



Overview

The understanding of blockchain technology and its utility is nascent and ripe for exploration. While the technological breakthrough of decentralized networks is exciting, it's difficult to predict how it will be harnessed years from now. Some have compared the blockchain ecosystem's current state to the early days of the internet, with entrepreneurs and investors grappling with how to best leverage the arcane technology. By segmenting use cases and end-users of blockchain startups, we can gain a better understanding of the possibilities this technology holds.

This market map is an overview of startups utilizing blockchain technology that have received venture capital funding. Market segments were determined by similarities in use cases, then further specified into sub-categories of those uses. While we recognize some startups could belong in multiple segments or sub-categories, they are categorized based on our understanding of their primary use case. The map consists of 128 blockchain startups that have received the greatest amount venture funding, per the PitchBook platform.

Most blockchain startups here have use cases in financial services, though our research highlights an emerging and highly viable segment of enterpriselevel blockchain solutions for sectors beyond finance, including healthcare, insurance, and supply chain systems. Examining the variety of ways startups are harnessing this technology illustrates its vast potential, though the blockchain ecosystem still requires significant development before the technology can be viably implemented in the mainstream.

Sector descriptions

Transactions & Payment Services

This category contains startups whose primary use cases involve buying, selling, or storing cryptocurrencies without a financial intermediary. The term cryptocurrency refers to a digital asset which functions as a medium of exchange on a distributed ledger. Smart contracts are programmable, transparent transaction contracts which self-execute upon the

fulfillment of its terms of agreement. Wallets are software programs which interact with various blockchains to let users store, send, and receive cryptoassets and monitor their holdings. Some wallets extend services internationally and specialize in low-fee crossborder remittances. Merchant services enable vendors or organizations to participate in crypto-transactions. Finally, micropayment startups offer payments for metered content in small denominations.

Cryptocurrency Exchanges & Trading

Crypto-exchanges are platforms for exchanging cryptocurrencies into other cryptocurrencies, fiat currencies, or vice versa. Peer-to-peer marketplaces enable two parties to directly exchange goods and services without an intermediary, while peer-to-peer lending platforms enable peers to extend and receive credit/loans through a blockchain. This segment includes crypto-investment companies who invest in cryptocurrencies with the intent to generate a return via value appreciation, as well as tools used to manage crypto-investments. Accordingly, startups providing

clearing and settlement blockchain platforms for crypto-trading, forex and crypto-derivative markets are also included. Prediction markets involve speculation trading based on forecasts of economic and political events. Finally, fundraising platforms allow startups to complete blockchain-based fundraising and help prospective investors find such startups.

Identity, Authentication, & Security

An inherent characteristic of a blockchain is the immutability of transaction records. Startups here use digital ledger software to verify the authenticity of data, as well as assets or documents, using blockchain identifiers to represent and/or authenticate tangible assets. Additionally, these startups leverage identity verification methods to track the cryptographic identity of an individual, entity, device, item, etc. Although blockchains themselves are secure by nature, blockchain-based applications are still vulnerable to cyber-attack. Startups in the security category create secure foundations for transactions, data storage, and network communication.

Enterprise Blockchain Solutions

Startups in this category provide enterprise-level blockchain solutions to entities operating in sectors such as financial services, healthcare, insurance, and supply chain. This includes the development of industry-specific software as well as subscription leasing of proprietary blockchain platforms.

Social, Games, & Gambling

In this category, startups leverage decentralized networks to enable social and networking platforms used for recruiting, classifieds, dating, and loyalty programs, among other use cases. One of the primary benefits such companies provide is the ability to share data and content without allowing a centralized thirdparty to assume any level of ownership of such content. Blockchain games include applications and tournament gaming platforms where users can compete for prize pools. Gambling startups allow users to place bets from anywhere around the world via blockchain peerto-peer networks.

Ecosystem

This category includes startups furthering blockchain technology via underlying infrastructure improvements and software development tools. The issues such companies address include those related to scalability, interoperability and governance, among others. While some of these companies could also be listed under "Enterprise Blockchain Solutions," they are included here for the contribution of their open-source technology to the ecosystem. Mining companies provide products and services which assist in the computational process of solving cryptographic problems to earn cryptocurrency units. Data storage and hardware companies cater to the operational necessities of blockchain services.