

Catena X Report

Implementation of Catana X

Data Protection

Data Exchange

Data Infrastructure

Implementation

In the first week of the research phase of Catena-X we learnt that the Automation Industry was having a disparity of the Data Framework due to which industry was not able to exchange data with ease and with uniformity. Most of the data bases in the automation industry were hosted privately by companies. During Covid there was major disruption of the supply chain throughout the world and most of the businesses were down. Except the IT Sector.

So automation companies came together to form a conglomerate and to form a decentralized network for exchange of data which is called CATANA-X. **Implementation of CATENA-X is done on blockchain technology**

	A	B	C	D	E	F	G	H	I
2	Battery Chemistry								
3	Battery Material								
4	Manufacturing Data								
5	Battery Type								
6	Battery Size								
7	Performance and Diagnostics								
8	Sales and Export Production								
9	Requirement and Import Information								
10	Block	Block 0	Block 1	Block 2	Block...N	Block 0	Block 1	Block 2	Block...N
11	Battery Chemistry								
12	Battery Material								
13	Manufacturing Data								
14	Battery Type								
15	Battery Size								
16	Performance and Diagnostics								
17	Sales and Export Production								
18	Requirement and Import Information								
19									
20									
21			Team1 Token 0	Team2 Token 0					
22			Team1 Token 1	Team2 Token 1					
23			Team1 Token 2	Team2 token 2		Team 1	Team 2		
24			Team 1 Token N	Team 2 Token N		Team 3	Team 4		
25			Team3 Token 0	Team 4 Token 0					
26			Team3 Token 1	Team 4 Token 1					

y by careful categorization/ Classification of data given below

These classification of data.

Data Protection

Data Protection is done in two ways either by signing of digital certificates or legal procedure Smart contracts can aid our project with data protection whereas GDPR has its own directive towards data protection

Having frequent security audits can solve lots of problems related to Data breach if we are finding vulnerability in our own systems.

Keeping employees well informed about various protocols

Block chain is Decentralized system. The data in the Block chain network is verifiable and can be tested to be immutable.

In case of failure of some nodes in the block chain, the other node can recreate and reassess the same Data.

Data exchange

Transfer of data over catena x framework is carried out in a decentralized manner via webportal or app. In all companies a proper value is exchanged in return of data exchanged
Usually Data exchange takes place for the purpose of Transactions and for keeping the supply chain flowing.

There are two types of Data Exchange

- 1) Within organization
- 2) Outside organization

Data Infrastructure

Operating data infrastructure involves validation from two kind of keys

Private key and Public key

These keys are used to access Encrypted Data Infrastructure whereas public keys are held by all nodes in the network and Private keys are held by only a few nodes. Purpose of Private keys is used to access sensitive information whereas public keys are used to access public information

