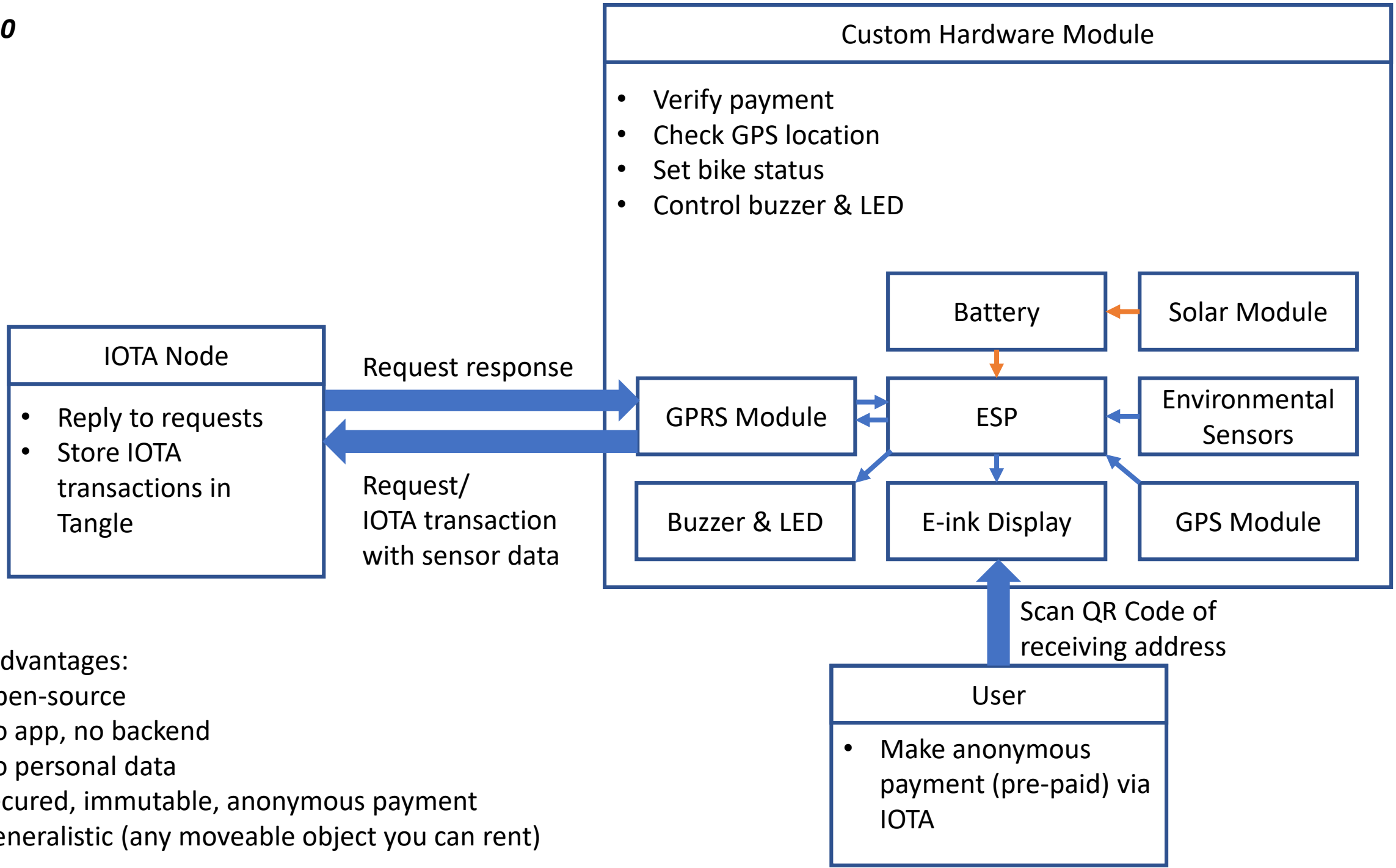
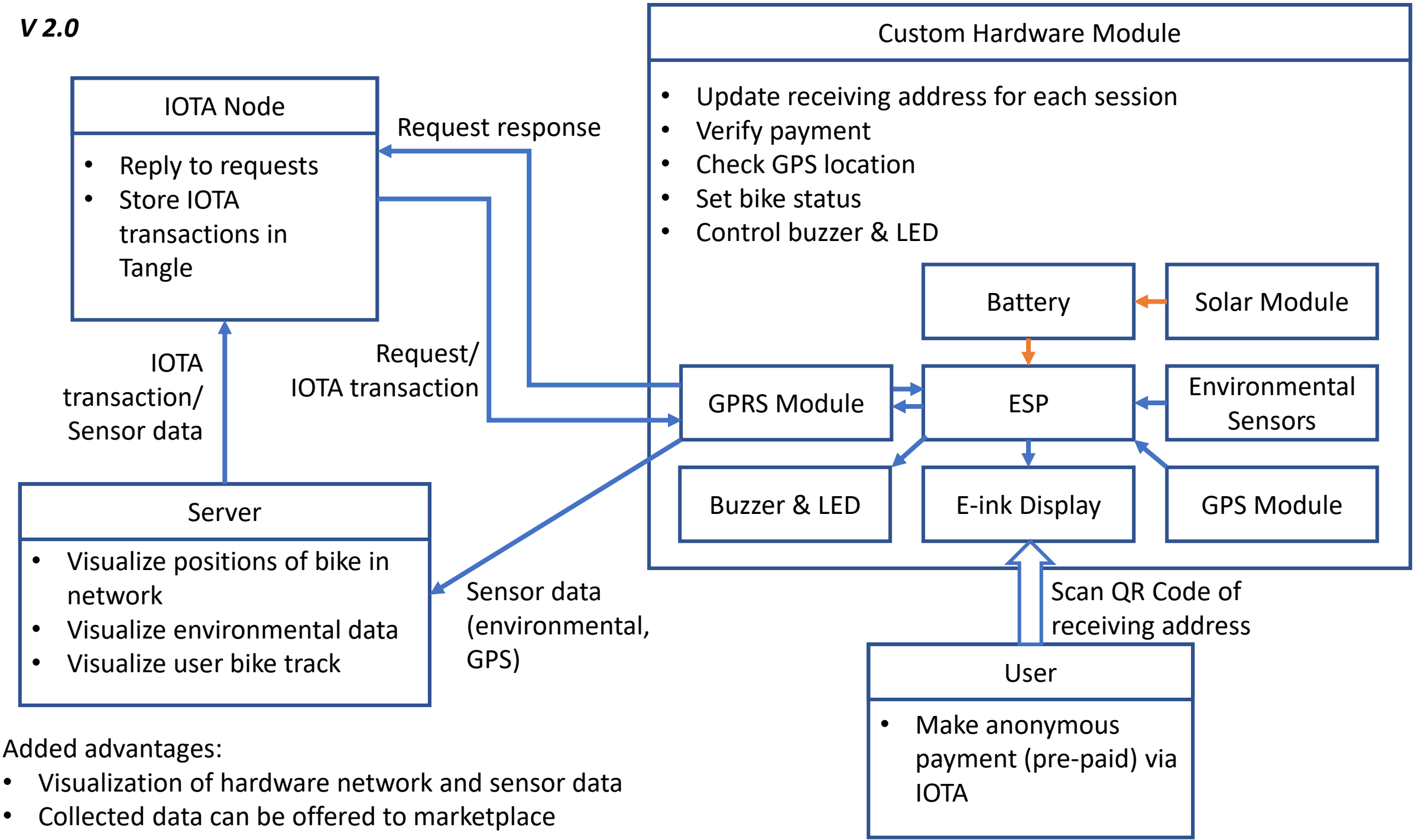
***V 1.0***




Key advantages:

- Open-source
- No app, no backend
- No personal data
- Secured, immutable, anonymous payment
- Generalistic (any moveable object you can rent)

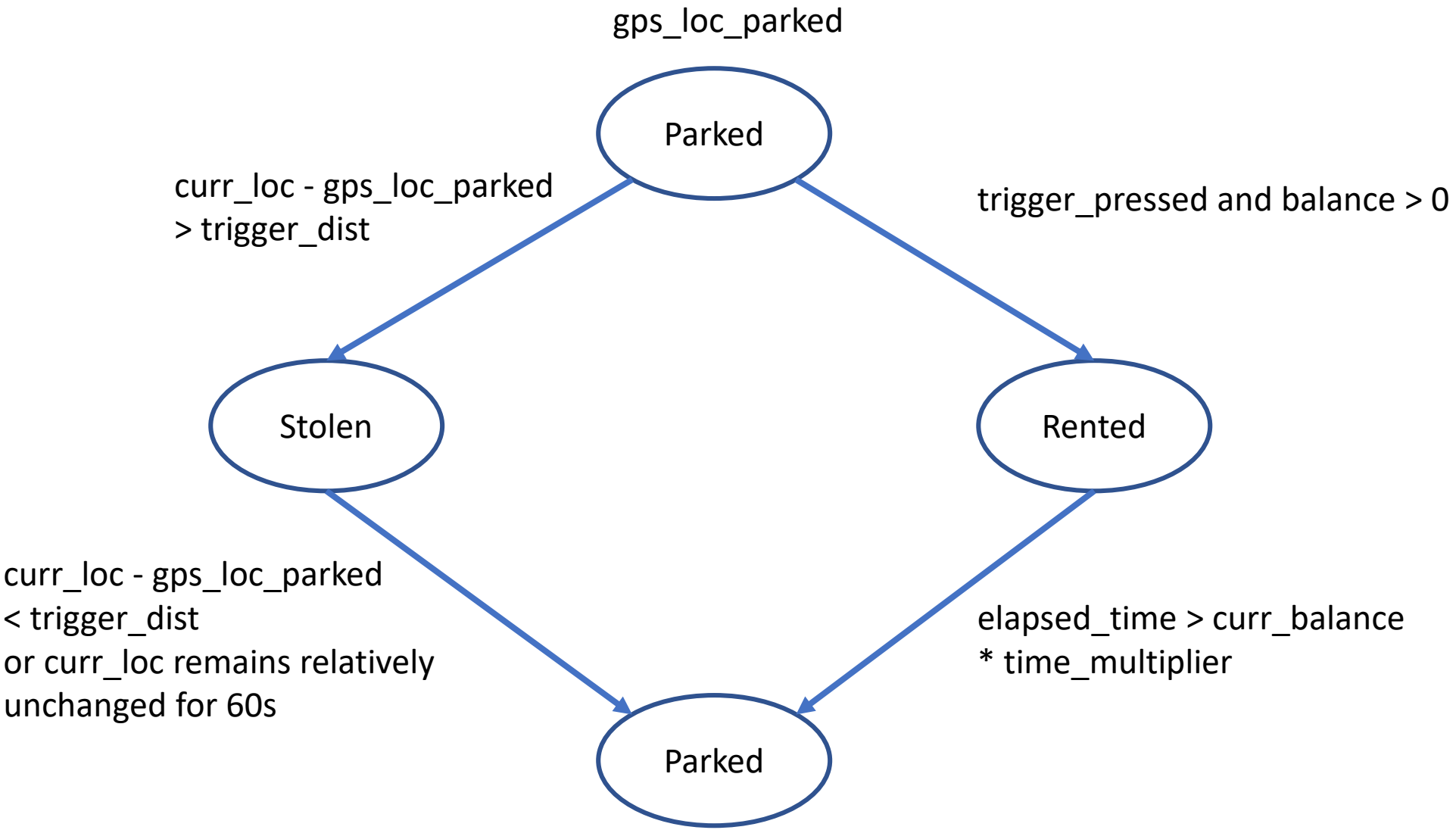
***V 2.0***




Added advantages:

- Visualization of hardware network and sensor data
- Collected data can be offered to marketplace

***State diagram of hardware module***



***"Parked" loop***

- Check if trigger button is pressed
  - If true: get_balance()

***Loop 10 times***

- Go to sleep
- Wake up every 60 seconds
- Take sensor data
- check_if_stolen()
  - If true: get start_loc, get start_time, break loop

- Send to server all data

***get_balance()***

***Loop 10 times***

- Get account balance B
  - If B = 0: delay 10s
  - If B > 0: status = rented, break loop

***check_if_stolen()***

curr_loc – gps_loc_parked > trigger_dist

- If true: status = stolen,
- If false: status = parked

***"Rented" loop***

- Collect sensor data & send to server
- Check balance for top-ups
- Check if session expires
  - If true: status = parked, update receiving address, break loop

***"Stolen" loop***

- check_if_stolen()
  - If false: break loop
  - If true:
    - loc_avg = (start_loc + curr_loc)/2,
    - If time > 60 seconds:
      - If (loc_avg – start_loc) < trigger_dist:
        status = parked,
        gps_loc_parked = loc_avg,
        break loop

***Database***

| HARDWARE_STATUS | |
|---|---|
| ***hardwareID** | *integer* |
| address_index | *integer* |
| session_address | *text* |
| status | *text* |
| latittude | *real* |
| longitude | *real* |

| SENSOR_DATA | |
|---|---|
| hardwareID | integer |
| address | *text* |
| latitude | *real* |
| longitude | *real* |
| temperature | *real* |
| humidity | *real* |
| timestamp | *timestamp with timezone* |

***hardwareID** – key (unique) attribute