ZeroHash

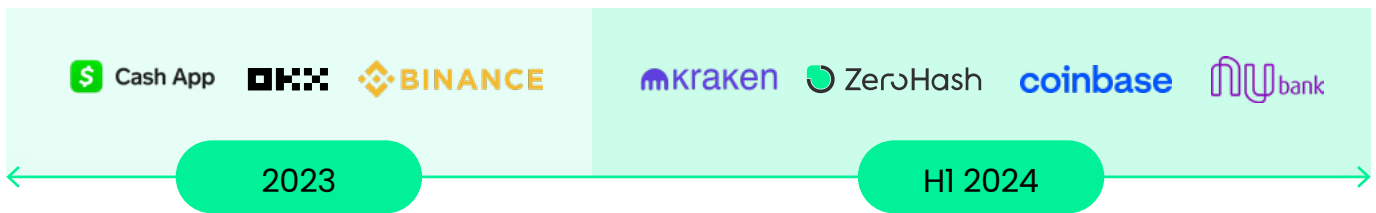**SOLUTION BRIEF**   LIGHTNING PAYMENTS

Effortlessly enable Lightning transactions
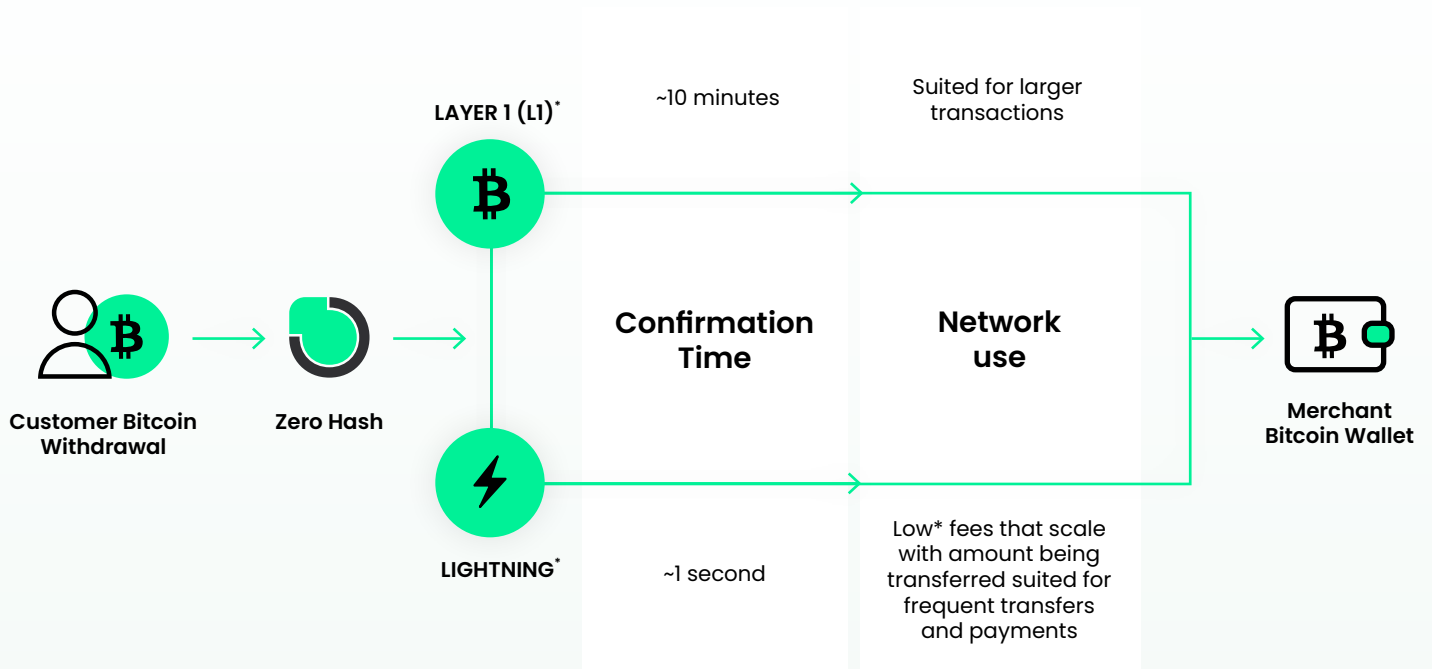
Unlock access to fast, low cost
and secure payments

Momentum towards Lightning

BTC Lightning support timeline: Join these key players - and more Lightning support increasingly table stakes

What are Lightning & Universal Money Addresses ("UMA")?

With a $750B marketing cap (as of July 2024), Bitcoin is the most popular and global digital asset. The Lightning Network and UMA are projects that aim to expand Bitcoin's accessibility and adoption by building technical improvements on top of the Bitcoin Network that increase transaction speeds and accessibility.

LAYER 1 (L1)*

~10 minutes

Suited for larger transactions

Customer Bitcoin Withdrawal

Zero Hash

Confirmation Time

Network use

Merchant Bitcoin Wallet

LIGHTNING*

~1 second

Low* fees that scale with amount being transferred suited for frequent transfers and payments

*The point where network fees may be more optimal on Lightning vs Layer 1 depends on factors including L1 network congestion and the value being transferred.

UMA is a global and open source project built on the Lightning Network that uses the underlying network while offering expanded functionality and user improvements. One significant feature is the ability to create a customizable address for the receipt of funds and Bitcoin, like an email address but for money. UMA lets anyone send and receive money 24/7 using their UMA-enabled wallet.

$

you

@domain.com

uma

Why platforms are leveraging Lightning & Universal Money Address (UMA)

Near instant payments globally

Lightning-fast blockchain payments to move money in near real-time.

Low cost

Designed for efficient payments that cost less for smaller transaction amounts. Network fees are influenced by factors, including the amount being transferred. The median base Lightning network fee on July 10, 2024 was $0.0055[1]

Scalable

Enable new use-cases, like remittances and transfers, built on the Lightning payment network that can potentially reach 1 million Transactions Per Second[2] ("TPS")

Readable addresses through UMA

No more long hash strings. With Universal Money Addresses (UMA), value can be sent as easily as sending an email.

Seamless on and off-ramps

Combine Lightning and UMA with Zero Hash's fiat capabilities to enable fast onramps and offramps globally.

Innovative payment opportunities

The low cost of transactions can unlock functionality including the streaming of money in real-time, for example, tipping a podcaster.

1. (Source: 1ML Statistics)
2. (Source: Lightning.Network)

Launch with Zero Hash: Enable Lightning & UMA payments via a single API integration

The Lightning Network can be complex.
Abstract away the complexity with Zero Hash.

Zero Hash enables an end-to-end API for fast, seamless, low cost payments and value transfers across both Layer 1 (L1) and Layer 2 (L2) networks.

Single API integration

Zero Hash's highly configurable platform supports the Bitcoin Network, Lightning Network, and Lightning standards, including UMA.

Easy-to-use and hassle-free

Easily compare network fees for transactions on the Layer 1 Bitcoin (BTC) and Layer 2 Lightning Network. No need to hold separate L1 and L2 balances as end customers may utilize both from a single wallet.

Simple Integration

Zero Hash's full stack API supports both BTC and Lightning networks. Focus on your customer experience and let Zero Hash manage the complexities of bridging payments across L1 and L2 networks.

Route on the optimal network

Zero Hash allows customers the choice to send BTC across the optimal network (Layer 1 BTC or Lightning) for each use case.

Safe, reliable and compliant transactions

Zero Hash enables companies to use Bitcoin and Lightning rails in a fully compliant manner, providing identity verification, secure custody of assets, multi-party computation custody and regulated deposit and withdrawal of assets.
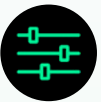
Highly Configurable Monetization Controls

Zero Hash's flexible configuration options enable platforms to generate revenue at various customer touch points. For example, a transaction converting USD to BTC and a withdraw across Lightning could be set to implement a liquidity spread (the on and off-ramp from USD to BTC and BTC to USD) and a withdrawal spread (the withdrawal of BTC across the Lightning Network). These settings can be configured per asset to customize your application's experience.

Deep Dive into Universal Money Addresses (UMA)

A participant on Lightning can receive BTC using either destination details shown below, with the UMA address being much easier to share and remember.

Lightning Invoice:

lnbc2500u1pvjluezpp5qqqsyqcyq5rqwzqfqqqsyqcyq5rqwzqf
qqqsyqcyq5rqwzqfqypqdq5xysxxatsyp3k7enxv4jsxqzpuaztrn
wngzn3kdzw5hydlzfo3qdgm2hdq27cqv3agm2awhz5se903vru
atfhq77w3ls4evs3ch9zw97j25emudupq63nyw24cg27h2rspfj9srp

UMA address

$satoshi@zerohash.com

The Value of UMA: Send money as easy as sending an email

User friendly: UMA replaces crypto wallet addresses with user-friendly addresses that are similar to an email.

Global Networks of Networks: 24/7/365 instant settlement as a prospective global payment network of networks.

Built-in compliance: Enables regulated financial institutions to use UMA, with native travel rule support hardcoded into the standard which is enabled during channel initialization.

Low cost: Leverage UMA to benefit from Lightning's low-cost transactions, with significantly smaller spreads than other payment rails.

Applications of Lightning & UMA

Withdrawals on lightning

1. End customer submits a withdrawal request through their Platform's application.

2. Platform passes end customer instruction via an API call to Zero Hash that includes the Lightning Network destination.

3. Zero Hash processes the withdrawal from the end customer's BTC balance and initiates the send across the Lightning Network.

4. The destination wallet receives the value upon accepting the Invoice.
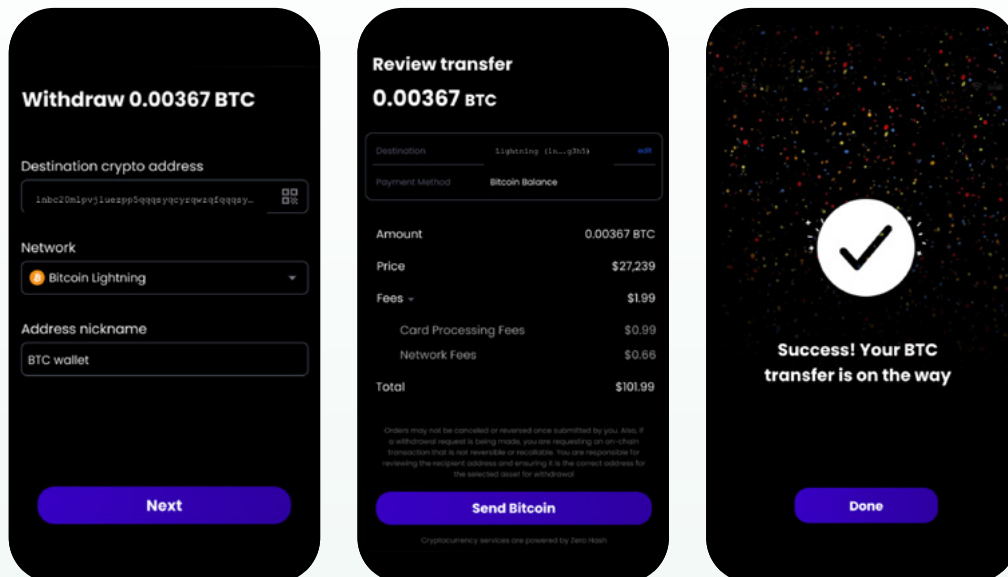
Receive money with UMA

1. Platform customer ("Jane") creates a Universal Money Address (e.g. $jane@uma.me) through Zero Hash and shares the UMA with a friend.

2. Jane's friend in Brazil goes into their banking app and elects to send Jane money using her UMA.

3. Brazilian Reals are locally converted to BTC and the BTC is deposited to Zero Hash via the Lightning Network.

4. Zero Hash converts the BTC to USD.

5. Zero Hash initiates the USD withdrawal over a real-time payment network to Jane's bank account.
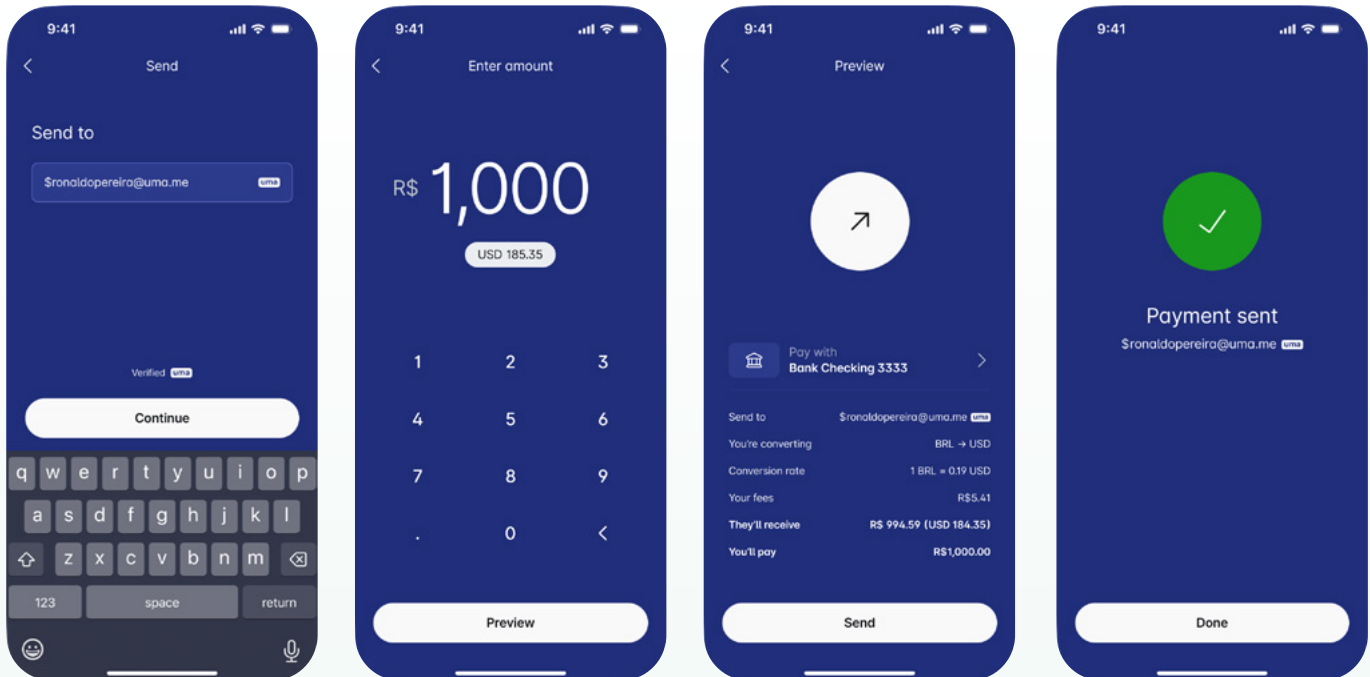
Send and receive funds at lightning speed, efficiently and reliably

The complete payments infrastructure to seamlessly embed Lightning & UMA payments into your platform

Cross-border payments

Streamline global payment costs and unlock capital by moving money in real-time that settles instantly across borders.

Peer-to-peer transfers

Send money to family and friends quickly and cheaply.

Creator and gig economy

Stream payments as they are earned, with seamless micro-payments.

Payroll

Pay and get paid worldwide with ease, speed and at low-cost.

ZeroHash

API Docs

https://docs.zerohash.com/docs/

How to get started?

GET IN TOUCH

Zero Hash API endpoints are modular and suitable for any digital assets strategy.

Speak to us about your requirements; we'd love to hear from you.

📍 **327 N. Aberdeen St. Chicago, IL 60607 USA**

✉️ **contact@zerohash.com**   in **Zero Hash**

🐦 **@ZeroHashX**   ▶️ **ZeroHash_DigitalAssets**

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