

# **Bringing Bitcoin's trustlessness to the masses**

**Make validating possible for everyone**



<https://github.com/kcalvinalvin/2025-12-3-abc>

“Of Bitcoin’s many properties, **trustlessness**, or the ability to use Bitcoin without trusting anything but the open-source software you run, is, by far, king”

<https://bluematt.bitcoin.ninja/2017/02/28/bitcoin-trustlessness/>



# 2

**Reasons for why people don't use nodes**



## Bitcoin Genesis Block

### Raw Hex Version

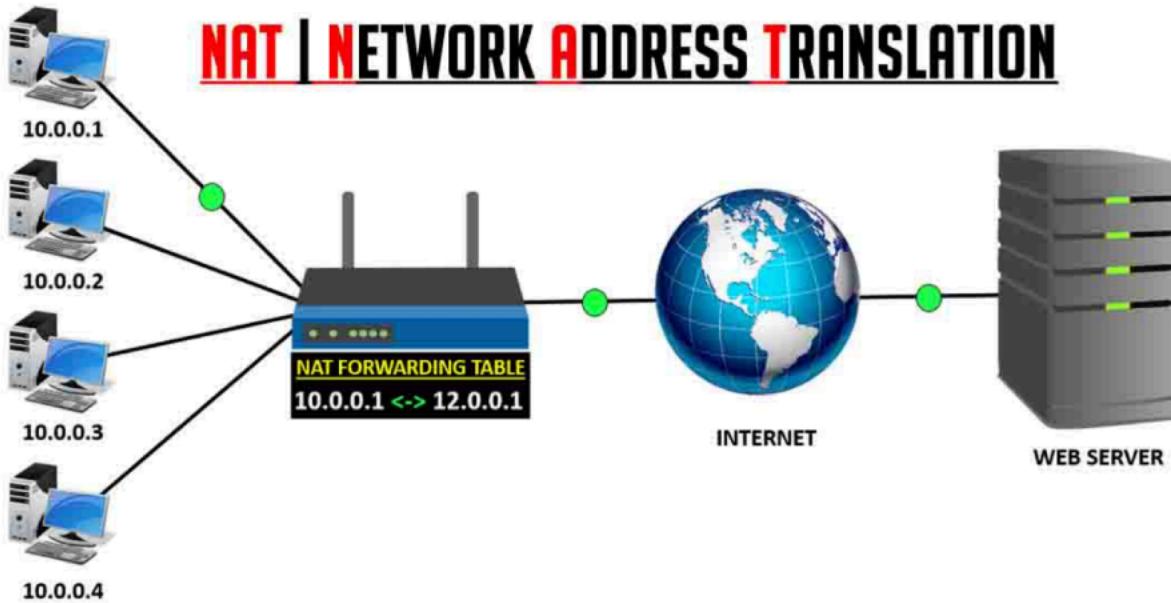
# **700GB**

**Data to download**





# **NAT | NETWORK ADDRESS TRANSLATION**









**In the past it wasn't always like  
this...**

Overview Send Receive Transactions



## Balances

Available: 0.00000000 BTC

Pending: 0.00000000 BTC

Total: 0.00000000 BTC



## Recent transactions



2/18/15 00:49

Marcus

-3.34896127 BTC



2/13/15 10:08

Paul

+3.34896127 BTC



2/6/15 05:58

Amanda

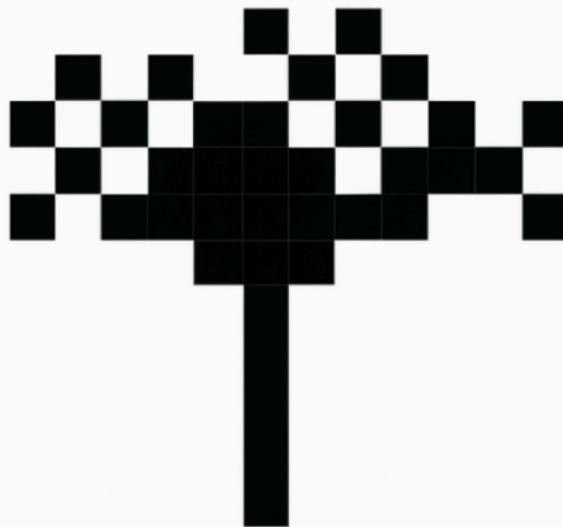
-0.23000000 BTC



**5GB <**

**Data to download**

We need to make this possible  
again



UTREEXO

**AssumeUtreexo +  
PoW fraud proofs**



**Much better security&privacy than what people use today**



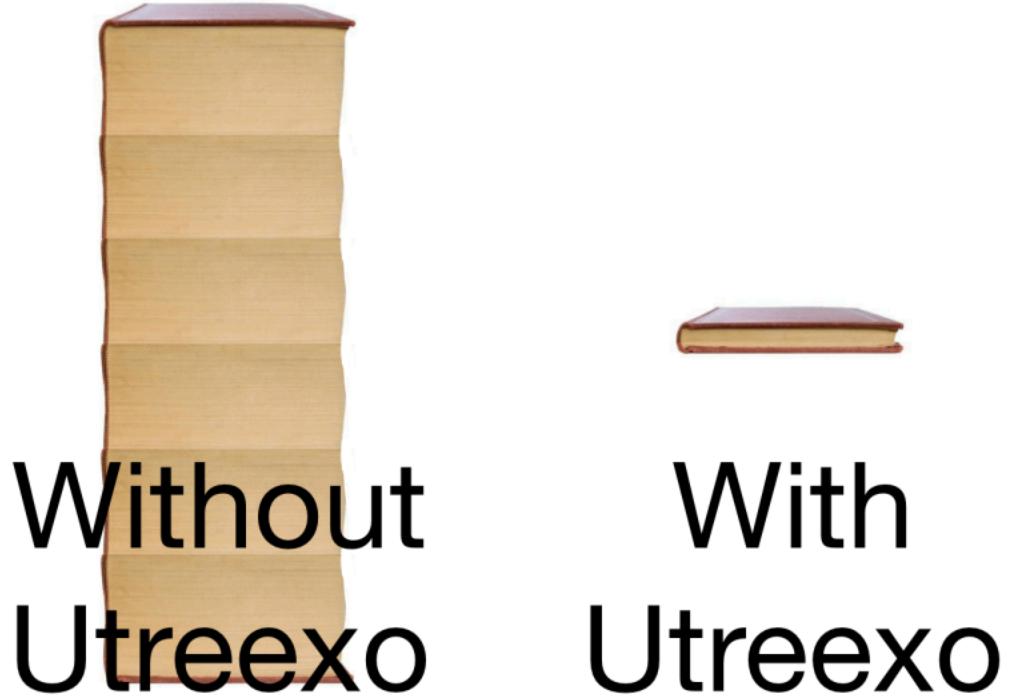


## Merkle trees

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*Utreeexo*

Pruned nodes



```
[I] calvin@Calvins-MacBook-Pro ~/L/A/Bitcoin> du -h .  
111M    ./blocks/index  
744M    ./blocks  
7.4G    ./chainstate  
 88K    ./coldcardmk4  
104K    ./coldcardmk3  
8.2G    .
```

```
[1] calvin@Calvins-MacBook-Pro:~/L/A/Bitcoin> du -h .
```

```
111M    ./blocks/index  
744M    ./blocks
```

```
/.4G    ./chainstate  
88K    ./coldcardmk4  
104K   ./coldcardmk3  
8.2G   .
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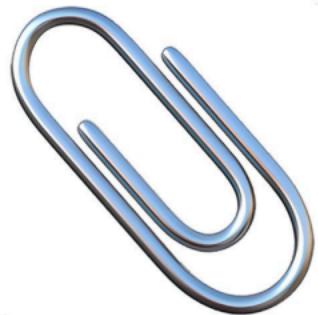
$O(N) \rightarrow O(\log_2 N)$

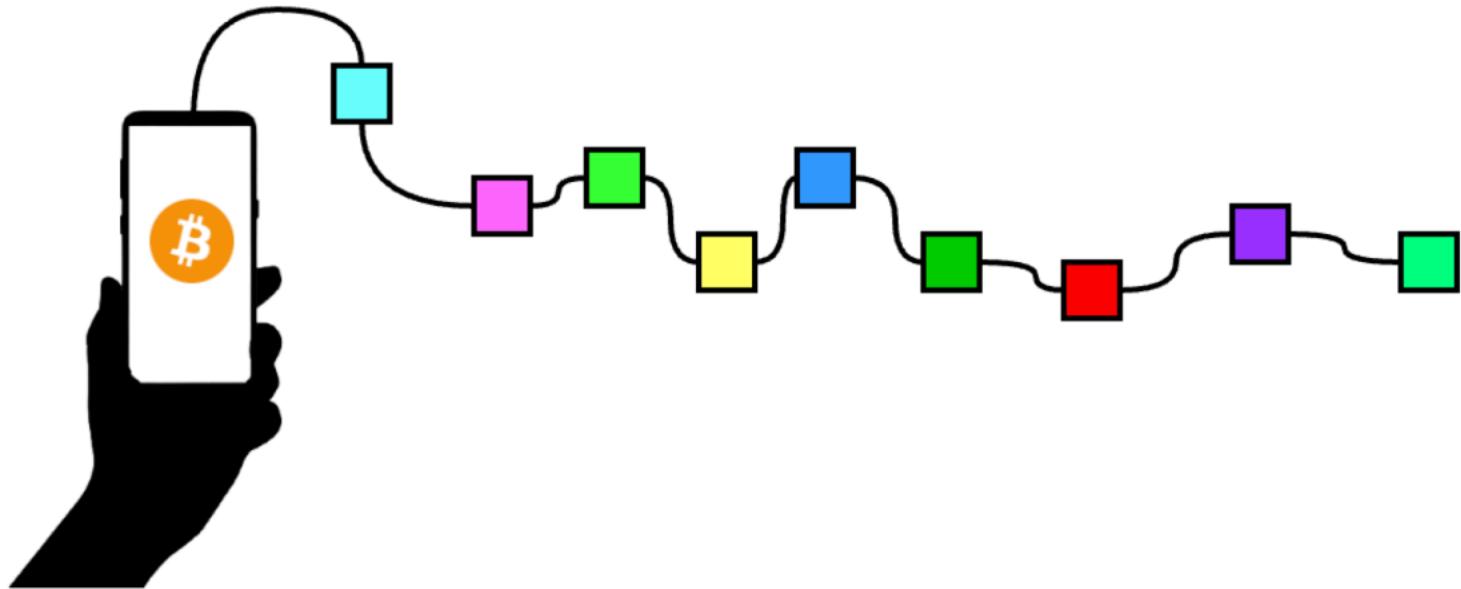
**N=8 billion UTXOs, at 59B per entry**

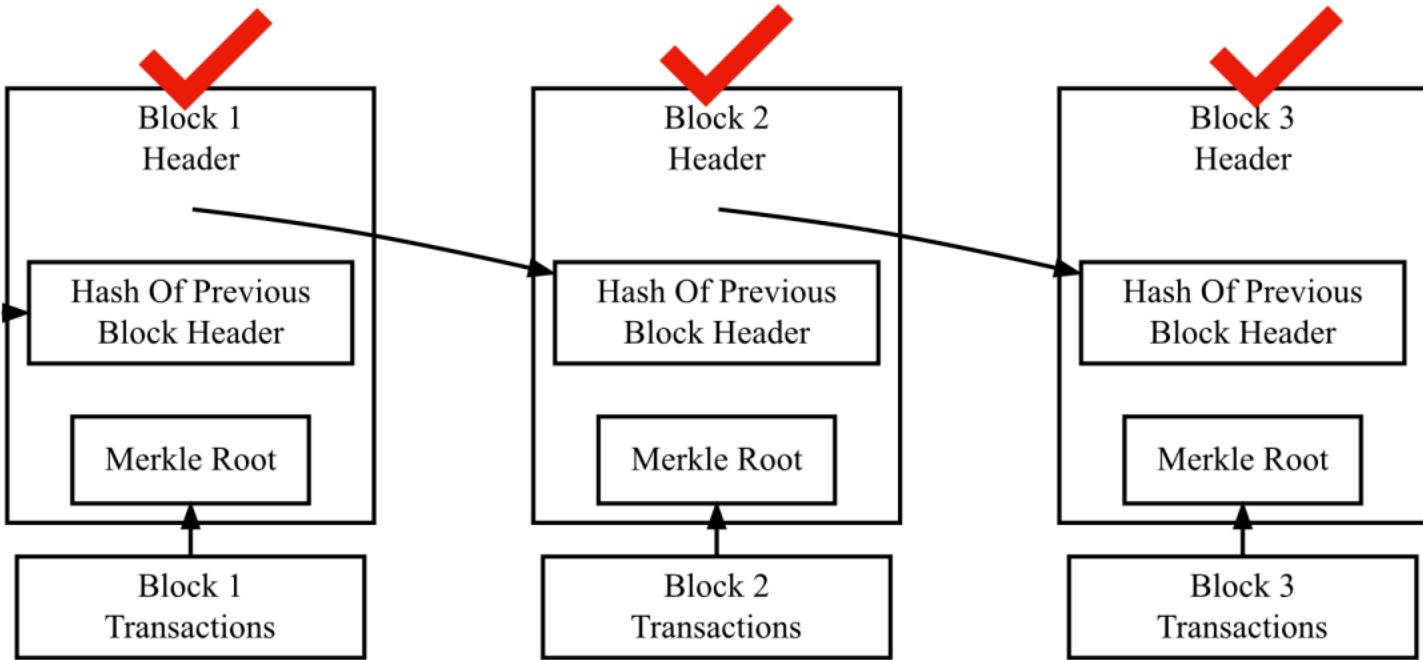
**472GB -> 416B**

**416B**

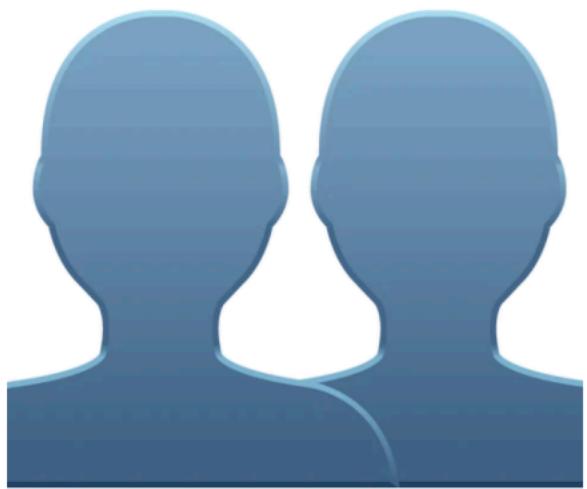
**Data to download**

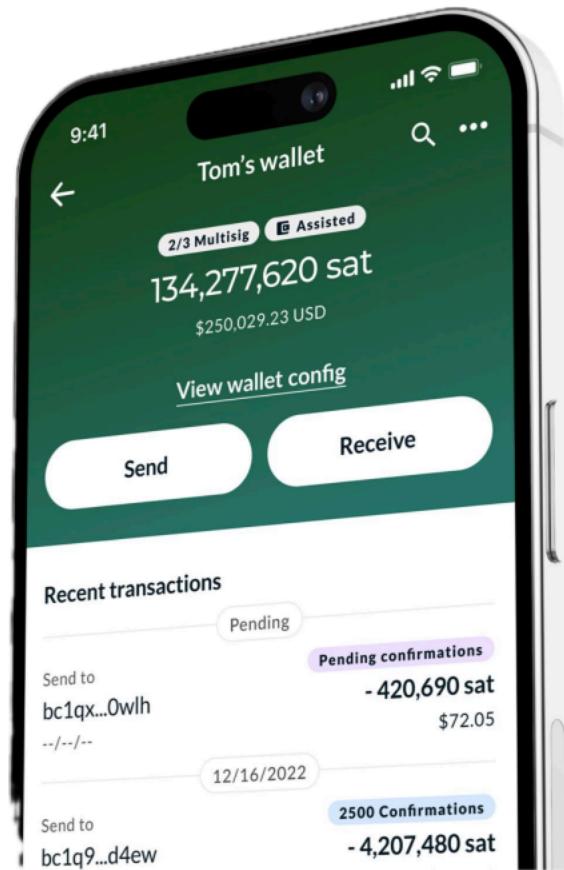






Simplified Bitcoin Block Chain





# 2026

**Beta software for wallet devs to test**



<https://github.com/kcalvinalvin/2025-12-3-abc>