

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局

(43) 国际公布日
2020 年 3 月 5 日 (05.03.2020)



(10) 国际公布号
WO 2020/042792 A1

(51) 国际专利分类号:
G06Q 40/04 (2012.01)

(21) 国际申请号: PCT/CN2019/096269

(22) 国际申请日: 2019 年 7 月 17 日 (17.07.2019)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
201811015599.0 2018 年 8 月 31 日 (31.08.2018) CN

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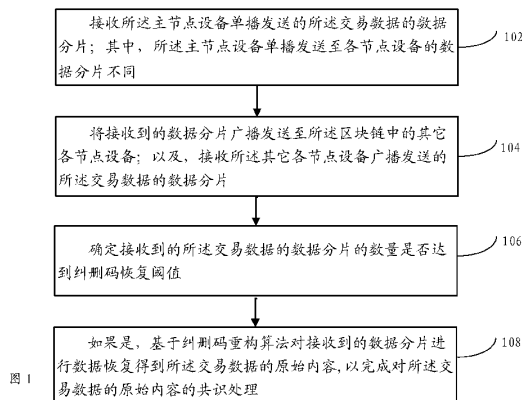
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(54) Title: BLOCKCHAIN-BASED TRANSACTION CONSENSUS PROCESSING METHOD AND APPARATUS, AND ELECTRONIC DEVICE

(54) 发明名称: 基于区块链的交易共识处理方法及装置、电子设备



102 RECEIVE DATA SLICES OF TRANSACTION DATA TRANSMITTED BY A MASTER NODE DEVICE IN A UNICAST MANNER, WHEREIN THE DATA SLICES TRANSMITTED BY THE MASTER NODE DEVICE IN A UNICAST MANNER TO VARIOUS NODE DEVICES ARE DIFFERENT
104 TRANSMIT THE RECEIVED DATA SLICES IN A BROADCAST MANNER TO THE OTHER NODE DEVICES IN A BLOCKCHAIN, AND RECEIVE THE DATA SLICES OF THE TRANSACTION DATA TRANSMITTED BY THE OTHER NODE DEVICES IN A BROADCAST MANNER
106 DETERMINE WHETHER THE NUMBER OF RECEIVED DATA SLICES OF THE TRANSACTION DATA REACHES AN ERASURE CODE RECOVERY THRESHOLD
108 IF SO, CARRY OUT DATA RECOVERY ON THE RECEIVED DATA SLICES BASED ON AN ERASURE CODE RECONSTRUCTION ALGORITHM TO OBTAIN THE ORIGINAL CONTENT OF THE TRANSACTION DATA, SO AS TO COMPLETE THE CONSENSUS PROCESSING OF THE ORIGINAL CONTENT OF THE TRANSACTION DATA

(57) Abstract: Provided is a blockchain-based transaction consensus processing method. A node device in a blockchain at least comprises a master node device and multiple slave node devices, wherein the master node device divides proposed transaction data into a specified number of data slices based on an erasure code algorithm. The method comprises: receiving data slices of transaction data transmitted by a master node device in a unicast manner, wherein the data slices transmitted by the master node device in a unicast manner to various node devices are different; transmitting the received data slices in a broadcast manner to the other node devices in a

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本国际公布:

— 包括国际检索报告 (条约第21条(3))。

blockchain, and receiving the data slices of the transaction data transmitted by the other node devices in a broadcast manner; determining whether the number of received data slices of the transaction data reaches an erasure code recovery threshold; and if so, carrying out data recovery on the received data slices based on an erasure code reconstruction algorithm to obtain the original content of the transaction data, so as to complete the consensus processing of the original content of the transaction data.

(57) 摘要: 一种基于区块链的交易共识处理方法, 所述区块链中的节点设备至少包括一主节点设备以及若干从节点设备; 其中, 所述主节点设备基于纠删码算法将提议的交易数据分割为指定数量的数据分片, 包括: 接收所述主节点设备单播发送的所述交易数据的数据分片; 其中, 所述主节点设备单播发送至各节点设备的数据分片不同; 将接收到的数据分片广播发送至所述区块链中的其它各节点设备; 以及, 接收所述其它各节点设备广播发送的所述交易数据的数据分片; 确定接收到的所述交易数据的数据分片的数量是否达到纠删码恢复阈值; 如果是, 基于纠删码重构算法对接收到的数据分片进行数据恢复得到所述交易数据的原始内容, 以完成对所述交易数据的原始内容的共识处理。