

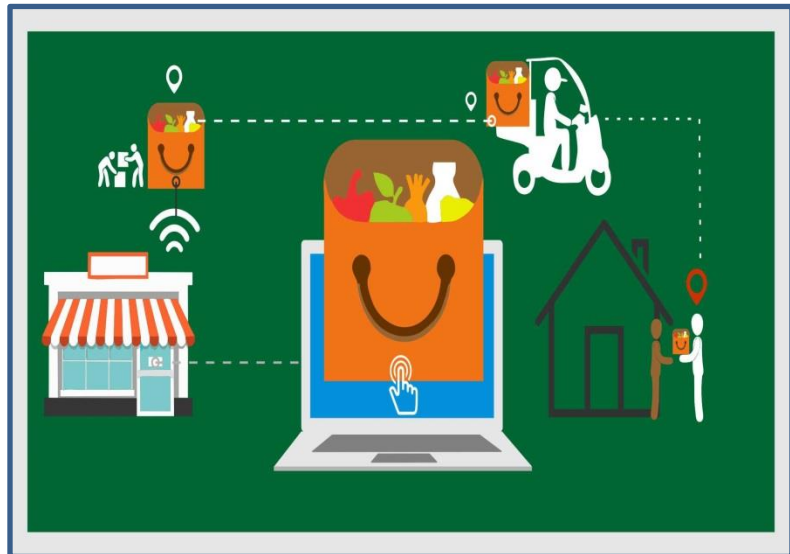


Delivery Service Platform: A Symfony based Case Study

Executive Summary:

Not everybody finds shopping interesting. Besides, in a way too busy world, where there is a great paucity of time, shopping is often known to be quite a torture. A fraction of the public loves to pick up their goods/services on their own. Some people have to go shopping because they have to. There are some others who procrastinate till they have no other choice. Keeping in mind the busy (and sometimes lazy economy), a number of start-ups have ventured into the business of home delivery of goods. All it needs is to click on an app that guides the buyer through various options of having their purchase bought from one or many shops and delivered at their home.

Mindfire got an opportunity to work on such a project when its Australian client who is an Entrepreneur requested us to work on an app that helps mitigate the woes of reluctant shoppers by delivering their goods right at their doorsteps. Our client wanted us to develop an Uber kind of service, for requesting the delivery of items from nearby stores. The user can request for items from multiple stores at a time to be delivered to his doorstep.



Mindfire Solutions developed a delivery platform that connects the Clients and the Service Providers who are two main users of the system. Thus there are two main sections of the app, the Client Section and the Service Provider Section. The delivery system was built on the Symfony 2 framework implemented REST APIs for the communication between the app and the server. Websockets were used for the real time updates. PromisePay payment gateway is used for payment processing and storing the card/accounts details securely.

About the Client:

Client: Entrepreneur

Location: Australia

Industry: Online services, Delivery Platform

Technologies Used:

PHP, Symfony2, MySQL, Google Maps APIs, Ratchet (Websockets for PHP), ZeroMQ, Sentry (Exception reporting), Plivo (SMS), PromisePay (Payment gateway)



Business Situation:

Our client, an Entrepreneur based in Australia approached Mindfire Solutions to develop an Uber-like delivery platform, wherein goods/services as requested by the customers using the mobile/web app will have it delivered on demand at their home. The items that are to be delivered can be bought from one or several stores and duly delivered by the personnel employed to serve. Such delivery platforms have become a regular feature now with students and folks wanting to make an extra buck when available. It has also lead to stores improving upon their offline commerce and becoming more than just warehouses used for stocking up. Our client wanted us to create a location based service so that the delivery agents can procure and deliver the goods/services in a reasonable time.

The Mindfire Solution:

Mindfire Solutions developed a comprehensive delivery platform that connects the two main users through an app. The app is used by the following users:

- **Client:** User who is requesting a delivery
- **Service Provider:** User who is fulfilling a delivery

This leads to the two main sections of the application. They are as follows:

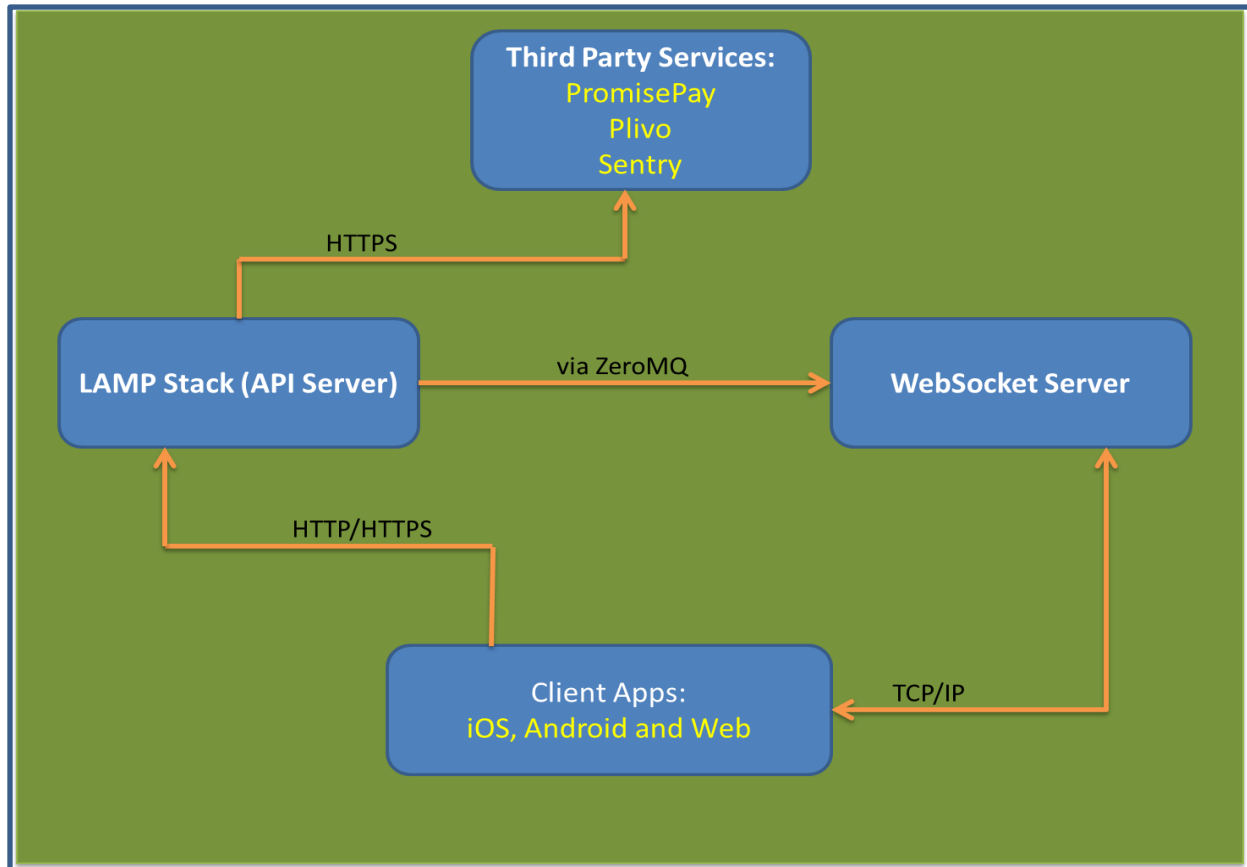
- **Client Section:** In this section of the app, user can request for a new delivery. User will be able to recall an old delivery for quick request. Once a request is placed, client can track the progress of the delivery for each step of the request and the exact location of the 'Service Provider' who is doing the delivery. Client can also interact with the 'Service Provider' while the delivery is in progress. Payment would be automatically processed using the credit card that is set up during the registration process.
- **Service Provider Section:** In this section of the app, user would be able to see the delivery requests made by other users nearby. User can view the details of a request and choose to fulfill it. Service Provider can interact with the client user during the delivery process in order to clarify any questions regarding the items requested. Service Provider will pay at the store and receipt would be updated to the backend. Once the delivery is completed, the amount will be credited to the bank account that is set up during the Service Provider registration process.

We have implemented REST APIs for the communication end points between the mobile apps and the server platform. Websockets are used for real time updates (Chat messages, New request update for Service Provider dashboard, Notify acceptance of a delivery request, progress updates for a request and etc). The LAMP stack based http server interacts with the Websocket server through ZeroMQ. Plivo is used for sending SMS updates/PIN to authenticate users. PromisePay payment gateway is used for payment processing and storing the card/accounts details securely.



Architecture Diagram:

The following architecture diagram is a pictorial representation of the delivery platform.



How the system works?

- Client downloads the delivery app on his mobile or uses the web app.
- User requests for a delivery. She can choose her old delivery details for a quick request.
- Based on the client's location, Service Provider (interested in that particular area) are notified about a new request
- The interested Service Providers can then contact the "Client who needs delivery" and then go ahead to fulfill the request
- Client can communicate with the Service Provider during the delivery process and track the progress
- Payment would be automatically processed using the credit card that is set up during the registration process
- Once the delivery is completed, the amount will be credited to the bank account that is set up during the Service Provider registration process



Future Relationship:

Mindfire Solutions successfully delivered the app well within the time frame. We have successfully implemented and delivered the backend (APIs), iOS app and Android app to client. The delivery app will be available on Play store and Appstore in near future.

It was a learning experience for Mindfire Solutions to work on an app that helps in addressing a new demand and exploring a business opportunity of on-demand-at-home delivery. We ensured that the client and the development team were on the same page by frequent collaboration and regularly making use of project reporting tools. Agile methodologies were used to discuss, improve and implement a solution for the final delivery of the application.



Founded in 1999, Mindfire Solutions is an award-winning provider of software development and testing services to the global market with 650+ talented software engineers at 3 centers in India. For its people and its work, Mindfire has won coveted international awards such as Deloitte Technology Fast50 India Award 2013 and 2014, Dun & Bradstreet Fastest Growing SME 2013 Award, Red Herring Top 100 Asia Award and Zinnov GSPR 2014. Mindfire has been recognized with ISO 9001:2008 and ISO 27001:2005 certification, is a continuous member of NASSCOM, and has established a strong track record of 2000+ projects successfully delivered for 500+ technology clients.

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Need help to develop an online delivery services platform?

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