Problem Statement: Inventory Management using blockchain technology

Domain: Retail

One of the major problems faced in respective supply chain industry is the accuracy and authenticity of data regarding inventory. Many inventory management tools and techniques have been adapted throughout the years. Most of the Inventory management systems run an age-old DBMS and linear data entry in quantitative aspect. This is all good until some miscellaneous activity takes place in the source document. Even a negligence of .01 percent can cast an abruptly wrong data that follows the case. Then the investigation would be probed to which point of time the error has taken place. This is again a waste of time, money and other resources for the company. To avoid this most businesses, tend to write of the inconsistency and move on with it. Some data manipulations like these have led to jaw dropping laundering and unethical practices in the recent past. One of the main causes for this scenario to be showcased is the centralization of data. This makes it much simple for forging and falsification of data.

Solution-Blockchain

Supply chain industry being a pivotal entity in the world goods movement is striving to implement new technology that can overcome these flaws. Especially with the **Inventory management** system business look to streamline the work flow and maintain a hassle free and accurate record keeping system. Blockchain bridges the chasm in this sector and additionally offers something that businesses have never bargained for.

- **Highly secure data:** Data entry in the inventory management records are carried out on blockchain are encrypted, thus making it impossible to forge data

- **Decentralization of server:** There is not centralized inventory data storage; Blockchain operates on a network and therefore not controlled by a single entity.

- **Anti-opaqueness:** All parties involved have access to a data file that is completely immutable.

- **Process tracking & Reporting:** Throughout the process of managing inventory the data is checked and verified at every single checkpoint.

- **Data accuracy:** Data consistency is a thing of the past as it is spread across a public ledger the data concurrency issues

Inventory Management System Record Keeping

System of Record

Transactions and Events

Inventory order serialized asset

Shipping Records

Inspection Documents

Installation Documents