



Wipro Smart Track

Save lives, improve profitability
and protect brand equity



The pharmaceutical industry is facing two major challenges globally which are resulting in tragic loss of life and economic losses.

Counterfeit Drugs: Counterfeit drugs cause up to 500,000 deaths per year and over USD 200 billion in economic losses annually. The World Health Organization estimates that over 10 % of drugs in the global supply chain are counterfeits.

Broken Cold Chains: Several drugs require temperature-controlled supply chains (cold chains) from the point of manufacture to point of dispensation. It is estimated that up to 25% of product degradation / wastage results in USD 16 billion in direct product loss due to temperature excursions.

Blockchain enables healthcare to move towards a value-based system, improve patient engagement and open opportunities for more consumer-centric product segments and revenue streams.

With the rise of biopharma, cold chain logistics is gaining new prominence and focus. Many biotech drugs require temperature-controlled shipping and storage.

Several drugs require temperature controlled cold chains from the point of manufacture to point of dispensation. Temperature excursions continue to be a major challenge, causing spoilage and product wastage, resulting in billions in direct product losses. This can cause harm to patients and brief drug shortages when required. A similar scenario exists for drugs that are sensitive to light, humidity, vibration, electromagnetic force etc.

Crafting a futuristic platform with blockchain, IoT, machine learning and advanced analytics

Additionally, counterfeiting is a global problem and it no longer affects just the consumer goods industry. It is unquestionable how lucrative the counterfeit drug business is with hefty margins that exceed drug trafficking and carry comparatively low risk. Counterfeit drugs cause up to 500,000 deaths per year and over \$200B in economic losses annually. The World Health Organization estimates that over 10 % of drugs in the global supply chain are counterfeits.

The Solution

Wipro Smart Track secures the cold-chain by tracking drugs at a unit of sale level from the point of manufacture to point of administration for excursions in temperature, humidity, shock, vibration and counterfeit attempts. The platform secures the supply chain and prevents cold-chain wastage, by generating geospatial alerts in real time with regulatory compliance.

Built natively on IoT, blockchain, machine learning and cloud technologies, it provides a secure and futuristic platform that can scale and be a secure hub for all supply chain partners to collaborate and monitor shipments in real time.

IoT and blockchain open a new era for securing the pharmaceutical supply chain

Benefits

- Easy-to-use, interactive maps and dashboards for specialists to effortlessly track each individual box of the product as it is shipped from the outbound warehouse to the pharmacy.
- Generates concurrent geospatial alerts of temperature, humidity and shock to proactively reduce drug spoilage
- Managers across the chain receive real-time alerts of shipment tampering which can prevent counterfeit drugs from entering the pharmacy



Features

- Futuristic technology platform built grounds up on IoT, blockchain, machine learning and advanced analytics
- Custom integrated IoT sensors that can track temperature, humidity, shock, vibration and counterfeit attempts
- Micro services based architecture to integrate with back end systems
- User centric intuitive user interface
- Pay as you go SaaS model
- Scalable and secure
- Mobile enabled

Caselets

Pharma Cold Chain - A Wipro innovation for one of the world's leading biopharmaceutical companies. A Digital Supply Chain & Anti-Counterfeiting Solution built on IoT, Blockchain and Cloud technologies

The solution involves creating an industry framework that secures the supply chain and prevents cold chain wastage by generating geospatial alerts in real-time in the event of a temperature excursion or counterfeiting attempt. The data of shipment and any anomalies during the shipment are recorded on a private permissioned blockchain network. This platform helps in the minimization of drug spoilage during shipment, which in turn results in improving patient safety. It gives an immutable audit trail cross the supply chain that helps in identifying any counterfeiting attempts, thereby reducing losses for the organization from the sale of counterfeit products.

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