

# Portami Delivery

## Introduction

The emergence of smart contracts and blockchain technology has paved the way for innovative solutions across various industries, and the delivery sector is ripe for disruption. In this document, we explore the potential of leveraging blockchain for a trustless peer-to-peer (P2P) delivery platform that will reduce inefficiencies in the market, improve transparency, and cut out the high fees for the consumer, and the low wages for the driver. Through the implementation of smart contracts, decentralized ledger systems, and robust security measures, our platform aims to revolutionize the way goods are delivered from sender to recipient. This whitepaper provides an overview of Portami Delivery and Portami Coin, their technical implementations, economic model, legal considerations, and market analysis. Additionally, it outlines a roadmap for the platform's development and highlights its potential impact on the future of delivery services.

## The Problems and Their Solution

### The Coupling Order and Delivery Problem

With the advent of online ordering, there have always been options. You can order a specific item from multiple stores, sometimes with vastly different prices. With the start of online ordering with delivery, the ability to shop around for the best price has gotten vastly more complicated. An item could be cheaper on one site, but the site might not offer delivery. In comparison, another site might offer a delivery option but provides the item at a much higher price. The coupling of ordering and delivery provides more leverage and benefits for the middleman doing the delivery, but less benefits for the consumer.

To combat this, Portami Delivery is first and foremost a delivery platform. Any user can place a pickup order for a specific item on Website A, and then subsequently make a request on Portami

Delivery for that item to be delivered. This allows the customer to shop around for the best prices across different websites, yet still have the convenience of delivery at a low price.

## The High Cost to the Customer Problem

One of the major problems with online ordering and delivery services is the high cost to the customer. The high costs come from a lot of different reasons that many for-profit companies need to consider. They are worried about their shareholders. They have high operating costs and fees that companies dealing with sending and receiving money face.

To address this issue, Portami Delivery is writing smart contracts with fixed low cost admin fees in place. These admin fees are in place to prevent abuse to the system, as well as provide the Portami Delivery team with an incentive to keep building innovative new features. Portami Delivery will use Portami Coin as a means of exchange for services rendered that will keep fees down, and allow greater control in the smart contracts.

## The Delivery Driver Low Pay Problem

While these online ordering and delivery services have high fees for the consumer, the delivery driver who is doing most of the work receives very little compensation in comparison. These companies also hold some power over the drivers which results in the drivers toeing the line of not having absolute freedom as a general contractor, but also not having the benefits of a full-time employee.

Portami Delivery doesn't set delivery fees. Instead Portami Delivery allows the customer to provide a fee they are willing to pay for delivery. This fee will be presented to the driver before the order is accepted which will allow the driver to decide to only choose the orders that match their preferred amount. Drivers will never be punished for not accepting an order, and no order will ever be forced upon them. Drivers will also receive 100% of the delivery fee as the drivers are the ones doing the delivery. Customers will also be able to add an additional tip to their delivery fee once the delivery is completed if they so choose.

## The Transparency Problem

Ordering from online delivery services has a complicated fee structure. One store might have fees that are \$5. Another store might have fees that are \$10. The consumer doesn't know what these fees are used for, and they don't know what percentage of these fees go to the driver. This can lead to confusion when it comes to tipping and otherwise ensure that the driver is fairly paid.

Being built on the blockchain and smart contracts, Portami Delivery is very transparent with the fees provided. The delivery fees will be labeled as such and will be completely sent to the driver, while the small admin fee will be labeled as such and will go to the Portami Delivery team. Any tips provided will be sent completely to the driver. Since all of this is built on smart contracts, it is easily accessible and verifiable to be true (unlike a traditional online delivery service that has a long history of stealing tips from their drivers).

## But Why Cryptocurrency, Blockchain and Smart Contracts?

So you might be thinking, why do we need blockchain, cryptocurrency and smart contracts for this? Why can't you create a P2P delivery service using fiat? There are a few reasons for this that I will highlight in this section.

### Cost Benefit of Cryptocurrency

It is not a secret that most cryptocurrencies are cheaper to transfer than fiat. Credit card transactions alone can cost 3%. After the money is transferred from the credit card, it would then need to be transferred into a holding account that will then eventually be dispersed to the account providing the service. After all of these fees, we will be lucky to be left with 95% of the original transaction. And this is before getting into administrative fees for managing the transfer of money. This complexity is compounded when you get into internationalization and handling payments for different currencies.

Using Portami Coin to facilitate the delivery transactions would result in less fees, as well as the ability for instant transfer to the driver once the delivery is completed. This reduces management costs on the side of Portami Delivery, but also provides a better experience for the drivers.

## Using Smart Contracts to Ensure Successful Delivery

Using Smart Contracts and Portami Coin allows Portami Delivery to have more control over the process. From the customer requesting a delivery to the driver accepting and completing the delivery, smart contracts can be updated every step of the way. Using Portami Coin to request the delivery service also allows Portami Delivery to require a stake before a delivery is requested by the customer or a delivery is accepted by the driver. Having this stake requirement ensures that the delivery driver will not steal the item that they are delivering, and also ensures that the delivery driver will do their best to please the customer. If the delivery isn't completed by the driver, the customer can report the delivery as incomplete which will result in the delivery driver losing their staked Portami Coins. The customer is not without penalty though for declaring an order was not delivered. While the customer's stake will be returned, it won't be returned for an extended period which should prevent the customer from incorrectly declaring an item as not delivered. As alluded to above, using Cryptocurrency will also allow Portami Delivery to reduce fees. This just wouldn't be possible or feasible using fiat.

## How Will Portami Delivery Work?

Portami Delivery consists of two user types. The delivery driver, and the delivery requestor. We will go over the functionality that each of these users will be able to act upon.

### Order Delivery Request to Order Delivery Complete

In this section we will go over what the process would be for a delivery request to go from request created to request completed.

1. Customer will create an order delivery request which requires the following information.
  - a. General customer info (Name, and Email address)
  - b. Pickup location of the item they purchased (Address, and Postal Code).
  - c. The drop off location of where they want the item delivered to (Address, and Postal Code).
  - d. The pickup time of when the item is available for pickup.

- e. An upload of a picture of the receipt.
  - f. The delivery assurance stake amount
  - g. The delivery amount they are willing to pay
2. Delivery drivers will then be able to search for delivery requests that are in the Pending Driver state.
3. Once the driver sees a delivery request that is in their preferences, they will then be able to accept the delivery and progress the request to the Driver Accepted status.
  - a. To accept the delivery, the Driver must have Portami Coins to stake. The number of Portami coins required will be determined by the delivery assurance stake amount inputted by the delivery requestor. This will prevent theft, and abuse by both the delivery driver, and the delivery requestor.
4. When the driver picks up the item from the store, they will then progress the request to the Driver Pickup status.
5. The end of the driver journey will be when the driver delivers the item to the drop off location listed above and will set the status to the Delivery Complete status.
6. Finally, the customer will be able to set the status of the delivery as Delivery Confirmed where the customer will also be able to provide an additional tip if they feel the delivery was deserving of it.
  - a. After the delivery is complete, the stake fees will be sent back to the delivery driver, and the delivery requestor respectively, and the delivery fee will be transferred to the delivery driver.

## Potential Challenges and Strategies to Mitigate Challenges

In a trustless Peer-to-Peer system, there isn't a manual dispute system. Instead, we need to provide a unique method to prevent theft and otherwise undesirable behavior from either party. The method that was developed to overcome this issue is to use what we are calling the delivery assurance stake.

### The Delivery Assurance Stake and Why It Is Needed

As mentioned above, to create a delivery request and to accept a delivery request, the customer and the driver must both stake an amount of Portami coins determined by the customer that will

be held by Portami Delivery until the order is successfully completed. This is needed for our trustless system to prevent theft from delivery drivers, and to prevent delivery requesters from claiming that their order was stolen when it was, in fact, successfully completed. Having the stake amount (also referred to as the delivery assurance stake) will ensure that both parties have something to lose if things should go wrong, which will ensure that both parties will work their hardest to ensure that the delivery is successful.

Let's look at the delivery assurance stake by example. The delivery requestor buys a shirt from the store for 15 USD and decides that Portami Delivery will be facilitating the delivery. It would be beneficial for the delivery requestor to set a delivery assurance stake that is equivalent to or around 15 USD. The reason being for this is to prevent theft. If the delivery driver would have to pay for the item at cost anyway, it would not be beneficial for the delivery driver to steal the item. On the other end of the spectrum, if the delivery driver completes the order, but the customer claims that the item was never delivered, the customer will also be punished by the delivery assurance stake.

There are instances where it may even be beneficial to have a stake amount higher than the purchase price of the item. An example of this might include the latest video game system that is in low demand. Let's take the PlayStation 5 for example. When the PlayStation 5 was first released, it was very difficult to purchase because of the low supply and such high demand. If you were to order a PS5 at that time for delivery, but only put the delivery assurance amount to the equivalent of the purchase price, there would be a higher chance of theft as the PS5 was worth more than the purchase price for scalpers. Because of this, it is advisable in those situations to use a higher delivery assurance amount.

## Economic Model

Portami Delivery is a trustless Peer-to-Peer delivery platform that is built on the blockchain and will use coins minted by Portami Delivery called Portami Coins. Portami coins will be offered first via an ICO. This should provide early adopters with a method to receive Portami Coins for use on the platform, as well as provide Portami Delivery with the capital needed to help speed up and promote development.

The other method Portami Delivery is expected to receive Portami Coins by its order origination fees. This is a small fee (a few Portami Coins) that will be used to help promote the continued development of Portami Delivery.

## Market Analysis

Our target market is millennials and Gen-Z that are interested in both the crypto space as well as deliveries. Our model is as a platform to facilitate consumer to consumer delivery requests, however there is room for growth in the future. If other larger platforms would like to use Portami Delivery, it is possible that Portami Delivery could also receive revenue from those platforms. There is also the possibility to branch out into food ordering services, however this would be kept separate from the Portami Delivery platform as a whole.

The courier and local delivery service market in the US was 165.1 billion in 2023 and we can expect this number to continue to grow. Cryptocurrency as well has seen a major growth and has taken steps to be more mainstream. Using Cryptocurrency for delivery will allow us to reduce fees, and promote a more equitable environment for customers and delivery drivers alike.

## Roadmap and Future Plans

By the end of Q2 2024, Portami Delivery would like to have pre-registrations for the ICO, as well as pre-registrations for those interested in utilizing the peer-to-peer delivery platform.

By the end of Q3 2024, Portami Delivery would like to deploy the Portami Coin to the mainnet, and make Portami Coin available through an ICO.

By the end of Q4 2024, Portami Delivery would like to deploy the contracts that are needed to request, and complete a peer-to-peer delivery request.

By the end of Q4 2024, Portami Delivery would also like to deploy various web applications that would help to more easily facilitate making requests on the Portami Delivery network.

For 2025 and Beyond, Portami Delivery would like to continue to build out the platform as well as bolt on web2 applications that will make the platform easier to use, as well as facilitate the ability to accept partnerships with other online platforms.

## Conclusion

We live in a world where delivery comes at a premium for the customer, but the delivery drivers who are performing the delivery receive a small percentage of that premium paid. Portami Delivery will allow trustless peer-to-peer delivery that will be more transparent for the consumer, and delivery driver, provide less fees for the customer, and provide the potential for more value to the delivery driver. By cutting out the middleman, and using cryptocurrency, Portami Delivery will be an affordable and fair option that will be loved by both customers and delivery drivers.