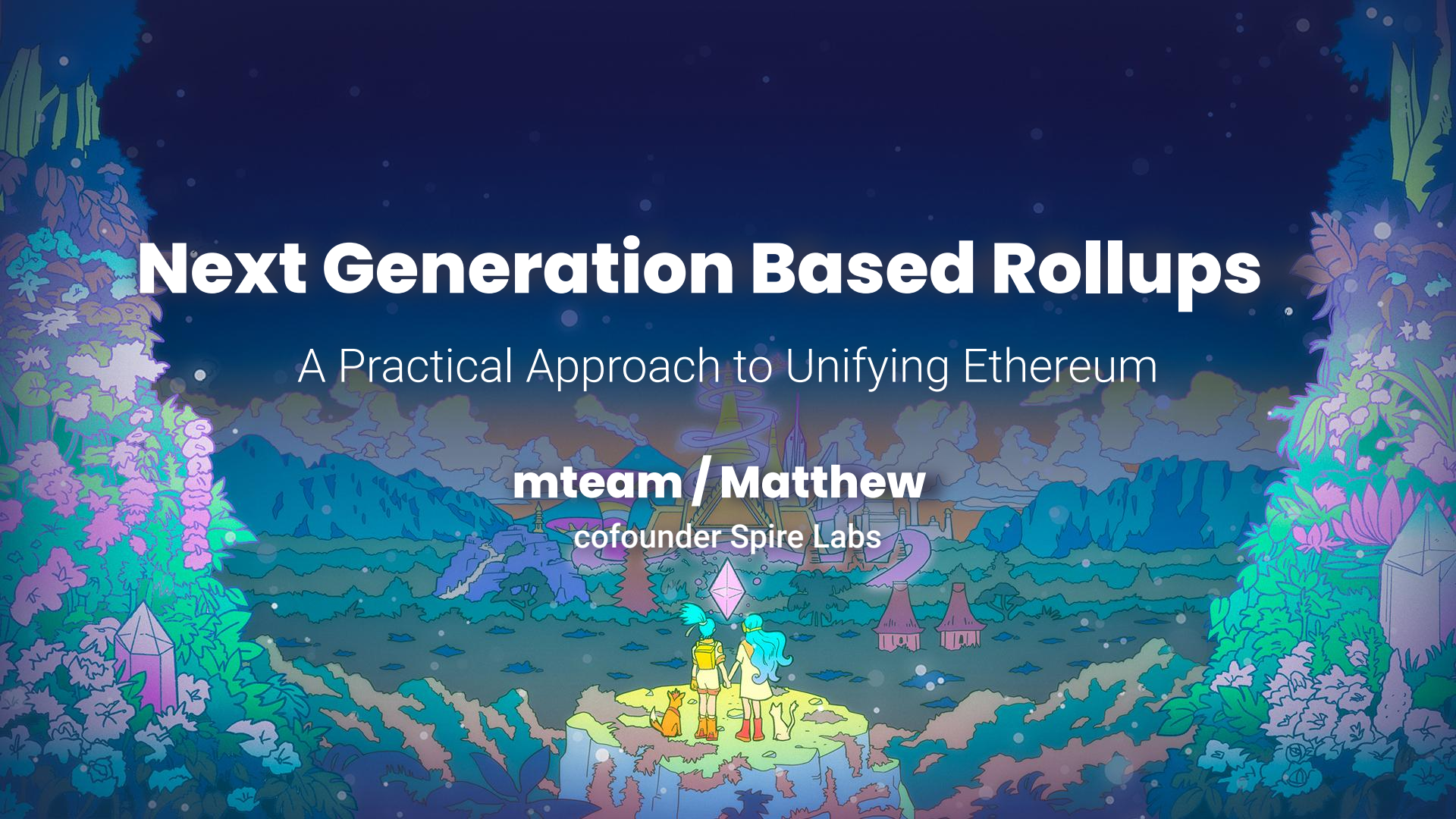


# Next Generation Based Rollups

A Practical Approach to Unifying Ethereum

**mteam / Matthew**  
cofounder Spire Labs



Section 1

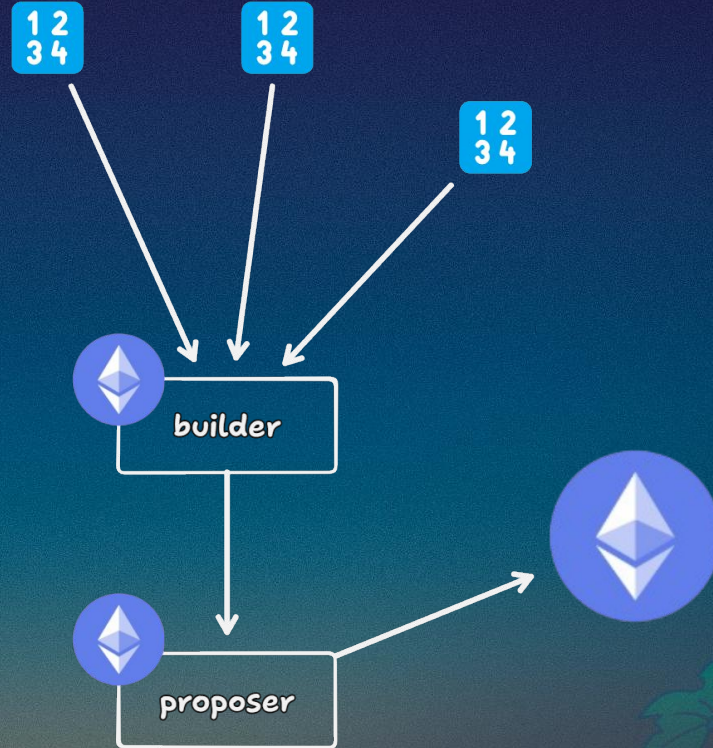
# Traditional Based Rollups



# Total Anarchy Based Sequencing

sequencer is not elected  
beforehand

L2 block proposing is not  
permissioned





# Vanilla Based Sequencing

simple sequencer election (primary and fallback)

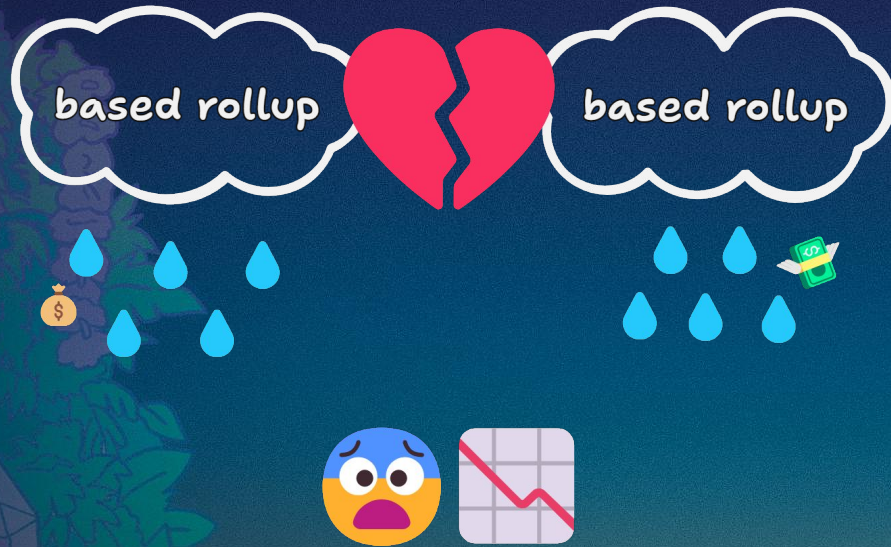
basic support for delegation

basic support for preconfirmations

revenue generation from % of fees







**Composability?**  
**MEV revenue?**  
**Efficiency?**

NO synchronous composability with  
ANYONE

LEAK MEV to Ethereum mev-boost

HUGE unnecessary costs



# we can fix that?



high costs



slower block time



worse UX



preconfs

limited benefits  
limited composability

???



**these traditional designs  
are not *good enough***

**And we can do  
better.**

NEW research

MORE data

BETTER technology





Section 2

# First Principles





# SYNCHRONOUS ATOMIC COMPOSABILITY

- atomic cross chain contract calls
- flashloans for efficient arbitrage
  - seamless UX + DX
  - network effects



# FASTER + CHEAPER

good preconfs

frequent proposals

custom frontends

better execution

AGGREGATION

efficiency

Without sacrificing decentralization, censorship resistance, liveness, sustainability





# **We know what we want**

It's not that complicated.

# **So...?**

Section 3

# Next Gen Based Sequencing



# A Practical Approach to Unifying Ethereum

**believe in something**



not Taiko  
or forks

# shared

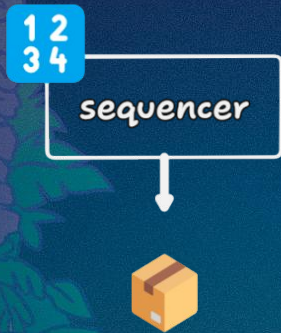


deposits  
proposing  
blobs  
proving  
network effects  
assets  
contract calls  
offchain infra  
security  
economies of scale

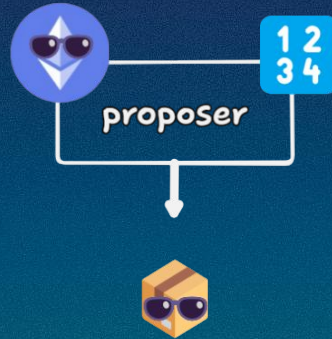


# Based Preconfs

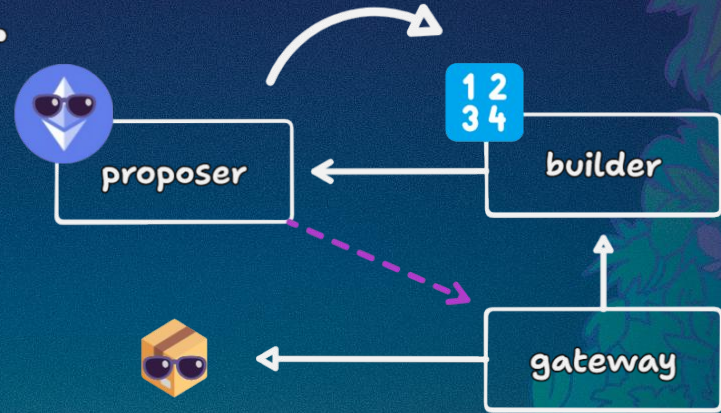
1.



2.



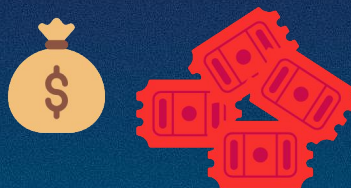
3.



# MEV Retention

- + censorship resistance
- + even with precons

sell tickets



tickets are flexible AF

burn tickets to propose



add no-delay forced inclusion



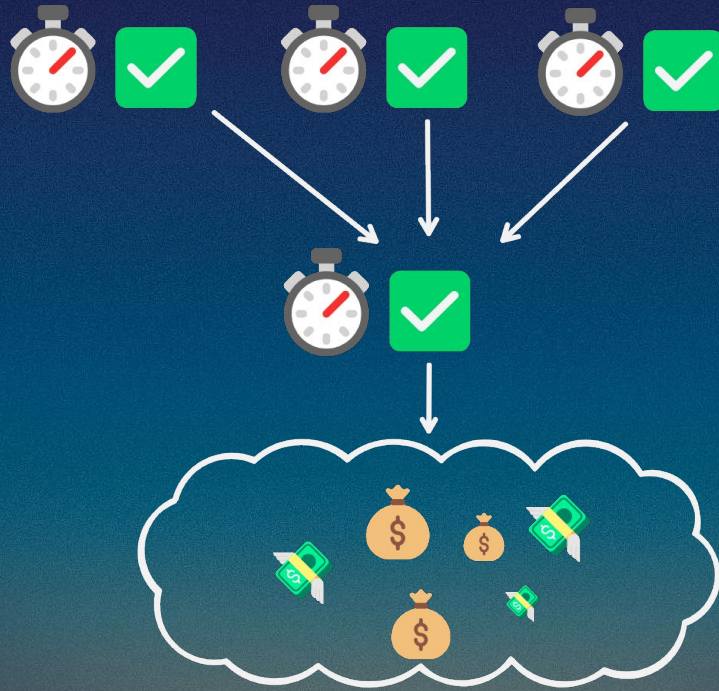


# Checkpointing

+ cross chain contract calls

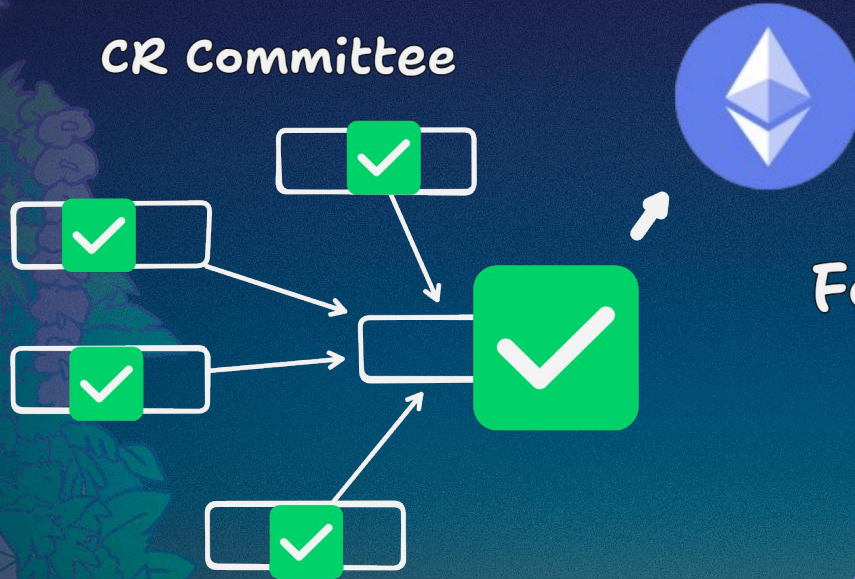


# Validity Proving + Shared Deposits

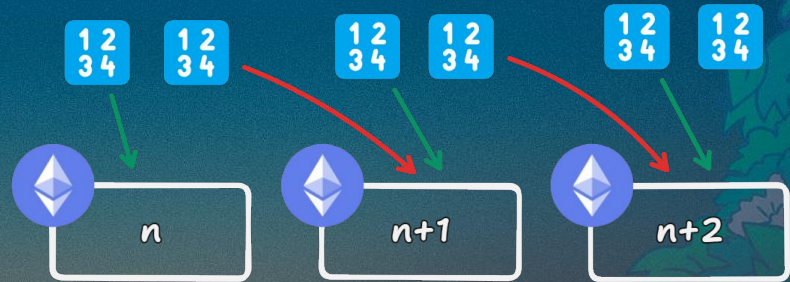




# Custom Sequence Constraints



## Forward Based Sequencing



Section 4

# Harmony







Deconstructing economies of scale to enable parallel innovation while maintaining network effects.



Replicating a monolithic user and developer experience while establishing infinite expressivity





# **Next Gen Based Rollups** ***actually solve problems***

based sequencing, but it's practical



# Stay Based

“Stay based, for one man’s liquidity is another man’s liquidity.”

— Heraclitus Drake

# Thank you!

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