CLAIMS

What is claimed is**:**

1. A blockchain-based copyright revenue allocation method, comprising:

receiving a target transaction initiated by a member node device in a blockchain network, wherein the target transaction corresponds to a copyright usage event of a target work, wherein the target work is associated with a plurality of copyright beneficiaries that are in multiple levels; and

invoking one or more smart contracts corresponding to copyright revenue allocation of the target work to allocate copyright revenue to the plurality of copyright beneficiaries,

wherein the one or more smart contracts comprise copyright revenue allocation logic that corresponds to the copyright usage event, wherein the one or more smart contracts are generated based on copyright status information that is associated with the target work and that is issued to the blockchain network,

wherein invoking the one or more smart contracts comprises:

invoking a first smart contract corresponding to a first-level copyright beneficiary to compute a first revenue amount assigned to the first-level copyright beneficiary;

submitting the first revenue amount to a second smart contract corresponding to a set of second-level copyright beneficiaries, wherein the first-level copyright beneficiary comprises the set of second-level copyright beneficiaries, and wherein the first and second smart contracts correspond to a first and a second blockchains or a first and a second subchains of a blockchain, wherein message interactions between the first and the second blockchains or the first and the second subchains are performed through a cross-chain interaction device; and

invoking the second smart contract to compute a second revenue amount assigned to each second-level copyright beneficiary based on the first revenue amount.

2. The method according to claim 1, wherein a copyright revenue allocation proportion corresponding to the plurality of copyright beneficiaries is declared in the one or more smart contracts; and

allocating copyright revenue to the plurality of copyright beneficiaries of the target work comprises:

separately allocating the copyright revenue of the target work to the plurality of copyright beneficiaries based on the copyright revenue allocation proportion corresponding to the plurality of copyright beneficiaries.

3. The method according to claim 1, wherein the multiple levels of copyright beneficiaries respectively correspond to different smart contracts; and

invoking the first smart contract corresponding to the first-level copyright beneficiary in the multiple levels of copyright beneficiaries comprises: executing copyright revenue allocation logic corresponding to the copyright usage event declared in the first smart contract, and allocating the first revenue amount to the first-level copyright beneficiary;

invoking the second smart contract comprises: executing copyright revenue allocation logic that is declared in the second smart contract and that corresponds to the copyright usage event, and allocating the second revenue amount to each second-level copyright beneficiary; and

performing the above process iteratively until the copyright revenue is allocated to each level of copyright beneficiary.

4. The method according to claim 3, wherein the different smart contracts respectively correspond to different blockchains; or the different smart contracts respectively correspond to different subchains of a same blockchain.

5. The method according to claim 1, wherein that the one or more smart contracts are generated based on the copyright status information that is associated with the target work and that is issued to the blockchain network comprises:

obtaining the copyright status information corresponding to the target work issued to the blockchain network; and

invoking a smart contract creation program to create a smart contract corresponding to copyright revenue allocation of the target work based on the obtained copyright status information.

6. The method according to claim 5, wherein the smart contract creation program is a smart contract that is issued in the blockchain network and that is used to create a smart contract.

7. The method according to claim 5 or 6, wherein the copyright status information is a template copyright contract file, the copyright status information

comprises a copyright contract summary, and the copyright contract summary comprises a copyright licensing type, a copyright beneficiary identifier, a copyright usage event, and a copyright revenue proportion that a copyright beneficiary of the plurality of copyright beneficiaries should obtain based on the copyright usage event.

8. The method according to claim 1, wherein that the one or more smart contracts are generated based on copyright status information that is associated with the target work and that is issued to the blockchain network comprises:

obtaining the copyright status information corresponding to the target work issued to the blockchain network; and

invoking a digital contract template to parse the copyright status information, wherein the digital contract template is a smart contract creation program that declares a copyright usage event and that corresponds to the copyright revenue allocation logic; and creating the one or more smart contracts corresponding to the copyright revenue allocation of the target work.

9. The method according to claim 8, further comprising:

issuing new copyright status information to the blockchain network, wherein the new copyright status information comprises copyright revenue proportion of the target work that is declared in the –one or more smart contracts.

10. The method according to claim 1, 5 or 8, further comprising:

deleting the one or more smart contracts; and

issuing new copyright status information to the blockchain network, wherein copyright revenue allocation content corresponding to the one or more smart contracts is deleted from the new copyright status information.

11. The method according to claim 1, wherein the one or more smart contracts and the copyright status information each comprise a unique identifier associated with the target work.

12. The method according to claim 11, wherein the unique identifier is a digest of the target work.

13. The method according to claim 1, wherein the target work is a music work.

14. The method according to claim 1, wherein the blockchain network is a consortium blockchain network.

15. A blockchain-based copyright revenue allocation apparatus, comprising:

a receiving module, configured to receive a target transaction initiated by a member node device in a blockchain network, wherein the target transaction

corresponds to a copyright usage event of a target work, wherein the target work is associated with a plurality of copyright beneficiaries that are in multiple levels; and

an execution module, configured to invoke one or more smart contracts corresponding to copyright revenue allocation of the target work to allocate copyright revenue to the plurality of copyright beneficiaries,

wherein the one or more smart contracts comprise copyright revenue allocation logic that corresponds to the copyright usage event, wherein the one or more smart contracts are generated based on copyright status information that is associated with the target work and that is issued to the blockchain network,

wherein the execution module is further configured to:

invoke a first smart contract corresponding to a first-level copyright beneficiary to compute a first revenue amount assigned to the first-level copyright beneficiary;

submit the first revenue amount to a second smart contract corresponding to a set of second-level copyright beneficiaries, wherein the first-level copyright beneficiary comprises the set of second-level copyright beneficiaries, and wherein the first and second smart contracts correspond to a first and a second blockchains or a first and a second subchains of a blockchain, wherein message interactions between the first and the second blockchains or the first and the second subchains are performed through a cross-chain interaction device; and

invoke the second smart contract to compute a second revenue amount assigned to each second-level copyright beneficiary based on the first revenue amount.

16. The apparatus according to claim 15, wherein a copyright revenue allocation proportion corresponding to the plurality of copyright beneficiaries is declared in the one or more smart contracts; and

the execution module is configured to separately allocate the copyright revenue of the target work to the plurality of copyright beneficiaries based on the copyright revenue allocation proportion corresponding to the plurality of copyright beneficiaries.

17. The apparatus according to claim 15, wherein the multiple levels of copyright beneficiaries respectively correspond to different smart contracts; and

the execution module is configured to:

execute copyright revenue allocation logic corresponding to the copyright usage event declared in the first smart contract, and allocate the first revenue amount to the first-level copyright beneficiary;

execute copyright revenue allocation logic that is declared in the second smart contract and that corresponds to the copyright usage event, and allocate the second revenue amount to each second-level copyright beneficiary; and

perform the above process iteratively until the copyright revenue is allocated to each level of copyright beneficiary.

18. The apparatus according to claim 17, wherein the plurality of copyright beneficiaries respectively correspond to different blockchains; or the plurality of copyright beneficiaries respectively correspond to different subchains of a same blockchain.

19. The apparatus according to claim 15, wherein the one or more smart contracts are generated by a smart contract generating apparatus, and the smart contract generating apparatus comprises:

an acquisition unit, configured to obtain copyright status information corresponding to a target work issued to the blockchain network; and

an execution unit, configured to invoke a smart contract creation program to create a smart contract corresponding to copyright revenue allocation of the target work based on the obtained copyright status information.

20. The apparatus according to claim 15, wherein the one or more smart contracts are generated by a smart contract generating apparatus, and the smart contract generating apparatus comprises:

an acquisition unit, configured to obtain the copyright status information corresponding to the target work issued to the blockchain network; and

an execution unit, configured to: invoke a digital contract template to parse the copyright status information, wherein the digital contract template is a smart contract creation program that declares a copyright usage event and that corresponds to the copyright revenue allocation logic; and create the one or more smart contracts corresponding to the copyright revenue allocation of the target work.

21. The apparatus according to claim 20, further comprising:

an issuing unit, configured to issue new copyright status information to the blockchain network, wherein the new copyright status information comprises copyright revenue proportion of the target work that is declared in the one or more

smart contracts.

22. The apparatus according to claim 21, further comprising:

a deletion unit, configured to delete the one or more smart contracts; and

an issuing unit, configured to issue new copyright status information to the blockchain network, wherein copyright revenue allocation content corresponding to the one or more smart contracts is deleted from the new copyright status information.

23. A computer device, comprising a storage device and a processor, wherein the storage device stores executable code that can be run by the processor; and when the processor runs the executable code, steps of the method according to any one of claims 1 to 14 are performed.

24. A computer readable storage medium, wherein the medium stores a computer program; and when the computer program is run by a processor, steps of the method according to any one of claims 1 to 14 are performed.