Cygnet Infotech

A leading UK-based global tracking service provider increased the protection against fraudulent drugs with Blockchain encrypted system

COUNTRY	INDUSTRY
UK	Pharma

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About Client

The client is one of the most efficient global tracking system providers located in the UK, which delivers security to both patients and the pharmaceutical industry to ensure counterfeit drugs do not enter the supply chain.

Business Requirement

- Develop a blockchain-based solution that can provide a secure, interoperable, and immutable source of data that allows tracking of serialized products across an unbroken chain of custody throughout the supply chain

- The solution also required a secure scalable and hybrid blockchain-based infrastructure to manage crypto tokens on public and private blockchain-based networks

Our Solution

Developed an interoperable (hybrid), fast, scalable, and secure Ethereum based blockchain solution utilizing both ERC-721 and ERC-20 standards that automates end-to-end tracking of medicinal products throughout the pharmaceutical supply chain.

The solution is also customizable according to the unique business needs of the stakeholders involved, such as manufacturers, supply chain operators, logistics providers, and retailers.

The solution solved major challenges of the pharmaceutical industry by implementing below mentioned main features complying with major track and trace regulations by regulatory bodies:

- Lot level traceability and verification for manufacturers, wholesalers, repackagers, and outlets, such as hospitals and retailers

- Tracking changes of ownership across product batches
- Tracing serialized items with full product transaction history back to the original manufacturer

The solution also ensures the verification of individual packages. This includes important information such as:

- Manufacturer product code
- Serial number
- National reimbursement number, if present
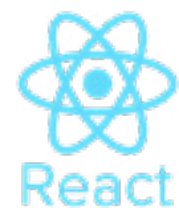- Batch number
- Expiry date

By harnessing the growing efficiency of big data, machine learning, blockchain technology, and intelligent workflow processing, the solution both accurately and securely record data relating to serialized packages as they pass through each point in the supply chain lifecycle, by tracking and tracing regulatory requirements.

Tools & Technologies

Key Features

- Blockchain-based solution for distributed ledger
- Data encryption on top of blockchain technology to secure sensitive client information and ownership of packets from their origin to delivery
- Deployment on multiple Virtual Private Clouds (VPCs)
- Highly extensive secure and scalable network

Business Outcome

Minimized the cost and resources required to comply with track and trace regulations

Improved system performance and reliability or closing security gaps

Increased protection against fraudulent drugs harming millions around the world and inflicting serious damage on the brand names

Full compliance with security best practices and a wide range of IT security standards

Improved bottom lines of major pharmaceutical manufacturers and government programs that provide subsidized medicines

Cygnet Infotech

Established in 2000, Cygnet Infotech works with clients across 35 countries and has a strong team of over 1000 employees. Cygnet Infotech's offerings range from IT Services, Technology Products, and Tax Technology solutions. Aligned with its vision of providing technology enabled business solutions, Cygnet Infotech delivers end-to-end solutions for clients' most pressing business needs.

Cygnet Infotech's Technology Services enables clients to accelerate growth and optimize business operations through, Product Engineering, Bespoke Solutions, IT Modernization, Automation, Implementation Services, Risk Mitigation Services, Information Security & Compliance Services, and IT Staff Augmentation.

Cygnet DIGITAL ENGINEERING SERVICES

Cygnet DES is a partner to clients in the competitive market space and deploys a consultative and customer-centric approach. Its solutions range from standalone bespoke development and managed services to building connected ecosystems across the enterprise and developing smart systems by leveraging emerging technologies like AI, Blockchain, and Hyperautomation.

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