

# Lantah

*A look into demonetizing global trade.*

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# TABLE OF CONTENTS

|                            |    |
|----------------------------|----|
| - FOREWORD                 | 3  |
| - EVOLUTION OF COMMERCE    | 4  |
| - currency                 |    |
| - blockchain               |    |
| - EXISTING TRADE PLATFORMS | 5  |
| - fees                     |    |
| - moving money             |    |
| - MEET LANTAH              | 6  |
| - market                   |    |
| - settlement               |    |
| - profit                   |    |
| - CONSENSUS                | 7  |
| - first blockchain         |    |
| - ripple                   |    |
| - STANDARD LEDGER          | 8  |
| - transactions             |    |
| - universal ledger         |    |
| - BORDERLESS MARKETPLACE   | 9  |
| - platform for all         |    |
| - supply chain management  |    |
| - off-chain integration    |    |
| - CONCLUSION               | 10 |
| - REFERENCES               | 11 |

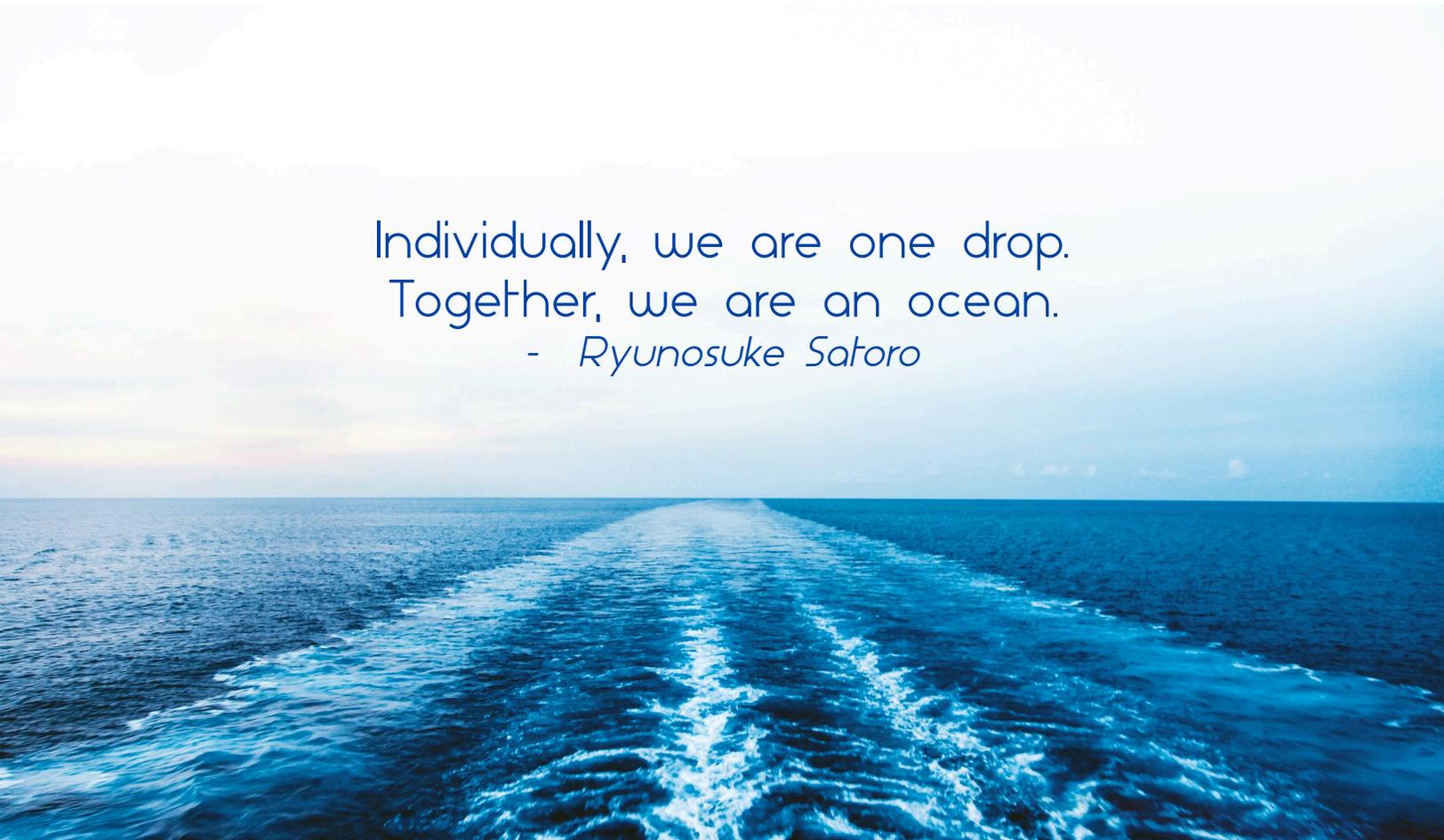


# FOREWORD

Demonetization is the force which drives prices on a trend towards zero cost. 20 years ago, if you wanted a video camera, you had to buy a camcorder. If you wanted to watch TV, you had to buy a television. Write documents? Desktop computer. Today, even the most basic smartphone can do what would have then cost millions dollars.

In just two decades, internet prices per megabit have dropped over 99.99%. Solar cells have dropped from \$30/watt in 1980 to below 20¢/watt. It's time for the cost of trade to demonetize as well.

In this updated whitepaper, Lantah repackages it's novel concept of integrating a low-cost settlement protocol and universal payment system with a marketplace operating oracle-driven smart contracts, all on an open-source and decentralized network.



Individually, we are one drop.  
Together, we are an ocean.  
- *Ryunosuke Satoro*

# Evolution of Commerce

Commerce has been a part of the human experience since the dawn of civilization, exchanging goods and services with others. Over thousands of years, commerce has evolved from this simple exchange to the complex trading that occurs online every day.

## Currency

The use of barter-like methods may date back to at least 100,000 years ago. Commodity-money originated around 5,000 years ago in Mesopotamia with the Shekel, a unit of weight, and relied on the mass of approximately 160 grains of barley. Societies in the Americas, Asia, Africa and Australia used particular sea shells as money. Commodity-money has intrinsic value in the money itself. For example, a gold coin is worth its weight in gold.

Over time money evolved into representative money, or paper notes which represented value. For example, a paper note or receipt which can be redeemed for physical gold. In 1971 the U.S. government suspended the convertibility of the U.S. dollar to gold and much of the world switched from representative money to what is called fiat currency. This form of money is backed only by the governments' fiat of legal tender, the ability to convert the money into goods via payment, and demand created via taxes. It is dependent on trust in the issuing government.

## Blockchain

A new technology emerged which is yet again changing how civilizations use money. The blockchain gave rise to a new era of cryptocurrency, digital tokens representing value. Unlike email or paper money which can be copied or printed endlessly at will, cryptocurrencies cannot be counterfeited. A total supply can also be set, preventing the minting any new coins, much like the impossibility of printing more gold.

Cryptocurrencies eliminate the need for middle-men like banks to facilitate a transaction, which charge significant fees and often take days to clear. With blockchain technology, a person on one side of the globe can securely and instantly send money directly to someone on the other just as easily as they can send a text message.



# Existing Trade Platforms

While brick and mortar stores have been around for thousands of years, the rise of eCommerce has shifted most trade onto digital platforms. These platforms range in size and function from small online retail stores, to giants such as Amazon, eBay, Alibaba, and trading on exchanges like eTrade, Robinhood, or Coinbase.

## Fees

The fundamental core of these platforms is a for-profit corporation which charges a referral fee for use, typically in the range of 5-20%. Exchanges offering commission-free trading often charge maximum price and collect on savings elsewhere that are not passed onto the customer. This revenue is then collected and either reinvested in the platform or distributed among shareholders.

The concept of shareholders, or stock, is not new. Unfortunately, it conjures a conflict of interest with the platform's users. The shareholders desire to maximize value extraction and the users desire to minimize costs. This conflict often drives a general lack of trust by users in the corporation. Lantah has an interesting solution to this problem, presented later in this whitepaper.

## Moving Money

Behind the user interface is a settlement layer, a means of value exchange between the buyers and sellers. This is done using one or more intermediaries, such as a merchant service. Much like the sales platform, these intermediaries also charge a fee to generate profit. Transactions and balances are controlled by a central authority and can often take 1-5 days to settle with fees usually ranging from 1.5% to 3%.

These two costs alone can account for a substantial price-disconnect of 6.5% to 23% between the buyer and seller. This loss to both parties can be a significant impediment to growth, the consequences of which are magnified in small businesses or lower-income individuals. Lantah aims to demonetize these platforms; lowering costs by eliminating the need for shareholders, removing barriers to entry, and minimizing transaction fees.

# Meet Lantah

Lantah is demonetizing commerce by building a decentralized marketplace with an independent settlement layer, driving costs for users towards zero.

## Marketplace

The Borderless Marketplace is the first blockchain-based global commerce platform, connecting buyers and sellers with instant and inexpensive transactions on real goods and services. Lantah will provide a rich ecosystem including online storefronts, secure contracts and eventually, full supply-chain logistics.

## Settlement

At the foundation of the marketplace is Lantah's settlement layer which operates on a coin named Gram. In addition to powering the marketplace, it is a standalone currency that also works as a temporary common-ground between other currencies; a universal translator of value. Marketplace participants will easily work in the currency or asset of their choice, including the native Gram. A buyer could pay with Euros for example, and the seller receive Bitcoin, with no manual steps in-between.

This combination of services puts Lantah in a unique position to bring blockchain to global commerce and it's coin Gram to be a universally-accepted currency.

## Profit

Lantah is different than a regular company and does not pay dividends to shareholders. Because of this, our focus is and always will be entirely on our users.

A typical company has two fundamental "modes" and can operate along a spectrum between them. The first is focused on growth, where all or most profit is reinvested into the company. The second is payout, where profits are paid to shareholders of stock. A payout ratio range approximately 50% is considered healthy from a dividend investor's point of view.

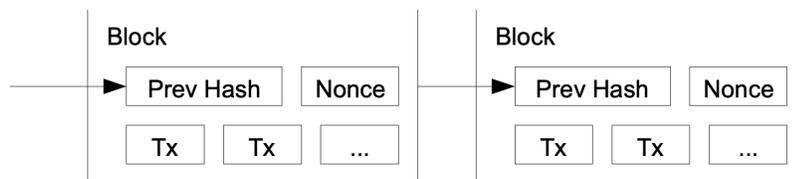
Without the need to pay dividends, Lantah focus on long-term success without any pressure from near-sighted shareholders. What would be paid as dividends is rather reinvested into the platform or passed as savings to customers.

# Consensus

All blockchains must have some consensus algorithm which is byzantine fault tolerant to maintain reliable records of transactions in a transparent, tamper-proof way. This prevents bad actors from double-spending or otherwise gaming the system.

## First Blockchain

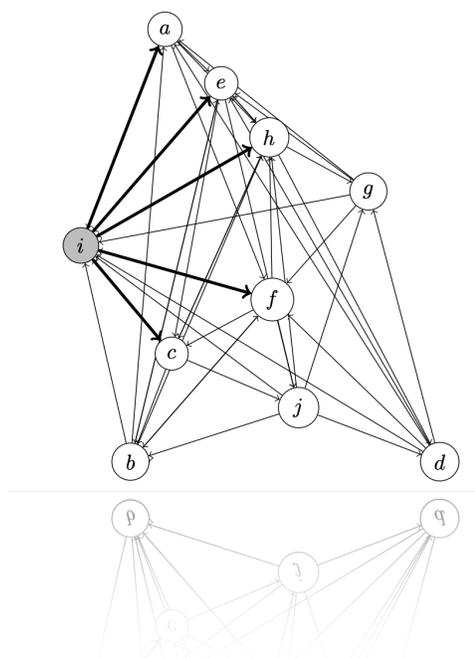
Invented in 2008, Bitcoin became the first implementation of blockchain technology. Outlined in the whitepaper by Satoshi Nakamoto<sup>[1]</sup>, Bitcoin uses proof of work (PoW) as a “one-CPU-one-vote” system to achieve block progression. If a majority of CPU power is controlled by honest nodes, the honest chain will grow the fastest and outpace any competing chains.



## Ripple

Created by Ripple Labs Inc. and released in 2012, Ripple is a real-time gross settlement system, currency exchange, and remittance network built upon a distributed open source protocol called the XRP Ledger Consensus Protocol.<sup>[2][3]</sup>

Validators agree to process transactions and every validator participates in every round. A supermajority of nodes have to agree on transactions through voting to achieve consensus. Each validator is free to choose their own Unique Node List or UNL, which is the set of nodes who it will listen to when making decisions about the network state. Validators are not miners and do not earn transaction fees or rewards.



# Standard Ledger

While Ripple and Lantah are fundamentally not the same, this consensus protocol fits Lantah's current requirements to build the Standard Ledger system; open source code, extremely fast settlement, minimal transaction fees, and highly scalable tx/s.

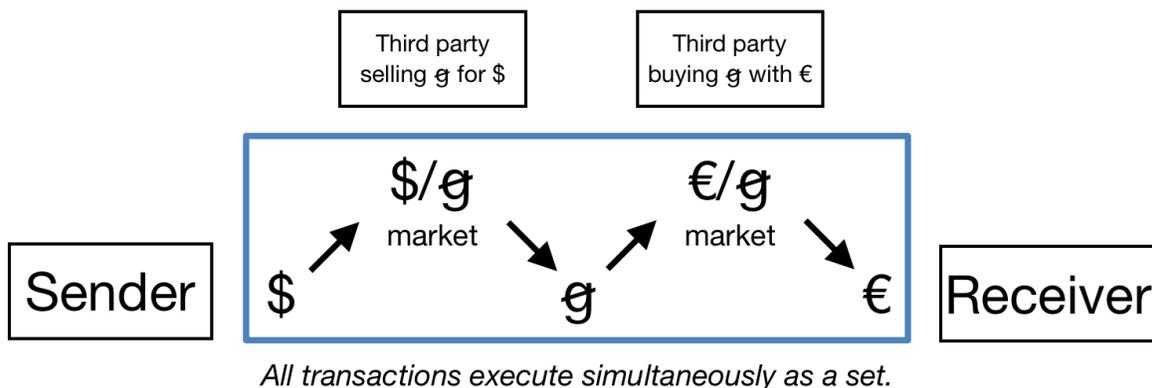
Much like Stellar, Lantah aims to kickstart off of Ripple's open source protocol and develop over time into a unique, new protocol designed for our particular needs and philosophy.

## Transactions

Using the Universal Ledger is nearly free, only a minimal anti-spam fee to prevent DDoS. Without the need to compete for resources, validators on the Standard Ledger can focus entirely on validating transactions and achieving consensus. This highly efficient and scalable mechanism allows validators to complete tens of thousands of transactions and verify the next ledger in just seconds.

## Universal Payment Portal

Participants can seamlessly exchange payment no matter the preferred currency of the sender or receiver. Within the Standard Ledger is the Universal Payment Portal, where Grams act as a highly liquid common-ground unit to instantly exchange with fiat, crypto, or any other tokenized asset. As long as both the sender's and receiver's preferred currency or asset is traded on the Borderless Marketplace, they can exchange payments.



# Borderless Marketplace

## Platform For All

Blockchain startups and the rising cryptocurrency market are proof of the fast-growing interest in this technology. However, real-world adoption and use are currently very limited. The result is a booming currency industry with nowhere to spend it. Lantah aims to solve this by providing a simple means to exchange cryptocurrency for goods and services.

With the Standard Ledger's inexpensive settlement layer and universal payments, the Borderless Marketplace comes full circle allowing people to interact and transact on a global, permission-less, and self-executing platform. Individuals can search retail listings, businesses can purchase wholesale, and traders can exchange fiat, cryptocurrencies, and other tokenized assets.

## Supply Chain Management

Lantah will be able to record a global, trackable, and sharable record of every transaction associated with a particular asset, even before it reaches the Borderless Marketplace. This will allow businesses to reduce fraud and errors, increase supplier trust, minimize delays, and identify issues faster. Smart contracts will ensure that money does not change hands until the proper execution of a transaction is fulfilled.

Cryptographic signatures will “rubber stamp” the journey a product has made on its way to the consumer: from the earth as raw materials, through harvesting, manufacturing, packaging, and shipping, all the way until it reaches its destination a consumer outlet or your front door.

## Off-Chain Integration

Blockchain is deterministic, which poses a problem when real-world data needs to be input into a smart contract. Even a fraction of a second could result in varied data pulled from an API, such as a market price or current weather. Certain policies must also be met within the marketplace to remove bad actors or illegal activity.

An oracle is agent that finds and verifies real-world occurrences and submits this information to a blockchain to be used by smart contracts. A decentralized oracle<sup>[4]</sup> is a collection of individual oracles coming to a consensus on a truth that will be used as the single input for a particular smart contract to be validated on the Standard Ledger. With this, Lantah's Borderless Marketplace can both integrate real-world data for smart contracts and comply with regulations, both critical in achieving global adoption.

# Conclusion

The goal of demonetization is to drive prices towards zero, eliminating or reducing costs wherever possible and passing those savings onto the users.

Lantah achieves this through rapid universal payment settlement at a negligible fee and minimizing marketplace platform costs.

While there is still a long road ahead, Lantah will open up a pandora's box of opportunity to anyone who conducts commerce online, from streamlining enterprise systems to removing barriers to entry, giving opportunity to all who are under-served.



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