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'V-Talks on Blockchain' by Mr.Prasad Ghag

Technical-Architect, TCS-Block Chain Services

3rd October 2020

During the interactive session, the invited speaker Mr.Prasad Ghag, Technical-Architect, TCS, shared his rich work experience of more than 15 years in the areas of Blockchain. Blockchain is one of the important pillars in business 4.0 standard along with other state-of-the-art technologies including Machine Learning, Artificial Intelligence, IoT, Automation and many others. This will change the operational concept at most of the industry level with trust, transparency, and integration. This concept provides the privacy of the transaction data within stakeholders though they relate to other multiple stakeholders in the same ecosystem

Block Chain: Introduction

The speaker introduced blockchain in the simplest of terms, as a time-stamped series of immutable records of data that is managed by a cluster of computers not owned by any single entity. Each of these blocks of data (i.e. block) is secured and bound to each other using cryptographic principles (i.e. chain). The speaker highlighted certain concepts like the absence of central authority, hashing algorithm, Transaction Cost etc. It is a democratized system. Since it is a shared and immutable ledger, the information in it is open for anyone and everyone to see

Block Chain Platforms

Mr. Prasad introduced the latest blockchain platforms like Corda, Hyperledger, Ethereum and IOTA. He specified real life scenarios where each platform can be used. For example, Corda is designed for peer to peer block chain technology for banking applications or Insurance Systems and other financial transactions. Also, Hyperledger is used in cases where there is a need to broadcast transactions to all stakeholders like consumers, to understand status of the shipments. Mainly used for Supply Chain Systems and IoT systems (Opensource and Freeware)

Blockchain vs Traditional Client-Server Applications

Mr. Prasad compared the blockchain with traditional Client Server Applications by considering parameters like Improved accuracy, Immutability, Cost reductions,

Interoperability and Transactions. The speaker also touched upon the only con in blockchain that is Low transaction per second.

Blockchain Parameters

Following were the parameters discussed for blockchain:
Shared Ledger: Append only distributed system of record shared across business network Records all transactions across business network
Smart Contract: Business terms embedded in transaction database & executed with transactions
Privacy: Ensuring appropriate visibility; secure transactions, authenticated & verifiable
Validation: All parties agree to network verified transaction.

Configuration Planning Tools

The speaker discussed some important configuration tools for planning the implementation of blockchain systems. He highlighted Remix for Ethereum which is used in TCS and certain build tools like Truffle.

Key Takeaways

Mr Prasad gave an interactive session where participants gained insights into the blockchain platforms used in industry for supply chain management systems and financial systems. The session concluded with a short quiz which included concepts covered. Pertinent answers were given to the questions from the participants. Overall, it was a very informative session where the participants got an opportunity to interact with a technology expert. The session will help the participants to explore further how blockchain can be relevant for real life applications.

Compiled by – Prof. Indu Anoop and Prof. Yash Shah of Vidyalankar Institute of Technology