

CLAIMS

What is claimed is:

1. A method for gateway communication between a non-distributed ledger system and a distributed ledger system, comprising:
 - receiving, at a listener comprising a computer processor and from an application in a first domain, a message for a destination distributed ledger system that is one of a plurality of distributed ledger systems in a second domain;
 - generating, by the listener, a payload for the message, wherein the payload identifies the destination distributed ledger system for the message; and
 - encrypting, by the listener, the payload and passing a payload message comprising the encrypted payload to one of a plurality of adapters in a gateway communication service using an API;
 - wherein the adapter receives the payload message, decrypts the payload, identifies the destination distributed ledger system, and communicates the decrypted payload to the destination distributed ledger system.
2. The method of claim 1, wherein the message comprises a request to tokenize an asset having a plurality of attributes, and the method further comprises:
 - tokenizing, by the listener, the plurality of attributes for the asset;
 - wherein the payload comprises the tokenized plurality of attributes for the asset.
3. The method of claim 1, wherein:

the payload further identifies a distributed ledger technology for the destination distributed ledger system;

the adapter translates the decrypted payload to a format for the distributed ledger technology; and

the adapter communicates the translated decrypted payload to the destination distributed ledger system.

4. The method of claim 1, further comprising:
signing, by the listener, the encrypted payload.

5. The method of claim 1, wherein the payload message comprises an identifier for the adapter.

6. The method of claim 1, wherein the adapter is associated with the destination distributed ledger system.

7. A method for gateway communication between a non-distributed ledger system and a distributed ledger system, comprising:
receiving, at one of a plurality of adapters in a gateway communication service in a second domain comprising a computer processor, a payload message comprising an encrypted payload, the payload from an application in a first domain and encrypted by a listener and for a destination distributed ledger system that is one of a plurality of distributed ledgers system in the second domain;
decrypting, by the adapter, the payload;
identifying, by the adapter, the destination distributed ledger system from the decrypted payload; and

communicating the decrypted payload to the destination distributed ledger system.

8. The method of claim 7, wherein the payload comprises a tokenized plurality of attributes for an asset.

9. The method of claim 7, wherein the payload further identifies a distributed ledger technology for the destination distributed ledger system, and the method further comprises:

translating, by the adapter, the decrypted payload to a format for the distributed ledger technology; and

communicating, by the adapter, the translated decrypted payload to the destination distributed ledger system.

10. The method of claim 7, wherein the encrypted payload is signed by the listener.

11. The method of claim 7, wherein the payload message comprises an identifier for the adapter.

12. The method of claim 7, wherein the adapter is associated with the destination distributed ledger system.

13. A method for gateway communication between a distributed ledger system and a non-distributed ledger system, comprising:

receiving, at one of a plurality of adapters in a gateway communication service in a second domain comprising a computer

processor, a message for an application in a first domain from one of a plurality of a distributed ledger systems;

translating, by the adapter, the message from a format for the distributed ledger system to a format for the application;

encrypting, by the adapter, the translated message;

generating, by the adapter, a payload for the translated message;

generating, by the adapter, a payload message comprising the encrypted payload; and

communicating the payload message to a listener associated with the application in the first domain using an API;

wherein the listener decrypts the payload and provides the decrypted payload to the application.

14. The method of claim 13, wherein the step of communicating the payload message to a listener associated with the application in the first domain comprises the adapter pushing the payload message to the listener.

15. The method of claim 13, wherein the step of communicating the payload message to a listener associated with the application in the first domain comprises the listener pulling the payload message from the adapter in response to the listener polling the adapter.

16. The method of claim 13, wherein the payload message identifies the listener.

17. The method of claim 13, wherein the listener is associated with the application.

18. The method of claim 13, further comprising:
signing, by the adapter, the encrypted payload.