

Project Demonstration & Documentation

Record Explanation Video For Project End To End Solution

Team ID	NM2023TMID04427
Project Name	Project – Tracking Public Infrastructure And Toll Payment Using Blockchain

Explanation :



The work is being developed within the framework of the European Critical-Chains R+D+I project, in which Indra is leading the transport use case. The company has partnered with ROADIS, a multinational in the infrastructure sector, to validate this technological solution on one of the highways that the company operates in Mexico: Monterrey-Saltillo (CAMS). They will implement this innovative technology with the aim of protecting the numerous transactions that take place in a concessionaire, providing them with greater security and reducing the possibility of fraud, helping to reinforce it as an intelligent and secure highway.

Application Of Blockchain In Transportation :

The Critical-Chains project, funded with support from the European Commission's Horizon 2020 Program, is led by the University of Reading (Berkshire), and has twelve partners from eight countries. In addition to the transportation use case, Indra is also leading the work package in charge of validating the framework developed in different areas: banking, insurance, financial institutions and toll highways.

Innovation At The Service Of The New Mobility :

Thanks to its innovative effort, Indra is bringing pioneering solutions to the market that facilitate the transition to new advanced models which seek a more sustainable, safe, efficient and collaborative mobility. In the field of tolls, in addition to the backoffice solution with blockchain, its latest developments include its Mova Collect dynamic toll system with deep learning and automatic detection of high-occupancy vehicles.

Blockchain Used To Monitor Payments Transactions :

Once validated and encrypted with a hash function, blockchain data is stored in timestamped blocks linked in chronological order. The blocks form a distributed ledger that serves as a single source of truth to trace payments-related activities and prove the identity of blockchain users.

Blockchain Solution For Payments :

Blockchain payment systems are used to facilitate, process, and verify transactions made on a blockchain or distributed ledger system. These tools may be designed for individuals, businesses, or financial institutions, and will have a few differing features depending on the use case.

Benefits Of Blockchain In Banking :

One of the primary benefits of blockchain technology in banking is its ability to provide a secure and transparent way of recording transactions. In traditional banking systems, transactions are typically recorded in a centralised database.

Implement A Blockchain Solution :

1. Conduct a feasibility study.
2. Create a business case.
3. Conceptualize the blockchain.
4. Scope the project.
5. Develop a Proof of Concept (optional).
6. Design the blockchain solution.
7. Select the tech stack.
8. Develop and deploy the solution.