

Bringing the \$1 billion auto repossession industry onto the blockchain.

VEHICLE REPOSSESSION JUST GOT EASIER. WE'RE HERE TO TELL YOU HOW.



# **DISCLAMIER**

Purchase, ownership, receipt, or possession of Repo tokens carries no rights, express or implied, other than the right to use such tokens as a means to participate, interact or transact on the decentralized Repo Coin blockchain platform as further described in this whitepaper, if successfully completed and deployed. In particular, all participants must understand and accept that Repo tokens do not represent or confer any ownership right or stake, share, security, or equivalent rights, or any right to receive future revenue shares, intellectual property rights or any other form of participation in or relating to Repo Coin and its corporate affiliates, other than any rights relating to the provision and receipt of services from Repo Coin, subject to limitations and conditions appearing in any other required agreements on the Repo Coin website. The Repo tokens are not intended to be utilized outside the decentralized Repo Coin platform nor as a digital currency, security, commodity, or any kind of financial instrument, and Repo Coin shall not be liable to any participant for any decrease in value of Repo tokens or any other damages that any participant may incur as a result of using or purchasing Repo tokens for anything besides their intended use on the Repo Coin platform.



#### **EXECUTIVE SUMMARY**

Repo Coin is a revolutionary blockchain project focused on the auto lending and repossession industry. It is a solution that will result in the faster, more efficient recovery of assets for auto lenders by bringing together a large community of people to assist in locating delinquent vehicles, motivated by cryptocurrency rewards.

With a sharp increase in new auto loans and delinquent loans over the last five years, financing companies have become overwhelmed with the need for more efficient auto repossession services. Despite this growing demand, the auto repossession industry has yet to see any meaningful innovation. The cost of repossession services is steep due to the use of expensive License Plate Recognition (LPR) technology, and the exchange of information between repossession companies and auto lending companies is inefficient, often resulting in the lending company having to pay extra fees to have vehicles stored by the repossession company before they are actually recovered.

Our goal is to make this process faster, cheaper, and more efficient by using smart contracts on the blockchain and enlisting the help of everyday people across the country.

To achieve this goal we are building an end-to-end technology solution that will feature a website, mobile app and digital wallet all built upon a secure and immutable blockchain platform, using the Stellar protocol for token operation and smart contracts.

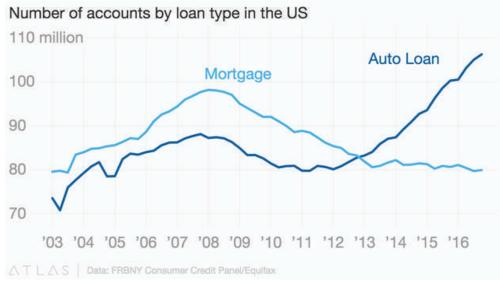
With the Repo Coin mobile app, everyone will have the power to scan license plates and quickly identify delinquent vehicles, matched against our real-time database of delinquent vehicles from lenders across the US.

By enlisting the participation of lending agencies, auto repossession companies, and a community of users incentivized by cryptocurrency, we will disrupt and transform the \$1 billion dollar auto repossession industry in a way that has never been seen before.

# INTRODUCTION

Over the past five years the number of new auto loans in the US has seen a sharp, steady rise. While the number of new home loans has decreased dramatically since 2008 due to the financial recession and new regulations in the mortgage industry, the opposite has been true of auto loans, which have increased exponentially since 2012.

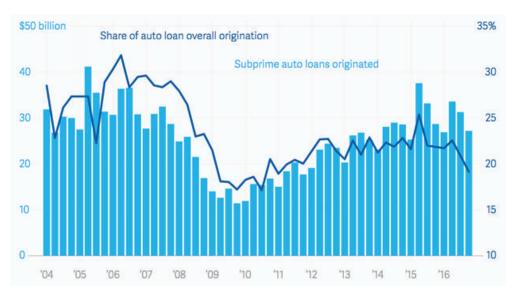




(Source: ATLAS, data from FRBNY Consumer Credit Panel/Equifax)

Consumers have shifted their interest from buying homes to buying vehicles, with the majority of buyers seeking to finance their auto purchases.

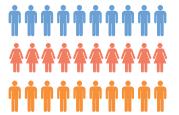
Approximately one out of five of these consumers end up with a subprime auto loan, typically due to a lack of credit worthiness or a desire to purchase vehicles that are beyond their means.



(Source: ATLAS, data from FRBNY Consumer Credit Panel/Equifax)

This trend, which doesn't appear to be stopping anytime soon, has created an increased need for auto repossession services. Unfortunately, the \$1 billion repossession industry has not seen significant innovation during this period, and is plagued by high costs and inefficiencies.





# ttitititit 1 in 172

According to Experian Automotive, 1 in 172 outstanding auto loans resulted in an auto repossession during the first quarter of 2014. In states such as Nevada, repossession rates were as high as 1 in 64.

In 2017 it was forecast that 1.7 to 1.8 million vehicles in the US would be repossessed, an increase of approximately 100,000 units from the year prior, according to the Manheim Used Car Market Report.



6.3 M

According to the New York Federal Reserve during the same year, 6.3 million Americans were 90+ days behind on their auto loan, making them seriously delinquent.

These numbers highlight the significant need for technology that can increase efficiency and decrease costs in the growing auto repossession industry.

# **OUR VISION**

We believe that by bringing auto lenders and repossession companies together on the blockchain we can transform the auto repossession industry.

The key to our vision will be in enlisting the help of everyday people across the country, creating a huge community of users dedicated to locating delinquent vehicles more quickly than has ever before been possible.

Our solution will benefit all parties involved, rewarding users with Repo tokens that can be used to purchase goods and services, and making the repossession process more efficient for auto repossession companies, who will no longer have to locate delinquent vehicles themselves. In turn, this will make asset recovery cheaper for lenders, who are experiencing an increased need for these services.

Additionally, Repo tokens will be used to give back to the community in a meaningful way by allowing token holders to vote for a family or individual in need of a vehicle, which will then be given away by Repo Coin up to once per month.

By using blockchain technology and building a strong, supportive community of users, Repo Coin aims to make a positive impact on people's lives while also revolutionizing the auto repossession process in order to meet the demands of today's auto lending economy.



#### THE PROBLEMS

The current model for the auto repossession industry does not effectively meet the demands of auto lenders, which have increased exponentially since 2012.

The auto repossession industry currently relies on expensive, inefficient technology to locate delinquent vehicles, which has resulted in a slow, costly process for lenders who wish to recover lost assets. There are also major problems with communication between repossession companies and lenders, which have caused additional delays and costs for the lenders.

Additionally, not much information is available about the auto repossession industry, despite it being a \$1 billion market. Because of this, it has been largely overlooked when it comes to the kinds of major technical advances that banks and lending agencies have seen over the past several years.

These are some of the problems that we seek to solve with Repo Coin.

#### 1) Increase in delinquent auto loans and lost assets

As of 2017, a record 107 million Americans had outstanding auto loans, according to the New York Federal Reserve. Delinquency rates for those loans have also been on the rise, with 6.3 million Americans 90+ days late on their car payments at the time of the same report.

This has been attributed to increased consumer spending, which is expected to continue in the coming years, as well as the rise of subprime auto loans, which many Americans rely on in order to purchase a vehicle in the current economy.

Because of this, entities such as banks, auto loan companies, used car lots, car dealerships, and car rental agencies all have an increasing need for auto repossession services. Most of these companies outsource this work to businesses that specialize in the difficult task of repossessions, but this comes with its own host of problems.





# 2) Expensive License Plate Recognition technology

Outsourcing the work of repossessions has proven to be necessary for most auto lenders due to the difficult, sometimes dangerous nature of this work. However, these services come at an exorbitant cost.

While auto repossessions require the work of a highly skilled professional, these jobs can be completed quickly, many of them within 3 minutes of arriving at the vehicle's location.



Most of the cost of auto repossession comes from the use of expensive License Plate Recognition (LPR) technology, which limits the number of companies and individuals who are able to enter this line of work, creating monopolies within the industry for those who can afford it and driving up prices for the auto lenders who need these services.

LPR technology is used by the auto repossession companies to scan license plates while driving around in order to identify delinquent vehicles.

With increased access to this kind of technology, the hassle and expense that comes from locating delinquent vehicles would be greatly reduced, and auto repossession companies could focus solely on recovering assets. This would bring down service costs for auto lenders and significantly increase the overall efficiency of the repossession process.



#### 3) Inefficient communication between lenders and reposssion companies

Another big problem within the auto repossession industry is inefficient communication practices between lenders and repossession companies.

For repossession companies, who often have a monopoly on work in their local areas due to the high start-up and operating costs of using LPR technology, there is no real benefit of communicating efficiently with the lending agencies who hire them. While many of these repossession companies are well-meaning, they are also busy with the work of locating and recovering vehicles for multiple clients, which can result in recovered vehicles being stored by the repossession company for days before being returned to the lender. In these scenarios, the auto lender is typically required to pay an additional fee for the vehicle's storage.

Additionally, the faster a vehicle is recovered, the less depreciation and damage it may incur, which allows the lender to recoup as much of the bad loan as possible. With inefficient communication the entire process of asset recovery is slowed down, making it unnecessarily costly and risky for the lender.



#### THE SOLUTIONS

Repo Coin aims to provide a revolutionary solution to the problems affecting the auto repossession industry, starting by giving the general public the ability to easily scan license plates and identify delinquent vehicles by using our mobile app and the camera on their smartphones.

Our goal is to decentralize a large portion of the auto repossession process by giving everyday people the power to locate lost assets on behalf of lenders, while leaving the actual work of repossession to the companies that specialize in it.

Our solution aims to significantly lower the cost of asset recovery for lenders while increasing the speed and efficiency of the repossession process and the exchange of information between lenders and auto repossession companies.

# 1) Blockchain technology and smart contracts

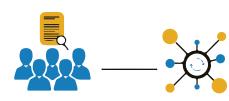
We will streamline the auto repossession process and the exchange of information between auto lenders and repossession companies by using smart contracts on our blockchain platform.

With smart contracts we can eliminate the delays and additional fees that often occur as a result of inefficient communication practices, where repossession companies end up storing vehicles for some period of time before they are returned to the lender.

Our smart contracts will require both parties to share important information and status updates in real time, preventing auto lenders from having to pay extra fees for unwanted vehicle storage and also ensuring that their assets are returned to them as quickly as possible once they have been recovered.









# 2) Repo Coin mobile app



The Repo Coin mobile app will provide easy to use license plate scanning and recognition technology to a large community of users across the country, entirely free of charge. More importantly, our app will reward users with Repo tokens as a direct incentive for helping to locate delinquent vehicles, which can then be used to purchase goods and services on our website, repocoin.io.

By galvanizing everyday people we aim to exponentially increase the manpower that is searching for delinquent vehicles, which will result in much faster recovery of assets for auto lenders.

By decentralizing this part of the auto repossession process we can also eliminate the need for expensive License Plate Recognition (LPR) technology, which is currently the most effective means that repossession companies have of locating delinquent vehicles on the roads.

By eliminating LPR we will be able to drastically reduce the cost of repossession services for auto lenders, while also increasing the efficiency of repossession companies who will no longer have to seek out delinquent vehicles and can instead focus on repossessing and returning assets to lenders.

# 3) Partnerships with auto lenders and repossession companies

By partnering with auto lenders across the country we plan to create the most comprehensive real-time database in existence for determining if a vehicle is delinquent.

We will also partner with reputable auto repossession companies in every town and city in the US, instantly notifying them when a delinquent vehicle is found nearby so they can collect it and return it to the lender, who will also be notified once it has been found, when it has successfully been recovered, and when it is on its way back.





# **ADVANTAGES OF REPO COIN**

# 1) For users

Users will be incentivized with Repo tokens as rewards for helping lenders locate delinquent vehicles.

Repo tokens will have a variety of uses, including:

- Purchasing products from the Repo Coin website (repocoin.io)
- Voting in the We Care program, where Repo Coin will donate a car once every month to a family or individual in need
- Transfering to other parties who use the Repo digital wallet
- Paying for services such as auto repairs, assistance during a breakdown, or flat tires (phase two)
- Paying for ride share services (phase three)

# 2) For auto lenders

Lenders will be able to recover lost assets more quickly and at a lower cost by reporting delinquent vehicles to Repo Coin and allowing our community of users to help locate them. They will then be able to have a trusted repossession company recover the vehicle for them through the Repo Coin platform, eliminating the need for contracting and negotiating with the repossession company directly.



Additionally, lenders will be able to follow the asset recovery process in real time, using GPS tracking which will allow them to see how far the vehicle has traveled and when it has arrived at its intended destination, leaving less opportunity for the vehicle to be tampered with or degraded before it has been returned.



# 3) For auto repossession companies

Auto repossession companies will receive increased business by allowing our large community of users to locate delinquent vehicles for them. This will also eliminate the need for them to build and maintain relationships directly with multiple auto lenders in their area in order to keep a steady flow of business.

By becoming a trusted repossession partner with Repo Coin, repossession companies will be instantly notified when delinquent vehicles are located near them, which will also serve to eliminate the hassle and expense of seeking out delinquent vehicles using traditional LPR technology.

# 4) For the community

It can sometimes be difficult to pay auto loans on time, particularly when unexpected life events and expenses get in the way. With this in mind we created the We Care program, through which Repo Coin will be offering fully paid-off vehicles to families or individuals in need.

We Care will allow the Repo Coin community to choose the recipient of the vehicle, using their Repo tokens to vote based on applicant stories and videos.

# THE REPO COIN ECOSYSTEM

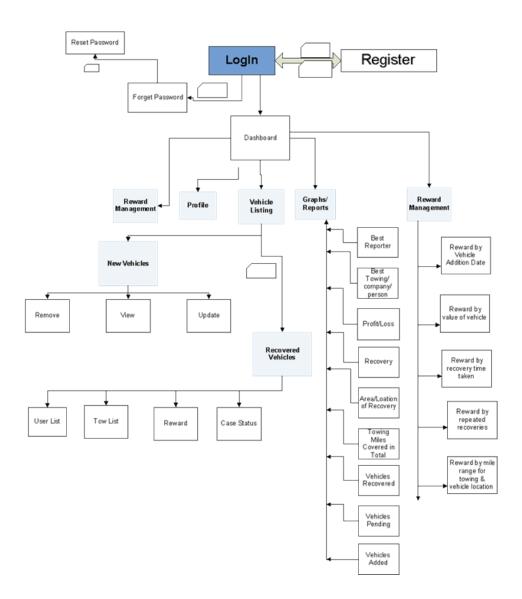
The Repo Coin ecosystem will enable lenders and repossession companies to work together more effectively and with more transparency using our blockchain platform with smart contracts on the Stellar network.

Additionally, our ecosystem will allow our community of users the opportunity to help locate delinquent vehicles with our Repo Coin mobile app. They will be incentivized by Repo tokens that can be stored in our digital wallet.

Repo tokens will also be able to be used to purchase goods and services through our website.



# **USER FLOW**



# **CORE FUNCTIONALITY**

# 1) License plate scanning & recognition technology

Our mobile app will feature license plate scanning and recognition technology. It will employ the user's smartphone camera to scan license plates and optical character recognition (OCR) to automatically detect those characters and parse that information to our server. We will then match the license plate number against our real-time database of delinquent vehicles.



# 2) GPS tracking

We will use GPS tracking technology to alert nearby repossession partners when a delinquent vehicle has been located. We will also send an alert to the auto lender, who will be able to track the repossession company's progress in returning the vehicle.

# 3) Digital wallet

Users can store their Repo tokens in our digital wallet. We will be using the native wallet for Stellar and other supported currencies using their JSON RPC APIs.



#### 4) Repo Coin marketplace

Users will be able to use Repo tokens in our marketplace on repocoin.io to purchase goods and services.

In phase two of our project we hope to allow users to purchase services such as auto maintenance, roadside assistance, and more.





Repo Coin's revenue model will initially be centered on our partnerships with banks and other auto lenders, who will be paying us fees based on the vehicle they wish to recover and the delivery point.

Funds from that agreement will be used to pay our repossession company or tow truck service partner, and Repo Coin will keep the margin as revenue.

We plan to earn additional revenue in phases two and three of our project from the products and services we offer to users, which may include auto repair services, roadside assistance, ridesharing, and more.

# WHY STELLAR?

We have chosen to forgo the more traditional choice of Ethereum and will instead run on the Stellar Lumens network (XLM).



We have chosen Stellar for a few reasons, primarily because it is fast, reliable, and can support inexpensive transactions for many users.

Because Stellar is based on a consensus algorithm rather than on mining, it can confirm transactions within a few seconds. Stellar offers a 5 second median settlement time, compared to 3.5 minutes on the Ethereum network.

The simplicity of the Stellar system, purposely limited for smart contracts, also helps avoid situations where hackers can exploit vulnerabilities and steal tokens.

For these reasons, we believe that the Stellar platform will be the ideal choice for Repo Coin.



# SYSTEM ARCHITECTURE

We will build the Repo Coin API using the Stellar protocol. Our front-end will be built with Angular JS and our back-end will be developed with Node JS. Our database will be on BigChain.

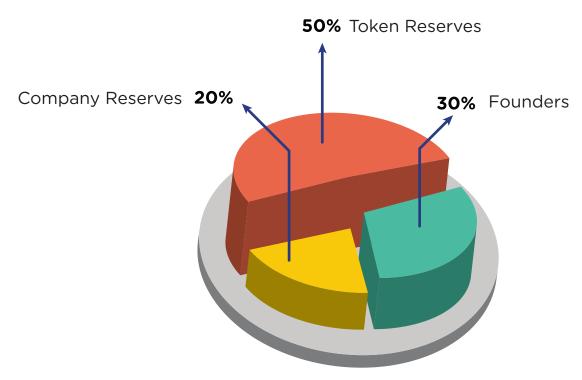
- Public network -- Stellar
  -Payments
- Private network -- for end user
  - -License plate scans
  - -Database of delinquent vehicles
  - -Internal token transactions
  - -Reward System

- Data management
  -Hyperledger
- Asset management
  -IPFS
  -Bigchain

# **TOKEN DISTRIBUTION**

Repo Coin will create 357 million tokens, after which no more will be created.

- 50% of tokens will stay in reserve and will be given away over time to users who participate in license plate scanning, raffles, referrals, etc.
- 20% will remain in company reserves for operating expenses.
- 30% will be allocated to the founders of the company.





The Repo Coin team is made up of innovative minds with proven experience bringing technology projects to life, in addition to years of experience in the auto repossession industry.

# Fahim Aref | Co-Founder & CEO

Fahim is a Blockchain enthusiast and is currently focused on next generation blockchain-based applications and cryptocurrencies. He has over 20 years of experience in real estate, oil & gas, and consumer electronic markets. \$50MM+ in combined transactions (hydrocarbon minerals). Co-founder of Scan Halal (#1 Halal App). He also serves as the executive director of Pious Projects, a non-profit organization based in Chicago.



Sana Othman | Co-Founder & CFO

Sana started her career at the State Bank of Countryside, a family owned bank based in the midwest region of the US, where she was employed for over five years. Sana is a co-founding and managing member in numerous energy industry startups, including Hydrocarbon Minerals, LLC. Sana has a Bachelor's Degree in Business Administration from Robert Morris University.

# Anurag Makol | Senior Blockchain Developer

Anurag is a blockchain expert with a background in cyber security and technology management. As a cyber security expert, Anurag holds multiple security certifications such as Certified Ethical Hacker (CEH) and Certified Information System Security (CISSP). He is currently focused on the cyber security aspect of blockchains and crypto currencies, and is working on several blockchain security research studies.







# Mohammad Majid | Co-Founder & CRO

Majid brings years of experience in the industry. His expertise allows him to move with speed and accuracy in every phase of investigation, recovery, account management and revenue attainment solving complex strategies and execute upon boosting both gross collections and net recoveries at the same time.

# Rami Affaneh | Co-Op Business Intelligence

Rami has 20 years of experience working in the energy sector as well as the automotive, and wireless reverse logistics industries. He is currently a founding member and Vice President of Operations at Hydrocarbon Minerals. Early Cyrptocurreny adapter and investor.





# Shilpi Jain | Application Developer

Shilpi is passionate about building great software and applying technology. She is highly experienced in software design and development with a solid foundation in computer science and native mobile development. Her interests include cryptocurrency and blockchain technology, large-scale distributed systems, and mobile applications.



# Anas Razzaq | Operations Strategist

Entrepreneur with over 8 years of professional experience leading and delivering enterprise and consumer facing products for various startups in the technology industry with core competencies in product development, market strategy, and streamlining operations. Anas has created products that have been used by millions of people that have acquired a large active user base. He currently serves as founder and CEO of Scan Halal, a mobile application revolutionizing the Global Halal Foods Industry used by millions of users through the use of its proprietary and innovative technology.



# Muhammad Baste | Enterprise Architect

Baste Graduated from DePaul University in Business Administration. He serves as President of Strada Logistics, a motor transportation company based in Chicago. Successful serial entrepreneur with over 15 years of Business Operation Experience. Partnered With Smart Choice Mobile a T-Mobile retailer, expanded operations from 9 locations to 37 locations in 10 months. \*Secured 1st ever loan with BMO Harris for 1MM, for cellular carrier.

# Safayat Jamil | Network Engineer

Safayat has over 10 years of web application development with experience in network security. He has a solid foundation in computer science, algorithms, data structures, and software design and relational databases development.





# Eric Collins | Sr. Corporate Banking Advisor

Eric Served as VP of Bank One, and an underwriter in the Large Corporate Automotive Group responsible for overall risk management for a portfolio of 24 relationships with an aggregate credit exposure in excess of \$3.0 Billion. Eric has extensive industry knowledge which include capital structure consultation, loan products and syndications, cash management, public debt placement, acquisitions, divestitures, foreign exchange and other banking products.



Dion Kaba | Auto Finance Advisor

Kaba has over 13 years experience in automotive finance and vehicle acquisitions. Kaba has managed nearly \$5 billion in auto finance loans and sales. Currently he is the director of sales and acquisition for David McDavid Ford.

# Grant Gulovsen | Legal Advisor

Grant is an attorney with over 15 years' experience with corporate and intellectual property law. Grant has been involved in the cryptocurrency ecosystem since 2013. He is currently a Member of International Blockchain Consulting Group's Blockchain Leadership Team and regularly advises ICOs about U.S. securities laws and other corporate matters.





# CONCLUSION

We believe that by bringing auto lenders and repossession companies together on our blockchain network we can fundamentally transform the \$1 billion auto repossession industry.

In order to make this possible we aim to forge partnerships with lending entities and repossession companies in every local area across the US. Our goal is to create the most comprehensive real-time database of delinquent vehicles in existence, with data provided by the lenders in our network.

With the use of smart contracts we will strive to make the asset recovery process faster, more transparent, and more efficient, helping auto lenders recoup as much of their bad loans as possible while also preventing them from having to pay unnecessary fees to repossession companies.

We also expect to grow a large community of users, motivated by cryptocurrency to assist in locating delinquent vehicles on the road faster than has ever before been possible. By offering license plate scanning and recognition technology to our users via our mobile app we hope to eliminate the use of expensive LPR technology, which currently drives up the cost of repossession services.

By galvanizing everyday people across the country we will offer a wide range of individuals the opportunity to participate in our long-term growth and our success story in revolutionizing the auto repossession industry.



# What is Repo Coin?

Repo Coin is a blockchain platform that will use the Stellar protocol and smart contracts for more efficient business dealings between auto lenders and auto repossession companies. We will also have a mobile app that allows users to assist in locating assets that need to be recovered by using our license plate scanning and recognition technology. Our users will be incentivized by cryptocurrency that can be used to purchase goods and services in our online marketplace.

# What problem does Repo Coin solve?

Repo Coin solves the multitude of problems that affect the \$1 billion auto repossession industry, using blockchain technology and a large, highly motivated community of users to reduce the cost and increase the efficiency of the asset recovery process.

# How is Repo Coin different from its competitors?

There are currently no other blockchain platforms looking to decentralize the auto repossession space, giving Repo Coin a first-mover advantage.

#### How does the Repo protocol work?

Repo will be built on top of Stellar and transactions will be approved on the basis of Proof of Work.

#### What is the total supply of Repo Coin?

357 million tokens, and no additional tokens will ever be created.

#### What will be the initial distribution of EPH Tokens?

- 50% of tokens will stay in reserve and will be given away over time to users who participate in license plate scanning, raffles, referrals, etc.
- 20% will remain in company reserves for operating expenses.
- 30% will be allocated to the founders of the company.

#### Where is Repo Coin based?

Our team is based in Chicago and across the US.

# How can I get involved?

You can visit our website at repocoin.io, or find us on Facebook, Twitter, LinkedIn, Instagram, Reddit, YouTube,





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