

What is Blockchain?



Blockchain is a cryptographic technology based on a mathematical structure for storing data in which groups of valid transactions, called **blocks**, form a chronological chain, with each block cryptographically linked to the previous one.¹

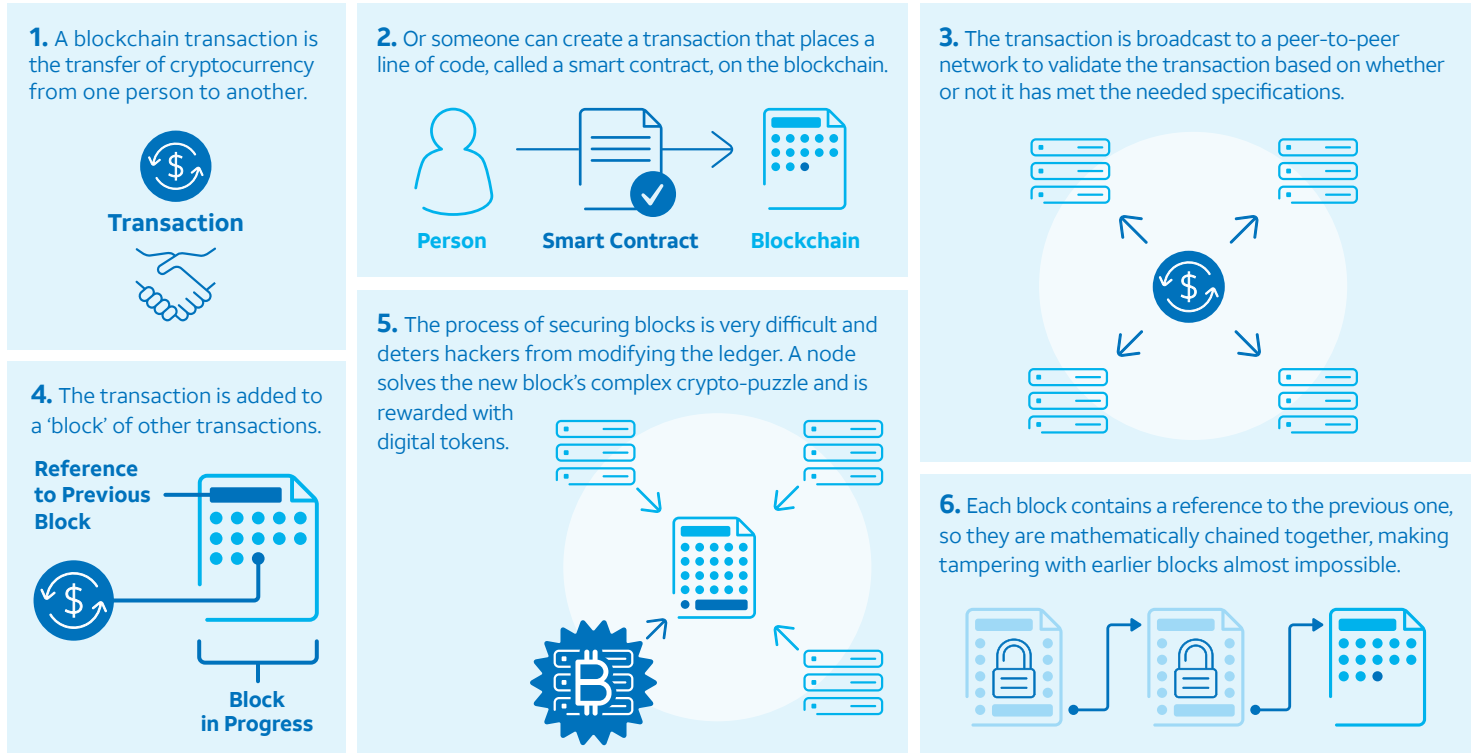
A blockchain thus creates a public, permanent, decentralized, append-only distributed ledger that can be used to record transactions across many computers.²

Public blockchains, like those used for cryptocurrencies (such as Bitcoin or Ethereum), are typically accessible to anyone, similar to a public database. Public blockchains are also highly secure given how difficult it is to tamper with the data encoded in a blockchain. No single entity owns or controls a public blockchain. A network of computers maintains and secures the database and each participant, or “node,” stores a copy.³

In 2008, Satoshi Nakamoto, the creator of Bitcoin, crafted the original blockchain for tracking currency balances.⁴ The underlying technology, however, can be used for all kinds of valuable data.

In offering a quicker, safer, and cheaper systems to exchange data and value, **blockchains have the potential to enhance future transactions across various industries and civic functions**, including energy trading, tracking food and agriculture, sharing medical data, controlling personal data in social media, and securing electronic voting systems.⁵

How Blockchain Works



Learn more about blockchain in this [AT&T paper](#).

Find out about new AT&T blockchain solutions [here](#).

1. "Blockchain: What is it?" MIT Technology Review, Volume 121, No. 3, pp 18-27 (May/June 2018); 2. Id; 3. Id; 4. "Blockchains: The great chain of being sure about things". The Economist, 31 October 2015; 5. "Blockchain: What is it?" MIT Technology Review, Volume 121, No. 3, pp 18-27 (May/June 2018).