



## **ReceiptCoin**

v0.3.2

ReceiptCoin.io

Nick Juntilla

Joseph P. Schmitt

Phillip Braham

### Abstract

#### *The Problem*

In order to accurately track tangible goods across discrete systems, multiple data formats stored in multiple locations is required; by nature, tracking goods and inventory is cumbersome, and often leads to data loss. Whether it is a television, a carton of eggs, or an airplane engine, there is no universal and trusted record of when a product exchanges ownership or custody. Because of this, each time a product changes possession, there is an extremely high likelihood that information and data references will be mislabeled, misread (because of incompatible systems) or just simply lost. In order to guard against this miscommunication or loss of information and data pertaining to commercial products and inventory, cumbersome, time consuming manual processes are used (ex. recreating photos, names, and digital documents for each discrete system that a product enters). The inefficiency in tracking goods and inventories, and the resulting loss of information and data is the problem ReceiptCoin solves.

#### *The Solution*

ReceiptCoin is creating a standard format for commercial product information and data, and a service to insert that information and data onto a public blockchain. Product information and data will only be updated by the current owner of the product and data. Essentially, ReceiptCoin will serve as a universal supply chain notary and data silo for each individual product. Businesses and customers can use this data to identify, inventory, and re-market products.

## Advantages of the ReceiptCoin Blockchain Product Identification System:

- As systems build, track, purchase, and ship products, ReceiptCoin will provide an immutable copy of this information which can be used for tracking and reference any time for any purpose
- An easy to use mobile interface will provide a low barrier of entry for consumers to use blockchain solutions to inventory and track their personal items
- A state channel will allow the movement of ReceiptCoin tokens without fees within the ReceiptCoin ecosystem
- As Enterprise Resource Planning (ERP) systems generate financial transactions, ReceiptCoin will facilitate transparency into and reliability of these transactions
- Because ReceiptCoin will integrate with ERP systems, Warehouse Management Systems (WMS), and Manufacturing Execution Systems (MES), ReceiptCoin will reduce disputes over invoices, shipments, returns, and purchases
- ReceiptCoin will bring transparency to the origin, movement, and possession of goods
- Eliminate the uneven distribution of information amongst parties within a supply chain
- Allows end buyers to economically authenticate the products they purchase
- Creates a common technical environment, security and exchange protocol that is superior to centralized systems, which actually hinder data sharing
- Uses a decentralized model for managing supply chain data and encourages producers to provide complete information

<b>Abstract</b>	<b>1</b>
The Solution	1
<b>Products and Services</b>	<b>3</b>
Blockchain Market App	3
The API Service	4
Pricing Strategy for B2B	4
<b>Core Technology</b>	<b>4</b>
The ReceiptCoin Smart Contract	4
External Smart Contract References	5
Roadmap	6
<b>Token Sale</b>	<b>6</b>
<b>Market Analytics</b>	<b>7</b>
Potential Customers, Partners or Acquirers	7

## Products and Services

### *Blockchain Market App*

The primary consumer application is the Blockchain Market App where ReceiptCoin can be traded for non-fungible files that have intrinsic value or are representative of objects in the physical world. Blockchain files can be created from photos or other seed data. These files can be bought, sold, traded, loaned, or auctioned for other files, ReceiptCoin, or other digital assets. We will make use of a state-channel allowing ReceiptCoin token transfers to be without fees. This app serves these primary purposes:

- A consumer-facing user interface for creating blockchain files
- A digital marketplace for exchanging ownership of blockchain files
- A notarized record system for data about non-fungible assets
- A display for logistics and meta-data recorded about objects using the blockchain standards for non-fungible assets
- A cryptocurrency wallet with the novel ability of holding non-fungible assets

For both B2C and B2B applications, ReceiptCoin will sell the service of adding items to the blockchain. For B2C use, management and search of the data will be free. For B2B use, ReceiptCoin will sell the service of implementation, training, support, quantity based bundles.

### *The API Service*

The ReceiptCoin service makes use of a standard receipt contract to create an API(Application Program Interface) for software to input and retrieve data from the blockchain. Requests are made through a JSON API to the ReceiptCoin client-facing server network to add or read blockchain data. These requests are queued onto blockchain full nodes, and executed using the *geth* command tool. Request success messages will be relayed with HTTP hooks to notify clients of their success status.

Each object or product is to be represented by a smart contract. Each product will have an owner address. Only the owner or an entity with the private keys of the owner can edit or change properties of the smart contract. The owner is represented by wallet address and optional identifying name.

In order to use the service, customers must create an account on the ReceiptCoin customer portal. API use requires a valid JSON token and sufficient funds for transaction fees. Fees can be deposited directly onto the portal using USD, Bitcoin, ReceiptCoin, or other forms of cryptocurrency.

### *Pricing Strategy for B2B*

The API service may be purchased in plans for example for \$5 per 100 objects. B2B customers may purchase a bulk quantity of items at \$5,000 per 500,000 items. An integration service involving an implementation custom tailoring software and workflow for a business may vary from \$20,000 to \$1,000,000 depending on business size and type. A B2B subscription service may have a have a base level price or all-inclusive fee.

## Core Technology

### *The ReceiptCoin Smart Contract*

Creation of the REC10

The REC10 is the representation of goods just as the REC20 is the representation of currency.

- Standard set of function calls like *getOwner*, *setOwner*, *getLocation*, *setLocation*
- Flexibility to be used for general goods
- Attributes that can reference private or public databases for further information
- Groundwork for other standards i.e. financial goods, documents, REC20, REC30

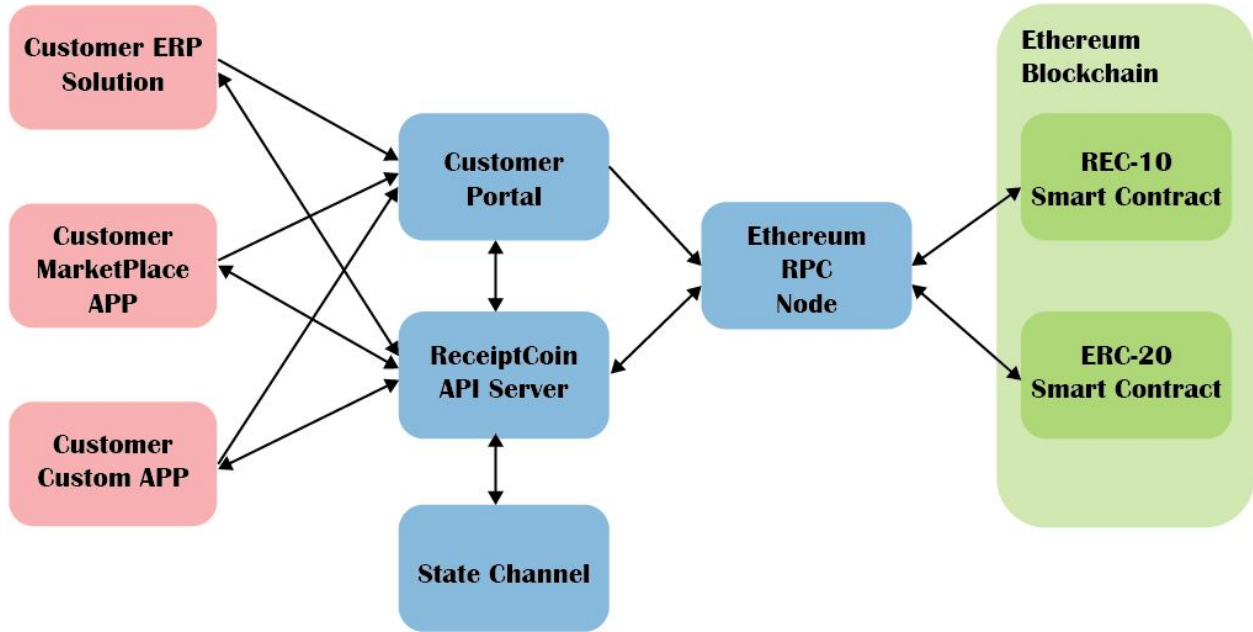


Fig-1: ReceiptCoin Blockchain Product Identification System Illustration

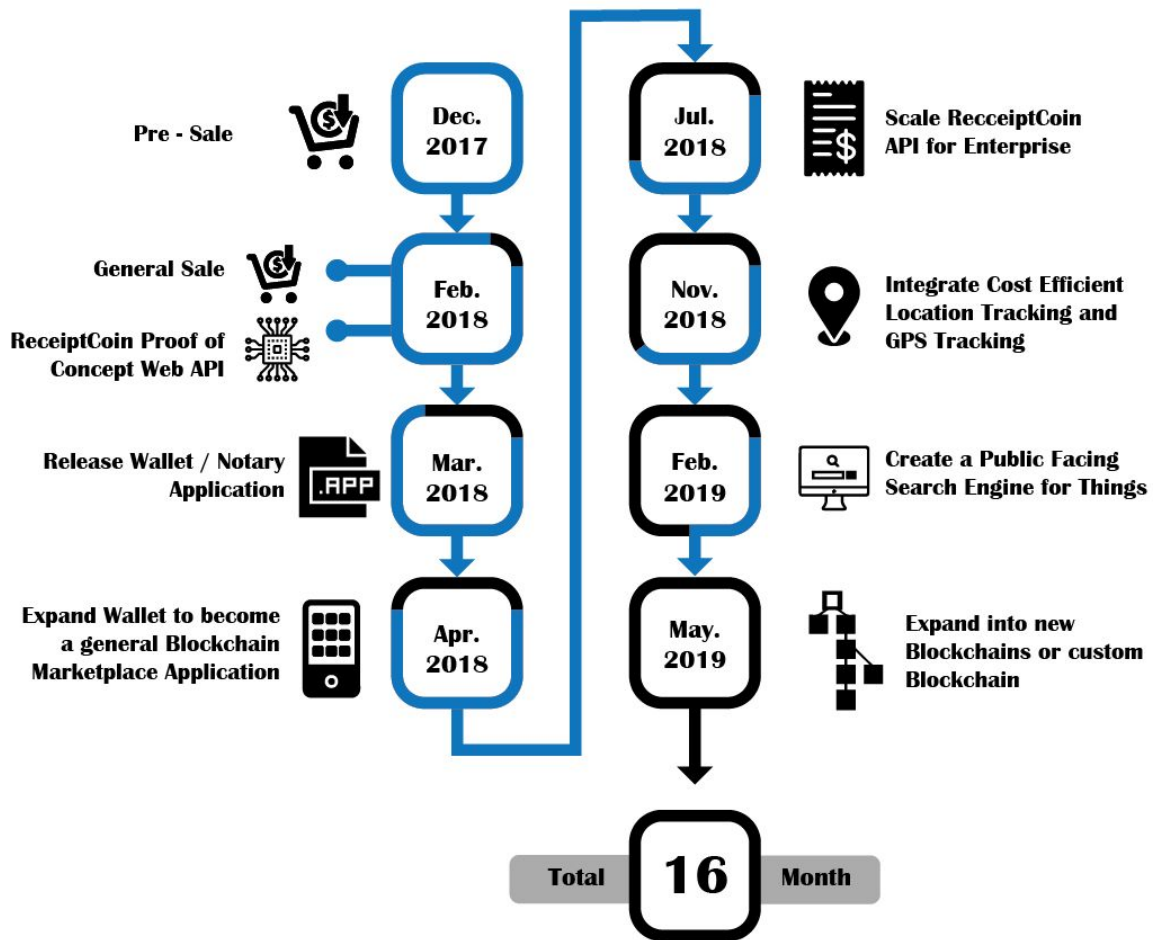
### *External Smart Contract References*

Optional APIs and data sources will be contacted in order to increase the value of the smart contracts. The server will use a mathematically unique fingerprint, based on blockchain SHA-256 hashing; and referenced on the blockchain to verify large documents without storing them directly.

All tracking APIs offered by vendors such as Tile, TrackR, Crystal Cube will be integrated to allow ease of entry and tracking for clients. Enterprise inventories will be made public so users can find individual items across stores like Best Buy, Target, and Walmart. Shipping companies can also integrate with the system so that a customer may track an item through any shipping vendor. The key point being that the file persists while write access to the file changes over time.

### *Roadmap*

- Expand Website - Current
- Proof of Concept - 1 Month
- Recruiting - 1 Month
- Token Distribution - 2 Months
- Marketplace App - 3 Months
- API Service - 5 Months
- Begin B2B Customer Acquisition - 5 Months



## Token Sale

Tokens will be sold for the use of pre-purchasing an explicit service. ReceiptCoin tokens are not a security or right to ownership of the ReceiptCoin company. ReceiptCoin tokens are not intended to be used for direct financial gain.

The initial price of ReceiptCoin tokens is \$0.10 which is representative of the cost of inputting data onto the blockchain. These tokens will be exchanged for the service of creation of blockchain files. Alternatively they may be traded for or alongside files in the Blockchain Market application.

Example: 1 Token = 10 Objects Created Manually

## Market Analytics

### Potential Customers, Partners or Acquirers

Craigslist: Estimated revenue \$694 Million (2016); offers secondary sales market. Currently lacks ERP integration, documentation, tracking, and blockchain integration.

ebay: Revenue \$8.97 Billion (2016); offers secondary sales market. Currently lacks ERP integration, documentation, tracking, and blockchain integration.

LetGo: \$119 Million Funding; offers secondary sales market. Currently lacks ERP integration, documentation, tracking, and blockchain integration.

OfferUp: \$100 Million Funding; offers secondary sales market. Currently lacks ERP integration, documentation, tracking, and blockchain integration.

SAP HANA: Market Cap of \$119.7 Billion; offers Private ERP with no public shared ERP or tracking solution.

Oracle: \$878 Million 2017 Q1; offers Private ERP with no public shared ERP or tracking solution.