Lightning Network Case Study

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Preface

The instructions for this assignment were to write a case study on a company, I wrote a case study on the lightning network which is not a standard company, they do not have any PnL or employees. So, what is a company and what do companies want to be? A company “is a [legal entity](https://en.wikipedia.org/wiki/Legal_personality) representing an association of people, … Company members share a common purpose and unite to achieve specific, declared goals.”(1) The beauty of the Lightning Network is that they are an association of people working for specific declared goals, yet they are doing it without a centralized employer. It is very much like a movement, which all companies should strive to be. (2) Therefore, this case study fulfills the Module 1 Challenge requirements.

Notes of change:

* Intended customers = intended Users.
* Funding was received to one source.
* Core metrics are not measured in dollars or money
* Recommendations are specific to perceived weaknesses not to the general network.
* The landscape is introduced before the business activities.

Introduction

It is Sunday morning November 1, 2024. You are working in the family coffee shop and sales are going well but you don’t know how you are really making. Your mind is on the election in 4 days and how it will affect the current economy. For the last 2 years inflation decreased your real income and real savings by 33%. Joe Biden is campaigning saying the federal reserve will fix inflation soon and that it is going well. His opponent Donald trump is toting DTC “Donald Trump coin, special with free NFT upon registration”. Which way is the economy going to go and will the USA ever switch to crypto money?

Either way you decide to take matters into your own hands and do your research on Bitcoin and all the crypto out there. You decide for simplicity’s sake that it would be a good idea to accept bitcoin at your coffee shop. The problem is that Bitcoin Fee’s are extremely high relative to a small coffee as well it takes 10 minutes for the transaction to be approved. How do you accept bitcoin as payment without losing a large percentage to on chain fees and how do you approve payment quickly?

Overview and Origin

The answer is the Lightning Network. The Lightning network at its simplest solves these two issues. It creates payments that have almost 0 fee’s and almost 0 transaction time. The Lightning network is a layer 2 for bitcoin. The people and teams behind the creation and advancement of this Technology are still working today. The Lightning network was first proposed by Joseph poon and Thaddeus Dryja in 2016.(3) In the introduction of the LN(Lightning Network) in their whitepaper they noted that “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….as early as Nov 2008”(4) This Idea and its development were documented quite heavily on its GitHub. (5) The funding for LN was rarely received in dollars or money at all. It seems that the initial and continuing developers posted Bitcoin wallet addresses and accepted donations. Other than that, it can be said that the LN is rewarded by fixing the bitcoin payment issue for themselves. An example would be the coffee shop owner who wants to receive bitcoin, he is incentivized to adopt, develop, and donate to the LN.

Landscape

As the LN is a payment solution and layer 2 crypto it can be compared in two financial industries. As a payment solution, when compared to Visa or American Express it does not compare in its capabilities or capacity. (yet) However the LN is a decentralized group where there is no CEO or centralized server that could endanger the stability of the network. As a simple payment solution, it can view as an obscure option that is not fully developed.

The LN can also be looked at in the eyes of a bitcoin layer 2. In this context it stands KING!

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3. (2022, July 30). Lightning Network Explained: What It Is and How It Works. Investopedia. <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>.
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5. (n.d.). Lightningnetwork / lnd. Github.com. https://github.com/lightningnetwork/lnd