



E O S <sup>TM</sup>

D A W N

# 背景

- 链+币：比特币
- 链+专有应用：域名币、比特股、STEEM
- 链+通用平台：以太坊
- 链+操作系统：EOS
  - ENTERPRISE OPERATING SYSTEM



最新区块

#4,564,149



叔伯块 (CURRENT / LAST 50)

0/10



上个区块

21 s ago



活跃节点

5/6



GAS 价格

8 gwei



GAS 上限

6705917 gas

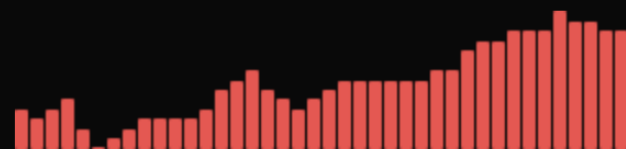


页面延迟

区块时间



难度



区块传播



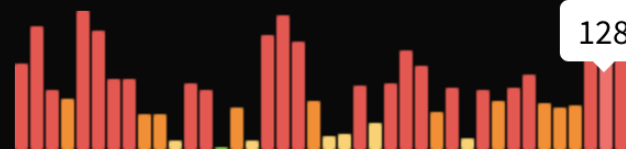
挖到上个区块矿工

0x829bd824b016326a401d083b33...
0xb2930b35844a230f00e51431ac...

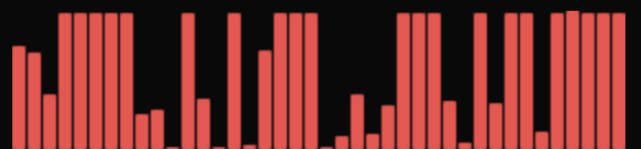
叔伯块数量 (25 BLOCKS PER BAR)



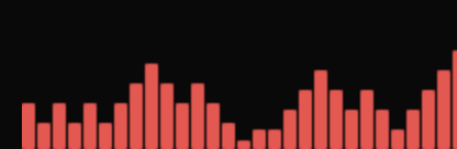
交易笔数



GAS 花费



GAS 上限



注意! 此页面节点不代表以太坊网络所有节点, 在这个页面显示节点是自愿行为. 参与 EthFans 星火节点计划的节点都显示页面上, 感谢参与星火节点计划.



矿工队长HZnode~

Geth/v1.7.2-stable-1db4ecdc/linux-amd64/go1.9

17 ms



40

204

#4,564,149

c7199486...97d7a629

Carbonvote@Ethfans

Parity//v1.7.7-stable-eb7c648-20171015/x86\_64-linux-gnu/rustc1.20.0

6 ms



25

0

#4,564,149

c7199486...97d7a629

[www.ugchain.com] 北京五一区块-阿里云

Geth/v1.7.1-stable-05101641/linux-amd64/go1.8

25 ms



50

189

#4,564,149

c7199486...97d7a629

[chachaico.com]-ChaChalCO-香港

Geth/v1.7.2-stable-1db4ecdc/linux-amd64/go1.9

7 ms



49

181

#4,564,149

c7199486...97d7a629

[www.linktimetech.com]北京灵钛科技#geth

Geth/v1.7.2-stable-1db4ecdc/linux-amd64/go1.9

320 ms



50

2974

#4,563,790

22e8ae00...cf16a014

test

offline



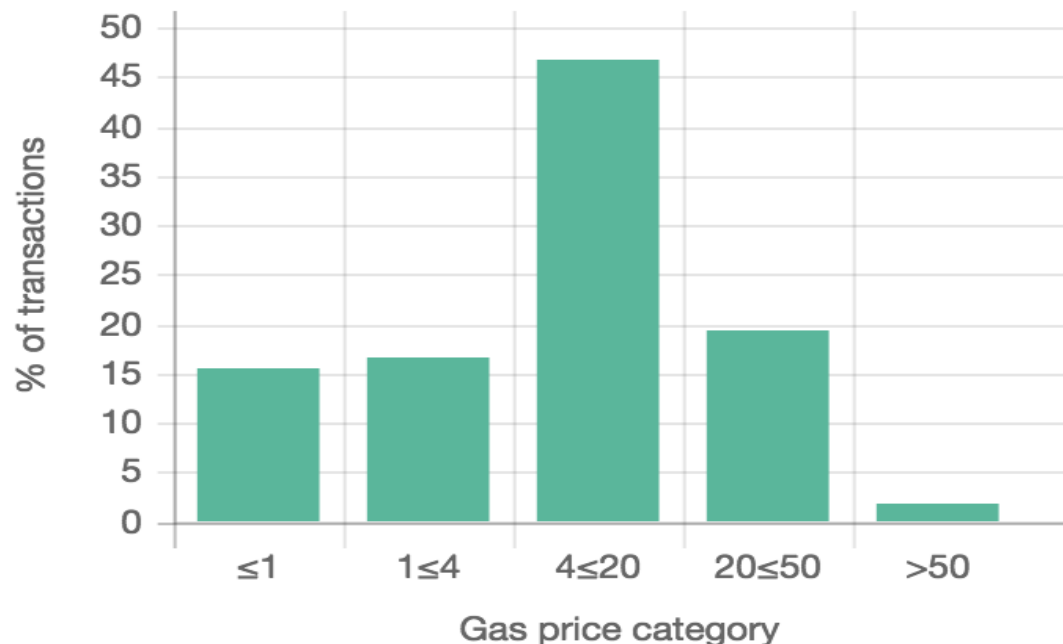
24

0

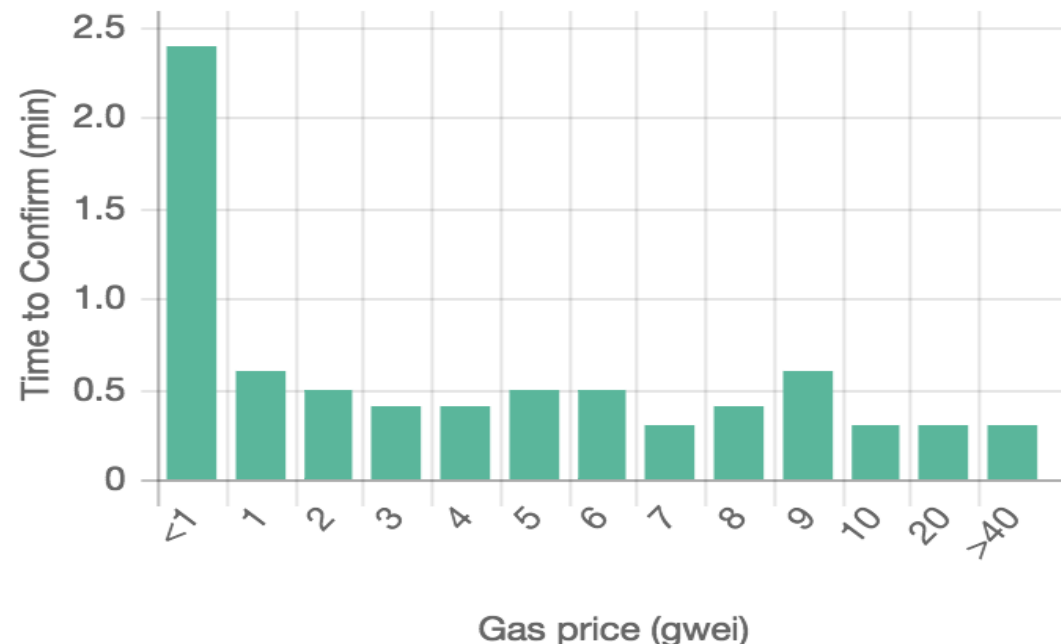
#1,034,801

64cb15c4...6c98a0fb

## Transaction Count by Gas Price



## Confirmation Time by G



## Top 10 Miners by Blocks Mined: Support for user transactions

| Miner         | Lowest gas price (gwei) | Weighted avg gas price (gwei) | % of total blocks |
|---------------|-------------------------|-------------------------------|-------------------|
| miningpoolhub | 0                       | 9                             | 11                |
| f2pool        | 0                       | 12                            | 23                |

# 区块链上的应用要求

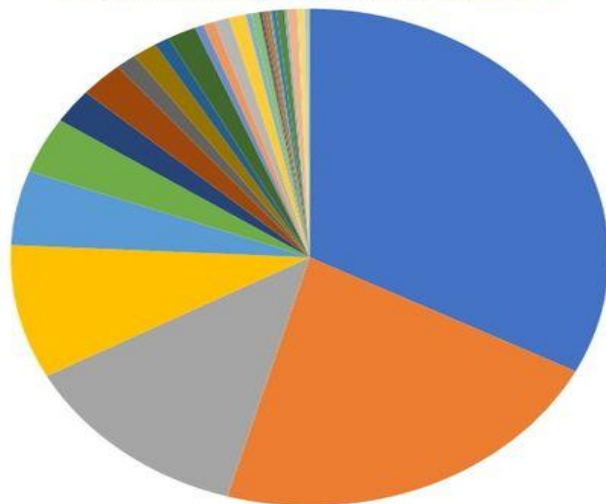
- 支持千百万的用户
- 免费的使用
- 简单升级和 BUG 修复
- 低延时
- 时序性能
- 并发性能

# 共识算法DPOS

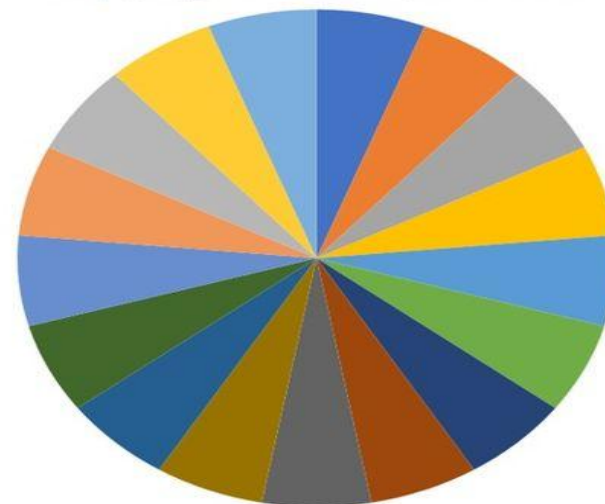
- 高性能节点、用户投票
- 21个节点，3秒出块
- 交易确认 – 15个块，45秒
- 股权证明的交易 (Tx AS PoS)

# SO WHICH VALIDATORS ARE MORE DECENTRALIZED?

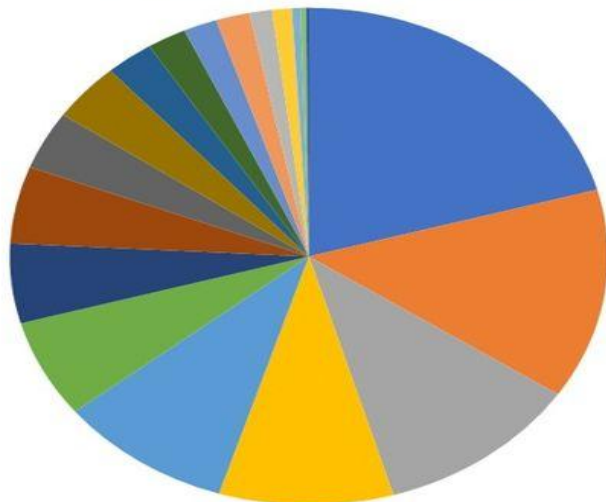
**WAVES (LPOS)** <sup>a,d</sup>  
 Forgers by Weight 2017-10-11  
<http://wavesgo.com/stats#tab-3>



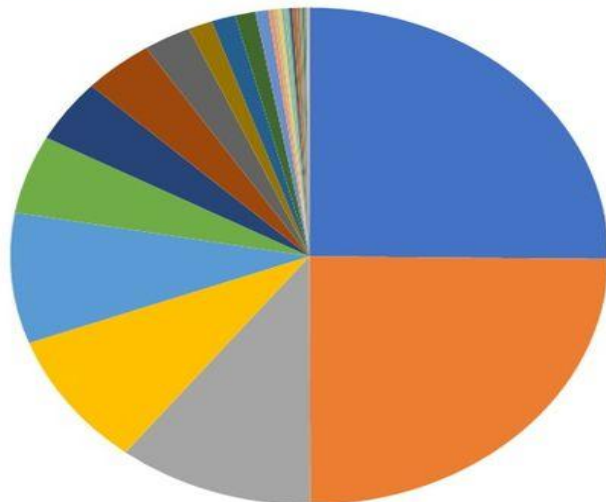
**BITCOIN (POW)**  
 Active Witnesses  
<http://cr...>



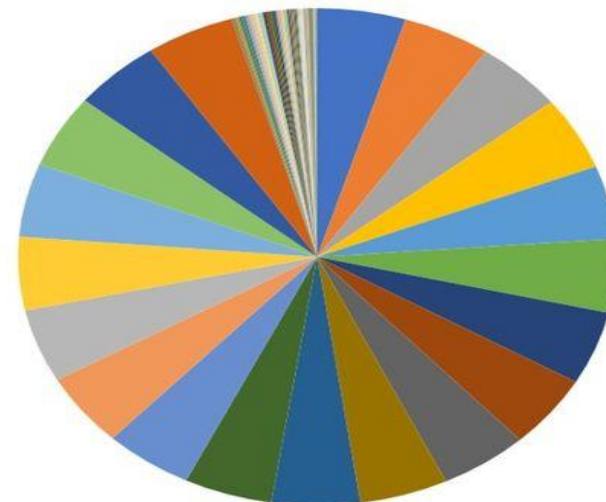
**BITCOIN (POW)** <sup>a,b</sup>  
 Mining Pools 2017-10-11  
<https://blockchain.info/pools>



**ETHEREUM (POW)** <sup>a,b</sup>  
 Mining Pools 2017-10-11  
<https://etherchain.org/statistics/miners>



**STEEM (DPOS)** <sup>a,c,e</sup>  
 Active Witnesses (20, 68 Standby) 2017-10-11  
<https://steemd.com/witnesses>



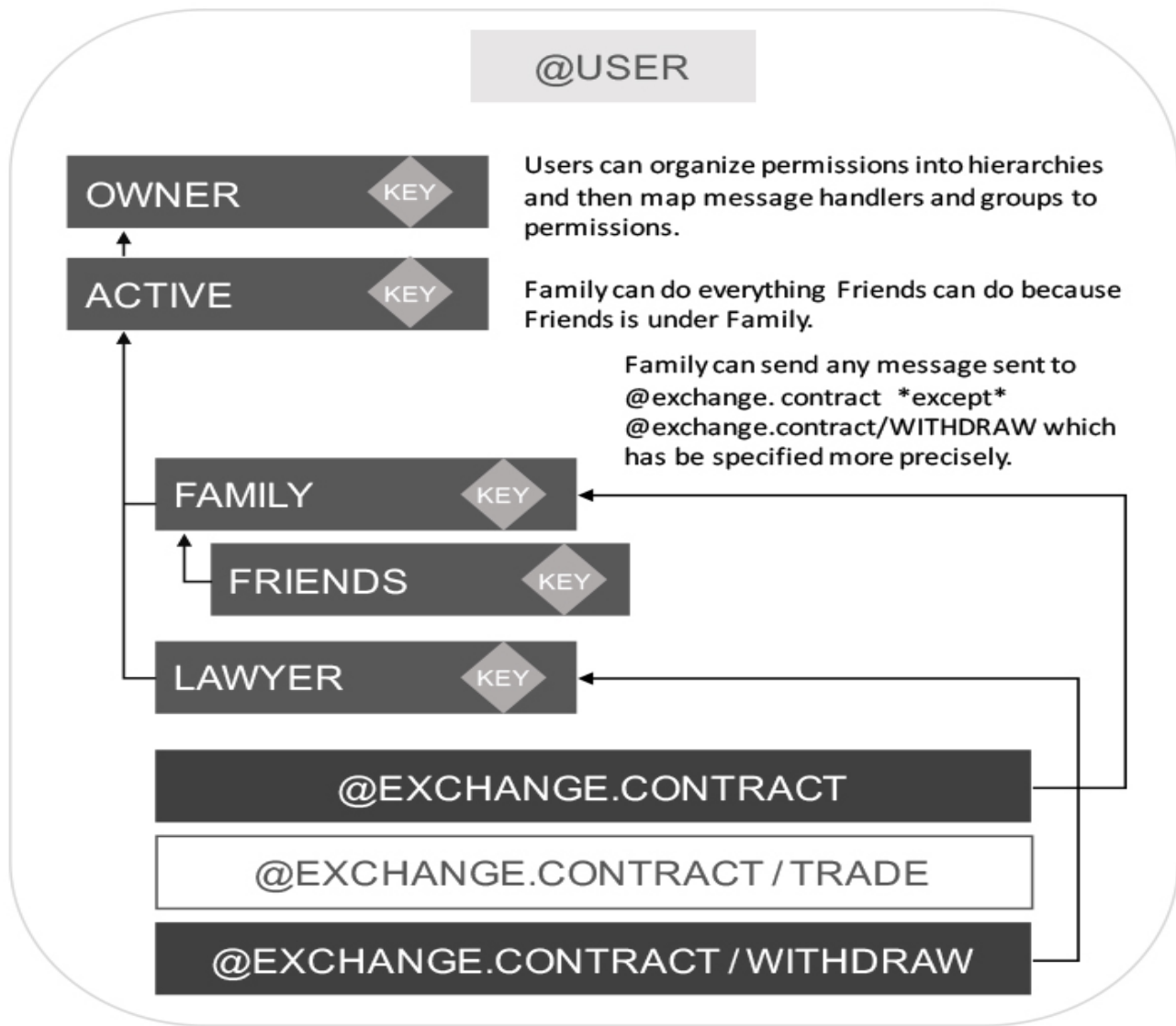
Validators (here meaning block producers) are limited by:  
 a. full node operators choose preferred version which reject invalid blocks  
 b. active miners can choose to contribute hash power to a preferred pool

c. stake holders choose up to 33 preferred delegates via approval voting  
 d. stake holders lease stake to a single preferred pool  
 e. requires more than 2/3 witnesses to agree to fork

# 帐户

- 公钥 & 用户名
- 交易 & 消息 & 处理
- OWNER、ACTIVE、基于角色的权限管理
- 带强制性延时的消息
- 恢复被盗窃的密钥





@exchange.contract/ WITHDRAW may be done by either the Lawyer permission, Active or Owner.



# 确定性并行执行

- 区块
- 循环 (顺序)
- 线程 (并行)
- 交易 (顺序)
- 消息 (顺序)
- 接受者和被通知帐户 (并行)

# 脚本 & 虚拟机

- 模式定义的消息、数据库
- 虚拟机独立架构
  - WEB ASSEMBLY (WASM)
    - C、C++、RUST、PYTHON
  - 以太坊虚拟机 (EVM)
  - 其他

# TOKEN 模型与资源使用

- 磁盘存储 & 处理器 & 内存
- 持有EOS，获得资源配额
- 区块奖励通胀不超过5%
- 客观度量 vs 主观度量
- 配额转送 & 交易 & 租赁
- 分离交易成本与 TOKEN 价值

# 治理

- 超级权限：17/21个结点
- 冻结帐户
- 更改帐户代码
- 宪法
- 升级协议 & 宪法

# 跨链通信

- 用于轻客户端的 MERKLE 证明 (LCV)
- 跨链通信的延时
- 完备性证明

# 路线图

- 阶段一 - 最小可行的测试环境 - 2017 夏季
- 阶段二 - 最小可行的测试网络 - 2017年冬季
- 阶段三 - 测试 & 安全审计 - 2018年春季
- 阶段四 - 并行优化 - 2018 年夏季/秋季
- 阶段五 - 实现集群 未来

## EOS Dawn 1.1

No due date 🕒 Last updated 7 days ago

As of October 12, 2017, EOS Dawn 1.1 was combined with EOS 1.0 and folded into EOS Dawn 2.0, which will be a Single-Threaded Application Testnet (STAT).



## EOS Dawn 2.0

📅 Due by December 4, 2017 🕒 Last updated 1 day ago

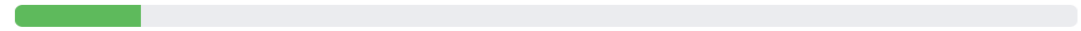
This milestone has been moved up from 12/31/17 to 12/4/17 and will now be a live Testnet combining EOS 1.0 and EOS 1.1 features. It is noted in Github as STAT: Single-Threaded Application Testnet.



## Someday Maybe - future release

No due date 🕒 Last updated about 11 hours ago

Placeholder release for issues not scheduled in another specific milestone.



## EOS Dawn 3.0

📅 Due by January 31, 2018 🕒 Last updated 10 days ago

Multithreaded Implementation new shared memory database implementation parallel transaction scheduler with multithreaded execution interchain communication multithreaded encrypted networking thread-safe wasm interface

