

information from another health provider using a patient record locator provided by a master patient record index.

[0005] While systems and methods have been proposed, improvements are desirable.

Summary

[0006] In accordance with an aspect, there is provided a blockchain-based consent management system comprising a webserver subsystem configured to receive and handle authorized web user requests for access to and/or transactions corresponding to consent data for a blockchain, the webserver subsystem comprising a blockchain subsystem interface; and a blockchain subsystem defining a channel having at least two organizations, corresponding chaincode and an endorsement policy, each of the at least two organizations having at least one peer, each of the at least one peer maintaining a blockchain copy, the blockchain subsystem comprising an orderer in communication with the blockchain subsystem interface.

[0007] In an example, the blockchain subsystem and the webserver subsystem communicate such that authorized requests for transactions for the blockchain cause the webserver subsystem to generate transaction proposals to be routed via the blockchain subsystem interface to the channel peers of the blockchain subsystem for individual endorsement, to receive endorsement responses from the peers, and to, in the event the endorsement responses collectively satisfy the endorsement policy, transmit the endorsed transactions to the orderer for inclusion in an additional block of the blockchain, wherein the orderer is configured to cause the additional block to be stored in each of the peers' blockchain copy.

[0008] In an example, the webserver subsystem is in communication with a certificate authority for the system.

[0009] In an example, the webserver subsystem comprises a first auto-scaling group in communication with a second auto-scaling group via a request queue, wherein the first auto-scaling group lodges requests corresponding to user requests in the request queue for consumption by the second auto-scaling group.

[0010] In an example, the first auto-scaling group comprises one or more Node JS webserver having user interface and application middleware components.

[0011] In an example, the second auto-scaling group comprises one or more Node JS webserver having instances of a hyperledger fabric interface.

[0012] In an example, the webserver subsystem further comprises load balancing components for routing the user requests to webserver instances in the first auto-scaling group.

What is claimed is:

1. A blockchain-based consent management system comprising:
 - a webserver subsystem configured to receive and handle authorized web user requests for access to and/or transactions corresponding to consent data for a blockchain, the webserver subsystem comprising a blockchain subsystem interface; and
 - a blockchain subsystem defining a channel having at least two organizations, corresponding chaincode and an endorsement policy, each of the at least two organizations having at least one peer, each of the at least one peer maintaining a blockchain copy, the blockchain subsystem comprising an orderer in communication with the blockchain subsystem interface.
2. The blockchain-based consent management system of claim 1, wherein the blockchain subsystem and the webserver subsystem communicate such that authorized requests for transactions for the blockchain cause the webserver subsystem to generate transaction proposals to be routed via the blockchain subsystem interface to the channel peers of the blockchain subsystem for individual endorsement, to receive endorsement responses from the peers, and to, in the event the endorsement responses collectively satisfy the endorsement policy, transmit the endorsed transactions to the orderer for inclusion in an additional block of the blockchain,
 - wherein the orderer is configured to cause the additional block to be stored in each of the peers' blockchain copy.
3. The blockchain-based consent management system of claim 1, wherein the webserver subsystem is in communication with a certificate authority.
4. The blockchain-based consent management system of claim 1, wherein the webserver subsystem comprises a first auto-scaling group in communication with a second auto-scaling group via a request queue, wherein the first auto-scaling group lodges requests corresponding to user requests in the request queue for consumption by the second auto-scaling group.
5. The blockchain-based consent management system of claim 4, wherein the first auto-scaling group comprises one or more Node JS webserver having user interface and application middleware components.

6. The blockchain-based consent management system of claim 4, wherein the second auto-scaling group comprises one or more Node JS webserver having instances of a hyperledger fabric interface.
7. The blockchain-based consent management system of claim 4, wherein the webserver subsystem further comprises load balancing components for routing the user requests to webserver instances in the first auto-scaling group.