

CLAIMS

What is claimed is:

1. A system related to blockchain decision reliability score adjustment, comprising:
 - a non-transitory memory; and
 - 5 one or more hardware processors coupled to the non-transitory memory and configured to read instructions from the non-transitory memory to cause the system to perform operations comprising:
 - accessing broadcast events in a blockchain, wherein the broadcast events correspond to a historic period of time;
 - 10 identifying a broadcast decision provided by a participant in the blockchain for each of the broadcast events;
 - identifying a consensus decision for each of the broadcast events, wherein the consensus decision indicates whether there is a consensus among participants in the blockchain that a corresponding broadcast event should be added as a new node to the
 - 15 blockchain;
 - calculating a success rate for the participant based the identified broadcast decision provided by the participant for each of the broadcast events and the identified consensus decision for each of the broadcast events; and
 - 20 based on the success rate, increasing or decreasing a decision reliability score for the participant, wherein the decision reliability score comprises a weight applied to broadcast decisions provided by the participant in future broadcast events for the blockchain.
2. The system of claim 1, wherein the decision reliability score is decreased based on the
- 25 success rate being below a predetermined threshold, wherein an amount that the decision reliability score is decreased by is a predetermined amount corresponding to the success rate being below the predetermined threshold.
3. The system of claim 1, wherein the decision reliability score is increased based on the
- 30 success rate being above a predetermined threshold wherein an amount that the decision

reliability score is increased by a predetermined amount corresponding to the success rate being above the predetermined threshold.

4. The system of claim 1, wherein the operations are performed for each participant in the
5 blockchain.

5. The system of claim 4, wherein the operations further comprise:
subsequent to the increasing or decreasing the decision reliability score for each
participant, determining that a greatest reliability score among the participants is less than a
10 ceiling reliability score; and
increasing the decision reliability score for each participant by an amount equal to a
difference between the greatest reliability score and the ceiling reliability score.

6. The system of claim 1, wherein the success rate is within a range of a plurality of ranges,
15 and wherein the decision reliability score is decreased or increased by an amount
corresponding to the range.

7. The system of claim 1, wherein the decision reliability score for the participant is
decreased based on the success rate, and wherein the operations further comprise suspending
20 the participant from participating in the blockchain.

8. The system of claim 7, wherein the suspending the participant from participating in the
blockchain allows for the participant to provide a broadcast decision for future broadcast
events but the broadcast decision by the participant for future broadcast events is not
25 included in a computation of a node consensus score used to determine whether to add a new
node to the blockchain.

9. The system of claim 1, wherein the operations further comprise selecting the historic
period of time based on a number of broadcast events that have transpired.
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10. The system of claim 9, wherein the number of broadcast events that have transpired exceeds a predetermined threshold number of transpired broadcast events.

11. A method for adjusting blockchain participant reliability scores, the method comprising:

- 5 accessing broadcast events in a blockchain, wherein the broadcast events correspond to a selected period of time in a past;
- identifying a broadcast decision provided by a participant in the blockchain for each of the broadcast events corresponding to the selected period of time;
- identifying a consensus decision for each of the broadcast events
- 10 corresponding to the selected period of time, wherein the consensus decision indicates whether there is a consensus among participants in the blockchain that the broadcast event should be added as a new node to the blockchain;
- determining a success rate for the participant based the identified broadcast decision provided by the participant for each of the broadcast events and the
- 15 consensus decision for each of the broadcast events; and
- based on the success rate, increasing or decreasing a decision reliability score for the participant, wherein the decision reliability score comprises a weight applied to broadcast decisions provided by the participant in future broadcast events for the blockchain.

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12. The method of claim 11, wherein the decision reliability score is decreased based on the success rate being below a predetermined threshold.

13. The method of claim 12, further comprising suspending the participant from

25 participating in the blockchain based on the decision reliability score being below a predetermined threshold indicating that a suspension is required.

14. The method of claim 11, wherein the decision reliability score is increased based on the success rate being above a predetermined threshold.

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15. The method of claim 14, further comprising:

determining that the increased decision reliability score is a greatest reliability score amongst participants of the blockchain;

determining that the greatest reliability score is less than a ceiling reliability score for the blockchain; and

- 5 increasing decision reliability scores corresponding to each participant in the blockchain by an amount equal to a difference between the ceiling reliability score and the greatest reliability score.

16. A non-transitory machine-readable medium having stored thereon machine-readable
10 instructions executable to cause a machine to perform operations comprising:

identifying historic broadcast events in a blockchain;

identifying a broadcast decision provided by a participant in the blockchain for each of the historic broadcast events;

15 identifying a consensus decision for each of the historic broadcast events, wherein the consensus decision indicates whether there is a consensus among participants in the blockchain that the broadcast event should be added as a new node to the blockchain;

 determining a success rate for the participant based the identified broadcast decision provided by the participant for each of the historic broadcast events and the consensus decision for each of the historic broadcast events; and

20 based on the success rate, decreasing a decision reliability score for the participant, wherein the decision reliability score comprises a weight applied to broadcast decisions provided by the participant in future broadcast events for the blockchain

 determining that the decision reliability score for the participant is a greatest decision reliability score among all participants in the blockchain;

25 determining that the greatest decision reliability score is less than a ceiling decision reliability score for the blockchain; and

 increasing decision reliability score corresponding to each participant in the blockchain by an amount equal to a difference between the ceiling decision reliability score and the greatest decision reliability score.

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17. The non-transitory machine-readable medium of claim 16, wherein the operations further comprise subsequent to the increasing the decision reliability scores corresponding to each participant in the blockchain, suspending another participant from participating in the blockchain based on the decision reliability score corresponding to the another participant
5 being below a predetermined threshold indicating that a suspension is required.
18. The non-transitory machine-readable medium of claim 16, wherein the decision reliability score is decreased in correlation to the success rate.
- 10 19. The non-transitory machine-readable medium of claim 16, wherein decision reliability score is decreased by an amount corresponding to a range of a plurality of ranges, wherein each range has (i) an indication of whether to increase or decrease and (2) a corresponding amount.
- 15 20. The non-transitory machine-readable medium of claim 16, wherein the identifying the historic broadcast events in a blockchain is performed according to a scheduled audit frequency.