coinbase INSTITUTE

INSIGHTS

What is Staking?

Staking is a core feature of many modern crypto networks. It allows individuals to support the security and functionality of a blockchain by temporarily locking up their digital assets. In return, participants can earn rewards, typically in the form of additional tokens.

Unlike Proof of Work (PoW), which relies on energy-intensive computing to validate transactions, Proof of Stake (PoS) randomly selects validators pursuant to protocol rules. This approach is significantly more energy-efficient and cost-effective, making it a more sustainable alternative for blockchain consensus.

How it Works

Staking is a process in blockchain networks where participants temporarily lock up their crypto to help validate transactions and secure the network. In a Proof-of-Stake (PoS) system, individuals known as validators perform this role. By committing—or "staking"—their assets, validators signal their commitment to the integrity of the network. If they act honestly (that is, if they merely follow the protocol rules for transaction validation), they earn rewards. However, if they behave dishonestly by violating the protocol rules, they risk losing part of their staked assets through a penalty mechanism known as "slashing."

Staking is key to blockchain security, decentralization, and governance—but it can be technically complex for some users and requires ongoing attention to ensure the necessary software remains running and a network connection remains stable and reliable. Staking-as-a-service providers, like Coinbase, simplify the process by offering secure and accessible participation without requiring deep technical expertise. With Coinbase, users don't have to set up and maintain a validator node. They simply choose to stake their assets and Coinbase handles the rest. At all times the user controls which of their assets to stake, the quantity of assets to stake, and for how long. This service allows crypto holders to participate in staking without the need for technical setup or maintenance.

Coinbase staking services let token holders earn rewards without managing the software, hardware and network connection required to stake one's own. And with no tokens ever lost to a slashing event, Coinbase offers a safe and reliable way to participate in staking without the burden of operating one's own validator.

Use Cases and Significance

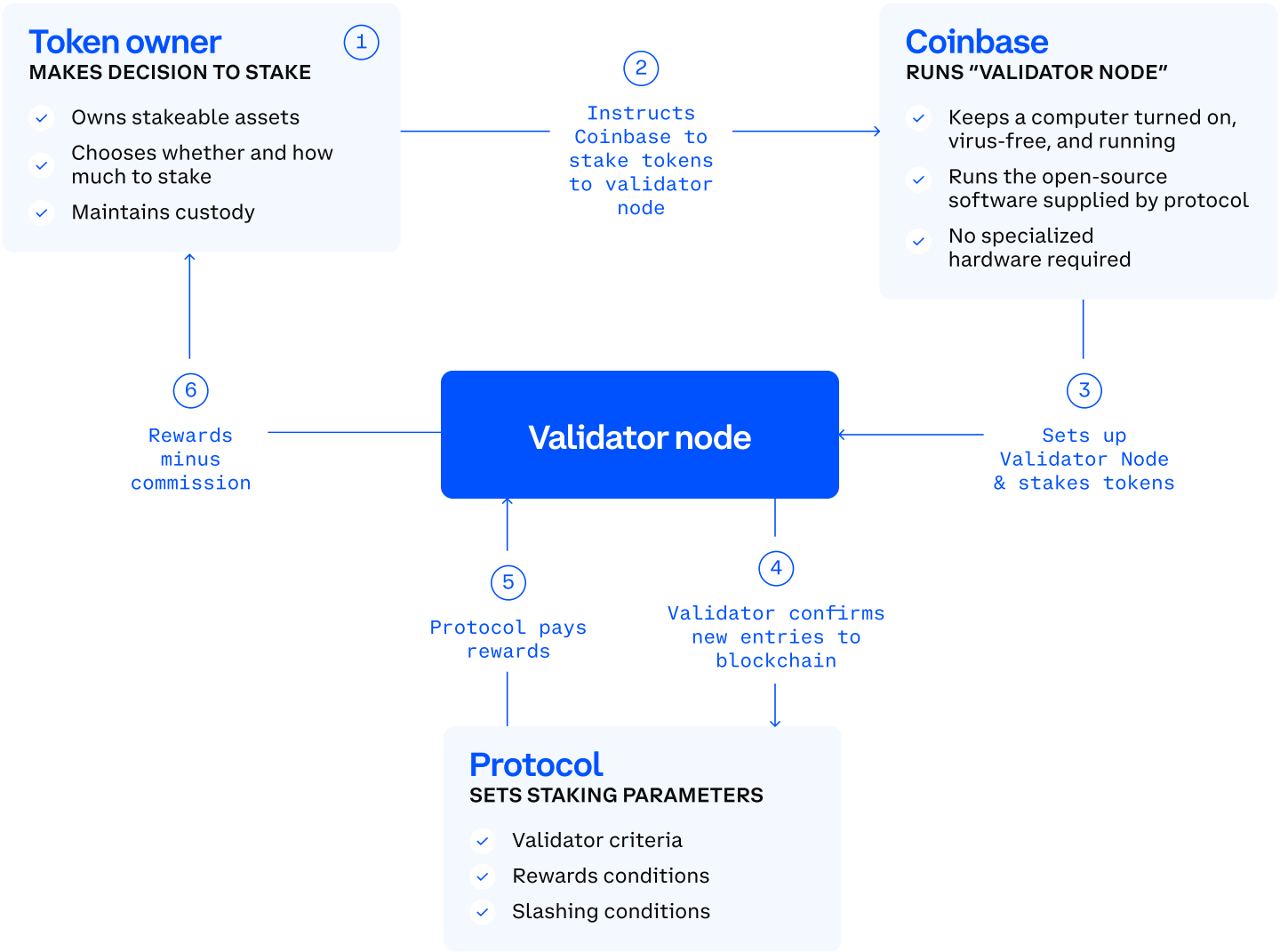
Staking offers a modern approach to blockchain consensus, delivering key advantages across energy use, security, accessibility, and incentive alignment.

- **Energy Efficiency** PoS consumes up to 99.95% less energy than PoW, making it a more environmentally friendly alternative. Validators only need lightweight infrastructure to participate.
- **Network Security** The more tokens that are staked, the harder it is to attack the network. An attacker would need a majority of the staked tokens to take control, which is prohibitively expensive in well-distributed ecosystems.
- **Decentralization** Staking makes it easier for more people to join and secure the network. This contrasts with PoW, where expensive hardware and energy costs centralize power among a few large mining pools.
- **Incentive Alignment** Stakers are financially motivated to keep the network secure—they earn rewards for good behavior and risk losing assets if they attempt to cheat.

Conclusion

Staking is a more sustainable and accessible way to secure blockchains—especially with platforms like Coinbase, which make the user experience less burdensome and complex. By making participation simple, safe, and efficient, Coinbase enhances network security and helps accelerate the growth of decentralized technologies.

How Staking Works: Coinbase Staking Services



Coinbase has never experienced a slashing event

Staking consumes up to 99.95% less energy than Proof-of-Work