

## Snappy Payments

Snappy Payments is an end-to-end payment processing service that enables instant and safe cryptocurrency transactions between customers and merchants. Our solution addresses the problem of high transaction latency, a major roadblock for the adoption of cryptocurrencies, and achieves a near-instant payment finality. In comparison, non-accelerated payments on permissionless blockchains (e.g., Ethereum) require several minutes before merchants can safely hand their products to their customers. High latency makes cryptocurrencies inapplicable to the wide range of use cases that depend on fast finality e.g., retail shopping, peer to peer payments, purchases of digital goods.

Our solution is based on a set of protocols that allow for decentralized collateral management, fast payment approvals and trustless dispute resolution. Merchants can now accept payments even before they are logged on the distributed ledger, thus decoupling the payment process from the transfer of funds on the blockchain. Any risk is fully covered by small-sized collaterals placed by customers at registration time. For example, in case a transaction is not included in the blockchain (e.g., due to a double-spending attack), the affected merchant can trivially recover any lost funds through a non-interactive, single-message dispute process. Snappy works with small collaterals and guarantees that payments succeed every time. In comparison, previous solutions such as payment hubs require large locked-in funds and solutions like payment networks do not guarantee payment completion.

By replacing the slow on-chain finality with Snappy's off-chain payment authorization, we shrink the payment latency down to a few seconds, regardless of the underlying blockchain. In fact, our protocols are blockchain-agnostic and can operate on top of any existing blockchain that supports smartcontracts. Merchants can start receiving Snappy Payments to their cryptocurrency account through the Snappy app or by integrating our payment processing API in their checkout pipeline. Similarly, customers can register and send payments from their cryptocurrency account to any of the participating merchants simply by registering through the Snappy app.

Overall, Snappy Payments offers a frictionless user experience both for merchants and customers, while retaining all the security and decentralization guarantees of permissionless blockchains.

## About Snappy Labs

Snappy Labs bring top-tier research into production. Our work aims to alleviate the roadblocks that hinder the widespread adoption of blockchains and cryptocurrencies in the economy and create new decentralization opportunities.