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Blockchain: Enabled Lending Platform (BELP)

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ABSTRACT

The underlying objective of creating this software is to create a platform that facilitates the complete lending process and ensures complete transparency, fairness, and the prompt dissemination of information to all stakeholders.

1. Introduction

The Blockchain enabled lending platform utilizes Blockchain technology to automate the lending process, making it more efficient as compared to conventional processes. This platform combines the power of the Blockchain technology to autonomously facilitate an end-to-end loan application and disbursement process.

Fig-1.0Architecture BELP

Technology Fundamentals of Blockchain:

This section describes the fundamentals of the blockchain & its process behind the concept. This comprises of two different components, as follows:

1. Transactions: In this process, Transaction represents the action taken by the participant or parties which are involve in.
2. Blocks: A blockis a collection of data information recording the transactions and other chained details such as the correct sequence, timestamp of creation, etc.

Fig:2.0 SSL

Access Management

This will be implemented by using roles and permissions. Users are only authorized to access certain features of applications.

Secure Document Storage

Documents will be encrypted by using salted hashes. These document hashes will be stored in Blockchain.

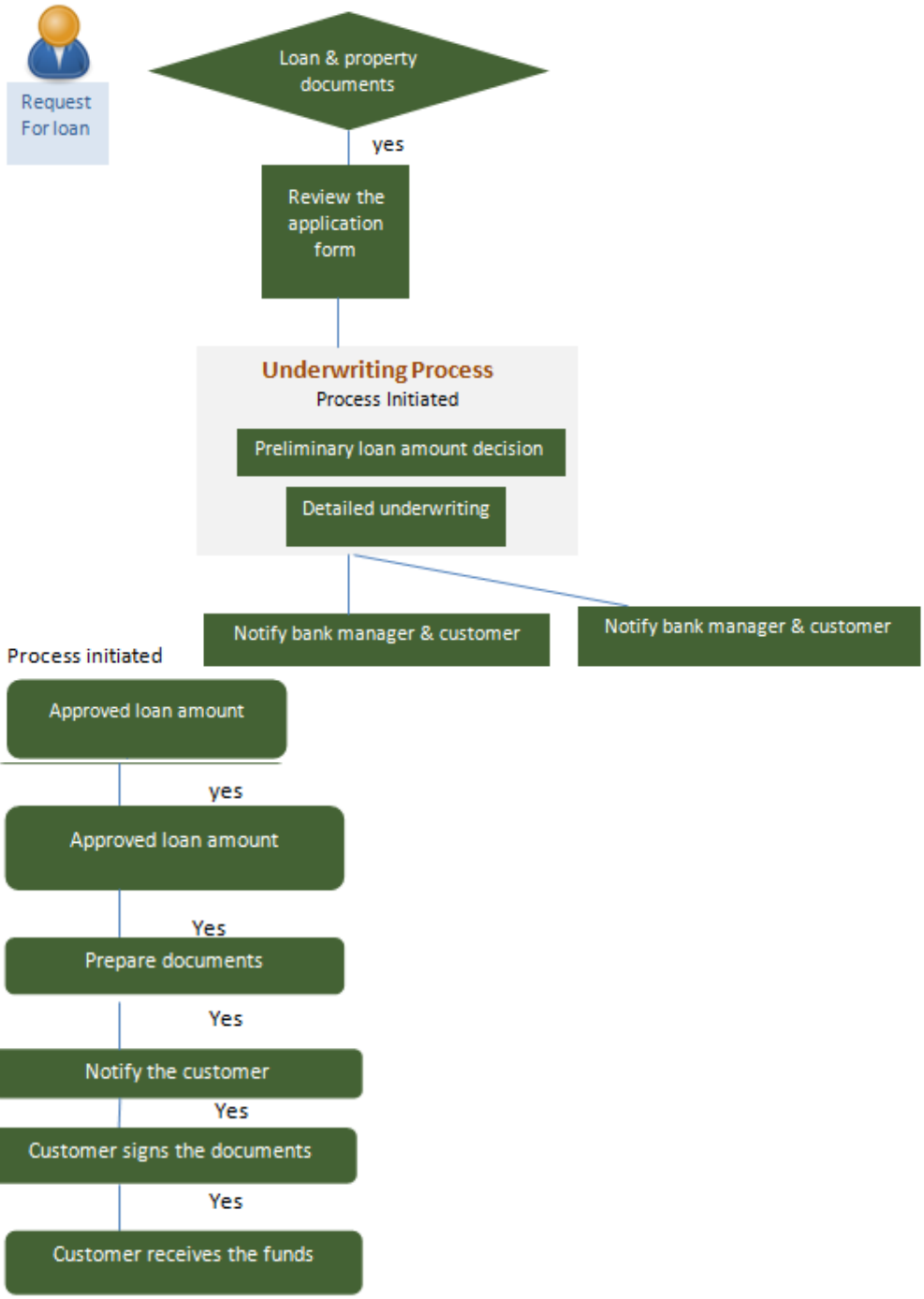
Advanced Encryption Algorithms

AES is used for encrypting sensitive data.

SSL Integration

HTTPS is the most secure protocol. It includes the Secure Socket Layer security protocol.

2. Background: Existing Process of Loan Disbursement from a bank:



So, this process is taking too much time and not sure about the all connected banks are in doing same concept to provide the same amount of the loan i.e. there are missing the a common technology concept and also they are centralized based system so each have to trust on each other.

3. Problem statement: challenges

The existing loan application process includes many challenges, some of which are mentioned below:

- Current lending platforms requires the lending agencies to place their trust on platform and hence, there is always a scope of collusion between platform & one of the Lending agencies which makes the process unfair for other participants.
- The current loan application process is often cumbersome. Customers do not know what stage of the process their loan application is in, or how long it will take to receive an answer to their loan request.
- The current data storage techniques used by most lending platforms are often vulnerable to hackers. Stored data could be changed or stolen, with severe consequences for the customers and the company.

4. Objective

The main objective is underlying of creating this online common platform that facilitates the complete lending process and ensures complete transparency, fairness, and the prompt dissemination of information to all stakeholders.

5. Literature Review: Application Details:

There are two major components which are actively involved in the blockchain decentralized platform.

- Any Lending Agencies.
- Broker or Loan Applicants.

Target Users:

Lending Agencies

Brokers/Loan Applicants

6. Area of research

Transparency

The platform facilitates complete transparency as it stores all the relevant data on Blockchain including Lending agencies' UW data and the Borrower documents.

Artificial Intelligence & IoT

Using AI-based algorithms, structured data can be extracted from borrower-uploaded documents. Also, for IoT enabled properties, the relevant data can be imported directly from IoT servers.

Decentralized Application

By virtue of being a Blockchain enabled platform, this is a decentralized application. Even if one node failed the network would still be able to operate.

Auditability

The platform allows for comprehensive auditability as it stores all the historical data securely due to the properties of Blockchain technology.

Independent Platform

The participants do not have to trust or rely on any central authority to oversee the transactions.

Token Generation

Custom tokens can be generated to facilitate efficient transactions on the platform.

Data Security

The technology ensures that all the data is stored in an encrypted format, thus ensuring top-notch data security.

Accurate Status Tracking

Easily find out the exact status of the loan application at any given time.

Underwriting Plugin

The platform provides the option of importing UW data from various sources including Lending agencies' in-house web-based, desktop-based & Excel-based UW models.

7. Future Scope

Blockchain Advantage

- ***Decentralization***

This's the largest advantage of Blockchain that it's not restricted to an individual central server. The science made it easy to work on a decentralized server with a shared community. This's a main feature making this particular technology completely different from the others. The database isn't put through the single nodes rather it's sent out across the nodes contained on the shared community. In a nutshell, you do not need to spend one penny to any third party as there's no such thing required.

- ***Protection***

Once a record was kept in the ledger, it is able to just be removed after a consensus. The transaction history gets the cryptographic safety. Consequently, making this particular Blockchain technology a very protected as well as secured one.

- ***Trust Factor***

The science ensures that all of the nodes get the entire ledger after each transaction. The transparency is the true secret to the trust created by Blockchain. The shared ledger contains the details of the initial source, time, destination, and day of the transactions.

- ***Economically***

Feasible As there's no third party involvement, the price is reduced immediately. Not like many other technologies, inside Blockchain, the account holders could immediately aim for the peer-to-peer transaction by staying away from the entire extra cost cutting.

- ***Faster Transactions***

Imagine a scenario in which you have to send money to some friend being in another country. In general, the task could take 3 - ten working days. And also additionally to that, you'll be charged a couple of extra money for global cash transfer. Nevertheless, with the aid of this technology, you are able to shift the total amount immediately and you'll be put through a lesser cost for the transaction of yours.

- ***All Time Accessibility***

As this technology functions on a decentralized community, thus, even when the nodes break down, there'll be absolutely no impact on another nodes doing similar shared community. The nodes and also the ledger are going to work as always. In words that are easy, the entire program malfunction is near to impossible when Blockchain engineering is recognized as. And hence, making the system accessible typically.

- ***Easy Sharing***

Database for Business to Business Arrangement Different companies depend on several pcs for several databases. And it gets tough when one desires to talk about this database with an additional business. The simple option would be Blockchain technology as it keeps one shared ledger. And it's simple to talk about this ledger with every other business.

8. Conclusion

To us the blockchain in the landing platform, it resolves the absence of confidence and miss assistance issue as well as this's the decentralized platform, therefore no importance to accomplish that much hand-operated practice in thrilling phone system. Every party zero importance to stress about insufficient timing & reprocess over and over for instructions or maybe home underwriting procedure for every gathering as a result of other info is going to be discussed to all connected parties.

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