Janus

Abstract: In recent months the United States Postal Service has faced serious financial hardship resulting in heated political battles over the responsibility of the Congress to continue and expand its funding. A public shipping network is one of the most essential services a government should provide for its citizens, so they they can have a reliable, affordable, and secure means of communication and transportation. So with the uncertainty future of the USPS in mind, we sought out a way to harness the power of decentralized technology to create a shipping network that is by the people and for the people.

Our solution is Shipping-Dapp, a decentralized shipping service that runs on Ethereum. The concept for Shipping-Dapp is simple. As a consumer, the application will function like other major shipping platforms. You will put in some basic information such as the origin address, the destination address, and package dimensions. The platform will then give you a drop-off address which could be equivalent to the origin address or a short distance away and create an optimized delivery path to the destination for it's network of Shipping-Dapp Drivers to follow.

What makes our platform unique is that anyone can sign up to drive for Shipping-Dapp, there is no limit to the number of drivers our platform can support. When you sign up to drive for Shipping-Dapp you will be prompted to enter your current location as well as your car dimensions. From the Driver view of the platform, you can set your status to active, which means that Shipping-Dapp will consider you for any delivery routes it generates. Using your location, your car dimensions, and the length of time you would like to drive, you will be offered a set of shipping routes you can accept.

Let's look at a quick example of Shipping-Dapp would work from order to fulfillment. John schedules a delivery for a 10" by 5" package from Scranton to New Haven. Ted, a frequent Shipping-Dapp driver has a route that has him delivering 10 small packages in his van from Scranton to Newburgh. Cade, a newly signed-up Shipping-Dapp driver has to driver to Connecticut from his home in Orange County for a birthday party. He figures he might as well see if there are any packages he can fit in his corolla on their way to CT, so he can early a couple of bucks to cover the cost of his gas. He sets his status to "Active" on Shipping-Dapp, and finds the perfect route. All he has to do is pick up John's package from the location Ted dropped it off in Newburgh, and take it up to New Haven. The order is fulfilled on time to John's satisfaction and Ted and Cade both got to earn some money in the process.

The decentralized nature of this platform will ensure that it is always controlled by the people who use it and work for it. The more people that sign up, the more effective the platform, creating jobs and affordable delivery options for every country that it operates.