



# Mining

# Overview

- What's mining? Why it's needed?
- Why would one mine?
- How should one mine?
- What should one mine?

?

# Blockchain



# Block



**Block 12**

# Block

**Time: 14/09/17 00:42**

**A sent B 0.05 BTC**

**A sent C 1.2 BTC**

**B sent C 1.337 BTC**

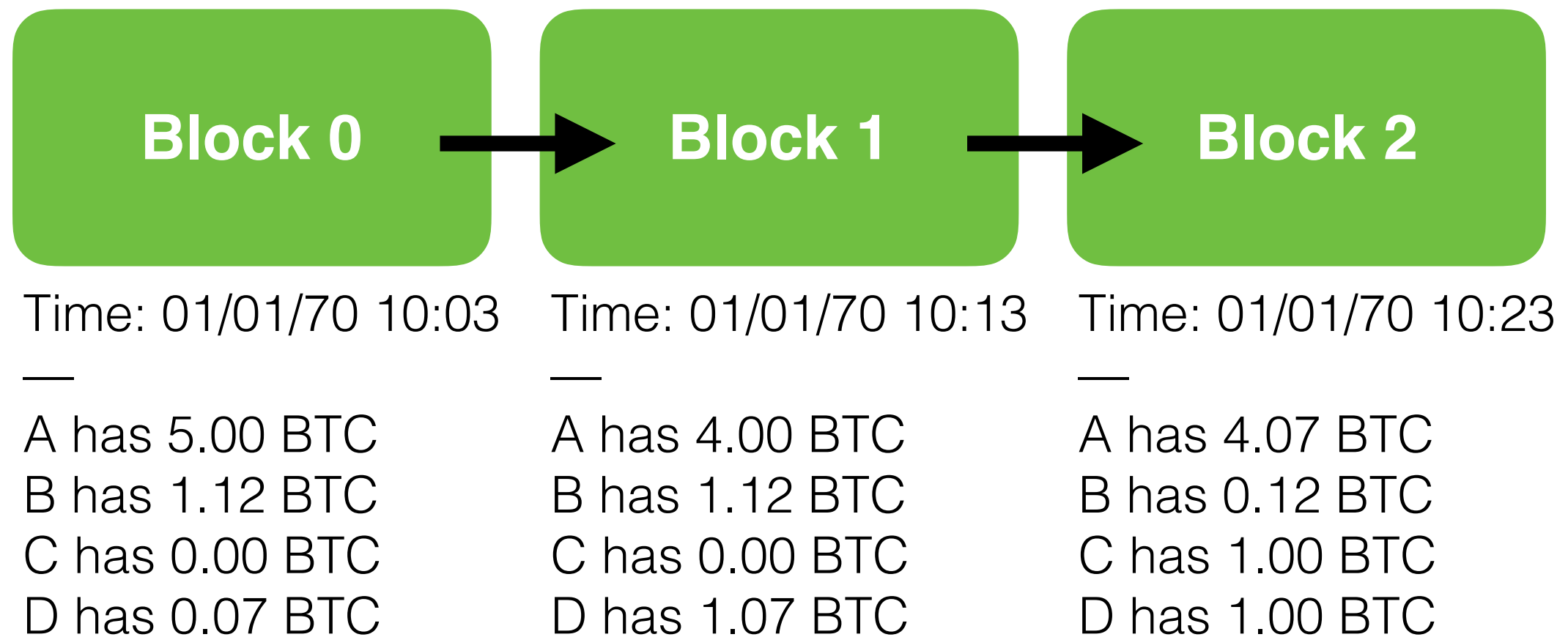
**D sent E 1 BTC**

# Blockchain

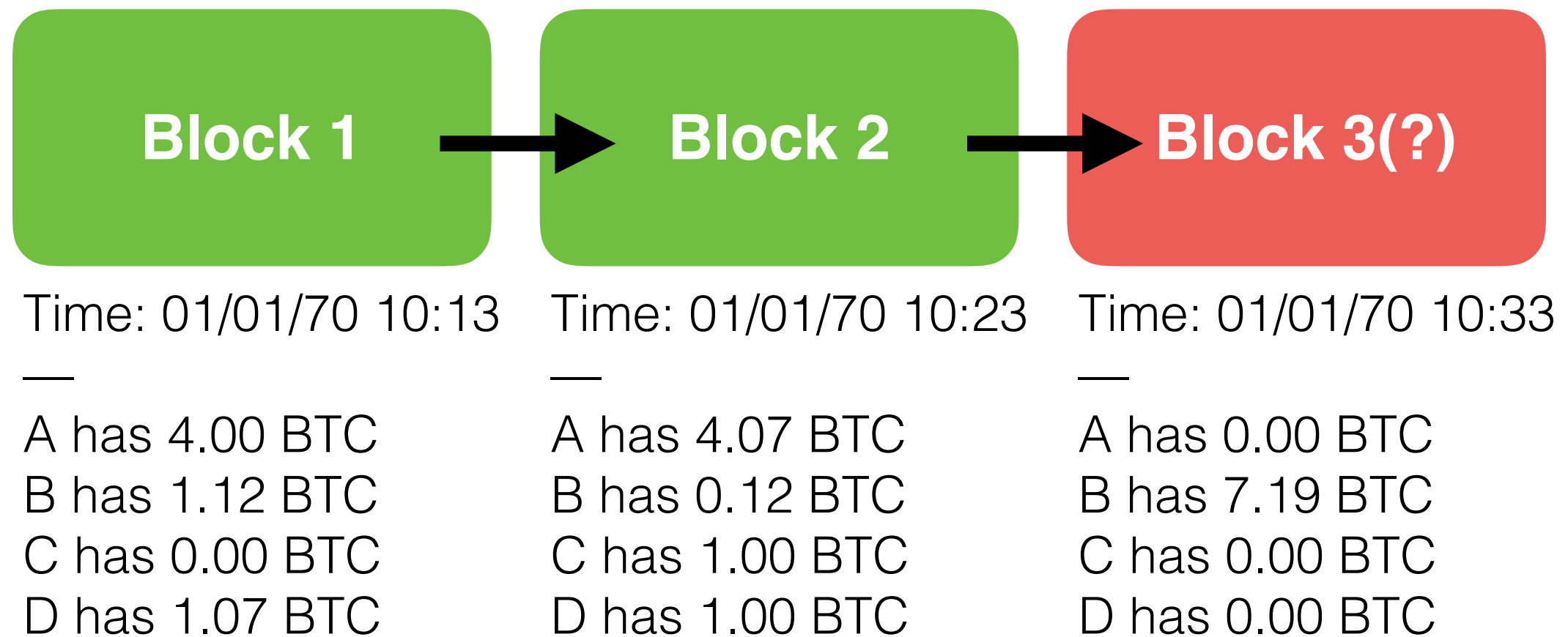




# Blockchain



# Blockchain

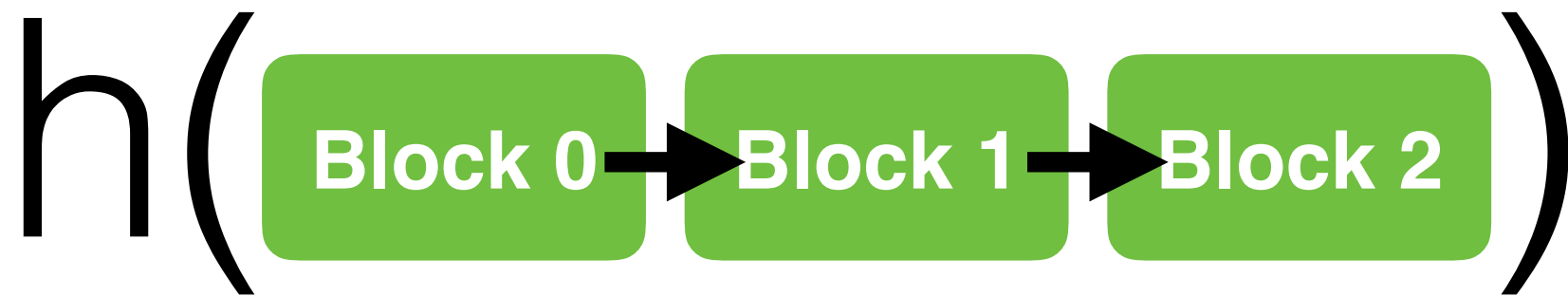


# Block

**Time: 14/09/17 00:42**  
**Hash: 01515efb0b5ec**  
**Nonce: 0ffece13458192**

**A sent B 0.05 BTC**  
**A sent C 1.2 BTC**  
**B sent C 1.337 BTC**  
**D sent E 1 BTC**

# Hashing



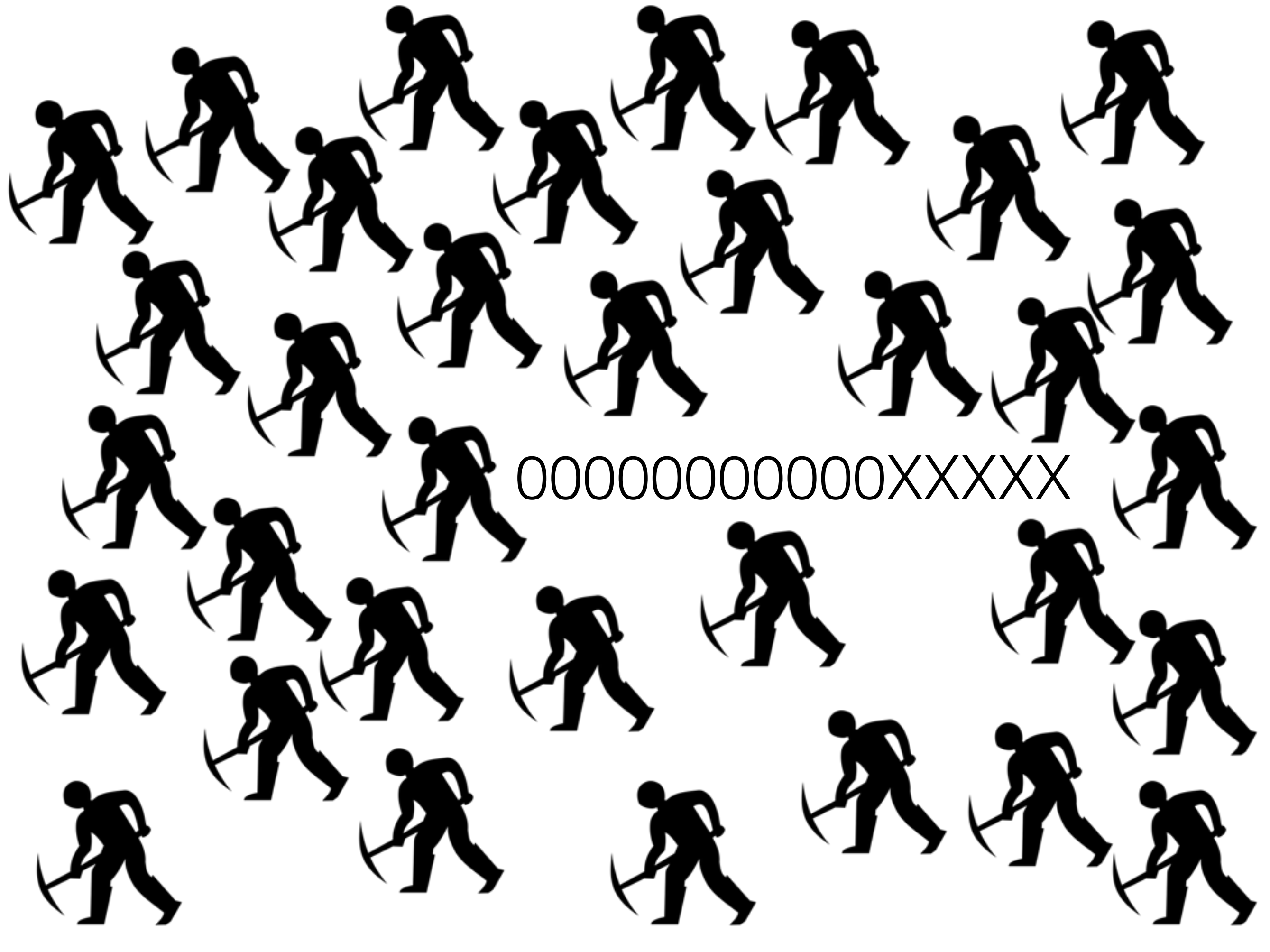
**000**e1345fecabe192918



000XXXXXXXXXXXXXXXXXXXX



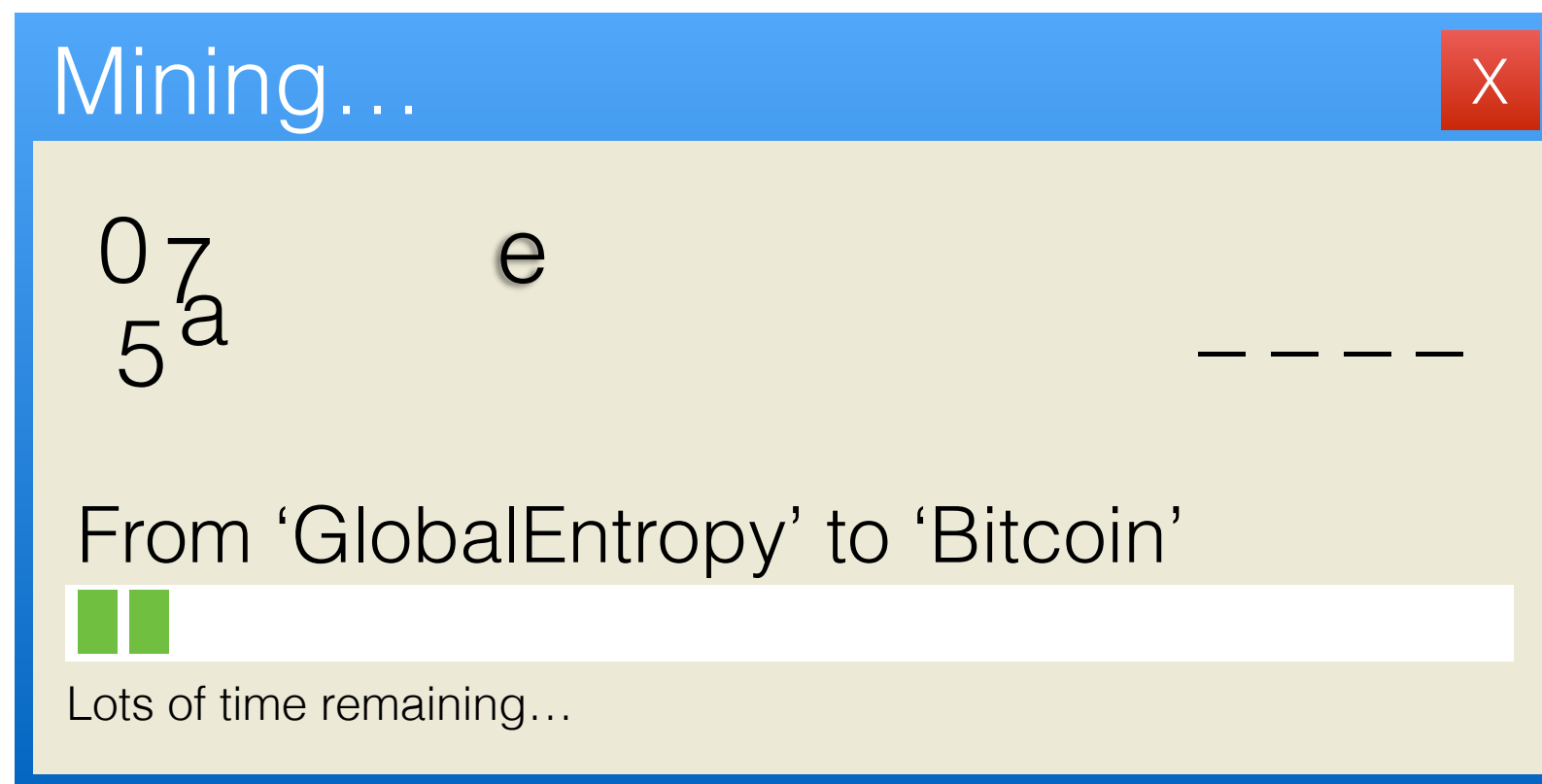
00000XXXXXXXXXXXXXX



000000000000XXXXX



# Hashing



Why?

¥€\$

50 BTC

25 BTC

12.5 BTC

21M BTC

# Miner Fees



# Mem Pool

From	To	Amount	Fee
A	B	1.12	0.5
A	C	1.09	0.22
E	D	0.5	0.01
F	Z	13.37	0

# Mem Pool

From	To	Amount	Fee
A	B	1.12	0.5
A	C	1.09	0.22
E	D	0.5	0.01
F	Z	13.37	0

# Mem Pool

From	To	Amount	Fee
C	Q	1.0	1.0
D	R	0.05	0.7
E	D	0.5	0.01
F	Z	13.37	0

Let's mine!

# What to mine?



\$ 4,000



\$ 62



\$ 275

# What to mine?



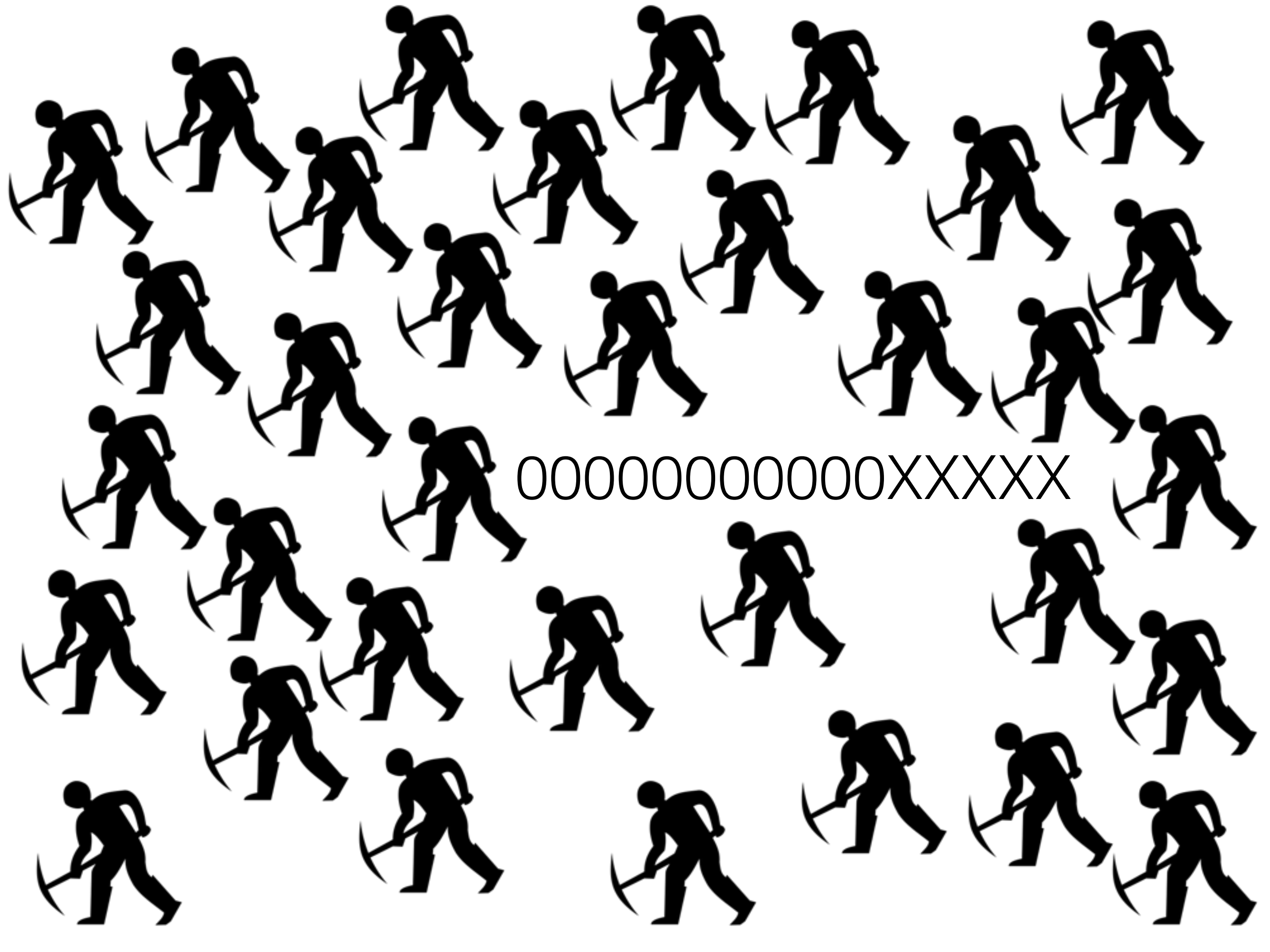
\$ 4,000



\$ 62



\$ 275



000000000000XXXXX

# Ways to mine

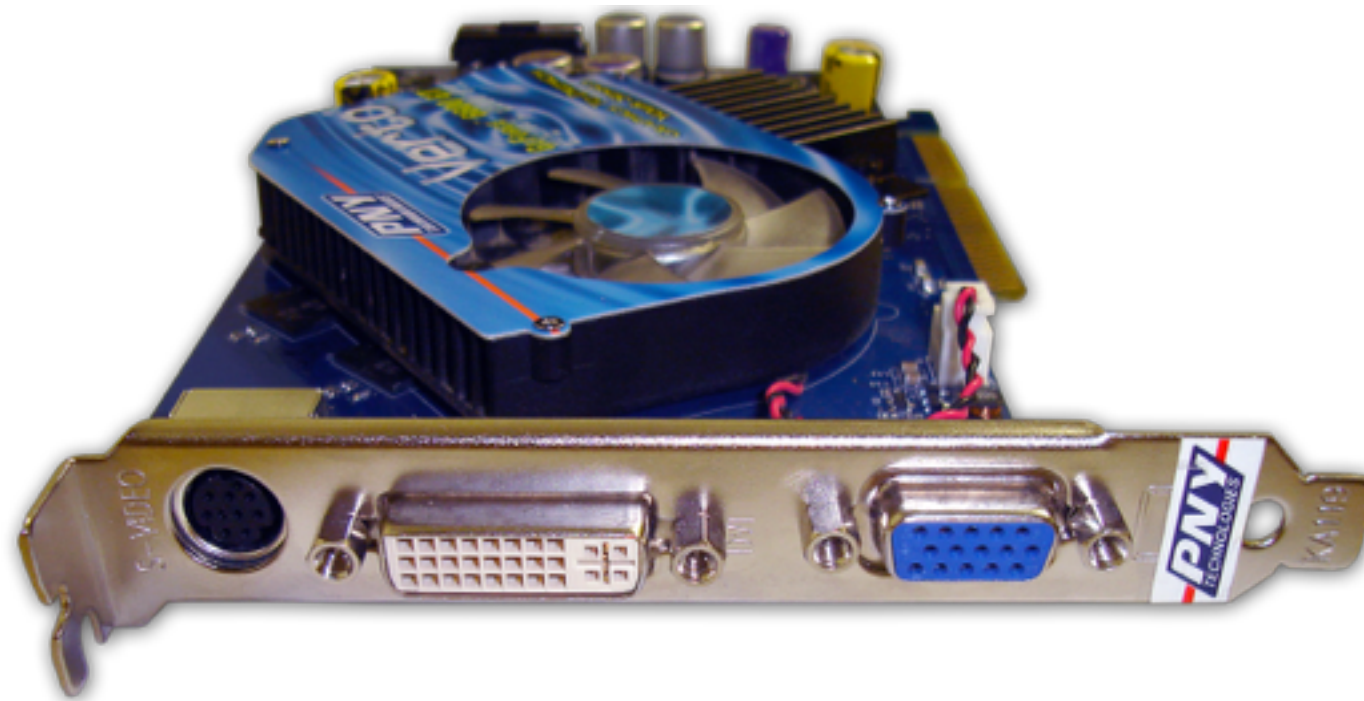




# Ways to mine



# Ways to mine



# Ways to mine



750,000,000 H/s

?

8,600,000,000,000,000,000,000

11.5T GTX 1080's



© Bitmain. All rights reserved. Used for educational purposes only.



14,000,000,000,000 H/s

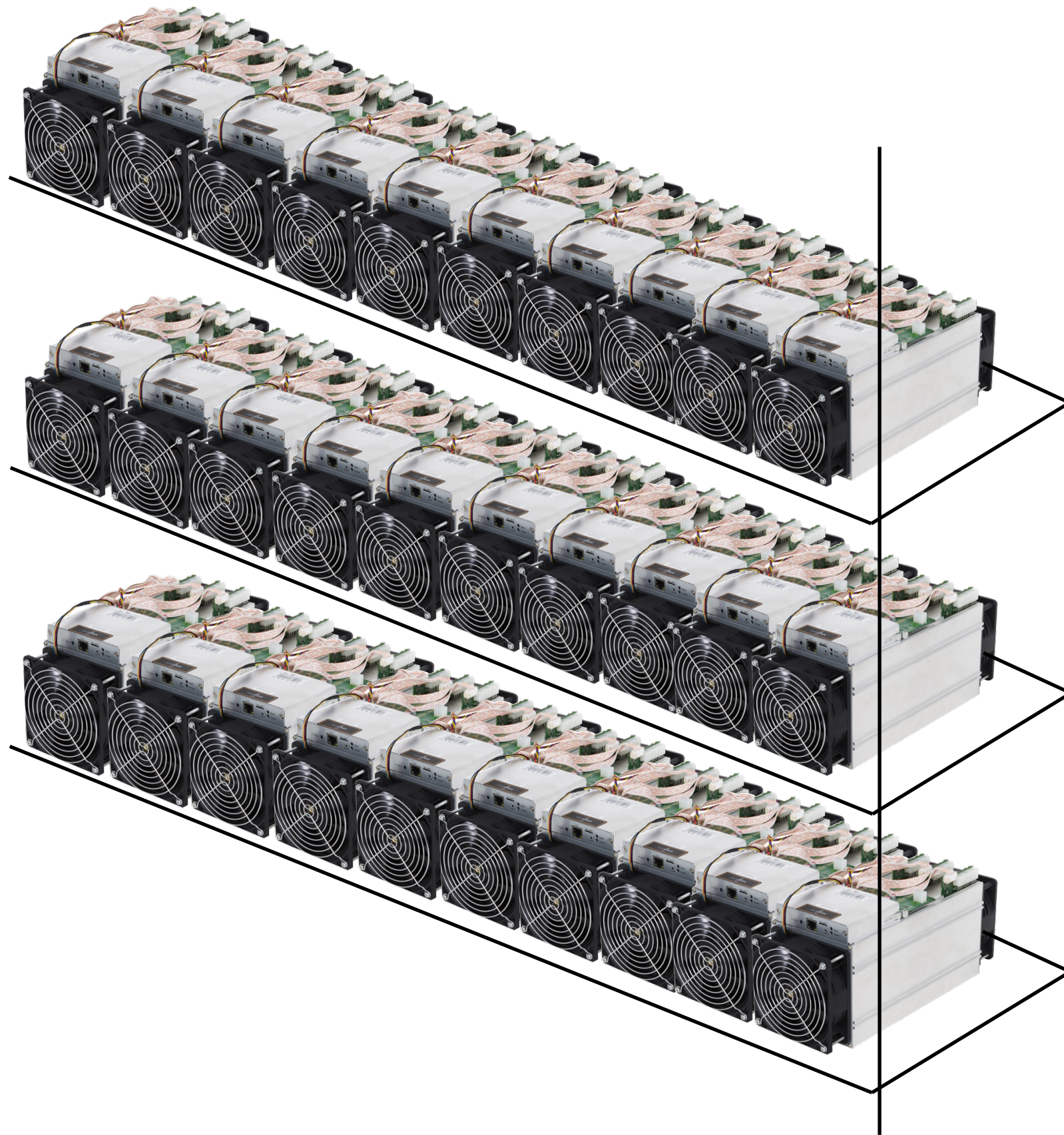




~ 19,000 GTX 1080 Ti

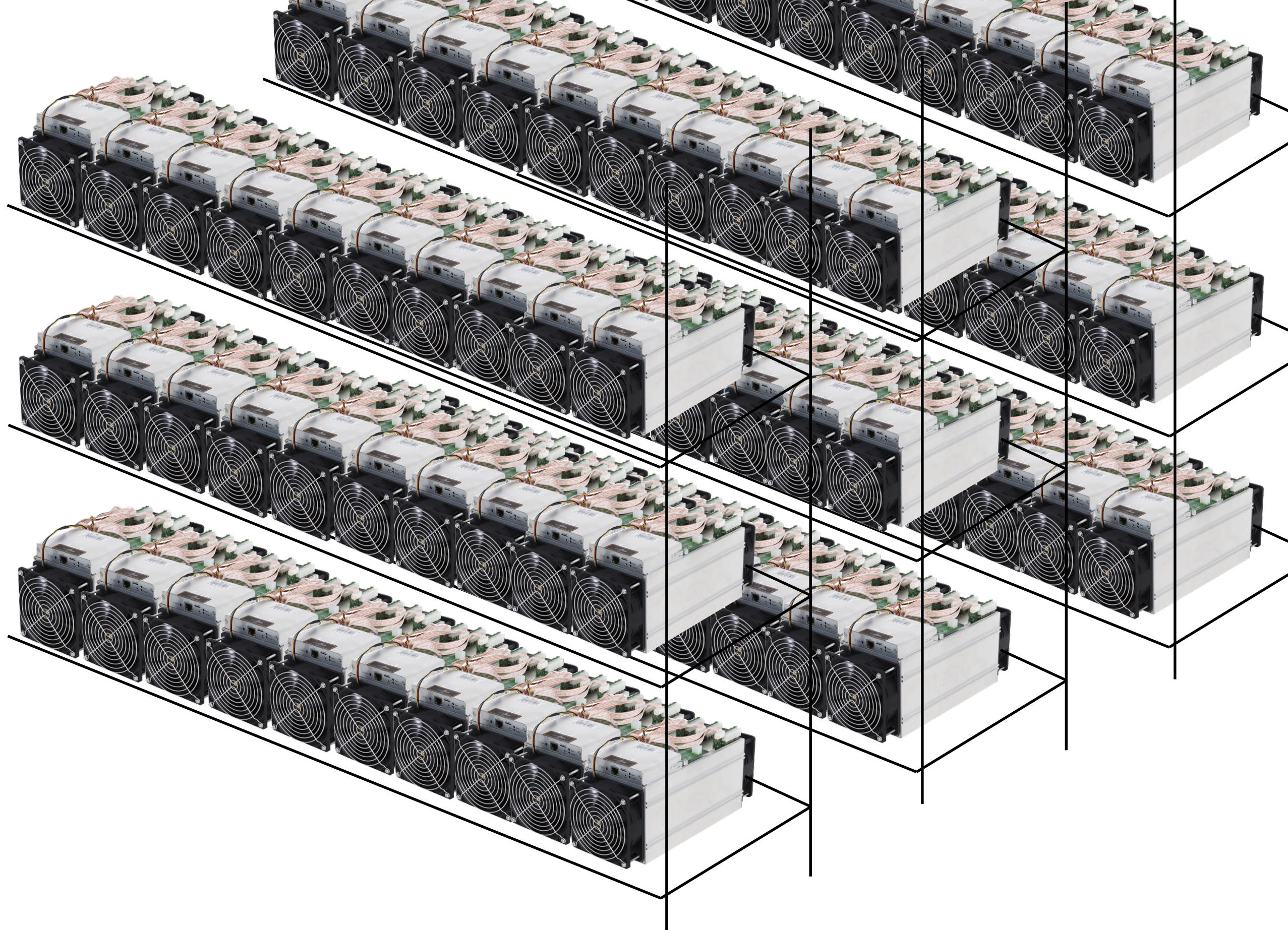
€1,500

~ €100 / month  $\Delta EH$



© Bitmain. All rights reserved. Used for educational purposes only.





© Bitmain. All rights reserved. Used for educational purposes only.





You can't mine BTC

Then what can I mine?

Pretty much  
everything else



# Altcoins

- Designed to not be mineable by ASICs
- Best mined with GPUs
- Usually 1-2 OOM cheaper than BTC
- Can then be traded for BTC automatically

# Pools

- It's very difficult to mine crypto coins alone
- People create “pools”
- Miners join a pool, and then split the reward based on work
- Usually pools have fees

# Generic MPCs

- Accept parameters such as hardware, cost per kWh, ...
- Show what's the most profitable altcoin to mine and how much you can make a month / year
- They don't take many things into account

# Coin-Specific MPCs

- Accept parameters such as MH/s, cost per kWh, ...
- Show how much you can make from this Altcoin
- Usually much more accurate

# Cloud Mining

- Companies with very large mining farms
  - Thousands, Millions of mining rigs
- They rent miners for 1-2 years for fixed price
- No need for hardware, just pay for contract
- Company may disappear, ...

# Thank you!

[daknob@daknob.net](mailto:daknob@daknob.net)