DSCSA & Blockchain: Phase 2
Proof-of-concept pilots

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BLUE TEAM PILOT

- Chronicled

"Using a distributed blockchain network for compliance & innovation"

Overview

The Blue Team (Chronicled) is developing a distributed platform to be *owned and operated by industry* (including trade partners and service providers) to demonstrate its ability to meet all track & trace requirements, as well as be a platform for future business process innovation.

This Proof-of-Concept (PoC) Pilot will demonstrate how the industry can use the blockchain to:

1. Execute salable returns verification
2. Meet the interoperable 2023 system requirements
3. Block/eliminate counterfeits

Team's vision

The mission of this pilot is to demonstrate to an audience with varying knowledge of blockchain the possibilities of this technology to solve problems that have not been solvable with currently used technology.

Additionally, the Team looks forward to sharing its overall vision for the digital ecosystem. That is, how blockchain can connect the industry, and how each industry segment can benefit through these connections.

Target audience

The presentation is designed for service providers and supply chain trading partners who are currently <u>not using</u> service providers and have created their own systems.

DSCSA focus

The pilot will provide a framework for:

- Establishing an electronic connection between non-adjacent trading partners
- Establishing trust between trading partners
- Sharing required data, enforcing business rules without any exposure of proprietary data or business intelligence/full data obfuscation (will discuss the use of zero knowledge proofs)
- Solution for 2019 Saleable Returns identifier verification
- Establishing the distributed network / ecosystem for industry
- Designing for expansion beyond DSCSA compliance
- Payment processing for transactions
- Funding the architecture

Pilot will demo:

This demonstration covers all movements of the drug up to the point where it is removed from the manufacturer's packaging/unique identifier. Its design is based on the initial commissioning, then change-of-ownership, of the unique identifiers.

Technical features

This blockchain ecosystem consists of two primary software components:

1. Private Client – unique to each participant and hosts private data. It performs the following functions:
    - Receives transaction data
    - Exchanges messages with peer trading partners' clients
    - Securely stores private data, including transaction data and secrets
    - Prepares transactions to be posted to the blockchain by calculating hashes and mathematical proofs
    - Posts transactions to a node of the blockchain and verifies that they are successfully accepted
    - Connects to ERP, SCM, and other existing systems

2. Consensus Client – the software that runs on a Consensus Node and creates the technical consensus within the blockchain network. Consensus Nodes are tasked to maintain the blockchain security, resilience, and data integrity. Consensus Client delivers the following:
    - Validates transactions
    - Secures blockchain ledger via consensus
    - Provides zero knowledge proof verification
    - Hosts the Smart Contract, which implements the core business logic and verifies the mathematical proofs needed to enforce the business logic

The Blue Team's systems solution relies on GS-1 standards. The expectation is that this is a permission-based ledger owned & operated by the industry and service providers associated with the healthcare/pharma supply chain.