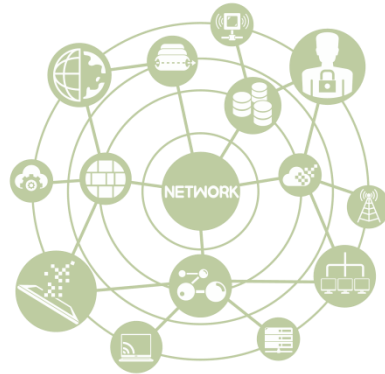




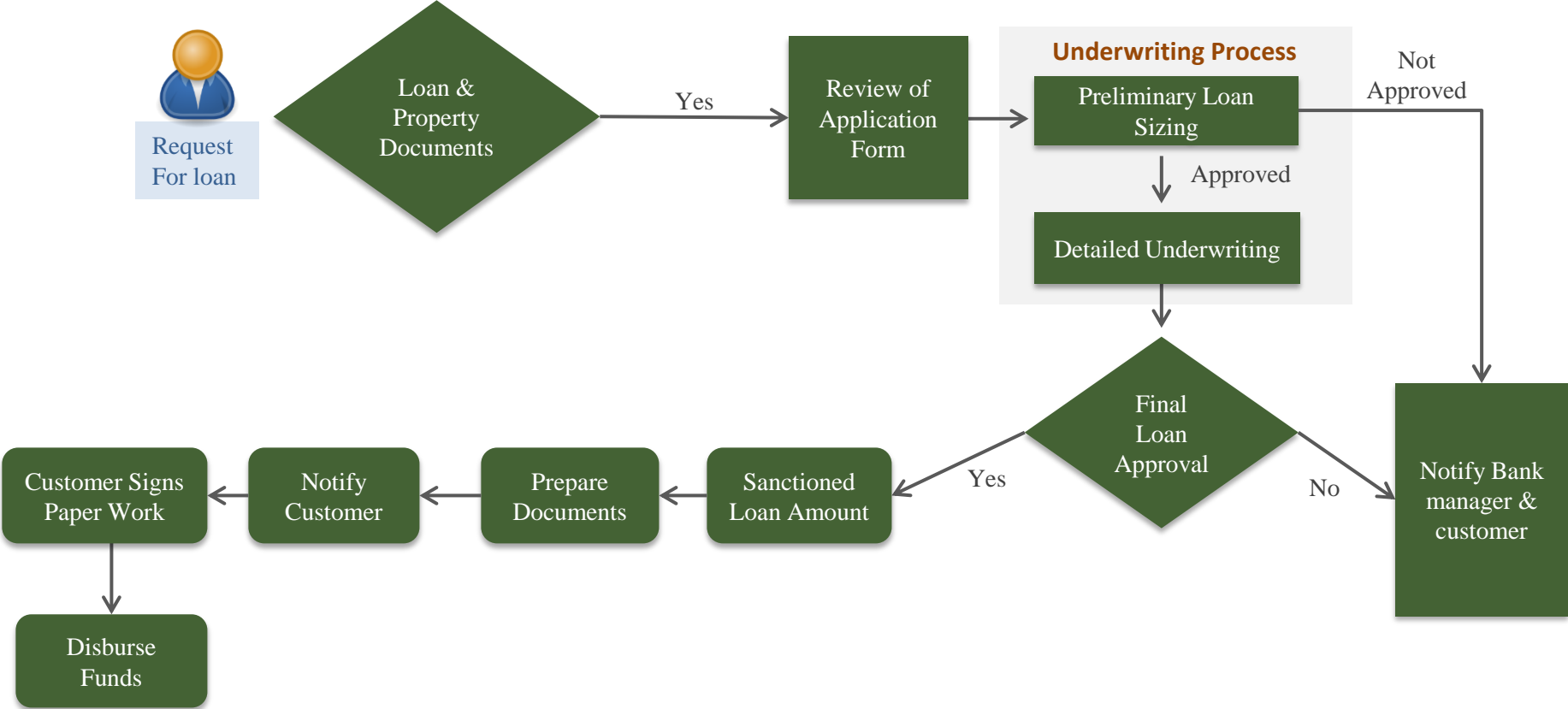
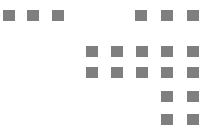
Blockchain enabled Lending Platform



Blockchain enabled Lending Platform

The Blockchain enabled lending platform utilizes Blockchain-technology to automate the lending process more efficiently compared to conventional process. It combines the power of the technology and Blockchain to autonomously facilitate end to end loan application and disbursement process.

Background: Existing Process of Loan Disbursement from a bank





The existing loan borrowing process offers a lot challenges, some of which are mentioned below:



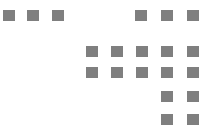
Current lending platforms, generally, represent a central authority which requires trust on the lending platform by the various participants in the lending process.



The current loan application process, is often cumbersome with little clarity about the loan application status



The current data storage techniques used by most lending platforms often leave scope of data manipulation thus, compromising the data security of the platform.



Target Users



Lending Agencies



Brokers/Borrowers

Objective

The underlying objective of creating this application is to create a trust-less platform to facilitate the complete Lending process while ensuring complete transparency & fairness in dissemination of information to all stakeholders.

Process

- The entire process will start with a Borrower (or Broker on behalf of Borrower) by uploading the related property & borrower information/documents.
- Once uploaded, the loan application can be accessed by all the participating Lending agencies on the platform and the interested agencies will proceed with due diligence/underwriting process.
- If the loan application meets all required criteria, these agencies will then offer Loan to the borrowers with certain terms & conditions.
- The borrower then has to choose the loan offer that best suits the borrower's purpose.

Advantage



Lending Agencies

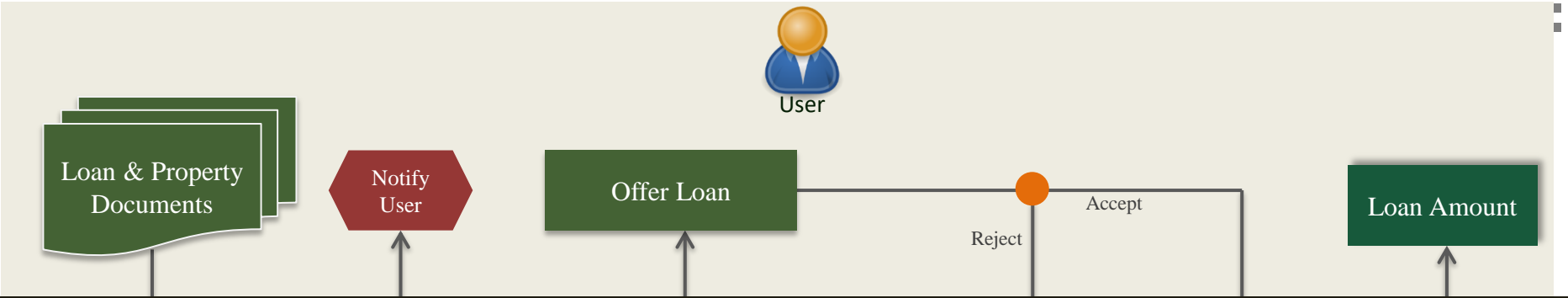


Brokers/Borrowers

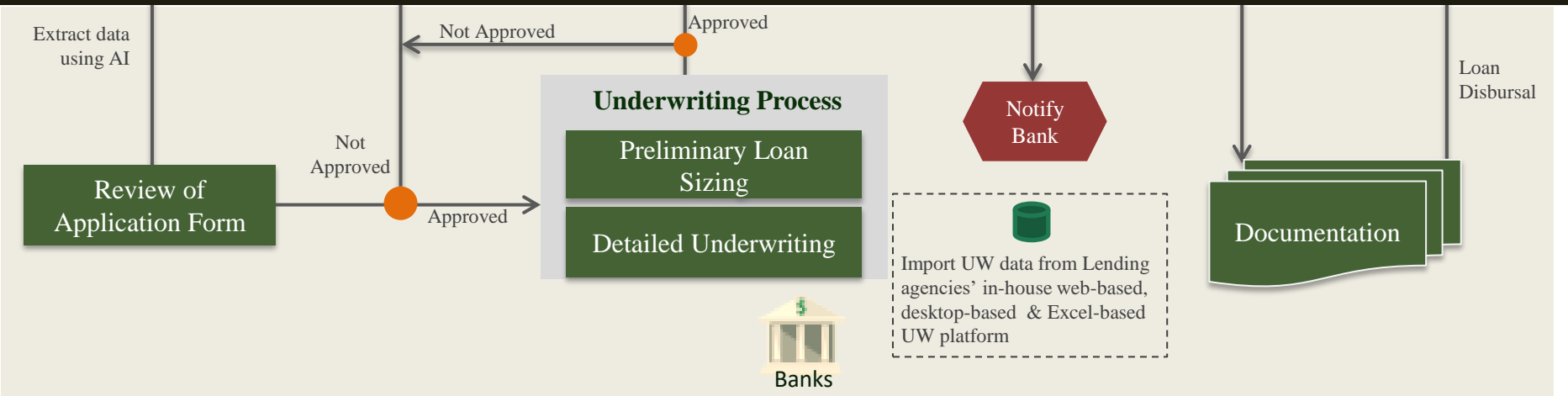
A new avenue to review loan applications easily by importing data from the lending agencies' in-house Underwriting platform and make offers conveniently to worthy borrowers.

A single comprehensive platform to apply for a loan and get loan quotations from different lending agencies in a completely transparent manner.

APPLICATION PROCESS



BLOCKCHAIN ENABLED LENDING PLATFORM





Transparency



No scope of collusion between the platform and any of the stakeholders

Decentralized Application



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

Independent Platform



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

Data Security



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

Artificial Intelligence & IOT



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

Auditability



The platform allows for comprehensive auditability as it stores all the historical data securely owing to immutable property of Blockchain.

Token Generation



Custom utility Tokens will be generated to facilitate efficient transactions in the platform.

Accurate Status Tracking



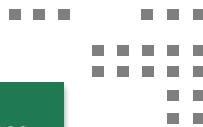
Know the exact status of the loan application at any given time with a few clicks.

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 platforms.

What is Blockchain?

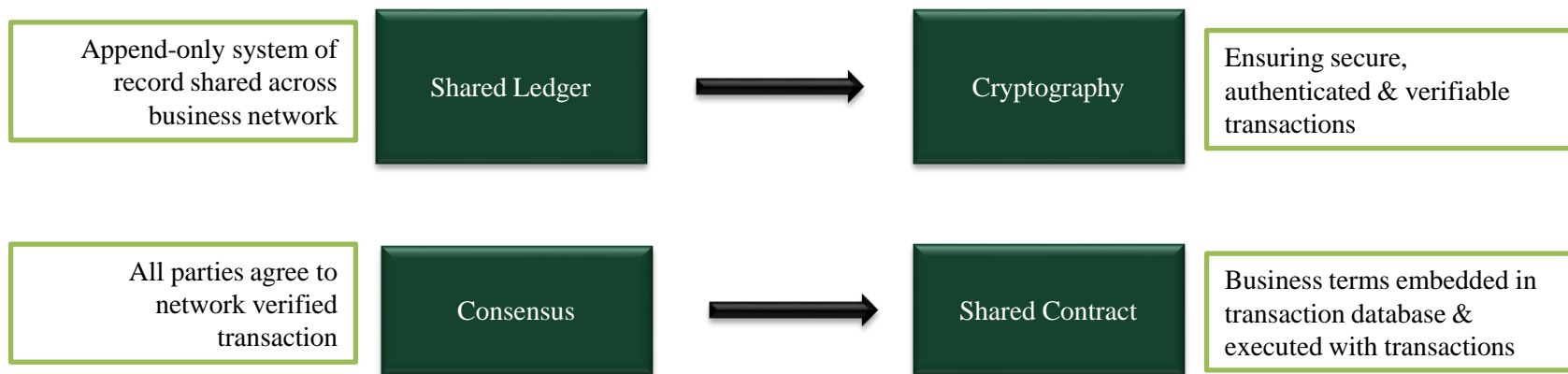


Block chain is a shared, distributed ledger with non-repudiation of transactions that can work in the absence of trust across a peer-to-peer network.

Blockchain and its decentralized distributed-ledger technology has the underlying power to disrupt the way businesses process digital transactions and provide them with a considerable competitive advantage.

It is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value

The Blockchain technology also allows all concerned trading parties to track information via a secure network, without the requirement for any third party verification.





TRANSPARENCY

Since every participant in the process is on Blockchain, it is impossible to conduct any fraudulent transactions.



IMMUTABILITY

Blockchain removes the need of third party verification by ensuring that the stored data is immutable.



DECENTRALIZED APPLICATION

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



SECURITY

Blockchain uses Cryptographic Identity & Hashing, making it one of the most secure network till date



Loan underwriting is the process of a lender determining if a borrower's loan application is an acceptable risk. Underwriters assess the borrower's ability to repay the loan based on an analysis of their credit, capacity, and collateral.

Preliminary Loan Sizing

Verify the loan documents and perform the basic projection and analytics of property's cash-flows to determine its capacity to pay back the loan.

Analysis is done based on standard cut-off levels of DSCR and LTV as decided by the bank based on their risk appetite.

This is a preliminary analysis which does not involve detailed verification of line items but is based on standard procedures just to have high level idea about the loan proposal.



Detailed Underwriting

Verify the loan documents and perform the basic projection and analytics of property's cash-flows to determine its capacity to pay back the loan.

Analysis is done based on standard cut-off levels of DSCR and LTV as decided by the bank based on their risk appetite.

This is a detailed analysis where every document for every line item is verified thoroughly to project the cash-flows.

The process starts from lease abstraction, to rent roll reconciliation, reimbursement analysis, third party report analysis, cash flow projection, market/sub-market analysis etc. Asset Summary report is then generated, summarizing the insights of complete analysis.



Multichain

Multichain is an off-the-shelf platform for the creation and deployment of private Blockchains, either within or between organizations. It provides immutability, Peer-to-Peer Node Handshaking, Native Assets & Data Stream. One of the key advantages of using Multichain is the ease of storage of large data files in Blockchain along with a very low scope of ‘Transaction Spam’.



The ASP.NET MVC is a robust and light-weight web application framework developed by Microsoft, which implements the model–view–controller (MVC) pattern. It is an open-source software and provides latest security measures.



Telerik is a third party tool for ASP .NET MVC development. It is heavily customizable and offers user friendly UI components like grids, auto-fill text boxes, etc.



IIS Server

Internet Information Services (IIS) is a flexible, general-purpose web server from Microsoft that runs on Windows systems to serve requested HTML pages or files. It allows the functionality of web-gardening and managing complex user authentication policies.



MS SQL Server is a relational database management system (RDBMS) based on Structured Query Language (SQL). It offers native compatibility with .NET and is a scalable & high-performance system used widely for Web-based applications.



Access Management

This will be implemented using roles and permissions. Users can access any feature of the application only if they are authorized to do so.

Secure Document Storage

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



Advanced Encryption Algorithms

AES is used for encrypting sensitive data.

SSL Integration

HTTPS protocol is most secure which includes SSL security protocol.