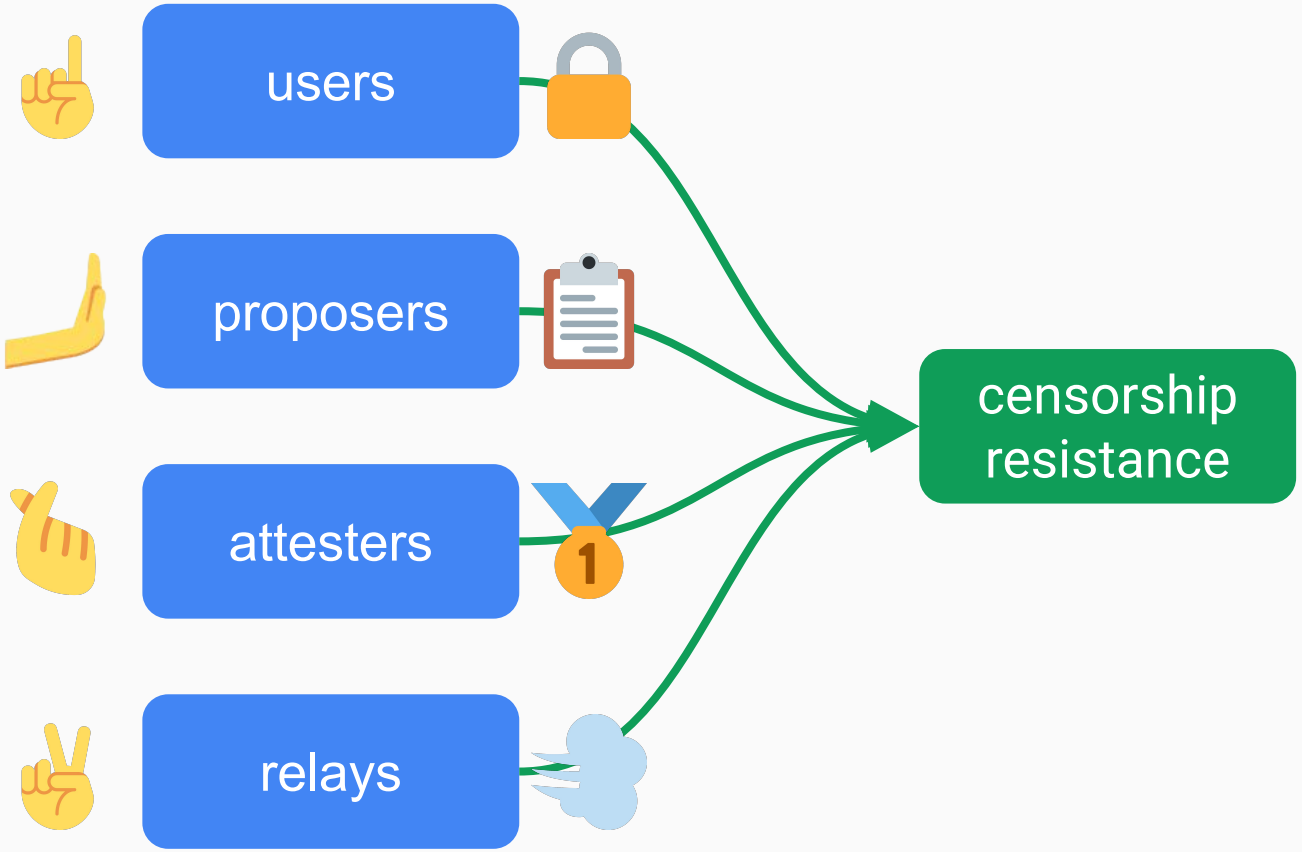
overview



overview



overview


users
proposers
attesters
relays
1
censorship resistance

enshrined PBS (ePBS)

relay_censorship% = 0%

forward inclusion lists

before

```
l1_neutrality%
= builder_neutrality%
```

forward inclusion lists

before

$$l1_neutrality\% = builder_neutrality\%$$

---

after

$$l1_neutrality\% = builder_neutrality\% + inclusion_list\% - builder_neutrality\% \times inclusion_list\%$$

before

$$\texttt{censorship_cost} = \sum(\texttt{censored_transaction_tips})$$

encrypted mempools

before

$$\text{censorship_cost} = \sum(\text{censored_transaction_tips})$$

---

after

$$\text{censorship_cost} = \sum(\text{encrypted_transaction_tips})$$

MEV burn

before

$$\texttt{censorship_cost} = \sum(\texttt{censored_transaction_tips})$$

MEV burn

before

$$\text{censorship_cost} = \sum(\text{censored_transaction_tips})$$

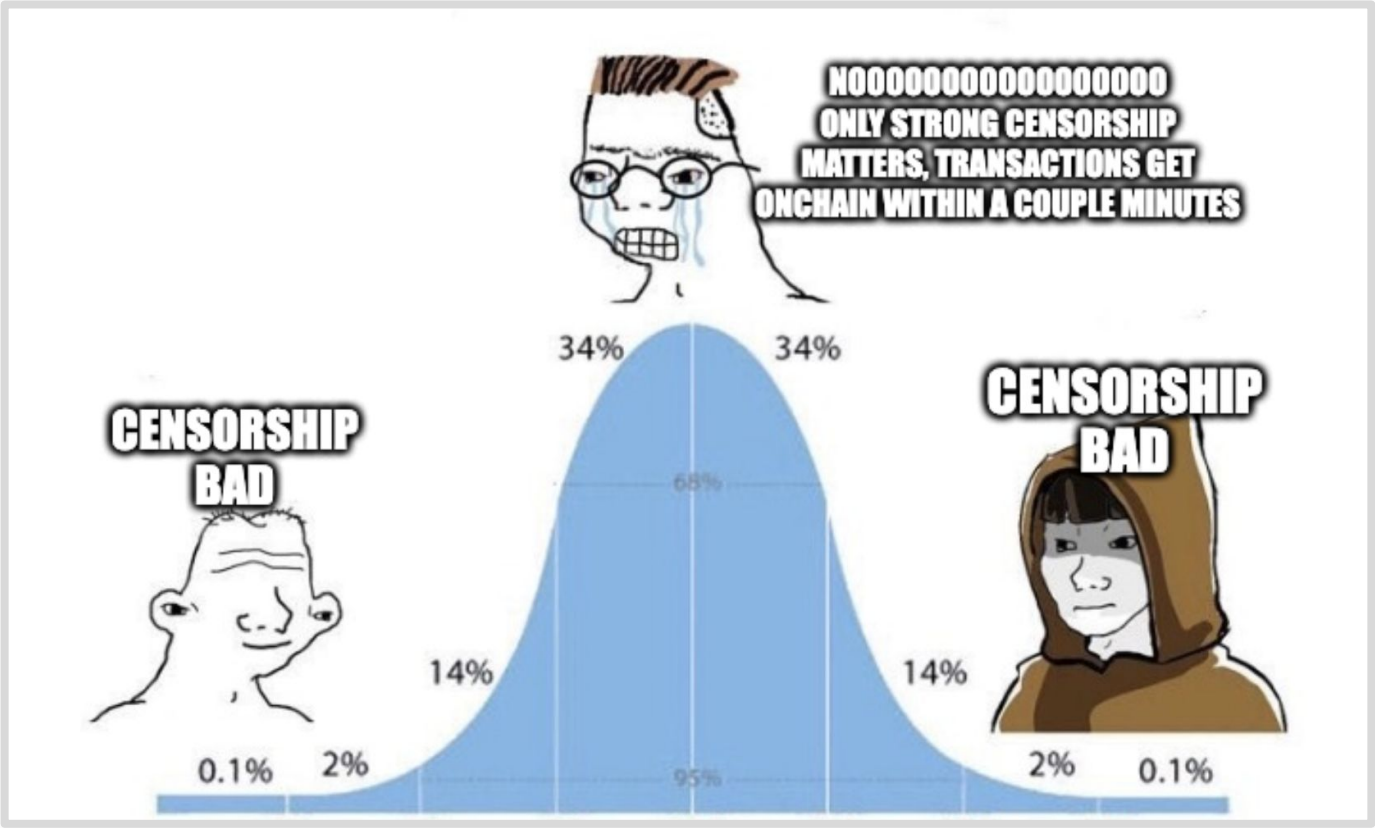
---

after

$$\text{censorship_cost} = \sum(\text{censored_transaction_tips}) + \sum(\text{censored_transaction_base_fees})$$

mandatory inclusion lists

$$inclusion_list\% = 100\%$$

thank you :)

censorship bad