Pharmachain

By
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wwww.sprytech.uk www.pharmachain.net

Introduction

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Our Products and Services

- Blockchain and Cyber Security Technology Development
- Blockchain Application Development
- Blockchain Technology Services (Ethereum & Hyperledger)
- Advisory and Consultancy Services

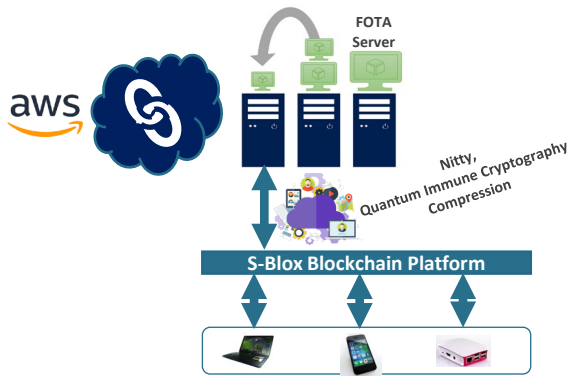
Other use cases-IOT, Finance

IOT Device Firmware Upgrades

Over the Air (OTA) firmware upgrades are open to attacks and the time taken for data transfer is considerably higher.

To make the process more robust, the server side of the OTA update is replaced with a modular, distributed, and layered architecture that uses a DLT framework of S-Blox to validate and send firmware updates.

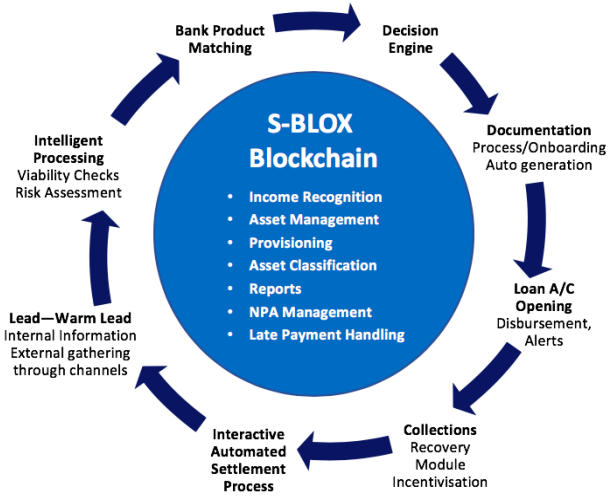
IOT Solution



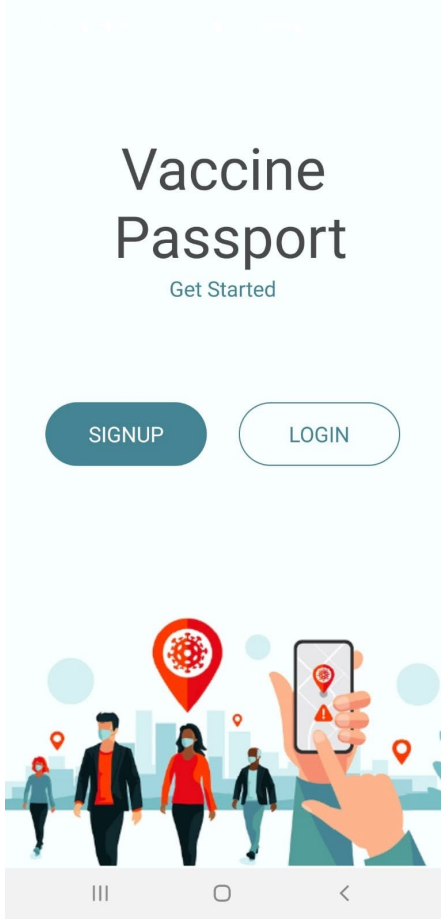
Loan Management System

A complete ecosystem for retail lending which simplify the entire lending process, reduces human/redundant touch points, provide increased efficiencies and ease of access to lenders.

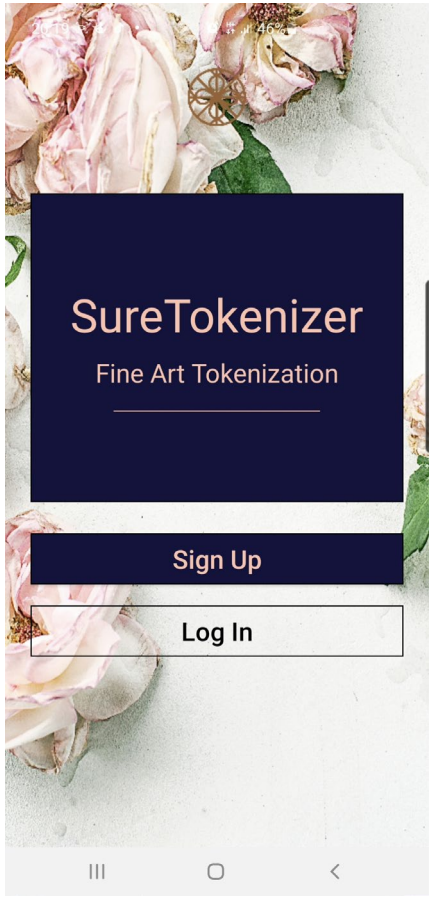
Simplified & Automated Lending Solution



Other use cases-based on tokenization



https://youtu.be/CNVPAGsSwdY



https://youtu.be/u9yQK_QGg2I

COUNTERFEIT DRUGS – GLOBAL STATISTICS

(According to WHO)

£420 BILLION / YEAR

Global Pharmaceutical marketplace

10 – 15%

Global Pharmaceuticals are counterfeit

£60 BILLION / YEAR

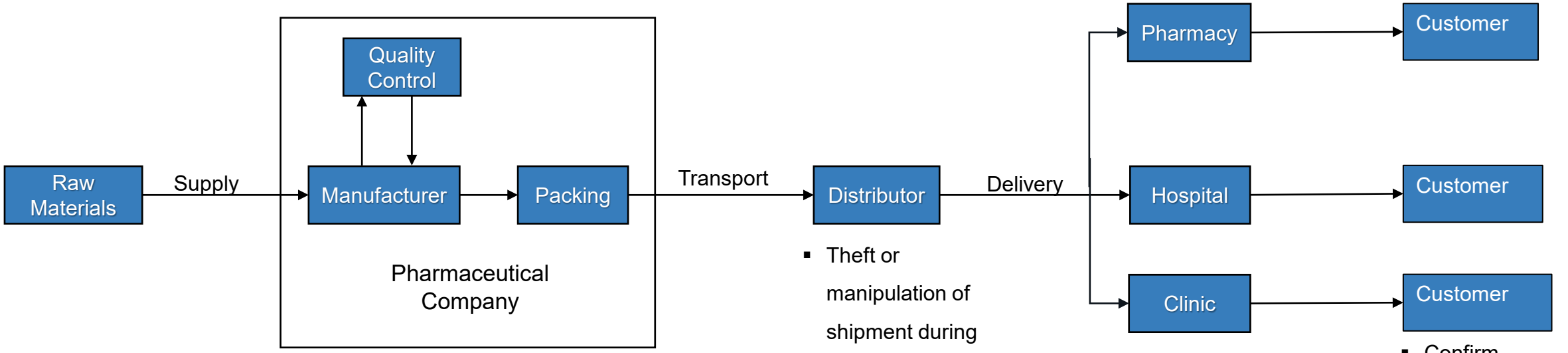
Global loss to Pharmaceuticals from counterfeit medicines

20 – 40%

Counterfeit Drugs in some areas of Africa, Asia, Eastern Europe, and South America

- **50%** of illicit online pharmacies in the USA are selling counterfeit medicines

PHARMACEUTICAL SUPPLY CHAIN CHALLENGES



- Visibility of entire supply chain data
- Traceability of drugs post manufacture

- Theft or manipulation of shipment during delivery
- Multiple documents/ paperwork.
- Visibility of entire supply chain data
- Traceability of the drugs post distribution

- Traceability of legitimate drugs
- Fulfilment of orders by distributor
- Visibility of entire supply chain data
- Record of drugs dispensed to customer

- Confirm Authenticity of Pharmaceutical Drug

PHARMACHAIN

HOW BLOCKCHAIN TECHNOLOGY CAN COMBAT THE COUNTERFEIT DRUGS TRADE

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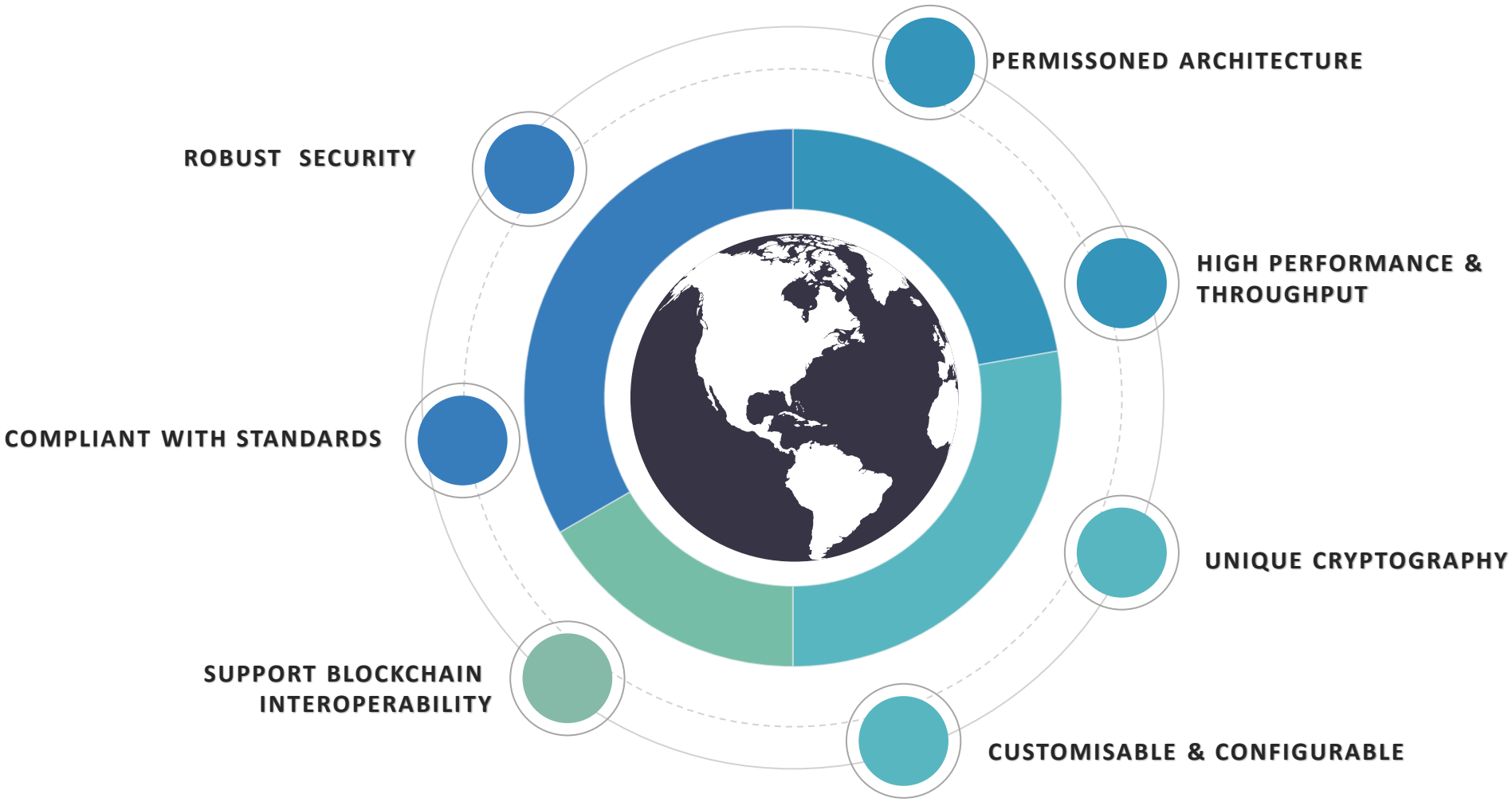
BLOCKCHAIN TECHNOLOGY FEATURES



PHARMACHAIN – BLOCKCHAIN SOLUTION

MANUFACTURE ✓

- Manufacturer License
- Records of Raw Materials, Intermediates, API Labeling
- Batch Production Record Review
- Order details
- Shipment details
- Invoice

DISTRIBUTOR ✓

- Distributor License
- Order detail
- Shipment details
- Purchase Order
- Goods receipt
- Invoice

RETAILER ✓

- Retailer license
- Purchase Order
- Goods receipt
- Dispensing record

CONSUMER

BLOCKCHAIN

PRODUCT ID: 000129673

Batch of drugs

Oxford-Manufacturer
Dispatched: 20th April

Warehouse Address
Arrived: 22nd April
Dispatched: 27th April

Watford-Distributor
Arrived: 30th April
Dispatched: 4th Mayl

London Retailer
Arrived: 5th May

Oxford

Leave a comment...

Authentic Drug
Product id: 000129673
Country of origin: UK
Mfg date: 10th April 2019
Exp date: 9th April 2021
Batch Number: 296

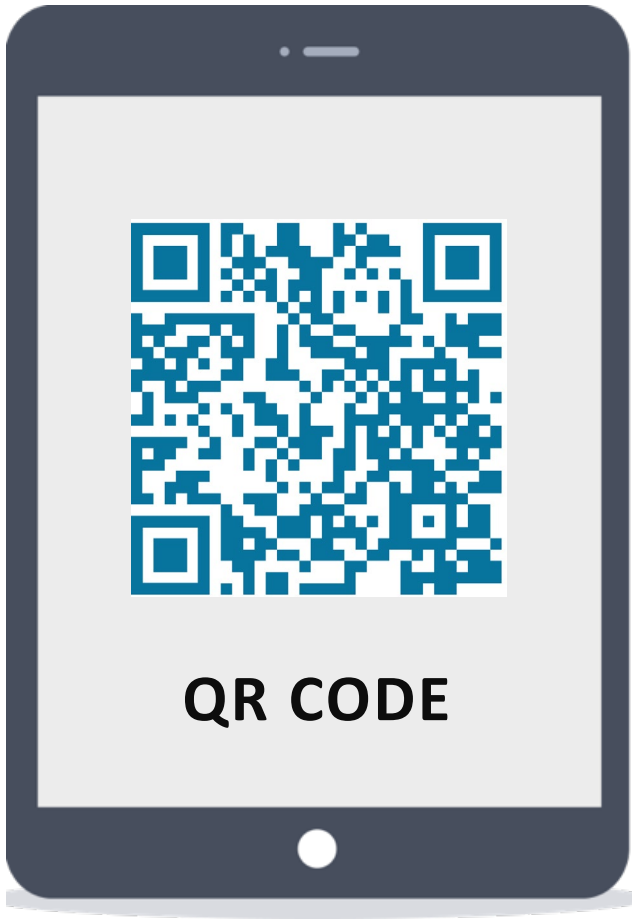
TODAY

Quality Checking Certificate available

Purchase order Download

Order confirmation email was sent to Dina (dina@gmail.com).

PHARMACHAIN – SCAN QR CODE FOR DATA



✓ Legitimate Drug

X Fake Drug

FMD & DSCSA

Pharmaceutical companies, Contract Manufacturers or repackaging companies face many difficulties when working to meet the traceability requirements from different countries, and they face significant challenges in order to comply with those regulations without spending too much time and resources.

USA-Drug Supply Chain Security Act (DSCSA)

https://www.fda.gov/drugs/drug-supply-chain-integrity/drug-supply-chain-security-act-dscsa

The DSCSA mandates collection of the following data:

Serial Number (no randomization required), the Lot Number where the product originated, the expiration date, and the National Drug Code (NDC) Number.

EU-The Falsified Medicines Directive(FMD)

https://ec.europa.eu/health/human-use/falsified_medicines_en

The FMD requires the collection of the following data:

Product Code, Drug Registration Number, Lot Number, Expiration Date, and the Randomized and Unique Serial Numbers.

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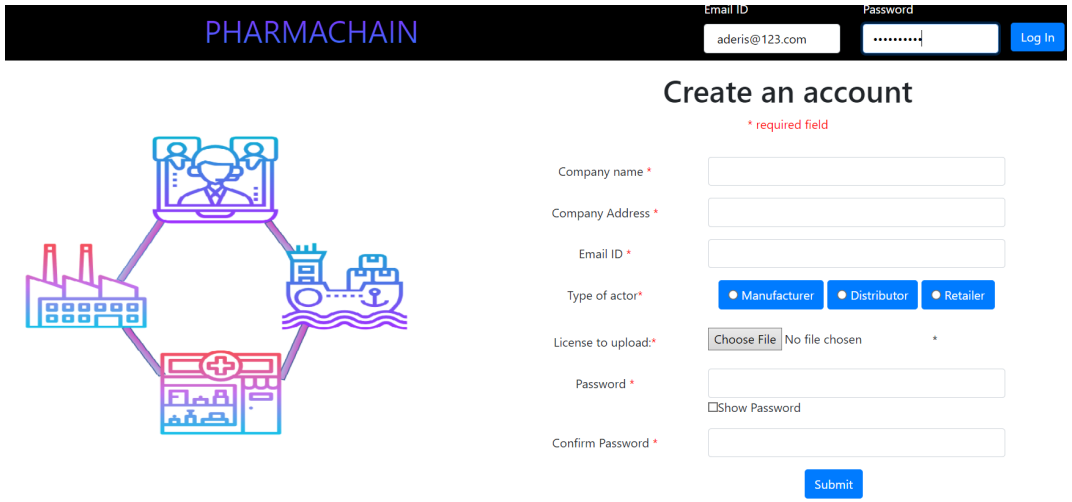
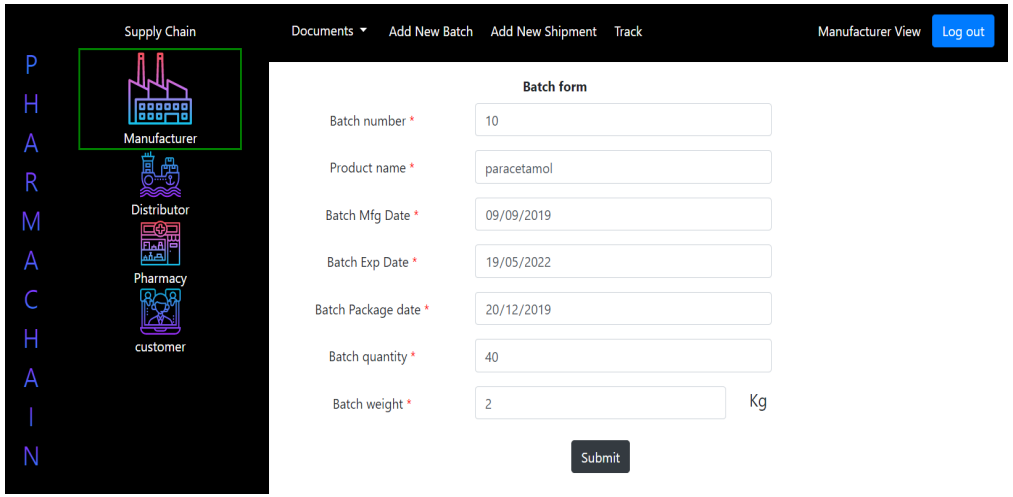
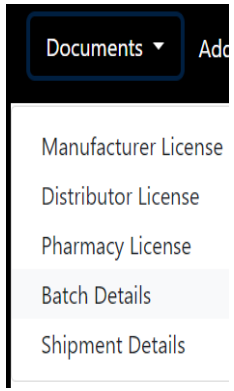
PHARMACHAIN – BENEFITS OF BLOCKCHAIN TECHNOLOGY

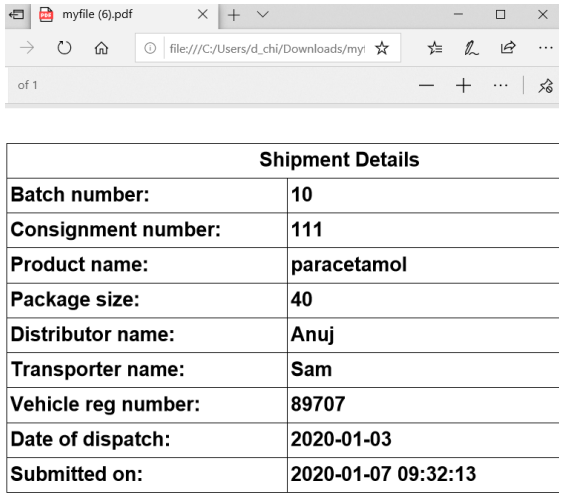
- **Verify** Authenticity of drugs can be verified by the consumer
- **Validate** All data from manufacture to retailer can be validated
- **Secure** Data is immutable
- **Transparency** All data is visible to all actors
- **Traceability** Legitimate drugs and associated transactions are traceable
- **Access control** Access to supply chain data can be managed

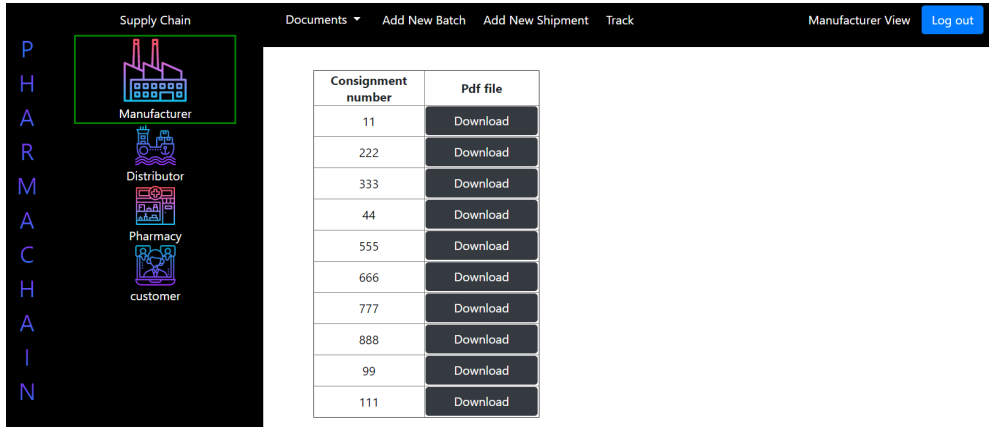
PHARMACHAIN – Product screenshots



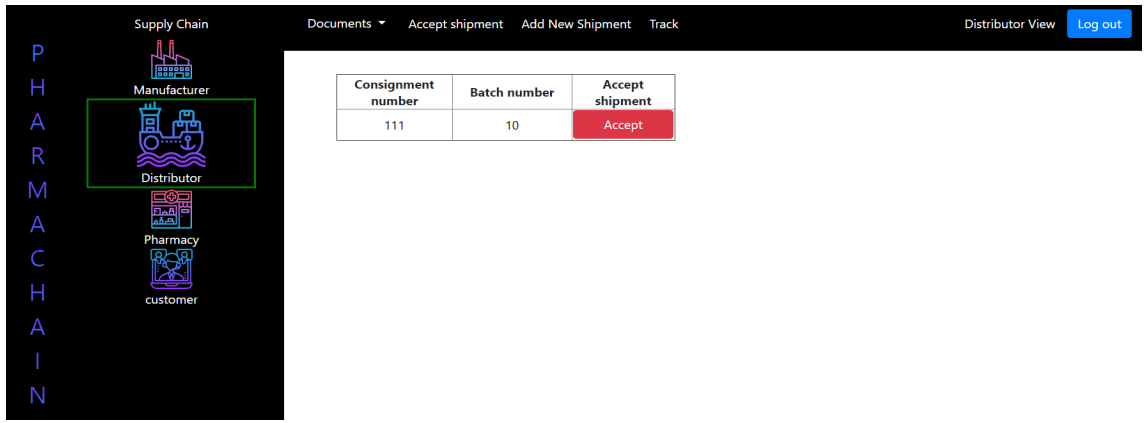


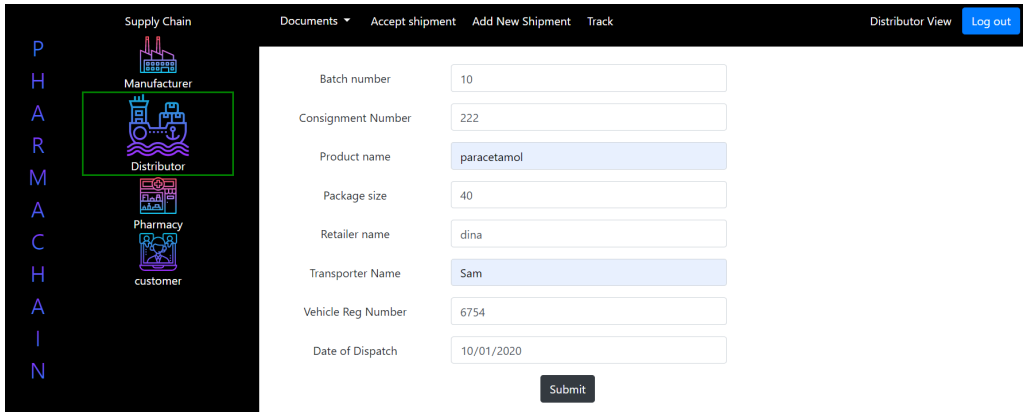


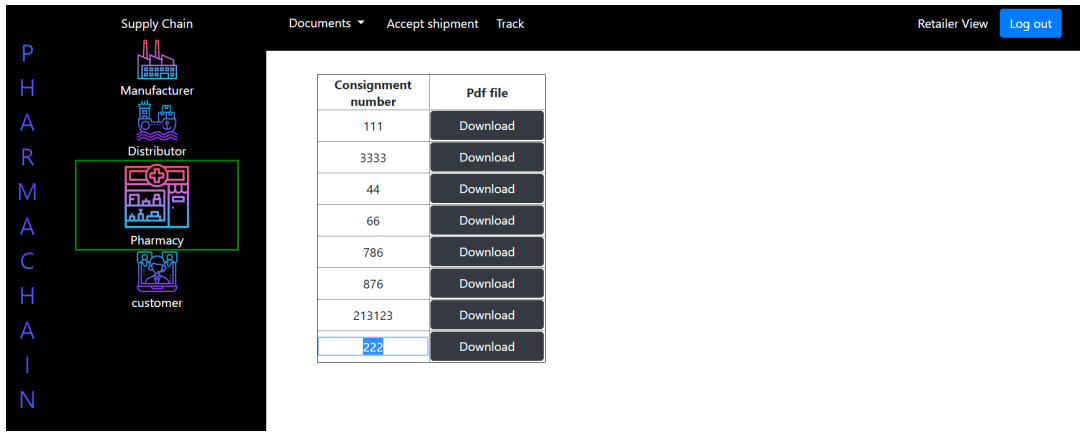




PHARMACHAIN – Distributor page

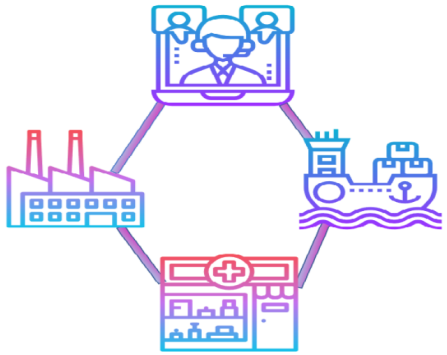






PHARMACHAIN – Tracking page

PHARMACHAIN



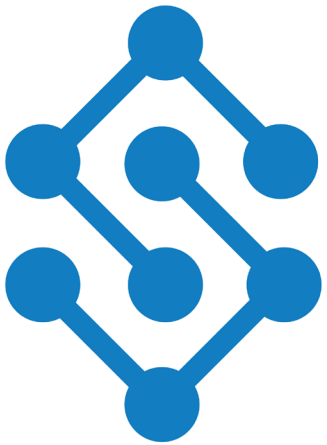
Track

Enter batch number *

10

Track

10
Manufactured By Aderis
85 Main Street Hopkinton, MA 01748 United States
Distributed By Anuj
Hatfield
Retailer Dina
London



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