# Title

## 1. Overview and Origin

\* What is the name of the company?

The Lightning Network "movement"

\* When was the company incorporated?

The Lightning Network was first proposed by Joseph Poon and Thaddeus Dryja in 2016 and has been under development since then.

https://www.investopedia.com/terms/l/lightning-network.asp#:~:text=The%20Lightning%20Network%20was%20first%20proposed%20by%20Joseph%20Poon%20and,slow%20transaction%20time%20and%20throughput.

\* Who are the founders of the company?

Joseph Poon and Thaddeus Dryja in 2016

\* How did the idea for the company (or project) come about?

Layer two idea, https://github.com/mit-dci/lit,

"If we go back even further, we will discover that the idea of off-chain scalability of Bitcoin was discussed as early as the time of Satoshi and Hal Finney. In fact, it would not be outlandish to say that Hal Finney was thinking of the future scalability issues and their possibly solutions as early as Nov 2008."

https://voltage.cloud/blog/bitcoin-education/who-invented-the-lightning-network/

https://lightning.network/lightning-network-paper.pdf

\* How is the company funded? How much funding have they received?

$0 Will revisit this question at the end.

## 3. Business Activities

\* What specific financial problem is the company or project trying to solve?

Bitcoin scalibility

Use Cases:

In addition to helping bitcoin scale, there are many uses for transactions on

the Lightning Network:

Instant Transactions. Using Lightning, Bitcoin transactions are now

nearly instant with any party. It is possible to pay for a cup of coffee

with direct non-revocable payment in milliseconds to seconds.

Micropayments. Bitcoin blockchain fees are far too high to accept

micropayments, especially with the smallest of values. With this system, near-instant micropayments using Bitcoin without a 3rd party

custodian would be possible. It would enable, for example, paying

per-megabyte for internet service or per-article to read a newspaper.

Financial Smart Contracts and Escrow. Financial contracts are especially time-sensitive and have higher demands on blockchain computation. By moving the overwhelming majority of trustless transactions

off-chain, it is possible to have highly complex transaction contract

terms without ever hitting the blockchain.

the blockchain as a payment platform, by itself, cannot cover the world’s

commerce anytime in the near future." https://lightning.network/lightning-network-paper.pdf

\* Who is the company's intended customer? Is there any information about the market size of this set of customers?

All eletronic payment users. Compared to Visa in essay so you can take amount of Visa customers as a minimum.

\* What solution does this company offer that their competitors do not or cannot offer? (What is the unfair advantage they utilize?)

They were first and have the advantage of the community of nodes. they are also decentralized. Unfair advatage in technology is not there because of public code. their decentralization improves trust and grows the community.

\* Which technologies are they currently using, and how are they implementing them? (This may take a little bit of sleuthing–– you may want to search the company’s engineering blog or use sites like StackShare to find this information.)

talk about blockchain, nodes, and github, https://lightning.readthedocs.io/lightningd.8.html daemons

Hashed Timelock Contract (HTLC) : An HTLC is also a channel contract with one’s counterparty which is

enforcible via the blockchain.

In order to achieve this, an HTLC must be able to create certain

transactions which are only valid after a certain date, using nLockTime, as

well as information disclosure to one’s channel counterparty

## 2. Landscape

\* What domain of the financial industry is the company in?

blockchain, payments, bitcoin layer 2's, bitcoin vs Crypto.

\* What have been the major trends and innovations of this domain over the last 5–10 years?

literally blockchain has been created / popularized by bitcoin in the last 12 years, 5-10 years major FUD after a move towards technology without a sound understanding of what makes the technology special. move towards self custody, dectralization,

\* What are the other major companies in this domain?

major financial payment players for crypto: coinbase commerce, ETH, crypto.com

Major Bitcoin layer 2's for payments none

Major bitcoin layer 2's: sphinx, Stacks

## 4. Results

\* What has been the business impact of this company so far?

allowed retail globaly to accept bitcoin, cashAPP

\* What are some of the core metrics that companies in this domain use to measure success? How is your company performing, based on these metrics?

Secure, Scalable, and decentralized

adoption, Social Media Presense, value added to society because no one gets paid for their work.

\* How is your company performing relative to competitors in the same domain?

dominating the layer 2 bitcoin payments, for crypto payments need to reseach and for bitcoin layer 2's acting as

## 5. Recommendations

\* If you were to advise the company, what products or services would you suggest they offer? (This could be something that a competitor offers, or use your imagination!)

Better Lightning wallets and daemons to let people set their own security.

Legislative focus, Technology is only good until its banned.

FUD CONTROL : "FUD

fear, uncertainty and doubt, usually evoked intentionally in order to put a competitor at a disadvantage.

"the FUD factor"

\* Why do you think that offering this product or service would benefit the company?

No real online presence or trusted community of any wallet like trezor or ledger wallet.

there is a great risk in the future with the clash of currencies

\* What technologies would this additional product or service utilize?

https://99bitcoins.com/bitcoin/lightning-network/wallets/ all wallets here have users claiming its success or problems. this needs to be simplified and promoted. needs to be youtube.

lobbying

This would need to be done through Social media

https://www.businessinsider.com/meet-the-top-10-technology-lobbyists-on-capitol-hill-2011-12

Google AI personalised Ads

\* Why are these technologies appropriate for your solution?

for people to pay they need a wallet they trust, that everyone trusts. like bitcoin lightning network wallets have to be bigger. have to avoid centraliztion like exchanges.

they need to lobby so it doesnt get banned!

6. Requirements

Company Information and Business Activities (25 points)

To receive all points, you must:

Select a company in the fintech domain to research. (5 points)

Provide a detailed description of the company's domain, audience, solution and business metrics. (10 points)

Present company information in a clear and well-organized manner. (10 points)

Fintech Domain Trends (20 points)

To receive all points, you must:

Communicate a thorough synopsis of trends and landmarks in the chosen fintech domain. (10 points)

Identify several major competitors. (10 points)

Research Depth (15 points)

To receive all points, you must:

Use multiple sources to present a thorough and cohesive view of the company's domain, history and results. (5 points)

Use specific quotes from sources and reference them clearly and accurately. (10 points)

Recommendations (20 points)

To receive all points, you must:

Thoroughly explain company recommendations. (10 points)

Base company recommendations in solid research. (10 points)

Report Presentation (20 points)

To receive all points, you must:

Present the report in a README.md file in a GitHub repository. (10 points)

Showcase your expertise and build credibility. (10 points)

Submission

Create a repository for this Challenge on GitHub.

Upload the README file containing your case study report to this repository.

Submit the link to your GitHub repository to Bootcamp Spot.

<https://www.crunchbase.com/organization/lightning-network/technology>

<https://lightning.network/>

<https://www.google.com/search?q=what+does+fud+mean&rlz=1C1VDKB_enUS941US941&oq=what+does+FUD+mean&aqs=chrome.0.0i512l10.3276j1j7&sourceid=chrome&ie=UTF-8>

<https://www.google.com/search?q=what+does+fud+mean&rlz=1C1VDKB_enUS941US941&oq=what+does+FUD+mean&aqs=chrome.0.0i512l10.3276j1j7&sourceid=chrome&ie=UTF-8>

<https://lightning.network/lightning-network-paper.pdf>

<https://www.investopedia.com/terms/h/hashed-timelock-contract.asp#:~:text=A%20hashed%20timelock%20contract%20(HTLC)%20is%20a%20type%20of%20smart,a%20cryptographic%20passphrase%20for%20unlocking>.

<https://99bitcoins.com/bitcoin/lightning-network/wallets/>

<https://github.com/muun>

<https://github.com/lightningnetwork/lnd>

<https://github.com/bitcoin/bitcoin>

<https://bitkan.com/learn/what-is-lightning-network-what-are-pros-and-cons-of-lighting-network-6445>

“Opening a channel is conceptually simple, but all these additional payments make the process more expensive than many potential users fear. However, one of the biggest problems with the Lightning Network is offline transaction fraud. If a participant in a payment channel closes it while the other party is offline, the former can steal money. When the latter party is finally online, it's too late to do anything.”