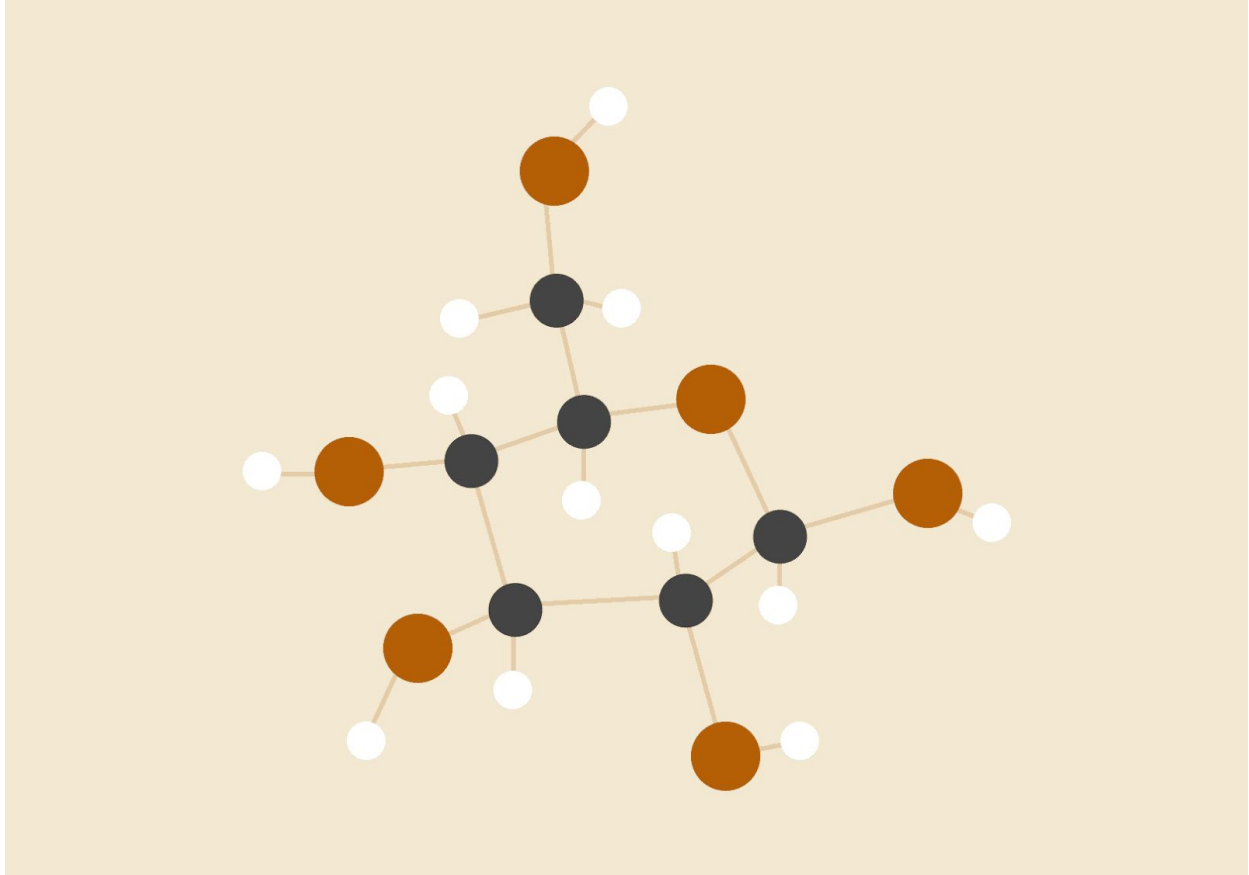# SIGNAVIO REPORT

Blockchain Technology

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Blockchain Technology :

To burst the bubble Blockchain is not just cryptocurrency. Cryptocurrency is just a use case of this technology. There is always this misconception and people relate the word blockchain with Bitcoins. However, blockchain as a technology has an immense untapped potential and varied use cases. The core feature of the technology is transparency and immutability. It is a *'distributed shared ledger'* where the data once entered cannot be modified and is going to exist forever.

SIGNAVIO With Blockchain :

SIGNAVIO Process Manager sets out to provide a business process modeling where all the members of the incorporating organisation can take part in the process. And the workflow accelerator aims to accomplish professional automation of personalized process. So incorporating blockchain with our business transformation suite would prove beneficial in the following ways.

- The transparent nature of blockchain will enable all members of the organisation to understand and participate in the process modeling.
- The process changes over a period of time, for any organisation, can be permanently stored in the distributed shared ledger so it would be helpful for analysis.
- Consensus mechanism is the core of blockchain. It is used to overcome the lack of trust and conflicting opinions and help reach a consensus. Inculcating a consensus mechanism like *Proof of Authority (POA)* looks promising. In the POA, consensus is reached by chosen validators. In our scenario, validators could be upper level management.
- The state of each process instance can be maintained on the blockchain and the workflow routing can be performed by smart contracts.

Architecture :

The SIGNAVIO Process Manager would be in the blockchain network so that every member in the firm can contribute in the process modeling and can also view the ongoing changes within the firm.
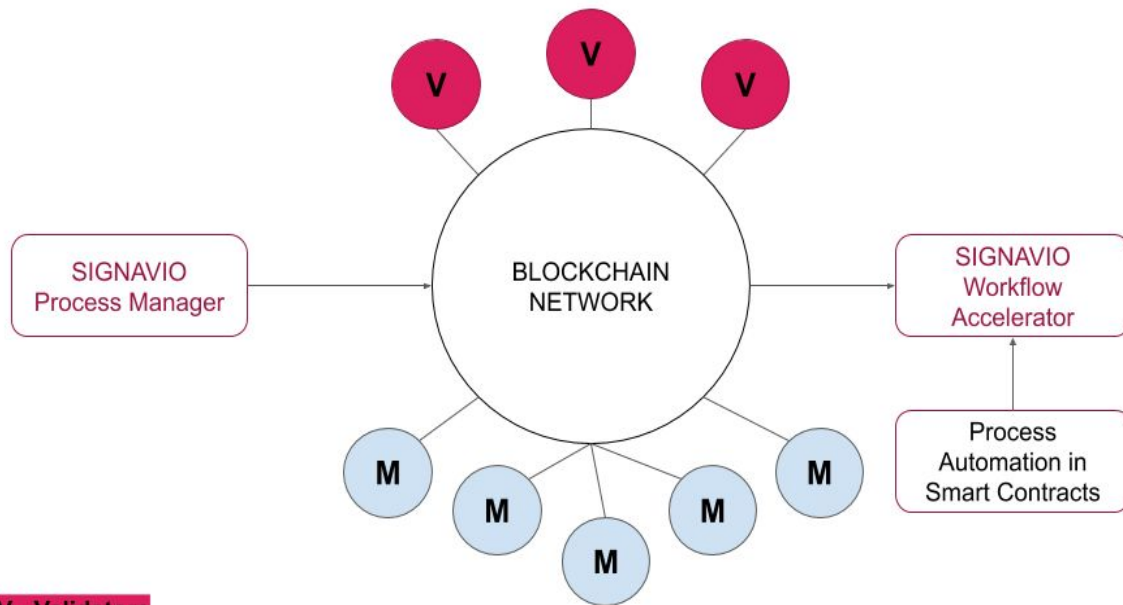
V - Validators

M - Other Organisational Members

In this diagram, POA consensus has been used, so upper level management acts as validators. These validators bring about consensus through majority. The SIGNAVIO workflow accelerator uses the smart contracts for the automation tasks. Smart contracts always work in transactions, so a record of these task automations are stored in the distributed shared ledger. The high point of this whole system is that, highly effective analysis of the process modeling can be achieved from the data.

Quality and Limitations :

The research idea looks promising and feasible, however we should not incorporate a technology just because it is an ongoing trend. It has to necessarily suit our application domain. Also it depends on the organisation whether they would want to incorporate this technology in their business transformation suite because it is a complete change over from the conventional methods and if they are willing to undergo this drastic transition. We should also take into consideration how effective the automation of process tasks in smart contracts is. Also different consensus mechanism suits different organisations.

Studies show that blockchain proves highly advantageous in supply chain management where the records of the transactions needs to be immutable. There are many other applications which has been served well by this technology. Every technology has its own pros and cons, so it is wiser to customize it according to our specific needs and tap the full potential of it.

References :

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