CLAIMS

1. A computer-implemented method for maintaining ledger data, comprising:

receiving, by a service computer system, data from a client device, wherein the data is received as requested for data recordation at the service computer system by a user;

triggering, by the service computer system, the data recordation after receiving the data from the user;

computing, by the service computer system, a hash value based on the data received from the user and a user identifier of the user;

storing, by the service computer system, the data received from the user in a local storage of the service computer system;

generating, by the service computer system, ledger data to include the hash value as generated;

sending, by the service computer system, the ledger data to a blockchain-based trusted system;

receiving, by the service computer system, a credential corresponding to the ledger data from the blockchain-based trusted system as a certificate for recordation of the ledger data at the blockchain-based trusted system, wherein the credential uniquely identifies the ledger data;

sending, by the service computer system, the credential to the client device; and

providing, by the service computer system, a recordation result to the user.

2. The computer-implemented method of any preceding claim, wherein the ledger data further comprises metadata of the data.

3. The computer-implemented method of any preceding claim, wherein the credential corresponding to the data comprises an identifier of the ledger data or a digital signature of the blockchain-based trusted system.

4. The computer-implemented method of any preceding claim, further comprising:

after storing the ledger data in the local storage of the service computer system, receiving, by the service computer system, a first request to verify the ledger data;

obtaining, by the service computer system, the ledger data from the local storage of the service computer system; and

sending, by the service computer system to the blockchain-based trusted system, a second request that comprises the obtained ledger data for verifying the obtained ledger data.

5. The computer-implemented method of claim 4, wherein the first request to verify the ledger data comprises the credential.

6. The computer-implemented method of any preceding claim, wherein the hash value is a first hash value, and the method further comprises:

in response to receiving the second request for verifying the obtained data from the service computer system, computing, by the blockchain-based trusted system, a second hash value based on the obtained data;

determining, by the blockchain-based trusted system, whether the first hash value matches the second hash value; and

sending, by the blockchain-based trusted system to the service computer system, a verification result comprising a comparison result of the first hash value and the second hash value.

7. The computer-implemented method of claim 6, further comprising:

after receiving the verification result from the blockchain-based trusted system, determining, by the service computer system, whether the first hash value matches the second hash value based on the verification result.

8. The computer-implemented method of claim 7, further comprising:

in response to determining that the first hash value matches the second hash value based on the verification result, sending, by the service computer system to the client device, a notification indicating that the data has not been tampered with.

9. The computer-implemented method of claim 7, further comprising:

in response to determining that the first hash value does not match the second hash value based on the verification result, sending, by the service computer system to the client device, a notification indicating that the data has been tampered with.

10. A system for maintaining data, comprising:

one or more processors; and

one or more computer-readable memories coupled to the one or more processors and having instructions stored thereon that are executable by the one or more processors to perform the method of any of claims 1 to 9.

11. An apparatus for maintaining data, the apparatus comprising a plurality of modules for performing the method of any of claims 1 to 9.