CLAIMS

1. A system, comprising:

a blockchain service circuit structured to interpret a plurality of access control features corresponding to a plurality of parties associated with a loan;

a data collection circuit structured to interpret entity information corresponding to a plurality of entities related to a lending transaction corresponding to the loan;

a smart contract circuit structured to specify loan terms and conditions relating to the loan; and

a loan management circuit structured to:

interpret loan related events in response to the entity information, the plurality of access control features, and the loan terms and conditions, wherein the loan related events are associated with the loan; and

implement loan related activities in response to the entity information, the plurality of access control features, and the loan terms and conditions, wherein the loan related activities are associated with the loan;

wherein each of the blockchain service circuit, the data collection circuit, the smart contract circuit, and the loan management circuit further comprise a corresponding application programming interface (API) component structured to facilitate communication among the circuits of the system.

2. The system of claim 1, wherein the plurality of entities each comprises at least one entity selected from the entities consisting of : a lender, a borrower, a guarantor, equipment related to the loan, goods related to the loan, a system related to the loan, a fixture related to the loan, a building, a storage facility, and an item of collateral.

3. The system of claim 1, wherein at least one of the plurality of entities comprises an item of collateral, and wherein the data collection circuit is further structured to interpret a condition of the item of collateral.

4. The system of claim 3, wherein the item of collateral comprises at least one item selected from the items consisting of : a vehicle, a ship, a plane, a building, a home, a real estate property, an undeveloped land property, a farm, a crop, a municipal facility, a

warehouse, a set of inventory, a commodity, a security, a currency, a token of value, a ticket, a cryptocurrency, a consumable item, an edible item, a beverage, a precious metal, an item of jewelry, a gemstone, an item of intellectual property, an intellectual property right, a contractual right, an antique, a fixture, an item of furniture, a tool, an item of machinery, and an item of personal property.

5. The system of claim 1, wherein the data collection circuit further comprises at least one system selected from the systems consisting of : an Internet of Things system, a camera system, a networked monitoring system, an internet monitoring system, a mobile device system, a wearable device system, a user interface system, and an interactive crowdsourcing system.

6. The system of claim 1, wherein the loan related events each comprise at least one event selected from the events consisting of : a loan request, a loan offer, a loan acceptance, a provision of underwriting information for a loan, a provision of a credit report, a deferral of a payment, a requested deferral of a payment, an identification of collateral, a validation of title for collateral, a validation of title for a security, an inspection of property, a change in condition for at least one of the plurality of entities, a change in value of an entity, a change in value for collateral, a change in value for a security, a change in a job status of at least one of the parties, a change in a financial rating of a lender, a provision of insurance for the loan, a provision of evidence of insurance for a property, a provision of eligibility for a loan, an identification of security for the loan, an execution of underwriting the loan, a payment of the loan, a default of the loan, a calling of the loan, a closing of the loan, a change in the specified loan terms and conditions, an initial specification of the loan terms and conditions, and a foreclosure of a property subject to the loan.

7. The system of claim 1, wherein the loan terms and conditions each comprise at least one member selected from the group consisting of : a principal amount of the loan, a balance of the loan, a fixed interest rate, a variable interest rate description, a payment amount, a payment schedule, a balloon payment schedule, a collateral specification, a collateral substitution description, a description of at least one of the parties, a guarantee description, a guarantor description, a security description, a personal guarantee, a lien, a foreclosure condition, a default condition, a consequence of default, a covenant related to any one of the foregoing, and a duration of any one of the foregoing.

8. The system of claim 1, wherein at least one of the parties comprises at least one party selected from the parties consisting of: a primary lender, a secondary lender , a lending syndicate , a corporate lender, a government lender, a bank lender, a secured lender, bond issuer, a bond purchaser, an unsecured lender, a guarantor, a provider of security, a borrower, a debtor, an underwriter, an inspector, an assessor, an auditor, a valuation professional, a government official, a government agency, and an accountant.

9. The system of claim 1, wherein loan related activities each comprise at least one activity selected from the activities consisting of : finding at least one of the parties interested in participating in a loan transaction, an application for the loan, underwriting the loan, forming a legal contract for the loan, monitoring performance of the loan, making payments on the loan, restructuring or amending the loan, settling the loan, monitoring collateral for the loan, forming a syndicate for the loan, foreclosing on the loan, and closing a loan transaction.

10. The system of claim 1, wherein the loan comprises at least one loan type selected from the loan types consisting of : an auto loan, an inventory loan, a capital equipment loan, a bond for performance, a capital improvement loan, a building loan, a loan backed by an account receivable, an invoice finance arrangement, a factoring arrangement, a pay day loan, a refund anticipation loan, a student loan, a syndicated loan, a title loan, a home loan, a venture debt loan, a loan of intellectual property, a loan of a contractual claim, a working capital loan, a small business loan, a farm loan, a municipal bond, and a subsidized loan.

11. A method, comprising:

interpreting a plurality of access control features corresponding to a plurality of parties associated with a loan from a distributed ledger;

interpreting entity information corresponding to a plurality of entities related to a lending transaction corresponding to the loan;

specifying loan terms and conditions relating to the loan; and

interpreting loan related events in response to the entity information, the plurality of access control features, and the loan terms and conditions, wherein the loan related events are associated with the loan.

12. The method of claim 11, wherein at least one of the plurality of entities comprises an item of collateral, the method further comprising interpreting a condition of the item of collateral.

13. The method of claim 11, further comprising performing a contract related loan action in response to the entity information.

14. The method of claim 12, wherein performing the contract related loan action comprises at least one action selected from the actions consisting of : offering the loan, accepting the loan, underwriting the loan, setting an interest rate for the loan, deferring a payment requirement for the loan, modifying an interest rate for the loan, validating title for collateral of the loan, recording a change in title, assessing a value of collateral, initiating inspection of collateral, calling the loan, closing the loan, modifying the terms and conditions for the loan, providing a notice to one of the parties, providing a required notice to a borrower of the loan, and foreclosing on a property subject to the loan.

15. The method of claim 11, further comprising interpreting an event relevant to the loan, and performing an action related to the loan in response to the event relevant to the loan.