

# FLEETCOIN

An immutable logbook to protect your fleet

SEDA aydinoglu, Jo BORRAS, TAPAS ROY, AYUSH SHAH

# FLEETCOIN | OUTLINE

- Introduction to FLEETCOIN
- four different personas
- FLEETcoin works in use
- REWARDING users
- TRADEABLE NFTS





# FLEETCOIN | INTRODUCTION

fleetcoin puts the true, complete history of your vehicle on the blockchain, creating a certified, unchangeable record of purchase, operation, maintenance, and repair to keep your business secure.

In this presentation, we'll discuss how fleetcoin can serve the needs of four very different PEOPLE, and protect the legal interests of the owners and operators who keep america truckin'.



## FLEETCOIN | MEET RODNEY

RODNEY USED TO DRIVE A TRUCK, HIMSELF. BUT RODNEY WAS SMARTER THAN MOST. HE WORKED HARD, SAVED money, AND NOW OWNS A FLEET OF TRUCKS.

Instead of worrying about money these days, Rodney loses sleep over his drivers staying compliant, keeping his trucks in tip-top shape, and keeping them on the road as much as possible.



# FLEETCOIN | FOR RODNEY

## GOALS

- Rodney wants to make sure his drivers are staying compliant, taking their brakes when they're supposed to and staying fresh – and safe! – on the road.
- Rodney wants to stay on top of his fleet's maintenance needs, minimizing downtime and maximizing time on the road – and on the clock!

## rodney worries about

- Rodney worries about his drivers changing their log books after the fact. Maybe they mean well are trying to help out, but they're doing more harm than good by falsifying records, and that could get Rodney's company in hot water later.
- When a truck is down for service, it's not making money. Rodney can plan for regular maintenance, but if something slips through the cracks it can cause big headaches down the road.

## GOALS MET

- Fleetcoin creates a complete log of operator trips, with a digital timestamp that can't be altered or entered incorrectly.
- With fleetcoin, rodney will be able to quickly and easily monitor his fleet's use, recommended service dates, and more – making scheduling "downtime" much easier and avoiding surprises.

## rodney feels good about

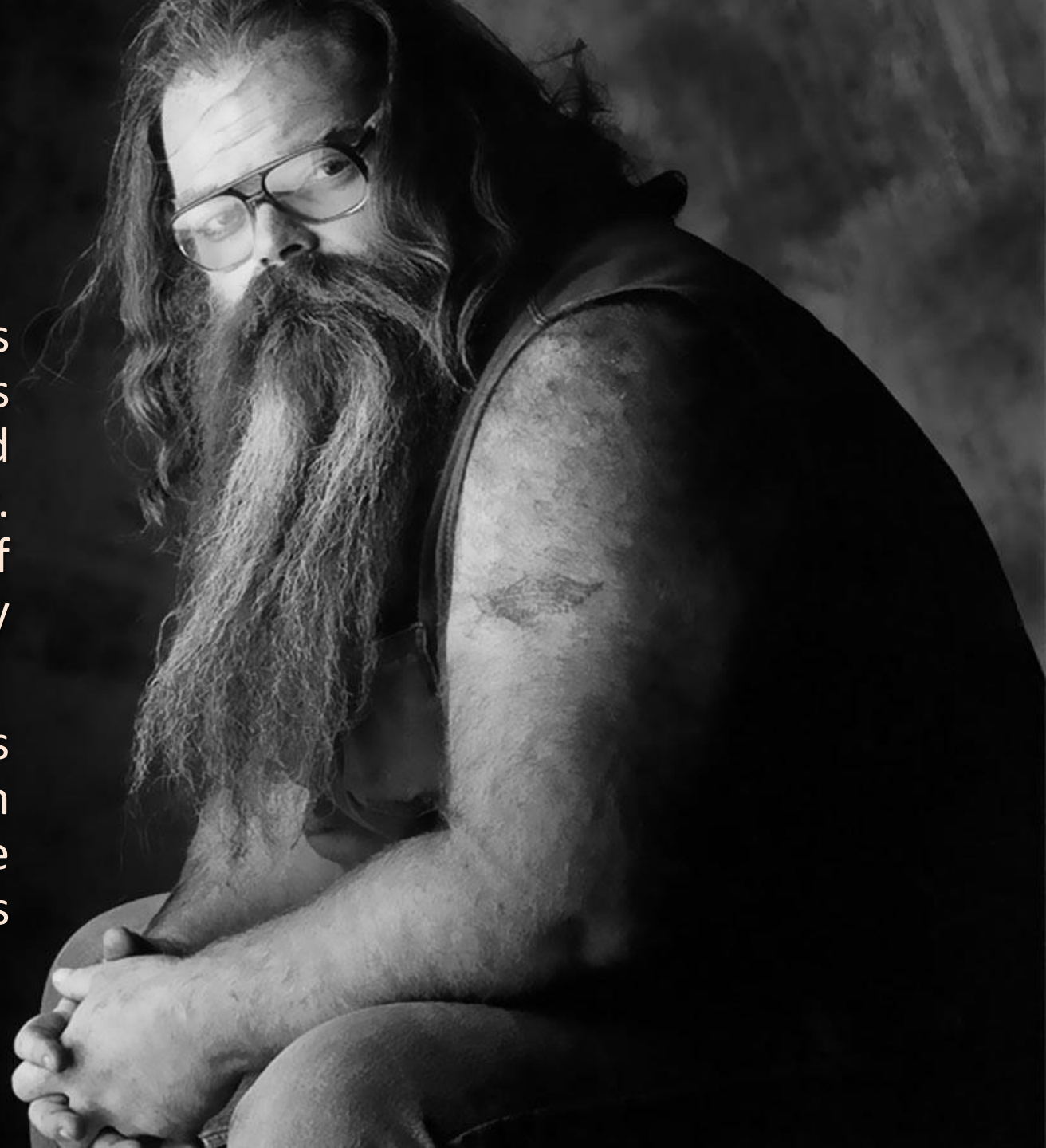
- Fleetcoin uses blockchain technology to ensure that each entry is permanent and unchangeable. If Rodney's company were ever to be accused of falsifying records, he'd have hundreds of validators defending his drivers' log.
- When an operator reports an issue or declines liability, fleetcoin triggers a message to Rodney right away, alerting him that there might be an issue with his equipment. If they catch it early, it will be cheaper (and quicker!) to fix.



## FLEETCOIN | MEET TOM

Tom loves his family, even if he's always been a bit of a "black sheep". He loves his job, too, and takes pride in being an "old skool trucker" who takes his job seriously. What's more, tom is *good* at his job. if tom tells you a delivery will be there by 3:00pm, you can set your watch by it.

Even so, tom's getting older, and he's starting to worry about his health from those long hours spent in the cab. He doesn't know what he'd do if he lost his job and his insurance.



# FLEETCOIN | FOR TOM

## GOALS

- Tom wants to Keep a complete log of his trips so he can show that he's still up for the job and ensure that he maintain compliance
- Tom wants to stay employed (and on the company insurance) until he decides it's time for him to move on, and not before.

## Tom worries about

- Tom is happy to call himself an “old skool trucker”, but worried about the company using hand written log books that just get handed in to dispatch when he rolls into h.q.. what would happen if one of those cards got thrown away entered into the system incorrectly?
- Tom takes pride in his job, but these young guys? He's not so sure about them. Come to think of it, he's not too sure about his managers, either. He thinks they're “bean counters” who cut corners. How can he make sure he doesn't have to hit the road in a truck with bald tires or a bad taillight and risk getting in trouble?

## GOALS MET

- Fleetcoin creates a complete log of operator trips, with a digital timestamp that can't be altered or entered incorrectly.
- With fleetcoin, tom's excellent work record will be “etched in stone”, and validated by hundreds of validators.

## Tom feels good about

- With fleetcoin, there are no hand-written cards to lose and no one else to leave responsible for tom's miles and hours. Tom believes, “if you want something done right, do it yourself,” and fleetcoin's easy to use front-end makes “doing it yourself” a breeze for guys like tom.
- Fleetcoin has a built-in “assumption of liability” contract that will enable tom to reject a truck that doesn't meet safety standards. When that happens, a permanent record of his objection is created and the problem will have to be resolved, or liability assumed buy someone else, before tom hits the road.

# FLEETCOIN | MEET MARC

Marc has an important job, and he knows it. He keeps America's truckers on the road, and keeps the economy humming along.

After nearly thirty years in the business, Marc operates under the motto of "cya", and performs a thorough inspection on every truck that rolls into his shop.





# FLEETCOIN | FOR MARC

## GOALS

- marc wants a permanent record of all his service recommendations, so that no one can say he “missed something”.
- Marc does a full safety inspection on every truck that rolls into his shop, and wants to make sure there’s a record of that inspection, even if the owner doesn’t follow his recommendations.

## marc worries about

- marc worries about everything. He worries about opening himself up to liability, sure, but he also genuinely worries about the safety and well-being of his customers. If they go to another shop (which is bound to happen with over-the-road truck fleets), marc wants to be sure his customers have everything they need to ensure that they can get back on the road quickly and safely.

## GOALS MET

- Fleetcoin creates a complete log of service visits, and allows service technicians to record their notes into the blockchain.
- With fleetcoin, tom’s excellent work record will be “etched in stone”, and validated by hundreds of validators.

## MARC feels good about

- With fleetcoin, all of a vehicle’s service history is stored on the blockchain, making it easy for owners, fleet managers, and other technicians to access those records, no matter where they are.

## FLEETCOIN | MEET JULIE

Julie's clients don't stop suffering at 5pm, so she doesn't feel like she should stop working at 5pm. She burns the midnight oil to make sure that justice is served, and she'll do everything she can to bring the truth to light.

Other lawyers say, "you don't want to go up against julie in court," for a reason.



# FLEETCOIN | FOR JULIE

## GOALS

- julie wants justice for her clients – regardless of who she’s representing in court on any given day.

## julie worries about

- julie worries about surprises when she’s defending fleet owners, and that means having access to complete records. If something’s missing or out of place, she needs to know immediately.
- When she’s representing individuals who are going against fleet owners, Julie worries about logbooks changing after the fact to favor the defendant.

## GOALS MET

- When Julie is representing the owner of a fleet against a multi-million dollar accident claim, she’ll appreciate having a complete, authenticated service record.

## julie feels good about

- Fleetcoin offers defense attorneys a complete database of searchable log entries and service records. If there are missing dates or files or a service item drops off the notes, she’ll be able to see that immediately and modify her defense.
- With fleetcoin, there are no hand-written cards to white-out, change, or conveniently “lose” behind a desk before a deposition.



# FLEETCOIN | HOW IT WORKS

FLEETcoin is an account based ledger that is specifically tailored to needs of managed fleets. each account is tethered to the vehicle's identification number, or vin. the first record entered in the ledger is the account's activation. from there, a log entry is completed every time an operator begins or ends a trip.

Owners who keep more complete records benefit from reduced liability exposure and additional trux – the governance token that powers fleetcoin – which can be exchanged for cash or collectible nfts.



# FLEETCOIN | CHAIN OF CUSTODY

FLEETCOIN OFFERS FLEET MANAGERS ALL THE BENEFITS OF AN IMMUTABLE, VERIFIED LEDGER – BUT THE REAL POWER OF FLEETCOIN IS THE CHAIN OF CUSTODY FUNCTION WHICH IS BUILT INTO THE NATURE OF THE BLOCKCHAIN.

EVERY TIME AN OPERATOR OR TECHNICIAN LOGS AN EVENT, THEY ENTER INTO A “SMART CONTRACT” TO ACCEPT LIABILITY FOR THE VEHICLE AS IT IS AT THE TIME OF THE ENTRY – AND THEY MUST ACCEPT LIABILITY BEFORE THEY SET OFF WITH THE VEHICLE.

WITH FLEETCOIN, THE QUESTION OF WHO IS LIABLE IS ANSWERED AT EVERY STEP.



# FLEETCOIN | THE LOGIC (1:3)

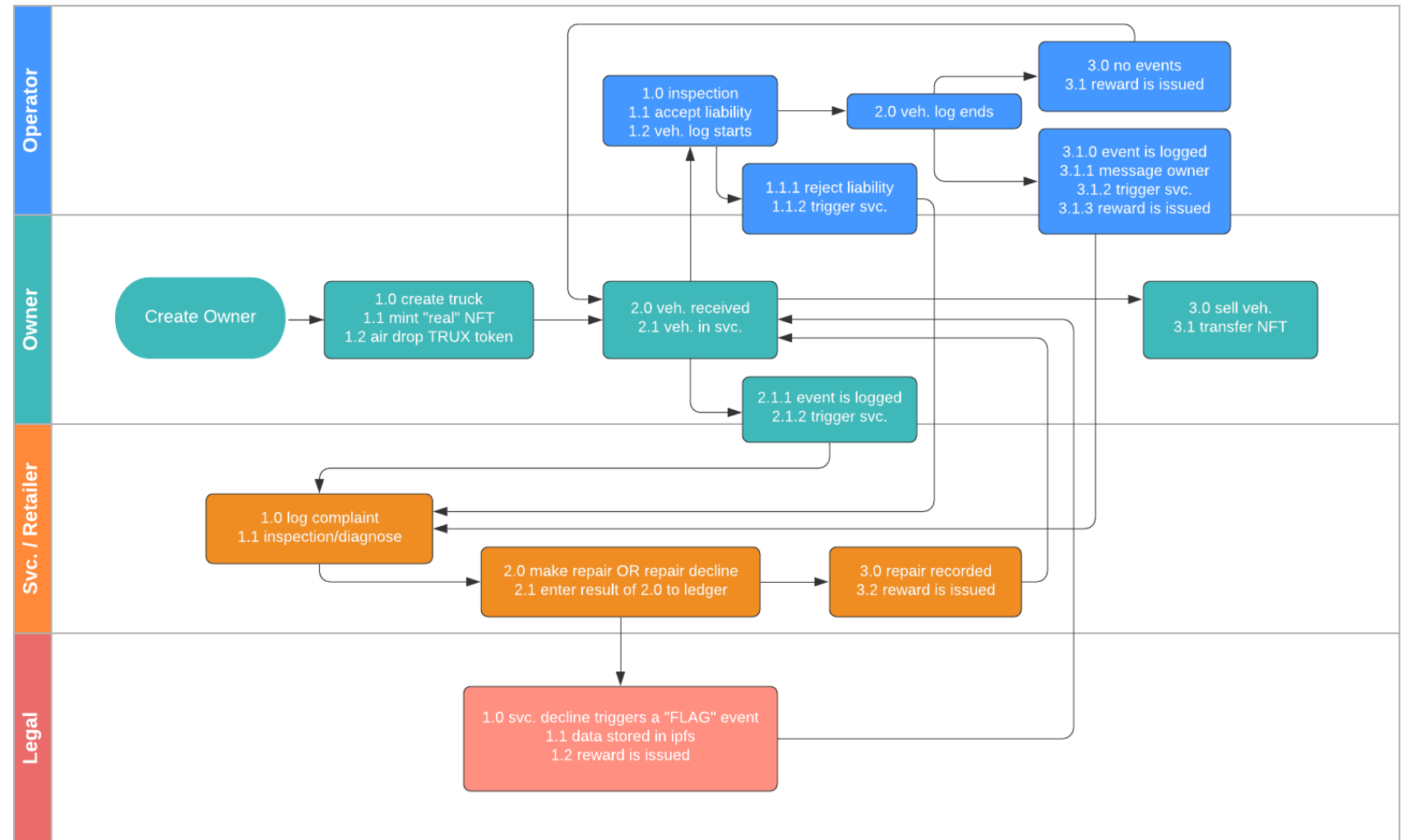
ONCE A VEHICLE IS ENTERED INTO AN OWNER'S FLEET (DICTIONARY), AN NFT IS MINTED CONTAINING THE VEHICLE'S VIN AND MILES AT THE TIME OF ACTIVATION.

ONCE THE VEHICLE IS IN SERVICE, THE OPERATOR MUST COMPLETE A LIABILITY CONTRACT IN ORDER TO ENTER AN EVENT AND TAKE THE VEHICLE.

ANOTHER EVENT IS ENTERED WHEN THE VEHICLE IS RETURNED OR ARRIVES AT ITS NEXT STOP OR FINAL

## Fleetcoin - Flowchart

Joseph Borrás | October 5, 2021





# FLEETCOIN | THE LOGIC (2:3)

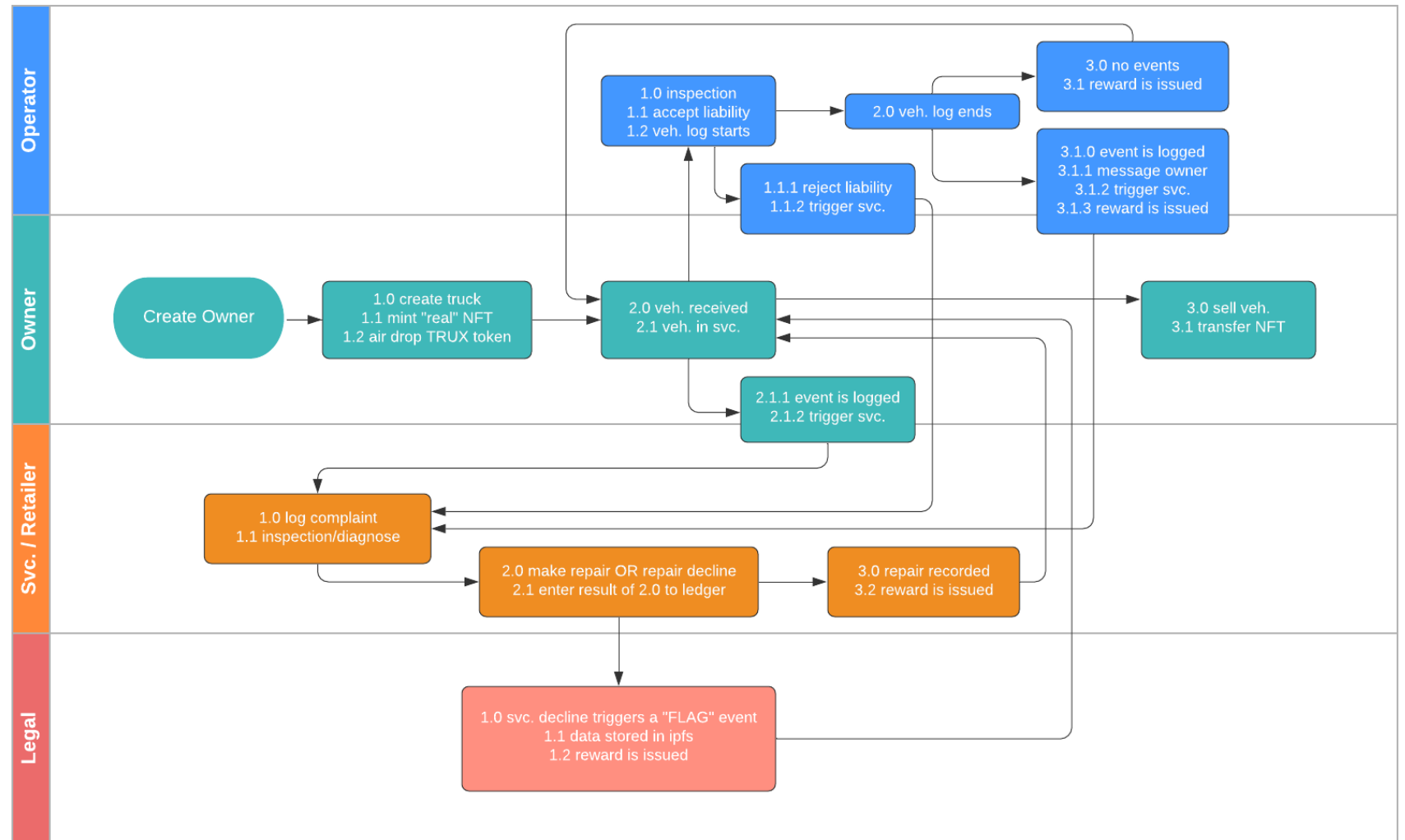
IF NO EVENT IS RECORDED (MILES IN, MILES OUT, NO NOTES), THE VEHICLE IS ENTERED BACK INTO SERVICE.

IF AN OPERATOR DECLINES THE LIABILITY CONTRACT AT ANY POINT, FLEETCOIN WILL ALERT THE OWNER AND TRIGGER A SERVICE OR SAFETY INSPECTION.

THE RESULTS OF THAT INSPECTION AND ANY ASSOCIATED NOTES ARE ENTERED INTO THE RECORD.

## Fleetcoin - Flowchart

Joseph Borrás | October 5, 2021



# FLEETCOIN | THE LOGIC (3:3)

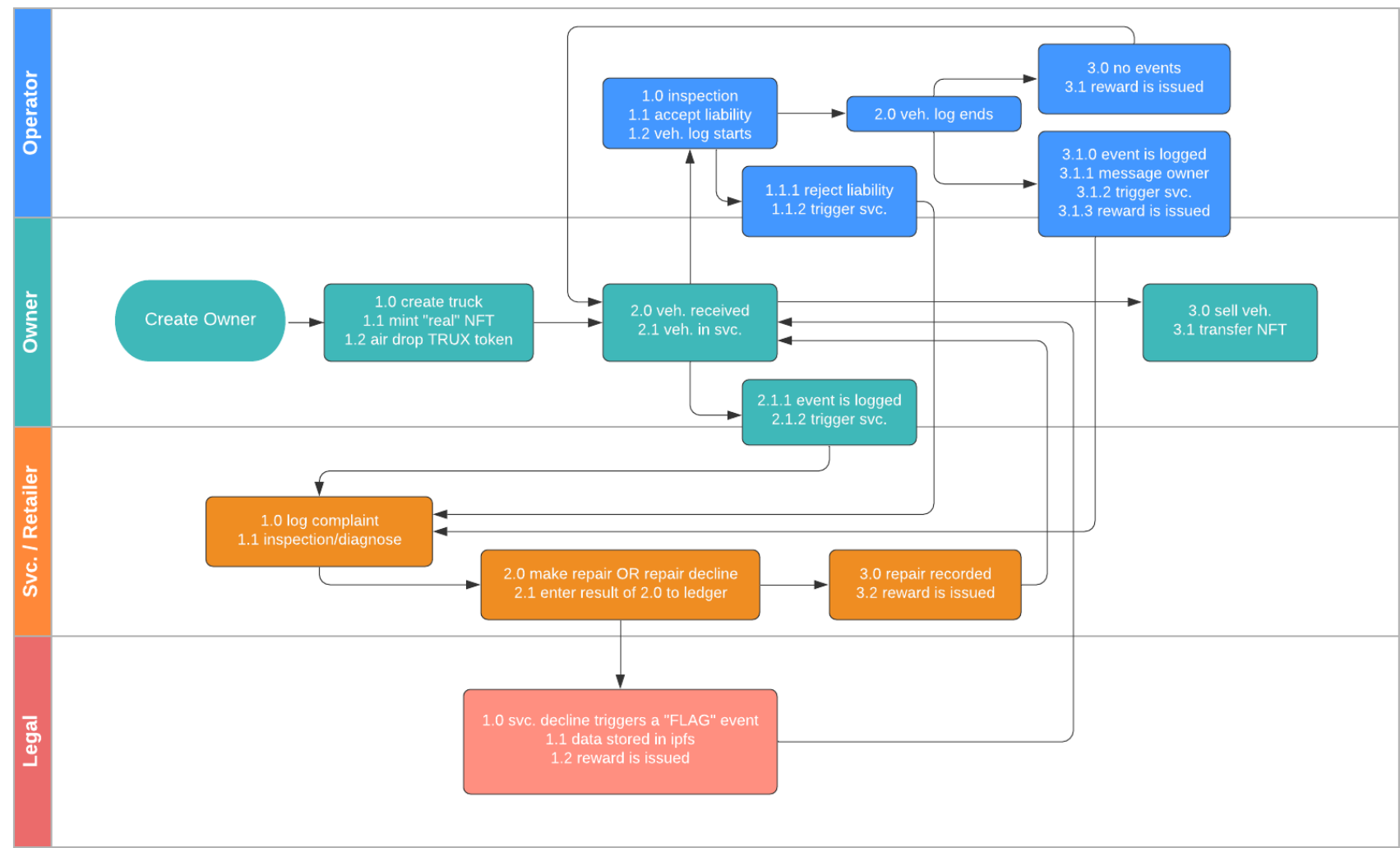
IN THE EVENT OF AN INCIDENT, ANY PARTY INTERESTED IN VIEWING THE COMPLETE, VALIDATED RECORD OF THE VEHICLE WILL BE ABLE TO ACCESS IT WITH THE OWNER ADDRESS.

OWNERS HAVE A COMPLETE CHAIN OF CUSTODY RECORD OF THAT “LIABILITY” BATON.

OWNERS AND OPERATORS ARE INCENTIVIZED TO RECORD ENTRIES WITH TRUX – THE GOVERNANCE TOKEN THAT POWERS FLEETCOIN – WHICH THEY CAN EXCHANGE FOR OTHER

## Fleetcoin - Flowchart

Joseph Borrás | October 5, 2021



# FLEETCOIN | MINIMUM VIABLE PRODUCT (MVP)

## MVP DEMO AND CODE WALK-THROUGH

### SUPPORTS FOLLOWING FEATURES:

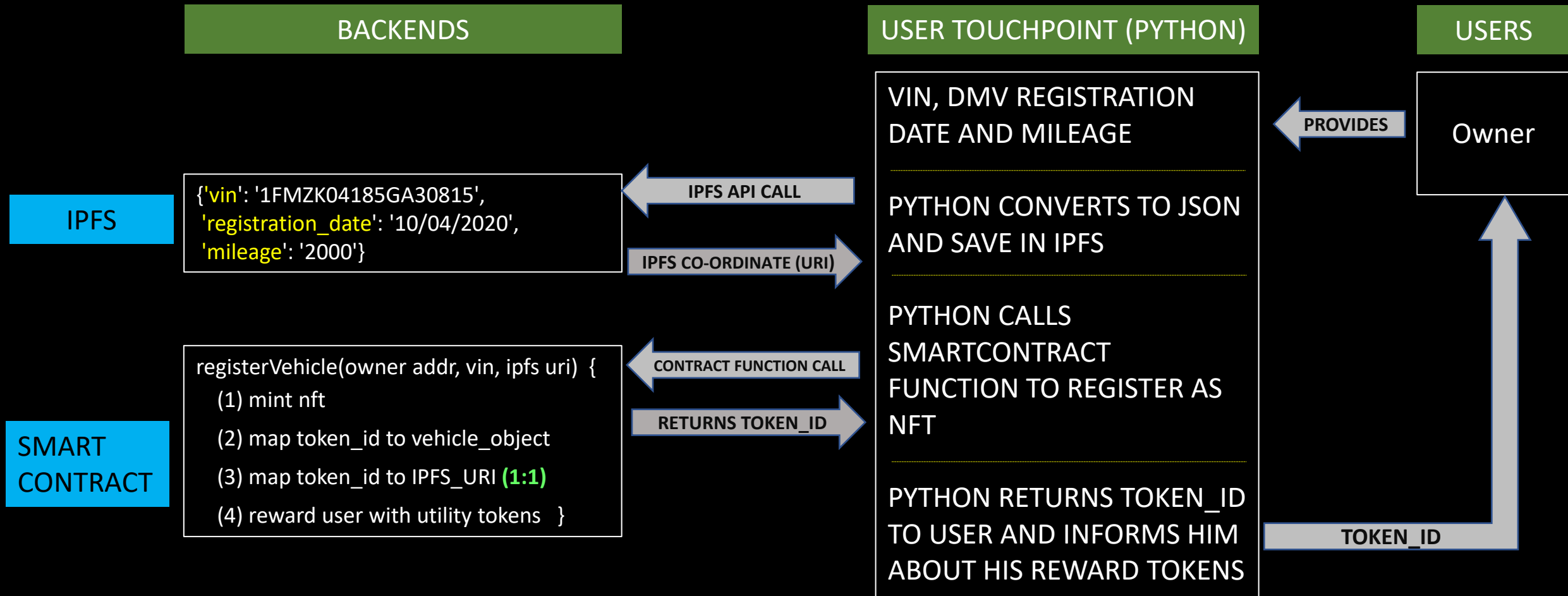
- VEHICLE REGISTRATION AS NFT
- LOGBOOK ENTRY
- SERVICE DETAILS ENTRY
- VIEW VEHICLE RECORDS

### MVP COMPONENTS:

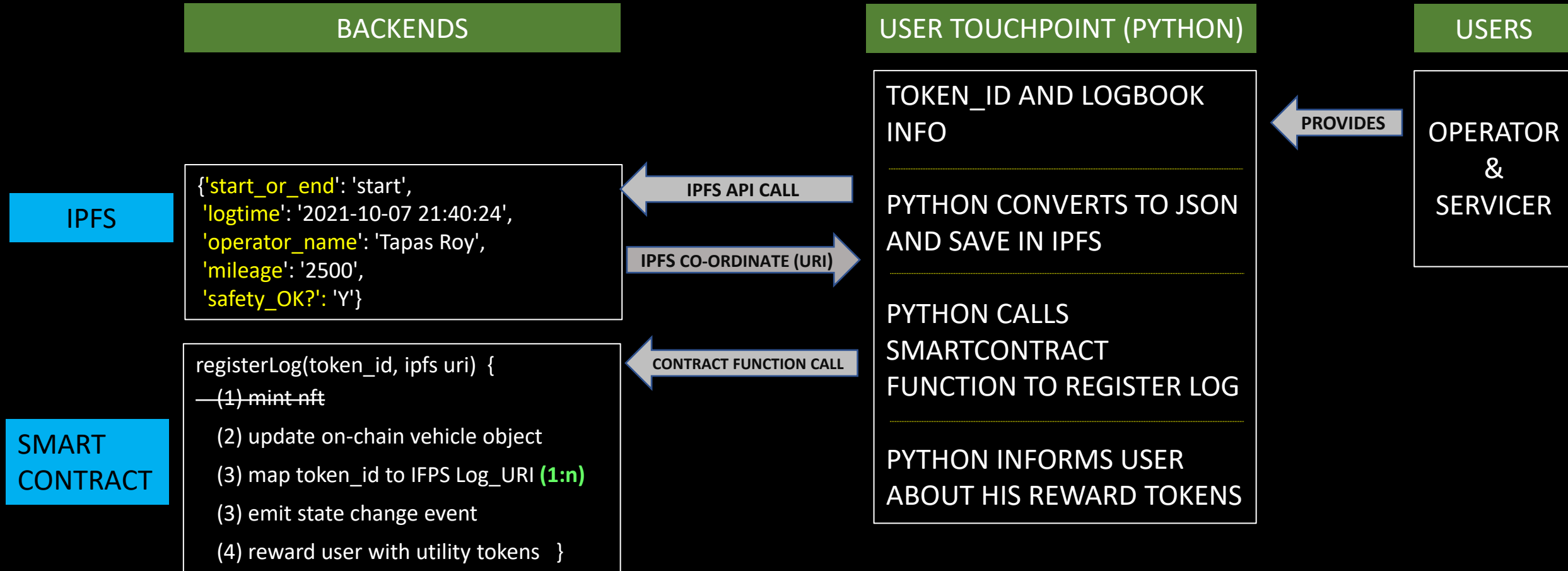
- SOLIDITY SMART CONTRACT – backend logic
  - .SOL AND .JSON
- IPFS – backend storage
- PYTHON NOTEBOOK – user touchpoints
- .ENV FILE WITH:
  - PINATA\_API\_KEY & PINATA\_SECRET\_API\_KEY
  - WEB3\_PROVIDER\_URI
  - SMART\_CONTRACT\_ADDRESS



# FLEETCOIN MVP| View vehicle records

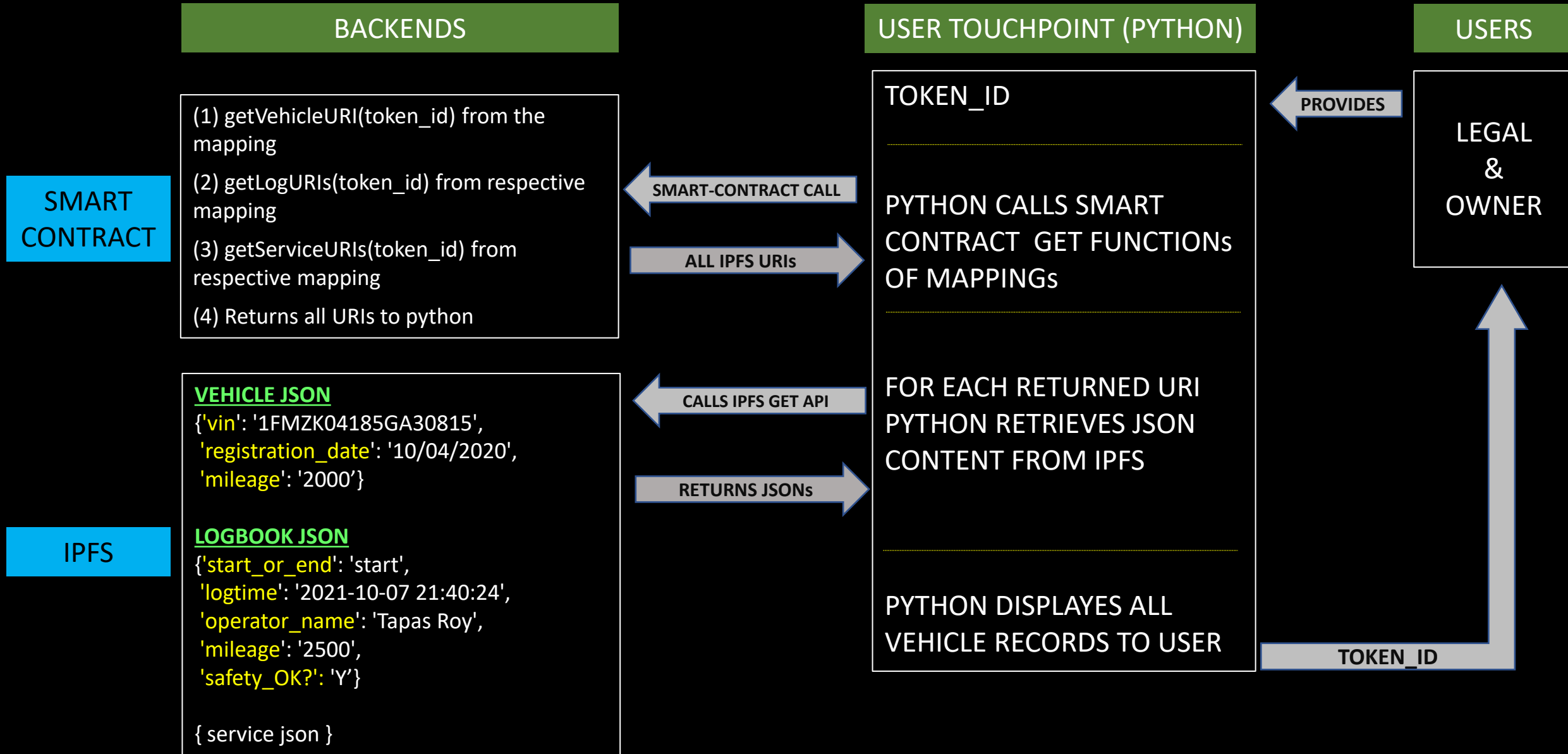


# FLEETCOIN MVP| logbook and service details entry



SIMILAR WORKFLOW FOR SERVICE DETAILS ENTRY

# FLEETCOIN MVP| logbook and service details entry





# FLEETCOIN | IN PRACTICE (1:7)

The ledger is accessed through an android or ios app, which serves as a wallet to verify the operator's id.

A Bluetooth connected obd dongle communicates with both the phone and the vehicle to record vehicle data and apply timestamps, which are then passed to the blockchain through the phone's data connection.



***SAFETY "OK"***



***ADD TO RECORD***



***DIAGNOSTIC "SNAPSHOT"***



***REQUEST SERVICE / TECH***

# FLEETCOIN | IN PRACTICE (2:7)

The first step for the operator is the “safety ok” entry. By selecting “safety ok”, the operator is stating they’ve checked the vehicle and accept liability.

Logic is built into the app and dongle that prevents the vehicle from starting unless “safety ok” is selected.



***SAFETY “OK”***

# FLEETCOIN | IN PRACTICE (3:7)

If the operator chooses to decline liability, their only option is “request service”, which takes the vehicle out of service until a technician (using their own wallet/id) accepts liability.



***SAFETY “OK”***



***REQUEST SERVICE / TECH***

# FLEETCOIN | IN PRACTICE (4:7)

if “safety ok” is selected and the operator accepts liability, a “diagnostic snapshot” of the vehicle is taken.

This records the timestamp, miles, fuel level, and other diagnostic data (such as check engine or other warning lights) and enters them into the ledger.



***SAFETY “OK”***



***DIAGNOSTIC “SNAPSHOT”***



# FLEETCOIN | IN PRACTICE (5:7)

Once the job/trip is over, the operator must add it to the record.

Logic is built into the app and dongle that prevents the vehicle from shutting off unless the trip is added to the record.



***ADD TO RECORD***

# FLEETCOIN | IN PRACTICE (6:7)

Once the job/trip is over, the operator must add it to the record.

Logic is built into the app and dongle that prevents the vehicle from shutting off unless the trip is added to the record.

on the first click, the operator is prompted to enter any relevant notes they want added into the ledger, or request service.



***ADD TO RECORD***

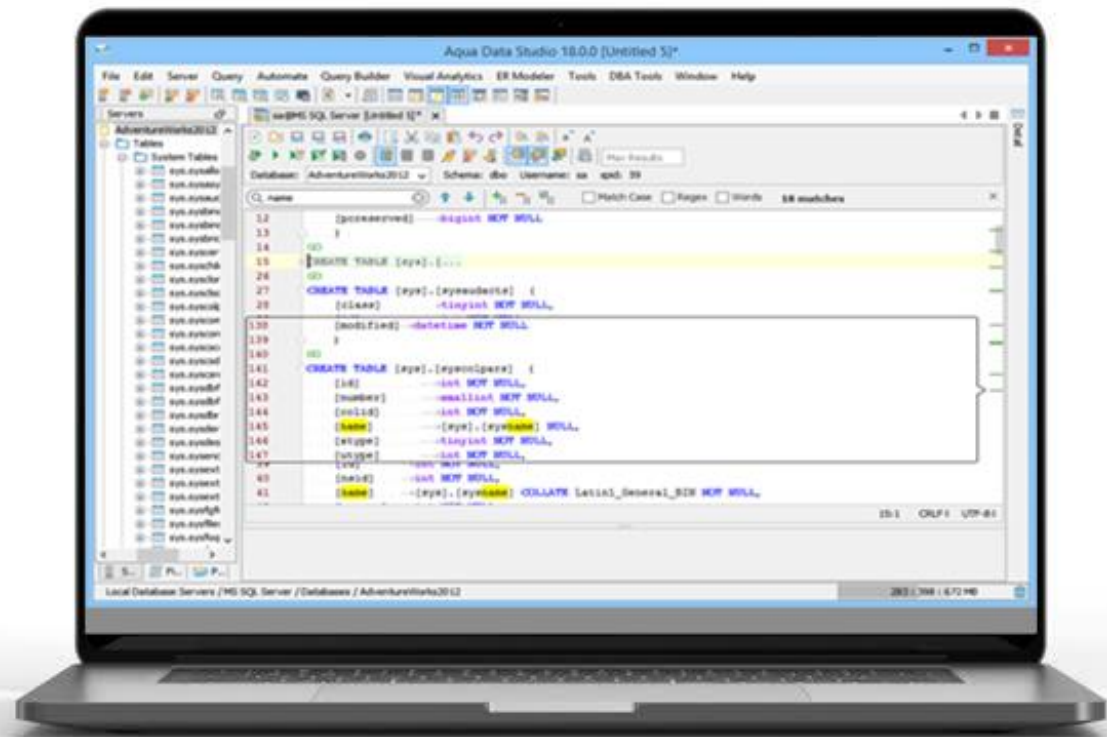


***REQUEST SERVICE / TECH***

# FLEETCOIN | IN PRACTICE (7:7)

All the entries, along with their associated notes, are stored on the uri and exportable as a database, which can be imported into existing fms or sms systems, or even quickbooks, in the case of a small business fleet.

Attorneys may also access the fleet's complete, verified data records as needed to support their case in court.

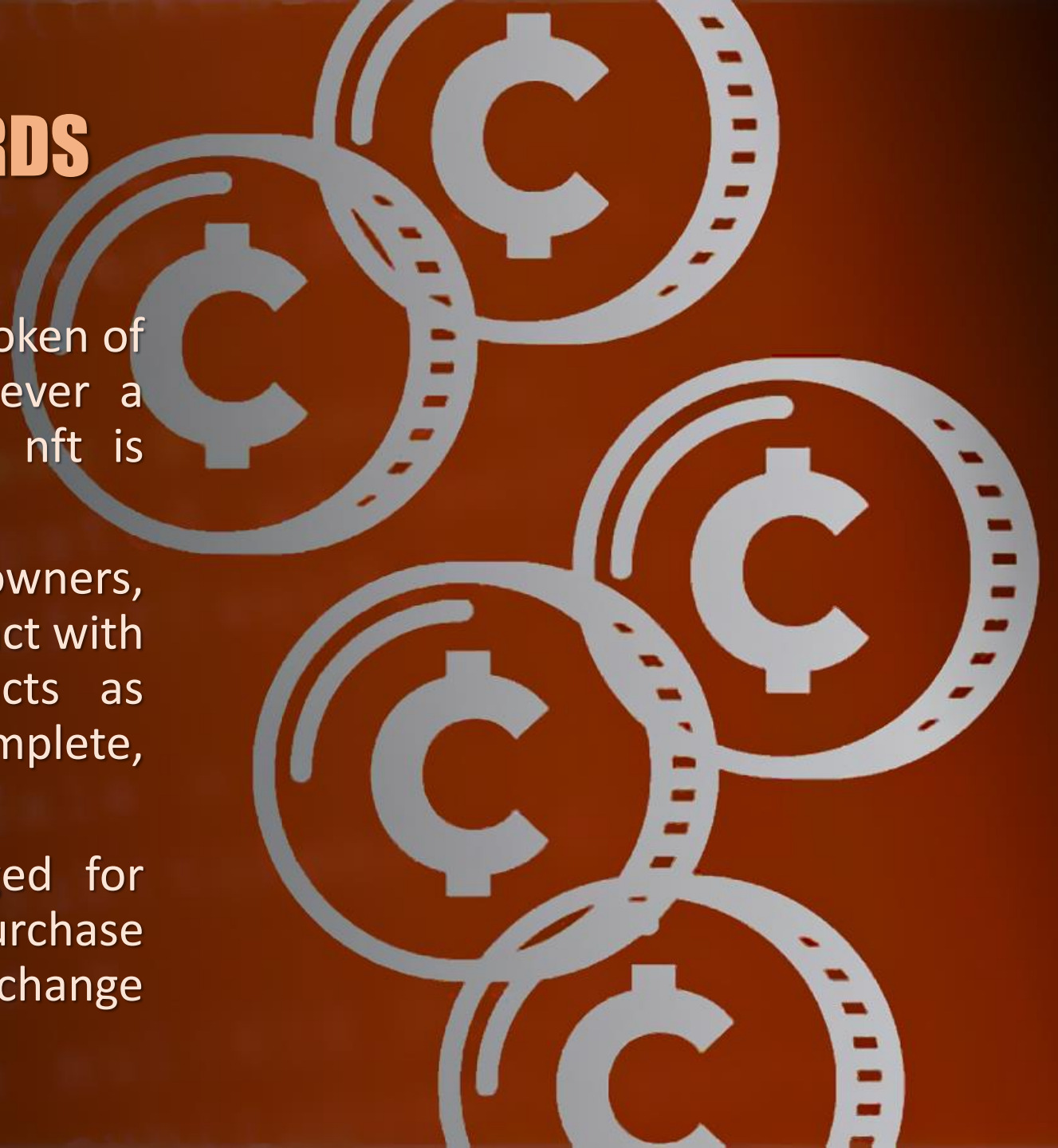


# FLEETCOIN | TRUX REWARDS

Trux is the utility and governance token of fleetcoin. Trux are minted whenever a vehicle is registered and a new nft is minted.

Trux are given as rewards to owners, operators, and servicers who interact with the fleetcoin blockchain and acts as another incentive to keep a complete, verified record.

Eventually, Trux can be exchanged for other crypto, cash, or used to purchase collectible nfts on the fleetcoin exchange (next slide).





# FLEETCOIN | COLLECTIBLE NFTS

Whether it's the truck from *mad max fury road* or optimus prime from *the transformers* that first ignited your love of trucks, fleetcoin's unique collection of nfts based on the most iconic fictional vehicles of all time is sure to have one – or several – trucks that you can call your own.

Buy them, sell them, or trade them – the choice is yours, and it's all managed with the power of Ethereum smart contracts.

These collectible nfts can be obtained from air drops as a reward for creating log events, or through initial sales/auctions.

NOTE: captain chaos' *cannonball run* transcon medi-vac ambulance is *not* for sale!

