Blockchain – A Boon For KYC
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Abhinav Srivastav, Co-Founder of Oarth Technologies, was arrested in 2017. The allegation was that he developed a mobile application, “Aadhaar e-KYC Verification” which provided Aadhaar data verification by unauthorised and illegally accessing UIDAI server.

A hefty penalty of Rs. 20 Million was imposed by Reserve Bank of India on IOB for non-compliance with guidelines issued by the RBI regarding Know Your Customer (KYC) norms, on February, 2018. Before this also in 2017, RBI levied a penalty of Rs 3 crore on Union Bank of India for not following the regulatory directions on Know Your Customer (KYC) norms.

The above two cases are related to implementation of KYC. The former case reflects the loopholes in the technology adopted for KYC while the later depicts the strictness of KYC, if not followed, heavy penalties are levied.

In this paper an attempt has been made to find out the solution for the above cases. One, how, KYC, which forms a relationship of trust between the customer and bank, can be implemented more efficiently, without loopholes and also how to make easy for banks to follow the norms of KYC.

KYC, ‘Trust’ is a very important factor in Banking. A bank needs to know certain details of his prospective customers. This is also required to keep away activities such as “Money Laundering” and “Terrorist Financing”. Knowing better about their customers, bank can give better, easy, simple and less time consuming services.

In 2002, RBI issued a notification that each bank must gather information regarding their client’s identity and address. Since then, it has been done by a procedure which is known as KYC. KYC was made compulsory in India in 2010.

Banks and other organization have to obtain information from their prospective customers about their identity supported by documents such as Passport, Voter ID, and PAN etc. To fulfill this requirement, banks need to know their customer’s profile, including identity and the kinds of transactions; the customer deal in.

KYC is commonly used document by Banks, Insurance Companies, Export Creditors as well as companies providing Financial Services or Payment services and also is used for regulatory requirements and Prospective customers. Now-a-days, Regulatory requirements are getting stricter and Regulators are making known the importance of understanding customers and their transactions to Financial Institutions.

In India, KYC can be completed either Paper KYC or e-KYC. Under Paper KYC, financial institutions appoint agents who would verify prospective account holder’s address with the filled data. Generally this kind of KYC would cost of one KYC between Rs 100 to Rs 250. Under e-KYC- an electronic KYC which is a paperless KYC process where in the identity and other details are verified electronically through authentication. However, presently, different banks follow different KYC procedures, some banks go for physical while some banks are using e-KYC.

Although under e-KYC, banks and customers do not meet face to face to open the account, as the a/c is opened using a onetime password. But banks need to undertake a bio-metric verification of the customer within a year of opening the a/c; otherwise the customer will not be able to operate it.
At the same time, KYC is expensive also. Some major financial institutions spend up to $500 Million annually on KYC or customer due diligence according to Thomson Reuters report. 10 % of the world’s top financial institutions spend at least 100 Million annually on it. KYC is driving up the cost of customer on boarding as 2017 saw a 19% increase compared to 2016, with a 16% increase expected in 2018. (Forbes Report 10th July 2018).

Further, the Supreme Court’s recent verdict on Aadhaar Card delinking the bio-metric number with Mobile NOs and Bank Accounts is likely to increase not only the processing time but also cost for new a/c and connections. With enrolment using Aadhaar, it used to take 30 minutes to enroll a new customer while with the delinking of Aadhaar, it will take 4-5 days to verify the details. Moreover, with Aadhaar, the cost usually was Rs, 30 per new a/c holder but now after verdict, the cost will increase to Rs 250-300.

Application of KYC prevents using the details such as address and forged signature of actual a/c holder by others (Other than the actual account holders) and also prevents from conducting of benami transactions, encashment of stolen cheques, drafts and Dividend warrants etc.

In addition to above, as per RBI guidelines Financial Institutions have to review KYC periodically depending upon in which risk category the customer is covered and other details. This function further enhances the cost of KYC.

However KYC is not optional rather it is mandatory as per rules of RBI. If the KYC guidelines are not complied with, it attracts huge fines. RBI, levies heavy penalty for not following KYC (as mentioned above). Moreover, it is costly to implement. Since, there is no standardization neither across the country nor globally, it becomes problematic to get up to date data. Updating of KYC at regular intervals’ also poses a problem of tracing any changes in the relevant information. It requires considerable time and manpower. Besides in India, sometimes it becomes difficult for banks to establish the identification of customers because of constraints such as huge population and lack of adequate and right data base. In addition to above, to have the authentication of identification sources also creates a major challenge. And if the a/c is maintained by different individuals, it becomes more difficult to carry out proper identification checks. On the other hand, it involves duplication of efforts or too often, companies need to provide the same information again and again to different banks and sometimes to different departments in the same institution.

To make KYC more effective and efficient, banks need stronger technology platform to weed out these discrepancies. The use of Blockchain is one of them. Blockchain can be useful in reducing many challenges which are being faced by Banking and other Financial Institutions by making transactions faster, more secured and more transparent. Blockchain will make KYC an easy process through an advanced way with immutability and security which will provide greater trust and integrity of the data.

Blockchain generally is related with Cryptocurrencies, Bitcoin, has been a successful technology for Cryptocurrencies. Blockchain is now being utilized in other cases such as Supply Chain, Pharmaceutical Industry, Insurance and Banking and Finance sector.

Block chain, A Distributed Ledger, is shared by a no. of participants on public or private computer networks. Each participant has a computer which holds a copy of the ledger. All information is mathematically encrypted and added as a new block to the chain of historically records. Blocks are chained sequentially to one another. All these blocks form an immutable ledger which is distributed among all the participants’ nodes. These nodes are computing platforms that interact with the end users.
The shared information is protected against modification that is the information cannot be altered unless it is verified by all associated parties such as regulators, participants, Tax authorities and auditors and other participants. The entered transactions are based on smart contracts in the Blockchain where the transactions are validated by the network of nodes only on meeting of certain conditions.

Blockchain can be public or private. Public Blockchain is used in case of Bitcoin. Private Blockchain is generally created for private uses by the selected set of users such as Financial Institutions. In this case, participants can transact within the network only.

A transaction cannot be initiated twice as it is shared by all participants on a single platform having digital connections. A participant can only add information.

The master data is stored on all nodes of the Blockchain which reduces the dependence on a single source of information. Further, cryptographic hash functions, public keys enhance the security. Under Blockchain, each participant in a transaction is assigned a cryptographic key. Every transaction has to be approved by all participants on the Blockchain. After the credentials are verified by all participants, the transaction is completed and an encrypted block is created. Then this block is added to the public ledger. But the details of transactions within the blockchain will remain private as cryptographic keys are assigned to the concerned participant. There is no need of any central agency as all the participants on the Blockchain can transact directly with each other.

Blockchain provides maximum transparency as it does not allow deletion or alteration of data. Implementation of BC technology enhances security, privacy and autonomy of data transferred. Instead of being stored in a single database, blocks of time stamped transactions are stored on all system across a value chain. This elimination of middleman increases the speed of processes and makes them more reliable and less costly. Blockchain provides transparency which allows banks and other institutions to communicate with each other on the same network. If there is tampering with data, the same will come to the notice of all the participants immediately while under the present system it may not come to the notice of regulatory or may take long time. A participant can only add information on the network.

KYC statements can be stored on Blockchain. Once a new customer files his KYC, Bank can then place that statement, including a summary of the KYC documents, on a Blockchain it can be accessed by others branches of the bank and by other banks and other organizations such as Income-Tax department, Insurance, other Financial Institutions and Loan providers directly after permission has been granted.

These organizations need not verify KYC as they know that the concerned customer’s ID documents on the blockchain have already been independently verified and checked by other responsible institutions. This will further reduce their administrative and other costs of KYC.

This will provide security to the stored data as data can be accessed only after permission is given by relevant authority, thereby removes unauthorized access by fraudulents.

Moreover KYC details uploaded by one bank on Blockchain will make the process of opening bank account faster.

As data stored on Blockchain is immutable, it builds trust, and also reduces the risk of duplication or alteration in the stored data.
If one has to open bank a/c with another bank (other than the one in which he is having a/c presently), in the same area, he has to again submit same documents (a repetitive hard exercise) often miffs the customer. But under Blockchain, customers have to submit KYC documents once only (until an updation is required by the bank) and the other bank need not verify the ID documents as they will only rely on the Blockchain verification.

The banks and other financial Institutions prefer private permission Block Chain, as privacy and security of customer’s KYC information can be maintained as long as all KYC information is held on a Private/Permission Blockchain rather than a Public Blockchain. Blockchain can be either intra bank (between different branches of same bank) or interbank (between different banks).

Every new user on entering the BC network becomes visible on the network for everyone else to view. Once the KYC is on Blockchain Network, banks and financial Institutions can rest assured as the information provided on the ledger cannot be tampered with but only updated. With this data governance, banks can easily trace frauds in their initial stages only and thereby it prevents NPAs. With cryptographic keys, it becomes impossible for fraudsters to have access to a client’s financial data or engage in some financial crime activity. Moreover data would be much more secured. The most important thing is that Banks can avoid heavy fines and penalties due to non compliance of KYC guidelines. While, many times, this type of violation goes unnoticed in the present system.

And since all departments such as Tax Department, Passport would have access to all clients’ information and updation of their transaction, it would make KYC process more efficient. Errors can be reduced. Besides, BC provides trust among the participants as the data could only be accessed by trusted sources, which is totally different from present system, consumer data is given to corporate with little control over how it is used and its security.

KYC backed by Blockchain will not only reduce on boarding wait time but also eliminate the need to repeat the same information to other financial institutions.

BC will reduce the time and cost associated with KYC processes along with a better customer service. At the same time, it should be ensured that the concerned institution can have permission access on a temporary basis so that access to KYC information is allowed only when it is required on necessary basis and no other ancillary reasons.

In nutshell, Blockchain can be an effective role in streamlining the KYC process. In India, for proper implementation of Blockchain, we require infrastructure and the required skilled personnel to operate the same, which is lacking at present.

Proof of concept: Blockchain KYC utility in action: KPMG in Singapore and Bluzelle network worked with a consortium of 3 banks in Singapore- HSBC, OCBC, and Mitsubishi financial groups and the Singaporean regulatory infocoum Media Development Authority to develop a proof-of-concept (POC). KYC utility on a Blockchain platform. The prototype successfully passed the Monetary Authority of Singapore’s test scenarios. In addition to stability, efficiency and security, the platform could result in estimated cost savings of 25-50% by reducing duplication and providing a clear audit trait. (A Report by KPMG).

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