

# Accelerator: A Distributed Firewall

[www.Accelerator.network](http://www.Accelerator.network)

**Abstract.** A purely peer-to-peer version of an online bank would simply allow value storage while providing some sort of return as a benefit. A proof of stake cryptocurrency provides part of this solution; however the main benefits are lost when hyperinflation leads to a crash in value. We propose a solution to the hyperinflation problem using a firewall registration fee to reduce the token supply.

## 1. Introduction

The Bitcoin Network supports an average of 5 transactions per second while Visa currently handles on average 1700 transactions per second, respectively. The Bitcoin Lightning Network's goal is to build a reliable layer 2 network on top of Bitcoin to increase transaction throughput capabilities without sacrificing any amount of decentralization on the main blockchain. The downside of speeding up Bitcoin comes at a cost, centralized nodes who advertise their public IP addresses will become points of attack.

What is needed is a decentralized firewall system specifically designed for the Bitcoin Lightning Network. Allowing Bitcoin Lightning node operators to protect their network without the need of a trusted third party. In this paper we propose a solution to the hyperinflation problem using a whitelist registration fee to control a dynamic monetary supply.

## 2. Token Burning

We define an electronic bank as a cryptocurrency with a built in inflation system. Users hold tokens in their own personal wallet and periodically call a staking function to see more tokens added to their account at a set rate based on how long and how many tokens they hold.

The issue with this store of value is that it is constantly inflating with virtually zero interaction with the physical world and eventually hyperinflation will lead to a crash in value. We need a way to remove some of the newly minted tokens from the monetary supply so that the rate of inflation is controlled and does not lead to a hyperinflation scenario. The only way to completely remove tokens from the monetary supply is to burn them.

### **3. Registration**

In order to facilitate the burning of the Accelerator tokens there must be an incentive for token holders to give up their stored value. This can be facilitated in the form of an exchange. The input to the exchange will be a firewall registration fee. The operator's domain and subdomain that links to their lightning node will then be recorded on the Ethereum blockchain.

The registration fee will be a one time expense per node to help protect the Lightning Network from attack. Carrying out attacks on the network will become prohibitively expensive as registration fees will increase exponentially for large blocks of IP's.

### **4. Conclusion**

We have proposed a system that allows value storage and provides a return as a benefit. We have started with a cryptocurrency with a built in inflation system and have controlled its monetary supply to avoid a crash in value. We have proposed a distributed firewall system to make attacks against Bitcoin Lightning nodes prohibitively expensive.