1, **Introduction**

The POC aims to make the experience of the customers seamless by taking the whole process online making it faster and easier for the customer.

2, **Current situation**

In the current situation, customer has to come to the bank with his originals for verification and validation of his documents.

This whole process is manual, slow, and resource intensive taking over multiple days from start to end.

More over for every new product or for any change in circumstance of the customer, they have to go through this whole process again.

Also the process of re-KYC , the same process has to be repeated.

~~Customer has to come to bank.~~

~~Fill some application forms for the required product & kyc~~

~~And with it Provide document proofs.~~

~~These documents needs to be verified manually.~~

~~After which some more background checks are performed on the customer~~

~~After all these the customer is verified and the product activated for use by customer.~~

**3, Solution**

We looked at the advanced technologies that exist in the market and thought about how this can solve our problem statement.

What we have proposed through this POC is :

A decentralised, fast and automated KYC process for new and existing customers.

This, we have done through use of

0. Face ++ for face recognition

0. OCR for reading documents and prefilling forms.

0. Distributed ledger for storing hash of verified documents.

Now, my colleague will explain the process flow.

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~~Although not all of this process can be automated, many can now be, thanks to the rapid advancements in the technology front.~~

~~Thus we propose a decentralized, fast, efficient, streamlined and automated KYC process for new and existing customers.~~

~~Making use of various advanced technologies to help us do so.~~

~~We use OCR for reading documents.~~

~~Face recognition for easy and fast identification and authentication in case the customer is an individual.~~

~~Most importantly we use Distributed ledger technology for storing the hash of the verified documents.~~

~~The new process goes as follows~~

4, Process flow

There are 3 use cases :

First one, customer is new to the bank .

Second is : Change in circumstance

Third : new product opted by customer.

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~~When The Customer chooses to apply for new product~~

~~he just Goes to the application form online~~

~~and uploads his documents~~

~~These documents are read through OCR~~

~~filling up most of the application.~~

~~The customer now needs to fill Rest of the details, field which OCR could not fill,. And submits the form.~~

~~After submission, the documents are verified through automated means for example escrow in UK.~~

~~If in case that is not possible, the document is marked for verification~~

~~in case of an individual applying for a product, face recognition is used for fast and easy identification and authentication of the individual.~~

~~Finally The verified document is stored in a datastore with the hash of their information stored in a distributed ledger.~~

~~Now the last step makes it possible to use these already verified documents to cross verify the details submitted by the customer at a later date and also allows to poll the verification companies and check for any changes in the details of the customer.~~

~~This process is similar to the mock Interface that we have created to showcase the POC.~~

5, Demo

To run through the POC I need to run a ledger node on my system.

I need a Backend that interacts with the running ledger

Now I will unlock an account so we can use it to upload the details without the need to input password for every transaction.

Now this is a simple mock ui for the POC.

And the sample customer ID as stored in the system is a German passport.

When applying for a new product,

The customer uploads the documents which is read by the OCR filling up the form.

There are some details customer might have to fill.

After all the details are complete, the hash of the data is generated and submitted for uploading to the blockchain.

After this we check if the document already exists, if not it is verified and added to the blockchain and confirmed.

Now the next time customer applies for a new product he can choose to go as an already existing customer, where he is asked for the document on which existential checks are performed. After confirmation the customer can proceed without filling all of the details again as he already did that when applying for the first time.

Benefits :

• This solution Makes the process of KYC automated for the customer, making it much faster and efficient.

• From this solution, The customer does not need to come to the bank.

• Scalability - Multiple departments to access the documents and notify the customer to upload any additional documents required.

• Less prone to failure due to documents being stored on multiple synchronous locations.

• Most importantly the use of this technology helps in security and auditing by storing the entire History of uploads, the changes and the verifications done on the documents .

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~~6, Why~~

~~The obvious question comes after all this is why we are using the technologies we do.~~

~~• This solution Makes the process of KYC automated for the customer, making it much faster and efficient.~~

~~• The customer does not need to come to the bank.~~

~~• This solution can be extended to be used by Multiple departments to access the documents for the same customer reducing the number of steps in the KYC process for a new product, by asking the customer to upload only those documents that are not already present with the bank.~~

~~• As these documents are stored on multiple synchronised locations, this data can be accessed with much lesser risk as compared to a similar central solution.~~

~~• The access to this system is fast as all data is accessible from single node.~~

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~~• Using this distributed system allows to create a solution with no single point of failure.~~

~~• Most importantly the use of distributed ledger technology allows us to store the entire History of uploads, the changes and the verifications done on the documents which cannot be modified in any way.~~

7, In Progress

As we have presented you the solution in its current working state, we are working on adding more improvements to it.

As it is used for multiple products, the current solution can be expanded to include the details of all the products the customer is using and the RMs the customer company is interacting with.

Another step currently in development is to add extra security measures for the documents uploaded by customers from sanctioned customers

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