WHAT IS CLAIMED IS:

1. A method comprising:

(a) receiving a transaction request, by a distributed transaction consensus network, to transfer a first type of digital property issued by a first digital property issuer from a first virtual wallet associated with the first digital property issuer to a second virtual wallet associated with a second digital property issuer;

(b) causing the second virtual wallet to receive a second type of digital property issued by the second digital property issuer; and

(c) recording the requested transaction in a distributed ledger.

2. The method of claim 1, wherein the first type of digital property can be one type of digital currencies, digital securities, digital bonds, digital futures, and digital precious metals; and the second type of digital currency can be one type of digital currencies, digital securities, digital bonds, digital futures, and digital precious metals.

3. The method of claim 1, wherein the first type of digital property is the same as the second type of digital property.

4. The method of claim 1, step (b) further comprising:

(b1) transferring the first type of digital property issued by the first digital property issuer from the first virtual wallet owned by a first subscriber to a first virtual treasury owned by the first digital property issuer;

(b2) transferring a one or more selected types of digital property issued by the first digital property issuer or by the second digital property issuer from the first virtual treasury to a second virtual treasury owned by the second digital property issuer;

(b3) transferring the second type of digital property issued by the second digital property issuer from the second virtual treasury to the second virtual wallet owned by a second subscriber.

5. The method of claim 4, wherein, in step (b2), the one or more selected types of digital property can be selected from any type of digital property contained in the first virtual treasury.

6. The method of claim 1, further comprising:

(b1) transferring the first type of digital property issued by the first digital property issuer from the first virtual wallet owned by a first subscriber to a first virtual treasury owned by the first digital property issuer;

(b2) transferring the first type of digital property issued by the first digital property issuer or by the second digital property issuer from the first virtual treasury to a second virtual treasury owned by the second digital property issuer;

(b3) transferring the second type of digital property issued by the second digital property issuer from the second virtual treasury to the second virtual wallet owned by a second subscriber, wherein the second type of digital property is the same as the first type of digital property.

7. The method of claim 6, wherein, in the step (b2), the first digital property issuer transfers from the first virtual treasury, as a priority, the first type of digital property issued by the second digital property issuer to the second virtual treasury when the first virtual treasury contains the first type of digital property issued by the second digital property issuer; and the first digital property issuer transfers from the first virtual treasury a remaining amount of the first type of digital property issued by the first digital property issuer to the second virtual treasury when the first virtual treasury does not contain a requested amount of the first type of digital property issued by the second digital property issuer.

8. The method of claim 6, wherein the second digital property issuer sets an exposure limit of holding the first type of digital property issued by the first digital property issuer.

9. The method of claim 8, wherein the transaction request is denied when the transaction will cause the second digital property issuer to hold more amount of the first type of digital property issued by the first digital property issuer than the exposure limit set by the second digital property issuer.

10. The method of claim 8, wherein the second digital property issuer's exposure limit of holding the first type of digital property issued by the first digital property issuer is set to zero.

11. The method of claim 1, wherein the first virtual wallet is capable of storing one or more types of digital property issued by the first digital property issuer, but not any type of digital property issued by the second digital property issuer; and the second virtual wallet is capable of storing one or more types of digital property issued by the second digital property issuer, but not any type of digital property issued by the first digital property issuer.

12. The method of claim 1, further comprising:

(d) charging, by the first digital property issuer, a first transaction fee to the first virtual wallet; and

(e) charging, by the second digital property issuer, a second transaction fee to the second virtual wallet.

13. The method of claim 1, further comprising: charging, by a miner for generating a new block to record the transaction, a third transaction fee to the first virtual treasury or the second virtual treasury.

14. The method of claim 1, wherein the distributed transaction consensus network has an administrator.

15. The method of claim 14, wherein the administrator can issue a digital fee token.

16. The method of claim 15, further comprising: charging, by the administrator, a fourth transaction fee to the first virtual treasury or the second virtual treasury.

17 The method of claim 14, wherein the administrator can authorize the first digital property issuer or the second digital property issuer to issue one or more types of digital property.

18 The method of claim 14, wherein the administrator can authorize a miner to generate a new block recording the transaction, and set rules for miners to compete against or support with each another.

19. A computer program product comprising one or more computer usable non-transitory media having computer readable program code embedded therein for controlling a digital property management system, the computer readable program code configured to cause the digital property management system to execute a transaction process, the process comprising:

(a) receiving a transaction request, by a distributed transaction consensus network, to transfer a first type of digital property issued by a first digital property issuer from a first virtual wallet associated with the first digital property issuer to a second virtual wallet associated with a second digital property issuer;

(b) causing the second virtual wallet to receive a second type of digital property issued by the second digital property issuer; and

(c) recording the requested transaction in a distributed ledger.

20. The computer program product of claim 19, wherein the first type of digital property can be one type of digital currencies, digital securities, digital bonds, digital futures, and digital precious metals; and the second type of digital currency can be one type of digital currencies, digital securities, digital bonds, digital futures, and digital precious metals.

21. The computer program product of claim 19, wherein the first type of digital property is the same as the second type of digital property.

22. The computer program product of claim 19, wherein step (b) further comprising:

(b1) transferring the first type of digital property issued by the first digital property issuer from the first virtual wallet owned by a first subscriber to a first virtual treasury owned by the first digital property issuer;

(b2) transferring a one or more selected types of digital property issued by the first digital property issuer or by the second digital property issuer from the first virtual treasury to a second virtual treasury owned by the second digital property issuer;

(b3) transferring the second type of digital property issued by the second digital property issuer from the second virtual treasury to the second virtual wallet owned by a second subscriber.

23. The computer program product of claim 22, wherein, in step (b2), the one or more selected types of digital property can be selected from any type of digital property contained in the first virtual treasury.

24. The computer program product of claim 19, step (b) further comprising:

(b1) transferring the first type of digital property issued by the first digital property issuer from the first virtual wallet owned by a first subscriber to a first virtual treasury owned by the first digital property issuer;

(b2) transferring the first type of digital property issued by the first digital property issuer or by the second digital property issuer from the first virtual treasury to a second virtual treasury owned by the second digital property issuer;

(b3) transferring the second type of digital property issued by the second digital property issuer from the second virtual treasury to the second virtual wallet owned by a second subscriber, wherein the second type of digital property is the same as the first type of digital property.

25. The computer program product of claim 24, wherein, in step (b2), the first digital property issuer transfers from the first virtual treasury, as a priority, the first type of digital property issued by the second digital property issuer to the second virtual treasury when the first virtual treasury contains the first type of digital property issued by the second digital property issuer; and the first digital property issuer transfers from the first virtual treasury a remaining amount of the first type of digital property issued by the first digital property issuer to the second virtual treasury when the first virtual treasury does not contain a requested amount of the first type of digital property issued by the second digital property issuer.

26. The computer program product of claim 24, wherein the second digital property issuer sets an exposure limit of holding the first type of digital property issued by the first digital property issuer.

27. The computer program product of claim 26, wherein the transaction request is denied when the transaction will cause the second digital property issuer to hold more amount of the

first type of digital property issued by the first digital property issuer than the exposure limit set by the second digital property issuer.

28. The computer program product of claim 26, wherein the second digital property issuer's exposure limit of holding the first type of digital property issued by the first digital property issuer is set to zero.

29. The computer program product of claim 19, wherein the first virtual wallet is capable of storing one or more types of digital property issued by the first digital property issuer, but not any type of digital property issued by the second digital property issuer; and the second virtual wallet is capable of storing one or more types of digital property issued by the second digital property issuer, but not any type of digital property issued by the first digital property issuer.

30. The computer program product of claim 19, wherein the process further comprising:

(d) charging, by the first digital property issuer, a first transaction fee to the first virtual wallet; and

(e) charging, by the second digital property issuer, a second transaction fee to the second virtual wallet.

31. The computer program product of claim 19, wherein the process further comprising: charging, by a miner for generating a new block to record the transaction, a third transaction fee to the first virtual treasury or the second virtual treasury.

32. The computer program product of claim 19, wherein the distributed transaction consensus network has an administrator.

33. The computer program product of claim 32, wherein the administrator can issue a digital fee token.

34. The computer program product of claim 33, wherein the process further comprising: charging, by the administrator, a fourth transaction fee to the first virtual treasury or the second virtual treasury.

35. The computer program product of claim 32, wherein the administrator can authorize the first digital property issuer or the second digital property issuer to issue one or more types of digital property.

36. The computer program product of claim 32, wherein the administrator can authorize a miner to generate a new block recording the transaction, and set rules for miners to compete against or support with each another.

37. A method comprising:

(a) receiving a transaction request, by a distributed transaction consensus network, to transfer a first type of digital property issued by a first telecom operator from a first virtual wallet corresponding to a first phone number associated with the first telecom operator to a second virtual wallet corresponding to a second phone number associated with a second telecom operator;

(b) causing the second virtual wallet to receive a second type of digital property issued by the second telecom operator; and

(c) recording the requested transaction in a distributed ledger.

38. The method of claim 37, step (b) further comprising:

(b1) transferring the first type of digital property issued by the first telecom operator from the first virtual wallet owned by a first subscriber to a first virtual treasury owned by the first telecom operator;

(b2) transferring the first type of digital property issued by the first telecom operator or by the second telecom operator from the first virtual treasury to a second virtual treasury owned by the second telecom operator; and

(b3) transferring the second type of digital property issued by the second telecom operator from the second virtual treasury to the second virtual wallet owned by a second

subscriber, wherein the second type of digital property is the same as the first type of digital property.

39. The method of claim 38, wherein, in step (b2), the first telecom operator transfers from the first virtual treasury, as a priority, the first type of digital property issued by the second telecom operator to the second virtual treasury when the first virtual treasury contains the first type of digital property issued by the second telecom operator; and the first telecom operator transfers from the first virtual treasury a remaining amount of the first type of digital property issued by the first telecom operator to the second virtual treasury when the first virtual treasury does not contain a requested amount of the first type of digital property issued by the second telecom operator.

40. The method of claim 38, wherein the second telecom operator sets an exposure limit of holding the first type of digital property issued by the first telecom operator.

41. The method of claim 40, wherein the transaction request is denied when the transaction will cause the second telecom operator to hold more amount of the first type of digital property issued by the first telecom operator than the exposure limit set by the second telecom operator.

42. The method of claim 40, wherein the second telecom operator's exposure limit of holding the first type of digital property issued by the first telecom operator is set to zero.

43. The method of claim 37, wherein the first virtual wallet is capable of storing one or more types of digital property issued by the first telecom operator, but not any type of digital property issued by the second telecom operator; and the second virtual wallet is capable of storing one or more types of digital property issued by the second telecom operator, but not any type of digital property issued by the first telecom operator.

44. The method of claim 37, further comprising:

(d) charging, by the first telecom operator, a first transaction fee to the first virtual wallet; and

(e) charging, by the second telecom operator, a second transaction fee to the second virtual wallet.

45. The method of claim 37, further comprising: charging, by a miner for generating a new block to record the transaction, a third transaction fee to the first virtual treasury or the second virtual treasury.

46. The method of claim 37, wherein the distributed transaction consensus network has an administrator.

47. The method of claim 46, wherein the administrator can issue a digital fee token.

48. The method of claim 47, further comprising: charging, by the administrator, a fourth transaction fee to the first virtual treasury or the second virtual treasury.

49. The method of claim 46, wherein the administrator can authorize the first telecom operator or the second telecom operator to issue one or more types of digital property.

50. The method of claim 46, wherein the administrator can authorize a miner to generate a new block recording the transaction, and set rules for miners to compete against or support with each another.

51. A computer program product comprising one or more computer usable non-transitory media having computer readable program code embedded therein for controlling a digital currency management system, the computer readable program code configured to cause the digital currency management system to execute a transaction process, the process comprising:

(a) receiving a transaction request, by a distributed transaction consensus network, to transfer a first type of digital property issued by a first telecom operator from a first virtual wallet corresponding to a first phone number associated with the first telecom operator to a second virtual wallet corresponding to a second phone number associated with a second telecom operator;

(b) causing the second virtual wallet to receive a second type of digital property issued by the second telecom operator; and

(c) recording the requested transaction in a distributed ledger.

52. The computer program product of claim 51, wherein step (b) further comprising:

(b1) transferring the first type of digital property issued by the first telecom operator from the first virtual wallet owned by a first subscriber to a first virtual treasury owned by the first telecom operator;

(b2) transferring the first type of digital property issued by the first telecom operator or by the second telecom operator from the first virtual treasury to a second virtual treasury owned by the second telecom operator; and

(b3) transferring the second type of digital property issued by the second telecom operator from the second virtual treasury to the second virtual wallet owned by a second subscriber, wherein the second type of digital property is the same as the first type of digital property.

53. The computer program product of claim 52, wherein, in step (b2), the first telecom operator transfers from the first virtual treasury, as a priority, the first type of digital property issued by the second telecom operator to the second virtual treasury when the first virtual treasury contains the first type of digital property issued by the second telecom operator; and the first telecom operator transfers from the first virtual treasury a remaining amount of the first type of digital property issued by the first telecom operator to the second virtual treasury when the first virtual treasury does not contain a requested amount of the first type of digital property issued by the second telecom operator.

54. The computer program product of claim 52, wherein the second telecom operator sets an exposure limit of holding the first type of digital property issued by the first telecom operator.

55. The computer program product of claim 54, wherein the transaction request is denied when the transaction will cause the second telecom operator to hold more amount of the first

type of digital property issued by the first telecom operator than the exposure limit set by the second telecom operator.

56. The computer program product of claim 54, wherein the second telecom operator's exposure limit of holding the first type of digital property issued by the first telecom operator is set to zero.

57. The computer program product of claim 51, wherein the first virtual wallet is capable of storing one or more types of digital property issued by the first telecom operator, but not any type of digital property issued by the second telecom operator; and the second virtual wallet is capable of storing one or more types of digital property issued by the second telecom operator, but not any type of digital property issued by the first telecom operator.

58. The computer program product of claim 51, wherein the process further comprising:

(d) charging, by the first telecom operator, a first transaction fee to the first virtual wallet; and

(e) charging, by the second telecom operator, a second transaction fee to the second virtual wallet.

59. The computer program product of claim 51, the process further comprising: charging, by a miner for generating a new block to record the transaction, a third transaction fee to the first virtual treasury or the second virtual treasury.

60. The computer program product of claim 51, wherein the distributed transaction consensus network has an administrator.

61. The computer program product of claim 60, wherein the administrator can issue a digital fee token.

62. The computer program product of claim 61, wherein the process further comprising: charging, by the administrator, a fourth transaction fee to the first virtual treasury or the second virtual treasury.

63. The computer program product of claim 60, wherein the administrator can authorize the first telecom operator or the second telecom operator to issue one or more types of digital property.

64. The computer program product of claim 60, wherein the administrator can authorize a miner to generate a new block recording the transaction, and set rules for miners to compete against or support with each another.