# The differences between smart contracts on Bitcoin Cash and Ethereum

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# Who am I?



ethereum



🛠️ truffle-assertions

✅ truffle-plugin-verify

🐼 PandaCash

💵 CashScript

# Functionality



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- 🖥️ On-chain applications
- ⚙️ Turing-complete
- 🎡 Many participants
- 💾 Persistent state
- 🤖 Autonomous*

- 🤝 On-chain agreements
- ❌ Not Turing-complete
- 👥 Few participants
- 💨 Stateless*
- 📜 Not autonomous

# Scaling

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💾 Effects dependent on state

➡️ Transaction order important

〰️ Parallelisation more difficult

💨 Effects independent of state

🔀 Transaction order not important

📏 Parallelisation easier

# Fees



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🔗 Deployed on-chain

⛽ Fees paid per *gas*



🔒 P2SH

💼 Fees paid per byte



# GAMES & GAMBLING

*Gods Unchained* (500tx/day)

| Purchase amount | ETH transaction fee |
|---|---|
| US$2,26 | US$0,17 |
| US$13,53 | US$0,21 |
| US$40,60 | US$0,22 |

*Clovers.network* (3000tx/day)

| Reward/claim | ETH transaction fee |
|---|---|
| US$0,36 | US$0,14 |
| US$1,30 | US$0,44 |
| US$2,24 | US$0,52 |

Source: Tobias Ruck, Nimbus Presentation

# Risk & Upgradability

## Big persistent contracts

🎛️ More systemic risk

💥 Difficult to upgrade

Compound

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## Smaller ephemeral contracts

📎 Less systemic risk

✳️ Easier to upgrade

Kickback

Local.Bitcoin.com

Buy and sell Bitcoin Cash (BCH)
with anyone – anonymously