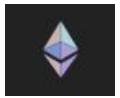
consensus® by coindesk®

Unlocked 101

Ethereum 101

Blockchain Where It All Happens

Guests: Austin Griffith, Omna Toshniwal

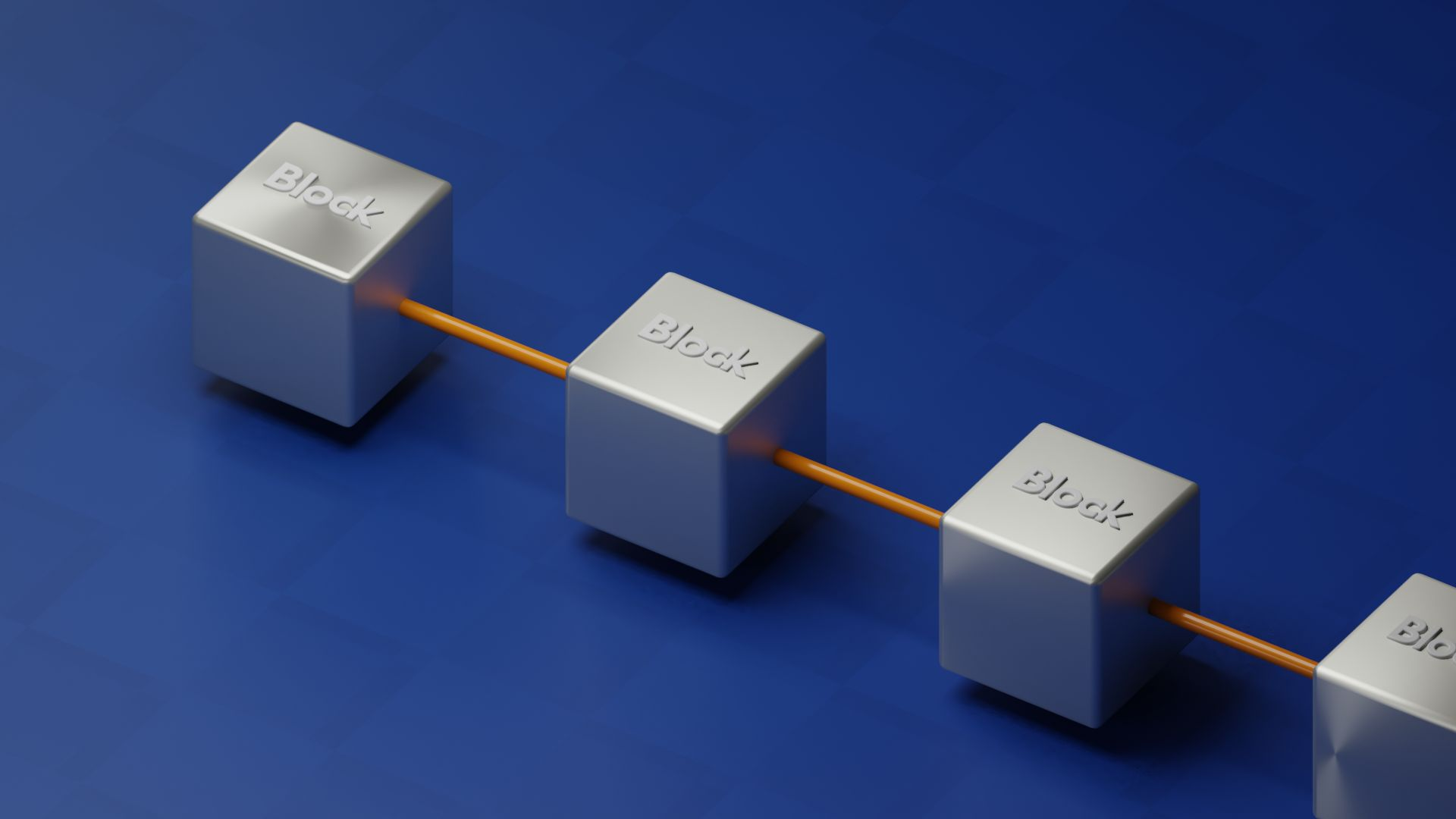


METAMASK

What is Ethereum?

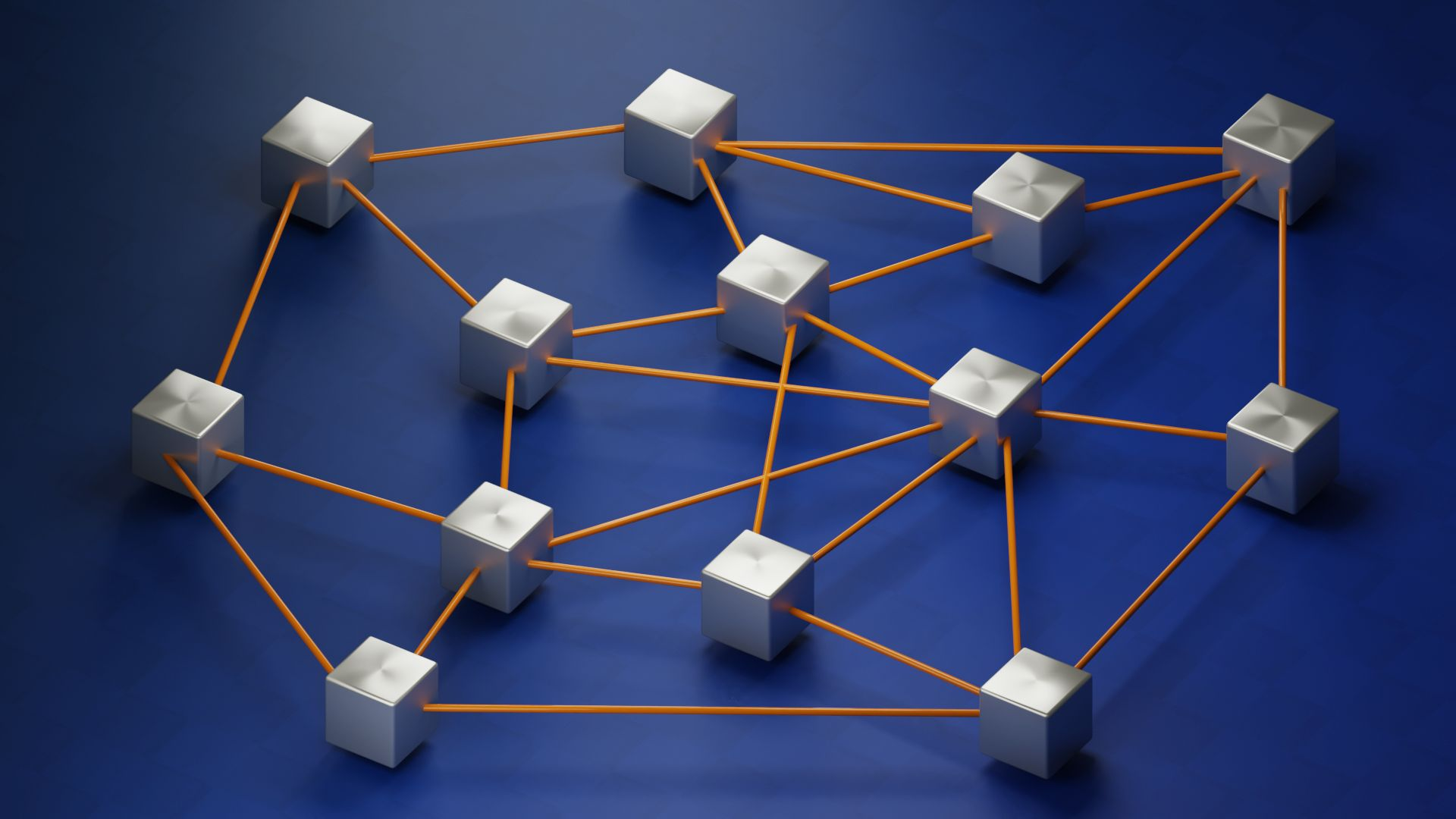
“Ethereum is the community-run technology powering the cryptocurrency, ether (ETH) and thousands of decentralized applications.” - ethereum.org

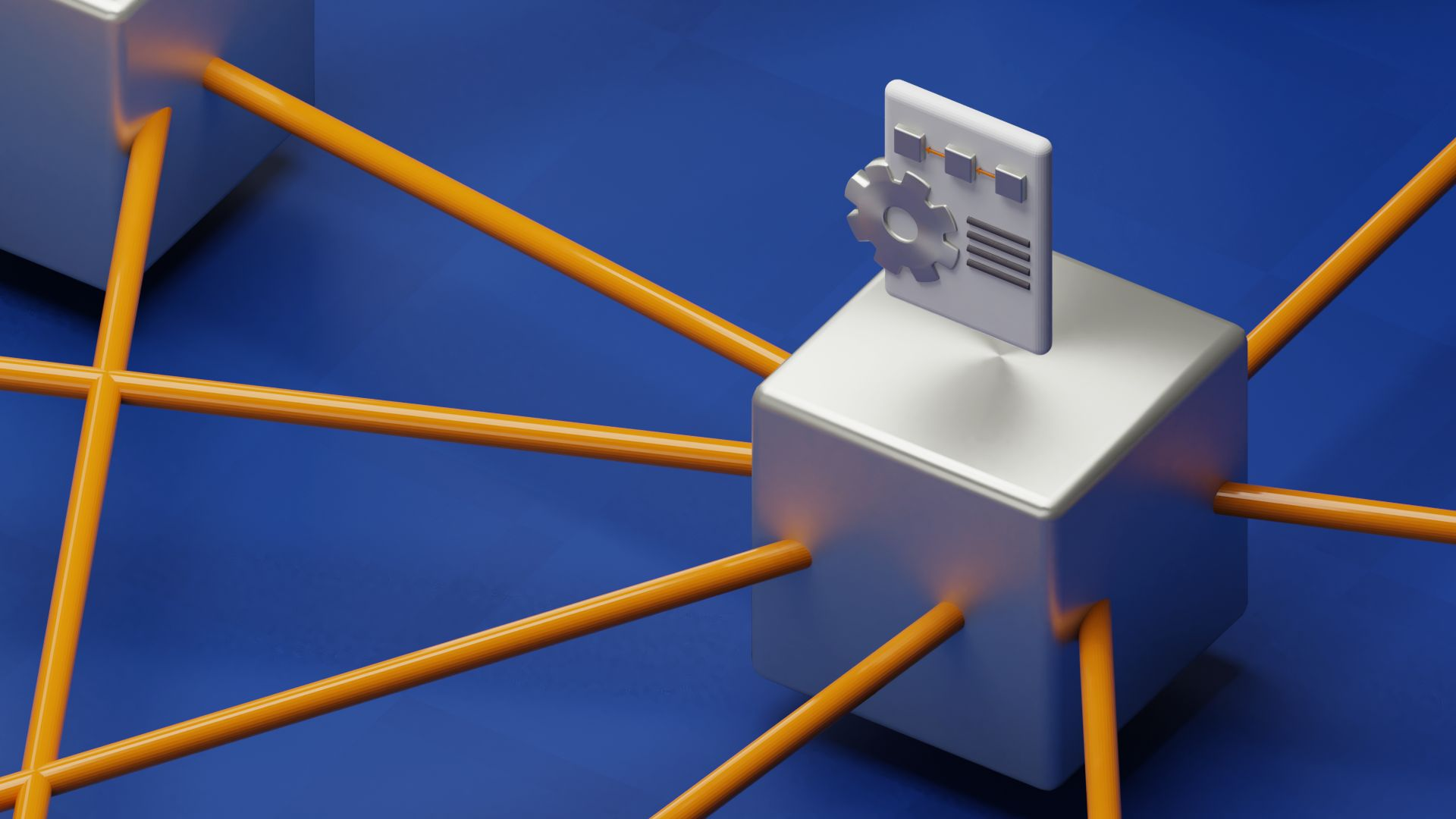
What does a blockchain look like?


Block
Block
Block

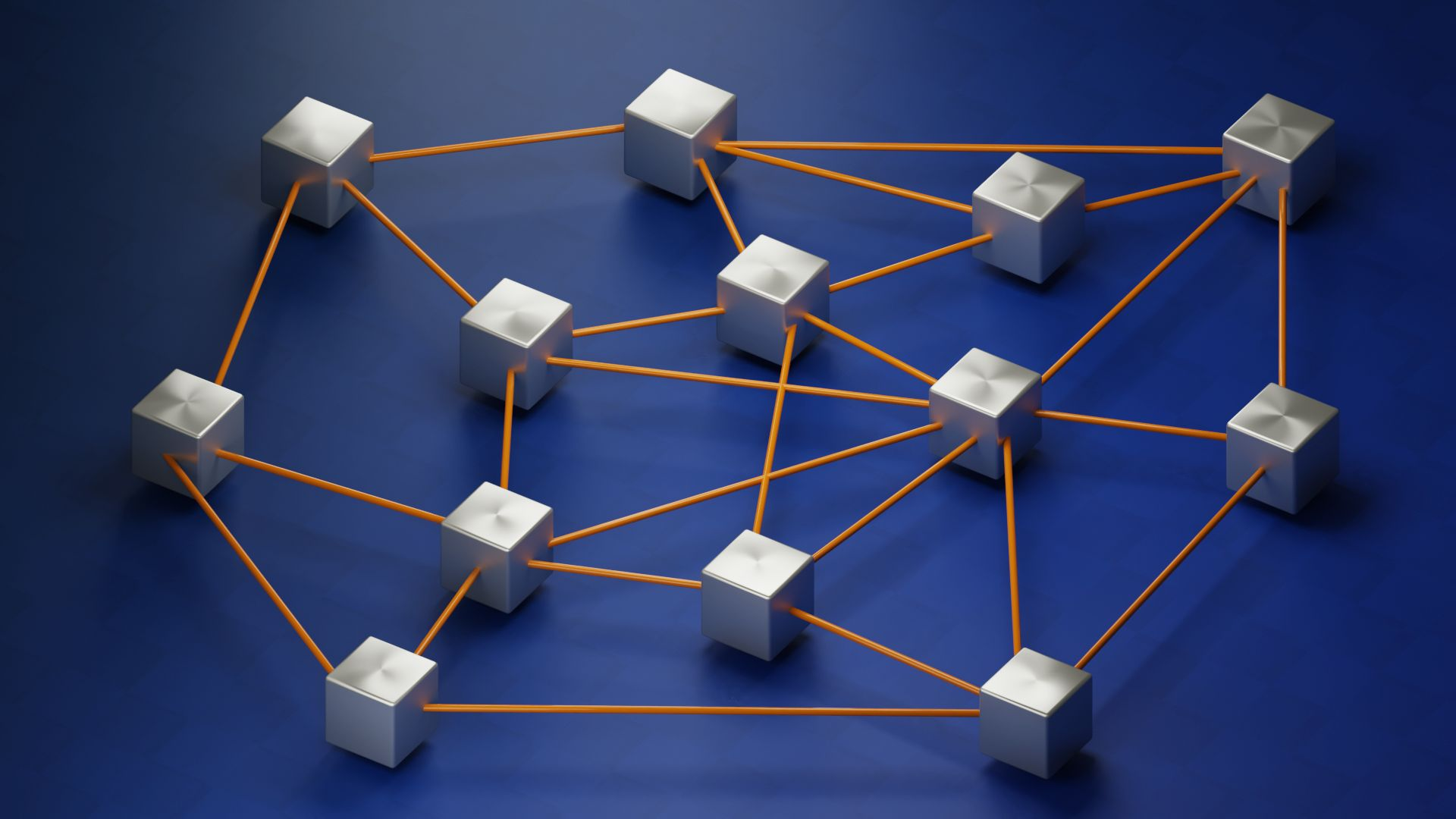

Block
123456

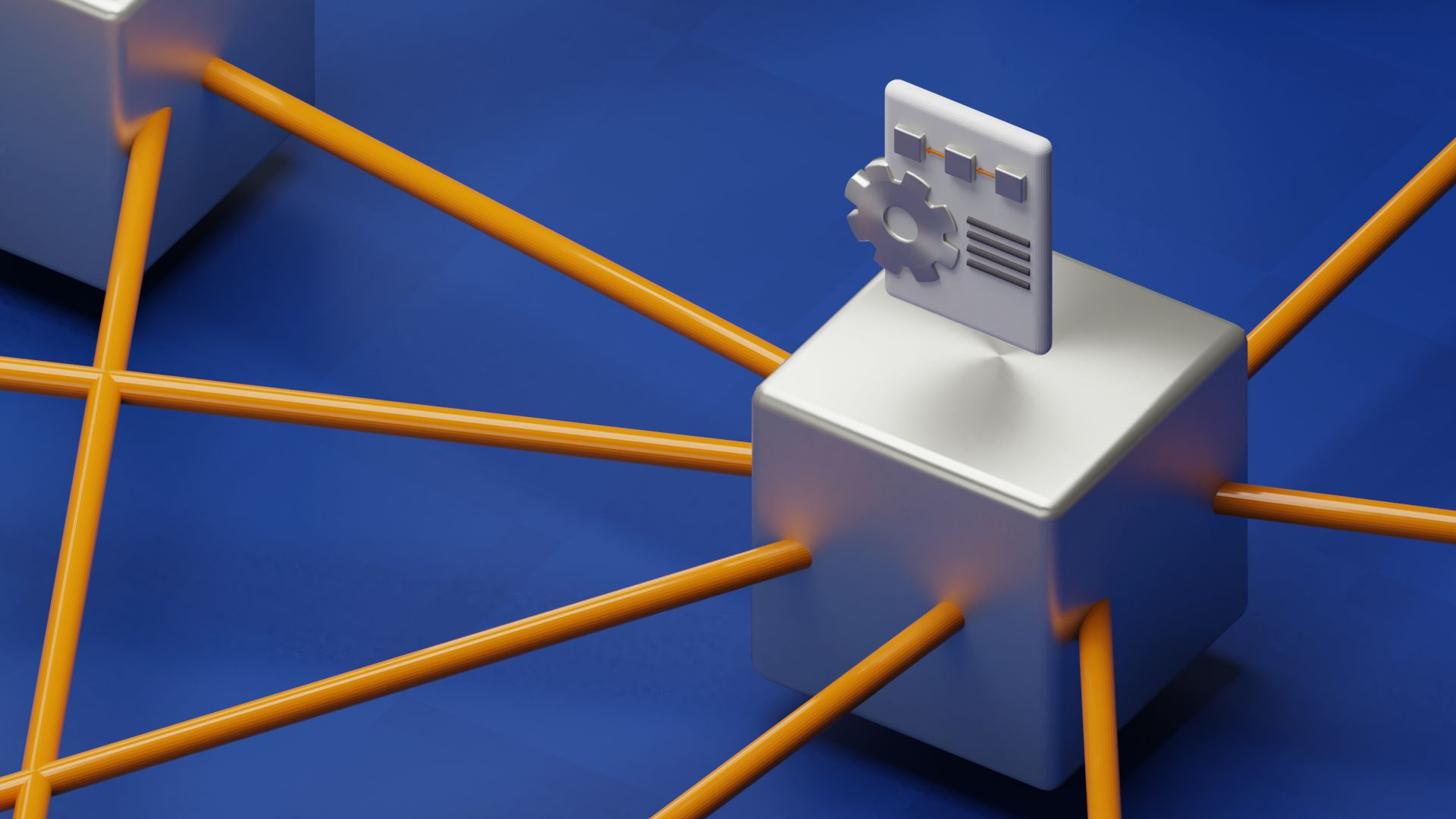
What does a blockchain look like?

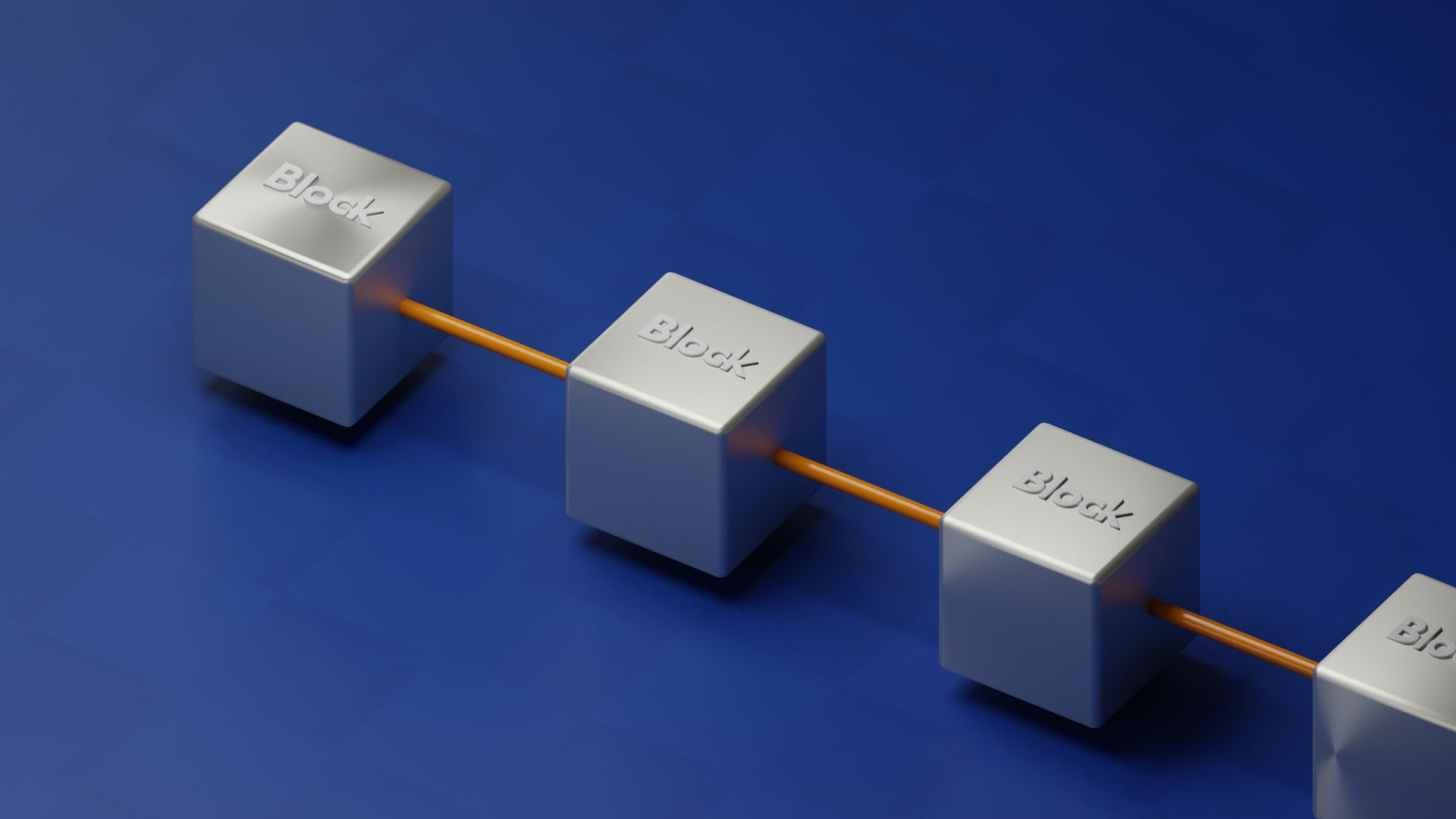




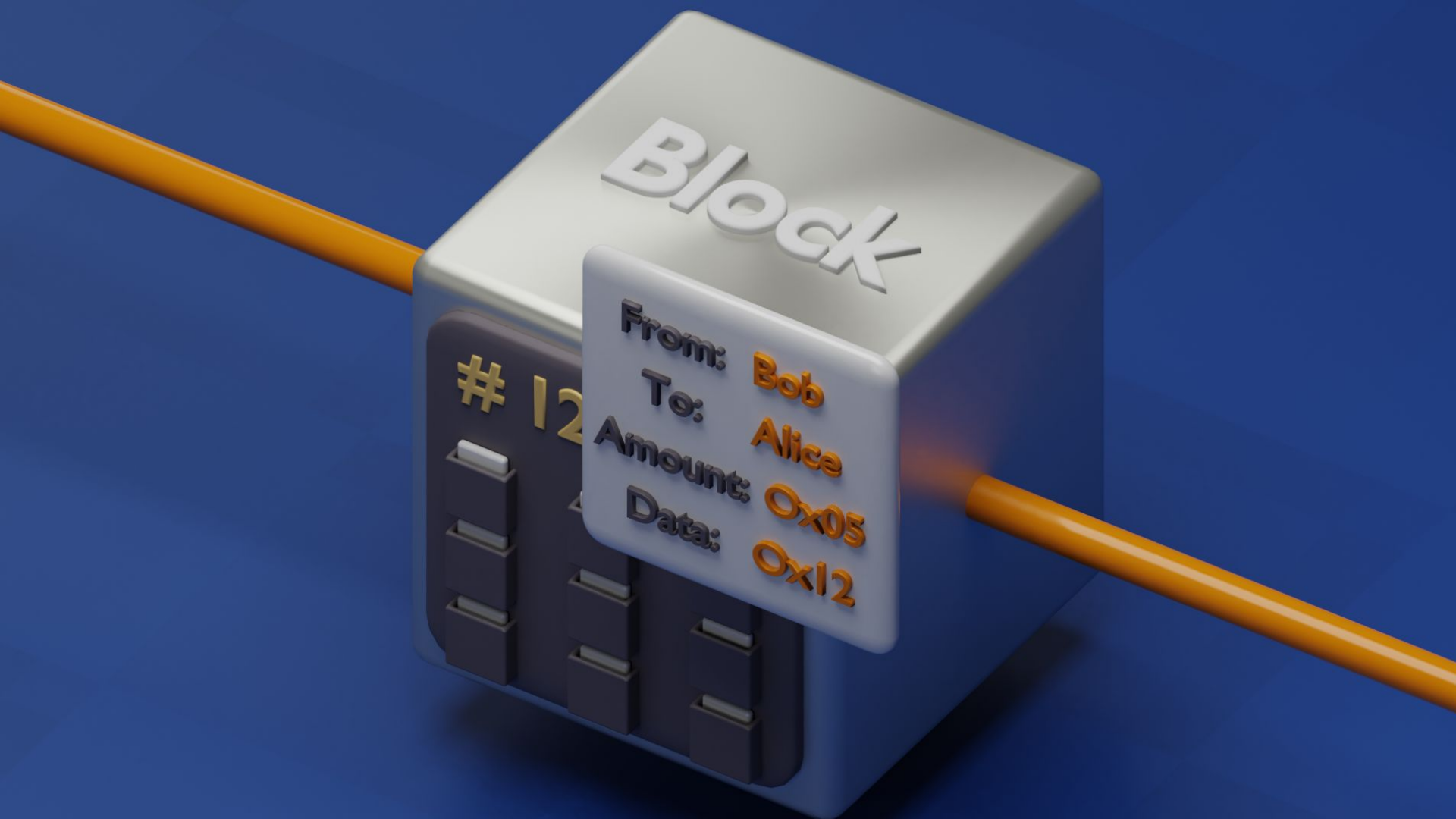
What does Ethereum look like?






Block
Block
Block


Block
123456


Block
From: Bob
To: Alice
Amount: 0x05
Data: 0x12


From: Bob
To: Alice
Count : 4


Count : 4


Count : 4
$

Ethereum 101

```solidity
// SPDX-License-Identifier: MIT
pragma solidity ^0.7.6;

contract Counter {
    uint public count;

    // Function to get the current count
    function get() public view returns (uint) {
        return count;
    }

    // Function to increment count by 1
    function inc() public {
        count += 1;
    }

    // Function to decrement count by 1
    function dec() public {
        count -= 1;
    }
}
```

https://solidity-by-example.org/first-app

What are Ethereum's superpowers?

- Ease of Innovation
- Trustless / "Code is Law" / Unstoppable
- Permissionless
- Censorship Resistant
- Composability

Philosophy

Why decentralization?

- Distribute power - In centralized system, there is too much dependency on who's in power. And things *typically* work out fine, till they don't.

- Less corruptible - Something that is collectively owned and transparent is inherently more trustworthy.

Philosophy

Why decentralize finance?

- Access to financial services - Internet brought a library to people whose neighborhood didn't have one.

  Could we do the same for people who have limited access to a trustworthy financial infrastructure & services?

Philosophy

Why decentralize finance?

- New ownership models - Native digital currency can change how people *own* assets and exercise their rights of ownership

    - Anyone can be an investor
    - Anyone can be a bank / provide liquidity
    - Anyone can borrow despite their bank balance

How-to

What is a wallet?

Your key to the digital economy.  METAMASK

An interface that lets people

- Create a (or multiple) digital identities
- Access your funds / digital assets
- Access and interact with dApps
  - Sign an agreement
  - Authorize a payment
  - Prove ownership of assets

Use-cases

Choose your own ETH adventure!

- Early use cases
  - Tokens, ENS, Multi-sigs, Prediction Markets
- DeFi
  - Stablecoins, Lending, Leverage, AMMs, LPs, Yield Farming, Redirected Yield
- NFTs
  - Creator Economy, Art/Collectibles, Music, Game Assets, so much more!

… more adventures …

- DAOs / Governance
  - Moloch / Coordination problem
- Bounties / Grants
  - Quadratic Funding
- Games
  - Primitive card collecting games -> dark forest - zk fog of war

Challenges & new developments

So expensive! Slow!	Layer 2s and sidechains
Async. Complicated. Intimidating.	More user-friendly experiences
Self-custody: empowering yet unfamiliar, feels risky	Safeguards, decentralized key management strategies
Environmental concerns	POW => POS

The Future!

- Scalability - Layer 2, EIP-1559, ETH2, POS merge!
- Adoption - More and more new users and builders are speed running the Ethereum mental model every day.

  What will they create next?

Radical change takes time

- Giant experiment - People building upon the new concepts that Ethereum enabled. Early adopters took the risks to play with the applications. Now attracting more people.

- Spectrum of decentralization - Builders are exploring how to make this radical shift gentle. Balancing new/future forward concepts with familiar concepts.

ETH 💦

🚚 ether.delivery

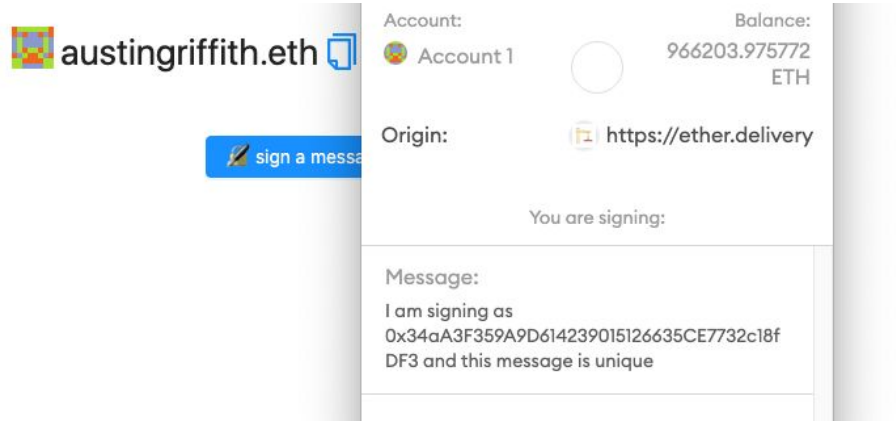
ETH 💦

🚚 ether.delivery

Connect Ethereum Wallet

ETH 💦

ether.delivery



Thanks!

- Get Started with Ethereum: ethereum.org
- Download and install MetaMask: metamask.io
- Developers! Get started building: scaffoldeth.io

@omnatoshniwal
@austingriffith