CLAIMS

1. An ecosystem security platform that is executed by a processing system of a first Virtual Anonymity Exchange controller ("VDAX") and is configured to implement secure communication between the first VDAX and a second VDAX in a digital ecosystem, the ecosystem security platform comprising:

a root DNA module configured to:

manage a digitally generated genomic data set assigned to the VDAX, the genomic data set being unique to the VDAX and comprising a plurality of digitally generated mathematical objects represented as binary vectors or matrices, including:

a genomic eligibility object that permits the first and second VDAXs to confirm engagement eligibility with each other in the digital ecosystem,

a genomic correlation object that permits the first and second VDAXs to exchange links with each other, said links providing instructions to sufficiently differentiate the first and second VDAXs from other VDAXs in the digital ecosystem, and

a genomic differentiation object that permits the first and second computing devices to encode and decode virtual binary language script (VBLS) objects sent to each other; and

modify the genomic data set using one or more computationally complex functions;

a link module configured to:

receive a link from the second VDAX, the link containing encoded genomic regulation instructions, the genomic regulation instructions comprising instructions and/or data used to modify the genomic data set of the first VDAX; and

decode the link based on the genomic eligibility object and a modified genomic correlation object to obtain decoded genomic regulation instructions, wherein the modified genomic correlation object is modified from the genomic correlation object by the root DNA module;

a sequence mapping module configured to:

obtain a sequence from a digital object that is to be provided to the second VDAX, wherein the sequence is extracted from a first portion of the digital object and comprises a sequence of data within or associated with the digital object; and

map the sequence into a modified genomic differentiation object to obtain a genomic engagement factor, wherein the modified genomic differentiation object is modified from the genomic differentiation object by the root DNA module based on the decoded genomic regulation instructions, and wherein the genomic engagement factor comprises a unique and non-recurring data element; and

a binary transformation module configured to:

encode a second portion of the digital object based on the genomic engagement factor to obtain an encoded digital object; and

generate a virtual binary language script (VBLS) object that includes the encoded digital object and the first portion of the digital object;

wherein the VBLS object is provided to the second VDAX as part of a series of VBLS objects.

2. The ecosystem security platform of claim 1, wherein the digital object is part of a series of digital objects that are each encoded into a respective VBLS object of the series of respective VBLS objects.

3. The ecosystem security platform of claim 2, wherein each digital object is encoded using a different respective genomic engagement factor.

4. The ecosystem security platform of claim 3, wherein the sequence mapping module obtains a respective sequence from each respective digital object and maps the respective sequence into the modified genomic differentiation object to obtain the respective genomic engagement factor that is used to encode the respective digital object.

5. The ecosystem security platform of claim 1, wherein the series of VBLS objects are a non-recurring language that is unique to the VDAX and the second VDAX.

6. The ecosystem security platform of claim 1, wherein the sequence is a public sequence that is defined in the first portion of the digital object in accordance with at least one of:

a publicly known protocol and format, and

a proprietary protocol and format that is not publicly available.

7. The ecosystem security platform of claim 1, wherein the binary transformation module includes at least one of:

a disambiguation module that encodes the second portion of the digital object based on the genomic engagement factor by determining a disjunctive union of the second portion and the genomic engagement factor using an XOR operation, and

an encryption module that encodes the second portion of the digital object based on the genomic engagement factor by encrypting the second portion of the digital object using an encryption function and the genomic engagement factor.

8. The ecosystem security platform of claim 1, wherein the link module decodes the link from the second VDAX as part of a link exchange process with the second VDAX.

9. The ecosystem security platform of claim 8, wherein the link exchange process in a one-time process.

10. The ecosystem security platform of claim 9, wherein the link exchange process includes authenticating an ecosystem member associated with the second VDAX based on the genomic eligibility object of the VDAX.

11. The ecosystem security platform of claim 8, wherein the link module is further configured to spawn a second link that contains second encoded genomic regulation instructions, wherein the second link is provided to the second VDAX as part of the link exchange process.

12. The ecosystem security platform of claim 11, wherein the link exchange process is a di-symmetric process, such that the second link is spawned independent of the link received from the second VDAX.

13. The ecosystem security platform of claim 11, wherein in spawning the second link, the link module is further configured to:

determine second genomic regulation instructions;

encode the second genomic regulation instructions using a link genomic engagement factor to obtain the second encoded genomic regulation instructions, wherein the link genomic engagement factor is determined by the sequence mapping module based on a link mapping sequence and a second modified genomic correlation object that is modified from the genomic correlation object by the root DNA module;

generate genomic engagement cargo that contains the link mapping sequence, the second encoded genomic regulation instructions, and encoded link decoding information, wherein the link mapping sequence is not obfuscated in the genomic engagement cargo and the second link contains the genomic engagement cargo; and

provide the second link to the second VDAX, whereby the second VDAX decodes the second encoded genomic regulation instructions based on the link mapping sequence, the encoded link decoding information, and a second genomic data set that is assigned to the second VDAX.

14. The ecosystem security platform of claim 13, wherein the link mapping sequence is left unencoded in the genomic engagement cargo.

15. The ecosystem security platform of claim 13, wherein the binary transformation module is further configured to:

receive a second VBLS object from the second VDAX, the second VBLS object containing a second encoded digital object and unencoded metadata; and

decode the second digital object based on a second genomic engagement factor to obtain an unencoded second digital object, wherein the second genomic engagement factor is determined by the sequence mapping module based on a second sequence and a second modified genomic differentiation object that is derived from the genomic differentiation object of the genomic data set by the root DNA module based on the second genomic regulation instructions.