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EP3628093 A2	Method and device for avoiding double-spending problem in read-write set-model-based blockchain technology	ADVANCED NEW TECHNOLOGIES
EP3688620 A2	System and method for blockchain-based notification	ADVANCED NEW TECHNOLOGIES
EP3679686 A2	Managing blockchain-based centralized ledger systems	ADVANCED NEW TECHNOLOGIES
EP3673618 A2	Blockchain-based dispute resolution	ADVANCED NEW TECHNOLOGIES
EP3669280 A2	Shared blockchain data storage	ADVANCED NEW TECHNOLOGIES
EP3635941 A2	Methods and devices for managing access to account in blockchain system	ADVANCED NEW TECHNOLOGIES
EP3732845 A1	Method and apparatus for dynamic discovery of a blockchain component in a cloud computing system	ERICSSON
EP3552166 A2	Function-as-a-service (faas) platform in blockchain networks	ADVANCED NEW TECHNOLOGIES
EP3673435 A2	Retrieving public data for blockchain networks using trusted execution environments	ADVANCED NEW TECHNOLOGIES
EP3734535 A1	Method and apparatus for identifying authenticity of evidence of both parties based on blockchain evidence preservation	ADVANCED NEW TECHNOLOGY
EP3734489 A1	Evidence collection method and system based on blockchain evidence storage	ADVANCED NEW TECHNOLOGY
KR102172903 B1	BLOCKCHAIN technology based database management system	EWHA WOMAN UNIVERSITY
EP3734526 A1	High performance blockchain architecture for logistics services	ACCENTURE GLOBAL SOLUTIONS
EP3591549 A1	Multi-instance architecture supporting trusted blockchain-based network	SERVICENOW
EP3707623 A1	System for simplifying executable instructions for optimised verifiable computation	NCHAIN HOLDINGS
EP3676988 A1	Systems and methods for communication, storage and processing of data provided by an entity over a blockchain network	NCHAIN HOLDINGS
WO2019147069 A1	Currency exchange and foreign exchange transaction method of using blockchain-based digital assets including cryptocurrency as intermediary	LEE JE KWON
EP3676778 A1	Constraints on inputs of an unlocking transaction in a blockchain	NCHAIN HOLDINGS

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KR102172533 B1	Sensor Near Field Communication and BLOCKCHAIN method for collision prevention of autonomous vehicles traveling on roads	SBC
KR102172535 B1	Communication and BLOCKCHAIN method for preventing collision of autonomous vehicle traveling on road	SBC
EP3673608 A1	Data storage method, data query method and apparatuses	ADVANCED NEW TECHNOLOGIES
WO2019172905 A1	Blockchain authentication of a vehicle rider	FORD GLOBAL TECHNOLOGIES
US20170046652 A1	Systems and method for tracking behavior of networked devices using hybrid public-private blockchain ledgers	TORONTO DOMINION BANK
WO202014512 A1	Blockchain operating system	AMERICORP INVESTMENTS
US10789216 B1	Shared blockchain data storage based on error correction code	ADVANCED NEW TECHNOLOGIES
WO2020222170 A1	Systems, methods, and interfaces for smart contract based exchanges via a blockchain	BANCO BILBAO VIZCAYA ARGENTARIA
WO2020220744 A1	Blockchain-based data processing method and apparatus, and blockchain node	ADVANCED NEW TECHNOLOGIES
US20200349283 A1	Conflict resolution for blockchain storage structure	IBM
WO2020220760 A1	Blockchain-based payment withholding method and apparatus, electronic device and storage medium	ADVANCED NEW TECHNOLOGIES
WO2020220746 A1	Block chain-based settlement method and apparatus, and electronic device	ADVANCED NEW TECHNOLOGIES
US20200076606 A1	Blockchain key storage on SIM devices	HEWLETT PACKARD ENTERPRISE DEVELOPMENT
WO2020220764 A1	Blockchain-based data compression and query method and apparatus, and electronic device	ADVANCED NEW TECHNOLOGIES
CN108596548 A	Blockchain-based logistics scheduling method and system	DAGUO INNOVATION INTELLIGENT TECHNOLOGY
EP3732581 A1	A method and apparatus for accelerating the blockchain for secure and high throughput applications	NOKIA SOLUTIONS & NETWORKS
WO2020220742 A1	Method and device for anchoring data on a block chain at a given time, and electronic device	ADVANCED NEW TECHNOLOGIES
KR20200123976 A	BLOCKCHAINE-BASED distributed data system and method for RCS provision	ELUON
WO2020220740 A1	Blockchain-based invoice creation method, apparatus and electronic device	ADVANCED NEW TECHNOLOGIES
WO2020220759 A1	Block chain-based payment method and device	ADVANCED NEW

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US20180359089 A1	Blockchain-based social media history maps	AT&T
US20200202651 A1	Blockchain-controlled and location-validated locking systems and methods	Singh Ranjeev K.
US20200074389 A1	Automated inventory management including blockchain smart contracting	NCR
WO2019196834 A1	Blockchain platform-based autonomous and supervisable digital identity authentication system	UNIVERSITY SHENZHEN TECHNOLOGY
WO2020220761 A1	Method and device for signing payment deduction agreement employing blockchain, and electronic apparatus.	ADVANCED NEW TECHNOLOGIES
US20200346634 A1	Blockchain based ecosystem for emission tracking of plug in hybrid vehicles	FORD GLOBAL TECHNOLOGIES
WO2019144612 A1	Zero-knowledge multi-account-book exchange transfer method and apparatus based on blockchain, and storage medium	ONE CONNECT SMART TECHNOLOGY
WO2020220763 A1	Blockchain-based credit recording and querying method and apparatus, and electronic device	ADVANCED NEW TECHNOLOGIES
US20200213087 A1	Consensus-based voting for network member identification employing blockchain-based identity signature mechanisms	MUTUALINK
US20200351103 A1	System and method using distributed blockchain database	DISH NETWORK
EP3732596 A1	Systems and methods for extending the utility of blockchains through use of related child blockchains	Jie Fu.situoerman, ...
KR20200124182 A	Distributed application and BLOCKCHAINE-BASED personal financial product management system including the same	
US20140222767 A1	Page substitution verification preparation	WILSON KELCE S, ...
WO2020220741 A1	Blockchain-based service tracing method and apparatus, and electronic device	ADVANCED NEW TECHNOLOGIES
EP3651405 A1	Cryptographic datashare control for blockchain	ACCENTURE GLOBAL SOLUTIONS
US20190244289 A1	Asset utilization optimization communication system and components thereof	2BC INNOVATIONS
WO2020220251 A1	Data processing method for blockchain system and block generating method	XIAMEN TEHUARONG TRADING
US20200349142 A1	System or method to query or search a metadata driven distributed ledger or blockchain	SALESFORCE.COM
US10824746 B1	Systems and methods for controlled access to blockchain data	STATE FARM INSURANCE
EP3323080 A1	Computationally efficient transfer processing, auditing, and search apparatuses, methods and systems	FMR
US20200351650 A1	Blockchain-based front-end orchestrator for user plane	AT&T MOBILITY

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US20200351074 A1	System for synchronizing a cryptographic key state through a blockchain	INTEL
US20200349261 A1	Database private document sharing	IBM
WO2020223416 A1	Decentralized trust using blockchain for tracking and validation of voice communications	PAYPAL
WO2020220860 A1	Blockchain system-based transaction processing method and apparatus	WEBANK
US20200349148 A1	Blockchain-based smart contract invocation method and apparatus, and electronic device	ALIBABA HOLDING
CN107886388 A	Traffic travel credit and security service platform capable of realizing multi-centralization on basis of consortium blockchain and operating method of platform	HANGZHOU YUNXIANG NETWORK TECHNOLOGY
EP3732644 A2	System and method for digital asset management	ADVANCED NEW TECHNOLOGIES
WO201988688 A1	Content distribution management system and method using blockchain technology	ALTICAST
EP3732856 A2	System and method for decentralized-identifier authentication	ADVANCED NEW TECHNOLOGIES
CN110535659 A	A method and device for processing data request	BEIJING HAIYI TONGZHAN INFORMATION TECHNOLOGY
US20200177572 A1	Sending cross-chain authenticatable messages	ADVANCED NEW TECHNOLOGIES
EP3732647 A2	System and method for digital asset valuation	ADVANCED NEW TECHNOLOGIES
US20200349554 A1	Systems, methods, and storage media for assigning user-specific blockchain mining pool data to a computing device	HANDS FREE BITCOIN
US20200349147 A1	Systems and methods for automated recovery of blockchain-based accounts	CAPITAL ONE SERVICES
WO201870848 A1	Method for providing smart contract-based certificate service, and server employing same	COINPLUG
WO2020221181 A1	Multifunctional luggage bag and blockchain-based management system therefor	
DE102019111331 A1	Method for operating a medical device	OLYMPUS WINTER & IBE
EP3732817 A1	Traceable key block-chain ledger	EBAY
EP3552158 A2	System and method for information protection	ADVANCED NEW TECHNOLOGIES
WO2019201043 A1	Network communication method, system and device, and storage medium	TENCENT TECHNOLOGY (SHENZHEN)

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WO2020222701 A1	Method, transaction management device and computer-readable media for facilitating concurrent transactions	SINGAPORE AIRLINES
WO2020220751 A1	Consumption contract processing method and system therefor	ADVANCED NEW TECHNOLOGIES
EP3686829 A1	Device control method, and related device for same	HUAWEI
WO2020197728 A2	Cryptography-based platooning mechanism for autonomous vehicle fleet management	MICRON TECHNOLOGY
WO2019199559 A1	Layer 7 proxy for immutable application audit trails	CISCO TECHNOLOGY
WO2019242432 A1	Media resource allocation method, apparatus, and system, and storage medium and computer device	TENCENT TECHNOLOGY (SHENZHEN)
KR102172534 B1	Block chain and sensor short-range communication system for preventing collision of autonomous vehicle traveling on road	SBC
EP3732860 A1	Distributed system of record transaction receipt handling in an overlay network	AKAMAI TECHNOLOGIES
WO202051598 A2	Methods and system for serving targeted advertisements to a consumer device	MADHIVE
WO2020222862 A1	Biosignature-based tokenization of assets in a distributed ledger	ERNST & YOUNG, ...
EP3732864 A1	High performance distributed system of record	AKAMAI TECHNOLOGIES
EP3732865 A1	Concurrent transaction processing in a high performance distributed system of record	AKAMAI TECHNOLOGIES
EP3669497 A1	Method and control system for controlling and/or supervising of devices	SIEMENS
US10826685 B1	Combined blockchain integrity	AMAZON TECHNOLOGIES
US10826681 B1	Blockchain node initialization	OPEN INVENTION NETWORK
EP3696708 A1	Cryptologic sovereign profile control and exchange arbitration	ACCENTURE GLOBAL SOLUTIONS
KR20190138116 A	TTS CCTV NB-IoT CCTV LED LED CCTV CCTV The multi-function matrix hash function block chain smart block panel TTS broadcasting system video-audio broadcasting system in premises CCTV retaining coded image NB-IoT maintainer on CCTV in blackbox type solar ray generator of blockchain metering LED streetlamp controlling dimming panel generating solar ray and LED board monitoring thermal burn with processed image of CCTV controlling apparatus of parking and coding a plate CCTV monitoring early fire and its system	CHA, BO YOUNG
US20200349564 A1	System and method of providing interoperable distributed and decentralized ledgers using consensus on consensus and delegated consensus	SALESFORCE.COM

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US20200348963 A1	Systemic extensible blockchain object model comprising a first-class object model and a distributed ledger technology	PRASAGA
US20200097876 A1	Systems and/or methods for securing and automating process management systems using distributed sensors and distributed ledger of digital transactions	SOFTWARE
US20200195441 A1	Compact state database system	IBM
US20190243980 A1	Secure client-server communication	CISCO TECHNOLOGY
EP3734521 A1	Contact center transaction system that uses a distributed digital ledger	AVAYA
US20200067907 A1	Federated identity management with decentralized computing platforms	HYPR
CN111625874 A	Cloud-based super-data tamper-proofing method based on block chain technology	HANGZHOU ZCITS TECHNOLOGY
WO2020191928 A1	Digital identity authentication method, device, apparatus and system, and storage medium	SHENZHEN ONETHING TECHNOLOGY
US20200349638 A1	Stellar banks external transaction agent for international remittance on stellar network	Raiz Haim S.
US20200351075 A1	Multi-layered image encoding for data block	IBM
EP3549080 A1	Secure processing of electronic transactions by a decentralized, distributed ledger system	R3
CN109995791 A	Data authorization method and system	TSINGHUA UNIVERSITY
KR20200124015 A	Radiomap generation apparatus and method of operating the same	SK PLANET
CN110008746 A	Medical record storage, sharing and security claim settlement model and method based on a block chain	DALIAN UNIVERSITY OF TECHNOLOGY
US20200034548 A1	Decentralized policy publish and query system for multi-cloud computing environment	EMC IP HOLDING
EP3531618 A1	Method and device for broadcasting messages	ADVANCED NEW TECHNOLOGIES
CN111599449 A	Automatic playing method, device and equipment of electronic image and storage medium	PINGAN INTERNATIONAL SMART URBAN TECHNOLOGY
WO2020223570 A1	A system and method for peer-to-peer automatic teller machine transactions	
EP3673376 A2	Log-structured storage systems	ADVANCED NEW TECHNOLOGIES
KR20200123947 A	System and Method for Providing Prerence Verification and Management Platform	KIM, KI-BUM
WO202042587 A1	Smart contract call single point of execution system	WEALEDGER NETWORK TECHNOLOGY

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US20200349194 A1	Index management for a database	IBM
US10826684 B1	System and method of validating Internet of Things (IOT) devices	SYNIVERSE TECHNOLOGIES
US20200351310 A1	Adaptive distributive data protection system	VIRTUSTREAM IP HOLDING
US10826945 B1	Apparatuses, methods and systems of network connectivity management for secure access	SYNIVERSE TECHNOLOGIES
WO2020220536 A1	Data backup method and device, and computer readable storage medium	PING AN TECHNOLOGY
WO2020220833 A1	Secure sockets layer acceleration method, apparatus and device, and readable storage medium	WEBANK
US20200134618 A1	End-to-end resource visibility and tracking system	BANK OF AMERICA
CN111880746 A	一种向区块链系统中写入业务数据的方法和装置	ADVANCED NEW TECHNOLOGIES
WO201942176 A1	Blacklist data exchange method and application server	ONE CONNECT SMART TECHNOLOGY
CN111885133 A	基于区块链的数据处理方法、装置及计算机存储介质	SHENZHEN ZNV TECHNOLOGY, ...
WO201989774 A1	Distributed multi-ledger gambling architecture	AMERICORP INVESTMENTS
CN111884805 A	基于区块链及分布式身份的数据托管方法及系统	YLZ INFORMATION TECHNOLOGY, ...
WO2019180588 A1	Computer-implemented system and method for enabling zero-knowledge proof	NCHAIN HOLDINGS
CN111563743 A	Block chain transfer processing method, device, equipment and medium	BAIDU ONLINE NETWORK TECHNOLOGY
CN111885032 A	一种区块链系统以及区块链超级节点的防攻击装置	CHONGQING RADIO & TV UNIVERSITY CHONGQING BUSINESS VOCATIONAL COLLEGE
CN111885024 A	一种登录信息处理方法及设备	ADVANCED NEW TECHNOLOGIES
CN111882291 A	用户数据处理方法、区块链网络、存储介质及节点设备	CLOUDMINDS ROBOT
KR20200124103 A	Fx Margin Transaction Renthtransaction Method	CHOI, EUN TAE
CN111885196 A	用于访问物联网云平台的设备数据的方法、装置及系统	ALIPAY INFORMATION TECHNOLOGY
CN111885073 A	车辆赠予方法及服务器	CHINA UNICOM
CN111884807 A	基于区块链的物品预约方法、装置、设备以及介质	TENCENT TECHNOLOGY (SHENZHEN)
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CN111885088 A	基于区块链的日志监测方法及装置	BANK OF CHINA
CN111885050 A	基于区块链网络的数据存储方法、装置、相关设备及介质	TENCENT TECHNOLOGY (SHENZHEN)
CN111885360 A	区块链生产车间智能监控系统	GUIZHOU DONGGUAN TECHNOLOGY
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CN110059494 A	Block chain transaction data privacy protection method and block chain system	SHENZHEN QIYUAN INFORMATION SERVICE
CN111885096 A	一种基于区块链的违章处理方法、设备及介质	JINAN INSPUR HIGH & NEW TECHNOLOGY INVESTMENT DEVELOPMENT
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CN110020541 A	Reputation evaluation method and system for privacy protection based on block chain	BEIJING UNIVERSITY OF TECHNOLOGY
CN109598108 A	Program product selling method, block chain node, storage medium and block chain system	NEUSOFT
CN111881147 A	计算任务的处理方法和装置、存储介质及处理器	SHENZHEN DIGITAL LIFE INSTITUTE, ...
WO2020222777 A1	Decentralized processing of interactions on delivery	VISA
WO2020222205 A1	Automatic cloud data discovery systems and methods	
WO2020220413 A1	Zero knowledge proving method and system for personal information, and storage medium	SHANDONG TECHNOLOGY & BUSINESS UNIVERSITY, ...
CN111885076 A	一种基于信用值借贷的能源区块链交易系统及方法	CHANGCHUN INSTITUTE OF TECHNOLOGY
CN111884815 A	一种基于区块链的分布式数字证书认证系统	SHANGHAI KOAL SAFETY TECHNOLOGY
CN111870131 A	利用区块链处理的空锅状态检测平台及方法	WUXI BEIDOUXINGTONG INFORMATION TECHNOLOGY
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CN111885267 A	基于区块链的终端响应方法及振铃方法	CHINA UNICOM
CN107425981 A	Digital certificate management method and system based on block chain	HUNAN YUELUSHAN RESEARCH INSTITUTE OF DATA SCIENCE & TECHNOLOGY
CN111882335 A	基于区块链的标的物防伪溯源方法及装置	HUANG CANNAN
CN111881479 A	一种基于区块链的反洗钱名单共享系统和方法	JIANGSU SUNING BANK
CN111882436 A	一种基于区块链的数据处理方法、装置及设备	TENCENT TECHNOLOGY (CHENGDU)
CN111882385 A	一种基于弱中心化联盟区块链的电力市场交易及评估方法	AUTOMATION BRANCH OF ZHEJIANG ZHONGXIN ELECTRIC POWER ENGINEERING CONSTRUCTION, ...
CN109246945 A	A machine room with moisture-proof function equipped with block chain technology	SHENZHEN LVYUAN HUIZHI TECHNOLOGY
CN109345245 A	Block-chain-based short message authentication method, device, network and storage medium	IALLCHAIN
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WO2020220412 A1	Zero knowledge proof-based citizen privacy protection method and system, and storage medium	SHANDONG TECHNOLOGY & BUSINESS UNIVERSITY, ...
CN111882074 A	数据预处理系统、方法、计算机设备及可读存储介质	PINGAN TECHNOLOGY
CN111885066 A	区块链网络平台工资结算系统及方法	HANGZHOU LANGWEN INTELLIGENT TECHNOLOGY
CN111882881 A	基于区块链的交通违章举报系统	BEIJING HAOPU INFORMATION & TECHNOLOGY
CN111881207 A	基于区块链的专家信息共享方法、装置、设备及存储介质	GUANGDONG SCIENCE & TECHNOLOGY INNOVATION MONITORING & RESEARCH CENTER, ...
CN211857397U U	Block chain server arrangement platform	CHONGQING SUSHU NETWORK TECHNOLOGY
CN111881422 A	基于区块链的图片处理方法及装置	ADVANCED NEW TECHNOLOGIES
CN111885157 A	物联网网间设备通信方法、系统及边缘节点	CHINA UNICOM
CN111885187 A	一种区块链金融大数据处理系统	CHEN JIALIN

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CN111882410 A	一种基于区块链的税务信息查询方法及系统	FORESEE TECHNOLOGY
CN111882329 A	基于区块链的产品溯源方法及装置	
CN111882273 A	基于区块链的业务费用结算方法、装置、设备及存储介质	SHANGHAI DONGPU INFORMATION TECHNOLOGY
CN111882261 A	基于区块链和星际文件系统的物流单证存档方法和系统	HEFEI WEITIAN YUNTONG INFORMATION TECHNOLOGY
CN111882325 A	电子产品的防伪方法、装置、存储介质以及电子设备	SHENZHEN COOLPAD SOFTWARE TECHNOLOGY
CN111885163 A	基于区块链的公检法系统	BEIJING HAOPU INFORMATION & TECHNOLOGY
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CN111885586 A	基于区块链的漫游管理方法及网络接入节点	CHINA UNICOM
CN111563253 A	Intelligent contract operation method, device, equipment and storage medium	BAIDU ONLINE NETWORK TECHNOLOGY
CN110188787 A	Certificated bookkeeping method based on block chain mutual-evidence and convolutional neural network	HUAIYIN INSTITUTE OF TECHNOLOGY
CN111882435 A	在区块链中执行交易的方法及装置	ALIPAY INFORMATION TECHNOLOGY
EP3649609 A1	Smart contract based credit network	RIPIO INT SEZC
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CN111882337 A	一种基于区块链及通证经济模型的数字资产确权系统	EAST CHINA NORMAL UNIVERSITY
CN111882104 A	一种基于区块链和Oracle预言机的物流运价预测方法和系统	HEFEI WEITIAN YUNTONG INFORMATION TECHNOLOGY
CN111884810 A	交易签名方法、装置、移动终端和系统	
CN111885053 A	基于区块链的数据处理方法、装置和计算机设备	DONGGUAN MONDA PLASTIC CHEMICAL TECHNOLOGY
WO202040934 A1	Manufacture of inventories of image products	EIGHT PLUS VENTURES
CN109246248 A	Data trusted security sharing system and method based on block chain technology	TSINGHUA UNIVERSITY
EP3528524 A1	Control unit and method for manipulation-proof detection of operating safety-related integrity monitoring data	SIEMENS
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CN111882226 A	基于监狱管理的计分考核系统	GUIZHOU DONGGUAN TECHNOLOGY
CN111884809 A	一种防止分叉链交易重放的方法、装置及电子设备	HANGZHOU RIVTOWER TECHNOLOGY
CN111884991 A	一种面向智能家居的用户可监管匿名身份认证方法	HANGZHOU DIANZI UNIVERSITY
CN111882533 A	决策模型诊断方法、装置及计算机可读存储介质	SHANDONG EYE INSTITUTE, ...
CN111882416 A	一种风险预测模型的训练方法和相关装置	WEIKUN SHANGHAI TECHNOLOGY SERVICE
CN111882415 A	一种质量检测模型的训练方法和相关装置	WEIKUN SHANGHAI TECHNOLOGY SERVICE
CN111885212 A	域名存储方法及装置	SHANDONG FUXI THINK TANK INTERNET RESEARCH INSTITUTE, ...
CN111885600 A	双卡终端的接入方法、终端及服务器	CHINA UNICOM
CN111885056 A	基于区块链的零知识证明方法、装置及电子设备	BEIJING KINGSOFT CLOUD INTERNET TECHNOLOGY
CN211853220U U	Base for block chain traceability query terminal	EASY TO SIGN CHAIN SHENZHEN TECHNOLOGY
CN111881425 A	图片版权认证方法、装置及存储介质	PINGAN TECHNOLOGY
CN111881483 A	基于区块链的资源账户绑定方法、装置、设备和介质	GUANGZHOU CRG CHAIN DAJINFU TECHNOLOGY
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CN111885074 A	基于区块链的信息变更方法、车管所节点及运营商节点	CHINA UNICOM
CN111882322 A	一种按顺序打包交易的方法、装置及电子设备	HANGZHOU RIVTOWER TECHNOLOGY
CN111881294 A	一种语料标注系统、方法及存储介质	BOTSALLY TECHNOLOGY SHENZHEN
WO2020210721 A1	Systems, devices, and methods for dlt-based data management platforms and data products	VANGUARD, ...
CN109670327 A	A food safety public query system based on a block chain	BEIJING SHEENLINE TECHNOLOGY
CN109636627 A	Insurance product management method and device based on block chain, medium and electronic device	TAIKANG INSURANCE
CN109255709 A	A method and a system for checking out based on a block chain	SHENZHEN ZHENGPIN CREATIVE TECHNOLOGY
CN109087097 A	A method and apparatus for updating a chain code identical	JINGDONG DIGITAL

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US20200349562 A1	Extensible template for asset token	MICROSOFT TECHNOLOGY LICENSING
CN111882437 A	一种具有图灵完备智能合约的区块链实现方法	
CN111885153 A	基于区块链的数据获取方法、装置、计算机设备和存储介质	DONGGUAN MONDA PLASTIC CHEMICAL TECHNOLOGY
CN111882320 A	一种支持两轮通信的匿名多跳锁定方法	ZHEJIANG GONGSHANG UNIVERSITY
CN211846301U U	Mobile device based on block chain equipment	SHANGHAI JUHUIYING DATA TECHNOLOGY
CN111885188 A	一种区块链金融大数据处理方法	CHEN JIALIN
CN111881486 A	基于区块链的多方数据备份方法、装置及系统	INDUSTRY & COMMERCIAL BANK CHINA
CN111885186 A	一种区块链金融大数据处理方法	CHEN JIALIN
CN111882319 A	区块链数据上链处理方法、装置及设备	SU BO
CN111881158 A	一种管理报表数据处理方法、装置、计算机系统及可读存储介质	PING AN INTERNATIONAL FINANCE LEASING
CN111885107 A	一种基于区块链的可信伪中心存储系统	HANGZHOU DIANZI UNIVERSITY
CN211845931U U	A conveyer for block chain equipment	SHANGHAI JUHUIYING DATA TECHNOLOGY
CN111882260 A	一种基于区块链和IPFS的物流资料公示方法及系统	HEFEI WEITIAN YUNTONG INFORMATION TECHNOLOGY
CN111881692 A	基于多训练目标的机构实体抽取方法、系统及装置	PINGAN TECHNOLOGY
CN111541554 A	Block chain data processing method and device and electronic equipment	ZHUOER ZHILIAN RESEARCH INSTITUTE
CN110290458 A	Tunnel positioning method based on block chain and edge calculation, storage medium and terminal	NANJING UNIVERSITY OF POSTS & TELECOMMUNICATIONS
CN109886045 A	Intellectual property data protection, transaction and right protection method and device based on block chain	BEIJING UNIVERSITY OF TECHNOLOGY
CN107277151 A	Timing method for job scheduling system	BEIJING SUGON INFORMATION INDUSTRY
CN106549933 A	Block chain-based data transmission system and method	CENTRIN CLOUD FINANCE & DATA TECHNOLOGY
CN111885026 A	基于区块链的互联互通方法和装置、存储介质及电子装置	HAIER YOUJIA INTELLIGENT

Publication numbers	Title	Current assignees
		TECHNOLOGY
CN111881166 A	基于区块链的作业数据处理方法、装置及系统	INDUSTRY & COMMERCIAL BANK CHINA
CN111880864 A	基于HTTP的模型调用方法、系统、计算机设备和存储介质	PINGAN INTERNATIONAL SMART URBAN TECHNOLOGY
CN111883111 A	话术训练处理方法、装置、计算机设备和可读存储介质	PINGAN INTERNATIONAL SMART URBAN TECHNOLOGY
CN111881482 A	基于区块链技术的用户身份隐私加密方法	HUANG CANNAN
CN111881472 A	一种数据访问控制方法、系统及权限管理系统、介质	CLOUD ACCOUNT TECHNOLOGY TIANJIN
CN111884878 A	基于区块链的数据监控方法	FAN XIN
CN111885197 A	基于物联网的数据传输方法、装置、云平台和计算机设备	PING AN INTERNATIONAL FINANCE LEASING
CN111880948 A	数据刷新方法、装置、电子设备及计算机可读存储介质	CHINA PING AN PROPERTY INSURANCE
CN111881902 A	训练样本制作方法、装置、计算机设备及可读存储介质	PINGAN TECHNOLOGY
CN111885072 A	信息更新方法及服务器、终端	CHINA UNICOM
CN111882745 A	对象选取方法及装置、电子设备	ADVANCED NEW TECHNOLOGIES
CN111882331 A	一种基于区块链终端的防伪溯源方法	ANHUI GAOSHAN TECHNOLOGY
CN111882227 A	基于监狱管理的劳动计量生产管理系统	GUIZHOU DONGGUAN TECHNOLOGY
CN111064734 A	Block chain system user identity anonymity and traceability method, corresponding storage medium and electronic device	INSTITUTE OF INFORMATION ENGINEERING CAS
WO202056043 A1	Network architecture for gaming industry accounting	JCM AMERICAN
CN108833483 A	Grouping-based DPOS proxy node selection method	HAINA RENDONG SCIENCE & TECHNOLOGY
EP3734453 A1	Modular i/o configurations for edge computing using disaggregated chiplets	INTEL
US20200349054 A1	Sidechain testing system for improving security and stability of smart contract	HUAZHONG UNIVERSITY OF SCIENCE & TECHNOLOGY
US20200349541 A1	Managing Redistribution of Digital Media Assets	APPLE
US20200351266 A1	Identity Vault Service	AT&T
US20200349252 A1	Program execution and data proof scheme using multiple key pair signatures	ALIBABA HOLDING

Publication numbers	Title	Current assignees
EP3734452 A1	Automatic localization of acceleration in edge computing environments	INTEL
US20200242125 A1	System for dynamic intelligent code change implementation	BANK OF AMERICA
US20180343476 A1	Delivery of different services through client devices by video and interactive service provider	TURNER BROADCASTING SYSTEM

Method and device for avoiding double-spending problem in read-write set-model-based blockchain technology

EP3628093 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*

ALIBABA HOLDING

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

FENG ZHIYUAN

Priority data including date

2019WO-CN85212 2019-04-30

IPC - International classification

G06F-016/27	G06F-017/00	G06Q-020/00
G06Q-020/06	G06Q-020/38	G06Q-020/40*
H04L-009/06	H04L-009/32*	

CPC - Cooperative classification

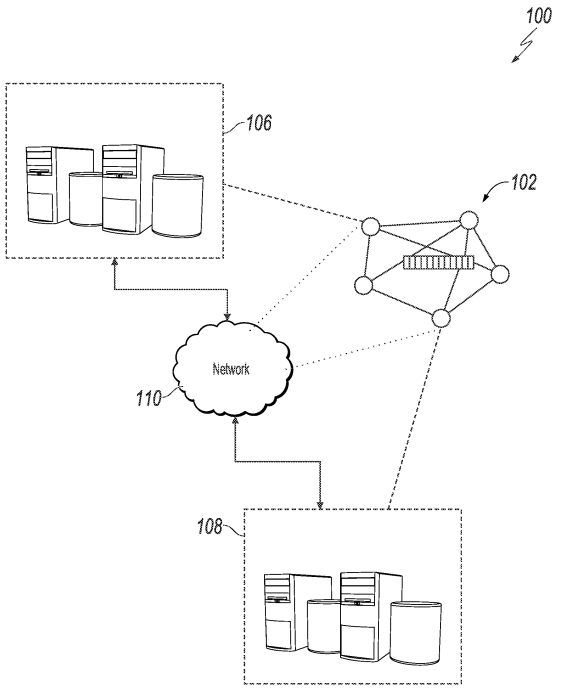
G06Q-020/06/5*	G06Q-020/22/3	G06Q-020/36
G06Q-020/38/23	G06Q-020/38/25	G06Q-020/40
G06Q-020/40/1*	H04L-009/06/37	H04L-009/32/39
H04L-009/32/97	H04L-2209/38	H04L-2209/56

Family

US20200349568	A1	2020-11-05	WO2019/137567	A3	2020-03-12
JP2020525874	A	2020-08-27	SG11201910069Y	A	2019-11-28
EP3628093	A4	2020-07-15	CA3061810	A1	2019-07-18
CN110998633	A	2020-04-10	WO2019/137567	A2	2019-07-18
EP3628093	A2	2020-04-01			

(EP3628093)

Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for avoiding double-spending problem in read-write set-model-based blockchain technology. One of the methods includes receiving instructions to execute two or more blockchain transactions on a piece of data, where all blockchain transactions of the two or more blockchain transactions modify a value of the piece of data, and for each blockchain transaction from the two or more blockchain transactions, pre-executing a smart contract associated with the blockchain transaction to generate a special instruction indicating the blockchain transaction, where the special instruction is used to validate that a current value of the piece of data supports the blockchain transaction when executing the smart contract to write the blockchain transaction to a blockchain.



System and method for blockchain-based notification
EP3688620 A2

Current assignees
ADVANCED NEW TECHNOLOGIES*
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
GUAN YAYANG
SHI RUBING

Priority data including date
2019US-16722405 2019-12-20
2019WO-CN102885 2019-08-27
2020US-16847372 2020-04-13

IPC - International classification

G06F-009/48	G06F-009/54	G06F-016/23
G06F-016/27	G06F-016/93*	G06F-021/64
G06Q-040/04	H04L-009/06	

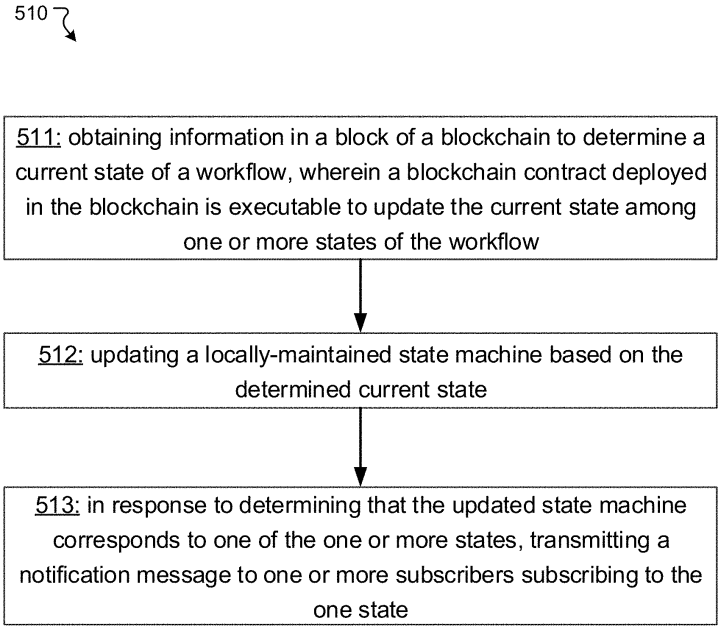
CPC - Cooperative classification

G06F-009/48/68	G06F-009/54/2*	G06F-016/23*
G06F-016/27	G06F-021/64	G06Q-010/06
G06Q-030/06/13	G06Q-040/04	H04L-009/06/37
H04L-009/32/39	H04L-063/123	H04L-2209/38

Family

EP3688620	A4	2020-11-04	US10671454	B2	2020-06-02
EP3688620	A2	2020-08-05	CN111213135	A	2020-05-29
US20200241937	A1	2020-07-30	US20200125427	A1	2020-04-23
US10719377	B2	2020-07-21	WO2019/228552	A2	2019-12-05
WO2019/228552	A3	2020-06-11			

(EP3688620)
Methods, systems, and apparatus, including computer programs encoded on computer storage media, for blockchain-based notification are provided. One of the methods includes: obtaining information in a block of a blockchain to determine a current state of a workflow, wherein a blockchain contract deployed in the blockchain is executable to update the current state among one or more states of the workflow; updating a locally-maintained state machine based on the determined current state; and in response to determining that the updated state machine corresponds to one of the one or more states, transmitting a notification message to one or more subscribers subscribing to the one state.



Managing blockchain-based centralized ledger systems
EP3679686 A2

Current assignees
ADVANCED NEW TECHNOLOGIES*
ALIBABA HOLDING

Inventors
YANG XINYING
YU BENQUAN
ZHANG YUAN
YAN WENYUAN
LI YIZE

Priority data including date
2019US-16713966 2019-12-13
2019WO-CN104067 2019-09-02
2020US-16829866 2020-03-25

IPC - International classification

G06F-021/64*	G06Q-040/00	G06Q-040/08
H04L-009/32	H04L-029/06	

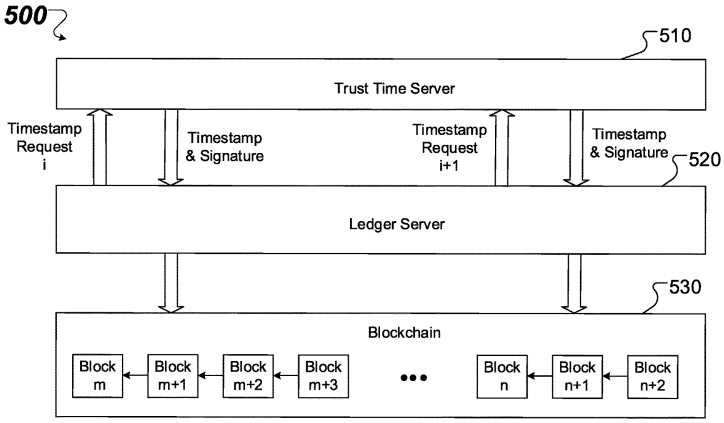
CPC - Cooperative classification

G06F-021/64*	G06F-2221/2151	G06Q-040/00
G06Q-040/08	G06Q-040/12	G06Q-2220/00
H04L-009/32/1	H04L-009/32/36	H04L-009/32/39
H04L-009/32/47	H04L-009/32/97*	H04L-063/123
H04L-2209/38		

Family

EP3679686	A4	2020-11-04	EP3679686	A2	2020-07-15
CN111837359	A	2020-10-27	WO2019/228561	A3	2020-06-25
US10728046	B1	2020-07-28	SG11202002467T	A	2020-04-29
US20200228352	A1	2020-07-16	WO2019/228561	A2	2019-12-05

(EP3679686)
Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for managing blockchain-based centralized ledger systems. One of the methods includes: transmitting a timestamp request for a to-be-timestamped block in a blockchain to a trust time server by a ledger server in a centralized ledger system that stores data in the blockchain, the trust time server being associated with a trust time authority and independent from the centralized ledger system, the blockchain including a plurality of blocks storing transaction data, receiving a timestamp and associated signature for the to-be-timestamped block from the trust time server by the ledger server, and storing information of the timestamp and the associated signature for the to-be-timestamped block in the blockchain by the ledger server.



Blockchain-based dispute resolution

EP3673618 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*

ALIBABA HOLDING

Inventors

LI ZHIGUO

Priority data including date

2019WO-CN100267 2019-08-12

IPC - International classification

G06F-021/64 H04L-009/32*

CPC - Cooperative classification

G06F-021/64* H04L-009/32/31 H04L-009/32/39

H04L-009/32/47 H04L-009/32/97 H04L-2209/38

H04L-2209/56 H04L-2209/608

Family

EP3673618	A4	2020-11-04	SG11202002735V	A	2020-04-29
EP3673618	A2	2020-07-01	WO2019/214756	A2	2019-11-14
WO2019/214756	A3	2020-06-04			

(EP3673618)

Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for providing dispute resolution. One of the methods includes: at a blockchain-based application, receiving a request for resolving a dispute between at least a first party and a second party; recording a time that the request is received on the blockchain; receiving one or more potential dispute resolutions from one or more dispute resolution providers that are registered on the blockchain-based application; receiving a first selection from the first party and a second selection from the second party, wherein the first selection comprises a first set of the one or more potential dispute resolutions and the second selection comprises a second set of the one or more potential dispute resolutions; and determining at least one of (i) at least one common potential dispute resolution between the first set of the one or more potential dispute resolutions and the second set of the one or more potential dispute resolutions, or (ii) that none of the potential dispute resolutions are acceptable to the first and second parties.

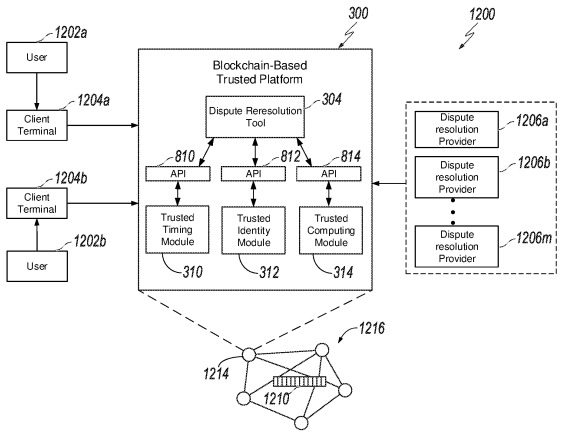


FIG. 12

Shared blockchain data storage
EP3669280 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

ZHUO HAIZHEN

Priority data including date

2019US-16714197 2019-12-13
2019WO-CN95625 2019-07-11
2020US-16928794 2020-07-14

IPC - International classification

G06F-009/455 G06F-016/2458 G06F-016/901
G06F-021/62* G06F-021/64 H04L-009/06
H04L-009/32*

CPC - Cooperative classification

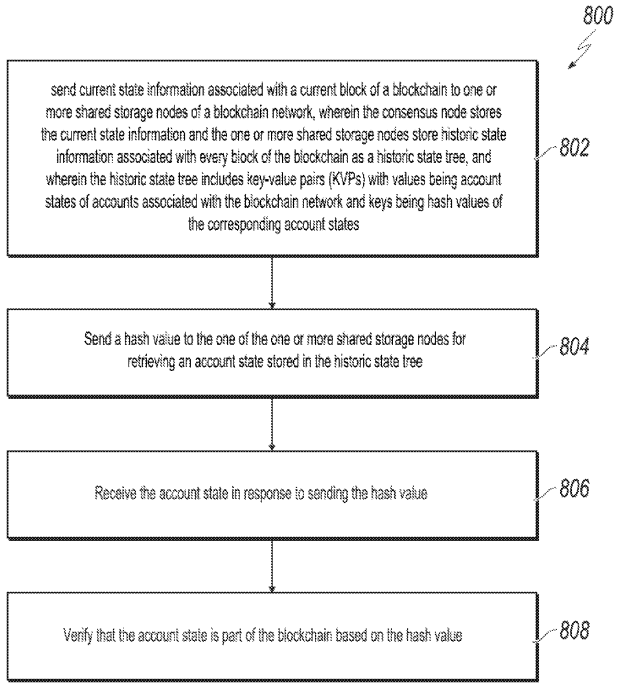
G06F-009/455/58 G06F-016/9027 G06F-021/62*
G06F-021/64 H04L-009/06/37 H04L-009/06/43
H04L-009/32/39 H04L-009/32/47* H04L-2209/38
H04L-2209/56

Family

US10826709	B1	2020-11-03		WO2019/179539	A3	2020-05-14
US20200344069	A1	2020-10-29		CN111108478	A	2020-05-05
EP3669280	A4	2020-09-02		SG11202002017Y	A	2020-04-29
EP3669280	A2	2020-06-24		WO2019/179539	A2	2019-09-26

(EP3669280)

Methods, systems, and apparatus, including computer programs encoded on computer storage media, for communicating and sharing blockchain data. One of the methods includes sending current state information associated with a current block of a blockchain to one or more shared storage nodes of the blockchain network; sending a hash value to the one of the one or more shared storage nodes for retrieving an account state stored in the historic state tree; receiving the account state in response to sending the hash value; and verifying, by the consensus node, that the account state is part of the blockchain based on the hash value.



Methods and devices for managing access to account in blockchain system
EP3635941 A2

Current assignees
ADVANCED NEW TECHNOLOGIES*
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
YAO ZHONGXIAO

Priority data including date
2019WO-CN85227 2019-04-30

IPC - International classification

G06Q-020/00	G06Q-020/22	G06Q-020/36*
G06Q-040/02	H04L-009/06	H04L-029/06*

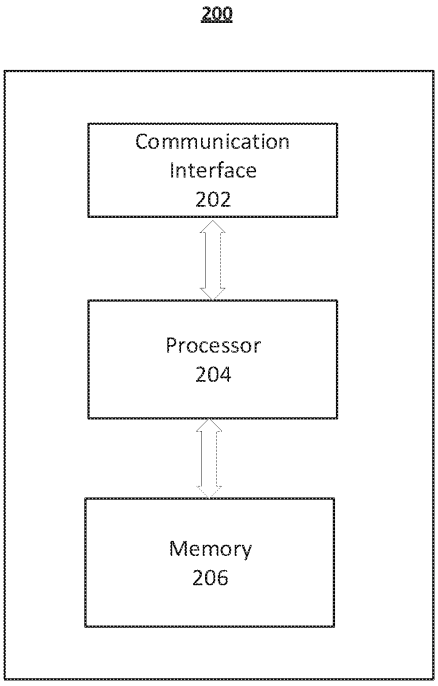
CPC - Cooperative classification

G06Q-020/22/3*	G06Q-020/36/74*	G06Q-040/02
H04L-009/06/37	H04L-009/32/39	H04L-2209/38
H04L-2209/56		

Family

US20200349556	A1	2020-11-05	SG11202000784S	A	2020-02-27
EP3635941	A4	2020-04-29	WO2019/137568	A3	2020-02-20
CN111034151	A	2020-04-17	WO2019/137568	A2	2019-07-18
EP3635941	A2	2020-04-15			

(EP3635941)
Disclosed herein are methods, devices, and apparatuses, including computer programs stored on computer-readable media for managing access to an account in a blockchain system. One of the methods includes: receiving, from a first account of the blockchain system, a request for accessing a second account of the blockchain system; determining an account level of the first account based on the request; determining an account level of the second account; determining whether the account level of the first account satisfies an account condition based on the account level of the second account; and permitting the request for accessing the second account based on a determination that the account level of the first account satisfies the account condition.



Method and apparatus for dynamic discovery of a blockchain component in a cloud computing system

EP3732845 A1

Current assignees

ERICSSON*

Inventors

KEMPF JAMES

SHUKLA ANSHU

NARENDRA NANJANGUD CHANDRASEKHARA SWAMY

NAYAK SAMBIT

Priority data including date

2017WO-IB58529 2017-12-29

IPC - International classification

H04L-009/06	H04L-009/32	H04L-012/18
H04L-012/46	H04L-029/06*	H04L-029/12
H04W-012/06	H04W-084/08	

CPC - Cooperative classification

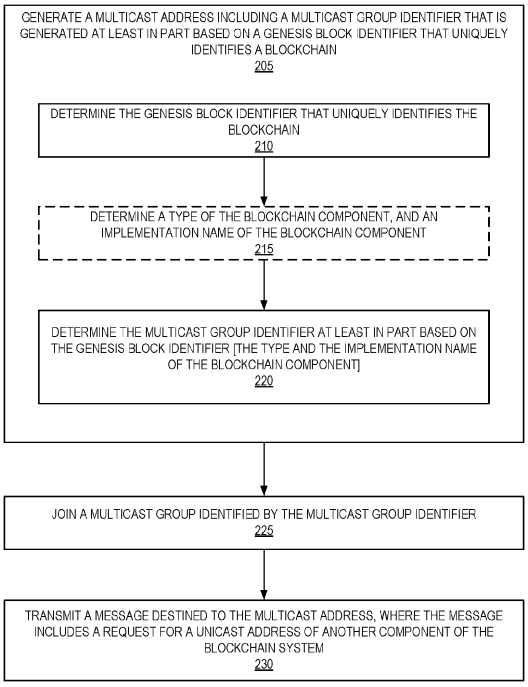
H04L-009/06/37	H04L-009/32/36	H04L-009/32/39
H04L-012/18/5	H04L-012/46/41*	H04L-061/2007
H04L-061/2015	H04L-061/2069*	H04L-063/12
H04L-2209/38		

Family

EP3732845	A1	2020-11-04	WO2019/130051	A1	2019-07-04	
US20200322308	A1	2020-10-08				

(EP3732845)

A method and a network device in a cloud computing system, including a first blockchain component that is one of a plurality of blockchain components forming a blockchain system, of dynamic discovery of another blockchain component of the blockchain system are described. A multicast address including a multicast group identifier is generated. The multicast group identifier is generated at least in part based on a genesis block identifier that uniquely identifies a blockchain serviced by the blockchain system. The network device joins a multicast group identified by the multicast group identifier; and transmits a message destined to the multicast address, where the message includes a request for a unicast address of another component of the blockchain system.



Function-as-a-service (faas) platform in blockchain networks

EP3552166 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*
ALIBABA GRUP KHOLDING
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

SHAO KAILAI
LU XUMING

Priority data including date

2018WO-CN117637 2018-11-27
2019IN-47016032 2019-04-23
2019US-16390088 2019-04-22
2020US-16834559 2020-03-30

IPC - International classification

G06F-008/70*	G06F-009/46	G06F-009/50
G06F-009/54	G06F-016/182	G06F-021/60
G06Q-010/00	G06Q-020/36	G06Q-020/38*
G06Q-050/10	G06Q-050/18	H04L-009/00
H04L-009/32	H04L-012/24	H04L-012/28

CPC - Cooperative classification

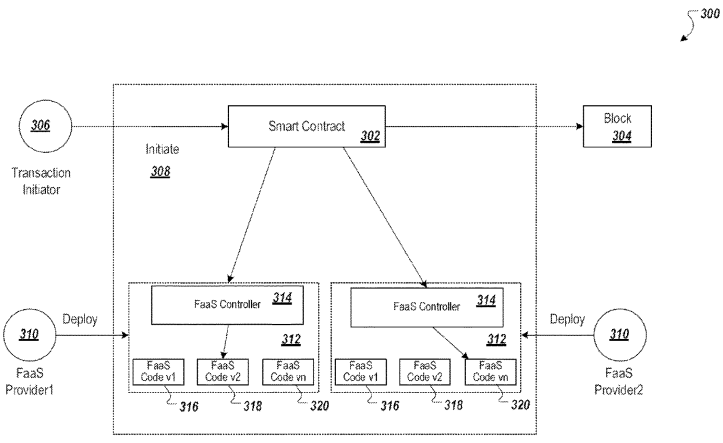
G06F-008/70*	G06F-009/46	G06F-009/50/05
G06F-009/50/16	G06F-009/54/7*	G06F-2201/88
G06Q-020/06/5	G06Q-020/36/78	G06Q-020/38/2
G06Q-020/38/29	G06Q-040/04*	H04L-009/32/39
H04L-009/32/47	H04L-2209/38	H04L-2209/56

Family

US10824419	B2	2020-11-03	EP3552166	A4	2020-01-22
RU2019111902	A	2020-10-19	CN110622192	A	2019-12-27
RU2019111902	A3	2020-10-19	PH12019500872	A1	2019-12-02
TWI706647	B	2020-10-01	BR112019007939	A2	2019-11-12
US10789064	B2	2020-09-29	BR112019007939	A1	2019-10-29
JP6756914	B2	2020-09-16	EP3552166	A2	2019-10-16
US20200225937	A1	2020-07-16	WO2019/072282	A3	2019-10-03
AU2018348323	A1	2020-06-11	MX2019004667	A	2019-08-21
KR10-2020-0066255	A	2020-06-09	US20190244294	A1	2019-08-08
US10671380	B2	2020-06-02	SG11201903493Y	A	2019-05-30
TW202021311	A	2020-06-01	CA3041223	A1	2019-04-18
IN201947016032	A	2020-05-29	WO2019/072282	A2	2019-04-18
JP2020507140	A	2020-03-05			

(EP3552166)

Implementations of the present specification include receiving, from a smart contract, and by a function controller executing within the blockchain network, a function call to execute a function, the function call including data for execution of the function, transmitting, by the function controller, the data of the function call to a function component, the function component executing the function based on the data of the function call, receiving, by the function controller, a function result from the function component, and providing, by the function controller, the function result to the smart contract.



Retrieving public data for blockchain networks using trusted execution environments
EP3673435 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

YU YIRONG
QIU HONGLIN

Priority data including date

2019WO-CN79800 2019-03-27
2019WO-CN80478 2019-03-29
2019WO-CN96030 2019-07-15
2019WO-CN96032 2019-07-15
2019WO-CN96036 2019-07-15

IPC - International classification

G06F-021/53	G06F-021/62	G06F-021/64
G06Q-020/36	G11B-020/00	H04L-009/06
H04L-009/08*	H04L-009/14	H04L-009/30
H04L-009/32*	H04L-029/06	

CPC - Cooperative classification

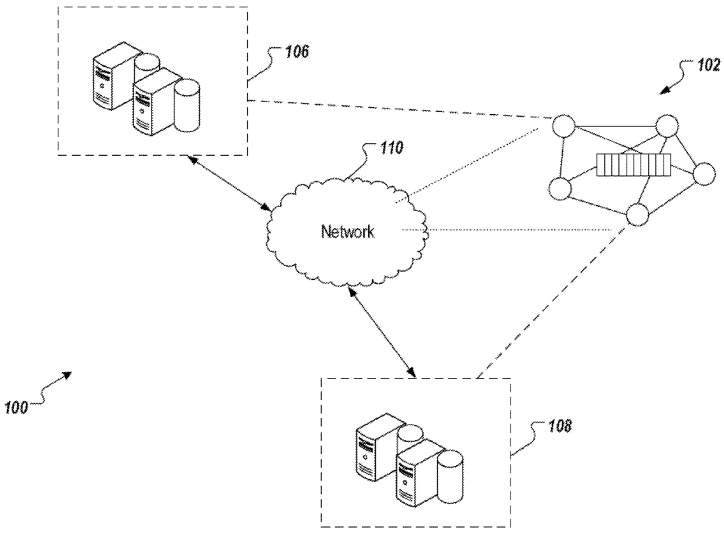
G06F-021/64*	H04L-009/06/37	H04L-009/06/43
H04L-009/08/8	H04L-009/08/97	H04L-009/14
H04L-009/30	H04L-009/30/73	H04L-009/32/39
H04L-009/32/42	H04L-009/32/47	H04L-063/123
H04L-2209/38	H04L-2209/42	

Family

US10824763	B2	2020-11-03	SG11202001944U	A	2020-04-29
TW202038221	A	2020-10-16	SG11202002774W	A	2020-04-29
US10803205	B1	2020-10-13	SG11202002786U	A	2020-04-29
EP3673435	A4	2020-10-07	CN111066287	A	2020-04-24
EP3685334	A4	2020-10-07	CN110914851	A	2020-03-24
US20200311312	A1	2020-10-01	CN110832519	A	2020-02-21
US20200313867	A1	2020-10-01	WO2019/179543	A3	2020-02-20
US20200313903	A1	2020-10-01	WO2019/179541	A3	2020-02-06
US10790974	B1	2020-09-29	WO2019/179542	A3	2020-02-06
EP3685334	A2	2020-07-29	WO2019/179541	A2	2019-09-26
EP3673435	A2	2020-07-01	WO2019/179542	A2	2019-09-26
EP3673617	A2	2020-07-01	WO2019/179543	A2	2019-09-26

(EP3673617)

Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for performing an attestation verification. One of the methods includes sending an attestation request to a relay system node by a relay system controller. The relay system controller receives an attestation evidence of the relay system node from the relay system node. The relay system controller sends the attestation evidence of the relay system node to an attestation verification server. The relay system controller receives an attestation verification report from the attestation verification server. The relay system controller sends the attestation verification report to a relay system smart contract.



Method and apparatus for identifying authenticity of evidence of both parties based on blockchain evidence preservation

EP3734535 A1

Current assignees

ADVANCED NEW TECHNOLOGY*

ALIBABA HOLDING

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

YANG XINYING

Priority data including date

2018CN-0954364 2018-08-21

2019WO-CN92637 2019-06-25

IPC - International classification

G06Q-020/38 G06Q-030/00* G06Q-050/18

CPC - Cooperative classification

G06Q-020/38/2 G06Q-020/38/27 G06Q-030/0185*

G06Q-050/18

Family

EP3734535	A1	2020-11-04	WO2020/038096	A1	2020-02-27
SG11202007276X	A	2020-08-28	CN109255628	A	2019-01-22
TW202009856	A	2020-03-01			

(EP3734535)

Disclosed are a method and apparatus for identifying authenticity of two parties' evidence based on a blockchain ledger. For a certain case event that the accusant of the case claims to be real, the accusant's accusation evidence for supporting the case event is identified through the target procedure; in addition, the respondent's responding evidence for falsifying the case event is identified through the target procedure. The target procedure is: identifying target electronic evidence, providing a relatively high authenticity reference score for the target electronic evidence when it is determined that the target electronic evidence has been stored by at least one candidate blockchain ledger platform, and providing a relatively low authenticity reference score for the target electronic evidence when it is determined that the target electronic evidence is not stored by the at least one candidate blockchain ledger platform.

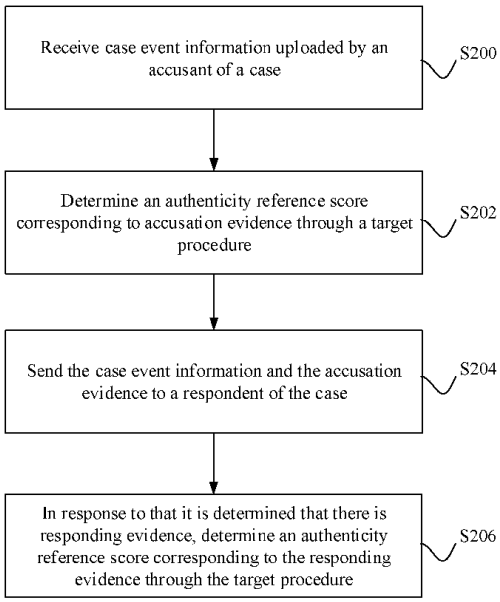


FIG. 2

Evidence collection method and system based on blockchain evidence storage
EP3734489 A1

Current assignees
ADVANCED NEW TECHNOLOGY*
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
YANG XINYING

Priority data including date
2018CN-0954378 2018-08-21
2019WO-CN92635 2019-06-25

IPC - International classification
G06F-017/40 G06F-021/60 G06F-021/64*
G06Q-050/18

CPC - Cooperative classification
G06F-021/64* G06Q-050/18

Family

EP3734489	A1	2020-11-04	WO2020/038095	A1	2020-02-27
SG11202007258S	A	2020-08-28	CN109376552	A	2019-02-22
TW202009770	A	2020-03-01			

(EP3734489)
Disclosed are a blockchain ledger-based evidence acquisition method and apparatus. A user (party to a lawsuit) can operate user equipment to record one or more of the user's behavior and voice into a multimedia file and then send the multimedia file to a service device, so the service device constructs a target transaction based on the multimedia file and broadcasts the target transaction to a blockchain network for each node in the blockchain network to add the target transaction to the blockchain based on a consensus mechanism. As such, multi-party storage of the multimedia file is realized.

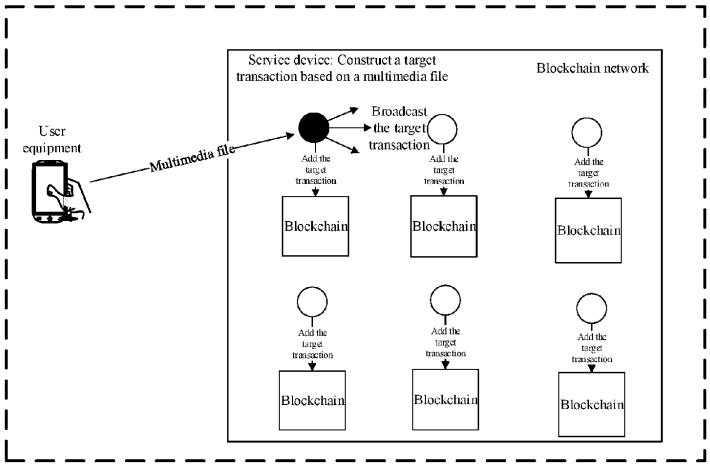


FIG. 2

BLOCKCHAIN technology based database management system
KR102172903 B1

Current assignees

EWHA WOMAN UNIVERSITY*

Inventors

PARK, MIN JEONG

CHAE SangMi

Priority data including date

2019KR-0162862 2019-12-09

IPC - International classification

G06F-016/23 G06F-016/27* H04L-029/08

CPC - Cooperative classification

G06F-016/2365* G06F-016/278 H04L-067/1087

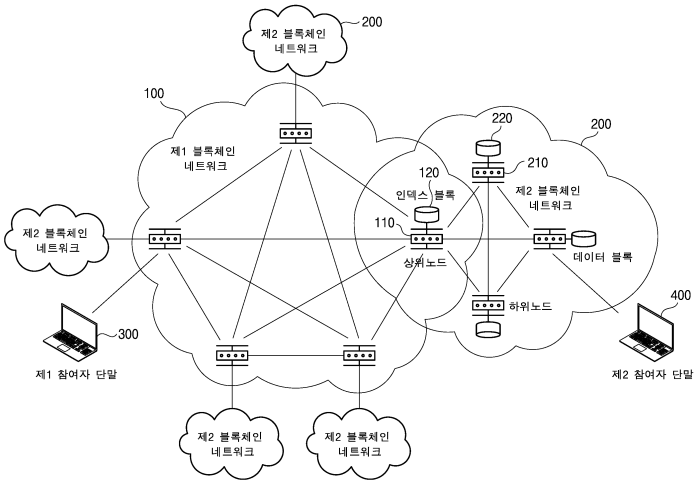
H04L-067/1097

Family

KR10-2172903 B1 2020-11-02

(KR10-2172903)

The present invention discloses a database management system. More particularly, the present invention relates to a blockchain technic-based database management system that guarantees the integrity of data by applying a blockchain technique and distributively storing the data, rather than simply writing the data in a table. According to an embodiment of the present invention, by allowing a first blockchain in which a transaction record is stored and a second blockchain in which an original of data is stored to exist separately, but to be operated together at the same time, A blockchain-based database management system stores, processes, queries, and the like of data, thereby improving security and reliability of the data and improving efficiency of data management.



High performance blockchain architecture for logistics services
EP3734526 A1

Current assignees

ACCENTURE GLOBAL SOLUTIONS*

Inventors

GOVEKAR VIVEK

Priority data including date

2019US-16402716 2019-05-03

IPC - International classification

G06F-016/16	G06F-016/18	G06F-016/25
G06Q-010/08*	G06Q-020/38	G06Q-050/28
H04L-009/06		

CPC - Cooperative classification

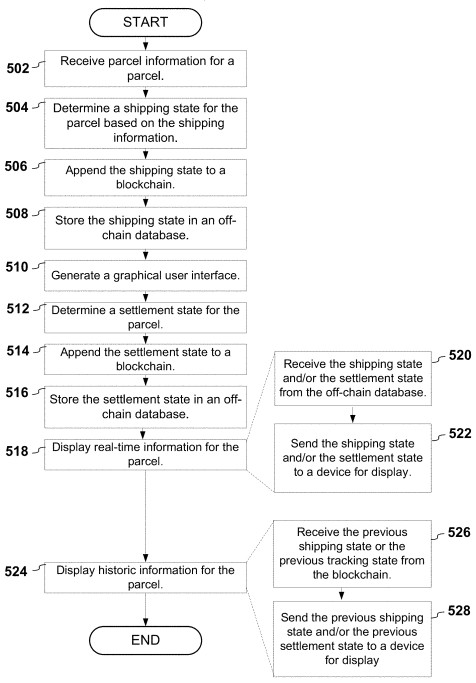
G06F-016/168	G06F-016/1805	G06F-016/256
G06Q-010/08*	G06Q-010/08*/32	G06Q-010/08*/33
G06Q-050/28	H04L-009/06/37	H04L-2209/38

Family

US20200349502	A1	2020-11-05	CN111882258	A	2020-11-03	
EP3734526	A1	2020-11-04				

(EP3734526)

A system may include a federated shipping node. The federated shipping node may receive shipping information for a parcel and determine a new shipping state for the parcel based on the shipping information. The federated shipping node may append the new shipping state to a blockchain. In addition, the federated shipping node may store the new shipping state in an off-chain database. A previous shipping state for the parcel may be replaced with the new shipping state in the off-chain database. To display the real-time information related to the parcel, the federated shipping node may receive the new shipping state from the off-chain database, and send the new shipping state to a device for display. To display the historical information related to the parcel, the federated shipping node may receive previous shipping states from the blockchain, and send the previous shipping states to the device for display.



Multi-instance architecture supporting trusted blockchain-based network
EP3591549 A1

Current assignees
SERVICENOW*

Inventors
SUBRAMANIAM SREENEVAS

Priority data including date
2018US-16026625 2018-07-03

IPC - International classification

G06F-016/27	G06F-021/10*	G06F-021/62
G06F-021/64	G06Q-020/00	H04L-009/06*
H04L-009/08	H04L-009/30	H04L-009/32
H04L-012/24	H04L-029/02	

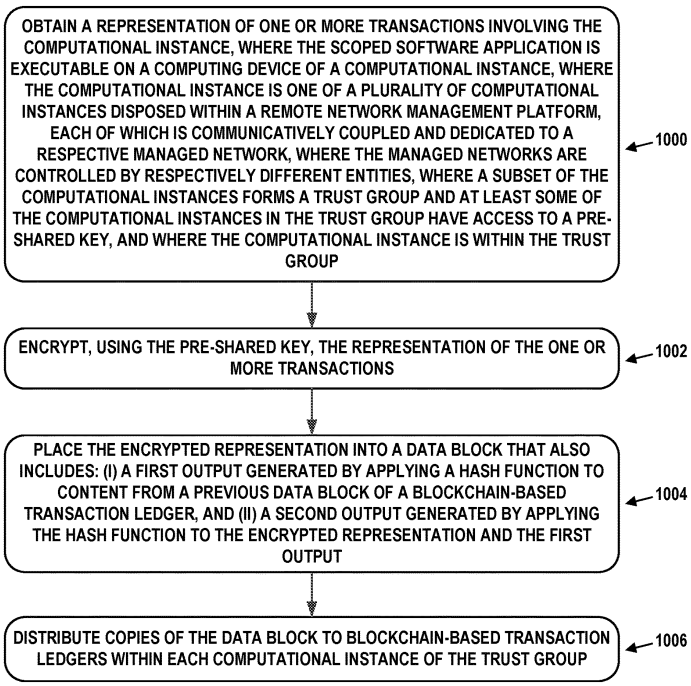
CPC - Cooperative classification

G06F-021/10*	G06F-021/64	G06Q-020/38/215
G06Q-030/06/33	G06Q-2220/00	G06Q-2220/18
H04L-009/06/37*	H04L-009/06/43	H04L-009/08/25
H04L-009/08/5	H04L-009/32/39	H04L-009/32/47
H04L-063/00	H04L-2209/38	

Family

US10826682	B2	2020-11-03	EP3591549	A1	2020-01-08
AU2019204764	A1	2020-01-23	CA3048506	A1	2020-01-03
US20200014527	A1	2020-01-09			

(EP3591549)
The invention provides a scoped software application executable on a computing device of a computational instance (322) within a trust group of computational instances of a remote network management platform that obtains a representation of one or more transactions involving the computational instance. The representation is encrypted using a pre-shared key to which at least some computational instances within the trust group have access. The encrypted representation is placed into a data block (800) that also includes: (i) a first output generated by applying a hash function to content from a previous data block of a blockchain-based transaction ledger, and (ii) a second output generated by applying the hash function to the encrypted representation and the first output. Copies of the data block is distributed copies to blockchain-based transaction ledgers within each computational instance (324) of the trust group.



System for simplifying executable instructions for optimised verifiable computation
EP3707623 A1

Current assignees

NCHAIN HOLDINGS*

Inventors

COVACI ALEXANDRA
MADEO SIMONE
MOTYLINSKI PATRICK
VINCENT STEPHANE

Priority data including date

2017GB-0018505 2017-11-09
2017GB-0019998 2017-11-30
2017GB-0020768 2017-12-13
2018GB-0001753 2018-02-02
2018GB-0005948 2018-04-10
2018GB-0006444 2018-04-20
2018WO-IB58432 2018-10-29
2018WO-IB58433 2018-10-29
2018WO-IB58434 2018-10-29
2018WO-IB58437 2018-10-29
2018WO-IB58583 2018-11-01

IPC - International classification

G06F-007/575	G06F-008/41*	G06F-009/445
G06F-009/455	G06F-016/182	G06F-017/00
G06F-017/50	G06F-021/76	G06F-030/32
G06Q-020/40	G06Q-040/04	H04L-009/00*
H04L-009/06	H04L-009/08	H04L-009/30
H04L-009/32	H04L-029/06	H04L-029/08

CPC - Cooperative classification

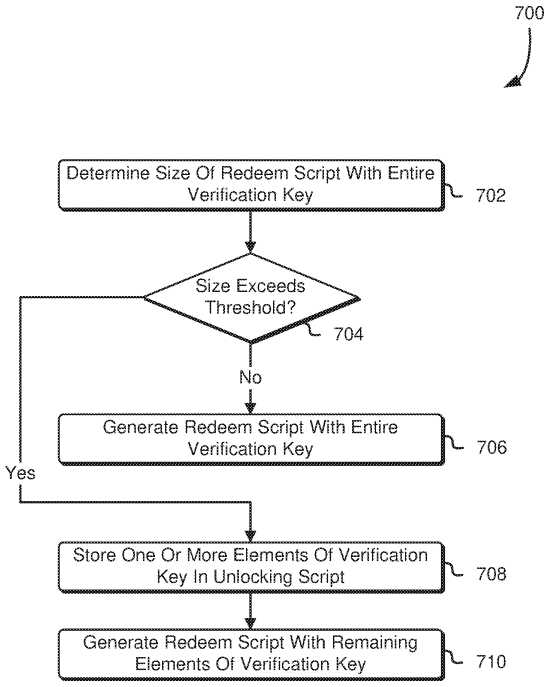
G06F-008/423	G06F-008/4441	G06F-008/447*
G06F-008/451	G06F-009/445/21	G06F-016/1834
G06Q-020/40/5	H04L-009/06/43	H04L-009/08/38
H04L-009/08/5	H04L-009/08/77	H04L-009/30/66*
H04L-009/32/18*	H04L-009/32/39	H04L-009/32/63
H04L-063/12	H04L-2209/122	H04L-2209/127
H04L-2209/34	H04L-2209/38	

Family

US20200348916	A1	2020-11-05	SG11202004147R	A	2020-06-29	
EP3707623	A1	2020-09-16	SG11202004148P	A	2020-06-29	
EP3707852	A1	2020-09-16	SG11202004149U	A	2020-06-29	
EP3707855	A1	2020-09-16	SG11202004153U	A	2020-06-29	
EP3707856	A1	2020-09-16	CN111345004	A	2020-06-26	
EP3707871	A1	2020-09-16	CN111345005	A	2020-06-26	
US20200266985	A1	2020-08-20	CN111316594	A	2020-06-19	
IN202047022154	A	2020-08-14	CN111316595	A	2020-06-19	
KR10-2020-0086281	A	2020-07-16	IN202047022330	A	2020-06-19	
KR10-2020-0086282	A	2020-07-16	TW201923567	A	2019-06-16	
KR10-2020-0086284	A	2020-07-16	TW201923648	A	2019-06-16	
CN111406379	A	2020-07-10	WO2019/092542	A1	2019-05-16	
IN202047022183	A	2020-07-10	WO2019/092543	A1	2019-05-16	
KR10-2020-0080265	A	2020-07-06	WO2019/092544	A1	2019-05-16	
IN202047022354	A	2020-07-03	WO2019/092545	A1	2019-05-16	
KR10-2020-0079503	A	2020-07-03	WO2019/092561	A1	2019-05-16	
SG11202004146W	A	2020-06-29				

(EP3707623)

The invention relates to distributed ledger technologies such as consensus-based blockchains. Computer-implemented methods for reducing arithmetic circuits derived from smart contracts are described. The invention is implemented using a blockchain network, which may be, for example, a Bitcoin blockchain. A set of conditions encoded in a first programming language is obtained. The set of conditions is converted into a programmatic set of conditions encoded in a second programming language. The programmatic set of conditions is precompiled into precompiled program code. The precompiled program code is transformed into an arithmetic circuit. The arithmetic circuit is reduced to form a reduced arithmetic circuit, and the reduced arithmetic circuit is stored.



Systems and methods for communication, storage and processing of data provided by an entity over a blockchain network

EP3676988 A1

Current assignees

NCHAIN HOLDINGS*

NCHAIN HOLDINGS* LIMITED

Inventors

BARTOLUCCI SILVIA

BERNAT PAULINE

JOSEPH DANIEL

Priority data including date

2017GB-0013800 2017-08-29

2018WO-IB56576 2018-08-29

IPC - International classification

H04L-009/06 H04L-009/08* H04L-009/30

H04L-009/32*

CPC - Cooperative classification

H04L-009/06/37 H04L-009/08/5* H04L-009/30

H04L-009/32/39* H04L-009/32/47 H04L-2209/38

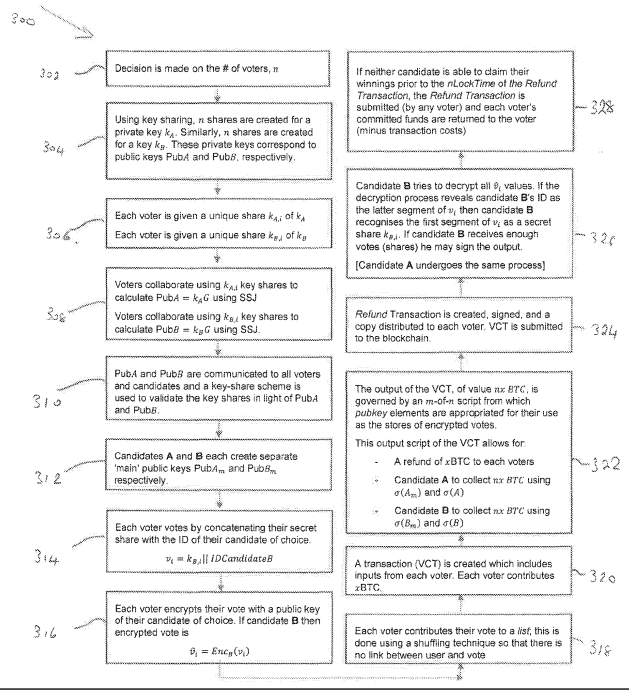
H04L-2209/463

Family

US20200351083	A1	2020-11-05	SG11202000809X	A	2020-03-30
EP3676988	A1	2020-07-08	IN202047010804	A	2020-03-20
CN111066283	A	2020-04-24	WO2019/043589	A1	2019-03-07
KR10-2020-0041338	A	2020-04-21	GB201713800	D0	2017-10-11

(EP3676988)

A computer-implemented method of making a decision on a blockchain is provided. The method comprises providing a blockchain voting commitment transaction (2) redeemable by means of a first signature (σ(Am), σ(Bm)) associated with a selection (A, B) and a second signature (σ(A), σ(B)) associated with the selection, providing each of a plurality of participants (Ui) with at least one share (kA,i, KB,i) of at least one respective secret value (kA, kB) wherein a threshold number of shares is required in order to execute said second signature, and submitting the blockchain voting commitment transaction (2) to the blockchain.



Currency exchange and foreign exchange transaction method of using blockchain-based digital assets including cryptocurrency as intermediary

WO2019147069 A1

Current assignees

LEE JE KWON

Inventors

LEE, JE GWON

Priority data including date

2018KR-0010206 2018-01-26
2018KR-0041938 2018-04-11
2019KR-0009694 2019-01-25
2019WO-KR01099 2019-01-25

IPC - International classification

G06Q-020/06 G06Q-020/36 G06Q-020/38
G06Q-040/04*

CPC - Cooperative classification

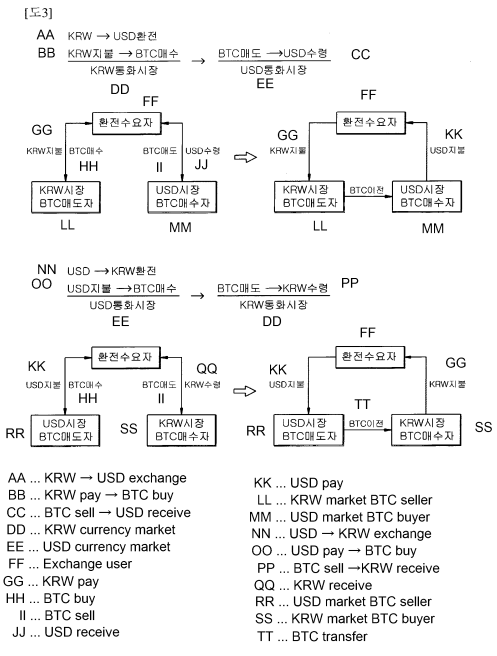
G06Q-020/06* G06Q-020/06*/5 G06Q-020/36
G06Q-020/36/78 G06Q-020/38 G06Q-020/38/1
G06Q-020/38/27 G06Q-040/04

Family

KR10-2172699	B1	2020-11-02		KR10-2019-0091211	A	2019-08-05	
CN111656385	A	2020-09-11		WO2019/147069	A1	2019-08-01	

(WO2019/147069)

The present invention relates to a currency exchange and foreign exchange transaction method of using blockchain-based digital assets including a cryptocurrency as an intermediary, and is intended to provide a method for allowing a user to easily and quickly exchange currencies without an economic loss by directly applying a buy-sell spread of a market in such a manner that a foreign exchange market that uses the digital assets as the intermediary in blockchain-based digital asset exchanges is created by using an environment that trades in different currencies within a single exchange without transferal of blockchain-based digital assets between the exchanges, which may increase latency, or by using an environment wherein a number of exchanges trading in different currencies share the digital assets by contractual agreements or an environment that shares transaction information between the exchanges even if the exchanges do not share the digital assets directly.



Constraints on inputs of an unlocking transaction in a blockchain
EP3676778 A1

Current assignees
NCHAIN HOLDINGS*
NCHAIN HOLDINGS* LIMITED

Inventors
CHAN YING
KRAMER DEAN

Priority data including date
2017GB-0013790 2017-08-29
2017GB-0013794 2017-08-29
2017GB-0013805 2017-08-29
2018WO-IB56430 2018-08-24
2018WO-IB56431 2018-08-24
2018WO-IB56432 2018-08-24

IPC - International classification

G06F-016/23	G06Q-010/10	G06Q-020/02*
G06Q-020/06	G06Q-020/36	G06Q-020/38*
G06Q-020/40	H04L-009/06	

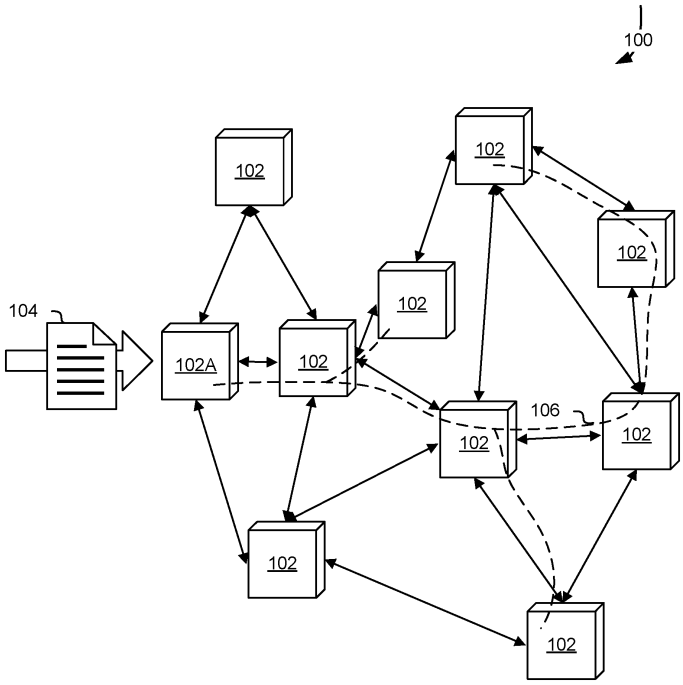
CPC - Cooperative classification

G06F-016/2365	G06F-016/2379	G06Q-010/10
G06Q-020/02	G06Q-020/06/5	G06Q-020/36
G06Q-020/38/27	G06Q-020/38/29*	G06Q-020/40/1*
G06Q-020/40/5	G06Q-2220/00	H04L-009/06/37
H04L-009/06/43	H04L-2209/38	

Family

US20200349565	A1	2020-11-05	CN111052165	A	2020-04-21
EP3676778	A1	2020-07-08	CN111033542	A	2020-04-17
EP3676779	A1	2020-07-08	SG11202000806U	A	2020-03-30
EP3676780	A1	2020-07-08	IN202047011133	A	2020-03-20
US20200202350	A1	2020-06-25	WO2019/043536	A1	2019-03-07
US20200204350	A1	2020-06-25	WO2019/043537	A1	2019-03-07
KR10-2020-0044014	A	2020-04-28	WO2019/043538	A1	2019-03-07
CN111052162	A	2020-04-21			

(EP3676778)
Trustless deterministic state machines can be implemented using a blockchain infrastructure and state machines can run concurrently over more than one blockchain transaction. The transactions can be done in a Bitcoin blockchain ledger. A unlocking transaction constraint that constrains a unlocking transaction to include a transaction input that references a previous transaction output is determined. A redeemable transaction is created to include a transaction output that includes an amount and a transaction locking script that includes the unlocking transaction constraint, with unlocking the amount being contingent upon execution of at least one unlocking script of the unlocking transaction satisfying the unlocking transaction constraint. The redeemable transaction is caused to be validated at a node of a blockchain network.



Sensor Near Field Communication and BLOCKCHAIN method for collision prevention of autonomous vehicles traveling on roads

KR102172533 B1

Current assignees

SBC*

Inventors

LEE, SU BOK

Priority data including date

2020KR-0051105 2020-04-27

IPC - International classification

B60W-030/08*	B60W-040/105	B60W-050/00
B60W-060/00	G01S-013/931	H04L-029/08
H04W-004/02	H04W-004/08	H04W-004/46

CPC - Cooperative classification

B60W-030/08*	B60W-040/105*	B60W-060/0016
B60W-2050/0077	B60W-2520/10	G01S-013/93/1
H04L-067/12	H04W-004/02/3	H04W-004/02/7
H04W-004/08	H04W-004/46	

Family

KR10-2172533	B1	2020-11-02		

(KR10-2172533)

A communication and blockchain method for preventing collision of an autonomous vehicle traveling on a road includes registering and storing vehicle terminal unique information of a vehicle to travel on the road in a management server, The management server forming a new block based on the vehicle speed information, the front vehicle reference separation distance information according to the speed, and the side vehicle reference separation information, A vehicle terminal of a vehicle intended to travel on a road downloads and stores the anti-collision app in a management server and activates the anti-collision app module, Transmitting vehicle speed information generated by the speed sensor and vehicle terminal specific information to a management server, allowing the management server to travel on the same road based on the position information and the speed information, set vehicles having the position information within a predetermined distance as a group, Emitting a transmission wave from a radar sensor 1 installed in front of each vehicle belonging to the corresponding group, a left-side radar sensor 2 installed on a left side, and a right-side radar sensor 3 installed on a right side, and transmitting the transmission wave and the reception wave to a vehicle terminal; Calculating, in real time, a separation distance between each vehicle terminal belonging to the group and the front vehicle, a separation distance between each vehicle terminal belonging to the group and the left vehicle, and a separation distance between each vehicle terminal belonging to the group and the right vehicle; transmitting, to the blockchain, the calculated separation distance between each vehicle terminal belonging to the group and the front vehicle, A step in which each node of the blockchain transmits to each node of the blockchain information about the distance between each node of the blockchain and the vehicle ahead, information about the distance between each node of the blockchain and the vehicle on the left side, information about the distance between each node of the blockchain and the vehicle on the right side, Determining whether the distance between the vehicle and the left vehicle and the distance between the vehicle and the right vehicle is less than a reference distance between the vehicle and the front vehicle and a reference distance between the vehicle and the side vehicle according to a stored speed, Each node of the blockchain matching the determination result information with each vehicle terminal unique information and transmitting the matching result information to the management server, And providing an

alarm to the vehicle terminals belonging to the corresponding group when the distance information from the side vehicle is determined to be less than the reference distance.

Communication and BLOCKCHAIN method for preventing collision of autonomous vehicle traveling on road

KR102172535 B1

Current assignees

SBC*

Inventors

LEE, SU BOK

Priority data including date

2020KR-0053058 2020-05-02

IPC - International classification

B60W-030/08*	B60W-050/00	B60W-060/00
H04L-029/08	H04W-004/02	H04W-004/08
H04W-004/46		

CPC - Cooperative classification

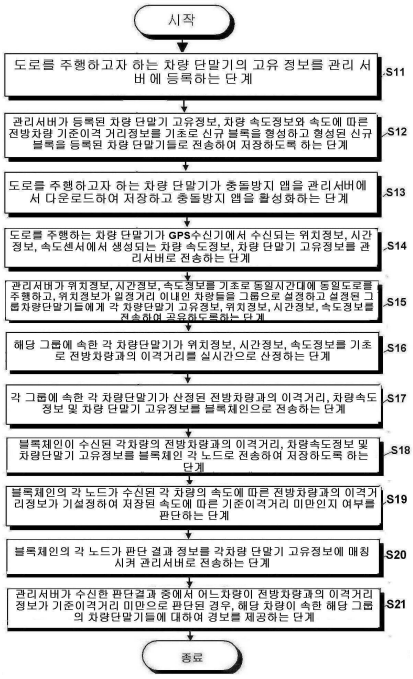
B60W-030/08*	B60W-060/0016	B60W-2050/0077
B60W-2520/10	B60Y-2300/08	B60Y-2400/303
H04L-067/12	H04W-004/02/3	H04W-004/02/7
H04W-004/08	H04W-004/46	

Family

KR10-2172535	B1	2020-11-02		

(KR10-2172535)

A communication and blockchain method for preventing collision of an autonomous vehicle traveling on a road includes registering and storing unique information of a vehicle terminal intended to travel on the road in a management server, The management server forming a new block based on the vehicle speed information, the front vehicle reference separation distance information according to the speed, and the side vehicle reference separation information, The method includes downloading, by a vehicle terminal that wishes to travel on a road, an anti-collision app from a management server, storing the anti-collision app in the management server, and activating the anti-collision app module, Transmitting vehicle speed information generated by the speed sensor and unique information of the vehicle terminals to a management server, allowing the management server to travel on the same road based on the position information and the speed information, set vehicles having the position information within a predetermined distance as a group, Emitting a transmission wave from a radar sensor 1 installed in front of each vehicle belonging to the corresponding group, a left-side radar sensor 2 installed on a left side, and a right-side radar sensor 3 installed on a right side, and transmitting the transmission wave and the reception wave to a vehicle terminal; Calculating, in real time, a separation distance between each vehicle terminal belonging to the group and the front vehicle, a separation distance between each vehicle terminal belonging to the group and the left vehicle, and a separation distance between each vehicle terminal belonging to the group and the right vehicle; transmitting, to the blockchain, the calculated separation distance between each vehicle terminal belonging to the group and the front vehicle, A step in which each node of the blockchain transmits to each node of the blockchain information about the distance between each node of the blockchain and the vehicle ahead, information about the distance between each node of the blockchain and the vehicle on the left side, information about the distance between each node of the blockchain and the vehicle on the right side, Determining whether the distance between the vehicle and the left vehicle and the distance between the vehicle and the right vehicle is less than a reference distance between the vehicle and the front vehicle and a reference distance between the vehicle and the side vehicle according to a stored speed, Each node of the blockchain matching the determination result information with each vehicle terminal unique information and transmitting the matching result



information to the management server, And providing an alarm to the vehicle terminals belonging to the corresponding group when the distance information from the side vehicle is determined to be less than the reference distance.

Data storage method, data query method and apparatuses
EP3673608 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*
ADVANCED NEW TECHNOLOGY
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

WU HAO

Priority data including date

2017CN-0910293 2017-09-29
2018US-16139887 2018-09-24
2018WO-US52429 2018-09-24
2020US-16744079 2020-01-15

IPC - International classification

G06F-016/903	G06F-021/60	G06F-021/62
G06F-021/64	H04L-009/00*	H04L-009/06
H04L-009/12	H04L-009/14	H04L-009/32

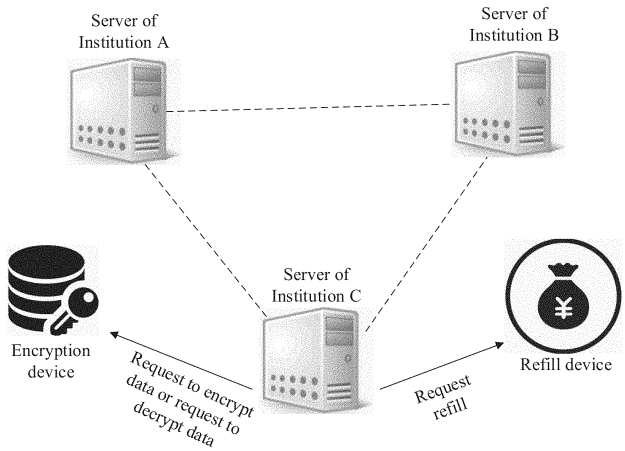
CPC - Cooperative classification

G06F-016/903	G06F-017/30/964	G06F-021/60/2
G06F-021/60/4	G06F-021/62/27	G06F-021/64
G06F-2221/2141	H04L-009/06/37*	H04L-009/32
H04L-009/32/36	H04L-009/32/97	H04L-2209/38
H04L-2209/56		

Family

EP3673608	B1	2020-11-04	WO2019/067357	A8	2019-05-02
CN107862215	B	2020-10-16	TW201916629	A	2019-04-16
EP3673608	A1	2020-07-01	US20190103958	A1	2019-04-04
US20200153609	A1	2020-05-14	WO2019/067357	A1	2019-04-04
IN202047013300	A	2020-05-08	CN107862215	A	2018-03-30
SG11202002834X	A	2020-04-29			

(EP3673608)
A data storage method comprises sending, by a blockchain node associated with a blockchain, data to an encryption device to cause the encryption device to encrypt the data and return the encrypted data to the blockchain node; receiving the encrypted data returned by the encryption device; and sending the encrypted data to other blockchain nodes associated with the blockchain to cause each of the other blockchain nodes to store the encrypted data in the blockchain after performing consensus verification on the encrypted data with success.



Blockchain authentication of a vehicle rider
WO2019172905 A1

Current assignees
FORD GLOBAL TECHNOLOGIES*

Inventors
HASSANI ALI

Priority data including date
2018WO-US21382 2018-03-07

IPC - International classification
G06Q-099/00*

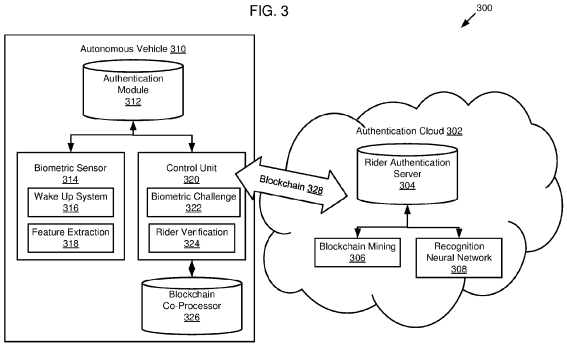
CPC - Cooperative classification
G06Q-099/00*

Family

DE112018007016	T5	2020-11-05	WO2019/172905	A1	2019-09-12	
CN111837154	A	2020-10-27				

(WO2019/172905)

Systems, methods, and devices for verifying an identity of a user of a vehicle. The method includes receiving user authentication data from a vehicle sensor and generating a transaction token comprising the user authentication data. The method includes transmitting the transaction token to a blockchain database. The method includes receiving a message from the blockchain database comprising one or more of: a request for additional user authentication data; or an indication that a rider authentication server has verified the identity of the user.



Systems and method for tracking behavior of networked devices using hybrid public-private blockchain ledgers

US20170046652 A1

Current assignees

TORONTO DOMINION BANK*

Inventors

HALDENBY PERRY
MAHADEVAN RAJAN
LEE JOHN JONG SUK
CHAN PAUL MON-WAH
DEL VECCHIO ORIN

Priority data including date

2015US-14928838 2015-10-30
2015US-14931414 2015-11-03
2015US-14935799 2015-11-09
2015US-14935829 2015-11-09
2015US-14936812 2015-11-10
2015US-14936833 2015-11-10
2015US-62204768 2015-08-13
2016CA-2938754 2016-08-12
2016US-15232100 2016-08-09
2016US-15233475 2016-08-10
2016US-15234947 2016-08-11
2016US-15235076 2016-08-11
2016US-15235090 2016-08-11
2016US-15235199 2016-08-12
2016US-15235528 2016-08-12
2016US-15281558 2016-09-30
2018US-16196653 2018-11-20
2019US-16353509 2019-03-14
2019US-16516914 2019-07-19
2019US-16519122 2019-07-23
2019US-16715471 2019-12-16

IPC - International classification

G06F-007/00	G06F-011/30	G06F-016/182*
G06F-017/00	G06F-021/16	G06F-021/62
G06F-021/64	G06Q-010/00	G06Q-010/06
G06Q-010/08	G06Q-010/10	G06Q-020/06
G06Q-020/10	G06Q-020/14	G06Q-020/22
G06Q-020/36	G06Q-020/38	G06Q-020/40
G06Q-030/00	G06Q-030/02	G06Q-040/00
G06Q-040/02	G06Q-040/08	G06Q-050/08
G06Q-050/18	H04L-009/08	H04L-009/18
H04L-009/32	H04L-029/06	H04N-005/913

CPC - Cooperative classification

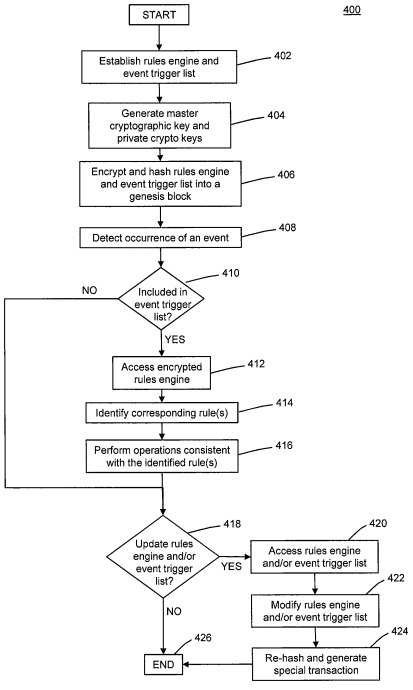
G06F-021/62	G06F-021/64/5	G06Q-010/06/31
G 0 6 Q - 0 1 0 / 0 6 / 3 1 1 4	G06Q-010/08	G06Q-010/10/3
G06Q-010/10/97	G06Q-020/06/5	G06Q-020/06/55*
G06Q-020/10*	G06Q-020/10*/2	G06Q-020/14/5
G06Q-020/29	G06Q-020/36/7	G06Q-020/38/29
G06Q-020/40/1	G06Q-020/40/16	G06Q-020/40/5
G06Q-030/02/14	G06Q-030/02/84	G06Q-040/08
G06Q-040/128	G06Q-050/08	G06Q-050/18
G06Q-2220/00	G06Q-2220/10	G06Q-2230/00
H04L-009/08/16	H04L-009/08/61	H04L-009/08/91
H04L-009/08/94	H04L-009/32/47	H04L-063/0435
H04L-063/0442	H04L-063/061	H04L-063/062
H04L-063/08	H04L-063/0876	H04L-063/12
H04L-2209/24	H04L-2209/38	H04L-2209/56
H04N-005/913	H04N-2005/91342	Y02P-090/80
Y02P-090/86	Y04S-010/50	Y04S-010/54

Family

US10824999	B2	2020-11-03	US20170046651	A1	2017-02-16
US10692054	B2	2020-06-23	US20170046652	A1	2017-02-16
US20200118094	A1	2020-04-16	US20170046664	A1	2017-02-16
US10586219	B2	2020-03-10	US20170046669	A1	2017-02-16
US10558955	B2	2020-02-11	US20170046693	A1	2017-02-16
US10552805	B2	2020-02-04	US20170046694	A1	2017-02-16
US10540641	B2	2020-01-21	US20170046698	A1	2017-02-16
US20190347627	A1	2019-11-14	US20170046709	A1	2017-02-16
US20190340588	A1	2019-11-07	US20170046792	A1	2017-02-16
US10402792	B2	2019-09-03	US20170046799	A1	2017-02-16
US10402793	B2	2019-09-03	US20170046806	A1	2017-02-16
US20190213564	A1	2019-07-11	US20170048216	A1	2017-02-16
US10282711	B2	2019-05-07	CA2938519	A1	2017-02-13
US20190087792	A1	2019-03-21	CA2938530	A1	2017-02-13
US10163080	B2	2018-12-25	CA2938754	A1	2017-02-13
CA2948239	A1	2017-05-10	CA2938756	A1	2017-02-13
CA2948241	A1	2017-05-10	CA2938757	A1	2017-02-13
CA2948106	A1	2017-05-09	CA2938758	A1	2017-02-13
CA2948116	A1	2017-05-09	CA2938759	A1	2017-02-13
US20170046526	A1	2017-02-16	CA3080037	A1	2017-02-13
US20170046638	A1	2017-02-16			

(US20170046652)

The disclosed embodiments include computerized systems and methods for generating secured blockchain-based ledger data structures that track an ownership and usage of one or more assets, such as Internet-connected devices. In one instance, an apparatus associated with a rules authority of the secured blockchain-based ledger may detect an occurrence of a triggering event, and may access and decrypt a set of rules hashed into the secured blockchain-based ledger using a confidentially-held master cryptographic key. The apparatus may identify a rule associated with the detected event, and perform one or more operations consistent with the rule, including a determination of metrics indicative of a care, risk, and/or valuation of one or more of the Internet-connected devices, and additionally or alternatively, a modification of an operational or communicative functionality of the Internet-connected devices.



Blockchain operating system
WO202014512 A1

Current assignees

AMERICORP INVEST

AMERICORP INVESTMENTS*

Inventors

SIMONS JORDAN

Priority data including date

2018US-62696561 2018-07-11

2019US-16509313 2019-07-11

2020US-16880239 2020-05-21

IPC - International classification

G06F-009/30 G06F-021/64 H04L-009/32*

H04L-029/06*

CPC - Cooperative classification

G06F-009/30/003 G06F-009/46/6 H04L-009/32/39

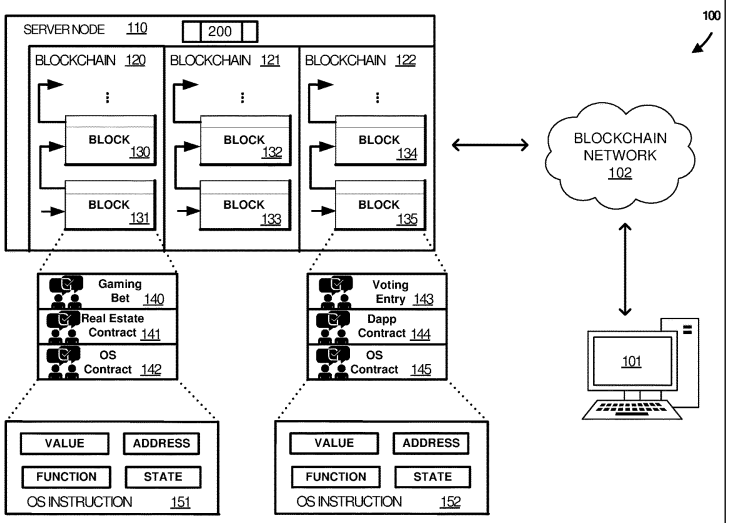
H04L-063/08* H04L-063/12* H04L-2209/38

Family

US20200351258	A1	2020-11-05	US20200021569	A1	2020-01-16
US20200280553	A1	2020-09-03	WO2020/014512	A1	2020-01-16
US10708250	B2	2020-07-07			

(WO2020/014512)

Systems, methods, and software are disclosed herein to execute functionalities of a blockchain operating system. A transactional request for an operating system instruction is received from a user device in a distributed network of nodes. The transactional request is authenticated in the distributed network of nodes based on data associated with the transactional request. A blockchain is then evaluated for one or more scripts associated with the transactional request. In response, the operating system instruction is generated based on the one or more scripts. The operating system instruction is then transferred to the user device in the distributed network or nodes.



Shared blockchain data storage based on error correction code
US10789216 B1

Current assignees

ADVANCED NEW TECHNOLOGIES*

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

Zhuo Haizhen

Priority data including date

2019WO-CN98913 2019-08-01

IPC - International classification

G06F-009/455	G06F-016/13	G06F-016/182*
G06F-021/64	H04L-009/06	

CPC - Cooperative classification

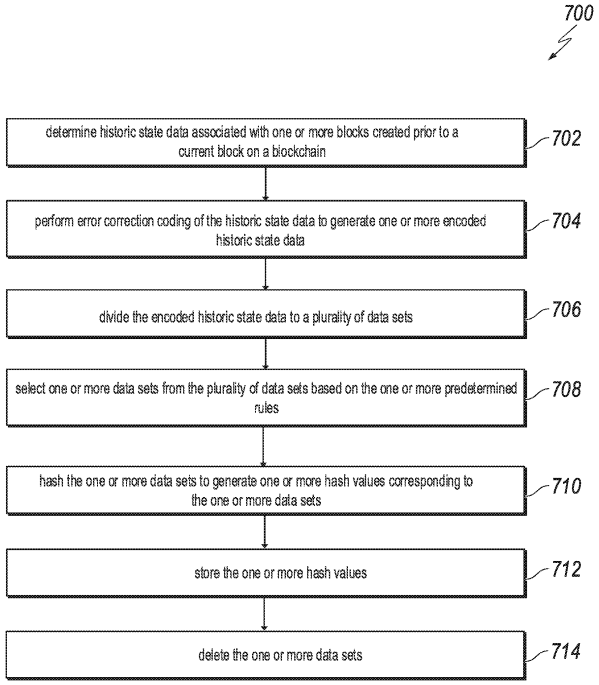
G06F-009/455/58*	G06F-016/137	G06F-016/1837*
G06F-021/64	H04L-009/06/37	H04L-009/06/43

Family

US10824601	B1	2020-11-03	CN111095210	A	2020-05-01	
US10789216	B1	2020-09-29				

(US10789216)

Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for communicating and sharing blockchain data. One of the methods includes determining historic state data associated with one or more blocks created prior to a current block on a blockchain; performing error correction coding of the historic state data to generate encoded historic state data; dividing, based on one or more predetermined rules, the encoded historic state data into a plurality of data sets; selecting one or more data sets from the plurality of data sets based on the one or more predetermined rules; hashing the one or more data sets to generate one or more hash values corresponding to the one or more data sets; storing the one or more hash values; and deleting, by the blockchain node, the one or more data sets.



Systems, methods, and interfaces for smart contract based exchanges via a blockchain
WO2020222170 A1

Current assignees
BANCO BILBAO VIZCAYA ARGENTARIA*

Inventors
KUCHKOVSKY JIMENEZ, Carlos
SANCHEZ MARTINEZ, Escolástico
CHAVARRI ELDUAYEN, Ruben

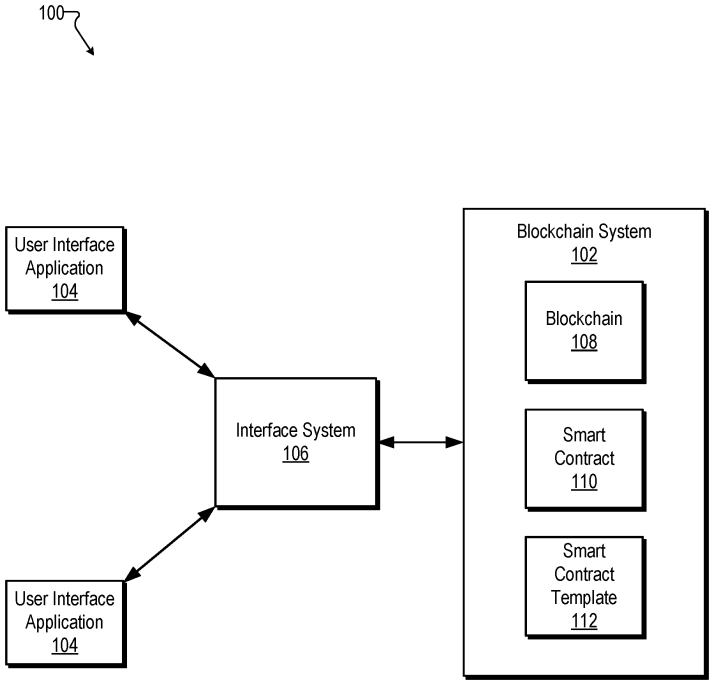
Priority data including date
2019US-16399987 2019-04-30

IPC - International classification
G06F-016/23 G06F-017/24 G06Q-010/10*
G06Q-020/38* G06Q-050/18

CPC - Cooperative classification
G06F-016/2365 G06F-016/2379 G06F-017/24/6
G06Q-020/38/9*

Family
US20200349561 A1 2020-11-05
WO2020/222170 A1 2020-11-05

(WO2020/222170)
An exemplary system includes a blockchain system that includes a blockchain, a smart contract template, and a smart contract generated based on the smart contract template, the smart contract executable to facilitate, by way of the blockchain, exchanges between parties to the smart contract. The system further includes an interface system communicatively coupled to the blockchain system and configured to perform a set of operations to provide an interface to the blockchain system, the set of operations including receiving a user input from an application executed on a user computing device, translating the user input to a call to the blockchain system, and issuing the call to the blockchain system. The blockchain system is configured to perform, based on the call and the smart contract, an action on the blockchain that represents an exchange between the parties to the smart contract.



Blockchain-based data processing method and apparatus, and blockchain node
WO2020220744 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
LIU, Zheng
LI, Lichun
YIN, Shan

Priority data including date
2019CN-0355481 2019-04-29
2020WO-CN70628 2020-01-07

IPC - International classification

G06F-009/50	G06F-021/64*	G06Q-040/04
H04L-009/06	H04L-009/32	

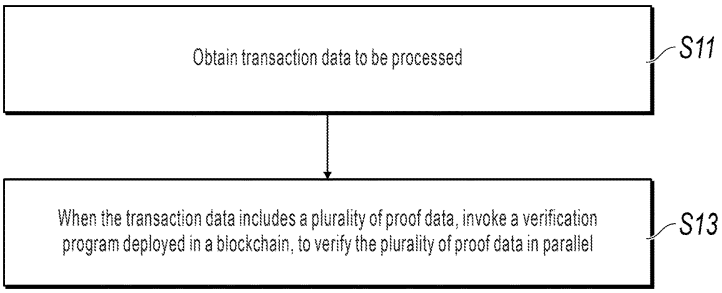
CPC - Cooperative classification

G06F-009/50/27*	G06F-021/64	G06F-2209/5017
G06F-2209/5018	G06Q-040/04	G06Q-2220/10
H04L-009/06/37	H04L-009/32/18	H04L-009/32/39
H04L-009/32/63*	H04L-063/00	H04L-2209/38
H04L-2209/42		

Family

WO2020/220744	A1	2020-11-05	CN110263580	A	2019-09-20	
US20200169386	A1	2020-05-28				

(WO2020/220744)
A blockchain-based data processing method and apparatus, and a blockchain node. The method comprises: acquiring transaction data to be processed (S11); and when the transaction data contains a plurality of proof data, calling a verification program deployed in a blockchain so as to verify the plurality of proof data in parallel (S13). The described method may achieve the parallel verification of a plurality of proof data in transaction data, and may thereby increase the processing speed for the transaction data and improve the overall throughput of a blockchain.



Conflict resolution for blockchain storage structure
US20200349283 A1

Current assignees

IBM*

Inventors

Saket Rishi
Pandit Vinayaka
Dayama Pankaj S.
Singh Nitin

Priority data including date

2019US-16402848 2019-05-03
2019US-16404377 2019-05-06

IPC - International classification

G06F-012/126	G06F-016/22	G06F-016/2457
G06F-016/27	G06F-021/60	G06F-021/62*
G06F-021/64	H04L-009/06	H04L-009/32

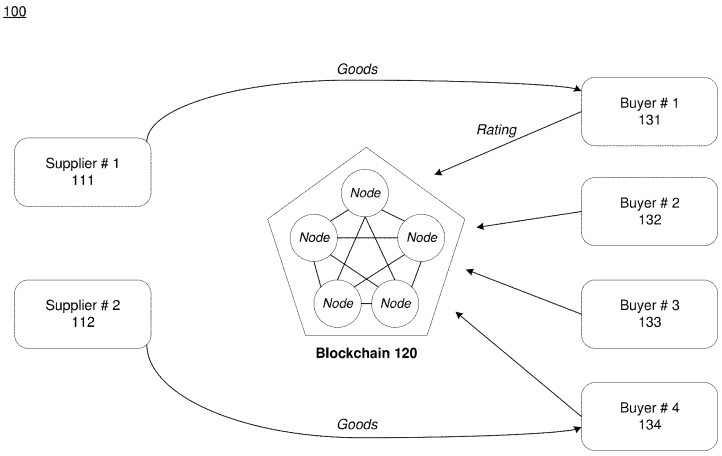
CPC - Cooperative classification

G06F-012/12/6	G06F-021/60/2	G06F-021/62/54*
H04L-009/06/37	H04L-009/32/18	H04L-009/32/39
H04L-009/32/65	H04L-2209/38	H04L-2209/42

Family

US20200349283	A1	2020-11-05	CN111881130	A	2020-11-03	
US20200349284	A1	2020-11-05				

(US20200349283)
An example operation may include one or more of receiving a content request to add a content to a blockchain storage structure implemented on a blockchain database, temporarily storing the content of the content request in a queue implemented via the blockchain database based on when the request is received, receiving a request to flush the queue which is invoked by chaincode, and in response to the flush request, removing the content from the queue and adding the content to the blockchain storage structure.



Blockchain-based payment withholding method and apparatus, electronic device and storage medium

WO2020220760 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

FENG, Zhaolin

WANG, Xu

WANG, Yong

Priority data including date

2019CN-0356827 2019-04-29

2020WO-CN72019 2020-01-14

IPC - International classification

G06F-016/23 G06Q-010/10 G06Q-020/10

G06Q-020/14* G06Q-020/38 G06Q-020/40

G06Q-040/02

CPC - Cooperative classification

G06F-016/2365 G06F-016/2379 G06F-016/9024

G06Q-010/10 G06Q-020/10/8* G06Q-020/14*

G06Q-020/38/215 G06Q-020/38/29 G06Q-020/40/5

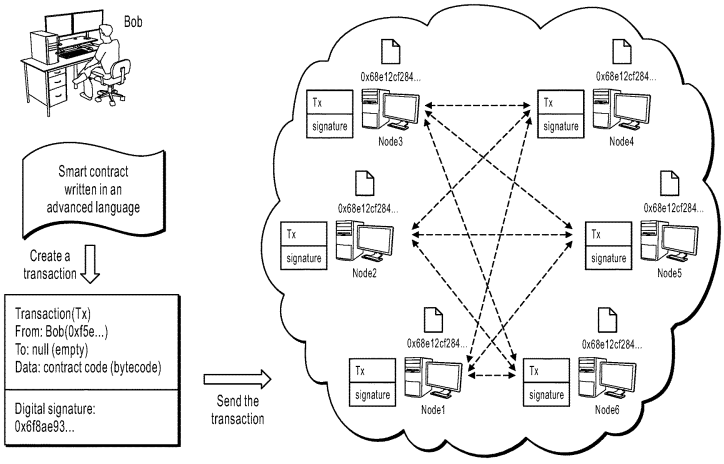
G06Q-040/02

Family

WO2020/220760	A1	2020-11-05	US20200193397	A1	2020-06-18
US10733583	B2	2020-08-04	CN110163590	A	2019-08-23

(WO2020/220760)

Provided are a blockchain-based payment withholding method and apparatus, an electronic device and a storage medium. The method is applied to a payment system that docks with a blockchain, and comprises: monitoring a withholding request stored in a blockchain, wherein the withholding request includes withholding information of a withholding requester for a target account (602); in response to the withholding request, constructing a withholding transaction on the basis of the withholding information (604); sending the withholding transaction to a blockchain node, so that the blockchain node calls, in response to the withholding transaction, a verification logic declared in a smart contract published on the blockchain, and verifies whether the withholding information conforms to a withholding rule for the target account between the payment system and the withholding requester or not (606); and acquiring a verification result for the withholding information, and if the verification is passed, performing deduction processing on the target account according to the withholding information (608).



Block chain-based settlement method and apparatus, and electronic device
WO2020220746 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
WANG, Xu
FENG, Zhaolin

Priority data including date
2019CN-0356863 2019-04-29
2020WO-CN70848 2020-01-08

IPC - International classification

G06F-021/64	G06Q-020/38*	G06Q-040/00
G06Q-040/04	H04L-009/06	H04L-009/32

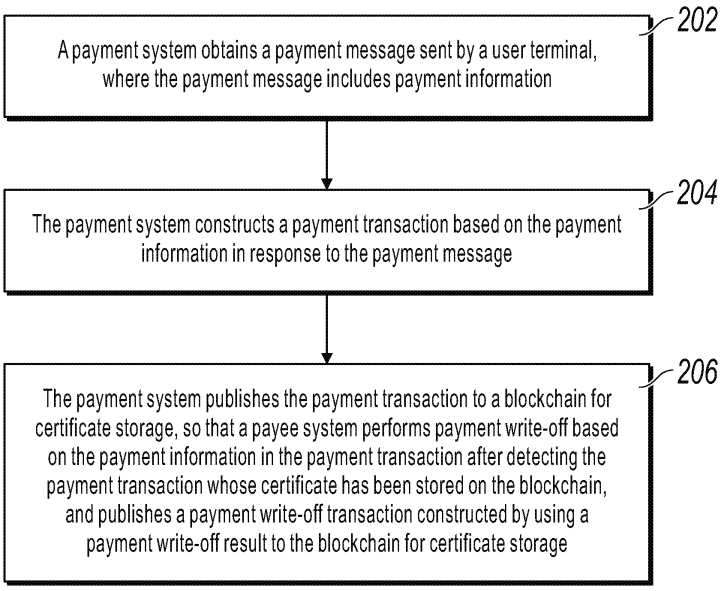
CPC - Cooperative classification

G06F-021/64*	G06Q-020/38/21	G06Q-020/38/27
G06Q-040/04	G06Q-040/12*	H04L-009/06/43
H04L-009/32/39	H04L-009/32/63	H04L-2209/38
H04L-2209/56		

Family

WO2020/220746	A1	2020-11-05	US20200202437	A1	2020-06-25
CN110163605	B	2020-09-11	CN110163605	A	2019-08-23

(WO2020/220746)
A block chain-based settlement method and apparatus, and an electronic device. The method comprises: a payment system monitors a settlement request transaction of a payee system subjected to certificate storage on a block chain (502); in response to the detected fee settlement request transaction, the payment system obtains a target fee payment transaction corresponding to a linked list tail node of a fee payment transaction linked list formed by fee payment transactions subjected to certificate storage on the block chain according to a fee payment order, and a target fee reconciliation transaction corresponding to a linked list tail node of a fee reconciliation transaction linked list formed by fee reconciliation transactions subjected to certificate storage on the block chain according to a fee reconciliation order (504); the payment system determines whether accumulated values of the target fee payment transaction and the target fee reconciliation transaction are the same (506); and if yes, the payment system performs fund settlement on the basis of the accumulated value in the target fee payment transaction or the target fee reconciliation transaction (508).



Blockchain key storage on SIM devices
US20200076606 A1

Current assignees

HEWLETT PACKARD ENTERPRISE DEVELOPMENT*

Inventors

Burke Paul Michael
Hines Warner Lee
Curatolo Giorgio A

Priority data including date

2018US-16120202 2018-08-31

IPC - International classification

H04L-009/08 H04L-009/32* H04L-029/06
H04W-012/06

CPC - Cooperative classification

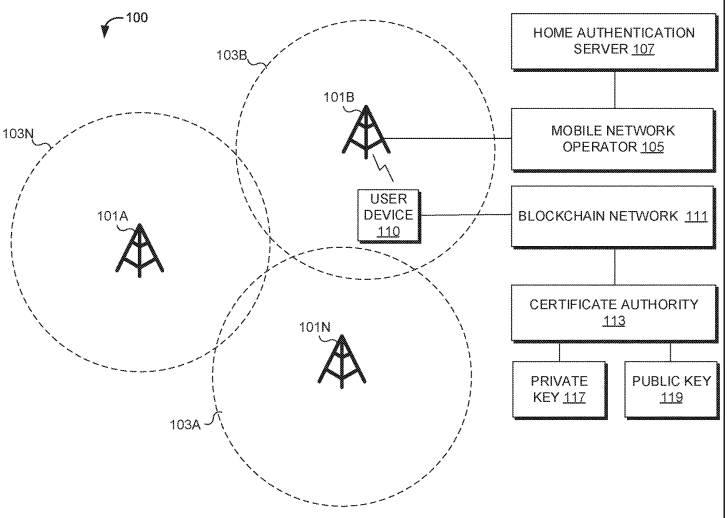
H04L-009/00/6 H04L-009/08/97 H04L-009/32/34*
H04L-009/32/39 H04L-009/32/47 H04L-063/0853
H04L-063/0884 H04L-2209/38 H04L-2209/80
H04L-2463/082 H04W-012/004 H04W-012/06
H04W-012/0609

Family

US10826704 B2 2020-11-03 US20200076606 A1 2020-03-05

(US20200076606)

The disclosure relates to storing a blockchain private key on a SIM device and securing the blockchain private key through multi-factor authentication. Various layers of security that controls access to the blockchain private key on the SIM device may be employed. These layers may include authentication of the user device on the cellular network using the SIM device, storage on a hidden partition of the SIM device that only a key applet executing on the SIM device or on a user device processor is aware of, storage of the blockchain private key in encrypted form, and/or use of the key applet to enforce credentialed access to the blockchain private key (e.g., the key applet obtains from the hidden partition and/or decrypts the blockchain private key only if a valid passcode is supplied to it).



Blockchain-based data compression and query method and apparatus, and electronic device

WO2020220764 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

CHENG, Long

LI, Yanpeng

JIA, Boyan

Priority data including date

2019CN-0363442 2019-04-30

2020WO-CN72133 2020-01-15

IPC - International classification

G06F-016/174	G06F-016/23	G06F-016/245
G06F-016/25	G06F-021/64*	G06Q-010/10
G06Q-040/04	H03M-007/30	

CPC - Cooperative classification

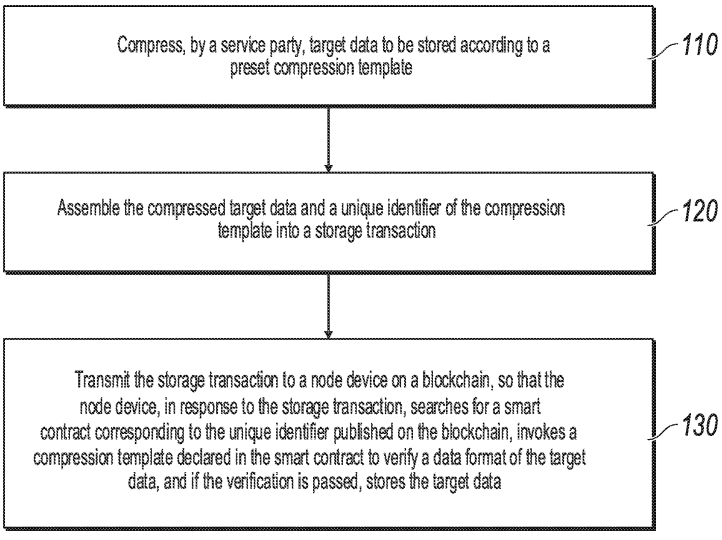
G06F-016/1744*	G06F-016/2379*	G06F-016/245
G06F-016/258	G06F-021/64	G06Q-010/10
G06Q-040/04	H03M-007/30	

Family

WO2020/220764	A1	2020-11-05	US20200175002	A1	2020-06-04
US10795882	B2	2020-10-06	CN110163755	A	2019-08-23

(WO2020/220764)

Provided are a blockchain-based data compression method and apparatus, and an electronic device. The method comprises: a service party compressing, according to a preset compression template, target data to be stored (110); assembling the compressed target data and a unique identifier of the compression template into a certificate storage transaction (120); and sending the certificate storage transaction to a node device of a blockchain, so that the node device queries, in response to the certificate storage transaction, a smart contract, published in the blockchain, corresponding to the unique identifier, and calls a compression template declared in the smart contract to verify a data format of the target data, and if the verification is passed, storing a certificate of the target data (130).



Blockchain-based logistics scheduling method and system
CN108596548 A

Current assignees
DAGUO INNOVATION INTELLIGENT TECHNOLOGY*

Inventors
ZHU DINGJU

Priority data including date
2018CN-0406853 2018-05-02

IPC - International classification
G06Q-010/06 G06Q-010/08*

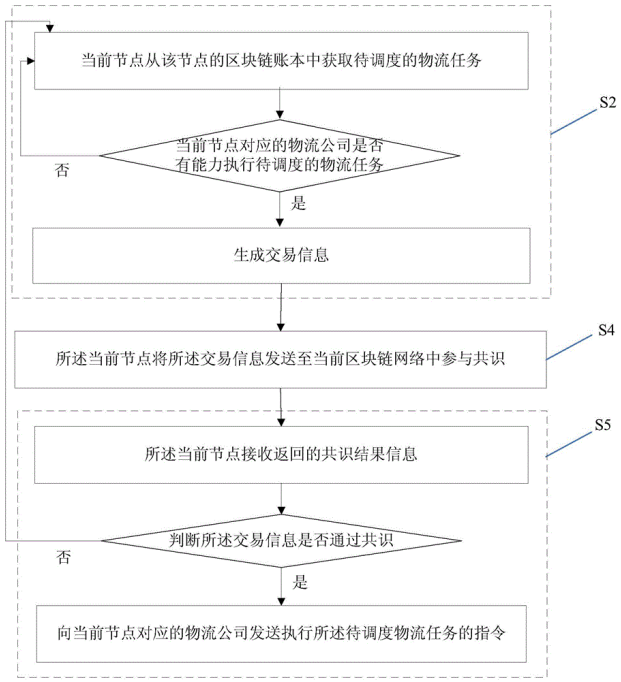
CPC - Cooperative classification
G06Q-010/06/312 G06Q-010/08/3*

Family

CN108596548	B	2020-11-03	CN108596548	A	2018-09-28	

(CN108596548)

The present invention provides a blockchain-based logistics scheduling method and system. The method comprises the following steps: a current node acquires a logistics task to be scheduled from a blockchain account book of the node and generates transaction information; the current node sends the transaction information to the current blockchain network to participate in consensus; and the currentnode receives the returned consensus result information and judges whether the transaction information passes the consensus. According to the blockchain-based logistics scheduling method and system in the invention, the current node sends the expected cost estimated via a client and required for executing the logistics task to be scheduled and the expected cost estimated via a logistics company corresponding to the current node and required for executing the logistics task to be scheduled to the blockchain network; the nodes of the blockchain network compares the expected cost estimated via the logistics company and required for executing the logistics task to be scheduled to form a consensus whether to execute by scheduling the logistics task to the current node, thereby implementing thedecentralization scheduling and cost-preferred scheduling of the logistics company.



A method and apparatus for accelerating the blockchain for secure and high throughput applications

EP3732581 A1

Current assignees

NOKIA SOLUTIONS & NETWORKS*

Inventors

HARI ADISESHU

KODIALAM MURALIDHARAN

LAKSHMAN TIRUNELL

Priority data including date

2017US-15855723 2017-12-27

2018WO-US67704 2018-12-27

IPC - International classification

G06F-015/16* H04L-009/06 H04L-029/08

CPC - Cooperative classification

G06Q-2220/00 H04L-009/06/37* H04L-009/06/43

H04L-009/32/39 H04L-009/32/97 H04L-067/104

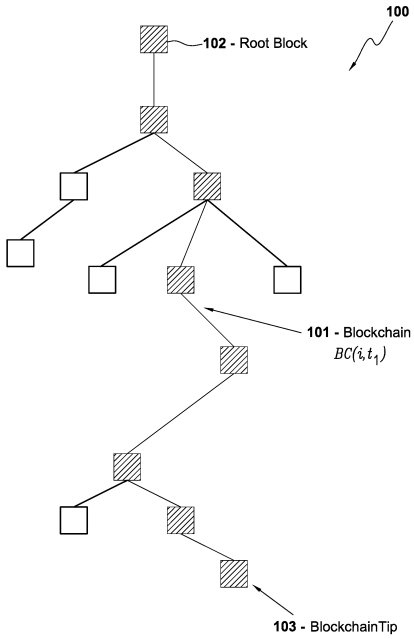
H04L-2209/38 H04L-2209/56

Family

EP3732581	A1	2020-11-04	US20190199514	A1	2019-06-27
WO2019/133722	A1	2019-07-04			

(EP3732581)

Various embodiments relate to a method for accelerating blockchains, the method comprising the steps of waiting for an event to occur, receiving a block, determining whether the block is valid, adding the block to a block tree, determining whether the block is a singular candidate, starting a timer for the block, determining whether the timer has expired for the block, determining whether the block is still singular after the time has expired for the block and processing the singular block.



Method and device for anchoring data on a block chain at a given time, and electronic device

WO2020220742 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
JIANG, Haitao

Priority data including date
2019CN-0363186 2019-04-30
2020WO-CN70610 2020-01-07

IPC - International classification
G06Q-020/38*

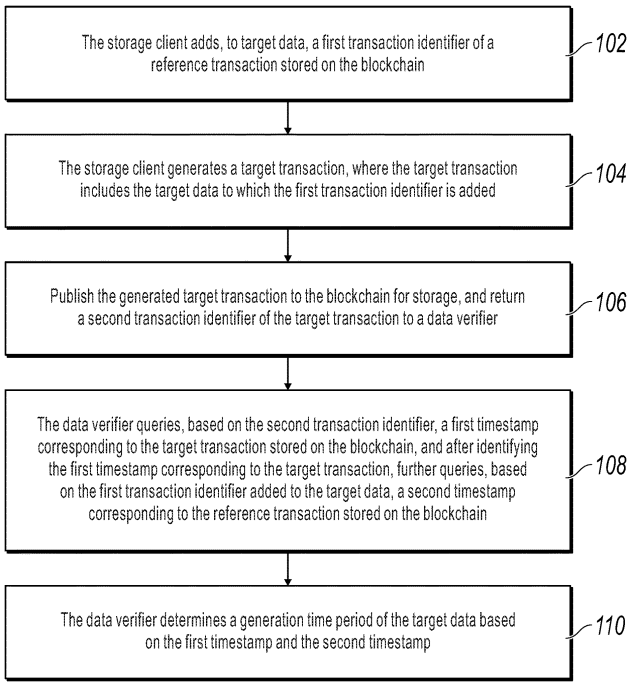
CPC - Cooperative classification
G06Q-020/02* G06Q-020/38/2 G06Q-020/38/27*
G06Q-020/38/9 G06Q-020/40 G06Q-2220/00

Family

WO2020/220742	A1	2020-11-05	US20200193430	A1	2020-06-18
CN110189122	B	2020-09-01	CN110189122	A	2019-08-30

(WO2020/220742)

A method for anchoring data on a block chain at a given time, comprising: a storage client adds into target data a first transaction identifier of a reference transaction that has been stored on the block chain; the storage client generates a target transaction; the target transaction comprises the target data to which the first transaction identifier has been added; the generated target transaction is issued to the blockchain for storage, and a second transaction identifier of the target transaction is returned to a data verifier; the data verifier searches for a first time stamp corresponding to the target transaction stored on the block chain on the basis of the second transaction identifier, and upon finding the first time stamp corresponding to the target transaction, further searches for a second time stamp corresponding to the reference transaction stored on the block chain on the basis of the first transaction identifier added into the target data; and the data verifier determines a generation time period for the target data on the basis of the first time stamp and the second time stamp.



BLOCKCHAINE-BASED distributed data system and method for RCS provision
KR20200123976 A

Current assignees
ELUON*

Inventors
JEON, JUNG A
LEE, Young Sung

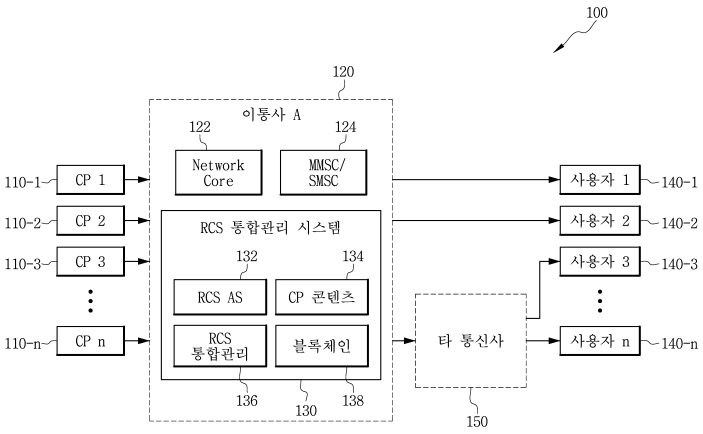
Priority data including date
2019KR-0047218 2019-04-23

IPC - International classification
H04L-012/58* H04L-029/06 H04L-029/08

CPC - Cooperative classification
G06Q-050/30* H04L-051/046 H04L-063/12
H04L-067/2838

Family
KR10-2020-0123976 A 2020-11-02

(KR10-2020-0123976)
A blockchain-based distributed data system for providing Rich Communication Suite (RCS) includes a Content Administrator (CP) server of a mobile communication party to which contents are registered from a CP, an RCS integrated management server configured to determine whether a content delivery schedule registered by the CP has been reached; and a controller configured to receive a content delivery request according to the content delivery schedule registered by the CP from the RCS integrated management server, an RCS as configured to receive an action of the user with respect to the transmitted content and transmit the received action to the RCS integrated management server, and a controller configured to generate an information package generated by the RCS integrated management server as a block based on the content transmitted to the user and the action of the user, And a blockchain server configured to receive a verification result from each of the verification nodes, determine validity of the block, and request a blockchain connection to the verification node when the block is valid, wherein the verification node forms a blockchain network including at least one of the CP, another CP other than the CP, the mobile communication party, and another communication party connected to the mobile communication party.



Blockchain-based invoice creation method, apparatus and electronic device
WO2020220740 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
FENG, Zhaolin
WANG, Xu

Priority data including date
2019CN-0356848 2019-04-29
2020WO-CN70600 2020-01-07

IPC - International classification

G06Q-020/38	G06Q-020/40	G06Q-030/04*
G06Q-040/00	H04L-009/06	

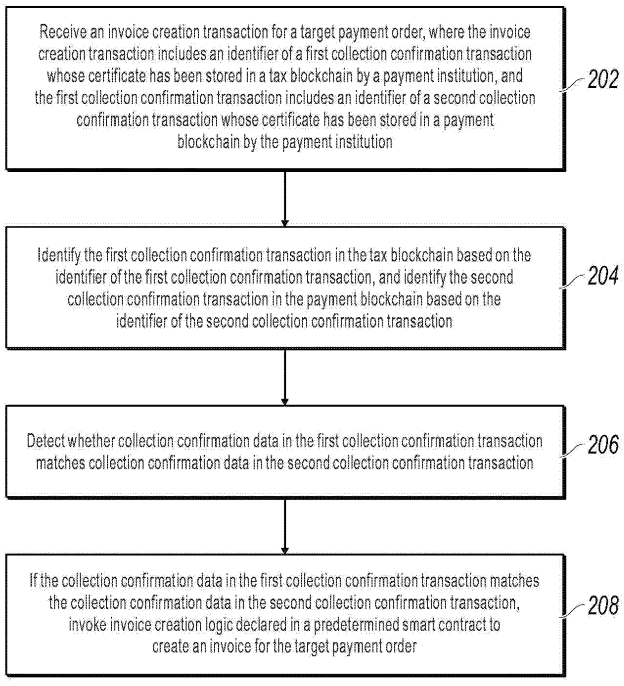
CPC - Cooperative classification

G06Q-020/38/27*	G06Q-020/40/5	G06Q-030/04
G06Q-040/123*	H04L-009/06/37	H04L-009/32/39
H04L-063/12	H04L-2209/38	H04L-2463/102

Family

WO2020/220740	A1	2020-11-05	CN110163691	A	2019-08-23	
US20200202396	A1	2020-06-25				

(WO2020/220740)
Provided are a blockchain-based invoice creation method and apparatus and an electronic device, which are applied to a node device in a tax blockchain. The tax blockchain and a payment blockchain have a cross-chain reference relationship. The method comprises: receiving an invoice creation transaction for a target payment order, wherein the invoice creation transaction comprises an identifier of a first receipt confirmation transaction stored in the tax blockchain, the first receipt confirmation transaction comprising an identifier of a second receipt confirmation transaction stored in the payment blockchain (202); on the basis of the identifier of the first receipt confirmation transaction, finding the first receipt confirmation transaction in the tax blockchain, and on the basis of the identifier of the second receipt confirmation transaction, finding the second receipt confirmation transaction in the payment blockchain (204); detecting whether receipt confirmation data in the first receipt confirmation transaction matches receipt confirmation data in the second receipt confirmation transaction or not (206); and if the two match, calling an invoice creation logic declared in a preset smart contract, and creating an invoice for the target payment order (208).



Block chain-based payment method and device
WO2020220759 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
LI, Min

Priority data including date
2019CN-0361537 2019-04-30
2020WO-CN71874 2020-01-14

IPC - International classification

G06F-021/64	G06Q-020/40	G06Q-030/06
G06Q-040/02*	H04L-009/06	

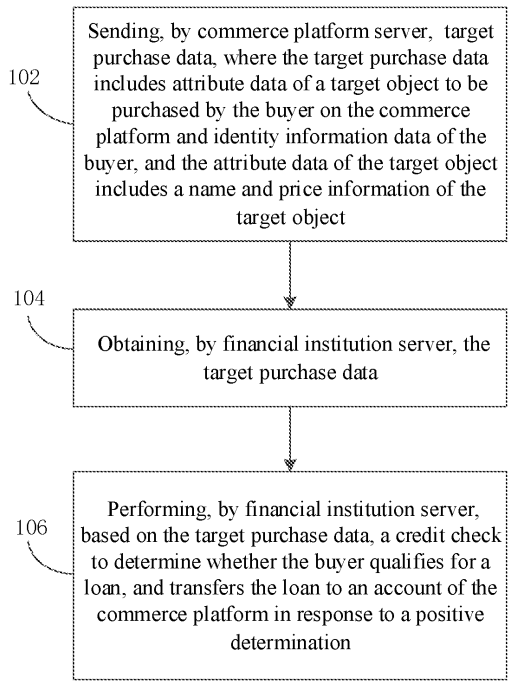
CPC - Cooperative classification

G06F-021/64*	G06Q-020/40/14	G06Q-030/06/09
G06Q-030/06/27	G06Q-040/025*	H04L-009/06/43
H04L-009/32/39	H04L-063/12	H04L-2209/38
H04L-2209/56		

Family

WO2020/220759	A1	2020-11-05	CN110163744	A	2019-08-23	
US20200175588	A1	2020-06-04				

(WO2020/220759)
A block chain-based payment method and device, which are applied to a block chain network comprising a business platform server, a financial institution server, and a buyer user client, the buyer user being registered with identity information data on the business platform. The method comprises: the business platform server sends target purchase data, the target purchase data comprising attribute data of a target object to be purchased by the buyer user on the business platform and the identity information data of the buyer user, and the attribute data of the target object comprising the name and price information of the target object (102); the financial institution server obtains the target purchase data (104); the financial institution server implements payment loan credit review on the buyer user for paying the target object based on the target purchase data, and sends the payment loan to an account of the business platform after the review is passed (106).



Blockchain-based social media history maps
US20180359089 A1

Current assignees

AT&T*

Inventors

INNES TIMOTHY
PATEL BHUMIT
PRATT JAMES
ZAVESKY ERIC
BRADLEY NIGEL

Priority data including date

2017US-15616625 2017-06-07
2019US-16456766 2019-06-28

IPC - International classification

G06F-016/182*	G06F-016/25	G06Q-050/00
H04L-009/30*	H04L-009/32	

CPC - Cooperative classification

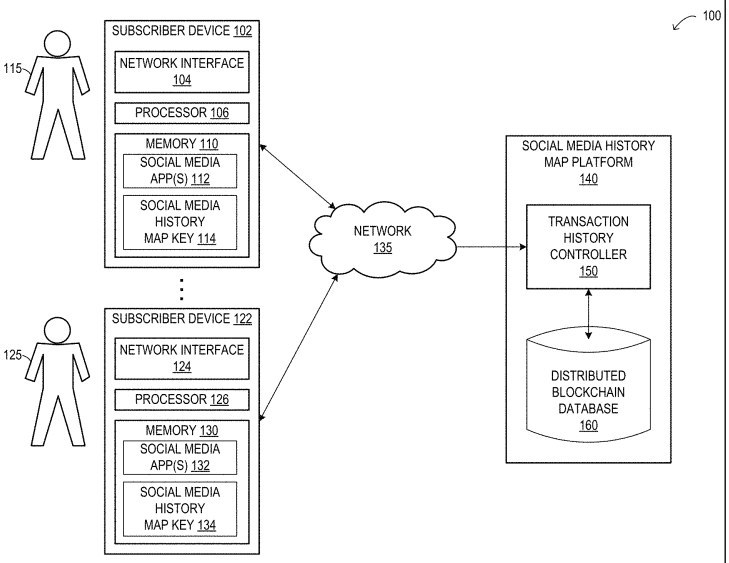
G06F-016/182	G06F-016/25	G06F-017/30/194
G06Q-050/01	H04L-009/30*	H04L-009/32/39
H04L-2209/38		

Family

US10826695	B2	2020-11-03	US10341105	B2	2019-07-02
US20190327090	A1	2019-10-24	US20180359089	A1	2018-12-13

(US20180359089)

A system may include a transaction history controller to store, in a distributed blockchain database, a first chain including a primary head node for a first subscriber to a social media history map service and multiple blocks each representing an online transaction for the first subscriber, and a second chain including a follower head node, linked to the primary head node, for a second subscriber and multiple blocks each representing an online transaction for the second subscriber. The transaction history controller may receive data representing a first online transaction for the second subscriber, format the data for the distributed blockchain database, store the formatted data as a new block in the second chain, receive a request to generate a trend report for a cluster of subscribers that includes the first and second subscribers, and generate the trend report dependent on the blocks in the first and second chains.



Blockchain-controlled and location-validated locking systems and methods
US20200202651 A1

Current assignees

Singh Ranjeev K.

Inventors

Singh Ranjeev K.

Priority data including date

2018US-16225006 2018-12-19

IPC - International classification

G06F-016/18	G07C-009/00*	H04L-009/06
H04L-009/32	H04W-004/02	

CPC - Cooperative classification

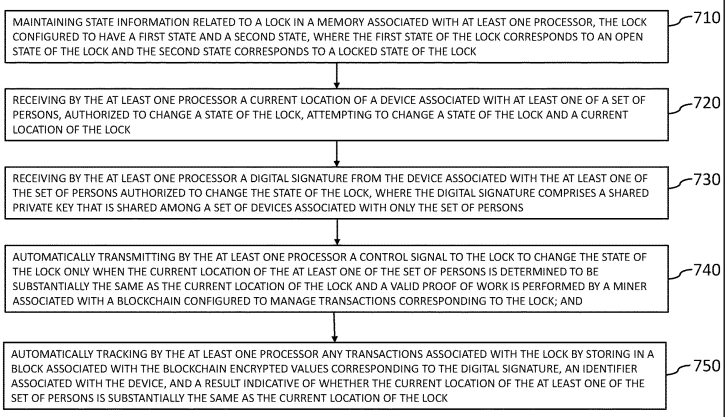
G06F-016/1805	G07C-009/00/309*	G07C-009/00/563
G07C-2209/63	H04L-009/06/43	H04L-009/32/31
H04L-009/32/39	H04L-009/32/47	H04L-2209/38
H04W-004/02/5		

Family

US10825275	B2	2020-11-03		US20200202651	A1	2020-06-25	

(US20200202651)

Blockchain-controlled and location-validated locking systems and methods are described. A method includes maintaining state information for a lock, where the first state of the lock corresponds to an open state and the second to a locked state. The method further includes receiving a current location of a device associated with a person, authorized to change a state of the lock, attempting to change a state of the lock and a current location of the lock. The method further includes receiving a digital signature from the device. The method further includes automatically transmitting a control signal to the lock to change the state of the lock only when the current location of the person is determined to be the same as the current location of the lock and a valid proof of work is performed by a miner associated with a blockchain configured to manage transactions corresponding to the lock.



Automated inventory management including blockchain smart contracting
US20200074389 A1

Current assignees
NCR*

Inventors
Mohammad Jamal Mohiuddin

Priority data including date
2018US-16117632 2018-08-30

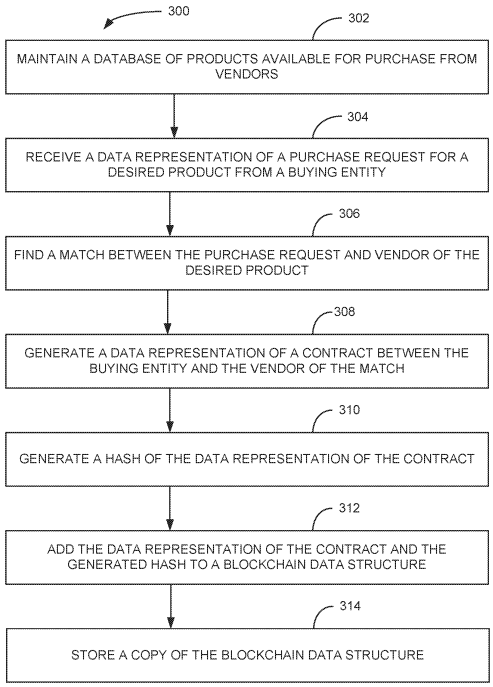
IPC - International classification
G06Q-010/08* G06Q-030/06

CPC - Cooperative classification
G06Q-010/08/7* G06Q-030/06/01

Family

US10824988	B2	2020-11-03		US20200074389	A1	2020-03-05

(US20200074389)
Various embodiments each include at least one of systems, methods, software, and data structures for automated inventory management including blockchain smart contracting. One such embodiment in the form of a method includes maintaining a database of products available for purchase from vendors, receiving a data representation of a purchase request for a desired product from a buying entity, and finding a match between the purchase request and vendor of the desired product. This method may then generate a data representation of a contract between the buying entity and the vendor of the match followed by generating a hash of the data representation of the contract and adding the data representation of the contract and the generated hash to a blockchain data structure. A copy of the block chain data structure may then be stored and forwarded to at least each of the contracting parties.



Blockchain platform-based autonomous and supervisable digital identity authentication system

WO2019196834 A1

Current assignees

SHENZHEN TECHNICAL UNIVERSITY

UNIVERSITY SHENZHEN TECHNOLOGY*

Inventors

ZHAO JIAN

ZHANG YIWEI

XIANG SHAOHUA

Priority data including date

2018CN-0318920 2018-04-11

IPC - International classification

H04L-029/06* H04L-029/08

CPC - Cooperative classification

H04L-009/32/39 H04L-009/32/63 H04L-063/08*

H04L-063/08*23 H04L-067/1097 H04L-2209/38

Family

CN108768933	B	2020-11-03	CN108768933	A	2018-11-06	
WO2019/196834	A1	2019-10-17				

(WO2019/196834)

Disclosed is a blockchain platform-based autonomous and supervisable digital identity authentication system. The system comprises a terminal, a blockchain digital identity platform, a third party platform, a signing and issuance platform and a supervision platform. The supervision platform can formulate the standard format of an identity attribute certificate and manage the signing and issuance platform; the signing and issuance platform can review the application of the terminal for an attribute certificate, sign and issue the attribute certificate if the attribute certificate passes the review, and publish the attribute certificate to the blockchain digital identity platform; and the third party platform can acquire authorization from the terminal and further acquire information of the terminal in the attribute certificate so as to implement authentication. Since an attribute certificate on a blockchain can be queried, digital identity information of a terminal can be obtained, namely, storage content pointed at by a blockchain node is no longer an unknown identity. In the digital identity authentication system provided in the present invention, the blockchain is equivalent to a real name, and therefore, the digital identity authentication system can be supervised based on the real name blockchain.

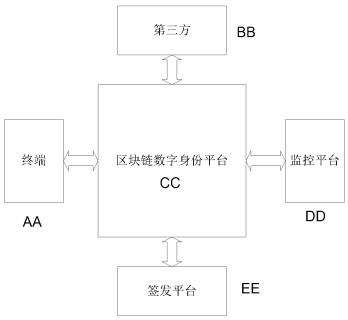


图 2

Method and device for signing payment deduction agreement employing blockchain, and electronic apparatus.

WO2020220761 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

FENG, Zhaolin

WANG, Xu

Priority data including date

2019CN-0356838 2019-04-29

2020WO-CN72020 2020-01-14

IPC - International classification

G06Q-020/08* G06Q-020/38 G06Q-020/40

H04L-009/06 H04L-009/32

CPC - Cooperative classification

G06Q-020/08/55* G06Q-020/38/25 G06Q-020/38/29

G06Q-020/40/7 G06Q-2220/00 H04L-009/06/43

H04L-009/32/39* H04L-009/32/47 H04L-2209/38

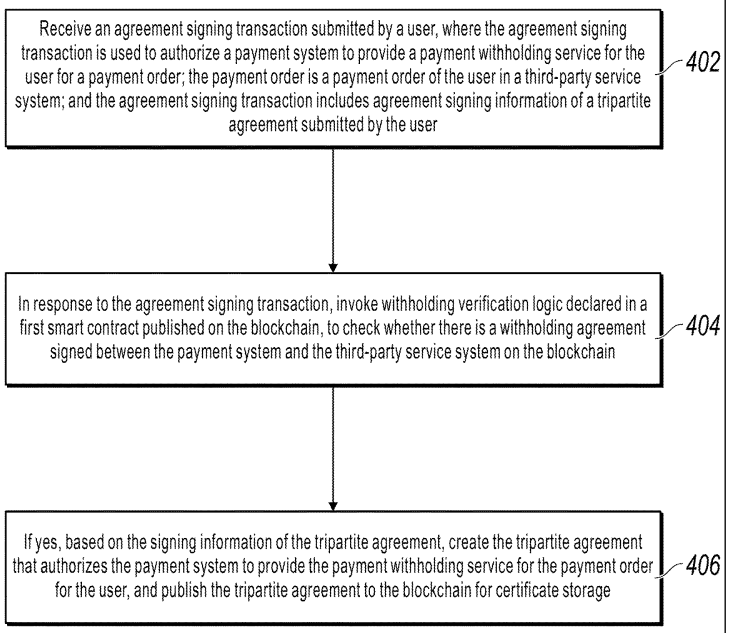
H04L-2209/56

Family

WO2020/220761	A1	2020-11-05	CN110147990	A	2019-08-20	
US20200193428	A1	2020-06-18				

(WO2020/220761)

A method and device for signing a payment deduction agreement employing a blockchain, an electronic apparatus, and a storage medium. The method is applicable to nodes of a blockchain, and comprises: receiving an agreement-signing transaction submitted by a user, wherein the agreement-signing transaction is used to authorize a payment system to provide the user with a payment deduction service for a bill, the bill is a bill of the user in a third-party business system, and the agreement-signing transaction contains tripartite agreement-signing information submitted by the user (402); in response to the agreement-signing transaction, calling a deduction validation logic as stated in a first smart contract published in a blockchain, verifying whether the blockchain has recorded a deduction agreement entered into by the payment system and the third-party business system (404); and if so, creating, on the basis of the tripartite agreement-signing information, a tripartite agreement authorizing the payment system to provide the user with the payment deduction service for the bill, and publishing the tripartite agreement to the blockchain to establish a record thereof (406).



Blockchain based ecosystem for emission tracking of plug in hybrid vehicles
US20200346634 A1

Current assignees

FORD GLOBAL TECHNOLOGIES*

Inventors

Holz Alexandra
Hendrikx Roy
Wiecker Martin
Easson Stuart
Kuck Detlef

Priority data including date

2019DE-10206211 2019-04-30

IPC - International classification

B60W-020/16*	B60W-020/40	B60W-030/18
G05D-001/02	G07C-005/08*	H04L-009/06
H04W-004/029		

CPC - Cooperative classification

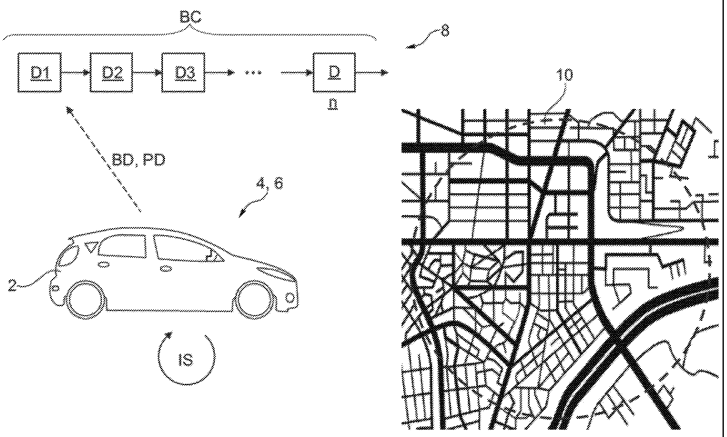
B60W-020/16*	B60W-020/40	B60W-030/18/009
G05D-001/02/14	G05D-2201/0213	H04L-009/06/43
H04L-2209/38	H04W-004/029	

Family

DE102019206211	A1	2020-11-05	CN111862385	A	2020-10-30	
US20200346634	A1	2020-11-05				

(US20200346634)

Described herein are systems and methods for the provision of data particularly for use in generating a blockchain environment for tracking emissions of a hybrid electric vehicle. The systems and methods include reading in position data representing a geographical position of a hybrid electric vehicle, reading in operating data representing an operating state of a drivetrain of the hybrid electric vehicle, forming a data block at least comprising the position data and the operating data, and adding the data block to a blockchain.



Zero-knowledge multi-account-book exchange transfer method and apparatus based on blockchain, and storage medium

WO2019144612 A1

Current assignees

ONE CONNECT SMART TECHNOLOGY*

ONECONNECT TECHNOLOGY

Inventors

LU FRANK YIFAN CHEN

JIA MU

XIE DANLI

Priority data including date

2018CN-0067292 2018-01-24

2018WO-CN102398 2018-08-27

IPC - International classification

G06F-021/64 G06Q-020/38* H04L-009/06

H04L-009/32

CPC - Cooperative classification

G06F-021/64* G06Q-020/02 G06Q-020/22/3

G06Q-020/38/1 G06Q-020/38/25 G06Q-020/38/29*

G06Q-020/38/9* G06Q-040/02 G06Q-2220/00

H04L-009/06/18 H04L-009/32/18 H04L-009/32/55

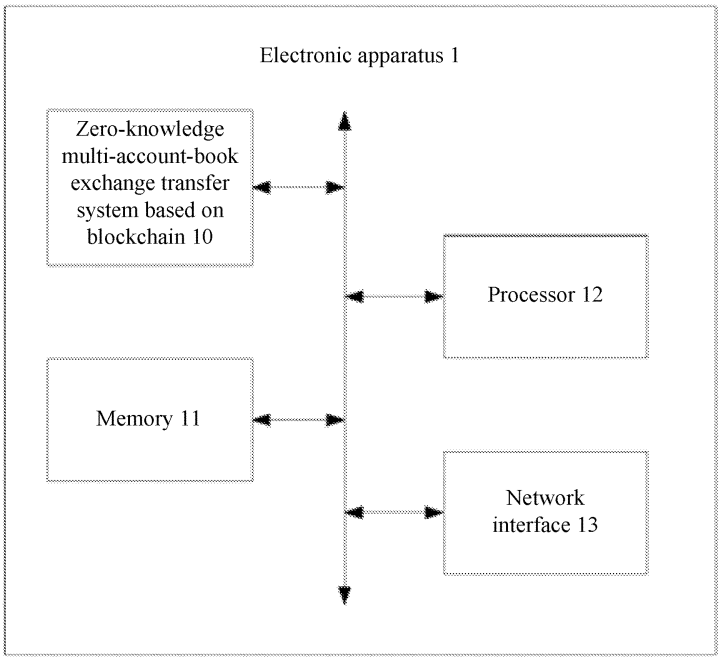
H04L-2209/38

Family

US20200349563	A1	2020-11-05	CN108335106	A	2018-07-27	
WO2019/144612	A1	2019-08-01				

(WO2019/144612)

Disclosed is a zero-knowledge multi-account-book exchange transfer method and apparatus based on blockchain, and a storage medium. The method comprises: a first user account under a first account book in a blockchain issuing a transaction request with a second user account under a second account book, and receiving a first ciphertext generated by means of a first user performing encryption (S10); acquiring the first ciphertext that has been subjected to a digital signature and a first verification ciphertext (S20); calculating each corresponding first verification value ciphertext by means of several preset legal exchange rate values and the first ciphertext; calculating, by using the first verification value ciphertext and the first verification ciphertext, a second verification value ciphertext for verifying whether a preset exchange rate of the transaction between the first account book and the second account book is within a preset legal exchange rate value range (S30); and if so, completing the transfer transaction based on the first ciphertext and the first verification ciphertext (S40). By means of the method, a multi-account-book transfer operation can be implemented when it can be proved that a multi-account-book transfer transaction is carried out in a legal exchange rate domain set in advance, but when a third-party does not know the specific exchange rate.



Blockchain-based credit recording and querying method and apparatus, and electronic device

WO2020220763 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

CHENG, Long

LI, Yanpeng

Priority data including date

2019CN-0348198 2019-04-28

2020WO-CN72130 2020-01-15

IPC - International classification

G06F-016/22 G06F-016/23 G06F-016/25

G06F-016/27 G06Q-020/38*

CPC - Cooperative classification

G06F-016/2255 G06F-016/2379 G06F-016/258

G06F-016/27 G06Q-020/38/29* H04L-009/32/39*

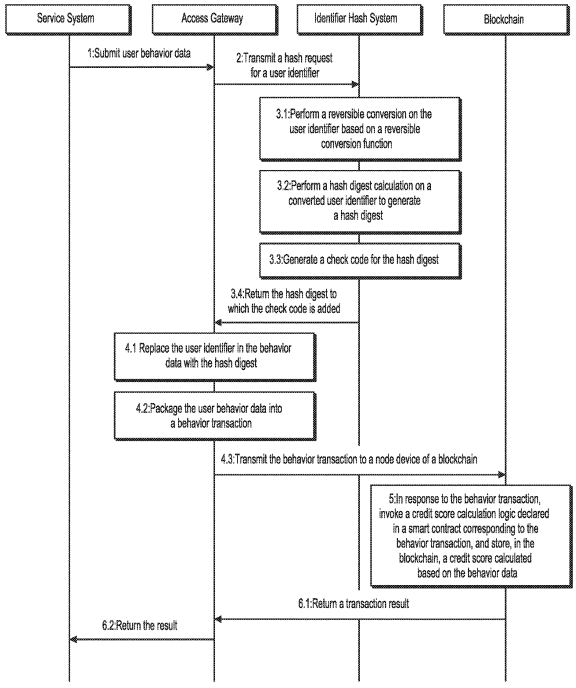
H04L-2209/38

Family

WO2020/220763	A1	2020-11-05	CN110135844	A	2019-08-16	
US20200167346	A1	2020-05-28				

(WO2020/220763)

Provided are a blockchain-based credit recording and querying method and apparatus, and an electronic device. The method comprises: acquiring behavior data, submitted by a target service system, of a target user; packaging the behavior data into a storage transaction, and sending same to a node device of a blockchain, so that, in response to the storage transaction, the node device calculates a credit score of the target user on the basis of the behavior data, and stores the credit score of the target user in the target service system; receiving a credit score query request, submitted by the target service system, regarding the target user; submitting a query transaction regarding the target user to the node device of the blockchain, so that the node device queries, in response to the query transaction, a credit score of the target user in each service system, and calculates a total credit score according to the credit score of each service system; and returning the total credit score, contained in a query result returned by the node device, of the target user to the target service system.



Consensus-based voting for network member identification employing blockchain-based identity signature mechanisms

US20200213087 A1

Current assignees

MUTUALINK*

Inventors

Mazzarella Joseph R.

Priority data including date

2018US-62740020 2018-10-02
2019WO-US54311 2019-10-02
2020US-16813320 2020-03-09

IPC - International classification

G06F-016/27	G06F-016/28	H04L-009/06*
H04L-009/32	H04L-029/06	

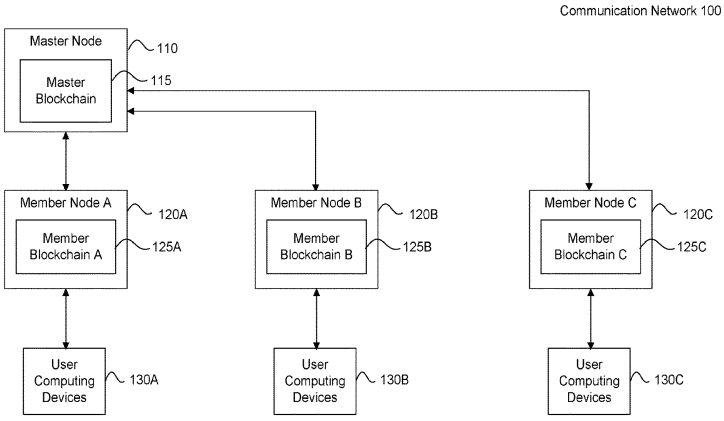
CPC - Cooperative classification

G06F-016/27	G06F-016/285	H04L-009/06/37*
H04L-009/06/43	H04L-009/32/39	H04L-009/32/47
H04L-009/32/55	H04L-009/32/97	H04L-063/08
H04L-063/123	H04L-2209/38	H04L-2209/463

Family

US10826683 B2 2020-11-03 US20200213087 A1 2020-07-02

(US20200213087)
A communication method and a method for operating the communication network are disclosed. The method includes: obtaining a network identifier (NI) for a first member of the communication network, where the first member is un-validated and associated with a first user; obtaining a vote value regarding the first user from a second user of a second member in the communication network, where the second member is validated; generating a trust score for the NI based on the vote value; and validating the first member, in response to the trust score satisfying a trust score threshold, by inserting a first validated member identity hash block (MIHB) based on the NI into a master blockchain ledger for the communication network.



System and method using distributed blockchain database
US20200351103 A1

Current assignees

DISH NETWORK*

Inventors

Hardy Christofer

Abraham David

Priority data including date

2017US-15856939 2017-12-28

IPC - International classification

H04L-009/00 H04L-009/06 H04L-009/08

H04L-009/32* H04L-029/06

CPC - Cooperative classification

H04L-009/06/18 H04L-009/08/97 H04L-009/32/39

H04L-009/32/42* H04L-063/0281 H04L-063/0823

H04L-063/0853 H04L-063/123 H04L-2209/38

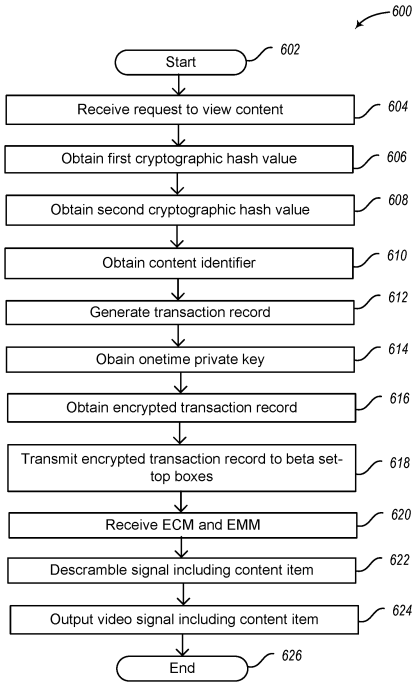
H04L-2209/60

Family

US20200351103	A1	2020-11-05		US20190207768	A1	2019-07-04
US10756902	B2	2020-08-25				

(US20200351103)

A content distribution system includes content receivers that provide a plurality of blockchain databases that store transaction records associated with subscriber requests for content, and a computer system that processes those transaction records and enables authorized content receivers to output requested content.



Systems and methods for extending the utility of blockchains through use of related child blockchains

EP3732596 A1

Current assignees

Jie Fu.situoerman

STOLLMAN JEFF

Stallman Jeff

Inventors

STOLLMAN JEFF

Priority data including date

2017US-15588289 2017-05-05

2018WO-US40832 2018-07-04

IPC - International classification

G06F-021/00*	G06F-021/60	G06F-021/64
G09C-001/00	H04L-009/06	H04L-009/32

CPC - Cooperative classification

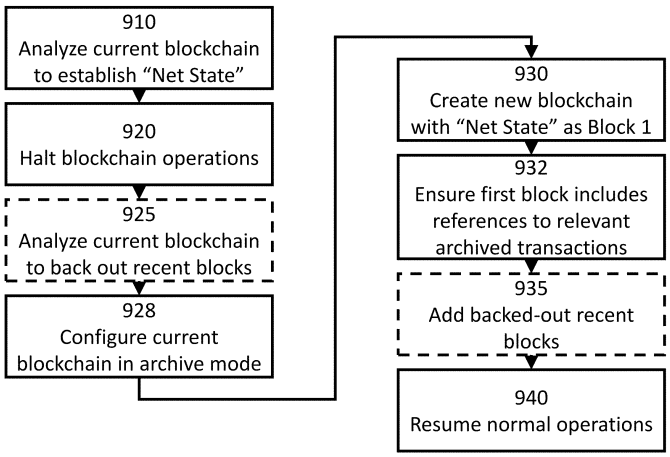
H04L-009/06/37*	H04L-009/32/39*	H04L-2209/38

Family

EP3732596	A1	2020-11-04	IN201917043397	A	2020-01-10
JP2020526805	A	2020-08-31	US20180323963	A1	2018-11-08
CN110933953	A	2020-03-27	WO2018/204939	A1	2018-11-08

(EP3732596)

A system for extending the utility of blockchain environments when such environments become too large or complex, is disclosed. The system systematically creates a second generation, or child blockchain that can retain machine-readable links to the parent blockchain which, in turn, can be archived and referenced, when necessary, for historical reference. Accordingly, the system serves to reduce the size of the working blockchain thereby making it easier to store the blockchain, and further serves to increase the speed of queries to interrogate the current state of the blockchain. By reducing the size of the working blockchain, the present invention seeks to extend the utility of large blockchains by segregating and archiving historical or older transactions recorded in the blockchain. The system and process further includes methodologies to create links between the current blockchain and the archived sections of the blockchain to ensure the integrity of the full historical ledger.



Distributed application and BLOCKCHAINE-BASED personal financial product management system including the same

KR20200124182 A

Inventors
PARK, SOO-YONG

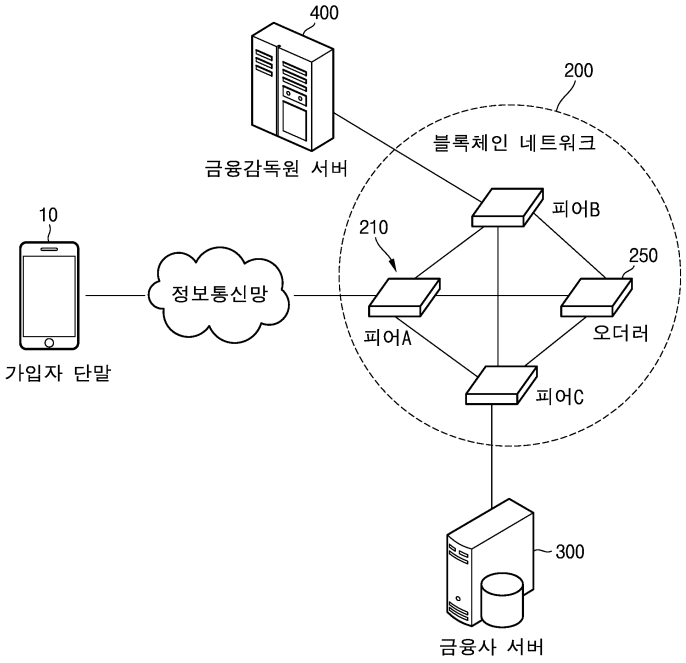
Priority data including date
2019KR-0047199 2019-04-23

IPC - International classification
G06Q-020/38 G06Q-040/04 G06Q-040/08*
H04L-009/06

CPC - Cooperative classification
G06Q-020/38/2* G06Q-040/04 G06Q-040/08
H04L-009/06

Family
KR10-2020-0124182 A 2020-11-02

(KR10-2020-0124182)
Disclosed is a blockchain-based personal financial product management system. More particularly, the present invention relates to a distributed application and a blockchain-based personal financial product management system including the same, which prevent a financial company from performing a one-sided change process without sufficient review and consent of a subscriber with respect to a financial product, and allow the subscriber to directly manage and supervise the financial product. Accordingly, the financial institution can arbitrarily inreasonably change the contents of the medicine to the subscriber, thereby minimizing the dispute.



Page substitution verification preparation
US20140222767 A1

Current assignees

WILSON KELCE S

Wilson Kelce S

Inventors

WILSON KELCE S

Priority data including date

2008US-12053560 2008-03-22
2009US-12637748 2009-12-15
2010US-12954864 2010-11-27
2012US-13561062 2012-07-29
2014US-14246115 2014-04-06
2016US-15243657 2016-08-22
2017US-15665016 2017-07-31
2018US-16143479 2018-09-27

IPC - International classification

G06F-021/64* G07D-007/20 G07D-007/202
H04N-001/32

CPC - Cooperative classification

G06F-021/64* G07D-007/20/25 G07D-007/202
H04N-001/32/133 H04N-001/32/272 H04N-2201/3236
Y10S-707/99952

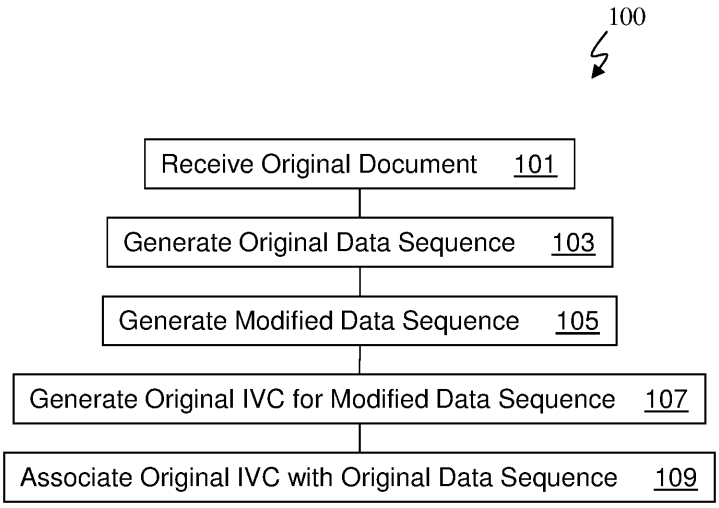
PCL - US patent classification

PCLO: 707687000*

Family

US10824762	B2	2020-11-03		US9754131	B2	2017-09-05
US10255460	B2	2019-04-09		US20160357989	A1	2016-12-08
US20190026496	A1	2019-01-24		US9424440	B2	2016-08-23
US20170329996	A1	2017-11-16		US20140222767	A1	2014-08-07

(US20140222767)
A system and method are disclosed for rendering published documents tamper evident. Embodiments render classes of documents tamper evident with cryptographic level security or detect tampering, where such security was previously unavailable, for example, documents printed using common printers without special paper or ink. Embodiments enable proving the date of document content without the need for expensive third party archival, including documents held, since their creation, entirely in secrecy or in untrustworthy environments, such as on easily-altered, publicly-accessible internet sites. Embodiments can extend, by many years, the useful life of currently-trusted integrity verification algorithms, such as hash functions, even when applied to binary executable files. Embodiments can efficiently identify whether multiple document versions are substantially similar, even if they are not identical, thus potentially reducing storage space requirements.



Blockchain-based service tracing method and apparatus, and electronic device
WO2020220741 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
WANG, Xu
FENG, Zhaolin

Priority data including date
2019CN-0356825 2019-04-29

IPC - International classification

G06F-016/22*	G06F-016/23	G06F-016/2455
G06F-016/27	G06F-016/28	

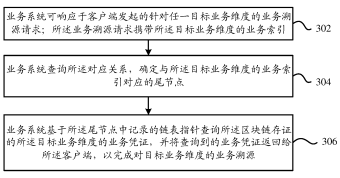
CPC - Cooperative classification

G06F-016/2255*	G06F-016/23	G06F-016/2455
G06F-016/27	G06F-016/283	

Family

WO2020/220741	A1	2020-11-05	CN110162527	A	2019-08-23	
CN110162527	B	2020-08-25				

(WO2020/220741)
A blockchain-based service tracing method and apparatus, and an electronic device. The blockchain deposits service vouchers of a plurality of service dimensions; the service vouchers of the plurality of service dimensions form a plurality of service voucher linked lists; a service system maintains a correlation between a tail node of each service voucher linked list and a service index of a service dimension to which each service voucher linked list belongs. Said method comprises: the service system responding to a service tracing request, initiated by a client, for any target service dimension, the service tracing request carrying a service index of the target service dimension (302); the service system querying the correlation, and determining a tail node corresponding to the service index of the target service dimension (304); and the service system querying, on the basis of a linked list pointer recorded in the tail node, a service voucher of the target service dimension deposited in the blockchain, and returning the found service voucher to the client, so as to complete the service tracing of the target service dimension (306).



302 A service system responds to a service tracing request, initiated by a client, for any target service dimension, the service tracing request carrying a service index of the target service dimension
304 The service system queries the correlation, and determines a tail node corresponding to the service index of the target service dimension
306 The service system queries, on the basis of a linked list pointer recorded in the tail node, a service voucher of the target service dimension deposited in the blockchain, and returns the found service voucher to the client, so as to complete the service tracing of the target service dimension

图 3

Cryptographic datashare control for blockchain

EP3651405 A1

Current assignees

ACCENTURE GLOBAL SOLUTIONS*

Inventors

TREAT DAVID
VELISSARIOS JOHN
TUNG TERESA SHEAUSAN
PIZZATO LUIZ
GARAND DEBORAH
RANJBAR KERMANY ATIEH
CHANG CHIA JUNG
KRISHNAN ARJUN SITARAMAN

Priority data including date

2018US-62757273 2018-11-08
2019US-16672761 2019-11-04

IPC - International classification

G06F-021/10	G06F-021/60	G06F-021/62
G06Q-020/38	G09C-001/00	H04L-009/00*
H04L-009/06	H04L-009/08	H04L-009/30
H04L-009/32	H04L-029/06*	

CPC - Cooperative classification

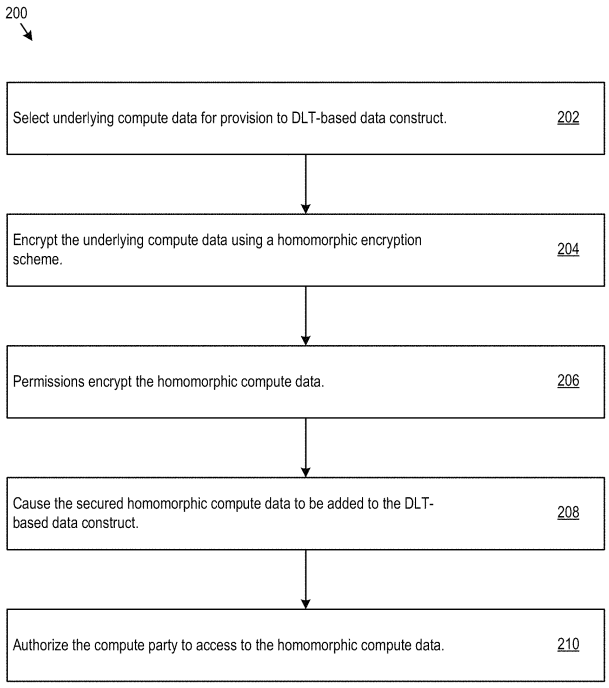
G06F-016/2365	G06F-021/60/2	G06F-021/62/18*
G06N-020/00	G06Q-020/38/29	H04L-009/00/8
H04L-009/06/37	H04L-009/08/5	H04L-009/30/73
H04L-009/32/36	H04L-009/32/47	H04L-063/0428
H04L-063/0442*	H04L-067/10	H04L-067/141
H04L-2209/38		

Family

US20200351253	A1	2020-11-05	AU2019261730	A1	2020-05-28
US10721217	B2	2020-07-21	CN111159723	A	2020-05-15
SG10201910373P	A	2020-06-29	US20200153803	A1	2020-05-14
JP2020092414	A	2020-06-11	EP3651405	A1	2020-05-13

(EP3651405)

A system includes circuitry for cryptographic data share controls for distributed ledger technology based data constructs. The system may support placement of compute data on to a distributed ledger technology based data construct. The compute data may have multiple layers of encryption to support permissions and coordination of processing operations for application to the compute data. The multiple layers of encryption may include a homomorphic layer to allow sharing of the compute data for processing by a compute party without divulging the content of the compute data with the compute party. While in the homomorphically encrypted form, the homomorphic compute data supports the application of processing operations while maintaining the secrecy of the underlying data.



Asset utilization optimization communication system and components thereof
US20190244289 A1

Current assignees

2BC INNOVATIONS*

Inventors

ROTH THOMAS H
SHANNON III PETER M
GRUBE GARY W
VRABLIK GREGORY C

Priority data including date

2018US-62628127 2018-02-08
2019US-16243828 2019-01-09
2019US-16678170 2019-11-08
2019US-16692321 2019-11-22
2019US-16720669 2019-12-19
2020US-16790969 2020-02-14
2020US-16804414 2020-02-28
2020US-16845383 2020-04-10
2020US-16848363 2020-04-14
2020US-16866684 2020-05-05
2020US-16884983 2020-05-27
2020US-16891129 2020-06-03

IPC - International classification

G06F-011/14	G06F-016/23	G06Q-010/06
G06Q-010/10	G06Q-020/10	G06Q-020/14
G06Q-020/16	G06Q-020/38	G06Q-030/00
G06Q-040/02	G06Q-040/04*	G06Q-040/06*
G06Q-040/08	G06Q-050/18	H04B-001/3827
H04L-009/14	H04L-009/32	

CPC - Cooperative classification

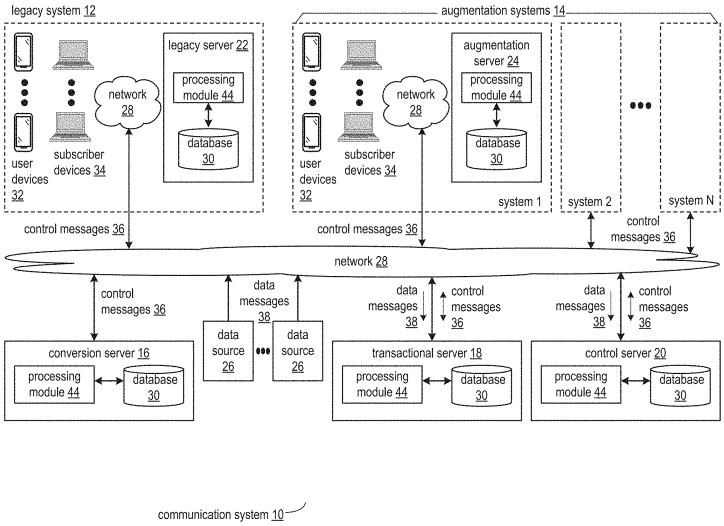
G06F-011/14/69	G06F-016/2365	G06F-016/2379
G06F-2201/80	G06Q-010/06/7	G06Q-010/10/57
G06Q-020/10/2	G06Q-020/10/8	G06Q-020/14
G06Q-020/16	G06Q-020/38/25	G06Q-020/38/27
G06Q-020/38/29	G06Q-020/40/5	G06Q-030/0185
G06Q-030/02/02	G06Q-040/02	G06Q-040/04*
G06Q-040/06*	G06Q-040/08*	G06Q-050/18/6
G06Q-2220/00	G16H-010/60	H04B-001/38/27
H04L-009/14	H04L-009/32/42	H04L-067/10
H04L-2209/38	H04L-2209/56	H04L-2463/102
H04W-012/0013		

Family

US20200349651	A1	2020-11-05	US20200202444	A1	2020-06-25
US20200349653	A1	2020-11-05	US20200184551	A1	2020-06-11
US20200294149	A1	2020-09-17	US20200126160	A1	2020-04-23
US20200294151	A1	2020-09-17	US20200090280	A1	2020-03-19
US20200265522	A1	2020-08-20	US20200074556	A1	2020-03-05
US20200242698	A1	2020-07-30	US20190244289	A1	2019-08-08
US20200242700	A1	2020-07-30			

(US20190244289)

A method includes determining to optimize a financial system that provides support for ongoing financial obligations utilizing a group of augmenting assets. Each augmenting asset is associated with a corresponding future time-estimated benefit payment and with a corresponding series of time-certain obligated payments. A first percentage of an aggregate of future time-estimated benefit payments provides an augmenting asset contribution to the ongoing financial obligations and a second percentage of the aggregate of the future time-estimated benefit payments provides an offset for an aggregate of each series of time-certain obligated payments. The continues with determining an estimated future augmenting asset contribution to the ongoing financial obligations based on an estimated first percentage of the aggregate of future time-estimated benefit payments. The method continues with determining modifications to the group of augmenting assets when the estimated future augmenting asset contribution to the ongoing financial obligations compares unfavorably to desired financial attributes.



Data processing method for blockchain system and block generating method
WO2020220251 A1

Current assignees

XIAMEN TEHUARONG COMMERCE & TRADE
XIAMEN TEHUARONG TRADING*

Inventors

ZHENG, Guishan

Priority data including date

2019WO-CN85154 2019-04-30

IPC - International classification

G06Q-020/38* G06Q-040/04

CPC - Cooperative classification

G06Q-020/38/27* G06Q-040/04

Family

WO2020/220251	A1	2020-11-05		CN110235162	A	2019-09-13

(WO2020/220251)

Disclosed in embodiments of the present application are a data processing method for a blockchain system and a block generating method. The generating method comprises: acquiring a local chain identity, a pre-hash, a parent hash, a child hash and a not-yet-packaged transaction list, wherein the local chain identity is used for labeling a chain to which a local block belongs, the pre-hash is used for pointing to the previous block of the local chain, the parent hash is used for pointing to a block of a parent chain, the child hash is used for pointing to a block of a child chain, and a chain identity carried by each transaction in the not-yet-packaged transaction list is the local chain identity, so that the transaction list in each chain only contains transactions of the local chain; and filling the local chain identity, the pre-hash, the parent hash, the child hash and the not-yet-packaged transaction list in a block format so as to generate a new block. The data processing method comprises the described generating method. The present application may increase the processing capacity of the entire blockchain system, thereby improving the TPS of the system.

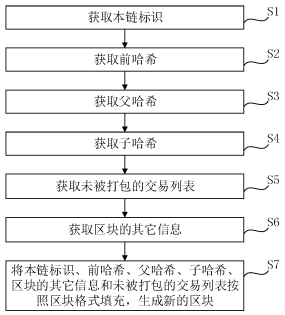


图 4

S1 Acquire a local chain identity
S2 Acquire a pre-hash
S3 Acquire a parent hash
S4 Acquire a child hash
S5 Acquire a not-yet-packaged transaction list
S6 Acquire metadata of a block
S7 Fill the local chain identity, the pre-hash, the parent hash, the child hash, the metadata of the block and the not-yet-packaged transaction list in a block format to generate a new block

System or method to query or search a metadata driven distributed ledger or blockchain

US20200349142 A1

Current assignees

SALESFORCE.COM*

Inventors

Padmanabhan Prithvi Krishnan

Priority data including date

2019US-62841143 2019-04-30

IPC - International classification

G06F-016/23* G06F-016/2458 G06F-016/27
H04L-009/06

CPC - Cooperative classification

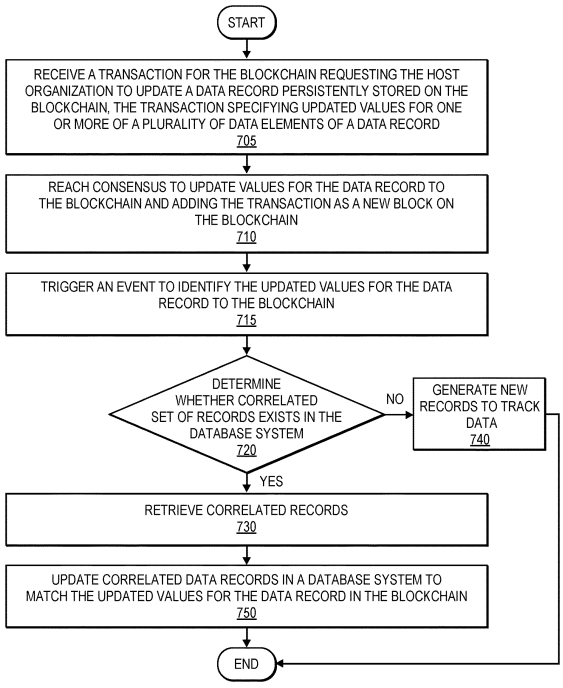
G06F-016/2308* G06F-016/2365 G06F-016/2471
G06F-016/27 H04L-009/06/37

Family

US20200349142 A1 2020-11-05

(US20200349142)

A method implemented by a computer system including receiving a transaction for a blockchain to update a data record persistently stored on the blockchain, the transaction specifying updated values for one or more of a plurality of data elements of the data record, and updating correlated data records separate from the blockchain in a database system to match the updated values for the data record in the blockchain.



Systems and methods for controlled access to blockchain data
US10824746 B1

Current assignees

STATE FARM INSURANCE*

Inventors

Magerkurth Melinda Teresa
Bellas Eric
Skaggs Jaime
Call Shawn M.
Moore Eric R.
King Vicki
Floyd Burton J.
Turrentine David
Olson Steven T.
Wells Timothy Caleb
Chapman Corin Rebekah
Breitweiser Edward W.
Gomez Robert
Smith Shelia Cummings

Priority data including date

2017US-62450349 2017-01-25
2017US-62536600 2017-07-25
2017US-62536672 2017-07-25
2017US-62536683 2017-07-25
2017US-62536698 2017-07-25
2017US-62536704 2017-07-25
2017US-62536709 2017-07-25
2017US-62536715 2017-07-25
2017US-62536716 2017-07-25
2017US-62536735 2017-07-25
2017US-62536754 2017-07-25

IPC - International classification

G06F-021/60	G06F-021/62*	G06Q-020/10
H04L-009/06	H04L-009/08	H04L-009/32
H04L-029/06	H04L-029/08	

CPC - Cooperative classification

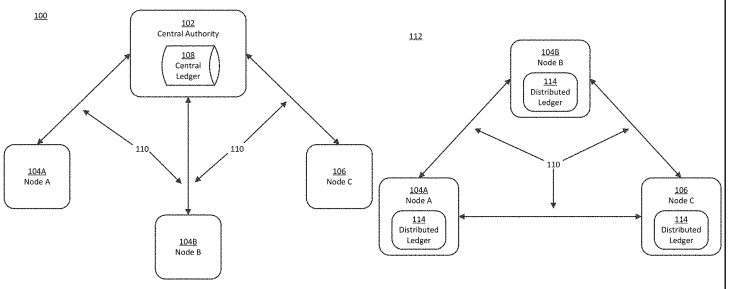
G06F-021/60/2	G06F-021/60/4	G06F-021/62/09*
G06F-021/62/45*	H04L-009/06/37	H04L-009/08/25
H04L-009/08/61	H04L-009/08/94	H04L-009/32/47
H04L-063/0428	H04L-067/104	

Family

US10824746	B1	2020-11-03		US10824759	B1	2020-11-03
US10824747	B1	2020-11-03				

(US10824746)

Methods and systems for managing and/or processing a blockchain to maintain data security for confidential and/or personal data are provided. According to certain aspects, the disclosed data security techniques may enable access sharing functionality utilizing the blockchain. For example, access sharing may be utilized to file documents, share policy information, and/or comply with an audit. The data security techniques disclosed herein also enable the use of smart contracts to transfer funds associated with payment obligations and/or other forms of blockchain based payments, comply with anti-money laundering requirements, report industry data, validate interest payments and/or maintain agent sales data. Data security may be achieved through the use of public key/private key encryption techniques.



Computationally efficient transfer processing, auditing, and search apparatuses, methods and systems

EP3323080 A1

Current assignees

FMR*

Inventors

SHENG XINXIN
MCGUIRE THOMAS
CHIU AMANDA
HROMI JONATHAN
CHAWLA RAGHAV

Priority data including date

2015US-14799229 2015-07-14
2015US-14799242 2015-07-14
2015US-14799282 2015-07-14
2015US-14963165 2015-12-08
2015US-62273447 2015-12-31
2015US-62273449 2015-12-31
2015US-62273450 2015-12-31
2015US-62273452 2015-12-31
2015US-62273453 2015-12-31
2016US-15019926 2016-02-09
2016US-15209701 2016-07-13
2016US-15209709 2016-07-13
2016US-15209714 2016-07-13
2016US-15210781 2016-07-14
2016US-15210795 2016-07-14
2016US-15210807 2016-07-14
2016US-15210813 2016-07-14
2016US-15210817 2016-07-14
2016US-15210821 2016-07-14
2016WO-US42169 2016-07-13
2017US-15486243 2017-04-12

IPC - International classification

G06F-003/0484	G06F-003/0488	G06F-012/14
G06F-017/30	G06F-021/62	G06F-021/64
G06F-021/72	G06Q-020/00	G06Q-020/06
G06Q-020/36	G06Q-020/38	G06Q-020/40
G06Q-030/06	G06Q-050/00	G09C-001/00
H04L-009/06	H04L-009/14	H04L-009/30
H04L-009/32*	H04L-029/06	

CPC - Cooperative classification

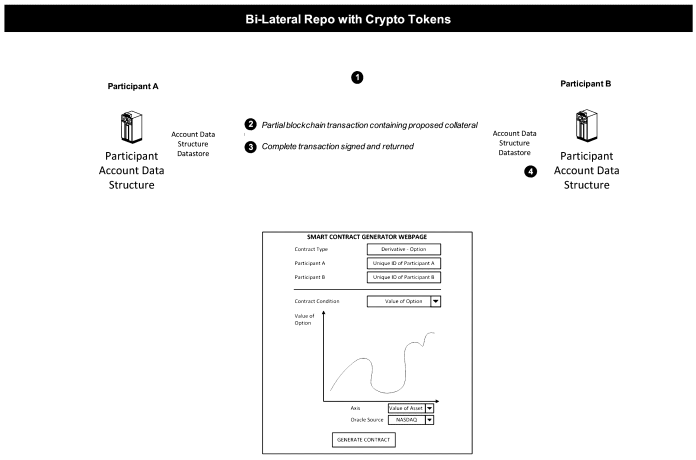
G06F-003/0484/2	G06F-003/0488/6	G06F-012/14/08
G06F-021/64*	G06F-2212/1052	G06Q-020/06/5
G06Q-020/06/58	G06Q-020/10	G06Q-020/36
G06Q-020/36/74	G06Q-020/36/78*	G06Q-020/38/2*
G06Q-020/38/2*1	G06Q-020/38/2*3	G06Q-020/38/2*9
G06Q-020/38/9	G06Q-020/40	G06Q-020/40/3
G06Q-020/40/5	G06Q-030/06/01	G06Q-050/01
G06Q-2220/00	G09C-001/00	H04L-009/06/37
H04L-009/06/43	H04L-009/08/94	H04L-009/14
H04L-009/30/66	H04L-009/32/13	H04L-009/32/36
H04L-009/32/39	H04L-009/32/42	H04L-009/32/47
H04L-009/32/52	H04L-009/32/97	H04L-063/0435
H04L-063/0442*	H04L-063/061	H04L-063/062*
H04L-063/0807*	H04L-063/0853	H04L-2209/38
H04L-2209/463	H04L-2209/56	

Family

EP3323080	B1	2020-11-04	US20170085545	A1	2017-03-23
EP3323080	A4	2019-07-03	US20170046689	A1	2017-02-16
JP2018525729	A	2018-09-06	US20170048209	A1	2017-02-16
EP3323080	A1	2018-05-23	US20170048234	A1	2017-02-16
CN108027867	A	2018-05-11	US20170048235	A1	2017-02-16
US20170221052	A1	2017-08-03	CA2992458	A1	2017-01-19
US20170109735	A1	2017-04-20	WO2017/011601	A1	2017-01-19

(EP3323080)

An embodiment may include a blockchain transaction data auditing apparatus. The apparatus comprises a blockchain recordation component, a matrix conversion component, and a bloom filter component to generate a list representation of a matrix, where each entry in the list comprises a tuple having a source wallet address, a destination wallet address, a transaction amount, and a timestamp.



EXEMPLARY SOCOACT MODEL

Blockchain-based front-end orchestrator for user plane network functions of a 5g network

US20200351650 A1

Current assignees

AT&T MOBILITY*

Inventors

Maria Arturo

Priority data including date

2019US-16399940 2019-04-30

IPC - International classification

G06F-009/455	G06F-016/182	H04L-009/06
H04L-009/32	H04W-012/00*	H04W-012/12

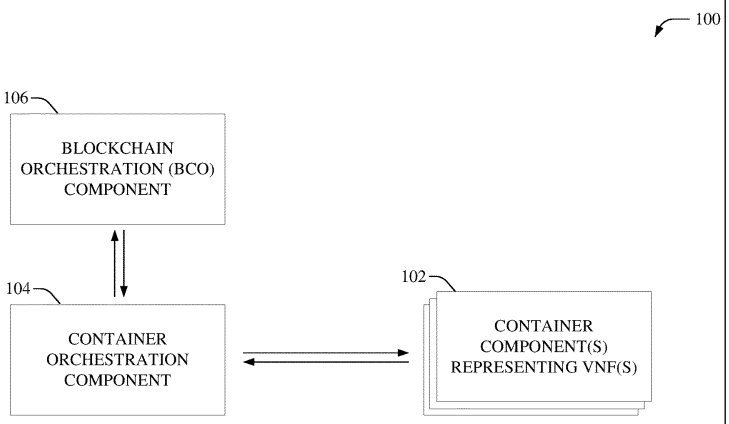
CPC - Cooperative classification

G06F-009/455/58	G06F-016/1824	G06F-2009/45595
H04L-009/06/43	H04L-009/32/97	H04L-2209/38
H04W-012/0013*	H04W-012/1204	

Family

US20200351650 A1 2020-11-05

(US20200351650)
Containers and container orchestration can be utilized for the creation of an environment that supports virtual network functions (VNFs) representing user plane and/or control plane gateways of 5G networks. Security and/or performance of the 5G network is improved by utilizing blockchain ledgers representing activity associated with the containers. In one aspect, cryptographic blockchain data is appended to a container when the VNF is created and/or modified. The cryptographic blockchain data can create a permanent ledger of activity on the container, which can be utilized to detect malicious attacks and/or unauthorized requests, and/or track activity associated with containers that are utilized to support high performance users and/or services. Further, the cryptographic blockchain data can be utilized for various applications, such as, but not limited to, security, accounting, network performance, governance and risk compliance, etc.



System for synchronizing a cryptographic key state through a blockchain
US20200351074 A1

Current assignees
INTEL*

Inventors
Wood Matthew D.

Priority data including date
2018US-16203416 2018-11-28

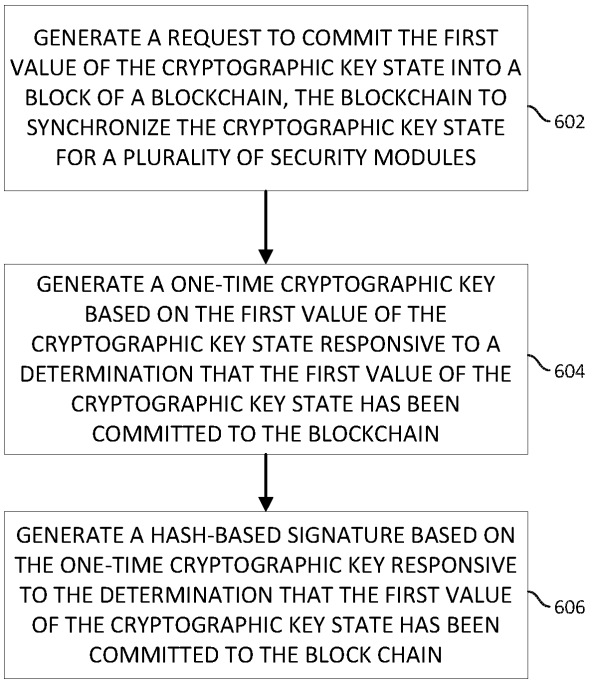
IPC - International classification
H04L-009/06* H04L-009/08 H04L-009/32

CPC - Cooperative classification
H04L-009/06/37* H04L-009/08/61 H04L-009/08/8
H04L-009/32/47 H04L-2209/38

Family
US20200351074 A1 2020-11-05

(US20200351074)

In one embodiment, an apparatus comprising a memory to store a first value of a cryptographic key state; and a processor to generate a request to commit the first value of the cryptographic key state into a block of a blockchain, the blockchain to synchronize the cryptographic key state for a plurality of security modules; and generate a one-time cryptographic key based on the first value of the cryptographic key state responsive to a determination that the first value of the cryptographic key state has been committed to the blockchain.



Database private document sharing
US20200349261 A1

Current assignees
IBM*

Inventors
Koorella Vijender
Verma Pramod
Gunjal Richard
Chao Ching-Yun
Irazabal Jeronimo

Priority data including date
2019US-16402627 2019-05-03

IPC - International classification

G06F-016/176	G06F-016/27	G06F-016/93
G06F-021/60*	G06F-021/62	G06F-021/64
H04L-009/06	H04L-009/08	H04L-009/32
H04L-029/06	H04L-029/08	

CPC - Cooperative classification

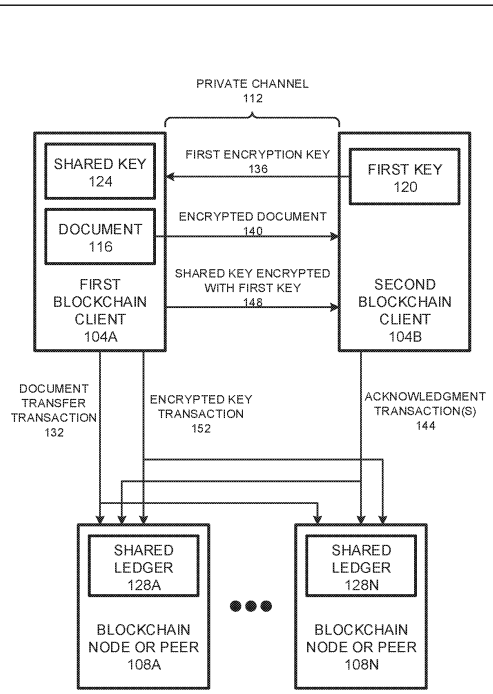
G06F-016/93	G06F-021/60/2*	G06F-021/62/45
H04L-009/06/37	H04L-009/08/19	H04L-009/32/39
H04L-067/104	H04L-2209/38	

Family

US20200349261	A1	2020-11-05		CN111881099	A	2020-11-03

(US20200349261)

An example operation may include one or more of generating, by a first blockchain client, a transaction to a blockchain network to transfer a document, transferring over a private channel, by a second blockchain client, a first key to the first blockchain client, the private channel providing a point-to-point connection between the first and second blockchain clients, encrypting the document using a shared key, transferring, by the first blockchain client, the encrypted document over the private channel, generating, by the second blockchain client, a transaction to acknowledge receipt of the encrypted document, and transferring the shared key encrypted with the first key.



Decentralized trust using blockchain for tracking and validation of voice communications

WO2020223416 A1

Current assignees

PAYPAL*

Inventors

YADAV, Meethil Vijay

WARDMAN, Bradley

ERICSON, Braden Christopher

Priority data including date

2019US-16399952 2019-04-30

IPC - International classification

G06F-016/23	G06F-016/61	G06F-021/32*
G06F-021/62	G10L-015/10	G10L-025/51
H04L-009/06	H04L-009/32*	

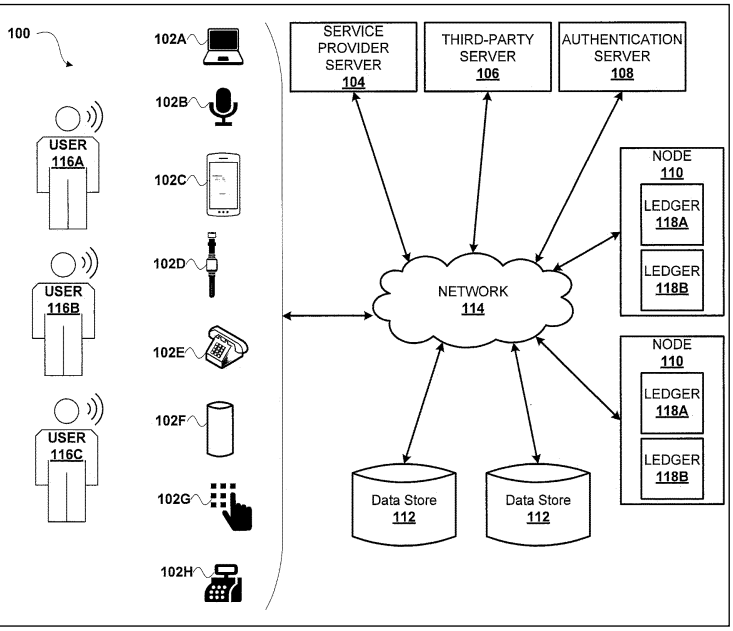
CPC - Cooperative classification

G06F-016/2365	G06F-016/61	H04L-009/06/43
H04L-009/32/31*	H04L-009/32/47	H04L-2209/38
H04L-2209/56		

Family

US20200351095	A1	2020-11-05		WO2020/223416	A1	2020-11-05

(WO2020/223416)
Systems and methods of authenticating voice data using a ledger (blockchain). Examples include a scalable and seamless system that uses blockchain technologies to distribute trust of a conversation, authenticate persons in a conversation, track their characteristics and also to keep records of conversations. In some examples, smart phones, wearables, and Internet-of-Things (IoT) devices can be used to record and track conversations between individuals. These devices can each be used to create entries for the blockchain or a single device could be used to keep track of the entirety of the conversation. Fuzzy hashing may be used to compare newly created entries with previous entries on the ledger.



Blockchain system-based transaction processing method and apparatus
WO2020220860 A1

Current assignees

SHENZHEN QIANHAI WEBANK*

WEBANK*

Inventors

ZHANG, Kaixiang

FAN, Ruibin

Priority data including date

2019CN-0350093 2019-04-28

IPC - International classification

G06Q-020/38 G06Q-040/04*

CPC - Cooperative classification

G06Q-020/38/27* G06Q-040/04

Family

WO2020/220860	A1	2020-11-05		CN110070445	A	2019-07-30

(WO2020/220860)

A blockchain system-based transaction processing method and apparatus, wherein the method comprises: a first node in a blockchain system receiving a transaction request sent by a client device, and determining a conflict result of a first transaction comprised in the transaction request according to the identification of the first transaction, and then processing the first transaction according to the conflict result of the first transaction and a conflict processing instruction comprised in the transaction request. By means of performing conflict detection on the first transaction on the basis of the identification of the transaction, complete transaction data may not need to be compared, and thus the efficiency of transaction processing in the blockchain system may be improved. Moreover, the identification of the transaction and the conflict processing instruction may be set by the client device. Therefore, different conflict processing instructions may be set on the basis of different service scenarios and the requirements of the client device, that is, the described transaction processing method is more in line with actual circumstances.

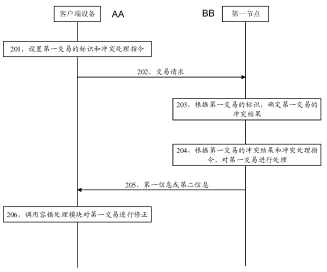


图 2

201 Set the identification of a first transaction and a conflict processing instruction
202 Transaction request
203 Determine a conflict result of the first transaction according to the identification of the first transaction
204 Process the first transaction according to the conflict result of the first transaction and the conflict processing instruction
205 First information or second information
206 Call a fault-tolerant processing module to correct the first transaction
AA Client device
BB First node

Blockchain-based smart contract invocation method and apparatus, and electronic device

US20200349148 A1

Current assignees

ALIBABA HOLDING*

Inventors

Qiu Honglin

Priority data including date

2018CN-0681249 2018-06-27

2019US-16453866 2019-06-26

IPC - International classification

G06F-016/23* G06F-016/245 G06F-016/27

CPC - Cooperative classification

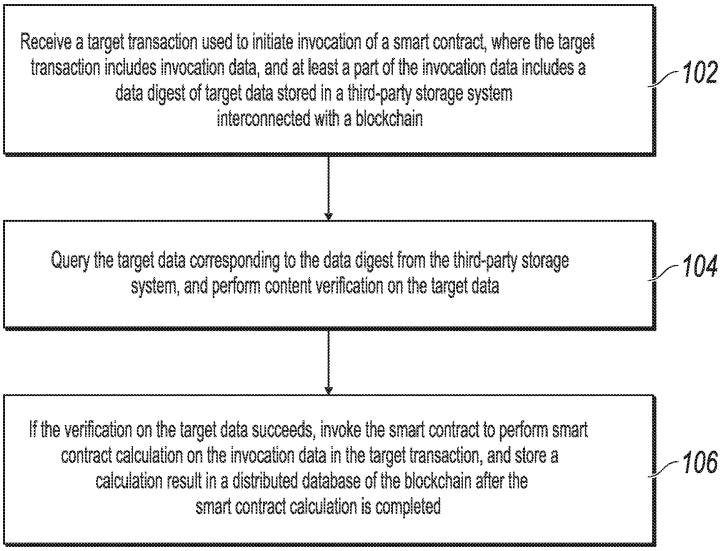
G06F-016/2379* G06F-016/245 G06F-016/27

Family

US20200349148 A1 2020-11-05

(US20200349148)

Techniques for invocating a smart contract are described. One example method includes receiving a target transaction that is used to initiate an invocation of a smart contract, wherein the target transaction comprises invocation data, and wherein the invocation data comprises a data digest associated with target data stored in a third-party storage system interconnected with a blockchain; querying the target data from the third-party storage system; receiving a query result returned by the third-party storage system, wherein the query result comprises the target data; performing a content verification on the target data; determining that the content verification on the target data succeeds; invoking the smart contract to perform a smart contract computation on the invocation data included in the target transaction; and storing a computation result from the smart contract computation in a distributed database associated with the blockchain after the smart contract computation is completed.



Traffic travel credit and security service platform capable of realizing multi-centralization on basis of consortium blockchain and operating method of platform

CN107886388 A

Current assignees

HANGZHOU YUNXIANG NETWORK TECHNOLOGY*

Inventors

HUANG BUTIAN
WANG CONGLI
ZHANG DAI
WANG BEI
LI LEI
DENG XU

Priority data including date

2017CN-0866773 2017-09-22

IPC - International classification

G06F-017/30	G06F-021/64	G06Q-020/38
G06Q-030/00	G06Q-030/06*	G06Q-050/26

CPC - Cooperative classification

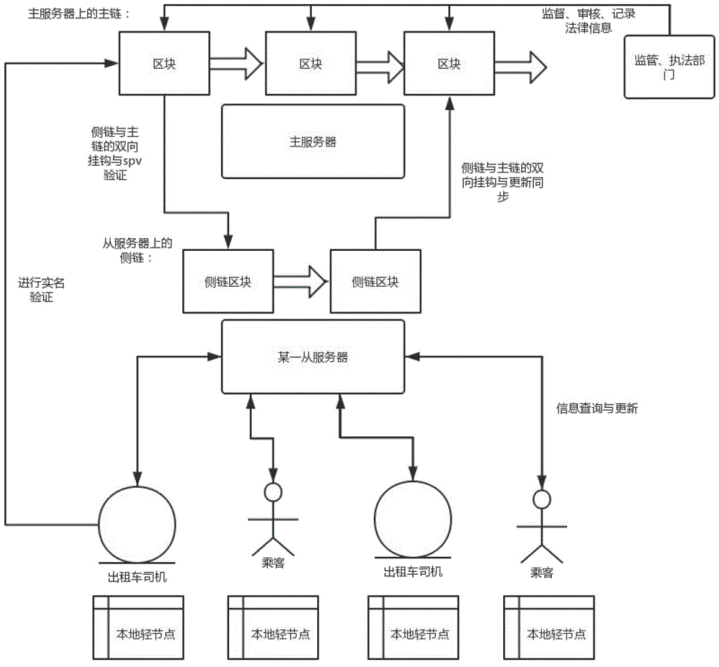
G06F-016/245	G06F-016/27	G06F-021/64
G06F-2221/2151	G06Q-020/38/9	G06Q-030/0185
G06Q-030/06/09*	G06Q-050/26	

Family

CN107886388	B	2020-11-03		CN107886388	A	2018-04-06

(CN107886388)

The invention discloses a traffic travel credit and security service platform capable of realizing multi-centralization on the basis of the consortium blockchain and an operating method of the platform. According to the traffic travel credit and security service platform, a unified and open traffic travel credit and security inquiry and safeguard platform is established through combining a government traffic patrol department and a taxi software platform, so that better taxi services can be provided for citizens. In order to adapt to the characteristics of large flow and high load of regionaltraffic, a plurality of slave server and a blockchain side chain technology are adopted. The two-way linking mechanisms of side chains are linked to a main chain, so that synchronization and update can be performed, and therefore, the pressure of the main chain under high load can be alleviated. Conveniences can be provided for the supervision of related departments by means of the non-centralizedfeature of the blockchain, for example, the behaviors of general drivers, passengers and governmental departments such as traffic police departments can be supervised.



System and method for digital asset management
EP3732644 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*
ADVANCED NEW TECHNOLOGY
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

SHI RUBING
YANG WENLONG

Priority data including date

2019WO-CN105353 2019-09-11

IPC - International classification

G06F-016/23	G06F-016/27	G06F-021/60
G06Q-020/36*	G06Q-020/38	G06Q-030/00
G06Q-040/04		

CPC - Cooperative classification

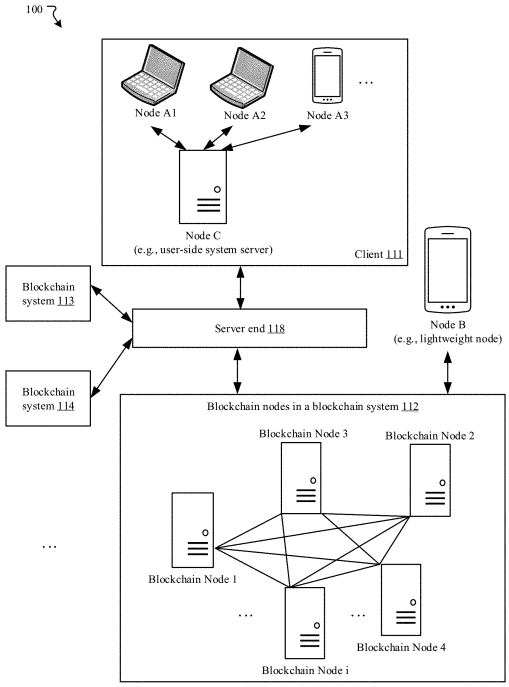
G06F-016/2379*	G06F-016/27	G06F-021/60/2
G06Q-030/018	G06Q-040/04	G06Q-040/06
H04L-009/08/97	H04L-009/32/39	H04L-009/32/47
H04L-2209/38		

Family

EP3732644	A2	2020-11-04	WO2019/228563	A3	2020-07-09
EP3732644	A4	2020-11-04	US20200151167	A1	2020-05-14
CN111758111	A	2020-10-09	WO2019/228563	A2	2019-12-05
SG11202006576U	A	2020-08-28			

(EP3732644)

Methods, systems, and apparatus, including computer programs encoded on computer storage media, for digital asset management. One of the methods includes: obtaining a request for creating a digital asset corresponding to a tangible asset, wherein the request comprises one or more characteristics of the digital asset; generating a blockchain contract corresponding to the tangible asset based on the one or more characteristics of the digital asset; and deploying the generated blockchain contract on a blockchain, wherein the deployed blockchain contract is executable to issue the digital asset corresponding to the tangible asset.



Content distribution management system and method using blockchain technology
WO201988688 A1

Current assignees

ALTICAST*

Inventors

CHO, Chang Hun

MIN, Jung-ki

Priority data including date

2017KR-0144781 2017-11-01

IPC - International classification

G06F-021/16	G06Q-020/12*	G06Q-030/00*
G06Q-050/10	H04L-009/06	H04L-009/32

CPC - Cooperative classification

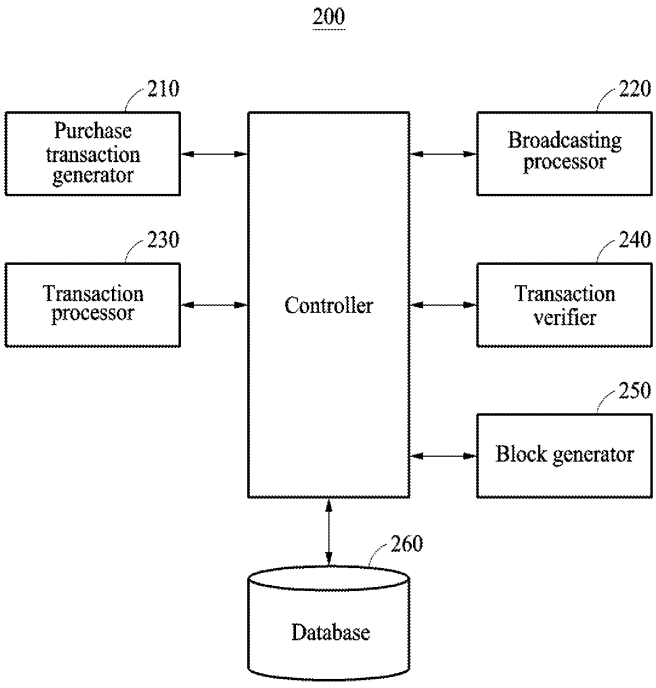
G06F-021/16*	G06Q-020/12/3*	G06Q-030/018*
G06Q-050/10	H04L-009/06/37	H04L-009/32/1

Family

US20200349540	A1	2020-11-05	KR10-1953090	B1	2019-03-04	
WO2019/088688	A1	2019-05-09				

(WO2019/088688)

The present invention relates to a content distribution management technology using blockchain technology. The content distribution management system using blockchain technology, according to one embodiment, comprises: a purchase transaction generation unit for generating a purchase transaction in response to a content purchase request signal from a user terminal; a broadcasting processing unit for broadcasting the generated purchase transaction; a transaction processing unit for collecting a use transaction, which is generated in response to the current state of use of content, if, after the broadcast purchase transaction is verified, the content corresponding to the verified purchase transaction is used on the user terminal; a transaction verification unit for verifying the collected use transaction; and a block generation unit for generating a block corresponding to the verified use transaction, wherein the user terminal can insert a forensic watermark, which reflects information corresponding to the verified purchase transaction, in the content and output same via a display.



System and method for decentralized-identifier authentication
EP3732856 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

YANG RENHUI
LIU JIAWEI
CHEN YUAN
LIN YUQI

Priority data including date

2019WO-CN103780 2019-08-30
2019WO-CN103791 2019-08-30
2019WO-CN94396 2019-07-02
2019WO-CN95299 2019-07-09
2020US-16735538 2020-01-06
2020US-16846150 2020-04-10

IPC - International classification

G06F-016/23	G06F-021/31	G06Q-030/00
H04L-009/00	H04L-009/06	H04L-009/08
H04L-009/30	H04L-009/32	H04L-029/06*

CPC - Cooperative classification

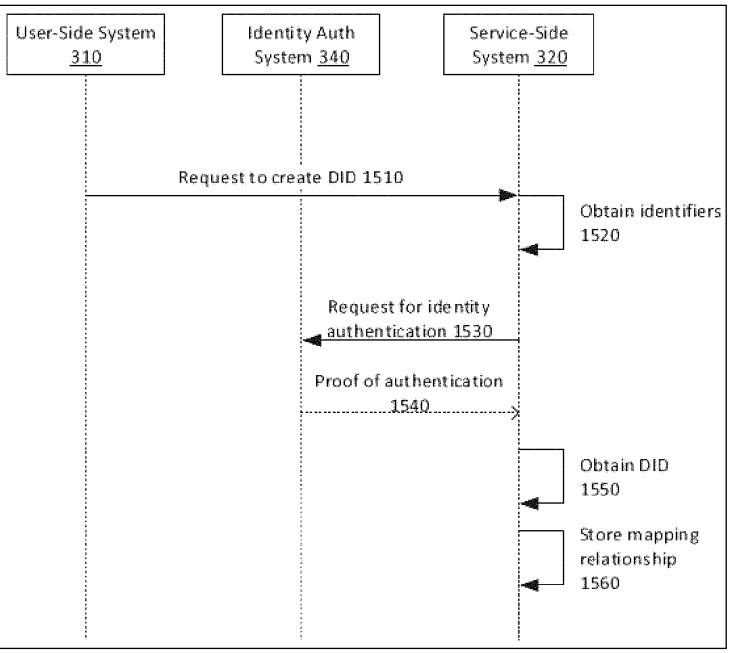
G06F-016/2379	G06F-021/31	G06F-021/45
G06F-021/64*	G06Q-020/38/29	H04L-009/06/37
H04L-009/06/43	H04L-009/08/66	H04L-009/08/77
H04L-009/30/73	H04L-009/32/39	H04L-009/32/47
H04L-009/32/63	H04L-009/32/71	H04L-063/0876*
H04L-063/126	H04L-2209/38	H04L-2209/56

Family

EP3732856	A2	2020-11-04	CN111164594	A	2020-05-15
EP3732857	A2	2020-11-04	US20200153639	A1	2020-05-14
US10824701	B2	2020-11-03	US20200143019	A1	2020-05-07
SG11202006574P	A	2020-08-28	US20200145209	A1	2020-05-07
SG11202006772Q	A	2020-08-28	WO2019/228556	A3	2020-04-30
US20200242221	A1	2020-07-30	WO2019/228557	A3	2020-04-30
CN111295869	A	2020-06-16	WO2019/228556	A2	2019-12-05
US10685099	B2	2020-06-16	WO2019/228557	A2	2019-12-05
CN111213350	A	2020-05-29			

(EP3732856)

Methods, systems, and apparatus, including computer programs encoded on computer storage media, for blockchain-based decentralized-identifier authentication, are provided. One of the methods includes: obtaining a request for authenticating a decentralized identifier (DID), wherein the request comprises the DID, a plaintext associated with a challenge for authenticating the DID, and a digital signature on the plaintext; obtaining a public key associated with the DID; determining, based on the obtained public key and the plaintext, that the digital signature on the plaintext is created based on a private key corresponding to the DID; and generating, based on the determination, a message confirming authentication of the DID.



A method and device for processing data request
CN110535659 A

Current assignees
BEIJING HAIYI TONGZHAN INFORMATION TECHNOLOGY*

Inventors
SHAO ZHUGUANG
SUN HAIBO
HUANG HAIQUAN
ZHAO GUANGWEI
ZHANG SHUANG

Priority data including date
2019CN-0827775 2019-09-03

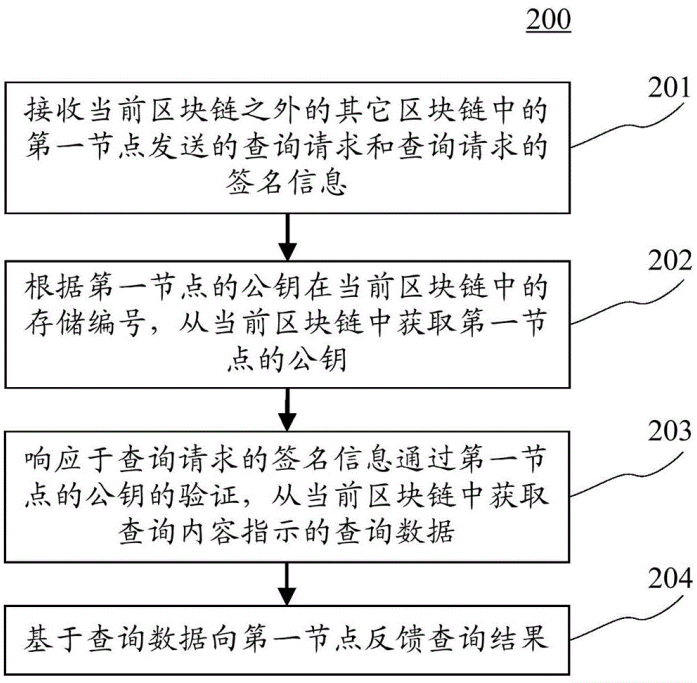
IPC - International classification
H04L-009/32* H04L-029/06 H04L-029/08

CPC - Cooperative classification
H04L-009/32/47* H04L-063/083 H04L-063/0876
H04L-067/1097 H04L-067/28

Family

CN110535659	B	2020-11-03		CN110535659	A	2019-12-03

(CN110535659)
The embodiment of the invention discloses a method and device for processing a data request. One specific embodiment of the method comprises the following steps: receiving a query request and signature information of the query request sent by a first node in other blockchains except the current blockchain, the current blockchain having an agent node of the first node, the query request comprisingquery content and a storage number of a public key of the first node in the current blockchain; obtaining the public key of the first node from the current block chain according to the storage numberof the public key of the first node in the current block chain; in response to the signature information of the query request passing the verification of the public key of the first node, obtaining query data indicated by the query content from the current block chain; and feeding back a query result to the first node based on the query data. According to the embodiment, the cross-chain query of the data is realized on the basis that the risk that the data stored in the blockchain is leaked is relatively low and fault points are not increased.



Sending cross-chain authenticatable messages
US20200177572 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

QUI HONGLIN

Priority data including date

2019CN-0577314 2019-06-28
2020WO-CN71555 2020-01-11

IPC - International classification

G06F-009/455	G06F-016/23	G06Q-040/04
H04L-029/06*	H04L-029/08*	

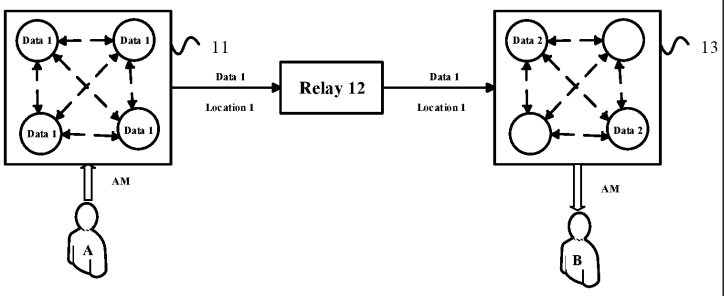
CPC - Cooperative classification

G06F-009/455/58	G06F-016/2379	G06F-021/64
G06F-2009/45595	G06Q-040/04*	H04L-009/32/39
H04L-009/32/47	H04L-063/08	H04L-063/123*
H04L-067/28	H04L-069/26	H04L-069/30
H04L-2209/38		

Family

CN110430235	B	2020-11-03	CN110430235	A	2019-11-08	
US20200177572	A1	2020-06-04				

(US20200177572)
Disclosed herein are computer-implemented methods; computer-implemented systems; and non-transitory, computer-readable media, for sending cross-chain messages. One computer-implemented method includes storing an authenticable message (AM) associated with a first account of a blockchain node to a blockchain associated with the first blockchain network, where the AM comprises an identifier (ID) of the first blockchain network, information of the first account, and information of a recipient of the AM. The AM and location information is translated to a relay to be forwarded to the recipient located outside of the first blockchain network, where the location information identifies a location of the AM in the first blockchain and the recipient includes one or more accounts outside of the first blockchain network.



System and method for digital asset valuation
EP3732647 A2

Current assignees
ADVANCED NEW TECHNOLOGIES*
ADVANCED NEW TECHNOLOGY
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
SHI RUBING
YANG WENLONG

Priority data including date
2019WO-CN105417 2019-09-11

IPC - International classification

G06Q-020/38	G06Q-030/00	G06Q-030/02*
G06Q-030/08	G06Q-040/04	G06Q-040/06
H04L-009/06		

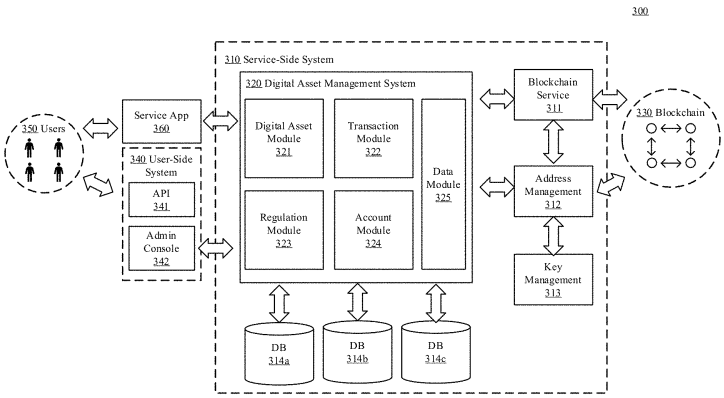
CPC - Cooperative classification

G06Q-020/02	G06Q-020/38/29*	G06Q-020/38/9
G06Q-030/018	G06Q-030/06	G06Q-030/06/09
G06Q-030/08	G06Q-040/04	G06Q-040/06*
G06Q-2220/00	H04L-009/06/37	H04L-2209/56

Family

EP3732647	A2	2020-11-04	CN111164630	A	2020-05-15
SG11202006774U	A	2020-08-28	US20200151823	A1	2020-05-14
WO2019/228566	A3	2020-07-09	WO2019/228566	A2	2019-12-05

(EP3732647)
Methods, systems, and apparatus, including computer programs encoded on computer storage media, for digital asset valuation. One of the methods includes: obtaining a request for valuating a digital asset corresponding to a tangible asset, wherein information associated with the digital asset is stored in a blockchain; generating, based on the obtained request, a blockchain transaction for valuating the digital asset, wherein the blockchain transaction invokes a blockchain contract executable for determining value information associated with the digital asset; sending the blockchain transaction to a blockchain node associated with the blockchain for adding to the blockchain; and obtaining, from the blockchain, the value information associated with the digital asset.



Systems, methods, and storage media for assigning user-specific blockchain mining pool data to a computing device

US20200349554 A1

Current assignees

HANDS FREE BITCOIN*

Inventors

Simecka Benjamin Adam

Simecka Austin Nicholas

Priority data including date

2019US-62841178 2019-04-30

IPC - International classification

G06F-009/54	G06F-016/23	G06F-016/2458
G06Q-020/30	G06Q-020/36*	G06Q-040/02

CPC - Cooperative classification

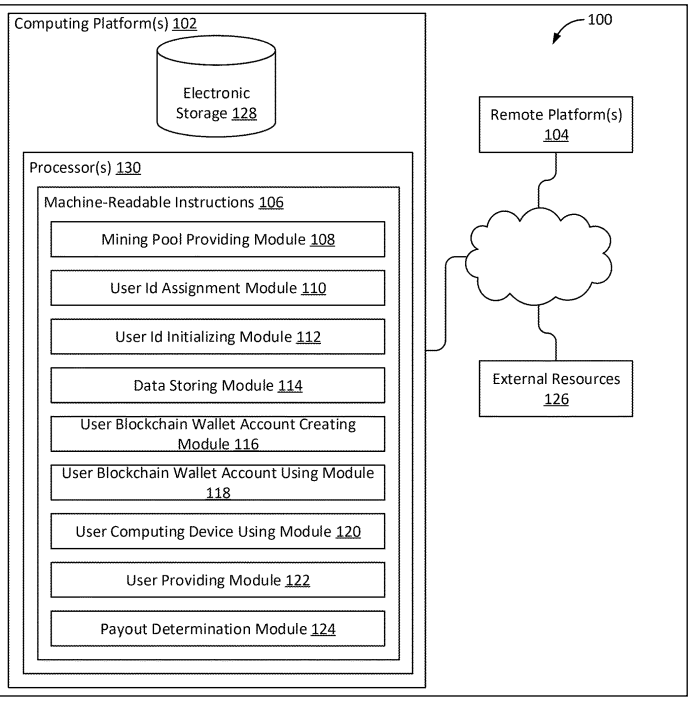
G06F-009/54/7	G06F-016/2379	G06F-016/2465
G06F-2216/03	G06Q-020/308	G06Q-020/36/72*
G06Q-020/36/76	G06Q-040/02	G06Q-2220/00

Family

US20200349554 A1 2020-11-05

(US20200349554)

A system, method, and storage media configured for assigning user-specific blockchain mining pool data to a computing device with one or more hardware processors configured by machine-readable instructions that can communicate with one or more remote platforms. The one or more computing platforms are pre-configured with machine-readable instructions to execute at least one or more modules including at least one payout determination module that uses a transformed reward method.



Systems and methods for automated recovery of blockchain-based accounts
US20200349147 A1

Current assignees

CAPITAL ONE SERVICES*

Inventors

Vukich Adam
Kelly Kevin P.
Malik Adnan
Bulgakov Mykhaylo
Carroll William
Quadros Steven
Benkreira Abdelkader

Priority data including date

2019US-62842231 2019-05-02

IPC - International classification

G06F-016/23* G06Q-010/10 G06Q-020/36
H04L-029/06

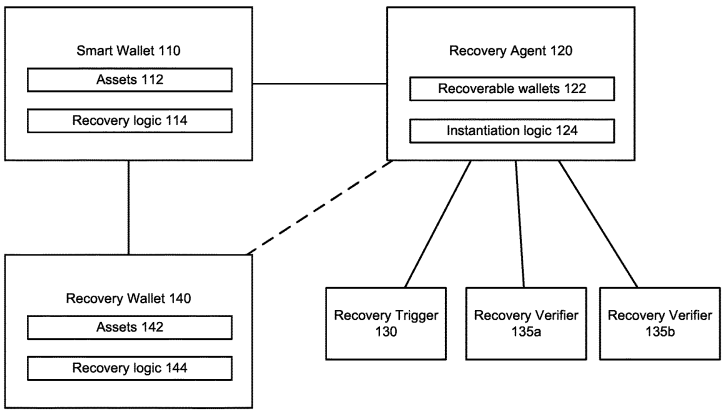
CPC - Cooperative classification

G06F-016/2365 G06F-016/2379* G06Q-010/10
G06Q-020/36 H04L-063/083

Family

US20200349147 A1 2020-11-05

(US20200349147)
A method of recovering blockchain wallet items, the method including: configuring a first smart contract to authorize a second smart contract to initiate transfer of one or more wallet items registered to the first smart contract to a location specified by the second smart contract; configuring the second smart contract to initiate transfer of the one or more wallet items from the first smart contract in response to receiving a first recovery verifier; receiving, via an API and by the second smart contract, a wallet recovery request associated with the first smart contract, the wallet recovery request specifying a third smart contract as being a recipient wallet; and based on the wallet recovery request and responsive to receiving the first recovery verifier, initiating, by the second smart contract, a transfer of the one or more wallet items from the first smart contract to the third smart contracts.



Method for providing smart contract-based certificate service, and server employing same

WO201870848 A1

Current assignees

COINPLUG*

Inventors

SONG JOO HAN

HONG JAY WU

UHR JOON SUN

Priority data including date

2016KR-0132685 2016-10-13

2017WO-KR11354 2017-10-13

IPC - International classification

G06F-021/31	G06Q-020/32	G06Q-020/38*
G06Q-020/40	G06Q-050/26	H04L-009/30
H04L-009/32	H04L-029/06*	

CPC - Cooperative classification

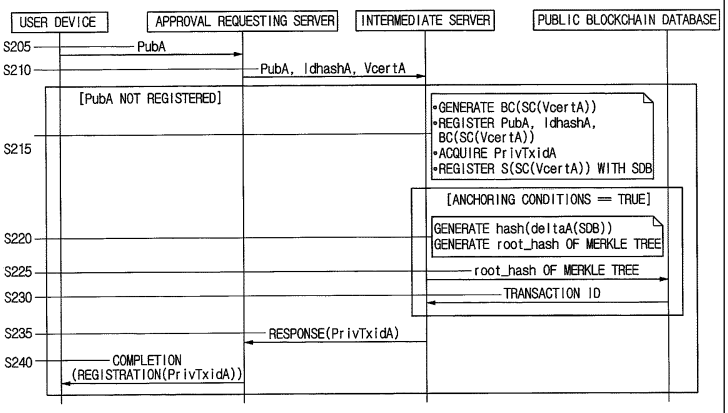
G06F-021/31	G06Q-020/32/24	G06Q-020/38/215
G06Q-020/38/29	G06Q-020/40/1	G06Q-050/26/5
H04L-009/30	H04L-009/32/39*	H04L-009/32/63
H04L-009/32/68	H04L-063/0823*	H04L-2209/38
H04W-012/06	H04W-012/10	

Family

US10826888	B2	2020-11-03	US20180109516	A1	2018-04-19
KR101849917	B1	2018-05-31	WO2018/070848	A1	2018-04-19
CA3030813	A1	2018-04-19			

(WO2018/070848)

The present invention provides a method for providing smart contract (SC)-based certificate registration, approval and revocation services, and an authentication supporting server employing the method. The method according to the present invention is characterized in that, upon the acquisition of a public key (PubA) of a user device, a personal information hash value (IdhashA) of a user, and a validity condition (VcertA) of a certificate, an authentication supporting server acquires a bytecode (BC(SC(VcertA))) obtained by generating and then compiling SC(VcertA), registers PubA, IdhashA and BC(SC(VcertA)) with a private blockchain DB, acquires an identifier (PrivTxidA) for this registration location, sets a state (S(SC(VcertA))) of SC(VcertA) to an initial state, registers PrivTxidA and S(SC(VcertA)) with SDB, and registers, with a public blockchain DB, a value obtained by computing together a hash value, computed from PubA, IdhashA and BC(SC(VcertA)), and a neighboring hash value matching the hash value.



Multifunctional luggage bag and blockchain-based management system therefor
WO2020221181 A1

Inventors
YIN, Hao
WANG, Haoyi
ZHANG, Qiang
YUAN, Lijuan

Priority data including date
2019CN-U0613041 2019-04-30

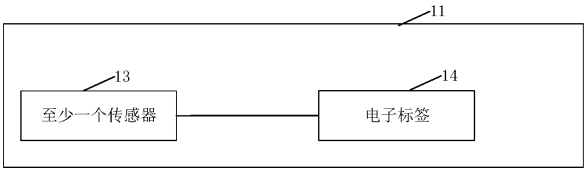
IPC - International classification

A45C-003/06*	A45C-013/18	G06Q-030/00
G06Q-040/04	H04W-004/029	H04W-004/80

Family

WO2020/221181 A1 2020-11-05

(WO2020/221181)
A multifunctional luggage bag and a blockchain-based management system therefor. The multifunctional luggage bag comprises: a luggage body (11), at least one sensor (13), and a wireless electronic tag (14). The at least one sensor (13) and the wireless electronic tag (14) are disposed inside the luggage body (11). The wireless electronic tag (14) comprises identifier information of the luggage body (11), and is connected to an external identification device, such that the external identification device can obtain the identifier information of the luggage body (11). The invention enables users to obtain environment information of luggage and bags in real time and to detect counterfeits.



13 At least one sensor
14 Electronic tag

图 1

Method for operating a medical device
DE102019111331 A1

Current assignees

OLYMPUS WINTER & IBE*

Inventors

MÜCKNER ANDREAS

Priority data including date

2019DE-10111331 2019-05-02

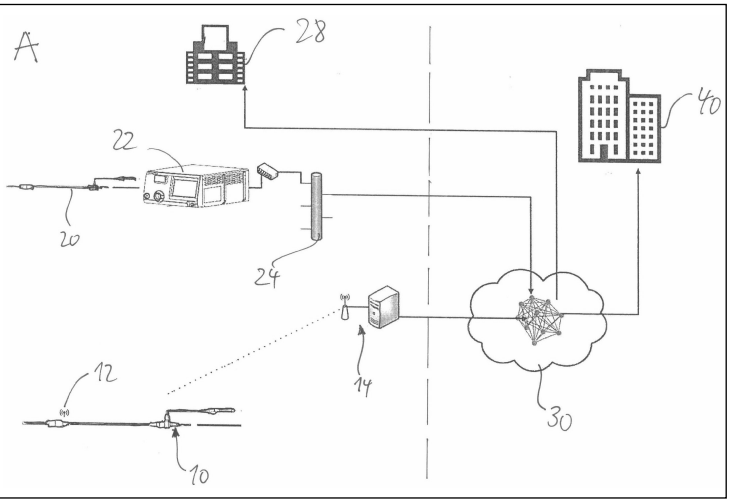
IPC - International classification

G06F-021/64 G16H-040/60*

Family

DE102019111331 A1 2020-11-05

(DE102019111331)
The invention relates to a method for operating a medical device (10, 20), in particular a medical treatment device (10, 20), wherein, during normal operation of the medical device (10, 20), at least one identification code of the medical device (10, 20) And operation-specific identifiers of the medical device (10, 20) are transmitted to a block chain (30) or a block chain (30) based database during and/or after use of the medical device (10, 20) during its intended use and are stored in the block chain (30) or the block chain (30) based database.



Traceable key block-chain ledger
EP3732817 A1

Current assignees

EBAY*

Inventors

CHAN MICHAEL J T
EMBRY SEAN R
CHAMORRO DEREK A
KAUL ANUJ
CHADHA SAHIL
FIRKE NIKHIL

Priority data including date

2017US-15858949 2017-12-29
2018WO-US65851 2018-12-14
2020US-16842690 2020-04-07

IPC - International classification

G06F-021/64	H04L-009/00	H04L-009/06
H04L-009/08*	H04L-009/14	H04L-009/30
H04L-009/32		

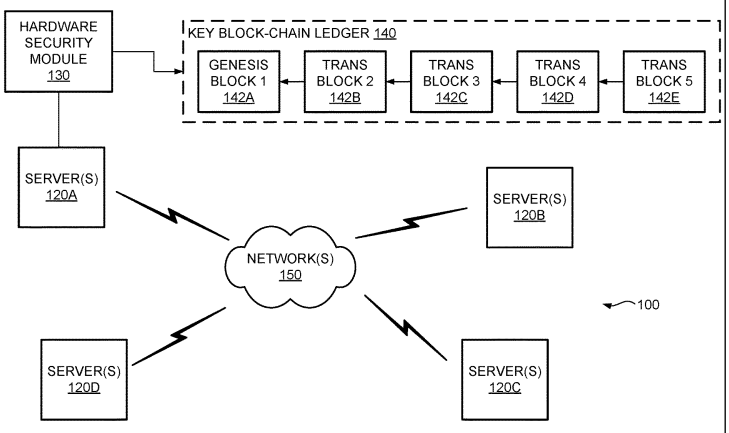
CPC - Cooperative classification

G06F-021/64*	H04L-009/00/2	H04L-009/06/37
H04L-009/08	H04L-009/08/19	H04L-009/08/61
H04L-009/08/91	H04L-009/08/94*	H04L-009/14
H04L-009/30	H04L-009/32/47	H04L-2209/38

Family

EP3732817	A1	2020-11-04	KR10-2020-0074219	A	2020-06-24
CN111512591	A	2020-08-07	US20190207759	A1	2019-07-04
US20200235926	A1	2020-07-23	WO2019/133307	A1	2019-07-04
US10715323	B2	2020-07-14			

(EP3732817)
Techniques are shown for key management using a traceable key block-chain ledger involving creating a cryptographic key at a key source, generating a genesis block for a key block-chain ledger corresponding to the cryptographic key, and securely modifying the genesis block to include metadata describing the key source. The techniques also involve performing a first key transaction with the cryptographic key, generating a first transaction block corresponding to the first key transaction with the cryptographic key and adding the first transaction block to the key block-chain ledger, and securely modifying the first transaction block to include metadata describing the first key transaction with the cryptographic key.



System and method for information protection

EP3552158 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*
ALIBABA GRUP KHOLDING
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

MA BAOLI
ZHANG WENBIN
LI LICHUN
LIU ZHENG
YIN SHAN

Priority data including date

2018WO-CN117548 2018-11-27
2019IN-47015676 2019-04-19
2019US-16708249 2019-12-09
2019VN-1001911 2019-04-17

IPC - International classification

F24F-001/02	G06F-016/23	G06F-016/27
G06F-021/00	G06F-021/10	G06F-021/55
G06F-021/60	G06F-021/62	G06F-021/64
G06N-099/00*	G06Q-020/38	G06Q-040/04
H04L-009/06	H04L-009/32	H04L-029/06
H04L-029/08		

CPC - Cooperative classification

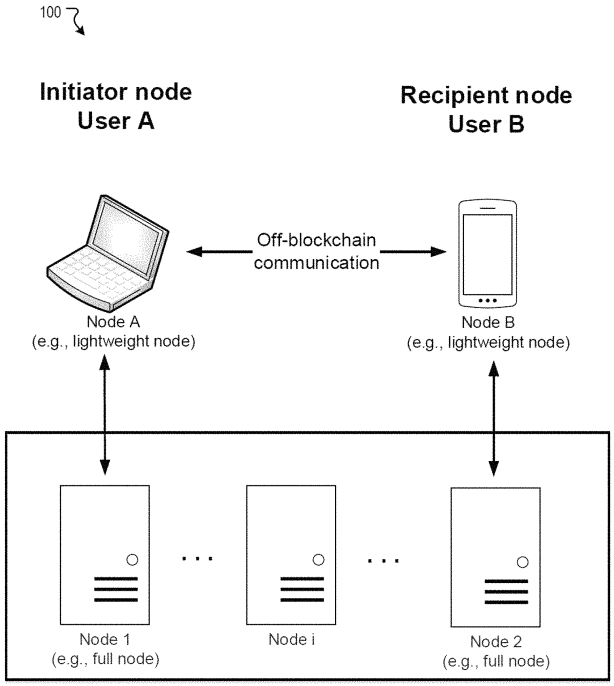
G06F-016/2365	G06F-016/2379	G06F-021/10
G06F-021/55/4	G06F-021/60	G06F-021/60/2
G06F-2221/2107	H04L-009/00/8	H04L-009/06/37*
H04L-009/06/43	H04L-009/30/66	H04L-009/32/18
H04L-009/32/39	H04L-009/32/57	H04L-009/32/97
H04L-063/0457*	H04L-2209/04	H04L-2209/38
H04L-2209/56		

Family

EP3552158	B1	2020-11-04		EP3552158	A4	2020-02-26
AU2018322507	B2	2020-10-08		CN110730963	A	2020-01-24
JP6756041	B2	2020-09-16		JP2020500458	A	2020-01-09
ZA201902459	B	2020-08-26		VN66719	A	2019-11-25
US20200228317	A1	2020-07-16		BR112019007232	A2	2019-11-05
KR10-2128210	B1	2020-06-30		PH12019500532	A1	2019-10-28
US10700850	B2	2020-06-30		BR112019007232	A1	2019-10-22
AU2018322507	A1	2020-06-11		EP3552158	A2	2019-10-16
KR10-2020-0066256	A	2020-06-09		WO2019/072275	A3	2019-10-03
IN201947015676	A	2020-05-29		MX2019004201	A	2019-08-05
US20200145195	A1	2020-05-07		SG11201902773V	A	2019-05-30
CA3037833	A1	2020-04-18		WO2019/072275	A2	2019-04-18
RU2719311	C1	2020-04-17				

(EP3552158)

A computer-implemented method for information protection comprises: determining one or more data inputs and one or more data outputs for a transaction, wherein the data inputs are associated with input data types respectively, and the data outputs are associated with output data types respectively; encrypting the input data types and the output data types; committing each of the encrypted input data types and the encrypted output data types with a commitment scheme to obtain corresponding commitment values; obtaining at least a parameter R based at least on the commitment values; and submitting the transaction to one or more nodes in a blockchain network with disclosure of the parameter R and without disclosure of the input data types and output data types for the nodes to verify consistency between the input data types and the output data types.



Network communication method, system and device, and storage medium
WO2019201043 A1

Current assignees

TENCENT CLOUD COMPUTING BEIJING
TENCENT TECHNOLOGY (SHENZHEN)*
TENCENT TECHNOLOGY SHENZEN

Inventors

SHANG ZHIHAO
LI JIA
LIU HUANXIN
ZHOU HONGFEI

Priority data including date

2018CN-0362776 2018-04-20
2019CN-0689244 2018-04-20
2019WO-CN78547 2019-03-18

IPC - International classification

H04L-009/06	H04L-012/46	H04L-012/66
H04L-012/741*	H04L-029/06	H04L-029/12*

CPC - Cooperative classification

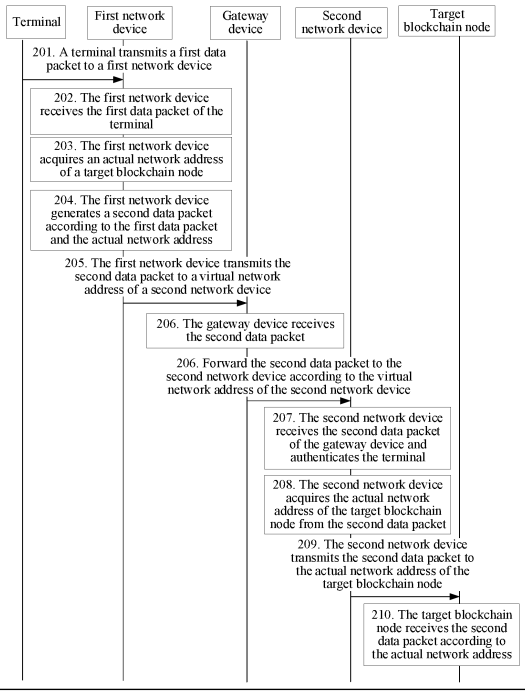
H04L-009/06/37	H04L-012/46/41	H04L-012/66*
H04L-045/74	H04L-061/103*	H04L-061/6063
H04L-063/10	H04L-069/22	H04L-2209/38

Family

US20200351235	A1	2020-11-05	CN110351191	A	2019-10-18
CN108650182	B	2020-09-25	CN108650182	A	2018-10-12
WO2019/201043	A1	2019-10-24			

(WO2019/201043)

Disclosed are a network communication method, system and device, and a storage medium, wherein same fall within the technical field of networks. An actual network address of a target blockchain node is acquired by means of receiving a first data packet sent to the target blockchain node; and a second data packet is generated according to the first data packet and the actual network address, and the second data packet is sent to a virtual network address of a second network device, such that the operation overheads generated by a gateway device respectively generating a virtual network address for each blockchain node can be reduced, and a storage space of the gateway device is saved on.



Method, transaction management device and computer-readable media for facilitating concurrent transactions

WO2020222701 A1

Current assignees

SINGAPORE AIRLINES*

Inventors

SHANMUGAM, Arun Sabarirajan

WEERASEKARA, Dinusha

KANDACHERI, Ranjith

TAN, Siakchuah

Priority data including date

2019WO-SG50249 2019-05-02

IPC - International classification

G06Q-020/00* G06Q-030/00 G06Q-040/00

H04L-009/00

Family

WO2020/222701 A1 2020-11-05

(WO2020/222701)

A method of facilitating concurrent blockchain transactions for a plurality of users in a transaction system having respective user blockchain accounts each having a token balance comprises providing, at a blockchain network, an aggregator account having a token balance; generating a plurality of child accounts of the aggregator account; periodically initiating, at the blockchain network, a plurality of top-up transactions to transfer tokens from the aggregator account to the plurality of child accounts; and concurrently incrementing the respective token balances for the plurality of users by initiating, at the blockchain network, a plurality of user top-up transactions to transfer tokens from the plurality of child accounts to the user blockchain accounts.

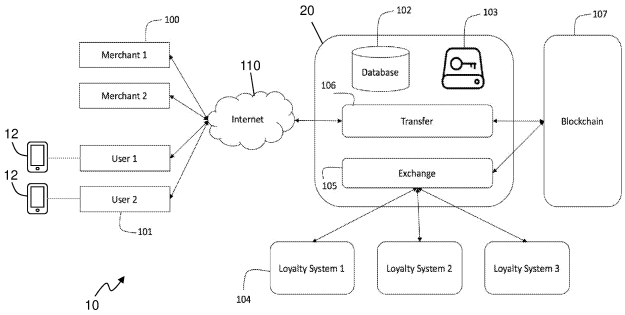


FIGURE 1

Consumption contract processing method and system therefor
WO2020220751 A1

Current assignees
ADVANCED NEW TECHNOLOGIES*
INNOVATIVE ADVANCED TECHNOLOGY

Inventors
GAO, Yijin

Priority data including date
2019CN-0350166 2019-04-28
2020WO-CN71465 2020-01-10

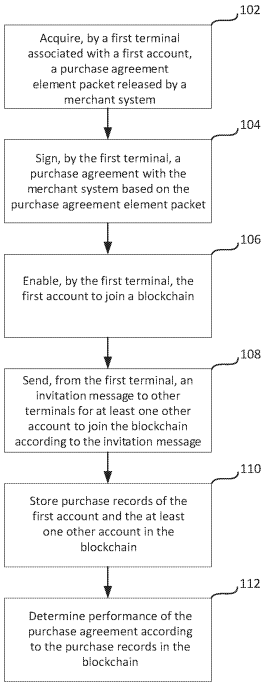
IPC - International classification
G06Q-020/38 G06Q-020/40 G06Q-030/00*
G06Q-030/06 H04L-009/06

CPC - Cooperative classification
G06Q-020/38/8 G06Q-020/40/5 G06Q-020/40/7
G06Q-030/01* G06Q-030/06/09 H04L-009/06/37
H04L-009/32/39* H04L-009/32/47 H04L-2209/38
H04L-2209/56

Family

WO2020/220751	A1	2020-11-05	CN110175854	A	2019-08-27	
US20200234291	A1	2020-07-23				

(WO2020/220751)
Provided are a consumption contract processing method and a system therefor. The method comprises: a first terminal using a first account acquiring a consumption contract element set issued by a merchant system (102); on the basis of the consumption contract element set, the first terminal signing a consumption contract with a merchant system (104); the first terminal enabling, through interaction with a server, the first account to join a blockchain (106); the first terminal sending an invitation message to other terminals, so that at least one other account joins the blockchain according to the invitation message (108); storing consumption records of the first account and the other accounts in the blockchain (110); and determining, by means of compiling statistics of the consumption records in the blockchain, whether the contract is fulfilled or broken (112).



Device control method, and related device for same
EP3686829 A1

Current assignees
HUAWEI*
HUAWEI* DEVICE

Inventors
MEI JINGQING

Priority data including date
2017CN-1209715 2017-11-27
2018WO-CN117122 2018-11-23

IPC - International classification

G06Q-020/38*	G06Q-020/40	G06Q-020/42
G06Q-040/04	H04L-009/06	H04L-029/06
H04L-029/08		

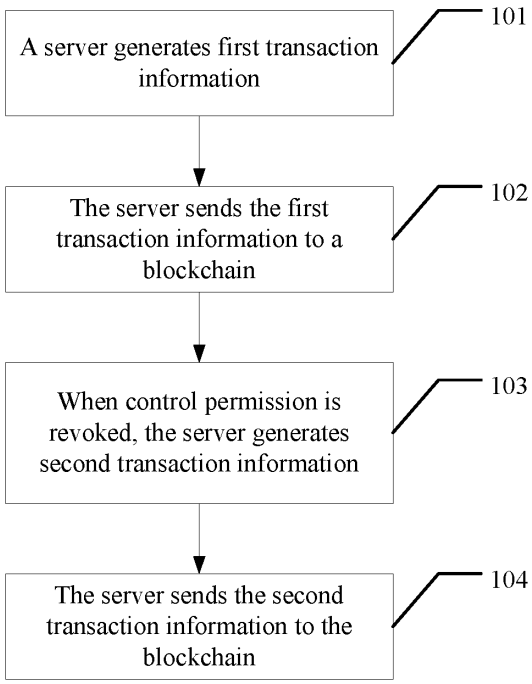
CPC - Cooperative classification

G06Q-020/38/21*	G06Q-020/38/21*5	G06Q-020/38/25
G06Q-020/38/9	G06Q-020/40/37	G06Q-020/40/7
G06Q-020/42/5	H04L-009/06/37	

Family

US20200349566	A1	2020-11-05	CN109840766	A	2019-06-04	
EP3686829	A1	2020-07-29	WO2019/101156	A1	2019-05-31	

(EP3686829)
Embodiments of this application provide a device control method and a related device, so that a target device rejects, based on second transaction information including second data, control by a first participant. The method in the embodiments of this application includes: generating, by a server, first transaction information, where the first transaction information is used to indicate that a first participant has obtained control permission, the first transaction information includes information about the first participant and first data that includes information about a second participant, and the control permission is permission to control a target device; sending, by the server, the first transaction information to a blockchain; when the control permission is revoked, generating, by the server, second transaction information, where the second transaction information includes second data, and there is a correspondence between the second data and the first data; and sending, by the server, the second transaction information to the blockchain, where the second transaction information is used to indicate that the control permission on the target device has been revoked, and that the control permission has been revoked is used to instruct the target device to reject control over the target device by the first participant.



Cryptography-based platooning mechanism for autonomous vehicle fleet management
WO2020197728 A2

Current assignees
MICRON TECHNOLOGY*

Inventors
MONDELLO ANTONINO
TROIA ALBERTO

Priority data including date
2019US-16363271 2019-03-25

IPC - International classification

G05D-001/00	G05D-001/02*	G08G-001/00
H04L-009/06	H04L-009/32	H04W-004/46

CPC - Cooperative classification

G05D-001/00/22	G05D-001/02/93	G08G-001/22*
H04L-009/06/37	H04L-009/32/36	H04L-2209/38
H04W-004/46		

Family

WO2020/197728	A3	2020-11-05	WO2020/197728	A2	2020-10-01	
US20200312154	A1	2020-10-01				

(WO2020/197728)
Disclosed are techniques for managing a platoon of autonomous vehicles. In one embodiment, a method is disclosed comprising establishing a network connection between a plurality of autonomous vehicles, the plurality of autonomous vehicles operating as a platoon; receiving a request from a first autonomous vehicle to deviate from the platoon, the request comprising a digitally signed message from the first autonomous vehicle; assigning the first autonomous vehicle as a second master autonomous vehicle; permanently recording the assignment in a blockchain data structure; instantiating a new platoon path using the first autonomous vehicle as a head of the new platoon path; and disconnecting one or more autonomous vehicles associated with the new platoon path upon determining that the new platoon path is stable, the disconnecting causing the second master autonomous vehicle to manage the one or more autonomous vehicles using a second blockchain stored on the second master autonomous vehicle.

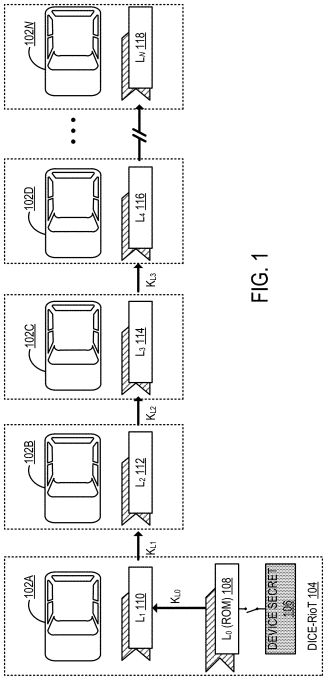


FIG. 1

Layer 7 proxy for immutable application audit trails
WO2019199559 A1

Current assignees

CISCO TECHNOLOGY*

Inventors

LEVINE TYLER
METZ CHRISTOPHER
LI ZHAOXING
DHESIKAN ROHAN
WARD DAVID

Priority data including date

2018US-15952412 2018-04-13

IPC - International classification

G06F-021/55	G06F-021/64	H04L-009/32
H04L-029/06*	H04L-029/08	

CPC - Cooperative classification

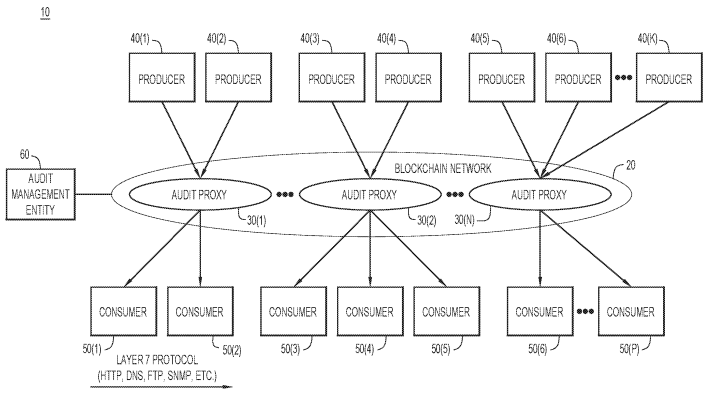
G06F-021/55/2	G06F-021/64	G06F-2221/2101
H04L-009/32/36	H04L-009/32/39	H04L-043/022
H04L-043/026	H04L-063/0281*	H04L-063/1425*
H04L-063/168	H04L-067/28	H04L-067/2819
H04L-067/288	H04L-069/329	H04L-2209/38
Y02D-030/50		

Family

CN111886840	A	2020-11-03	WO2019/199559	A1	2019-10-17	
US20190319927	A1	2019-10-17				

(WO2019/199559)

A system is provided comprising one or more application layer audit proxies arranged to obtain application layer network traffic sent in a network. Each of the application layer audit proxies configured to: receive application layer network traffic sent as part of a communication session between a producer entity and a consumer entity; record information about the application layer network traffic to an audit log in a distributed permissioned database comprising a blockchain of immutable data blocks; and forward the application layer network traffic to the producer entity or to the consumer entity.



Media resource allocation method, apparatus, and system, and storage medium and computer device

WO2019242432 A1

Current assignees

TENCENT TECHNOLOGY (SHENZHEN)*

TENCENT TECHNOLOGY SHENZEN

Inventors

XI MINGHAO

Priority data including date

2018CN-0628879 2018-06-19

2019WO-CN86943 2019-05-15

IPC - International classification

G06Q-030/02* G06Q-030/08 H04L-009/06

CPC - Cooperative classification

G06Q-030/02/55 G06Q-030/02/75* G06Q-030/08

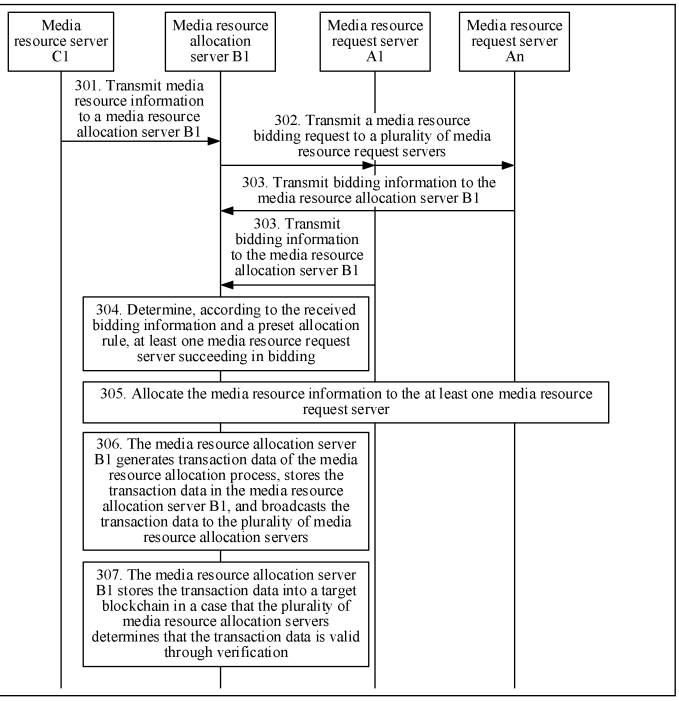
H04L-009/06/43 H04L-2209/38

Family

US20200349613	A1	2020-11-05	CN108805627	A	2018-11-13	
WO2019/242432	A1	2019-12-26				

(WO2019/242432)

Disclosed is a media resource allocation method, which is executed by any media resource allocation server in a block chain system. A target block chain is configured for multiple media resource allocation servers in the block chain system, and the target block chain is used for storing transaction data of a media resource allocation process. The media resource allocation method comprises: receiving media resource information sent by a media resource server; allocating media resources to multiple media resource request servers according to media resource demands of the multiple media resource request servers, the media resource information, and a preset allocation rule; and storing the transaction data generated in the media resource allocation process into the target block chain.



Block chain and sensor short-range communication system for preventing collision of autonomous vehicle traveling on road

KR102172534 B1

Current assignees

SBC*

Inventors

LEE, SU BOK

Priority data including date

2020KR-0052959 2020-04-30

IPC - International classification

B60W-030/08*	B60W-040/105	B60W-050/00
B60W-060/00	G01S-013/931	H04L-029/08
H04W-004/02	H04W-004/08	H04W-004/46

CPC - Cooperative classification

B60W-030/08*	B60W-040/105*	B60W-060/0016
B60W-2050/0077	B60W-2520/10	G01S-013/93/1
H04L-067/12	H04W-004/02/3	H04W-004/02/7
H04W-004/08	H04W-004/46	

Family

KR10-2172534	B1	2020-11-02		

(KR10-2172534)

A block chain and sensor short-range communication system for preventing collision of an autonomous driving vehicle traveling on a road includes a storage unit configured to register and store vehicle terminal specific information, A new block is formed based on reference separation distance information of a vehicle ahead and reference side separation distance information of a side vehicle according to vehicle speed information and speed information, the formed new block is transmitted to each node and stored, Speed information, and vehicle terminal unique information; driving the same road on the basis of the received position information, the speed information, and the vehicle terminal unique information; setting vehicles having the position information within a predetermined distance as a group; transmitting and sharing the vehicle terminal unique information to the vehicle terminals of the set group; receiving and storing determination result information from each node of the blockchain, A management server configured to provide an alarm to vehicle terminals belonging to a corresponding group when distance information of a node belonging to the corresponding group with respect to a vehicle ahead or distance information of a side surface with respect to the vehicle is less than a reference distance, Radar Sensor 1 installed in front of each vehicle belonging to a corresponding group, emitting a transmission wave, and transmitting the transmission wave and a reception wave reflected from the front vehicle to a vehicle terminal; A radar sensor 2 attached to a left side surface of the corresponding vehicle and configured to emit a transmission wave to the vehicle traveling in a left lane about the corresponding vehicle, receive a reflected reception wave, and transmit the transmission wave and the reception wave to the corresponding vehicle terminal; A radar sensor 3 installed on a right side surface of the vehicle and configured to emit a transmission wave to the vehicle traveling in a right lane about the vehicle, receive a reflected reception wave, and transmit the transmission wave and the reception wave to the vehicle terminal; The anti-collision app is installed and receives and stores a new block from a management server, receives position information from a GPS receiver, receives speed information from a speed sensor, transmits the position information, the speed information, and the unique information to the management server, receives and stores unique information of vehicle terminals with respect to vehicles set as a group to which the anti-collision app belongs from the management server, Calculates a

separation distance from the front vehicle around the vehicle based on the transmission wave and the reception wave received from the radar sensor 1, calculates a separation distance from the left vehicle traveling on the left lane based on the transmission wave and the reception wave received from the radar sensor 2, Calculates a separation distance from the right side vehicle traveling in the right lane based on the transmission wave and the reception wave received from the radar sensor 3, The vehicle terminal transmitting information about a distance between the vehicle terminal and the left vehicle traveling in the left lane, information about a distance between the vehicle terminal and the right vehicle traveling in the right lane, Distance information with respect to a vehicle traveling in a left lane, distance information with respect to a vehicle traveling in a right lane, and unique information of a corresponding vehicle terminal from the corresponding vehicle terminals, Determining whether the distance information with respect to the vehicle traveling in the left lane and the distance information with respect to the vehicle traveling in the right lane are less than the reference side distance information, A block chain for transmitting information on each determination result to the management server, and an Internet network or a wireless communication network for connecting the vehicle terminals to the management server through a network.

Distributed system of record transaction receipt handling in an overlay network
EP3732860 A1

Current assignees
AKAMAI TECHNOLOGIES*

Inventors
CARVER DAVID C
CHAMPAGNE ANDREW F

Priority data including date
2017US-62610301 2017-12-26
2018US-16028508 2018-07-06
2018WO-US67440 2018-12-24
2020US-16852787 2020-04-20

IPC - International classification

G06Q-020/06	G06Q-020/38	H04L-009/32
H04L-012/715	H04L-029/08*	H04L-029/12

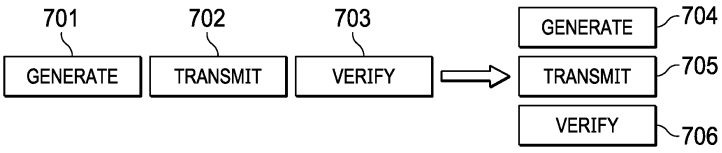
CPC - Cooperative classification

G06Q-020/06/5	G06Q-020/38/2	H04L-009/32/39
H04L-045/64	H04L-063/123	H04L-067/02
H04L-067/108*	H04L-067/2842	H04L-2209/38

Family

EP3732860	A1	2020-11-04	WO2019/133569	A1	2019-07-04
US20200252450	A1	2020-08-06	US20190199787	A1	2019-06-27
US10630769	B2	2020-04-21			

(EP3732860)
A high-performance distributed ledger and transaction computing network fabric over which large numbers of transactions (involving the transformation, conversion or transfer of information or value) are processed concurrently in a scalable, reliable, secure and efficient manner. In one embodiment, the computing network fabric or "core" is configured to support a distributed blockchain network that organizes data in a manner that allows communication, processing and storage of blocks of the chain to be performed concurrently, with little synchronization, at very high performance and low latency, even when the transactions themselves originate from distant sources. This data organization relies on segmenting a transaction space within autonomous but cooperating computing nodes that are configured as a processing mesh. According to an aspect of this disclosure, the CDN edge network is then used to deliver receipts associated with transactions that are processed into the blockchain.



Methods and system for serving targeted advertisements to a consumer device
WO202051598 A2

Current assignees

MADHIVE*

Inventors

BOLLICH TOM
HELFGOTT ADAM
LEARNER REBECCA
PRENDERGAST HUNTER
PAPANIKOLAOU NIKOLAOS MELISSARIS
BROWN AARON

Priority data including date

2018US-62727610 2018-09-06
2019US-16562779 2019-09-06
2019US-16562787 2019-09-06
2019US-16562796 2019-09-06

IPC - International classification

G06F-016/27	G06F-017/18	G06F-021/62
G06Q-030/00*	G06Q-030/02	H04L-009/00
H04L-009/06	H04L-009/08	H04N-021/234
H04N-021/2347	H04N-021/458	H04N-021/81

CPC - Cooperative classification

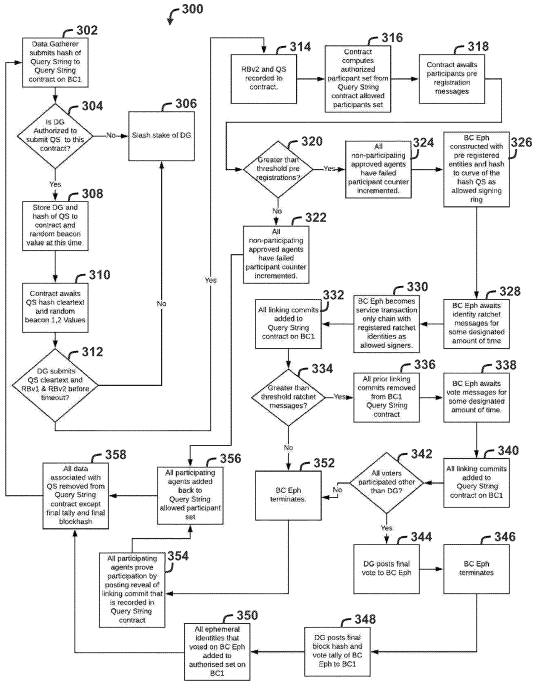
G06F-016/27	G06F-016/9535	G06F-017/18
G06F-021/62/63	G06F-021/64	G06Q-030/02/46*
G06Q-030/02/51	H04L-009/00/6	H04L-009/00/8
H04L-009/06/37	H04L-009/06/43	H04L-009/08/22
H04L-009/32/39	H04L-009/32/55	H04L-009/32/57
H04L-009/32/68	H04L-2209/38	H04L-2209/463
H04N-021/234/24	H04N-021/2347/3	H04N-021/2547
H04N-021/442/04	H04N-021/45/32	H04N-021/458
H04N-021/658/2	H04N-021/81/2	

Family

WO2020/051598	A8	2020-11-05	US20200082433	A1	2020-03-12
WO2020/051598	A3	2020-05-07	US20200084483	A1	2020-03-12
US20200082126	A1	2020-03-12	WO2020/051598	A2	2020-03-12

(WO2020/051598)

A system and methods are disclosed that enable advertisers, publishers, and consumers to interact to provide well-targeted advertisement impressions, while preserving consumer privacy. Particularly, the system and methods enable accurate and reliable targeting of advertisements without the need for privacy-invasive tracking and collection of consumer information by advertisers or publishers. Instead, the consumer retains complete control of his or her own private information, even while that private information is used for programmatic targeting of advertisements. The system and methods disclosed herein advantageously utilize blockchain as a tool for arbitrating data. which accounts for and helps to eliminate fraud, costly arbitrage, and brand safety concerns by providing the programmatic advertising ecosystem with trust, permanence. transparency, and auditability.



Biosignature-based tokenization of assets in a distributed ledger
WO2020222862 A1

Current assignees
ERNST & YOUNG
ERNST & YOUNG SERVICES*

Inventors
CANTERBURY, James C.
KHATAU, Shyam Bharat
HAKIM, Parvez

Priority data including date
2019US-62841874 2019-05-02

IPC - International classification

G06F-021/00	G06F-021/60	G16H-010/40
G16H-010/60*	H04L-009/06	H04L-009/32*

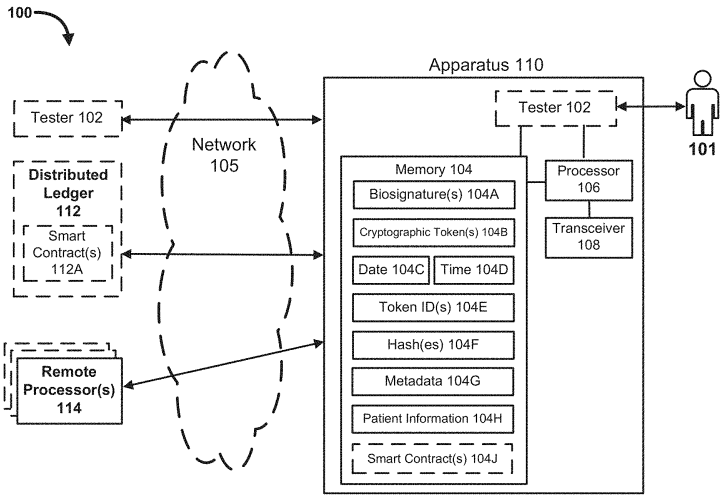
CPC - Cooperative classification

G06F-021/60/2	G16H-010/40	H04L-009/06/37
H04L-009/32/13*	H04L-2209/38	

Family

US20200351094	A1	2020-11-05		WO2020/222862	A1	2020-11-05	

(WO2020/222862)
An apparatus includes a tester to detect a biological signature of a biological sample, a processor, and a memory operably coupled to the processor. The memory stores instructions to cause the processor to receive an indication of the biological signature from the tester, and to generate, using a smart contract and through communication with a distributed ledger, a cryptographic token including a digital identifier based on the biological signature. The cryptographic token is transmitted to a remote processor for verification of the biological sample, in response to receiving the cryptographic token. The tester can detect the biological signature within a predetermined test duration that is less than a DNA sequencing duration associated with the biological sample, and the biological signature has a data precision sufficient to uniquely identify the biological sample from a plurality of biological samples.



High performance distributed system of record
EP3732864 A1

Current assignees

AKAMAI TECHNOLOGIES*

Inventors

CARVER DAVID C
HOUMAN THOMAS
CHAMPAGNE ANDREW F
SHTOKMAN VLADMIR
DEEGAN PATRICK ALEXANDER
MALLIKARJUNA RAMANATH

Priority data including date

2017US-62610298 2017-12-26
2018US-16008085 2018-06-14
2018WO-US67439 2018-12-24
2019US-16371200 2019-04-01

IPC - International classification

G06F-015/16	H04L-009/06	H04L-009/32
H04L-012/24	H04L-012/935	H04L-029/08*

CPC - Cooperative classification

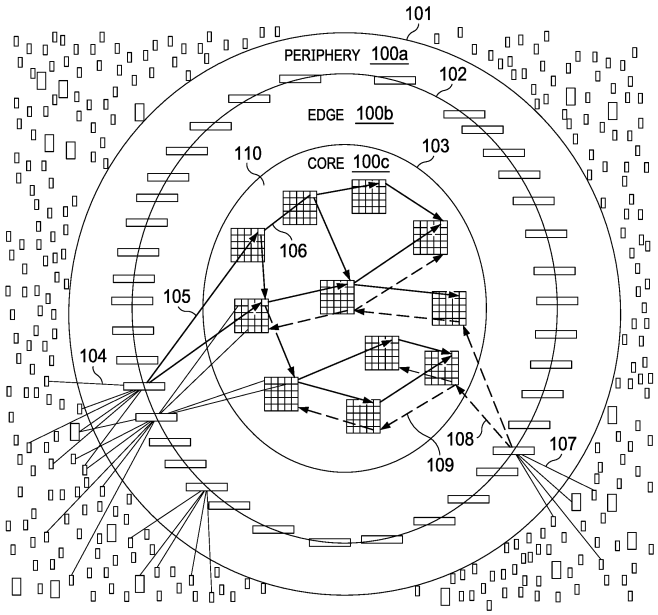
H04L-009/06/37	H04L-009/32/39	H04L-009/32/47
H04L-009/32/97	H04L-067/10	H04L-067/1042
H04L-067/108	H04L-067/1093	H04L-067/1095
H04L-067/12	H04L-067/2823*	H04L-2209/38
H04L-2209/56		

Family

EP3732864	A1	2020-11-04		WO2019/133568	A1	2019-07-04	
US20190230179	A1	2019-07-25		US10250708	B1	2019-04-02	

(EP3732864)

A high-performance distributed ledger and transaction computing network fabric over which large numbers of transactions (involving the transformation, conversion or transfer of information or value) are processed concurrently in a scalable, reliable, secure and efficient manner. In one embodiment, the computing network fabric or "core" is configured to support a distributed blockchain network that organizes data in a manner that allows communication, processing and storage of blocks of the chain to be performed concurrently, with little synchronization, at very high performance and low latency, even when the transactions themselves originate from distant sources. This data organization relies on segmenting a transaction space within autonomous but cooperating computing nodes that are configured as a processing mesh. Each computing node typically is functionally-equivalent to all other nodes in the core. The nodes operate on blocks independently from one another while still maintaining a consistent and logically-complete view of the blockchain as a whole.



Concurrent transaction processing in a high performance distributed system of record EP3732865 A1

Current assignees
AKAMAI TECHNOLOGIES*

Inventors
CARVER DAVID C
AL SHENIBR LEEN KHALID A
SHTOKMAN VLADMIR

Priority data including date
2017US-62610318 2017-12-26
2018US-16053349 2018-08-02
2018WO-US67465 2018-12-26

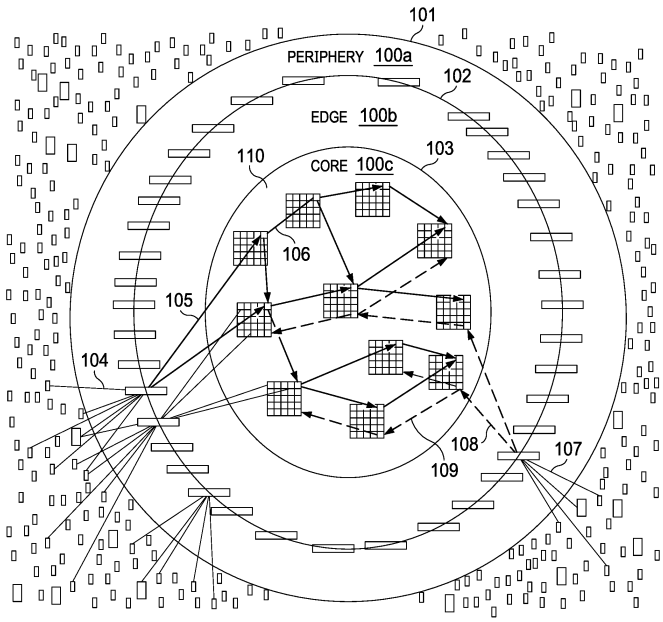
IPC - International classification
G06F-009/46 G06F-021/60 H04L-009/06
H04L-029/08*

CPC - Cooperative classification
G06F-009/46/6 G06F-016/27 G06F-016/275
G06F-017/30/283 G06F-021/60/2 H04L-009/06/37*
H04L-009/06/43 H04L-009/32/39 H04L-063/12
H04L-2209/38

Family

EP3732865	A1	2020-11-04	US20190199515	A1	2019-06-27	
WO2019/133577	A1	2019-07-04				

(EP3732865)
A high-performance distributed ledger and transaction computing network fabric over which large numbers of transactions (involving the transformation, conversion or transfer of information or value) are processed concurrently in a scalable, reliable, secure and efficient manner. In one embodiment, the computing network fabric or "core" is configured to support a distributed blockchain network that organizes data in a manner that allows communication, processing and storage of blocks of the chain to be performed concurrently, with little synchronization, at very high performance and low latency, even when the transactions themselves originate from distant sources. This data organization relies on segmenting a transaction space within autonomous but cooperating computing nodes that are configured as a processing mesh. Each computing node typically is functionally-equivalent to all other nodes in the core. The nodes operate on blocks independently from one another while still maintaining a consistent and logically-complete view of the blockchain as a whole. According to another feature, safe and performant transaction processing is provided using an optimistic concurrently control that includes a collision detection and undo mechanism.



Method and control system for controlling and/or supervising of devices
EP3669497 A1

Current assignees

SIEMENS*

Inventors

JETZFELLNER THOMAS

Priority data including date

2017EP-0197791 2017-10-23
2018EP-0000379 2018-01-22
2018EP-0152750 2018-01-22
2018EP-0162189 2018-03-16
2018EP-0167960 2018-04-18
2018EP-0174922 2018-05-29
2018EP-0753124 2018-08-02
2018WO-EP59891 2018-04-18
2018WO-EP60900 2018-04-27
2018WO-EP71065 2018-08-02
2018WO-EP71066 2018-08-02

IPC - International classification

G06F-016/182	G06F-016/27	G06F-021/62
G06N-007/00	H04L-009/06	H04L-012/28*
H04L-029/08	H04W-028/08	

CPC - Cooperative classification

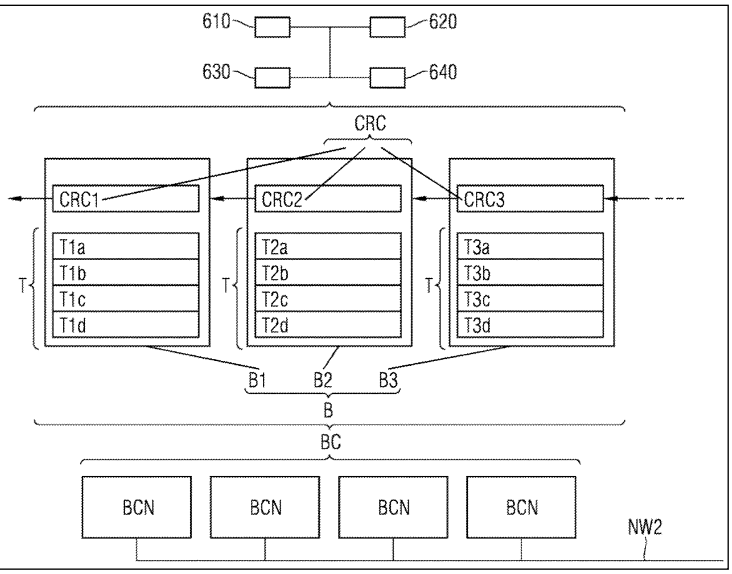
G06F-016/00	G06F-016/1834*	G06F-021/62
H04L-009/06/43	H04L-012/28/16*	H04L-012/28/18*
H04L-012/46/25	H04L-067/1097	H04L-067/12
H04L-2209/38	H04W-028/0983	

Family

US20200351116	A1	2020-11-05	EP3669497	A1	2020-06-24
EP3719713	A1	2020-10-07	EP3669498	A1	2020-06-24
CN111543031	A	2020-08-14	WO2019/081085	A1	2019-05-02
CN111543032	A	2020-08-14	WO2019/081086	A1	2019-05-02
KR10-2020-0076714	A	2020-06-29			

(EP3669497)

The aim of the invention is to manage in a simple manner complex control command chains in a blockchain for a specific task for the purpose of controlling devices. In particular, the invention allows a specified validity to be assigned to a specific task of a blockchain-based device controller, wherein the validity is defined, for example, by the life cycle (e.g. the service life) of a device.



Combined blockchain integrity
US10826685 B1

Current assignees
AMAZON TECHNOLOGIES*

Inventors
Campagna Matthew John

Priority data including date
2016US-15195803 2016-06-28

IPC - International classification

H04L-009/06*	H04L-009/32	H04L-029/08

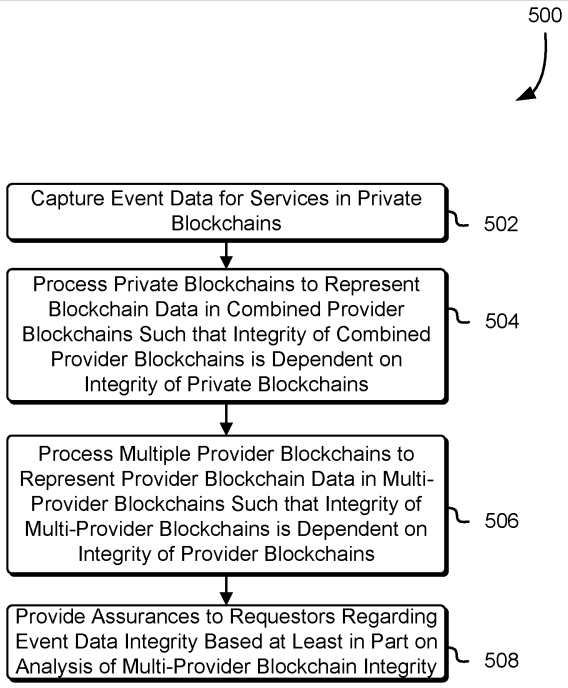
CPC - Cooperative classification

H04L-009/06/37	H04L-009/06/43*	H04L-009/32/39
H04L-009/32/47	H04L-067/02	H04L-067/1097

Family

US10826685	B1	2020-11-03	

(US10826685)
One or more systems implement a plurality of blockchains to track event data. The plurality of blockchains are arranged in tiered form, and the content and/or integrity of blockchains in higher tiers depends on, or at least derives from, the content and/or integrity of the blockchains in lower tiers. Depending on the specific structure and implementation, assurances, verifications, and the like may be provided for services and other resources using such blockchains in a repeatable manner.



Blockchain node initialization
US10826681 B1

Current assignees

OPEN INVENTION NETWORK*

Inventors

Dayan Richard Alan

Priority data including date

2017US-62476445 2017-03-24

IPC - International classification

G06F-009/4401 G06F-016/951 H04L-009/06*
H04L-009/32 H04L-029/06

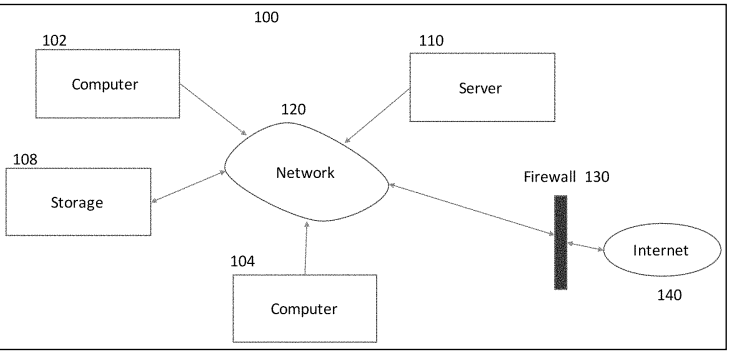
CPC - Cooperative classification

G06F-009/44/01 G06F-016/951 H04L-009/06/37*
H04L-009/32/47 H04L-063/10

Family

US10826681 B1 2020-11-03

(US10826681)
A method comprises one or more of measuring metrics of a node during boot up, storing the metrics, generating a signature record from the stored metrics, and broadcasting the signature record when said node initializes a network connection.



Cryptologic sovereign profile control and exchange arbitration
EP3696708 A1

Current assignees

ACCENTURE GLOBAL SERVICES

ACCENTURE GLOBAL SOLUTIONS*

Inventors

MILLER PATRICIA A

PERKINS SCOTT W

MARSHALL SHANE R

BIDEWELL PETER

IETO RODRIGO YUKIO

Priority data including date

2019US-62806887 2019-02-17

2020US-16792506 2020-02-17

IPC - International classification

G06F-021/60	G06F-021/62*	G06F-021/64
G06Q-020/40	G06Q-040/04	H04L-009/00
H04L-009/32	H04L-029/06	H04L-029/08

CPC - Cooperative classification

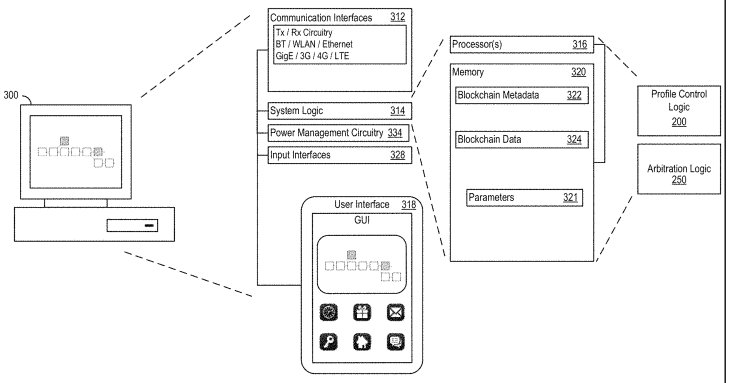
G06F-021/60/2	G06F-021/62/18	G06F-021/62/27*
G06F-021/62/45	G06F-021/64	G06F-2221/2141
G06Q-020/02	G06Q-020/02/7	G06Q-020/06/5
G06Q-020/40/1	G06Q-020/40/16	G06Q-020/40/5
G06Q-040/04	H04L-009/32/36	H04L-009/32/39
H04L-063/102*	H04L-067/02	H04L-067/1097
H04L-2209/38	H04L-2209/56	

Family

US20200349274	A1	2020-11-05		EP3696708	A1	2020-08-19	
CN111585946	A	2020-08-25		US10719623	B1	2020-07-21	

(EP3696708)

A system includes profile control circuitry that may receive a sovereign onboarding command. The sovereign onboarding command may be issued on behalf of a sovereign associated with a profile. The sovereign onboarding command may update a status value in the profile. The profile may be recorded on a data-tamper-protected distributed ledger. Arbitration circuitry may review the recorded profile status value and ensure that status values are enforced against the sovereign during exchanges.



TTS CCTV NB-IoT CCTV LED LED CCTV CCTV The multi-function matrix hash function block chain smart block panel TTS broadcasting system video-audio broadcasting system in premises CCTV retaining coded image NB-IoT maintainer on CCTV in blackbox type solar ray generator of blockchain metering LED streetlamp controlling dimming panel generating solar ray and LED board monitoring thermal burn with processed image of CCTV controlling apparatus of parking and coding a plate CCTV monitoring early fire and its system

KR20190138116 A

Current assignees

CHA, BO YOUNG

Inventors

CHAE, RYEONG

CHA, BO YOUNG

Priority data including date

2018KR-0064279 2018-06-04

IPC - International classification

B82Y-010/00	G06N-099/00	G08B-021/04
G08C-023/04	H04L-009/06	H04L-009/08*
H04L-009/32	H04N-007/18	

CPC - Cooperative classification

B82Y-010/00	G06N-010/00*	G08B-021/04/84
G08C-023/04	H04L-009/06/31	H04L-009/06/43
H04L-009/08/52*	H04L-009/08/63	H04L-009/32/78
H04L-2209/38	H04N-007/18	

Family

KR10-2172688	B1	2020-11-02		KR10-2019-0138116	A	2019-12-12	

(KR10-2019-0138116)

The present invention relates to a quantum main board receiving a quantum random number from a quantum random number generator to generate a symmetric encryption key, and generating an asymmetric encryption key by encrypting the symmetric encryption key with a pseudo random number generated from a pseudo random number generator. According to the present invention, the quantum main board receives an unintentional quantum random number from the quantum number generator to generate a symmetric encryption key which is a three-dimensional matrix function (∑KEY_s (x,y,z)), generates an X coordinate value of a hash function (MAX(x,y,z)) using data values obtained by encrypting MAC address data (M) with the symmetric encryption key (∑KEY_s (x,y,z)) through the pseudo random number generator, generates a Y coordinate value of the hash function (MAX(x,y,z)) using data values obtained by encrypting PUF PIN data (P) with the symmetric encryption key (∑KEY_s (x,y,z)) through the pseudo random number generator, and generates a Z coordinate value of the hash function (MAX(x,y,z)) using data values obtained by encrypting TIME data (T) with the symmetric encryption key (∑KEY_s (x,y,z)) through the pseudo random number generator. The quantum main board compares the X coordinate value and the Y coordinate value of the hash function through the pseudo random number generator, and binarizes to 1 if the X coordinate value is larger than the Y coordinate data value and to 0 if the X coordinate value is smaller than the Y coordinate value to generate asymmetric encryption key by including the TIME data.

KEY_s : 대칭암호키
KEY_{as} : 비대칭암호키
P : PUF 하드웨어 추출 PIN 데이터
M : MAC Address
(x,y,z) : X,Y,Z 3차 행렬 값
MAX : 두 개의 입력변수 ($\frac{1}{M}\sum KEY_s(x,y,z)$, $\frac{1}{P}\sum KEY_s(x,y,z)$)를 비교하여 좌측의 입력변수가 우측의 입력변수 값보다 크면 1, 작으면 0으로 이진화하는 해시함수

$$KEY_{as} = MAX(\frac{1}{M}\sum KEY_s(x,y,z), \frac{1}{P}\sum KEY_s(x,y,z))$$

System and method of providing interoperable distributed and decentralized ledgers using consensus on consensus and delegated consensus

US20200349564 A1

Current assignees

SALESFORCE.COM*

Inventors

Padmanabhan Prithvi Krishnan

Benioff Marc

Priority data including date

2019US-16399686 2019-04-30

IPC - International classification

G06F-016/182 G06Q-020/38* H04L-009/14

CPC - Cooperative classification

G06F-016/1824 G06F-016/1834 G06Q-020/38/29*

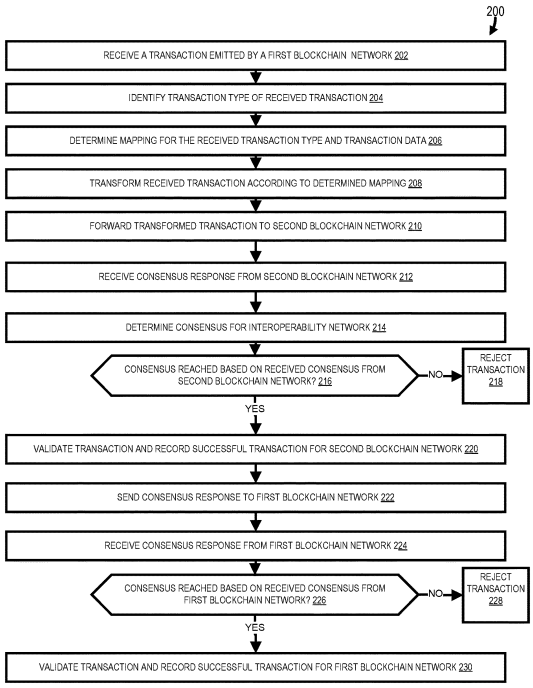
H04L-009/14 H04L-2209/38

Family

US20200349564 A1 2020-11-05

(US20200349564)

A method to enable interoperability between blockchain networks. The method including receiving, by a mapper of an interoperability network, a transaction emitted by a first blockchain network, transforming the received transaction to a transaction compatible with a second blockchain network according to a mapping determined for the received transaction, and forwarding the transformed transaction to the second blockchain network to be processed by the second blockchain network.



Systemic extensible blockchain object model comprising a first-class object model and a distributed ledger technology

US20200348963 A1

Current assignees

PRASAGA*

Inventors

Beberman David Alan

Priority data including date

2019US-62843392 2019-05-04

IPC - International classification

G06F-009/38 G06F-009/448 G06F-009/455
G06F-009/46* G06F-009/54 H04L-009/06

CPC - Cooperative classification

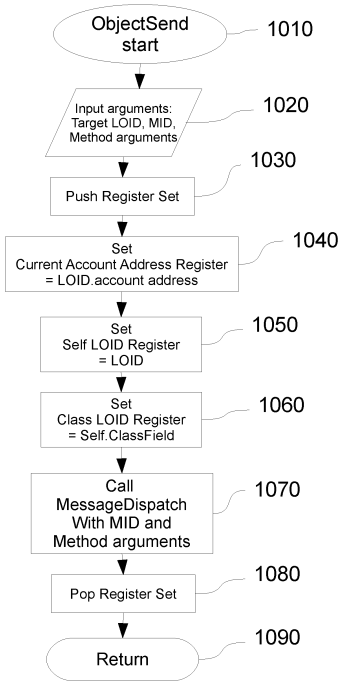
G06F-009/38/36 G06F-009/4492 G06F-009/455/08
G06F-009/455/58 G06F-009/46/6* G06F-009/54/6
H04L-009/06/43 H04L-2209/38

Family

US20200348963 A1 2020-11-05

(US20200348963)

A method for processing one or more message passing transactions sent from one or more client computers to one or more distributed ledger accounts, of one or more distributed ledgers, executed on one or more distributed ledger nodes, themessage passing transactions processed by one or more class manager infrastructure intrinsics.



Systems and/or methods for securing and automating process management systems using distributed sensors and distributed ledger of digital transactions

US20200097876 A1

Current assignees

SOFTWARE*

Inventors

CHIDAMBARAM VIJAY ANAND

RADHAKRISHNAN VARADHAN RAJESH KUMAR

THILAGAR BALAJI

RAVIVARMAN VIJAYANAND

Priority data including date

2018US-16136780 2018-09-20

2018US-16137617 2018-09-21

IPC - International classification

G06Q-010/06* G06Q-020/36 H04L-009/06

H04L-009/32*

CPC - Cooperative classification

G06Q-010/06/315* G06Q-010/06/316 G06Q-010/06/33

G06Q-020/02 G06Q-020/36/74 G06Q-2220/00

H04L-009/06/37 H04L-009/06/43 H04L-009/32/39

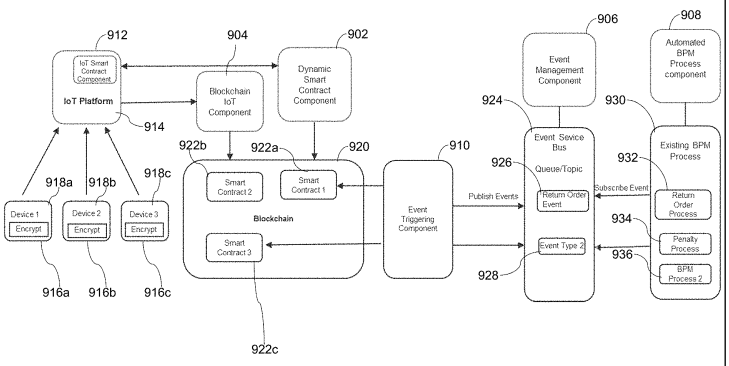
H04L-009/32/47 H04L-2209/38

Family

US10824977	B2	2020-11-03	US20200099531	A1	2020-03-26
US20200097876	A1	2020-03-26			

(US20200097876)

An electronic resource tracking and storage computer system communicates with computing systems operated by different participants. Computing systems store copies of a blockchain and have associated computing devices with sensors. A programmed rule set includes conditions to be met when cooperating to complete, in connection with a resource tracked via the blockchain, a modeled process including modeled tasks. A transceiver receives, from the computing devices, signed electronic data messages including identifiers and values from their respective sensors. Blockchain transactions including identifiers and value(s) in the respective messages are generated. Generated blockchain transactions are published for inclusion in blockchain's copies. Value(s) in the respective electronic data messages are validated against the set of programmed rules. Based on the validations' results, events are emitted to an event bus monitored by a management system. These events selectively trigger the management system to automatically implement modeled tasks in dependence on the validations' results.



Compact state database system
US20200195441 A1

Current assignees

IBM*

Inventors

Suen Chun Hui

Lim Yu Chin Fabian

Priority data including date

2018US-16218847 2018-12-13

IPC - International classification

G06F-016/13 G06F-016/182 H04L-009/06

H04L-009/32*

CPC - Cooperative classification

G06F-016/137 G06F-016/1805 G06F-016/1837

H04L-009/06/18 H04L-009/32/36 H04L-009/32/39*

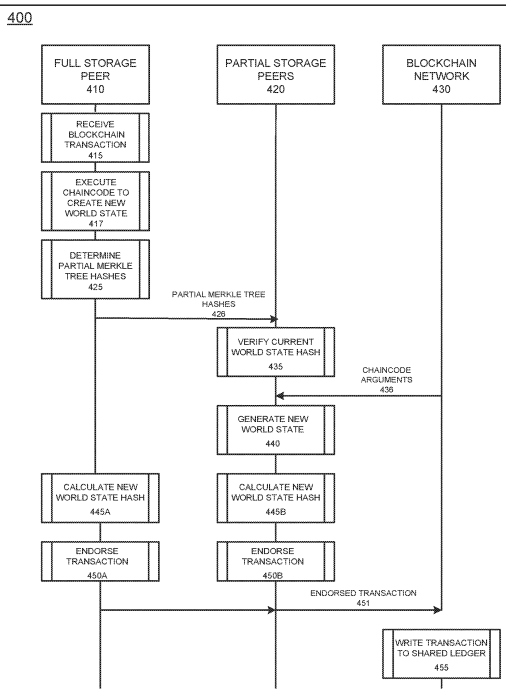
H04L-2209/38

Family

US10826705 B2 2020-11-03 US20200195441 A1 2020-06-18

(US20200195441)

An example operation may include one or more of receiving, by a full storage peer of a blockchain network, a blockchain transaction, executing chaincode to create a new world state for a blockchain, transferring, in response to the blockchain transaction, partial Merkle tree hashes to one or more partial storage peers, the partial Merkle tree hashes corresponding to the blockchain transaction, verifying a current world state hash with the partial Merkle tree hashes, receiving, by the one or more partial storage peers, chaincode arguments, executing chaincode on the chaincode arguments to generate a new world state, calculating a new world state hash, and performing consensus, by the full storage peer and the one or more partial storage peers, on the new world state hash.



Secure client-server communication
US20190243980 A1

Current assignees

CISCO TECHNOLOGY*

Inventors

Inamdar Kaustubh

Salgueiro Gonzalo

Jeuk Sebastian

Priority data including date

2018US-15891434 2018-02-08

IPC - International classification

G06F-021/60*	H04L-009/06	H04L-009/08
H04L-009/32	H04L-029/06	

CPC - Cooperative classification

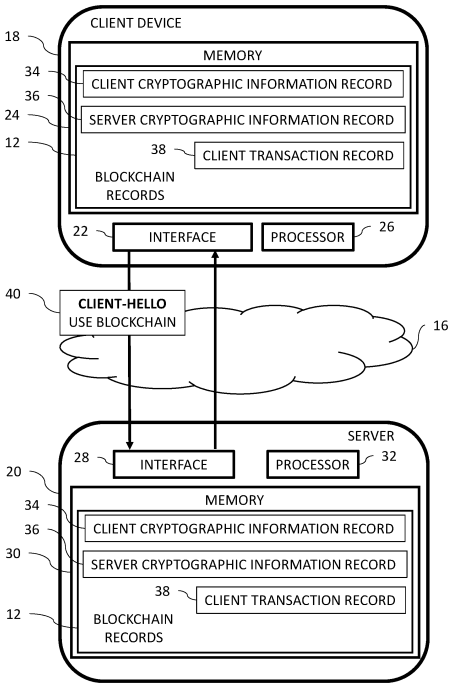
G06F-021/60/6	H04L-009/06/37	H04L-009/06/43
H04L-009/08/61	H04L-009/08/66	H04L-009/08/69
H04L-009/30/13	H04L-009/30/66	H04L-009/32/28
H04L-009/32/39	H04L-063/0272*	H04L-063/0428
H04L-063/061	H04L-063/162	H04L-063/166
H04L-067/42	H04L-2209/38	H04L-2463/061

Family

US10824744	B2	2020-11-03		US20190243980	A1	2019-08-08

(US20190243980)

In one embodiment, a client device includes an interface, a memory to store at least one part of a blockchain, and a processor to generate a client message indicating use of blockchain mode to establish a secure connection between the client device and a server, send the client message to the server on the interface, receive, from the server on the interface, a server message indicating use of the blockchain mode, and securely communicate with the server, on the interface, using at least one cryptographic key generated from information including cryptographic key generation information stored in the blockchain. Related apparatus and methods are also described.



Contact center transaction system that uses a distributed digital ledger
EP3734521 A1

Current assignees
AVAYA*

Inventors
YOUNG JOHN
DEOLE PUSHKAR YASHAVANT
CHAVEZ DAVID
PHILONENKO LAURENT

Priority data including date
2019US-16402069 2019-05-02

IPC - International classification

G06F-021/64	G06Q-010/00*	G06Q-010/06
G06Q-010/10	G06Q-020/06	G06Q-020/36
G06Q-040/04	G06Q-050/10	H04L-009/06
H04M-003/51*		

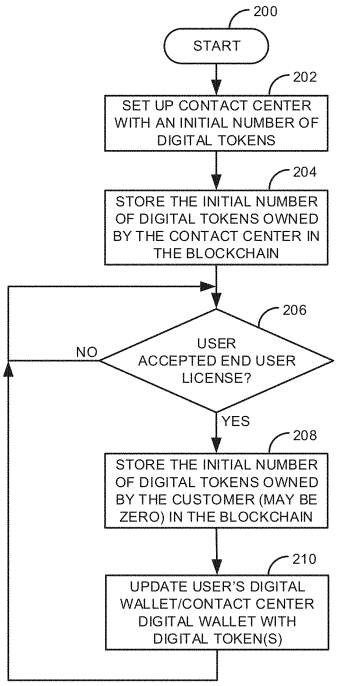
CPC - Cooperative classification

G06Q-010/00*	G06Q-010/06	G06Q-010/10
G06Q-020/06/58	G06Q-020/36/72	G06Q-050/10
H04L-009/06/37	H04M-003/51/75	H04M-003/51/83*

Family

US20200351399	A1	2020-11-05	CN111882433	A	2020-11-03	
EP3734521	A1	2020-11-04				

(EP3734521)
An acceptance of an end user license is received from a user communication endpoint. The acceptance of the end user license causes a smart contract to associate a number of digital tokens (i.e., digital currency) with a user of the user communication endpoint. For example, the user may electronically agree to abide by terms associated with transactions within a contact center. A communication session is established between the user communication endpoint and the contact center. Input is received that indicates that the user wants to have a transaction with the contact center. For example, the transaction may be that the user wants to be moved to the top of a contact center queue. The transaction causes a change to the number of digital tokens associated with the user. The change in digital tokens is then stored in a blockchain associated with the contact center.



Federated identity management with decentralized computing platforms
US20200067907 A1

Current assignees

HYPR*

Inventors

AVETISOV GEORGE
KADINSKY ROMAN
PANEBIANCO ROBERT
SIMIC BOJAN

Priority data including date

2018US-62720590 2018-08-21
2018US-62720609 2018-08-21
2019US-16270255 2019-02-07
2019US-16373561 2019-04-02
2019US-62951945 2019-12-20
2020US-15931461 2020-05-13
2020US-16783028 2020-02-05

IPC - International classification

G06F-016/901	G06F-021/45	G06F-021/62
H04L-009/08	H04L-029/06*	H04L-029/08
H04W-012/06*	H04W-012/08	

CPC - Cooperative classification

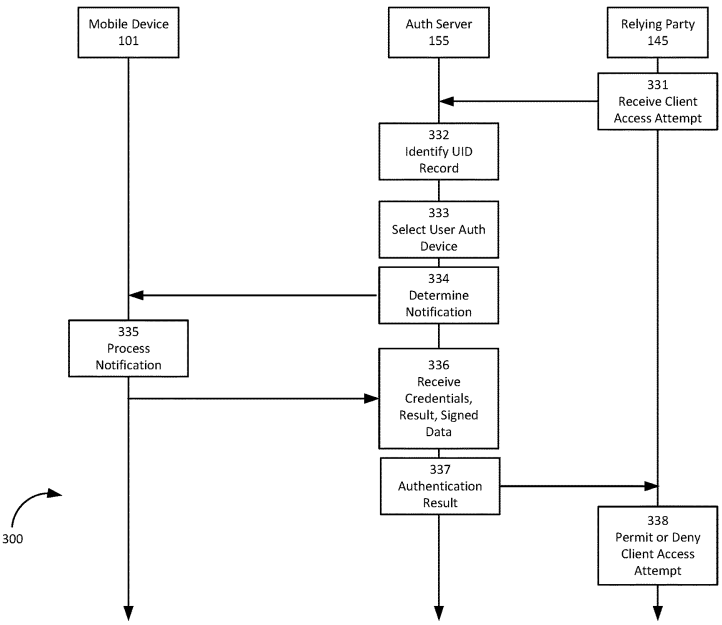
G06F-016/9014	G06F-021/33*	G06F-021/42
G06F-021/45	G06F-021/62/27	G06F-021/71
G06F-2221/2149	H04L-009/06/43	H04L-009/08/25
H04L-009/08/38	H04L-009/08/8	H04L-009/08/97
H04L-009/32/13	H04L-009/32/18	H04L-009/32/34
H04L-009/32/39	H04L-009/32/47*	H04L-009/32/63
H04L-063/062	H04L-063/0815	H04L-063/0823
H04L-063/083	H04L-063/0876	H04L-063/0884*
H04L-063/18	H04L-063/20	H04L-067/025
H04L-067/10	H04L-067/1097	H04L-067/141
H04L-067/145	H04L-067/26	H04L-067/40
H04L-067/42	H04L-2209/38	H04L-2209/56
H04W-012/0608*	H04W-012/0609	H04W-012/08

Family

US20200351660	A1	2020-11-05	US10601828	B2	2020-03-24
US20200287901	A1	2020-09-10	US20200067907	A1	2020-02-27
US20200280855	A1	2020-09-03	US20200067922	A1	2020-02-27
US10764752	B1	2020-09-01			

(US20200067907)

Provided is a process that establishes user identities within a decentralized data store, like a blockchain. A user's mobile device may establish credential values within a trusted execution environment of the mobile device. Representations of those credentials may be generated on the mobile device and transmitted for storage in association with an identity of the user established on the blockchain. Similarly, one or more key-pairs may be generated or otherwise used by the mobile device for signatures and signature verification. Private keys may remain resident on the device (or known and input by the user) while corresponding public keys may be stored in associated with the user identity on the blockchain. A private key is used to sign representations of credentials and other values as a proof of knowledge of the private key and credential values for authentication of the user to the user identity on the blockchain.



Cloud-based super-data tamper-proofing method based on block chain technology
CN111625874 A

Current assignees
HANGZHOU ZCITS TECHNOLOGY*

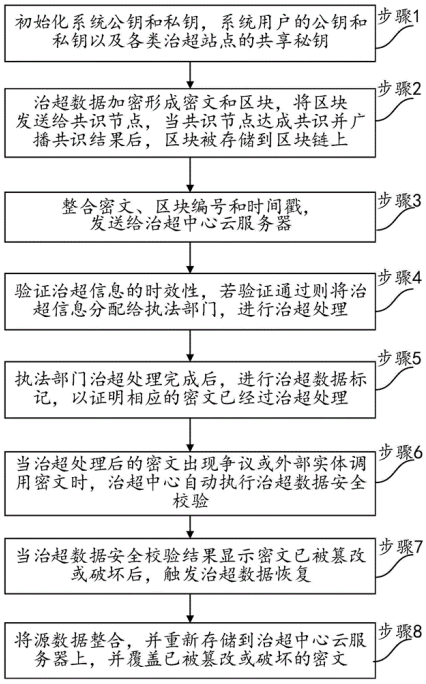
Inventors
LI XIAOCUN
CHEN ZHENYU
XIA YINGJIE
LU ZHISHAN
WANG CHUANHUA

Priority data including date
2020CN-0750996 2020-07-30

IPC - International classification
G06F-021/60 G06F-021/62 G06F-021/64*

Family
CN111625874 B 2020-11-03 CN111625874 A 2020-09-04

(CN111625874)
The application discloses a zone-based data processing methodA cloud-control super-data tamper-proofing method of a block chain technology relates to the technical field of highway super-system control, and comprises the following steps: step 1, the registry initializes the public key and the private key of the system (S)K， PK) Public and private keys (S) of system usersid， Pid) And shared secret Key of various super sitesz-s(ii) a Step 2, encrypting the super data to form a ciphertext CT1And block CT2Block CT2Stored onto the blockchain; step 3, integrating the ciphertext CT for the station with the super station1Block number BlockIDAnd a time stamp T1Sending the data to a cloud server of the super center; step 4, checking timeliness, and performing overtaking treatment by law enforcement departments; step 5, carrying out super-therapeutic data marking; step 6, the control over center executes control over data safety check; step 7, judging whether a data recovery mechanism is triggered; step 8, the control super center covers the tampered or damaged ciphertext CT with the source data1. The application has the effects of preventing the super data from being tampered and accurately controlling the super.



Digital identity authentication method, device, apparatus and system, and storage medium

WO2020191928 A1

Current assignees

SHENZHEN ONETHING TECHNOLOGY*
SHENZHEN WANGXIN TECHNOLOGY

Inventors

ZHANG XIAO

Priority data including date

2019CN-0238454 2019-03-27

IPC - International classification

H04L-009/08 H04L-009/32 H04L-029/06*

Family

CN109951489	B	2020-11-03	CN109951489	A	2019-06-28	
WO2020/191928	A1	2020-10-01				

(WO2020/191928)
A digital identity authentication method, device, apparatus and system, and a computer-readable storage medium. The digital identity authentication method is applied to a blockchain platform and comprises: in response to a digital identity information acquisition request sent by a user terminal, sending a digital identity information ciphertext of a target user to the user terminal, so that the user terminal decrypts the digital identity information ciphertext to generate a digital identity information plaintext; and in response to a digital identity information acquisition request sent by a verification terminal, sending the digital identity information ciphertext of the target user and a security level to the verification terminal, so that the verification terminal determines whether the digital identity information ciphertext matches the digital identity information plaintext submitted by the user terminal, and if yes, performing security verification corresponding to the security level on the user terminal. The present invention can meet the customized demands for various authentication modes, and improves the security and reliability of digital identity authentication.

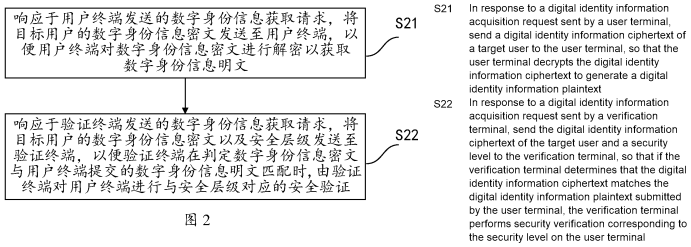


图 2

Stellar banks external transaction agent for international remittance on stellar network US20200349638 A1

Current assignees
Raiz Haim S.

Inventors
Raiz Haim S.

Priority data including date
2019US-62841071 2019-04-30

IPC - International classification

G06Q-020/10	G06Q-040/02*	H04L-009/06

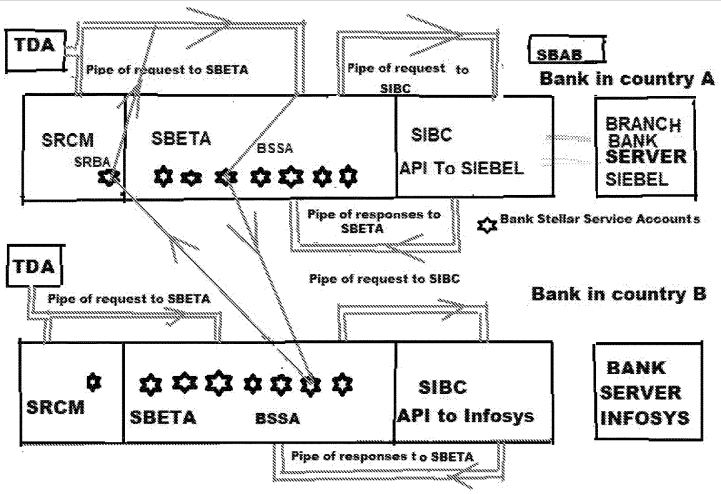
CPC - Cooperative classification

G06Q-020/10/8	G06Q-040/02*	H04L-009/06/37

Family

US20200349638 A1 2020-11-05

(US20200349638)
Architecture and main solution of a computer software system, which provides banks transaction operations between each other on Stellar blockchain. Bank's blockchain solution allows efficient use of network to provide parallel services of international transactions with real time accepted requirements. Blockchain solution for banks greatly improves global banks connectivity.



Multi-layered image encoding for data block
US20200351075 A1

Current assignees

IBM*

Inventors

Griffin Adam L.
Tummalapenta Srinivas B.
Givental Gary I.
Khademi Wesley A.
Bhatia Aankur

Priority data including date

2019US-16401586 2019-05-02

IPC - International classification

G06F-016/27	G06F-016/53	G06T-009/00
H04L-009/06*	H04L-009/08	H04L-009/32
H04N-019/174		

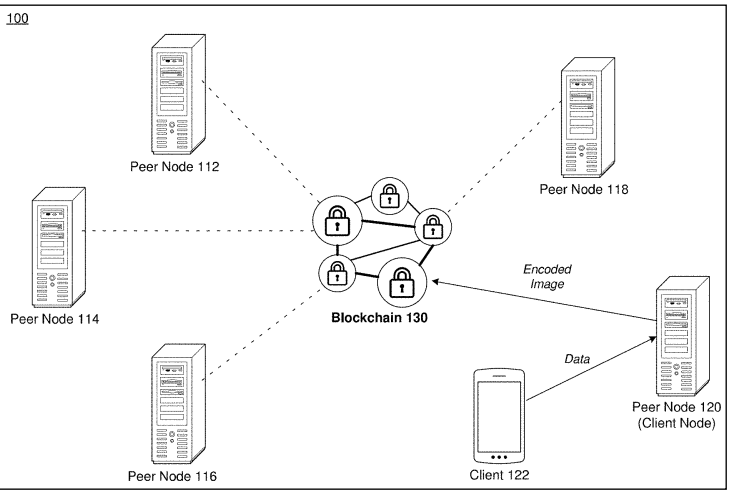
CPC - Cooperative classification

G06T-009/00	H04L-009/06/37*	H04L-009/08/94
H04L-009/32/36	H04L-2209/38	H04N-019/174

Family

US20200351075	A1	2020-11-05		CN111881206	A	2020-11-03

(US20200351075)
An example operation may include one or more of retrieving a predefined image from a storage, encoding data attributes to be stored on a blockchain into one or more image layers of the predefined image to generate an encoded image, generating a data block comprising the encoded image including the data attributes which are encoded into the one or more image layers, and storing the data block via a hash-linked chain of data blocks on a distributed ledger.



Secure processing of electronic transactions by a decentralized, distributed ledger system

EP3549080 A1

Current assignees

R3*

Inventors

HEARN CHRISTOPHER MICHAEL

ASARI QURRATUL AIN SHAMS

Priority data including date

2016US-15243402 2016-08-22
2016US-15243473 2016-08-22
2016US-15243902 2016-08-22
2016US-15364213 2016-11-29
2016US-62323952 2016-04-18
2016US-62427685 2016-11-29
2017WO-GB53604 2017-11-29
2019US-16679924 2019-11-11
2019US-16680055 2019-11-11
2019US-16680108 2019-11-11
2019US-16680154 2019-11-11
2020US-16890285 2020-06-02

IPC - International classification

G06Q-020/02*	G06Q-020/06*	G06Q-020/36
G06Q-020/38	G06Q-040/00	G06Q-050/18
H04L-009/32		

CPC - Cooperative classification

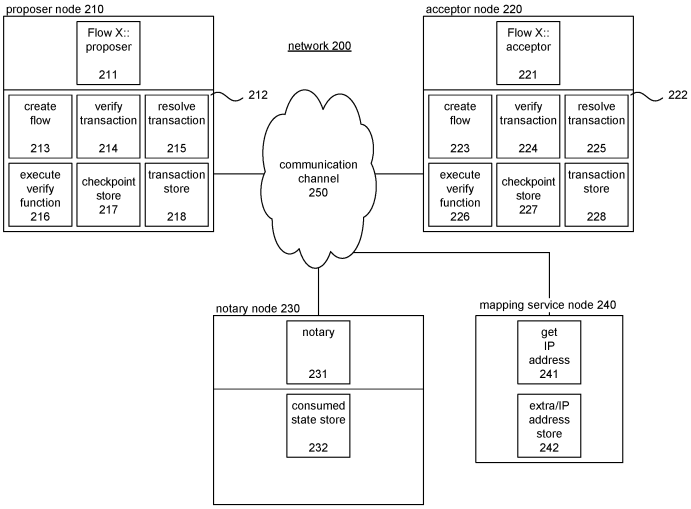
G06Q-020/02*	G06Q-020/06/5*	G06Q-020/06/5*8
G06Q-020/22/3	G06Q-020/38/1	G06Q-020/38/2
G06Q-020/38/215	G06Q-020/38/25	G06Q-020/38/27
G06Q-020/38/29	G06Q-020/38/9	G06Q-040/12
G06Q-050/18	G06Q-2220/00	H04L-009/32/36
H04L-009/32/39	H04L-009/32/47	H04L-009/32/97
H04L-2209/38	H04L-2209/56	

Family

US20200349532	A1	2020-11-05	US20200074422	A1	2020-03-05	
US20200302409	A1	2020-09-24	US10521775	B2	2019-12-31	
US20200082362	A1	2020-03-12	EP3549080	A1	2019-10-09	
US20200082363	A1	2020-03-12	WO2018/100371	A1	2018-06-07	
US20200082364	A1	2020-03-12	US20170352012	A1	2017-12-07	

(EP3549080)

A method and system are provided to support a decentralized distributed ledger in which transactions are recorded by parties to the transactions without the use of a blockchain. A distributed ledger system provides a protocol framework that supports the development of protocol flows. A protocol flow is computer code that controls the performance of a transaction by the party or parties to the transaction. Protocol flows can be developed for different types of transactions. The distributed ledger system allows transactions to be proposed, accepted, and notarized by a notary and stored without the use of a blockchain ledger. The distributed ledger system can avoid the expense of the computational and storage resources needed to redundantly verify a transaction and store evidence on the many nodes of a blockchain distributed ledger.



Data authorization method and system
CN109995791 A

Current assignees
TSINGHUA UNIVERSITY*

Inventors
YIN HAO
WANG KAI
DONG JIAQING

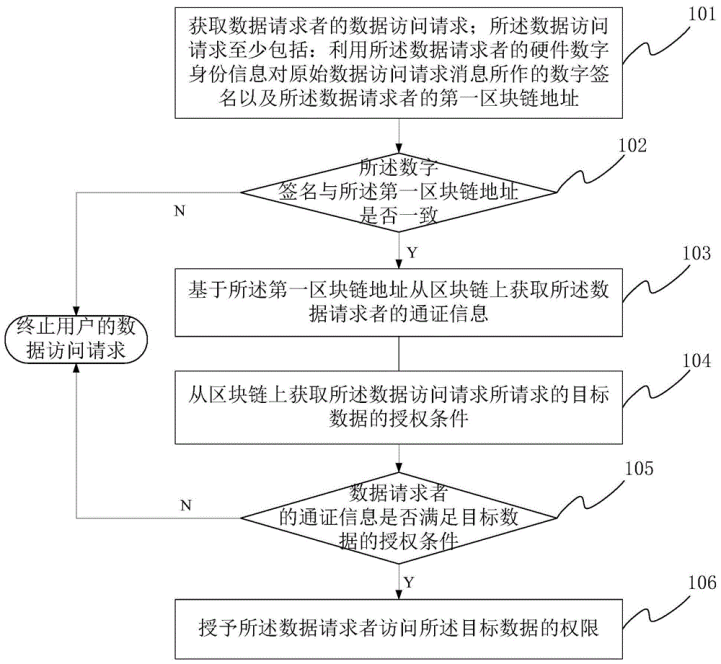
Priority data including date
2019CN-0290498 2019-04-11

IPC - International classification
H04L-009/32 H04L-029/06*

CPC - Cooperative classification
H04L-009/32/47* H04L-063/0876 H04L-063/102
H04L-063/105 H04L-2209/38

Family
CN109995791 B 2020-11-03 CN109995791 A 2019-07-09

(CN109995791)
The invention provides a data authorization method and system. According to the data authorization method and system, certificate passing information of multiple users and authorization conditions ofdifferent data owned by the multiple users are stored in a chain in advance based on a block chain technology; and data authority authentication is carried out on the data requester by utilizing the on-chain pass information and data authorization conditions of different data owners, so that a data authorization scheme based on the block chain pass system is realized. According to the invention, the blockchain pass system is designed; the consistency of data interaction authorities of various data owners (such as different operation entities to which different network applications belong) canbe opened based on the pass of the chain universally recognized consensus; generalization, standardization and flattening of data authorization mechanisms of different data owners are effectively achieved, so that flexibility and high efficiency of data authorization are improved, and safety sharing and value protection of data in a dynamic network space can be better supported.



Radiomap generation apparatus and method of operating the same
KR20200124015 A

Current assignees

SK PLANET*

Inventors

JEON, Jinho

Priority data including date

2019KR-0047342 2019-04-23

IPC - International classification

H04W-012/00 H04W-012/04 H04W-012/10*
H04W-084/12

CPC - Cooperative classification

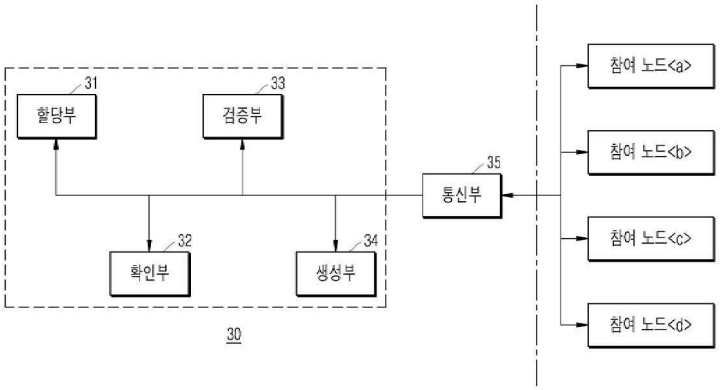
H04W-012/00516* H04W-012/0401 H04W-012/1004
H04W-084/12

Family

KR10-2020-0124015 A 2020-11-02

(KR10-2020-0124015)

An apparatus and method for generating a fingerprint radio map based on wireless LAN sensing data collected in a wireless LAN environment are provided.



Medical record storage, sharing and security claim settlement model and method based on a block chain

CN110008746 A

Current assignees
DALIAN UNIVERSITY OF TECHNOLOGY

Inventors
LI FENGQI
LIU KEMENG
ZHANG LUPENG

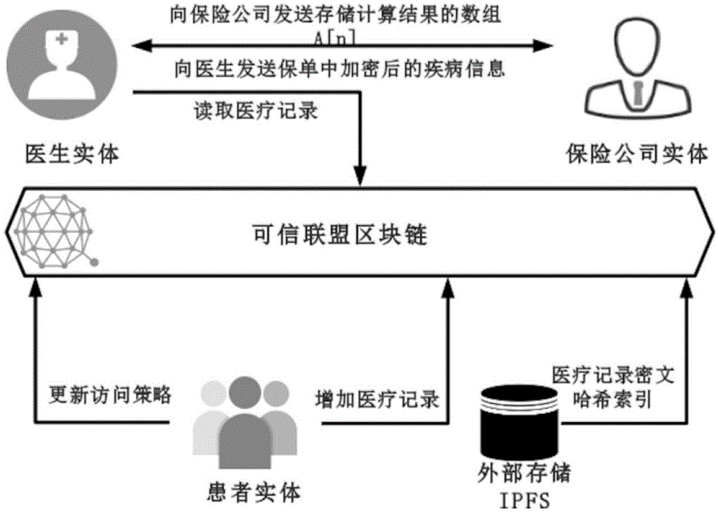
Priority data including date
2019CN-0255280 2019-04-01

IPC - International classification
G06F-021/62* G16H-010/00

CPC - Cooperative classification
G06F-021/62/54* G06F-021/62/72 G16H-010/00

Family
CN110008746 B 2020-11-03 CN110008746 A 2019-07-12

(CN110008746)
The invention belongs to the technical field of medical data management, and relates to a medical record storage, sharing and security claim settlement model and method based on a block chain. Firstly, credible sharing of medical data of patients among medical institutions is achieved through the blockchain technology, and a lifelong medical record is established for the patients; based on a Hashchain type storage structure, the medical data cannot be tampered; secondly, an improved CP-ABE-based cryptographic primitive SHDPCPC-CP-ABE is proposed, security encryption and fine-grained access control on the medical data are realized, and a patient can conveniently and efficiently access and authorize a medical institution to read the medical data; and finally, a Paillier homomorphic encryption technology is utilized to realize safe medical insurance claim settlement, and the privacy of the patient is protected when the patient interacts with a third-party non-medical institution. According to the invention, security, confidentiality, reliability and integrity of medical data can be realized, and confidential sharing of private data is supported.



Decentralized policy publish and query system for multi-cloud computing environment
US20200034548 A1

Current assignees
EMC IP HOLDING*

Inventors
Wu Pengfei
Todd Stephen J.
Wang Kun

Priority data including date
2018US-16048785 2018-07-30

IPC - International classification

G06F-021/60*	H04L-009/06	H04L-029/06

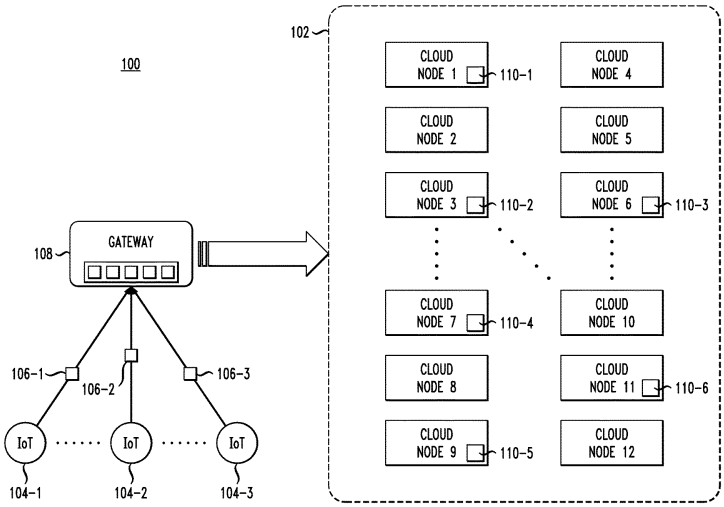
CPC - Cooperative classification

G06F-021/60/2	G06F-021/64	G06F-2221/2145
H04L-009/06/37	H04L-009/32/39*	H04L-063/0823
H04L-063/0876	H04L-063/20	H04L-2209/38

Family

US10824740	B2	2020-11-03		US20200034548	A1	2020-01-30

(US20200034548)
A given policy file is obtained at a publishing node of a decentralized system of nodes, wherein the given policy file defines a policy that applies to at least a subset of nodes in the decentralized system of nodes. The given policy file is sent to a decentralized storage network for storage therein. Storage metadata is received from the decentralized storage network, wherein the storage metadata represents address information associated with storage of the given policy file in the decentralized storage network. The publishing node generates policy file retrieval metadata based on the storage metadata received from the decentralized storage system. The policy file retrieval metadata is sent to a blockchain network for storage therein. One or more querying nodes of the decentralized system of nodes access the blockchain network to obtain the policy file retrieval metadata in order to then retrieve the policy file from the decentralized storage network.



Method and device for broadcasting messages
EP3531618 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*
ALIBABA GRUP KHOLDING
ALIBABA HOLDING
INNOVATIVE ADVANCED TECHNOLOGY

Inventors

LI NING

Priority data including date

2017CN-0182459 2017-03-24
2018WO-CN79435 2018-03-19
2019US-16516841 2019-07-19
2020US-16917393 2020-06-30

IPC - International classification

G06F-009/54*	G06F-016/182	H04L-009/06
H04L-012/18*	H04L-012/58	H04L-029/02
H04W-004/06		

CPC - Cooperative classification

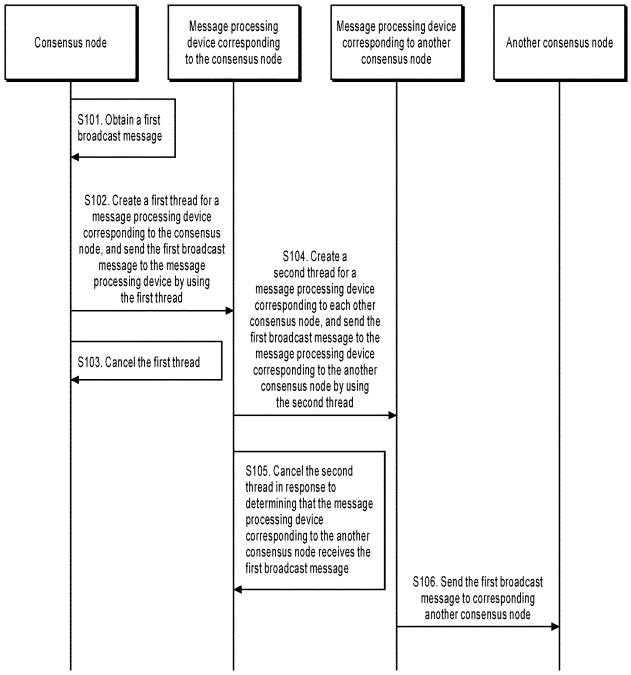
G06F-009/54/2*	G06F-016/1837	H04L-009/06/37
H04L-009/32/39	H04L-012/18	H04L-012/18/54*
H04L-012/18/63	H04L-012/18/68	H04L-2209/38

Family

US10824485	B2	2020-11-03	BR112019010520	A2	2019-09-17
US20200334090	A1	2020-10-22	EP3531618	A1	2019-08-28
AU2018240583	B2	2020-09-03	MX2019005982	A	2019-08-12
RU2730039	C1	2020-08-14	KR10-2019-0069554	A	2019-06-19
CN107196772	B	2020-03-13	AU2018240583	A1	2019-06-06
JP2020504928	A	2020-02-13	BR112019010520	A1	2019-06-04
VN67181	A	2019-12-25	TW201836372	A	2018-10-01
PH12019501151	A1	2019-12-16	CA3044603	A1	2018-09-27
US20190340042	A1	2019-11-07	WO2018/171543	A1	2018-09-27
EP3531618	A4	2019-10-02	CN107196772	A	2017-09-22
IN201947020632	A	2019-09-20			

(EP3531618)

Disclosed are a method and device for broadcasting messages. A message processing device is allocated to each consensus node, and work of broadcasting messages among various consensus nodes is performed by various message processing devices. For a certain consensus node, the message processing device corresponding thereto can create a thread with respect to the message processing devices corresponding to the other consensus nodes, and perform the task of broadcasting messages until the message processing devices corresponding to the other consensus nodes receive the broadcast message. In this way, the thread performing the task of broadcasting messages only consumes a computing resource of the message processing devices, and does not consume a resource of the consensus nodes, and therefore does not burden the consensus nodes, so that the consensus nodes can perform consensus verification on a service more efficiently.



Automatic playing method, device and equipment of electronic image and storage medium

CN111599449 A

Current assignees
PINGAN INTERNATIONAL SMART URBAN TECHNOLOGY*

Inventors
YE CHUNYI
LIU MEILAN

Priority data including date
2020CN-0728370 2020-07-27

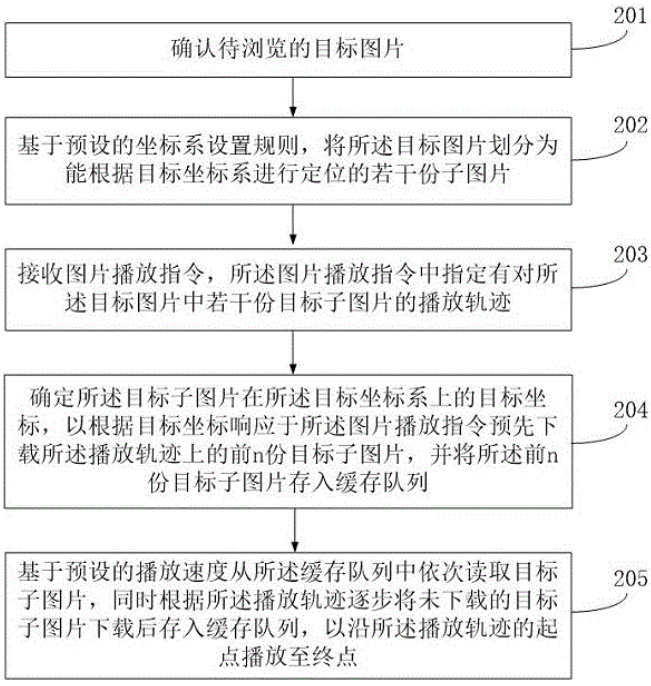
IPC - International classification
G06F-016/54 G16H-030/20*

CPC - Cooperative classification
G06F-016/54 G16H-030/20*

Family

CN111599449	B	2020-11-03		CN111599449	A	2020-08-28

(CN111599449)
The embodiment of the application discloses an automatic playing method, device and equipment of an electronic image and a storage medium, and relates to the technical field of artificial intelligence. The method comprises the following steps: confirming a target picture; dividing the target picture into a plurality of sub-pictures; receiving a picture playing instruction; downloading the first n target sub-pictures on the playing track in advance, and storing the first n target sub-pictures into a cache queue; and sequentially reading the target sub-pictures from the buffer queue to play the target sub-pictures to the end point along the starting point of the playing track. The application also relates to a blockchain technology for storing the picture data to a blockchain network. The method adopts the playing path of the pre-simulated picture, downloads the picture in advance by a strategy of taking a plurality of steps more than the current playing of the picture, can reduce the pause of the subsequent automatic playing process while ensuring that the pressure of the server is lower, and can complete the automatic playing of the whole picture only by clicking the playing, thereby facilitating the reading operation of the user and improving the reading experience of the user.



A system and method for peer-to-peer automatic teller machine transactions
WO2020223570 A1

Inventors
KIKINIS, Dan
BIRGER, Ari
IYER, Sree

Priority data including date
2019US-16660695 2019-10-22
2019US-16684517 2019-11-14
2019US-16696352 2019-11-26
2019US-62841020 2019-04-30
2020US-16747429 2020-01-20
2020US-16747982 2020-01-21
2020US-16748213 2020-01-21
2020US-16796159 2020-02-20
2020US-16862419 2020-04-29
WOPCT/US19/041500 2019-07-11

IPC - International classification
G06Q-020/18* G06Q-020/32 G06Q-020/36

Family
WO2020/223570 A1 2020-11-05

(WO2020/223570)
A system and method for true peer-to-peer automatic teller machine transactions using mobile device payment systems, where a user may receive physical cash in exchange for digital currency from another user, without either one of them having to have a merchant account or a credit/ debit card clearing system through a payment processor, comprising a smartphone with an associate peer-to-peer ATM application, blockchain datastore, GPS satellite, cellular tower, and smart wallet application.

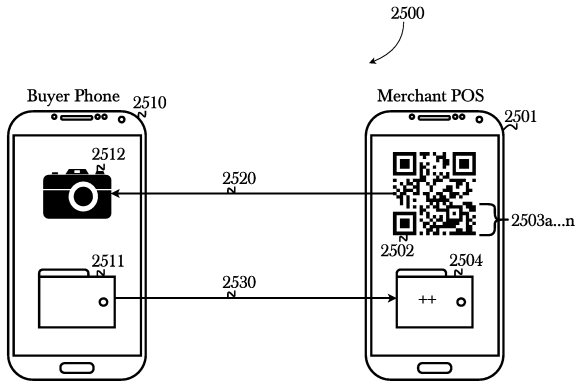


Fig. 24

Log-structured storage systems
EP3673376 A2

Current assignees

ADVANCED NEW TECHNOLOGIES*

ALIBABA HOLDING

Inventors

TIAN SHIKUN

Priority data including date

2019CN-80004845 2019-09-12

2019WO-CN105708 2019-09-12

IPC - International classification

G06F-012/00* G06F-016/13 G06F-016/17

G06F-016/22*

CPC - Cooperative classification

G06F-003/06/05 G06F-003/06/1* G06F-003/06/4

G06F-003/06/47 G06F-003/06/7 G06F-003/06/85

Family

CN111886591	A	2020-11-03	SG11202002587T	A	2020-04-29
WO2019/228570	A3	2020-07-09	WO2019/228570	A2	2019-12-05
EP3673376	A2	2020-07-01			

(EP3673376)

Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage devices, for data processing. One of the methods includes determining, by a storage system from an index log file, information of a data log file stored in a storage device. The data log file includes one or more of block data, transaction data, or state data generated by a blockchain network. The storage system determines whether the data log file needs a rewritten placement. In response to determining that the data log file needs a rewritten placement, the storage system determines a source storage location of the data log file, reads the data log file from the source storage location, rewrites the data log file to a destination storage location; and generates a destination index log file that indicates the destination storage location corresponding to the data log file.

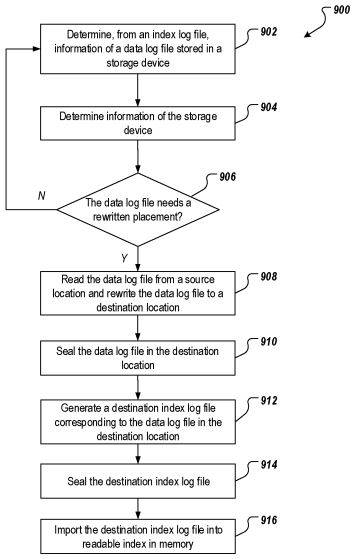


FIG. 9

System and Method for Providing Prerence Verification and Management Platform
KR20200123947 A

Current assignees
KIM, KI-BUM

Inventors
KIM, KI-BUM

Priority data including date
2019KR-0047138 2019-04-23

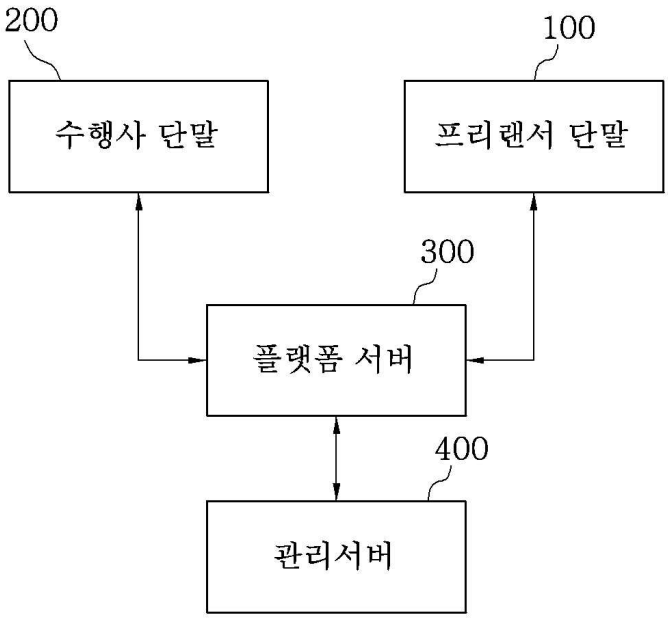
IPC - International classification
G06Q-010/06* G06Q-010/10

CPC - Cooperative classification
G 0 6 Q - G06Q-010/06/393* G06Q-010/06/398
0 1 0 / 0 6 / 3 1 1 2 *
G06Q-010/10/53

Family
KR10-2020-0123947 A 2020-11-02

(KR10-2020-0123947)

The present invention relates to a system and method for providing a prelocator verification and management platform. the system for providing a prelocator verification and management platform includes a prelocator terminal configured to input and register prelocator information to perform a project, query project information to be performed, and generate interview information for participating projects, A presenter terminal configured to search for information of the prelocator terminal and transmit prelocator matching request information optimized for the provided project information; and a controller configured to transmit matching result information to the prelocator terminal and the presenter terminal by matching the prelocator information and the project information in cooperation with the prelocator terminal and the presenter terminal, A platform server configured to receive the interview information from the prelocator terminal, store the received interview information, and transmit the stored interview information to the performer terminal, And a management server storing the prelocator information, project information, and analysis result information of the prelocator evaluation big data, and generating contract information to make a contract for employment between the prelocator terminal and the performer terminal.



Smart contract call single point of execution system
WO202042587 A1

Current assignees
WEALEDGER NETWORK TECHNOLOGIES
WEALEDGER NETWORK TECHNOLOGY*

Inventors
CHEN FEIYANG
CHENG WENBIN
XU MINXUN

Priority data including date
2018CN-0978754 2018-08-27

IPC - International classification
H04L-009/32* H04L-029/06*

CPC - Cooperative classification
H04L-009/32/47 H04L-063/08* H04L-063/12

Family

CN109067759	B	2020-11-03	CN109067759	A	2018-12-21	
WO2020/042587	A1	2020-03-05				

(WO2020/042587)
The present invention is applicable in a blockchain network comprising multiple nodes and a virtual machine. Provided is a smart contract call single point of execution system. The system comprises a contract calling node, used for generating and broadcasting a contract call; multiple contract call execution nodes; one contract call single point of execution node, used for executing the contract call and broadcasting a contract call execution result; a mining node, used for packing the contract call execution result to generate a block and broadcasting the block; and multiple block synchronizing node, used for synchronizing blocks. The embodiments of the present invention, by specifying a contract execution address in the contract call, ensure that the contract call can only be executed by a single node at the first moment, thus effectively solving the technical problem of resource wastage found in the prior art as a result of multiple nodes competing to execute the contract call and to pack the execution result but employing only the result of a single node. At the same time, the addition of a private key signature verification to packing and synchronization processes ensures the validity of the execution result.

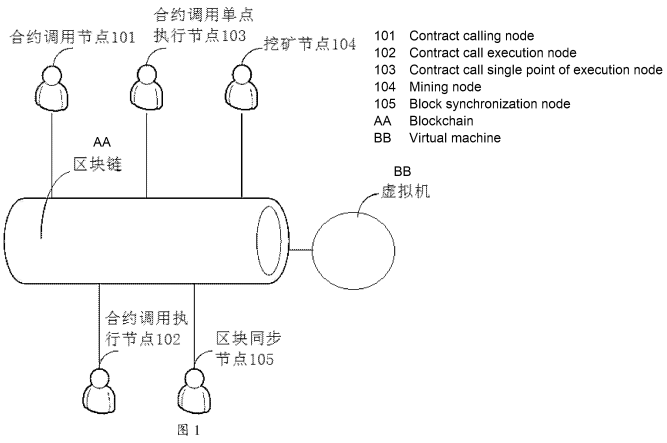


图 1

Index management for a database
US20200349194 A1

Current assignees
IBM*

Inventors
Kundu Ashish
Mohania Mukesh K.
Vo Hoang Tam
Sura Zehra N.

Priority data including date
2019US-16401277 2019-05-02

IPC - International classification

G06F-016/22	G06F-016/23	G06F-016/2458
G06F-016/27	G06F-016/901*	G06F-016/903
G06F-021/64	G06Q-040/04	H04L-009/06

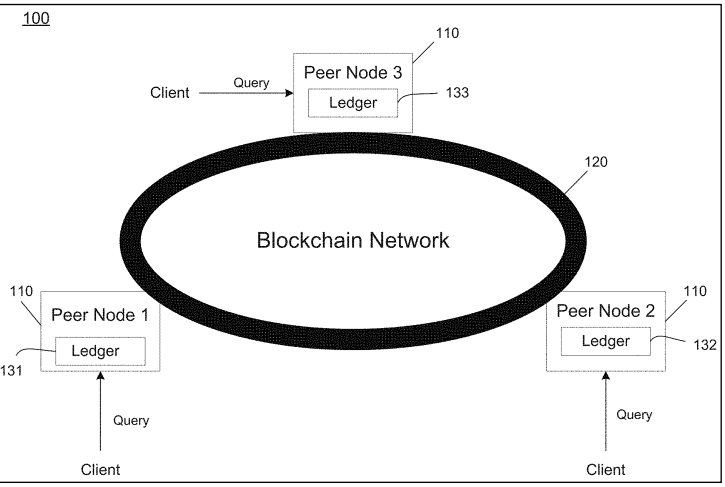
CPC - Cooperative classification

G06F-016/901*	G06F-016/903	H04L-009/06/37
H04L-009/06/43	H04L-2209/38	

Family

US20200349194	A1	2020-11-05		CN111881129	A	2020-11-03

(US20200349194)
An example operation may include one or more of generating a proposal to perform a ledger operation at a first node, informing one or more second nodes of the proposal, receiving a decision on consensus among the first node and the one or more second nodes for the proposal, and performing the ledger operation at the first node when there is consensus, wherein the ledger operation changes a state database of a ledger of the first node and wherein the state database corresponds to a blockchain stored in the ledger.



System and method of validating Internet of Things (IOT) devices
US10826684 B1

Current assignees

SYNIVERSE TECHNOLOGIES*

Inventors

Winter Craig

Morrow Monique Jeanne

Priority data including date

2019US-62858099 2019-06-06

IPC - International classification

H04L-009/06* H04L-009/32 H04L-012/26

H04L-029/06 H04W-084/18

CPC - Cooperative classification

H04L-009/06/37* H04L-009/32/36 H04L-009/32/97

H04L-043/10 H04L-063/101 H04L-2209/38

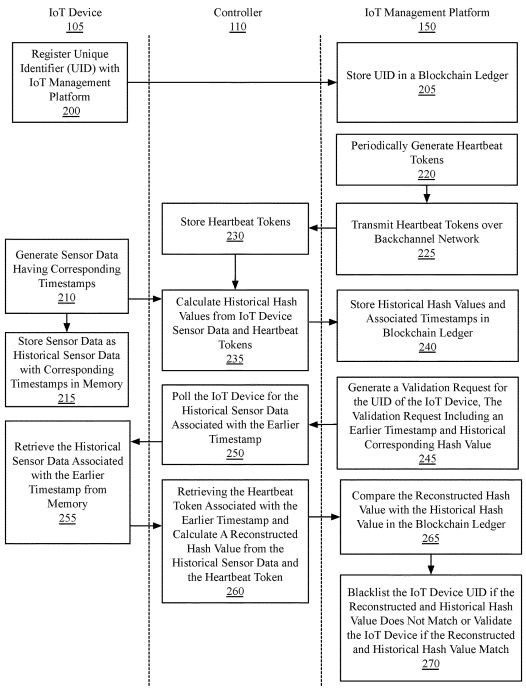
H04W-084/18

Family

US10826684 B1 2020-11-03

(US10826684)

A system and method for validating an Internet of Thing (IoT) device on an IoT network. The IoT device captures and stores the historical sensor values, along with corresponding timestamps in a local memory. A controller receives the historical sensor values and also receives a heartbeat token over a network that is different than the IoT network. The controller calculates a historical hash value using the historical sensor value and the heartbeat token as inputs and stores the historical hash values and the corresponding timestamp in a blockchain ledger of an IoT management platform. At a later time, in response to a validation request from the IoT management platform, the controller polls the IoT device for the historical sensor value associated with a particular timestamp. The IoT device responds with the stored historical sensor value and the controller calculates a reconstructed hash value using the historical stored sensor value and a stored heartbeat token as inputs. If the reconstructed hash value matches the historical hash value, the IoT device is validated.



Adaptive distributive data protection system
US20200351310 A1

Current assignees
VIRTUSTREAM IP HOLDING*

Inventors
Leighton Gregsie
Bernotas Julius
Simaitis Vaidotas

Priority data including date
2019US-16402495 2019-05-03

IPC - International classification

G06F-021/62	G06K-009/62	G06N-020/00
H04L-009/06	H04L-009/32	H04L-029/06*

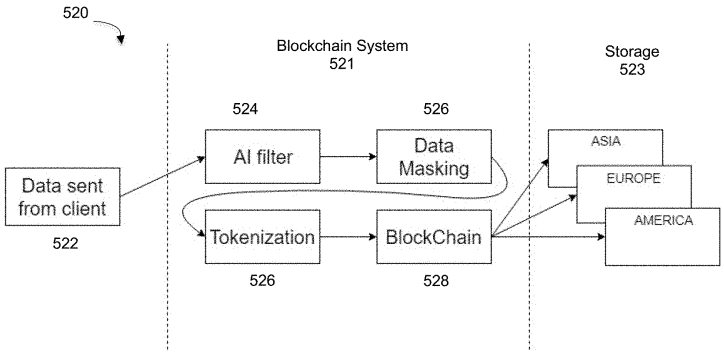
CPC - Cooperative classification

G06F-021/62/27	G06F-021/62/54	G06K-009/62/57
G06N-020/00	H04L-009/06/37	H04L-009/32/34
H04L-063/205*	H04L-2209/38	

Family

US20200351310 A1 2020-11-05

(US20200351310)
Embodiments for protecting data stored and transmitted in a computer network, by receiving confidential data from a client, the data organized into labeled fields and corresponding data elements; filtering the received data to identify fields that require data masking; generating a security prediction on the corresponding data elements using a machine learning process; separating the masked data into tokenized data having a respective token associated with each corresponding data element; and storing the tokenized data on a blockchain secure ledger to ensure integrity of the received data and prevent an ability to tamper with the received data.



Apparatuses, methods and systems of network connectivity management for secure access

US10826945 B1

Current assignees

SYNIVERSE TECHNOLOGIES*

Inventors

Xu Huiyue

Qian Deliang

Ganji Sreenivasa

Priority data including date

2019US-62866836 2019-06-26

IPC - International classification

H04L-009/06 H04L-012/66 H04L-029/06*

H04L-029/08

CPC - Cooperative classification

H04L-009/06/37 H04L-012/66 H04L-063/0263

H04L-063/0435 H04L-063/20* H04L-067/141

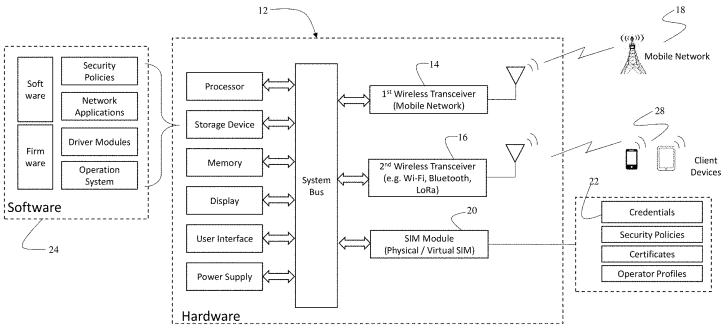
H04L-2209/38 H04L-2212/00

Family

US10826945 B1 2020-11-03

(US10826945)

The invention relates generally to the field of network connectivity management, specifically to provisioning and controlling the data access of multiple client devices to application servers via a connectivity management device. The invention includes apparatuses, methods, and systems for automating the management of such apparatus and its associating client devices. The management includes initializing and storing device data, ownership proof, connectivity credentials, and security policies into a management system, such as blockchain digital ledger or device management application server. The stored information is used for auto pairing and authenticating the devices via a second wireless technology and triggering secure connection setup over the first wireless technology. The method further includes changing the credential to establish data connection using the first wireless technology according to the device location and available data cost, detecting security attack events, and generating notifications for high data usage and attack detection results.



Data backup method and device, and computer readable storage medium
WO2020220536 A1

Current assignees

PING AN TECHNOLOGY*

PINGAN TECHNOLOGY

Inventors

WANG, Peng

Priority data including date

2019CN-0359291 2019-04-28

IPC - International classification

G06F-011/14*

CPC - Cooperative classification

G06F-011/14/64*

Family

WO2020/220536	A1	2020-11-05	CN110096388	A	2019-08-06	

(WO2020/220536)

A data backup method and device, and a computer readable storage medium. Said method may comprise: a server acquiring a backup request of a first user sent by a terminal (101) and the identity identifier of the first user (S301), the backup request being used for requesting for a backup of first data to be backed up of the first user; the server (102) determining a backup scheme according to the identity identifier and the backup request (S302), the backup scheme comprising one or more of a backup storage system, the number of backups, a main storage system and a backup delay time; the server establishing, according to the backup scheme, a connection between the main storage system and a corresponding backup storage system in a blockchain network (S303); and the server backing up said first data into the corresponding backup storage system (S304). The solution above can achieve automatic backup according to user requirements, effectively improving the efficiency of user data backup.

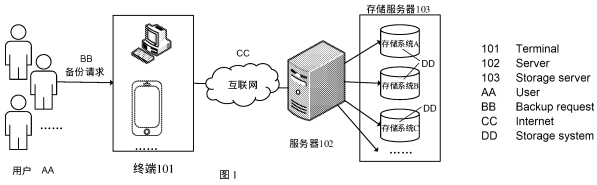


图1

Secure sockets layer acceleration method, apparatus and device, and readable storage medium

WO2020220833 A1

Current assignees

SHENZHEN QIANHAI WEBANK*

WEBANK*

Inventors

FENG, Dong

WAN, Lei

LI, Yi

WANG, Zhiyuan

WANG, Wenbo

Priority data including date

2019CN-0359100 2019-04-28

IPC - International classification

G06F-008/65 H04L-029/06* H04L-029/08

CPC - Cooperative classification

G06F-008/65* H04L-067/28 H04L-069/162

Family

WO2020/220833	A1	2020-11-05		CN110071933	A	2019-07-30

(WO2020/220833)

Disclosed is a secure sockets layer (SSL) acceleration method, comprising: after detecting successful handshake between a client and an access layer, separating SSL protocol handshake from encryption and decryption information by means of the access layer; controlling, by means of the access layer, OpenSSL to forward the encryption and decryption information to a proxy server; after the proxy server receives the encryption and decryption information, controlling the proxy server to asynchronously call an accelerator card cluster on the basis of the encryption and decryption information; after a keyless proxy node obtains corresponding private key information on the basis of the encryption and decryption information, controlling the keyless proxy node to send the private key information and the encryption and decryption information to an acceleration server; and controlling the acceleration server to perform encryption and decryption operations on the encryption and decryption information on the basis of the private key information. Also disclosed are an SSL acceleration apparatus and device, and a readable storage medium. In the present application, the acceleration server is disposed in a blockchain or the accelerator card cluster other than the access layer of another service, so that OpenSSL and the acceleration server are completely decoupled without affecting each other, and service management and version upgrade are facilitated.

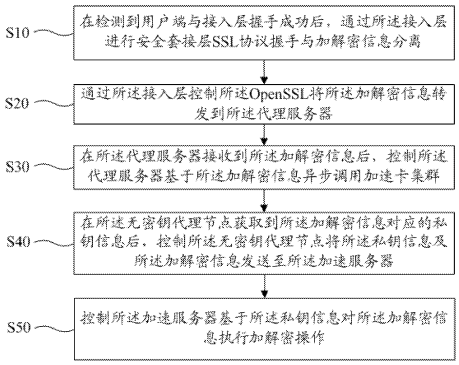


图 2

S10 After detecting successful handshake between a client and an access layer, separate secure sockets layer (SSL) protocol handshake from encryption and decryption information by means of the access layer

S20 Control, by means of the access layer, OpenSSL to forward the encryption and decryption information to a proxy server

S30 After the proxy server receives the encryption and decryption information, control the proxy server to asynchronously call an accelerator card cluster on the basis of the encryption and decryption information

S40 After a keyless proxy node obtains private key information corresponding to the encryption and decryption information, control the keyless proxy node to send the private key information and the encryption and decryption information to an acceleration server

S50 Control the acceleration server to perform encryption and decryption operations on the encryption and decryption information on the basis of the private key information

End-to-end resource visibility and tracking system
US20200134618 A1

Current assignees

BANK OF AMERICA*

Inventors

MORGAN REBECCA STEPP
MARSHALL ROBERT EDWARD
TAYLOR JUDITH C
GUNSOLLEY SHAWN CART
SPEHAR DEIRDRE

Priority data including date

2018US-62751138 2018-10-26
2019US-16400843 2019-05-01
2019US-16400870 2019-05-01
2019US-16400935 2019-05-01
2019US-16400939 2019-05-01

IPC - International classification

G06Q-020/32	G06Q-020/38*	G06Q-020/40
G06Q-020/42	G06Q-040/02	G06Q-040/04
G07F-019/00*	H04L-009/06	H04L-009/32

CPC - Cooperative classification

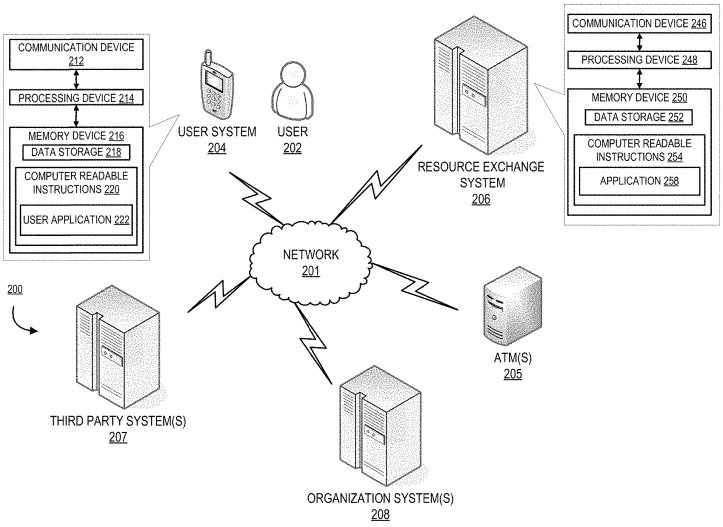
G06Q-020/32/21	G06Q-020/38/215*	G06Q-020/40/1
G06Q-020/42	G06Q-040/02	G06Q-040/04
G07F-019/206	G07F-019/211*	H04L-009/06/37
H04L-009/32/36	H04L-009/32/39	H04L-2209/38
H04L-2209/56		

Family

US10825021	B2	2020-11-03	US20200134712	A1	2020-04-30
US10803454	B2	2020-10-13	US20200134986	A1	2020-04-30
US20200134618	A1	2020-04-30	US20200134987	A1	2020-04-30

(US20200134618)

Embodiments of the invention are directed to a system, method, or computer program product for end-to-end resource visibility and tracking. In this way, an electronic tag is generated and distributed on a block chain network. The tag may identify a resource set and ultimately integrate with downstream systems for visualization of resource deposits and distributions within the bag. In this way, the invention provides a tool for a single source platform for tracking of status checks and digitized resource chain monitoring network. In this way, the invention creates a complete end-to-end digital fingerprint of physical resource tracking during a life cycle utilizing block chain technology with a distributed ledger to identify each touch point of the life cycle.



一种向区块链系统中写入业务数据的方法和装置

CN111880746 A

Current assignees
ADVANCED NEW TECHNOLOGIES*

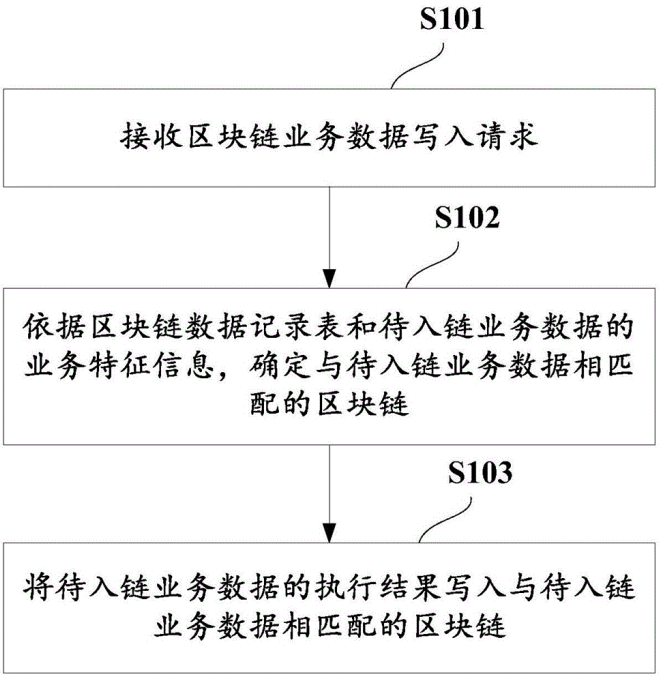
Inventors
YE GUOJUN

Priority data including date
2020CN-0748902 2017-05-25

IPC - International classification
G06F-003/06* G06F-016/27 G06F-021/62
G06F-021/64

Family
CN111880746 A 2020-11-03

(CN111880746)
本申请公开了一种向区块链系统中写入业务数据的方法，区块链系统包括至少一条区块链，方法包括：接收区块链业务数据写入请求，区块链业务数据写入请求中包括待入链业务数据的业务特征信息；依据区块链数据记录表和待入链业务数据的业务特征信息，确定与待入链业务数据相匹配的区块链，其中，区块链数据记录表中记录有区块链的业务类型标识信息，业务类型标识信息用于反映区块链中已入链业务数据的业务特征信息；将待入链业务数据的执行结果写入与待入链业务数据相匹配的区块链。本申请还公开了对应的装置。采用本申请实施例，可以按照业务类型区分写入的区块链，从而能够满足区块链系统中不同类型的业务数据的处理需求。



Blacklist data exchange method and application server
WO201942176 A1

Current assignees

ONE CONNECT SMART TECHNOLOGY*

SHENZHEN ONE LEDGER INTELLIGENT TECHNOLOGY

Inventors

GUO PENGCHENG

Priority data including date

2017CN-0773975 2017-08-31

IPC - International classification

G06Q-020/38 H04L-012/24* H04L-029/06

CPC - Cooperative classification

G06Q-020/38* H04L-041/50 H04L-063/12

Family

CN107896157	B	2020-11-03	CN107896157	A	2018-04-10	
WO2019/042176	A1	2019-03-07				

(WO2019/042176)

Disclosed in the present application is a blacklist data exchange method, for use in an application server, the application server being a main node and being in data communication with a plurality of sub-nodes, the method comprising: monitoring a blacklist data exchange request and response between sub-nodes; on the basis of the monitoring results, allocating a corresponding responsibility to each sub-node; notifying the sub-nodes not participating in the data exchange to act as supervisors for checking the exchange conditions of the data exchange parties; and notifying the sub-nodes having passed the exchange condition checking to implement one-to-one data exchange. Also provided in the present application are an application server and a computer readable storage medium. The blacklist data exchange method, the application server, and the computer readable storage medium provided in the present application can use blockchain-based smart contract technology to implement blacklist data exchange and management thereof.

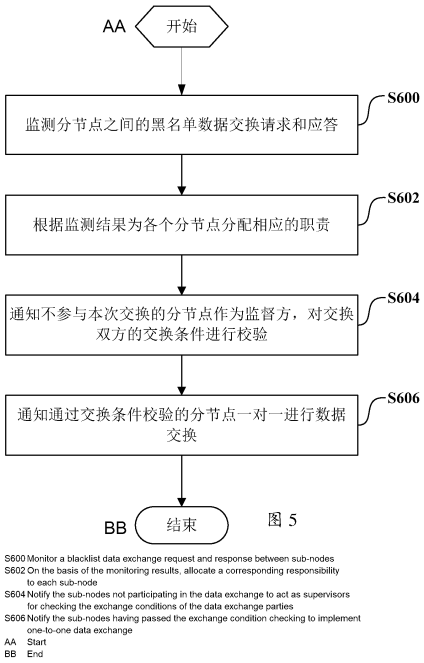


图 5

基于区块链的数据处理方法、装置及计算机存储介质

CN111885133 A

Current assignees
NANJING ZNV SOFTWARE
SHENZHEN ZNV TECHNOLOGY

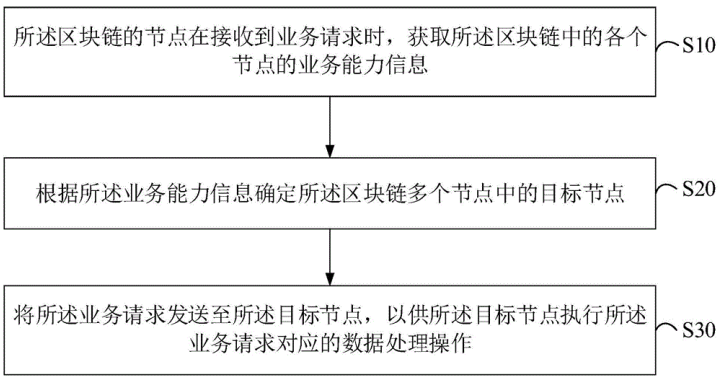
Inventors
XU GAOFENG
PEI WEIBIN
YUAN, Xiaoyi
GUAN SHUJU

Priority data including date
2020CN-0667772 2020-07-10

IPC - International classification
H04L-009/32 H04L-029/08*

Family
CN111885133 A 2020-11-03

(CN111885133)
本发明公开了一种基于区块链的数据处理方法，所述基于区块链的数据处理方法包括以下步骤：所述区块链的节点在接收到业务请求时，获取所述区块链中的各个节点的业务能力信息；根据所述业务能力信息确定所述区块链多个节点中的目标节点；将所述业务请求发送至所述目标节点，以供所述目标节点执行所述业务请求对应的数据处理操作。 本发明还公开了一种基于区块链的数据处理装置及计算机存储介质，通过获取区块链中各个节点的业务能力，根据业务能力确定可满足业务需求的目标节点，并由目标节点代理执行对应的数据处理操作，实现数据的价值转移，在边缘产品本身的计算能力较低时也可满足大量的计算需求。



Distributed multi-ledger gambling architecture
WO201989774 A1

Current assignees

AMERICORP INVESTMENTS*

Inventors

SIMONS JORDAN

Priority data including date

2017US-62579661 2017-10-31
2018US-16176827 2018-10-31
2018US-16176864 2018-10-31
2018US-62616247 2018-01-11
2018US-62738619 2018-09-28
2019US-16365157 2019-03-26
2019US-16417250 2019-05-20
2020US-16819763 2020-03-16
2020US-16841180 2020-04-06

IPC - International classification

A63F-009/24*	G06F-021/32	G06Q-020/20
G06Q-030/06	G07F-017/32*	H04L-009/06
H04L-009/32		

CPC - Cooperative classification

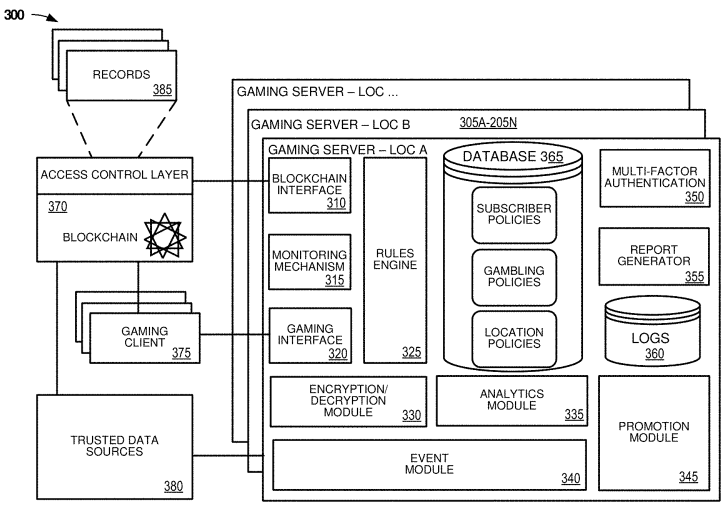
G06F-021/32	G07F-017/32/23	G07F-017/32/41
G07F-017/32/51*	G07F-017/32/88	H04L-009/06/37
H04L-009/06/43	H04L-009/32/26	H04L-009/32/39
H04L-2209/38	H04L-2209/56	

Family

US10825295	B2	2020-11-03	US20190221076	A1	2019-07-18
US20200320825	A1	2020-10-08	US10297106	B1	2019-05-21
US20200219362	A1	2020-07-09	WO2019/089774	A1	2019-05-09
US10614661	B2	2020-04-07	WO2019/089778	A1	2019-05-09
US10593157	B2	2020-03-17	US20190130698	A1	2019-05-02
US20190295371	A1	2019-09-26	US20190130701	A1	2019-05-02

(WO2019/089774)

Non-limiting examples of the present disclosure relate to relate to creation and management of a transactional ledger through an electronic gaming application/service. Various embodiments relate generally to gaming systems based on a distributed multi-ledger gaming architecture. In accordance with various embodiments, a transparent technology platform can be used to provide a secure ledger system for recording money transfer, play action, bets, analytics, gaming statistics (e.g., payouts, skill levels, etc.), and the like. In some examples, gaming systems can directly interact with the distributed multi-ledger architecture for secure and transparent transactions which can also be accessed by auditors, tax authorities, partners, and/or other entities. Some examples may use private and/or public blockchains as part of the distributed multi-ledger gaming architecture. For instance, multiple distributed network nodes may be utilized to manage creation of transaction records.



基于区块链及分布式身份的数据托管方法及系统

CN111884805 A

Current assignees

XIAMEN WANSHISHUNYI TECHNOLOGY

YLZ INFORMATION TECHNOLOGY

Inventors

YOU HAITAO

FU FUBIN

LIN KAI

WANG LIN

CHEN XIUQIN

YANG FENGJIA

Priority data including date

2020CN-0590921 2020-06-24

IPC - International classification

H04L-009/14 H04L-009/32* H04L-029/06

Family

CN111884805 A 2020-11-03

(CN111884805)

本发明提供一种基于区块链及分布式身份的数据托管方法及系统，解决代理重加密繁重的加解密工作的问题，提供一种基于区块链智能合约和可验证声明VC的可信数据加密和共享方式。 方法包括：数据提供方C向数据共享平台A发送密文、标识码、非对称密钥的公钥、数据描述文档并在区块链上部署智能合约，将非对称密钥的私钥、对称密钥、标识码、发证方作为预设；数据需求方B向数据共享平台A发送数据需求，数据共享平台A返回密文和加密的可验证声明；数据需求方B向智能合约发送加密的可验证声明，智能合约验证后返回加密的对称密钥；数据需求方B解密得到对称密钥，再利用密文得到原数据。

Computer-implemented system and method for enabling zero-knowledge proof
WO2019180588 A1

Current assignees

NCHAIN HOLDINGS*

Inventors

TREVETHAN THOMAS

Priority data including date

2018GB-0004739 2018-03-23
2018GB-0004740 2018-03-23
2018GB-0004742 2018-03-23

IPC - International classification

H04L-009/32*

CPC - Cooperative classification

H04L-009/32/18*

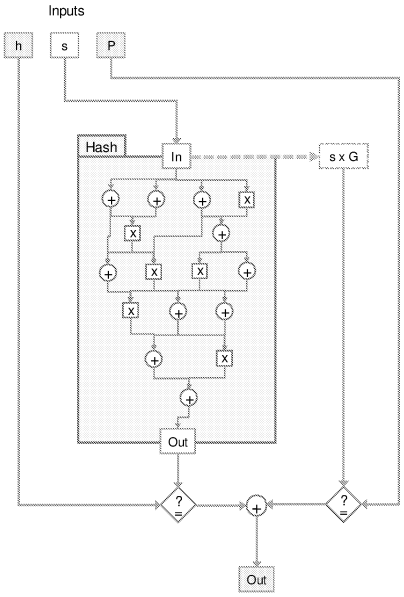
Family

CN111886829	A	2020-11-03	WO2019/180588	A1	2019-09-26	
CN111886830	A	2020-11-03	WO2019/180589	A1	2019-09-26	
CN111886831	A	2020-11-03	WO2019/180590	A1	2019-09-26	

(WO2019/180588)

The invention relates to efficient zero knowledge verification of composite statements that involve both arithmetic circuit satisfiability and dependent statements about the validity of public keys (key- statement proofs) simultaneously. The method enables a prover to prove this particular statement in zero-knowledge. More specifically, the invention relates to a computer-implemented method for enabling zero-knowledge proof or verification of a statement (S) in which a prover proves to a verifier that a statement is true while keeping a witness (w) to the statement a secret. The invention also relates to the reciprocal method employed by a verifier who verifies the proof. The method includes the prover sending to the verifier a set of data including a statement, which for a given function circuit output and an elliptic curve point, the function circuit input is equal to the corresponding elliptic curve point multiplier. The data includes individual wire commitments and/or a batched commitment for the circuit of the statement, an input and an output. The prover can include in the data, or have shared in advance, the specification of the or each elliptic curve used in the statement. The prover then sends an opening, in response to a challenge from the verifier. Alternatively, the prover additionally includes a proving key. With the data received from the prover, the verifier is able to determine that the circuit is satisfied and calculate the elliptic curve point and validate the statement, thus determining that the prover holds the witness to the statement. Upon receiving the data the verifier determines through calculations that the data complies with the statement.

Figure 3



Block chain transfer processing method, device, equipment and medium
CN111563743 A

Current assignees
BAIDU ONLINE NETWORK TECHNOLOGY*

Inventors
XIAO WEI

Priority data including date
2020CN-0677728 2020-07-15

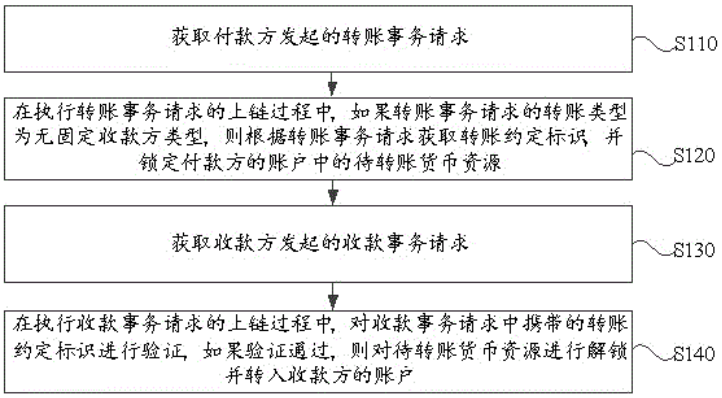
IPC - International classification
G06Q-020/38* G06Q-040/04

CPC - Cooperative classification
G06Q-020/38/29* G06Q-020/38/9 G06Q-040/04

Family

CN111563743	B	2020-11-03		CN111563743	A	2020-08-21

(CN111563743)
The application discloses a method, a device, equipment and a medium for transferring a block chain, relates to the technical field of block chains, and can be applied to cloud computing and cloud services. The specific implementation scheme is as follows: acquiring a transfer transaction request initiated by a payer; in the chain winding process of executing the transfer transaction request, if the transfer type of the transfer transaction request is a type without a fixed payee, acquiring a transfer appointment identifier according to the transfer transaction request, and locking money resources to be transferred in an account of a payer; acquiring a collection transaction request initiated by a collector; and in the uplink process of executing the collection transaction request, verifying the transfer contract identification carried in the collection transaction request, and if the verification is passed, unlocking the money resources to be transferred and transferring the money resources to the account of the receiver. According to the scheme, the problem that the existing transfer operation mode is difficult to adapt to various different transfer requirements in a complex service scene is solved, and non-point-to-point transfer is realized.



一种区块链系统以及区块链超级节点的防攻击装置

CN111885032 A

Current assignees
CHONGQING RADIO & TV UNIVERSITY CHONGQING BUSINESS VOCATIONAL COLLEGE*

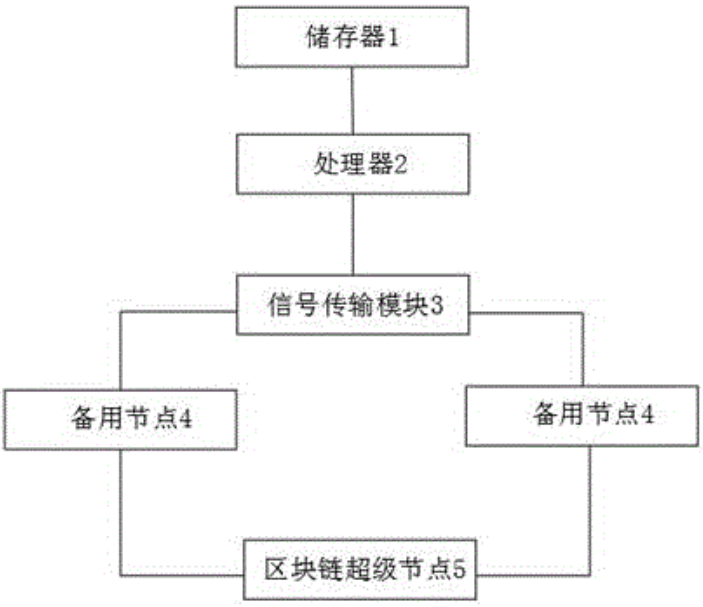
Inventors
LI JU

Priority data including date
2020CN-0673694 2020-07-14

IPC - International classification
H04L-029/06* H04L-029/08

Family
CN111885032 A 2020-11-03

(CN111885032)
本发明公开了一种区块链系统以及区块链超级节点的防攻击装置，包括储存器、处理器、备用节点和区块链超级节点，所述储存器连接处理器，储存器为高速RAM储存器或磁盘储存器中的一种；处理器连接信号传输模块，信号传输模块和区块链超级节点之间设有备用节点；所述备用节点设有断开模块和连接模块，区块链超级节点设有防攻击模块和储存模块；区块链超级节点也设有信息传输模块，区块链超级节点和备用节点均设有监测模块；备用节点设有多个，备用节点连接信号传输模块和区块链超级节点，区块链超级节点设有密钥装置，备用节点设有密钥接收装置。本发明结构合理，便于进行区块链的信息传输，提高区块链的信息传输安全性。



一种登录信息处理方法及设备

CN111885024 A

Current assignees
ADVANCED NEW TECHNOLOGIES*

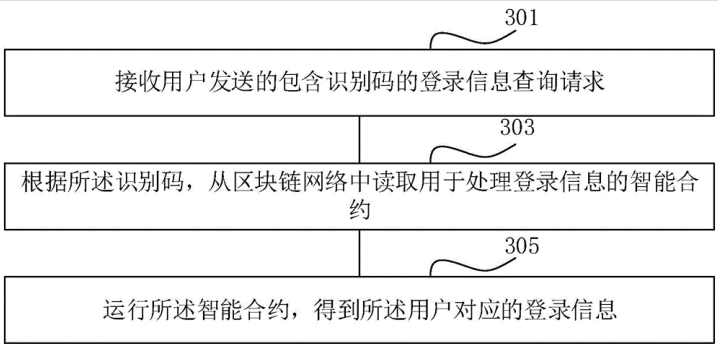
Inventors
LI HAO

Priority data including date
2020CN-0660426 2017-07-14

IPC - International classification
H04L-029/06* H04L-029/08

Family
CN111885024 A 2020-11-03

(CN111885024)
本申请公开了一种登录信息处理方法及设备。 包括：基于用户提供的识别码，从区块链网络中读取用于处理登录信息的智能合约，并运行该智能合约，得到与该用户对应的登录信息。



用户数据处理方法、区块链网络、存储介质及节点设备
CN111882291 A

Current assignees
CLOUDMINDS ROBOT*

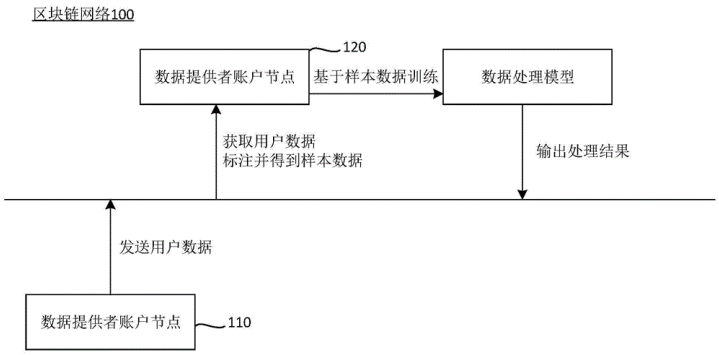
Inventors
THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Priority data including date
2020CN-0622147 2020-06-30

IPC - International classification
G06Q-010/10* G06Q-030/00 G06Q-040/04
H04L-029/08

Family
CN111882291 A 2020-11-03

(CN111882291)
本公开涉及一种用户数据处理方法、区块链网络、存储介质及节点设备，所述区块链网络包括数据提供者账户节点，数据使用者账户节点，所述方法包括：所述数据使用者账户节点从所述区块链网络获取用户数据，所述用户数据包括所述数据提供者账户节点上传到所述区块链网络的用户数据；对所述用户数据进行标注，得到样本数据；根据样本数据训练数据处理模型，所述数据处理模型对未标注的用户数据进行处理，并输出处理结果。



Fx Margin Transaction Renthtransaction Method
KR20200124103 A

Current assignees
CHOI, EUN TAE

Inventors
CHOI, EUN TAE

Priority data including date
2019KR-0047559 2019-04-23

IPC - International classification
G06Q-040/04* G06Q-040/06

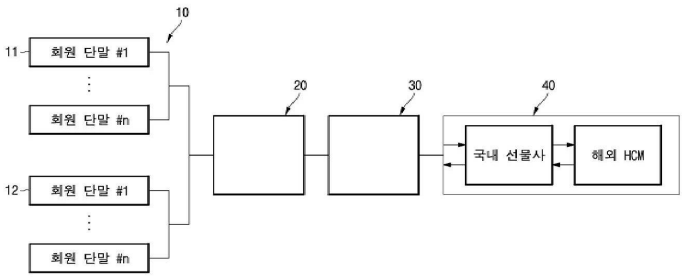
CPC - Cooperative classification
G06Q-040/04* G06Q-040/06

Family

KR10-2020-0124103	A	2020-11-02		

(KR10-2020-0124103)

The present invention provides an fx margin transaction rental system in which a company server providing an fx margin transaction rental service bills an investment eligibly in a fx margin transaction market and holds a purchase position and a purchase position as an fx margin transaction product, A rent-start time setting method comprising: a rent-start time setting step of setting a stop position indicating a damage failure and a limit position indicating revenue by dividing a currently held selling position and selling position by a predetermined rent-start time; A first step of commercializing sales positions to at least one or more divisional sales positions and at least one or more divisional sales positions and setting rent-using fees for each of the divisional sales positions and the divisional sales positions; An fx margin transaction renttransaction method comprising: a step in which when an intermediary server renting a desired sales position and sales position by a plurality of member terminals receiving an fx margin transaction renttransaction service connects to the intermediary server A second step of guiding a rent-using fee for each of the divided buying/selling position and the divided buying/selling position commercialized by dividing a currently held buying/selling position and selling/selling position, and presenting a rent-start time, a stop position, and a limit position; A third step in which, when the member terminal prepares a rent-using fee set for each of the divisional buying/selling position and the divisional buying/selling position as a prepaid within a 5000-1825000-limit through the intermediary server, the agent server determines a rent-transaction contract for each of the divisional buying/selling position and the divisional buying/selling position at which the rent-using fee is prepaid every 3 minutes; A fourth step of determining whether the divisional selling position and the divisional selling position rented by the rental contract member to the vendor server through the mediation server reach the stop position or the limit position according to a change in conversion rate in the real time fx margin transaction market from the rental start time after the rental contract is determined by the vendor server; And when it is determined that the divisional buying/selling position and the divisional buying/selling position rented by the rent-transaction contract member to the agent server via the mediation server have reached the stop position or the limit position, A fifth step of calculating the rent-using fee as a damaging fee when a damage failure occurs, and calculating the limit position reaching return fee when a return failure occurs, The agent server automatically stops



selling the selling position and the selling position when both the selling position and the selling position are sold separately, and in the third step, when the member terminal prepares a rent-using fee set for each of the selling position and the selling position through the agent server, the agent server issues an electronic money corresponding to the payment amount, And a protection layer formed on the unique identification pattern, wherein the protection layer includes a transparent coating layer formed by applying a transparent coating material on the unique identification pattern, and the transparent coating layer includes: a lower coating layer formed by coating a composition for forming a lower coating layer including silicon dioxide on a surface of the gold; And an upper coating layer formed by coating a composition for forming an upper coating layer including an organosiloxane on the lower coating layer, wherein the composition for forming the lower coating layer and the composition for forming the upper coating layer each include an organic acid composition in which nano-metal ions are dispersed, The fx margin transaction is performed by a structure in which a generant rents a company after obtaining a segmental selling position and a segmental selling position, so that an individual can share revenue with a third party.

用于访问物联网云平台的设备数据的方法、装置及系统
CN111885196 A

Current assignees
ALIPAY INFORMATION TECHNOLOGY*

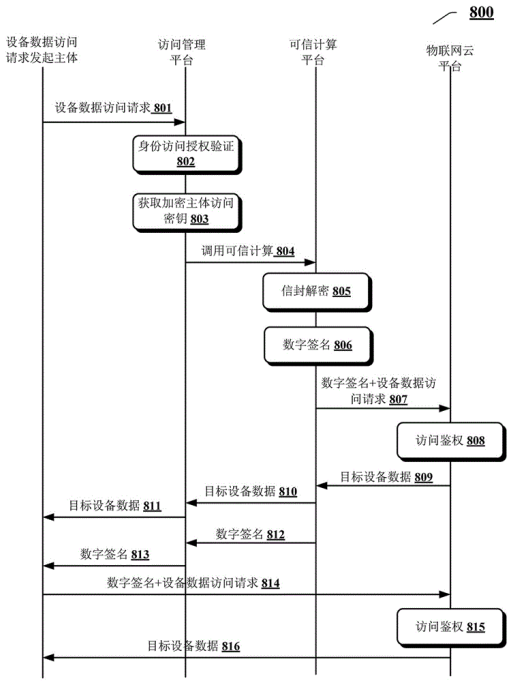
Inventors
ZHANG HONG

Priority data including date
2020CN-0759613 2020-07-31

IPC - International classification
H04L-029/06 H04L-029/08*

Family
CN111885196 A 2020-11-03

(CN111885196)
本说**明**书实**施例提供物**联**网云平台的**设备**数据**访问**方法**。 设备**数据**访问请**求**发**起主体向**访问**管理平台**发**送**设备**数据**访问请**求**，设备**数据**访问请**求包括**设备**数据**访问请**求**发**起主体和待**访问**主体的身份信息以及目**标设备**数据信息**，访问**管理平台相关**联**地存**储**主体的加密主体**访问**密**钥**以及**该**主体的身份信息**。 访问**管理平台基于**设备**数据**访问请**求中的身份信息**进**行身份**访问**授权**验证。 **在身份**访问**授权**验证**通过后**，访问**管理平台使用待**访问**主体的身份信息**获**取**对应**的加密主体**访问**密**钥**，并**调**用可信**计**算平台中的密**钥**解密模**块**来解密加密主体**访问**密**钥**得到主体**访问**授权信息**。 **主体**访问**授权信息被可信**计**算平台或者**设备**数据**访问请**求**发**起主体使用来**访问**物**联**网云平台得到目**标设备**数据**。



车辆赠予方法及服务器

CN111885073 A

Current assignees
CHINA UNICOM*

Inventors
TIAN XINXUE
XIAO ZHENGRONG
MA SHUHUI
YANG ZIWEN
DONG HUI

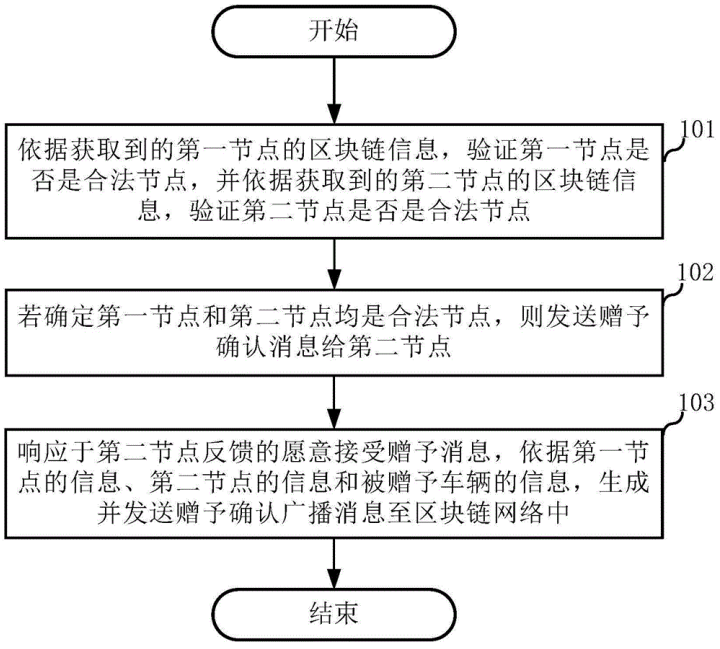
Priority data including date
2020CN-0743707 2020-07-29

IPC - International classification

G07C-005/00	H04L-009/32	H04L-012/18
H04L-029/06*	H04L-029/08	

Family
CN111885073 A 2020-11-03

(CN111885073)
本申请公开一种车辆赠予方法及服务器，方法包括：依据获取到的第一节点的区块链信息，验证第一节点是否是合法节点，并依据获取到的第二节点的区块链信息，验证第二节点是否是合法节点，其中，第一节点是赠予方对应的节点，第二节点是被赠予方对应的节点；若确定第一节点和第二节点均是合法节点，则发送赠予确认消息给第二节点，以使第二节点确定是否接受赠予；响应于第二节点反馈的愿意接受赠予消息，依据第一节点的信息、第二节点的信息和被赠予车辆的信息，生成并发送赠予确认广播消息至区块链网络中，以使车管所节点依据第一节点的信息和第二节点的信息，确定赠予方和被赠予方之间的关系信息，依据关系信息将被赠予车辆赠予给被赠予方。



基于区块链的物品预约方法、装置、设备以及介质
CN111884807 A

Current assignees
TENCENT TECHNOLOGY (SHENZHEN)*

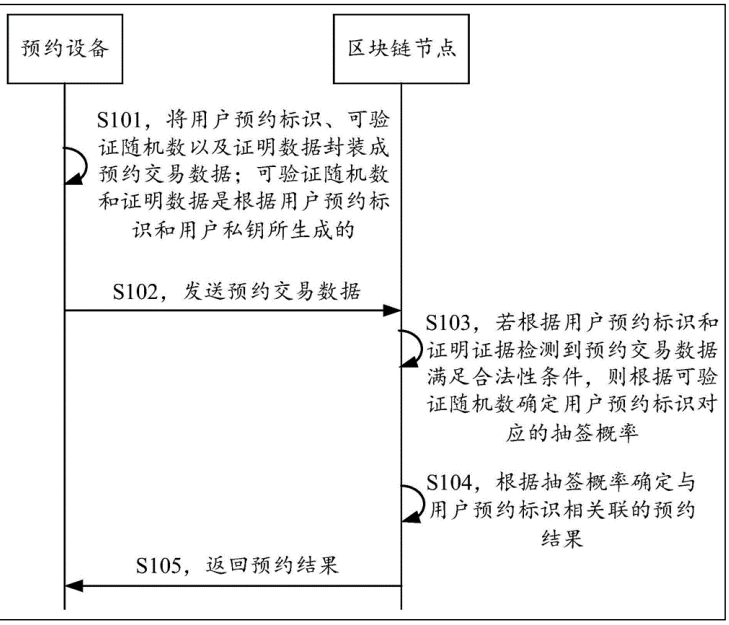
Inventors
LIU PAN

Priority data including date
2020CN-0670261 2020-07-13

IPC - International classification
G06Q-040/04 H04L-009/32* H04L-029/08

Family
CN111884807 A 2020-11-03

(CN111884807)
本申请实**施例提供了一种基于区**块链**的物品**预约**方法、装置**、设备**以及介**质，该**方法包括：**预约设备**将用**户预约标识、**可**验证**随机数以及证明数据封装成**预约**交易数据；**预约设备**将**预约**交易数据**发**送至区**块链节**点；区**块链节**点若根据用**户预约标识**和证明证据，**检测**到**预约**交易数据**满**足合法性条件**，则**根据可**验证**随机数确定用**户预约标识对应**的抽**签概率**；区**块链节**点根据抽**签概率确定与用**户预约标识**相关**联**的**预约结**果，将**预约结**果返回至**预约设备；预约结**果用于指示防控机构将与**预约结**果相匹配的防**护物品配送给用**户预约标识对应**的目**标用户。 **采用本申**请实**施例，可以提高物品**预约**的公平性及有效性。



基于区块链的数据应用系统及数据应用方法

CN111881487 A

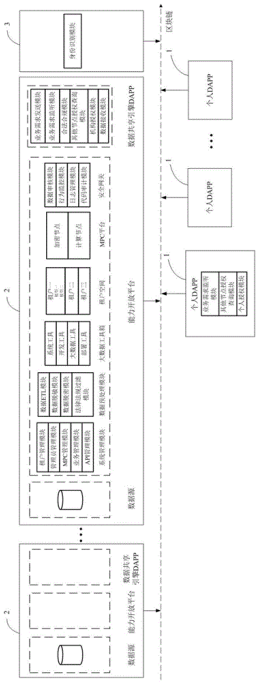
Inventors
FAN JIAN
JIN YIDONG
REN MINMIN
CAO JIAN
ZHOU DASHENG

Priority data including date
2020CN-0789139 2020-08-07

IPC - International classification
G06F-016/27 G06F-021/60 G06F-021/62
G06F-021/64*

Family
CN111881487 A 2020-11-03

(CN111881487)
本申请提供了一种基于区块链的数据应用系统及数据应用方法，数据应用系统包括应用链层、能力开放层和隐私计算层；应用链层用于实现业务数据的流转以及数据应用过程的记录；能力开放层包括多个架构在区块链的机构节点上的能力开放平台，能力开放平台用于对非隐私数据进行计算，以保障数据可用而不可被非授权人所见；隐私计算层包括安全多方计算平台，安全多方计算平台部署在能力开放平台中，安全多方计算平台与能力开放平台为紧耦合关系，安全多方计算平台用于对隐私数据进行计算。 本申请能够保证节点间的数据能够在权、责、利分明的情况下被安全的计算和应用。



Data processing method and device, electronic device and storage medium
CN109558748 A

Current assignees
TAIKANG INSURANCE*

Inventors
WANG HUAN

Priority data including date
2018CN-1407905 2018-11-23

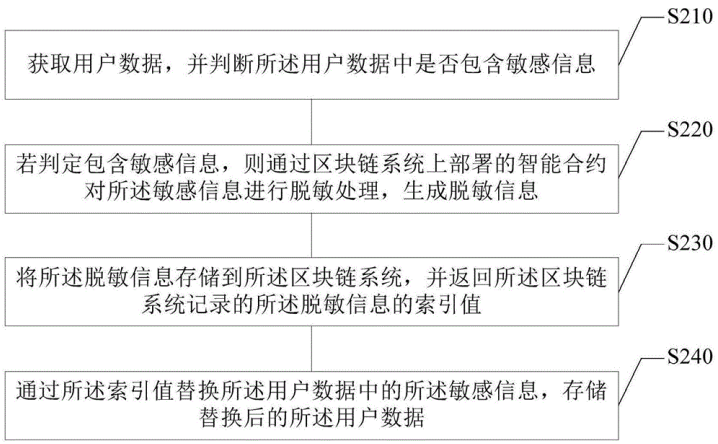
IPC - International classification
G06F-021/60 G06F-021/62* G06F-021/64

CPC - Cooperative classification
G06F-021/60/2 G06F-021/62/45* G06F-021/64

Family

CN109558748	B	2020-11-03		CN109558748	A	2019-04-02

(CN109558748)
The embodiment of the invention provides a data processing method and device, an electronic device and a storage medium, and relates to the technical field of block chains. The method comprises the following steps of acquiring user data, and judging whether the user data contains sensitive information or not; if it is judged that the sensitive information is contained, desensitization processing is conducted on the sensitive information through an intelligent contract deployed on a block chain system, and generating the desensitization information; storing the desensitization information intothe block chain system, and returning an index value of the desensitization information recorded by the block chain system; and replacing the sensitive information in the user data through the index value, and storing the replaced user data. According to the technical scheme provided by the embodiment of the invention, the sensitive information of the user can be prevented from being leaked and maliciously tampered, and the security risk of user data is reduced.



基于区块链的日志监测方法及装置
CN111885088 A

Current assignees
BANK OF CHINA*

Inventors
LEI YU

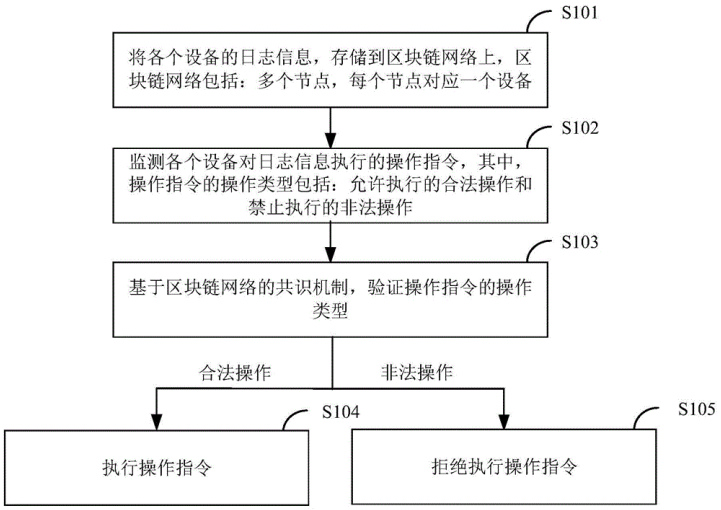
Priority data including date
2020CN-0781831 2020-08-06

IPC - International classification
H04L-029/06*

Family
CN111885088 A 2020-11-03

(CN111885088)

本发明公开了一种基于区块链的日志监测方法及装置，其中，该方法包括：将各个设备的日志信息，存储到区块链网络上，区块链网络包括：多个节点，每个节点对应一个设备；监测各个设备对日志信息执行的操作指令，其中，操作指令的操作类型包括：允许执行的合法操作和禁止执行的非法操作；基于区块链网络的共识机制，验证操作指令的操作类型；当操作指令的操作类型为合法操作的情况下，执行操作指令；当操作指令的操作类型为非法操作的情况下，拒绝执行操作指令。 本发明利用区块链不可篡改的特性，能够确保日志信息不会被黑客清除或修改，保障日志信息的安全性，通过监测到攻击源对各个设备信息日志信息的非法操作，能够实现对攻击源的自动化溯源。



基于区块链网络的数据存储方法、装置、相关设备及介质

CN111885050 A

Current assignees

TENCENT TECHNOLOGY (SHENZHEN)*

Inventors

ZHU GENGLIANG

Priority data including date

2020CN-0707943 2020-07-21

IPC - International classification

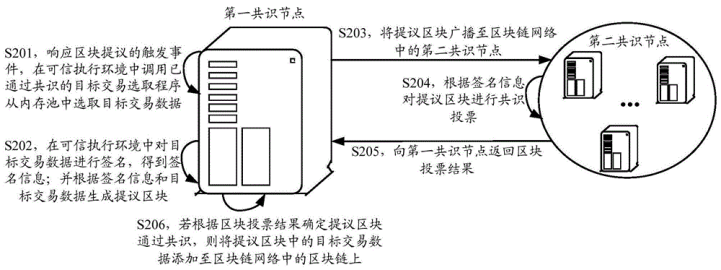
H04L-009/32 H04L-029/06* H04L-029/08

Family

CN111885050 A 2020-11-03

(CN111885050)

本发明实施例公开了一种基于区块链网络的数据存储方法、装置、相关设备及介质；其中方法包括：第一共识节点响应区块提议的触发事件，在可信执行环境中调用已通过共识的目标交易选取程序从内存池中选取目标交易数据；在可信执行环境中对目标交易数据进行签名，得到签名信息；并根据签名信息和目标交易数据生成提议区块；将提议区块广播至区块链网络中的第二共识节点，使第二共识节点根据签名信息对提议区块进行共识投票；若根据第二共识节点的区块投票结果确定提议区块通过共识，则将提议区块中的目标交易数据添加至区块链网络中的区块链上。本发明实施例可以提升交易数据选取的公平性和可靠性，进而提升区块链网络的整体共识性能。



区块链生产车间智能监控系统

CN111885360 A

Current assignees
GUIZHOU DONGGUAN TECHNOLOGY*

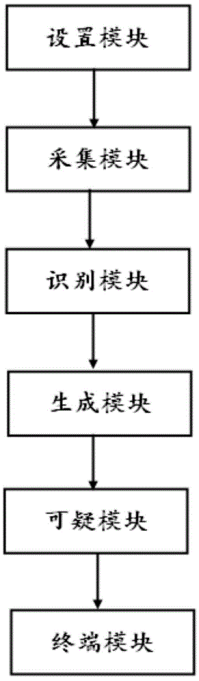
Inventors
PENG JUNGUO

Priority data including date
2020CN-0757164 2020-07-31

IPC - International classification
G06K-009/00 H04N-007/18* H04W-004/021
H04W-004/029 H04W-004/90

Family
CN111885360 A 2020-11-03

(CN111885360)
本发明涉及视频监控技术领域，具体涉及一种区块链生产车间智能监控系统，包括：设置模块，用于根据工作工位的数量设置预置位数量；采集模块，用于自动巡航采集生产车间预置位的监控视频；识别模块，用于对监控视频中的目标对象进行识别，并确定目标对象的出现时间和出现位置；生成模块，用于根据目标对象、出现时间和出现位置，判断预置位的人数是否异常以及预置位的人员行为是否异常，并生成监控记录；可疑模块，用于根据监控记录生成可疑报告，并发送预警信息；终端模块，用于接收预警信息。本发明能够有效地帮助工作人员处理异常突发事件，解决了现有技术难以分析判别出罪犯的敏感行为动作并有效地筛选出异常行为的技术问题。



一种用于医疗区块链提供健康信息的智能手表

CN111880397 A

Current assignees

GUANGDONG ZHONGKE INTELLIGENT TECHNOLOGY*

Inventors

LI YANZI

Priority data including date

2020CN-0795806 2020-08-10

IPC - International classification

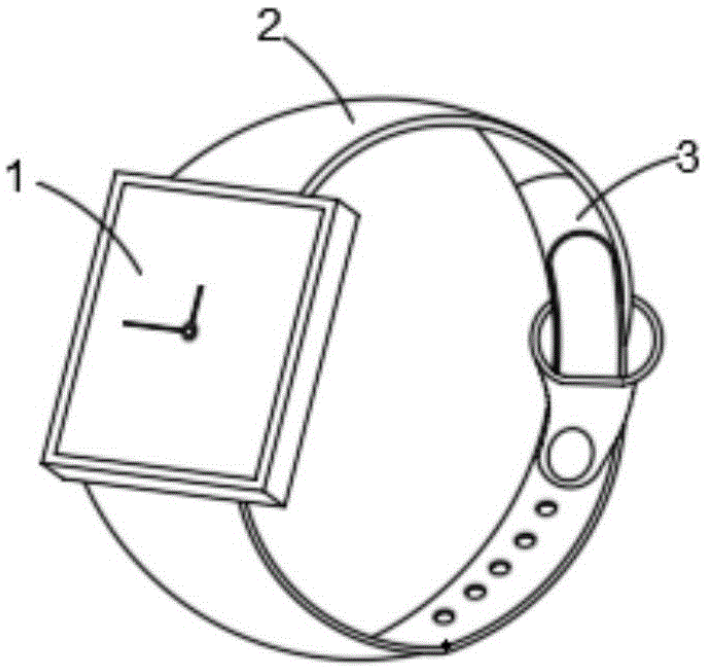
A44C-005/00 A61B-005/00 A61B-005/01
A61B-005/0205 A61B-005/145 G04B-047/00
G04B-047/06*

Family

CN111880397 A 2020-11-03

(CN111880397)

本发明涉及智能手表技术领域，且公开了一种用于医疗，包括表盘和对称设置的表带，所述表带采用上表带和下表带固定连接构成，所述上表带和下表带的内部均开设有空腔，所述空腔内设置有多个支撑机构，所述上表带的下侧壁上开设有多个通气孔，所述下表带的上侧壁上开设有第一连接孔，所述下表带的下侧壁上开设有第二连接孔，所述第二连接孔的与第一连接孔相对应设置。该种用于医疗区块链提供健康信息的智能手表，它降低了智能手表在佩戴过程中的闷热感，提高了手表佩戴的舒适性，并且还可以减少汗液的产生，使得手表上的传感器可以更加精准地检测健康数据，提高了检测的准确性。



基于AIOT和区块链的智慧供应链物流信息平台

CN111882292 A

Current assignees

SHENZHEN AIYUN INFORMATION TECHNOLOGY*

Inventors

LIU TIANQIONG

Priority data including date

2020CN-0635578 2020-07-03

IPC - International classification

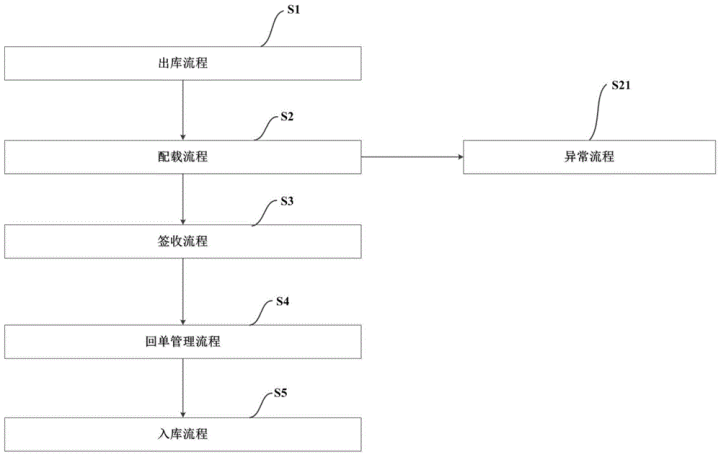
G06F-016/25 G06Q-010/08 G06Q-010/10*

Family

CN111882292 A 2020-11-03

(CN111882292)

本发明公开了一种基于AIOT和区块链的智慧供应链物流信息平台，所述平台由AIOT、区块链节点以及业务流程组成；与现有技术相比，本发明为物流数据的业务化提供了解决方案，具有以下优点：(1)解决了多系统融合至一个智慧供应链物流信息平台；(2)解决了多集团、多子公司、多组织、多用户、多角色、功能权限、数据权限以及多数据流向管理；(3)解决了统一平台登入和业务操作，多系统和平台数据源接入和整合，能够对接不同的公司系统接入至智慧供应链物流平台；(4)为开放制定行业规范提供了开放共享SDK和API接口；(5)解决了供应链物流上中下游商流、信息流、资金流、业务流、数据流整合至智慧供应链物流信息平台。



基于区块链的医疗数据处理方法、装置、设备及存储介质

CN111881481 A

Current assignees

HANGZHOU XIANGYI TECHNOLOGY*

Inventors

CAO XIAOWU

CAO JINGYI

LEI MINGJIE

Priority data including date

2020CN-0777255 2020-08-05

IPC - International classification

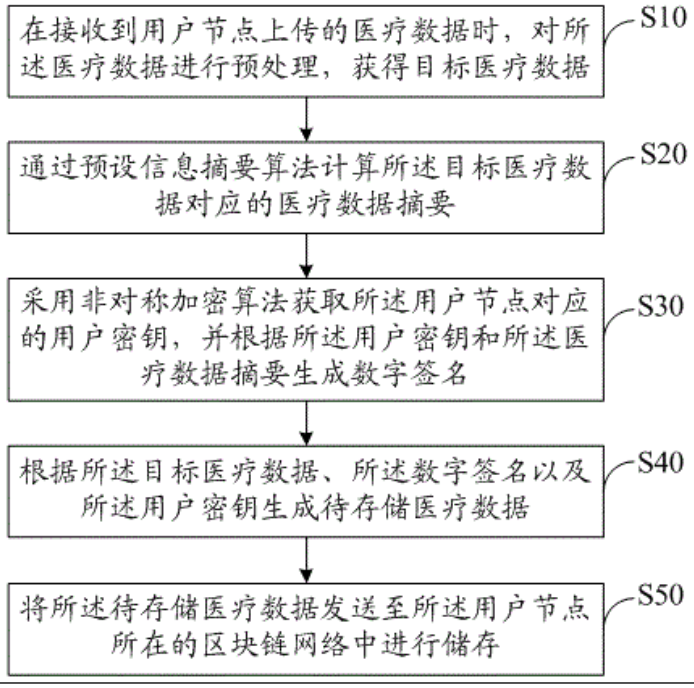
G06F-021/60 G06F-021/62*

Family

CN111881481 A 2020-11-03

(CN111881481)

本发明公开一种基于区块链的医疗数据处理方法、装置、设备及存储介质，该方法包括对医疗数据进行预处理获得目标医疗数据；通过预设信息摘要算法计算目标医疗数据对应的医疗数据摘要；采用非对称加密算法获取用户节点对应的用户密钥，并根据用户密钥和医疗数据摘要生成数字签名；根据目标医疗数据、数字签名以及用户密钥生成待存储医疗数据；将待存储医疗数据发送至用户节点所在的区块链网络中进行储存。本发明将区块链技术应用于医疗数据的存储，采用信息摘要算法和非对称加密算法来生成待存储医疗数据，然后将待存储医疗数据发送至区块链网络，一方面能够避免数据的分散存储，另一方面也能够保证医疗数据存储时的安全性。



Block chain transaction data privacy protection method and block chain system
CN110059494 A

Current assignees
SHENZHEN QIYUAN INFORMATION SERVICE*

Inventors
SHAO JUN
CAI QINGFENG
ZHAO LIANG
WU HAO

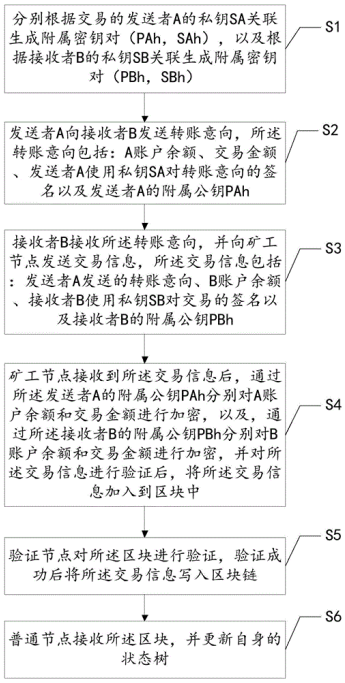
Priority data including date
2019CN-0310361 2019-04-17

IPC - International classification
G06F-021/60* G06F-021/62 G06Q-020/38
H04L-029/08

CPC - Cooperative classification
G06F-021/60/2* G06F-021/62/45 G06Q-020/38/29
H04L-067/1097

Family
CN110059494 B 2020-11-03 CN110059494 A 2019-07-26

(CN110059494)
The embodiment of the invention relates to the technical field of block chains, and discloses a block chain transaction data privacy protection method and block chain system. The block chain transaction data privacy protection method is applied in a block chain system. The method comprises the following steps of generating an auxiliary key pair with an addition homomorphic attribute for the private key association of each user in the block chain system, and encrypting the account balance and the transaction amount through an auxiliary public key in the auxiliary key pair, writing the encryptedciphertext of the transaction amount into a block chain, and updating the corresponding account balance ciphertext in the state tree through the ciphertext according to an addition homomorphic algorithm. By storing the transaction data on the block chain and the state tree in a ciphertext form, the technical problem that privacy protection of a current block chain depends on a third-party credible mechanism is solved, and user transaction data privacy is protected.



一种基于区块链的违章处理方法、设备及介质

CN111885096 A

Current assignees

JINAN INSPUR HIGH & NEW TECHNOLOGY INVESTMENT DEVELOPMENT*

Inventors

XUE ZHANGQING

GAO MING

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Priority data including date

2020CN-0475126 2020-05-29

IPC - International classification

G06K-009/00 G06Q-010/10 G06Q-050/26

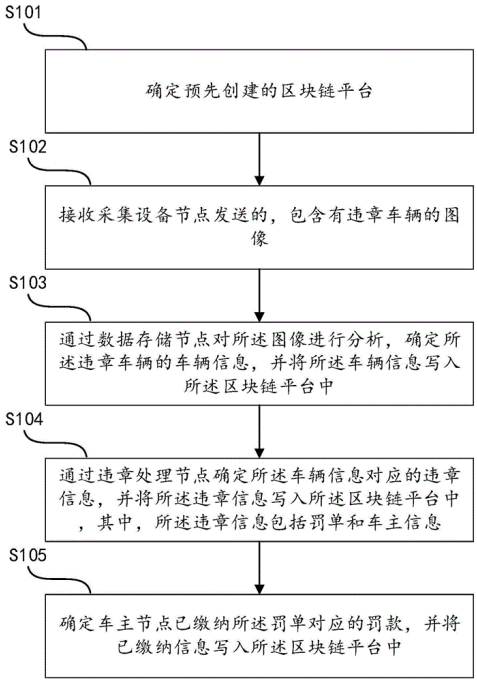
H04L-029/08*

Family

CN111885096 A 2020-11-03

(CN111885096)

本申请公开了一种基于区块链的违章处理方法、设备及介质，方法包括：确定预先创建的区块链平台；接收采集设备节点发送的，包含有违章车辆的图像；通过数据存储节点对图像进行分析，确定违章车辆的车辆信息；通过违章处理节点确定车辆信息对应的违章信息；确定车主节点已缴纳所述罚单对应的罚款。 违章处理全过程，都存储在区块链平台中。由于区块链平台中的数据是公开透明的，因此各节点可以随时通过相应的途径进行溯源。 而且由于区块链平台是分布式存储，单个节点的数据篡改不会生效，也就保证了区块链平台上数据的真实可信，避免受到不当人为干预的影响。 而且采集设备以及数据处理节点能够自动识别代替人工，节省了成本。



Method and apparatus for obtaining input of secure multiparty computation protocol
EP3673609 A1

Current assignees

ADVANCED NEW TECHNOLOGIES*

ALIBABA HOLDING

INNOVATIVE ADVANCED TECHNOLOGY

Inventors

LI LICHUN

YIN SHAN

LIU ZHENG

Priority data including date

2018CN-0715295 2018-06-29

2019US-16455685 2019-06-27

2019WO-US39629 2019-06-27

2020US-16784421 2020-02-07

IPC - International classification

G06F-021/60	G06F-021/62	H04L-009/00*
H04L-009/06	H04L-009/32	H04L-029/06

CPC - Cooperative classification

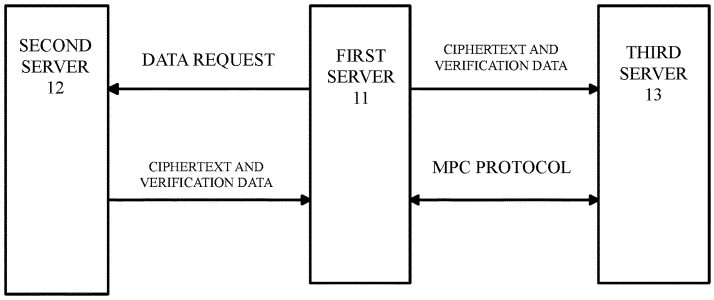
G06F-021/60/2*	H04L-009/00/8	H04L-009/06/43
H04L-009/32/39	H04L-009/32/47	H04L-063/0428*
H04L-2209/16	H04L-2209/38	H04L-2209/46

Family

CN110661610	B	2020-11-03	US20200004973	A1	2020-01-02
EP3673609	A1	2020-07-01	WO2020/006319	A1	2020-01-02
US20200175180	A1	2020-06-04	TW202001658	A	2020-01-01
CN110661610	A	2020-01-07			

(EP3673609)

Privacy protection methods, systems, and apparatus, including computer programs encoded on computer storage media, are provided. One of the methods is performed by a second computing device and includes: receiving a data request for object data from a first computing device, wherein the object data is associated with an object and is stored in the second computing device; performing encryption of the object data using a public key associated with the object based on the data request to generate a first ciphertext; obtaining verification data based on the first ciphertext for verifying whether a ciphertext to be verified corresponds to the object data; and sending the verification data to the first computing device for the first computing device to execute a cryptography protocol with a third computing device based on the verification data.



Reputation evaluation method and system for privacy protection based on block chain
CN110020541 A

Current assignees
BEIJING UNIVERSITY OF TECHNOLOGY*

Inventors
ZHU LIEHUANG
LI MENG
ZHANG ZIJIAN

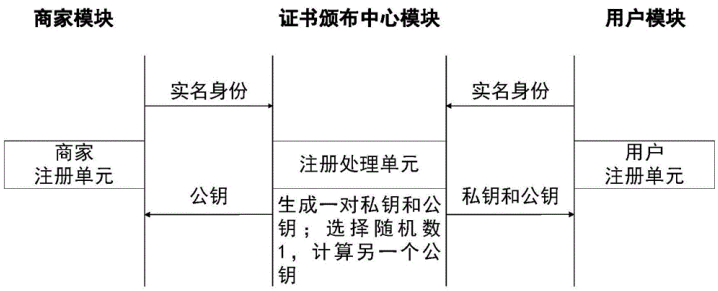
Priority data including date
2019CN-0315489 2019-04-19

IPC - International classification
G06F-021/60* G06F-021/62 G06F-021/64
G06Q-030/02

CPC - Cooperative classification
G06F-021/60/2* G06F-021/62/45 G06F-021/64
G06Q-030/02/82

Family
CN110020541 B 2020-11-03 CN110020541 A 2019-07-16

(CN110020541)
The invention relates to a reputation evaluation method and system for privacy protection based on a block chain, and belongs to the technical field of blind signatures, secure multi-party signaturesand block chains. After the user and the merchant finish the online transaction, anonymous evaluation is carried out on the merchant to generate an evaluation transaction, the evaluation transaction is sent to the alliance block chain network, each service provider carries out partial decryption on the evaluation in the evaluation transaction and sends the evaluation to the block chain network, and the merchant updates the reputation of the merchant according to the partial decryption information. Specifically, the method comprises the following steps: a user, a merchant and a service providerregister with a trusted party to obtain corresponding keys; and the user accesses the reputation of the merchant under each service provider, evaluates the service provider after online transaction,broadcasts the reputation in a block chain transaction form, and the service provider serves as a miner of the block chain network, calculates the obtained evaluation for all merchants and updates themerchants. The method and the system have the advantages of reputation publicity, reputation availability, data audit and effective privacy protection for user evaluation.



Program product selling method, block chain node, storage medium and block chain system

CN109598108 A

Current assignees
NEUSOFT*

Inventors
CUI XILONG

Priority data including date
2018CN-1291388 2018-10-31

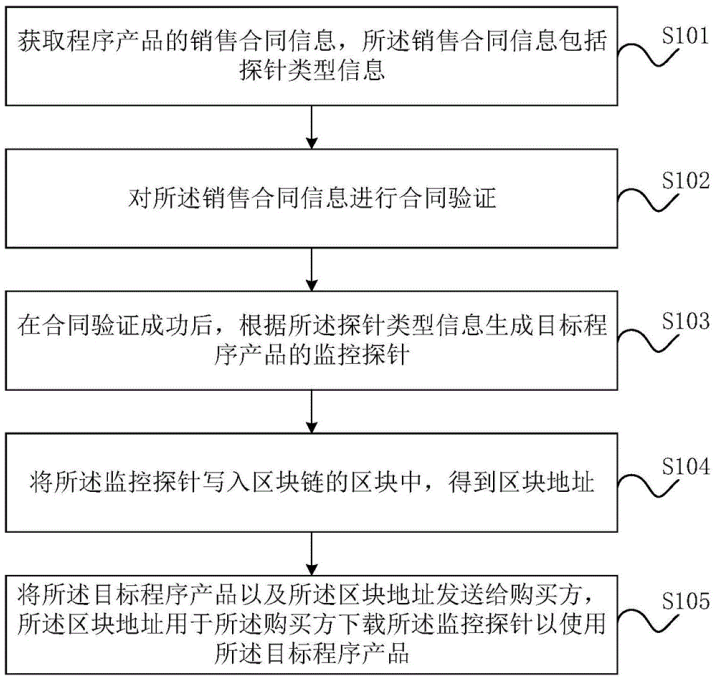
IPC - International classification
G06F-021/16* G06Q-040/04

CPC - Cooperative classification
G06F-021/16* G06Q-040/04

Family

CN109598108	B	2020-11-03		CN109598108	A	2019-04-09

(CN109598108)
The invention relates to a program product sales method, a block chain node, a storage medium and a block chain system. The method comprises the steps: obtaining sales contract information of a program product, the sales contract information comprising probe type information; Carrying out contract verification on the sales contract information; Generating a monitoring probe of a target program product according to the probe type information after contract verification is successful; Writing the monitoring probe into a block of a block chain to obtain a block address; And sending the target program product and the block address to a purchaser, wherein the block address is used for downloading the monitoring probe by the purchaser so as to use the target program product. According to the embodiment of the invention, the contract verification link and the monitoring probe generation link in the program product sales process are executed through the block chain system, and the informationof each link in the sales process is recorded, so that the whole sales process is traceable.



计算任务的处理方法和装置、存储介质及处理器

CN111881147 A

Current assignees

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SHENZHEN ICARBONX DIGITAL LIFE MANAGEMENT*

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WANG MENG

CAO WENCAI

ZHENG HANCHENG

WANG JIAN

Priority data including date

2019CN-1285440 2019-12-13

IPC - International classification

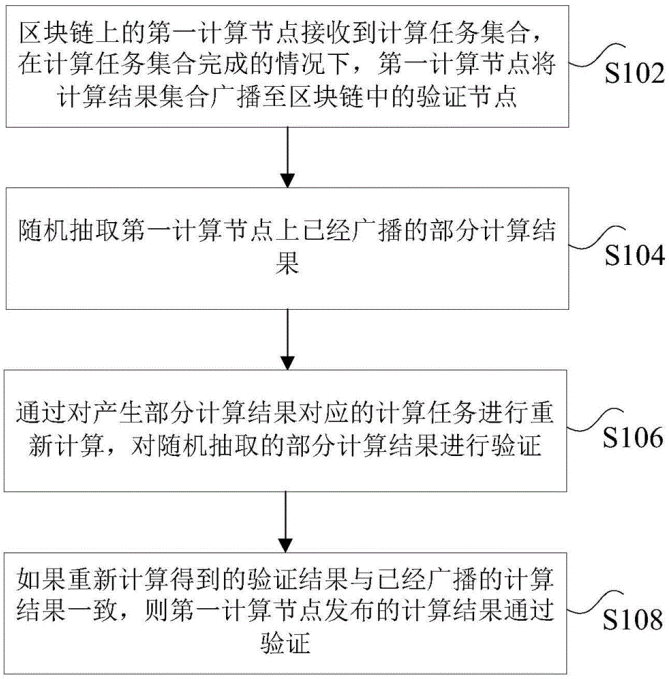
G06F-016/23* G06F-016/27 G06Q-040/04

Family

CN111881147 A 2020-11-03

(CN111881147)

本发明公开了一种计算任务的处理方法和装置、存储介质及处理器。 其中，该方法包括：区块链上的第一计算节点接收到计算任务集合，在计算任务集合完成的情况下，第一计算节点将计算结果集合广播至区块链中的验证节点，其中，验证节点为区块链上的任意一个计算节点；随机抽取第一计算节点上已经广播的部分计算结果；通过对产生部分计算结果对应的计算任务进行重新计算，对随机抽取的部分计算结果进行验证；如果重新计算得到的验证结果与已经广播的计算结果一致，则第一计算节点发布的计算结果通过验证。 本发明解决了现有技术中在区块链中存在大量的计算任务，在计算任务的处理过程中，存在计算结果无法快速验证的技术问题。



Decentralized processing of interactions on delivery
WO2020222777 A1

Current assignees

VISA*

Inventors

GADDAM, Sivanarayana

Priority data including date

2019WO-US29802 2019-04-30

IPC - International classification

G06K-019/06 H04L-009/06 H04L-009/08*
H04L-029/06

Family

WO2020/222777 A1 2020-11-05

(WO2020/222777)
A method includes generating, by a user device, an initial authorization request message for an interaction to obtain a resource from a resource provider. The user device transmits the initial authorization request message to a first node in a proxy network, wherein the first node processes the initial authorization request message and transmits a routing message to a second node in the proxy network based on the processing of the initial authorization request message, the second node being previously associated with the resource provider. The user device then receives from the second node and stores a pre-authorization approval indicator (PAAI). Upon delivery of the resource by an agent of the resource provider, the user device transmits an authorization request message including the pre-authorization approval indicator, wherein the agent device further processes and transmits the authorization request message to the proxy network for authorization by an authorizing entity.

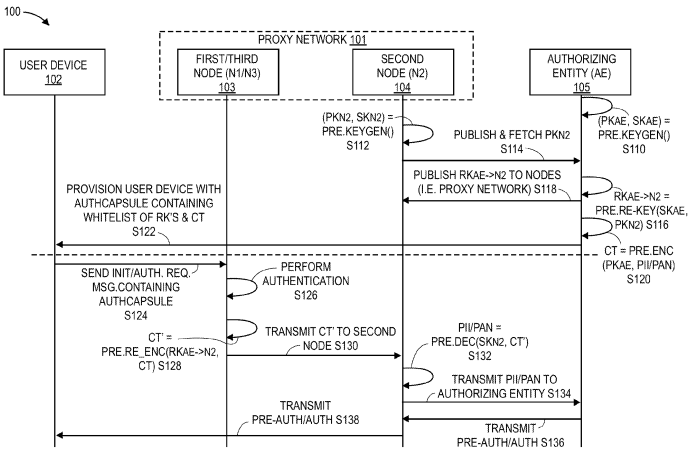


FIG. 1

Automatic cloud data discovery systems and methods
WO2020222205 A1

Inventors
KARLSEN, Geir Christian
RONNINGEN, Bard Frode

Priority data including date
2019US-62842428 2019-05-02

IPC - International classification
G06Q-010/10* G06Q-050/18

Family
WO2020/222205 A1 2020-11-05

(WO2020/222205)
Systems and methods for automatic cloud data discovery include a consent warehouse that authenticates with a data processor to receive an indication of data stored by the data processor and authenticates with a data controller to receive an indication of data processed by the data controller. The consent warehouse authenticates with a data subject to receive an identity of the data subject and generates, based upon the identity of the data subject, the indication of data stored, and the indication of data processed, a map indicating storage of personal data of the data subject by the data processor, and use of the personal data by the data controller. The consent warehouse interactively displays at least part of the map to the data subject and allows the data subject to manage consent for use of the personal data by the data controller.

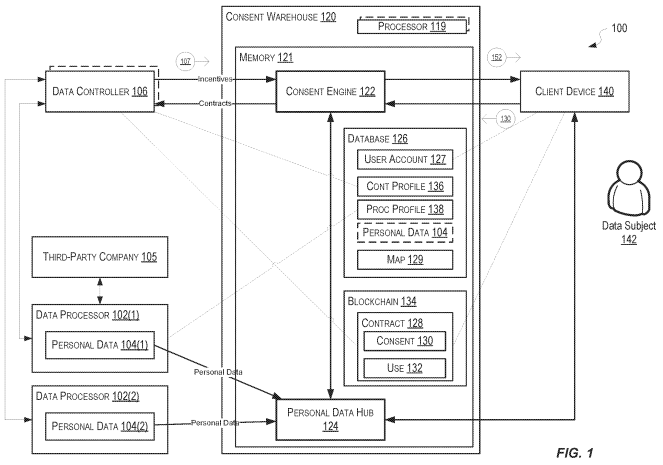


FIG. 1

Zero knowledge proving method and system for personal information, and storage medium

WO2020220413 A1

Current assignees

SHANDONG BINGLIAN NETWORK INFORMATION TECHNOLOGY

SHANDONG GLACIER BLOCKCHAIN TECHNOLOGY

SHANDONG INSTITUTE OF BUSINESS & TECHNOLOGY

SHANDONG TECHNOLOGY & BUSINESS UNIVERSITY

Inventors

ZHANG, Xiao

XU, Qiang

ZHOU, Weiming

FAN, Hui

LIU, Peiqiang

Priority data including date

2019CN-0365739 2019-04-29

IPC - International classification

H04L-009/32*

CPC - Cooperative classification

H04L-009/32/21*

Family

WO2020/220413	A1	2020-11-05	CN110311782	A	2019-10-08	
CN110311782	B	2020-04-14				

(WO2020/220413)

Disclosed in the present application are a zero knowledge proving method and system for personal information, and a storage medium. The method comprises: a third-party verification server carries out calculation according to personal information to be verified, an authority ID, and Merkel verification information sent by a user terminal, as well as a Hash algorithm corresponding to the authority ID, and an ordered Merkel tree construction rule, obtains a Merkel root value to be verified, and sends the Merkel root value to be verified and the authority ID to a block chain platform; the block chain platform obtains and sends a Merkel root value corresponding to the authority ID, a corresponding digital signature, and storage time to a third-party verification server according to the Merkel root value to be verified; the third-party verification server verifies, according to the authority ID, the received Merkel root value, the corresponding digital signature, and the storage time, the personal information sent by the user terminal. The present application solves the technical problem of unnecessary exposure of privacy information due to personal information verification.

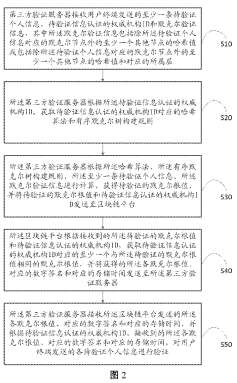


图 2

S10 A third-party verification server receives at least one piece of personal information to be verified an authority ID authenticated by information to be verified and Merkel verification information wherein the Merkel verification information comprises a Hash value of at least one other node than the Merkel node corresponding to the personal information or comprises the Hash value and a corresponding layer of the at least one other node than the Merkel node corresponding to the personal information

S20 The third-party verification server obtains according to the authority ID authenticated by the information to be verified a Hash algorithm corresponding to the authority ID authenticated by the information to be verified and an ordered Merkel tree construction rule

S30 The third-party verification server carries out calculation according to the Hash algorithm the ordered Merkel tree construction rule the at least one piece of personal information and the Merkel verification information obtains a Merkel root value to be verified and sends the Merkel root value to be verified and the authority ID to a block chain platform

S40 The block chain platform according to the received Merkel root value to be verified and the authority ID authenticated by the information to be verified obtains at least one Merkel root value identical to the Merkel root value to be verified and corresponding to the authority ID authenticated by the information to be verified and sends the obtained Merkel root value a corresponding digital signature and corresponding storage time to the third-party verification server

S50 The third-party verification server receives the Merkel root value the corresponding digital signature and the corresponding storage time sent by the block chain platform and verifies the personal information sent by a user terminal according to the authority ID the received Merkel root value the corresponding digital signature and the corresponding storage time

一种基于信用值借贷的能源区块链交易系统及方法

CN111885076 A

Current assignees

CHANGCHUN INSTITUTE OF TECHNOLOGY*

Inventors

HU MING

YAN HUI

YU PING

GENG XIAOZHONG

CHEN HANLIN

Priority data including date

2020CN-0752649 2020-07-30

IPC - International classification

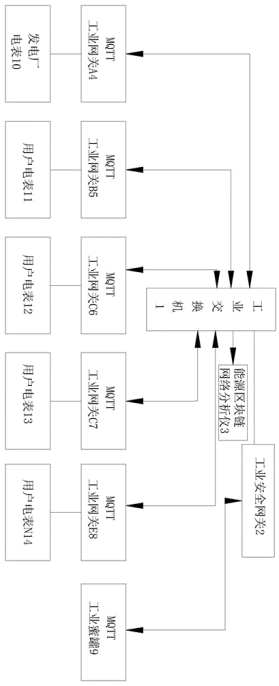
G06Q-020/38	G06Q-040/02	H04L-009/32
H04L-012/66	H04L-029/06*	H04L-029/08

Family

CN111885076 A 2020-11-03

(CN111885076)

本发明公开了一种基于信用值借贷的能源区块链交易系统及方法，包括工业交换机、工业安全网关、能源区块链网络分析仪、MQTT工业网关A、MQTT工业网关B、MQTT工业网关C、MQTT工业网关D、MQTT工业网关E、MQTT工业蜜罐、发电厂电表、用户电表A1、用户电表B1、用户电表C1和用户电表N；所述工业交换机分别连接工业安全网关与能源区块链网络分析仪，所述工业安全网关连接MQTT工业蜜罐。本基于信用值借贷的能源区块链交易系统及方法，通过使用MQTT工业蜜罐能够欺骗这些网络资产搜索引擎，作为以攻击者视角构建的陷阱，延迟和迷惑黑客的攻击，在提高主动防御能力、获取基础威胁情报和辅助决策支撑等方面提供帮助。



一种基于区块链的分布式数字证书认证系统

CN111884815 A

Current assignees

SHANGHAI KOAL SAFETY TECHNOLOGY*

Inventors

MENG RU

YANG WENSHAN

YANG CHANGPU

Priority data including date

2020CN-0789275 2020-08-07

IPC - International classification

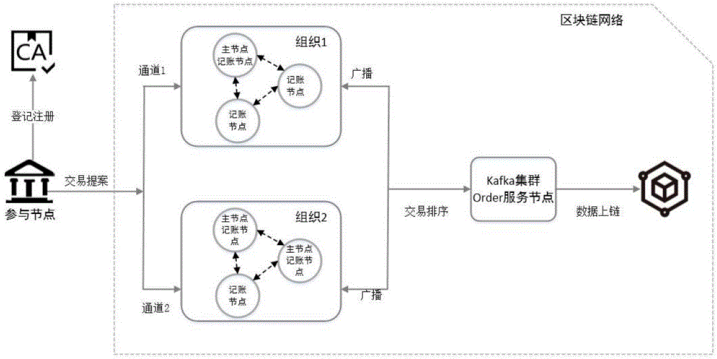
H04L-009/32* H04L-029/08

Family

CN111884815 A 2020-11-03

(CN111884815)

本发明公开的一种基于区块链的分布式数字证书认证系统，其包括：客户端,客户端负责用户身份注册，注册完成后，客户端负责提交用户关于证书签发、更新、废除、恢复的请求，并保存用户的证书、加密密钥对和累加证据值；证书管理中心,证书管理中心提供证书签发和管理功能，代表客户端向密钥管理中心发出密钥产生、恢复请求，为用户签发证书；密钥管理中心KM,密钥管理中心KM负责密钥的管理；区块链,区块链采用轻量级的证书上链模式,将证书状态元组包括用户身份、状态、密钥类型、签名值、累加证据值形成交易单发布在区块链上，利用K-V数据库将完整的证书存储在本地数据库中。 本发明在满足区块链安全特性下，使可用性也得到极大的提高。



利用区块链处理的空锅状态检测平台及方法

CN111870131 A

Current assignees

WUXI BEIDOUXINGTONG INFORMATION TECHNOLOGY*

Inventors

THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Priority data including date

2020CN-0396194 2020-05-12

IPC - International classification

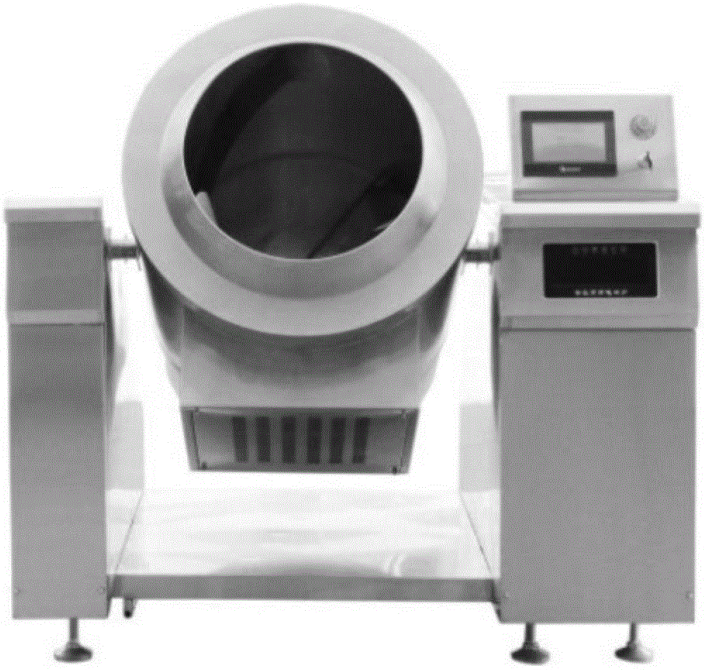
A47J-027/00 A47J-036/00* A47J-036/32

Family

CN111870131 A 2020-11-03

(CN111870131)

本发明涉及一种利用区块链处**理的空锅状**态检测**平台及方法**，**所述平台包括：**现场仪**表盒体**，设**置在烹**饪**炊具的附近**，**用于放置**执**行炒菜控制所需的**辅**助**电**子器件；**电**机控制**设备，**用于在接收到空**锅**辨**识**指令**时，**停止**电**机的运行以**结**束**电**机**带动**的机械手臂**对**烹**饪**炊具上方放置的**锅**体的炒**动**操作**，**在接收到**锅**体占用指令**时，**根据所述各个目**标**像素点的数量占据清晰化**处**理信号像素点**总**数的比例决定**电**机的旋**转**速率。 本发明的利用区**块链处**理的空锅状**态检测**平台及方法**结**构**简单、**方便**实**用。 由于能够基于**锅**体内的菜品的多寡决定自**动**翻炒的功率，**还**能够基于**锅**体是否**处**于空锅状**态**决定是否自**动实现**翻炒动作的**规**避，从而保**证锅**体的利用率，减少无谓的**损**耗。



区块链安全交易方法、计算机设备及可读存储介质

CN111882308 A

Current assignees

PINGAN TECHNOLOGY*

Inventors

KONG LINGWEI

WANG JIANZONG

HUANG ZHANGCHENG

CHENG NING

Priority data including date

2020CN-0752626 2020-07-30

IPC - International classification

G06Q-020/06* G06Q-020/22 G06Q-020/38

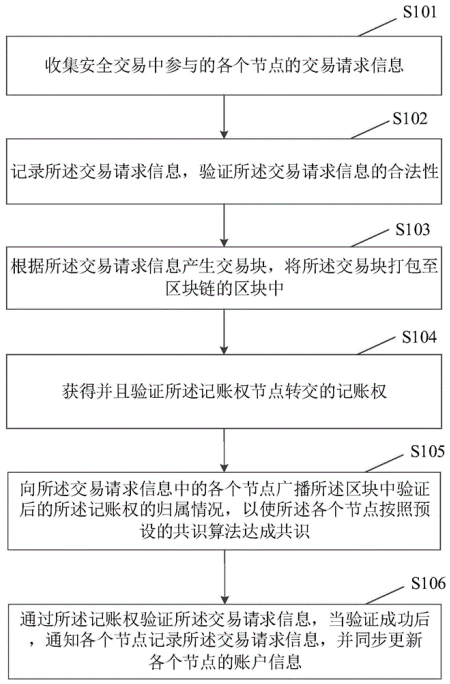
G06Q-040/04

Family

CN111882308 A 2020-11-03

(CN111882308)

本发明公开了一种区块链安全交易方法，包括：收集安全交易中参与的各个节点的交易请求信息；记录所述交易请求信息，并验证合法性；产生交易块，将所述交易块打包至区块链的区块中；获得且验证所述记账权节点转交的记账权；向各个节点广播验证后的所述记账权的归属情况，以使所述各个节点按照预设的共识设算法达成共识；通过所述记账权验证所述交易请求信息，当验证成功后，通知各个节点记录所述交易请求信息，并同步更新各个节点的账户信息。本发明提供的区块链安全交易方法，能够解决现有技术中，交易数据确认时延长，违法信息不能篡改，安全性差，隐私性不佳等问题。



一种基于物联网的区块链共识系统及共识方法

CN111885566 A

Current assignees

YLZ INFORMATION TECHNOLOGY*

Inventors

YOU HAITAO
LIANG XINGTONG
WANG LIN
WU HAO
LIN RONG
XU HUAQING

Priority data including date

2020CN-0635381 2020-07-03

IPC - International classification

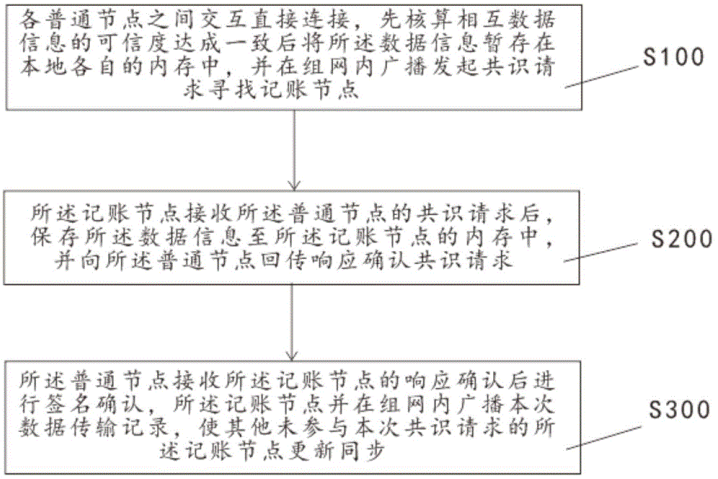
H04L-009/32 H04W-004/80* H04W-008/00
H04W-012/10 H04W-076/14

Family

CN111885566 A 2020-11-03

(CN111885566)

本发明涉及区块链共识机制技术领域，特别涉及一种基于物联网的区块链共识系统及共识方法，其中，一种基于物联网的区块链共识系统，包括形成组网的若干普通节点和记账节点，所述普通节点与所述记账节点通过无线协议通讯连接；所述普通节点和所述记账节点之间通过扫描距离证明达成共识机制，所述普通节点用于存储与本节点相关数据信息并发起共识请求，所述记账节点用于接收共识请求并存储所述普通节点发送的数据信息后，向所述普通节点响应确认共识请求并将存储的数据信息打包至区块链中，降低了共识过程中耗费的资源，同时提高了共识效率。



基于区块链的终端响应方法及振铃方法
CN111885267 A

Current assignees
CHINA UNICOM*

Inventors
YANG ZIWEN

Priority data including date
2020CN-0727620 2020-07-22

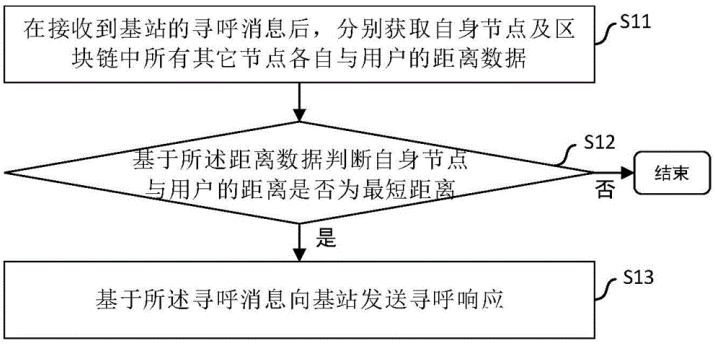
IPC - International classification
H04L-029/08 H04M-003/02* H04W-004/02

Family

CN111885267	A	2020-11-03

(CN111885267)

本公开提供一种基于区块链的终端响应方法及振铃方法，其中，所述基于区块链的终端响应方法包括：在接收到基站的寻呼消息后，分别获取自身节点及区块链中所有其它节点各自与用户的距离数据；基于所述距离数据判断自身节点与用户的距离是否为最短距离；若自身节点与用户的距离是最短距离，则基于所述寻呼消息向基站发送寻呼响应。 本公开实施例至少可以解决目前智能家居环境中，当有电话接入的时候让所有的家庭物联网终端同时间响应以及振铃，所导致的混乱、嘈杂等问题。



Digital certificate management method and system based on block chain
CN107425981 A

Current assignees
HUNAN YUELUSHAN RESEARCH INSTITUTE OF DATA SCIENCE & TECHNOLOGY*

Inventors
YIN HAO
GAO QIN

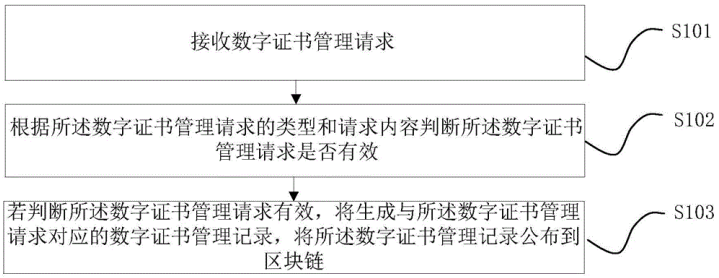
Priority data including date
2017CN-0438685 2017-06-12

IPC - International classification
H04L-009/08 H04L-009/32*

CPC - Cooperative classification
H04L-009/08 H04L-009/32/63*

Family
CN107425981 B 2020-11-03 CN107425981 A 2017-12-01

(CN107425981)
The embodiment of the application provides a digital certificate management method and system based on a block chain. The method includes: receiving a digital certificate management request; determining whether the digital certificate management request is valid according to the type and request content of the digital certificate management request; and if yes, generating a digital certificate management record corresponding to the digital certificate management request, wherein the digital certificate management record is published to the block chain, the block chain is formed by link of a plurality of blocks in sequence according to the generation time, and each block comprises the generation time, a Hash value of the current block, a Hash value of a previous block, and one or more digital certificate management records. According to the method and system, the issuing efficiency of digital certificates and the stability of a digital certificate system can be effectively improved, faults of the digital certificate management system due to failure of a single node are prevented, and the security of the digital certificate management is effectively improved.



基于区块链的标的物防伪溯源方法及装置

CN111882335 A

Current assignees
HUANG CANNAN

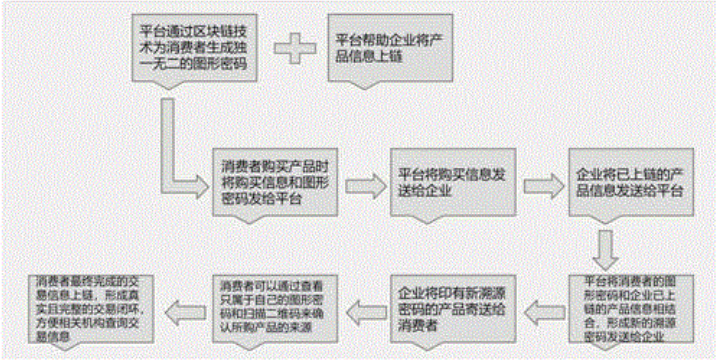
Inventors
HUANG CANNAN

Priority data including date
2020CN-0778793 2020-08-05

IPC - International classification
G06F-016/2458 G06K-017/00 G06Q-030/00*

Family
CN111882335 A 2020-11-03

(CN111882335)
本发明涉及基于区块链的标的物防伪溯源方法，包括：接收卖方标的物信息上链请求并上链至区块链防伪溯源平台，形成与标的物唯一对应的初始溯源二维码；接收买方注册请求并形成和发送展示与买方唯一对应的专属图形密码；结合所述初始溯源二维码及所述专属图形密码形成用于展示在标的物或标的物包装物上的全新的标的物溯源二维码并发送至卖方；接收扫描查询请求并在验证私钥后展示标的物信息和专属图形密码。 本发明将用户的真实身份信息和含有数字编码的专属图形分开，区块链只记录含有数字编码图形的交易信息，不记录用户真实身份信息，在保证了真实交易信息情况下，不仅可以在去中心化的区块链中，也可以在流转过程中，有效的保护用户的隐私。



一种基于区块链的反洗钱名单共享系统和方法

CN111881479 A

Current assignees

JIANGSU SUNING BANK*

Inventors

HUANG JIN
YU YUN
CHEN FEIQI
SHI ZHIHUI
WAN WENBING
WANG YE
LUO MINGXING
HU SHIKUN

Priority data including date

2020CN-0750834 2020-07-30

IPC - International classification

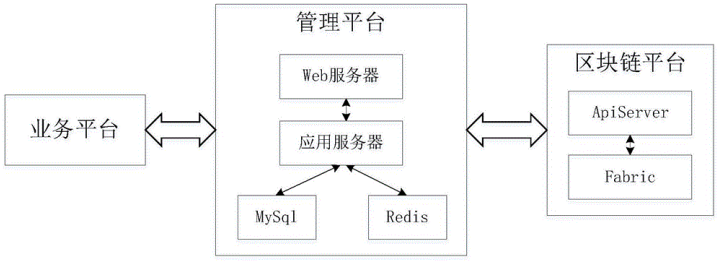
G06F-021/62* G06F-021/64 G06Q-020/40

Family

CN111881479 A 2020-11-03

(CN111881479)

本发明提出了一种基于区块链的反洗钱名单共享系统和方法，该系统包括主节点和至少两个从节点，每个节点均包括管理平台和区块链平台；管理平台包括MySql数据库服务器、Redis数据库服务器、应用服务器和Web服务器，Web服务器与应用服务器相连，应用服务器与MySql数据库服务器和Redis数据库服务器相连；区块链平台包括Apiserver中间件和fabric框架，Apiserver中间件与fabric框架相连。本发明采用去中心化运营的共享模式，无需建设数据中心，降低了其运营和建设成本，对涉及个人信息的数据均采用加密和脱敏处理，降低违规使用、提供、泄露个人信息数据的风险。



一种基于区块链的数据处理方法、装置及设备

CN111882436 A

Current assignees

TENCENT TECHNOLOGY (CHENGDU)*

Inventors

FENG QIYAO

LIU ZHIHONG

Priority data including date

2020CN-0754673 2020-07-30

IPC - International classification

G06F-016/27 G06F-021/62 G06F-021/64

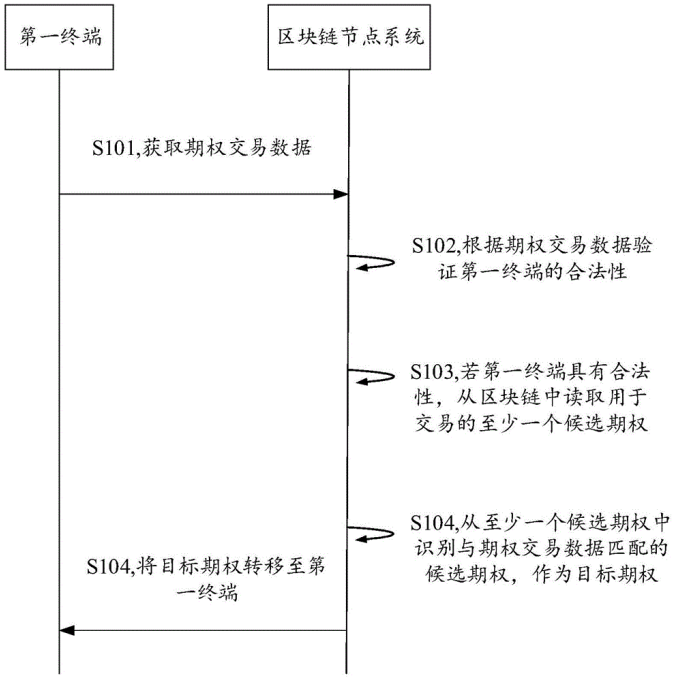
G06Q-040/04*

Family

CN111882436 A 2020-11-03

(CN111882436)

本申请实施例公开了一种基于区块链的数据处理方法、装置及设备，属于区块链技术领域，其中，方法包括：获取期权交易数据，上述期权交易数据用于第一终端从区块链中获取期权；根据上述期权交易数据验证上述第一终端的合法性；若上述第一终端具有合法性，从上述区块链中读取用于交易的至少一个候选期权；从上述至少一个候选期权中识别与上述期权交易数据匹配的候选期权，作为目标期权，将上述目标期权转移至上述第一终端。采用本申请实施例，可以提高期权交易的安全性以及公平性。



一种基于弱中心化联盟区块链的电力市场交易及评估方法

CN111882385 A

Current assignees

AUTOMATION BRANCH OF ZHEJIANG ZHONGXIN ELECTRIC POWER ENGINEERING CONSTRUCTION
STATE GRID ZHEJIANG HANGZHOU XIAOSHAN POWER SUPPLY
ZHEJIANG ZHONGXIN ELECTRIC POWER ENGINEERING CONSTRUCTION*

Inventors

WENG LIGUO
QIU HAIFENG
WEI YAOWEN
ZHANG YANGHUI
SHOU TING
HUO KAILONG

Priority data including date

2020CN-0661634 2020-07-10

IPC - International classification

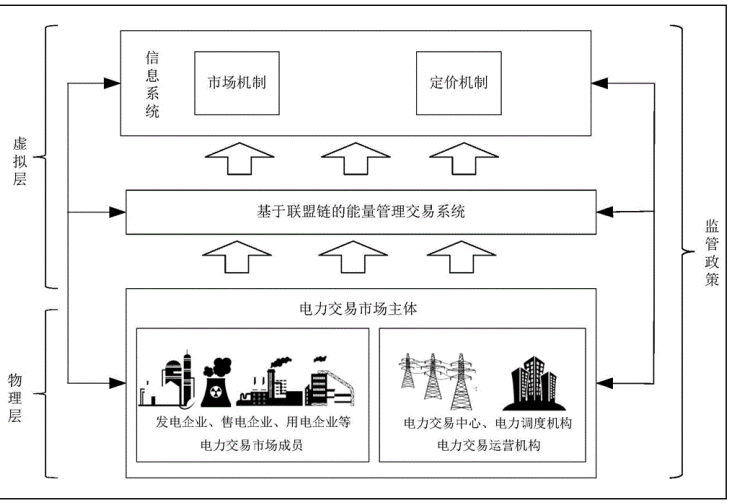
G06Q-030/06* G06Q-040/04 G06Q-050/06

Family

CN111882385 A 2020-11-03

(CN111882385)

本发明涉及能源交易区块链技术，具体涉及一种基于弱中心化联盟区块链的电力市场交易及评估方法，通过联盟区块链技术、P2P网络和授权拜占庭容错共识机制，将电力市场运营机构和电力市场交易主体分别归入全节点网络和轻节点网络，通过引入联盟区块链技术，利用其弱中心化特性，部分解放市场运营机构的中心管控权限，实现了电力灵活自主、公平公正的交易；架构底层P2P网络满足了各市场主体间资源与服务交换，适应了电力交易市场分布特性；基于拜占庭容错共识通信技术，建立抗毁性与生存性指标，定量衡量了该弱中心化区块链技术在电力交易市场中的可靠性。



A machine room with moisture-proof function equipped with block chain technology
CN109246945 A

Current assignees
SHENZHEN LVYUAN HUIZHI TECHNOLOGY*

Inventors
WU JIANBIN

Priority data including date
2018CN-0941741 2018-08-17

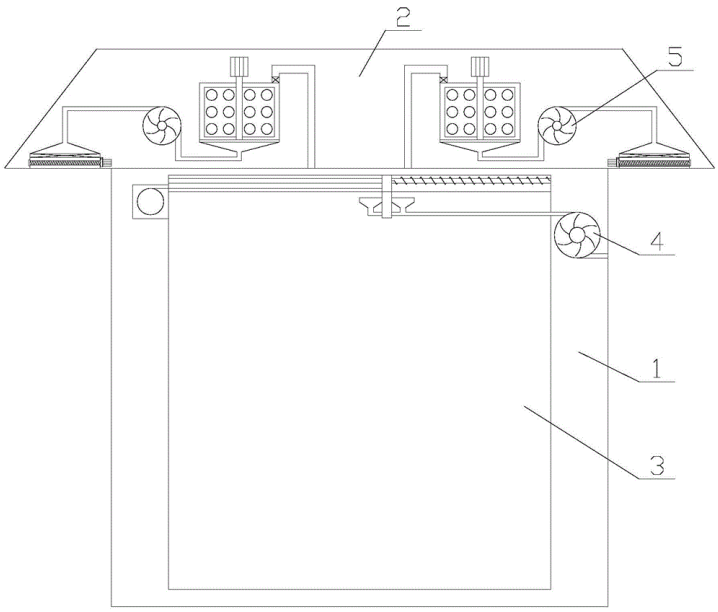
IPC - International classification
H05K-005/02*

CPC - Cooperative classification
H05K-005/02*

Family

CN109246945	B	2020-11-03		CN109246945	A	2019-01-18

(CN109246945)
The invention relates to a machine room with moisture-proof function equipped with block chain technology, which comprises a main body and a rain shield, A main body is provided with a working room and a scraping mechanism, A work room is provided with a processor and a memory, two purifying mechanisms are arranged in the rain shield, A scrape mechanism includes an aspirator, a drive unit and a wiper unit, A purification mechanism includes a dust removal unit, a blower and a dehumidification unit; the machine room equipped with the block chain technology and having the moisture-proof function,uses block chain technology to store data, so that that security level of the data is high, and by a scraping mechanism, the machine room is capable of scraping off condensed water droplets on the ceiling of the machine room and discharging them out of the machine room, The water droplets are prevented from dropping onto the equipment in the machine room to cause short circuit of the equipment inthe machine room. Moreover, through the purification mechanism, the machine room can filter and remove the dust in the air entering the work room, prevent the dust from entering into the equipment inthe machine room and cause short circuit damage to the circuit board in the equipment in the machine room.



Block-chain-based short message authentication method, device, network and storage medium

CN109345245 A

Current assignees

IALLCHAIN*

Inventors

LU CHENGYE

WANG LING

Priority data including date

2018CN-1112835 2018-09-25

IPC - International classification

G06Q-020/38* G06Q-020/42

CPC - Cooperative classification

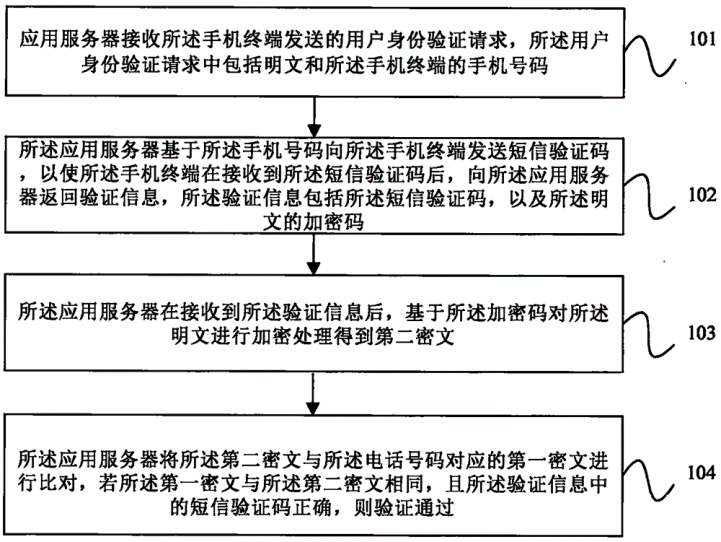
G06Q-020/38/29* G06Q-020/42/5

Family

CN109345245	B	2020-11-03		CN109345245	A	2019-02-15

(CN109345245)

The embodiment of the invention provides a short message authentication method based on a block chain, The method is applicable to a block chain network. The node in the block chain network comprisesan operator server, an application server and a mobile phone terminal. The account book of the block chain network comprises the correspondence between the mobile phone number of the mobile phone terminal and the first ciphertext. After receiving the user authentication request sent by the mobile phone terminal, the application server sends the short message authentication code to the mobile phoneterminal based on the mobile phone number, so that the mobile phone terminal returns the short message authentication code and the plaintext password to the application server after receiving the short message authentication code. The application server encrypts the plaintext to obtain the second ciphertext based on the encrypted cipher. If the first ciphertext corresponding to the mobile phone number is the same as the second ciphertext, and the short message verification code in the verification information is correct, the verification is passed. The technical proposal provided by the embodiment of the invention can improve the security of short message verification.



Authentication system and authentication program
WO2019198131 A1

Current assignees

MITSUBISHI ELECTRIC*

Inventors

HONJO, Masaya

MATSUMOTO, Mitsuhiro

Priority data including date

2018WO-JP14949 2018-04-09

IPC - International classification

H04L-009/08 H04L-009/32*

CPC - Cooperative classification

H04L-009/32*

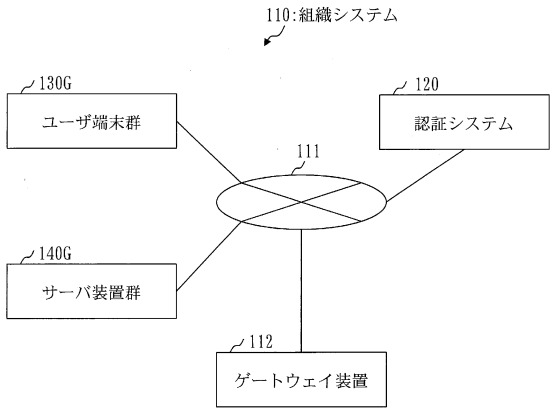
Family

GB2583686	A	2020-11-04	JP6742558	B2	2020-08-19	
GB202013096	D0	2020-10-07	JPWO2019198131	A1	2020-07-30	
SG11202007876Q	A	2020-09-29	WO2019/198131	A1	2019-10-17	

(WO2019/198131)

An authentication system (120), of another organization that is a different organization from a first organization to which a first user belongs, wherein a management device (200) accepts a registration transaction for a client certificate of the first user. The management device then registers the client certificate of the first user with a client certificate block chain. When the first user accesses a service of the other organization from a user terminal of the first organization, an authentication device (300) authenticates the first user by use of the client certificate of the first user in the client certificate block chain.

[図2]



110... ORGANIZATION SYSTEM
112... GATEWAY DEVICE
120... AUTHENTICATION SYSTEM
130G... USER TERMINAL GROUP
140G... SERVER DEVICE GROUP

Zero knowledge proof-based citizen privacy protection method and system, and storage medium

WO2020220412 A1

Current assignees

SHANDONG BINGLIAN NETWORK INFORMATION TECHNOLOGY

SHANDONG GLACIER BLOCKCHAIN TECHNOLOGY

SHANDONG INSTITUTE OF BUSINESS & TECHNOLOGY

SHANDONG TECHNOLOGY & BUSINESS UNIVERSITY

Inventors

ZHANG, Xiao

XU, Qiang

ZHOU, Weiming

LIU, Chunrui

Priority data including date

2019CN-0365740 2019-04-29

IPC - International classification

H04L-009/32*

CPC - Cooperative classification

H04L-009/32/21* H04L-2209/38

Family

WO2020/220412	A1	2020-11-05	CN110336672	A	2019-10-15	
CN110336672	B	2020-07-28				

(WO2020/220412)

The present application discloses a zero knowledge proof-based citizen privacy protection method and system, and a storage medium. Said method comprises: after acquiring biological information about a citizen, a checking terminal acquiring a Merkel root value corresponding to the biological information; acquiring mandatory public information corresponding to the Merkel root value according to the Merkel root value, and sending a privacy checking request to the user terminal when the mandatory public information satisfies a first preset condition; and receiving personal privacy information and Merkel verification information fed back by the user terminal, performing calculation according to a hash algorithm, an ordered Merkel tree construction rule, the personal privacy information and the Merkel verification information to obtain a Merkel root value to be verified, determining whether the Merkel root value to be verified is the same as the Merkel root value, and if the Merkel root value to be verified is the same as the Merkel root value, determining that the personal privacy information provided by the user terminal is true. The present application solves the technical problem that citizen privacy information is exposed during citizen information review.

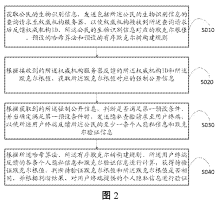


图 2

S010 Acquire biological identification information about a citizen and send a query request comprising the biological identification information about the citizen to an authority server so that upon reception of the query request an authority feeds back an authority ID a Merkel root value corresponding to the biological identification information about the citizen a preset hash algorithm and a preset ordered Merkel tree construction rule

S020 Acquire according to the received authority ID and the Merkel root value fed back by the authority server mandatory public information corresponding to the Merkel root value

S030 Determine according to the acquired mandatory public information whether a first preset condition is satisfied and if the first preset condition is satisfied send a privacy checking request to a user terminal so that the user terminal feeds back at least one piece of personal privacy information and Merkel verification information

S040 Perform calculation according to the hash algorithm the ordered Merkel tree construction rule various pieces of personal privacy information and the Merkel verification information fed back by the user terminal to obtain a Merkel root value to be verified determine whether the Merkel root value to be verified is the same as the Merkel root value and perform according to the determination result verification on the personal privacy information provided by the user terminal

数据预处理系统、方法、计算机设备及可读存储介质

CN111882074 A

Current assignees

PINGAN TECHNOLOGY*

Inventors

ZHANG NAN

WANG JIANZONG

JU XIAOYANG

Priority data including date

2020CN-0752209 2020-07-30

IPC - International classification

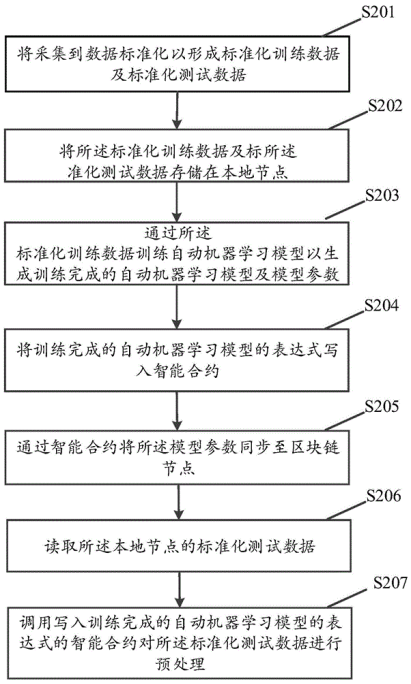
G06F-016/27 G06F-021/64 G06N-020/00*

Family

CN111882074 A 2020-11-03

(CN111882074)

本发明公开了一种数据预处理方法，可以用于智能工厂等场景中。 所述方法包括：将采集到数据标准化以形成标准化训练数据及标准化测试数据；将所述标准化训练数据及所述标准化测试数据存储在本地节点；通过所述标准化训练数据训练自动机器学习模型以生成训练完成的自动机器学习模型及模型参数；将训练完成的自动机器学习模型的表达式写入智能合约；通过智能合约将所述模型参数同步至区块链节点；读取所述本地节点的标准化测试数据；调用写入训练完成的自动机器学习模型的表达式的智能合约对所述标准化测试数据进行预处理。 本发明技术方案能够适应复杂场景，提高区块链的数据处理能力。



区块链网络平台工资结算系统及方法

CN111885066 A

Current assignees

HANGZHOU LANGWEN INTELLIGENT TECHNOLOGY*

Inventors

THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Priority data including date

2020CN-0723962 2020-07-24

IPC - International classification

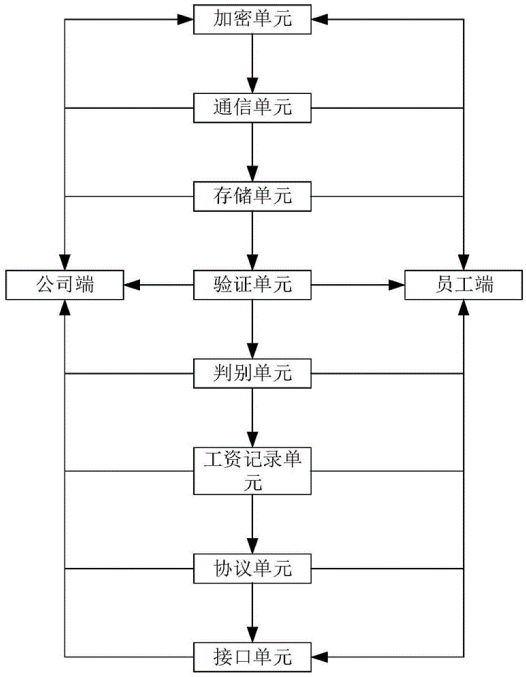
G06Q-010/10 G06Q-040/00 H04L-029/06*

Family

CN111885066 A 2020-11-03

(CN111885066)

本发明属于区块链技术领域，具体区块链网络平台工资结算系统及方法，所述系统包括：加密单元，用于对待传输的目标工资数据进行加密处理以形成加密工资数据；通信单元，用于与区块链进行所述加密工资数据的传输；存储单元，用于存储公司终端自身的所述目标工资数据及所述区块链传输的其它加密工资数据；验证单元，用于向连接于所述区块链的其它所有在线员工终端发送验证所述加密工资数据是否发生改变的请求。 其通过利用区块链的共识机制，将加密的工资数据和加密用的随机数进行分割后传输，再通过区块链中的各个终端进行组合，提升了数据的安全性和终端接收到加密后的数据后解密的效率。



基于区块链的交通违章举报系统

CN111882881 A

Current assignees
BEIJING HAOPU INFORMATION & TECHNOLOGY*

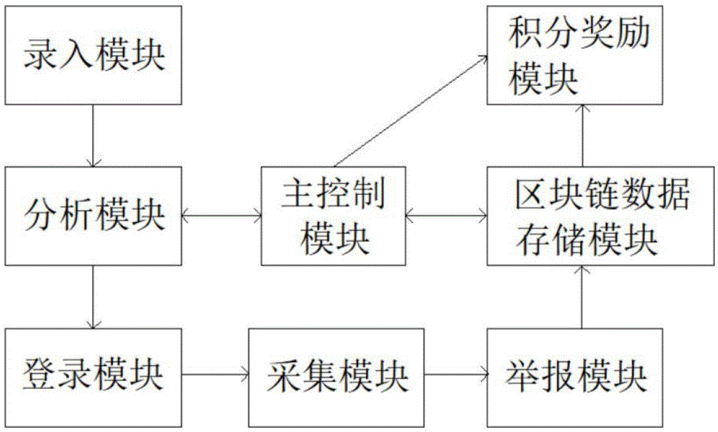
Inventors
MA HAOBO

Priority data including date
2020CN-0718596 2020-07-23

IPC - International classification
G06Q-050/26 G06Q-050/30 G08G-001/017*
H04L-029/06 H04L-029/08

Family
CN111882881 A 2020-11-03

(CN111882881)
本发明提供基于区块链的交通违章举报系统，其特征在于包括录入模块、分析模块、登录模块、采集模块、举报模块、区块链数据存储模块、积分奖励模块、主控制模块，本发明通过利用分析模块，使得能够作为在线车辆交通违章举报系统的载体的用户不仅仅只局限于出租车，对于任意具备使用条件的用户皆可作为在线车辆交通违章举报系统的载体，从而在增加了对交通的监管力度的同时，扩展了交通的监管范围，即使在部分出租车较少的地区，仍然能够存在具备使用条件的用户，进而可在极大程度上减少交通违章事件发生的频率，提高人们出行时的安全性。



基于区块链的专家信息共享方法、装置、设备及存储介质

CN111881207 A

Current assignees

GUANGDONG JINKE INFORMATION NETWORK CENTER

GUANGDONG SCIENCE & TECHNOLOGY INNOVATION MONITORING & RESEARCH CENTER

Inventors

HU YI

CAI GUILAN

QIU ZHOUQIANG

ZHENG HONGSONG

ZHOU HONGHONG

CHEN LILI

Priority data including date

2020CN-0545000 2020-06-15

IPC - International classification

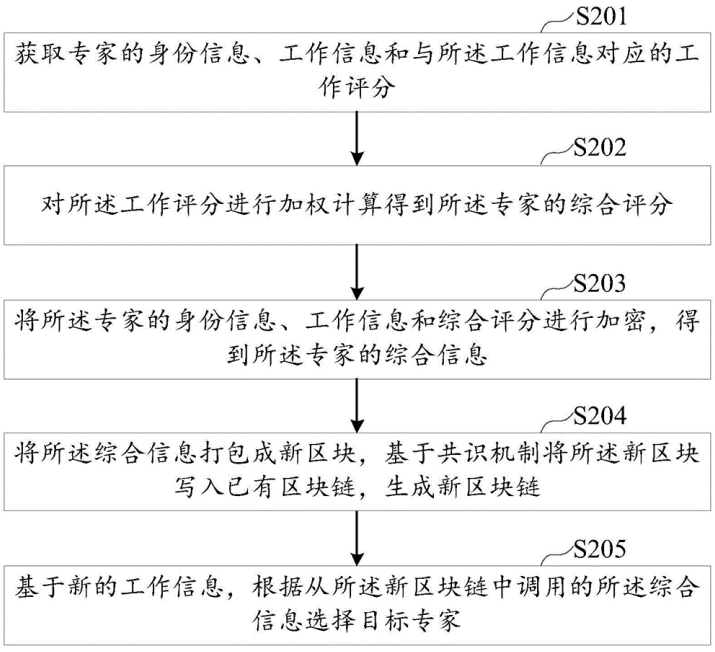
G06F-016/27* G06Q-010/06

Family

CN111881207 A 2020-11-03

(CN111881207)

本申请涉及区块链技术领域，具体公开了一种基于区块链的专家信息共享方法、装置、设备及存储介质，应用于专家管理节点，所述方法包括：获取专家的身份信息、工作信息和与所述工作信息对应的工作评分；对所述工作评分进行加权计算得到所述专家的综合评分；将所述专家的身份信息、工作信息和综合评分进行加密，得到所述专家的综合信息；将所述综合信息打包成新区块，基于共识机制将所述新区块写入已有区块链，生成新区块链；基于新的工作信息，根据从所述新区块链中调用的所述综合信息选择目标专家。以进行专家的综合信息的共享，提高在下一次的评审活动或咨询服务中选择目标专家的准确度。



Block chain server arrangement platform
CN211857397U U

Current assignees

CHONGQING SUSHU NETWORK TECHNOLOGY*

Inventors

HONG JIAN

Priority data including date

2020CN-U993728 2020-06-03

IPC - International classification

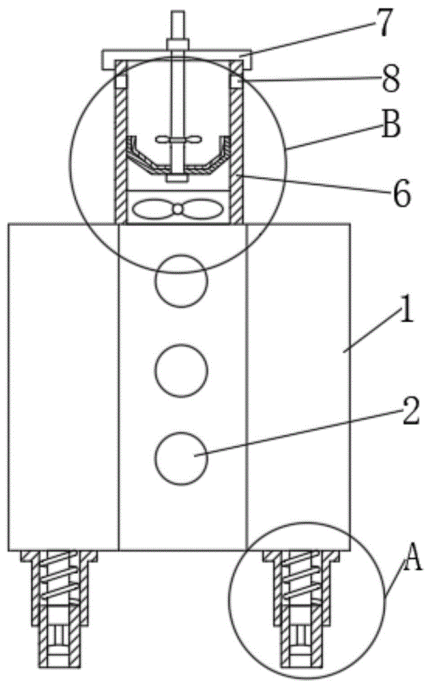
B01D-046/00	B01D-046/10	F16F-015/067
G06F-001/18*	G06F-001/20	

Family

CN211857397 U 2020-11-03

(CN211857397)

The utility model relates to a block chain server arrangement platform, including the box, the louvre has been seted up to the inside of box, and the lower extreme fixedly connected with shock absorber sleeve of box, the telescopic inside slip of shock absorber has cup jointed the spring, and the lower extreme contact of spring is connected with the shock absorber base, and the upper end fixed mounting of box has the rose box, and the upper end demountable installation of rose box has the filtration case lid, and the air intake has been seted up to the upper end of rose box, the inside welding of rose box has the baffle, the upper end demountable installation of baffle has the cassette. The utility model discloses an add the mode of establishing the rose box in the upper end of fan, filter a large amount of dusts that the fan was inhaled in the rose box, because of the dust is great, add on the filter element and established a rubber pole again and be equipped with the spoiler, can prevent that the dust from blocking up the filter element too much, and the filter element of this design is for replacing the filter element, easy to assemble and dismantlement, not only with low costs and flexibility are strong.



基于区块链的图片处理方法及装置

CN111881422 A

Current assignees
ADVANCED NEW TECHNOLOGIES*

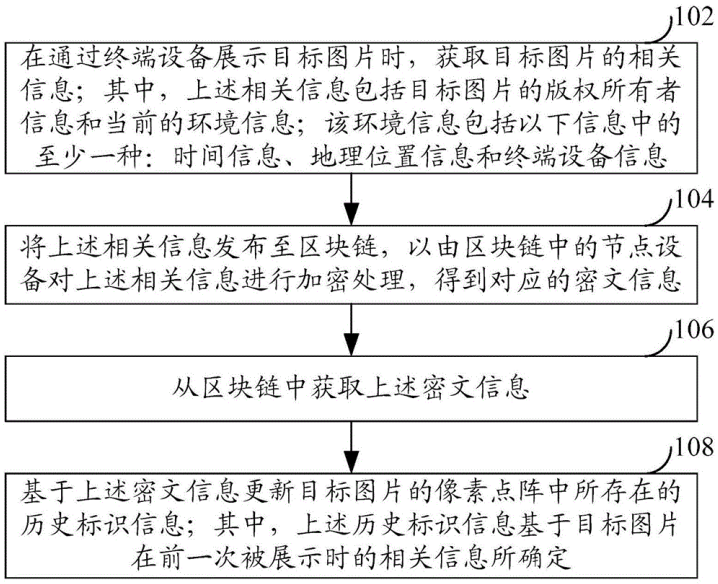
Inventors
LI, ZHIGUO

Priority data including date
2020CN-0754384 2019-05-13

IPC - International classification
G06F-021/10* G06F-021/62 G06F-021/64

Family
CN111881422 A 2020-11-03

(CN111881422)
本说明书实施例提供了一种基于区块链的图片处理方法及装置，该方法包括：在通过终端设备展示目标图片时，获取目标图片的相关信息；将该相关信息发布至区块链，以由区块链中的节点设备对相关信息进行加密处理，得到对应的密文信息；从区块链获取上述密文信息；基于所获取的密文信息更新目标图片的像素点阵中所存在的历史标识信息；其中，上述相关信息包括目标图片的版权所有者信息和当前的环境信息；环境信息包括以下信息中的至少一种：时间信息、地理位置信息和终端设备信息；历史标识信息基于目标图片在前一次被展示时的相关信息所确定。



物联网网间设备通信方法、系统及边缘节点

CN111885157 A

Current assignees

CHINA UNICOM*

Inventors

HUANG KE

Priority data including date

2020CN-0712498 2020-07-22

IPC - International classification

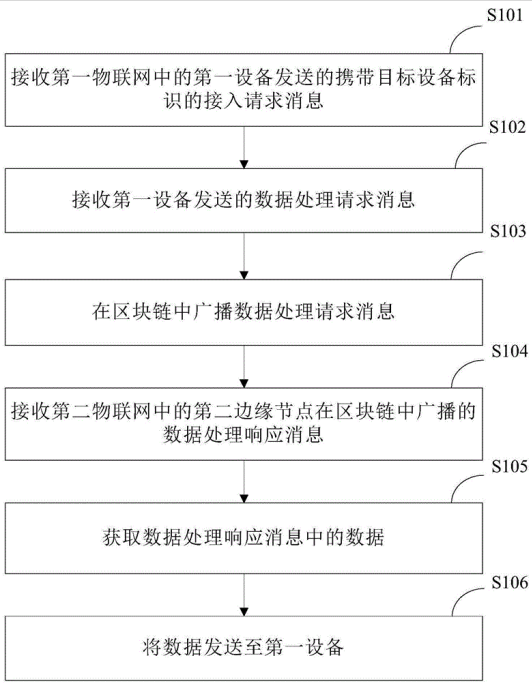
H04L-029/06 H04L-029/08*

Family

CN111885157 A 2020-11-03

(CN111885157)

本公开提出了一种物联网网间协作方法、系统及边缘节点，所述方法包括：接收第一物联网中的第一设备发送的携带目标设备标识的接入请求消息；接收所述第一设备发送的数据处理请求消息，所述数据处理请求消息是第一设备通过本第一边缘节点接入第一物联网之后发送的；在区块链中广播所述数据处理请求消息；接收第二物联网中的第二边缘节点在区块链中广播的数据处理响应消息；获取所述数据处理响应消息中的数据，并将所述数据发送至所述第一设备。 有效的提高物联网网间设备通信能力，降低日益增加的物联网网络的设备的接入导致的物联网系统之间协作的运行及维护成本，保证物联网网络的安全、可信和稳定运行。



一种区块链金融大数据处理系统

CN111885187 A

Current assignees
CHEN JIALIN*

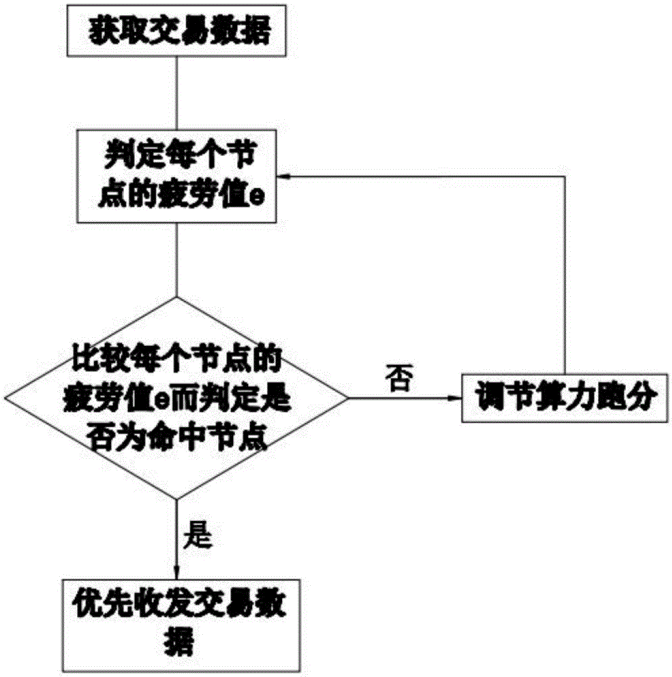
Inventors
THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Priority data including date
2020CN-0746373 2019-06-03

IPC - International classification
H04L-029/06 H04L-029/08*

Family
CN111885187 A 2020-11-03

(CN111885187)
本发明一种区块链金融大数据处理系统所述区块链包括至少5个相互连接的节点和与节点连接的区块链服务器，所述节点包括数据获取模块、数据发送模块、数据接收模块、区块链数据库，区块链服务器根据每个节点的数据接收模块开始解密交易数据至发送解密成功的回执的时间a和被解密的交易数据的容量b来判定该节点的算力跑分c，并根据每个节点的正在处理队列的数据的容量d而分配整个区块链的节点的交易信息的处理队列。 本发明通过上述解密并发送回执的时间a和被解密的交易数据的容量b来判定该节点的算力跑分c，从而以最为实际的场景来检测每个节点的算力，从而确定每个节点的最真实的运算能力，并根据其队列情况而调节每个节点的处理队列。



一种基于区块链的税务信息查询方法及系统

CN111882410 A

Current assignees

FORESEE TECHNOLOGY*

Inventors

CHEN ZHENYU

YANG JIE

WAN QIN

SHI WENJUN

Priority data including date

2020CN-0536932 2020-06-12

IPC - International classification

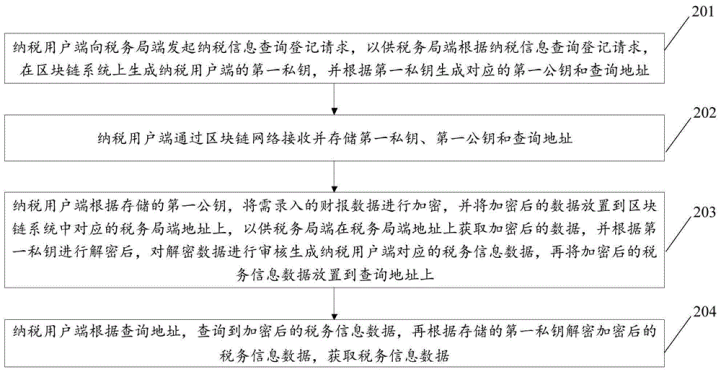
G06F-021/64 G06Q-040/00*

Family

CN111882410 A 2020-11-03

(CN111882410)

本发明公开了一种基于区块链的税务信息查询方法及系统，该方法包括纳税用户端发起纳税信息查询登记请求，以供税务局端根据该登记请求，生成第一私钥；纳税用户端根据存储的第一公钥，将需录入的财报数据进行加密，并将加密后的数据放置到对应的税务局端地址上，以供税务局端并根据第一私钥进行解密后，对解密数据进行审核生成纳税用户端对应的税务信息数据，再将加密后的税务信息数据放置到查询地址上；纳税用户端根据查询地址，查询到加密后的税务信息数据，再根据存储的第一私钥解密后得到税务信息数据。 本发明技术方案不仅能解决传统税务查询系统所面临的数据查询慢的问题，而且能提高数据安全性、税局与企业之间的互信度。



基于区块链的产品溯源方法及装置

CN111882329 A

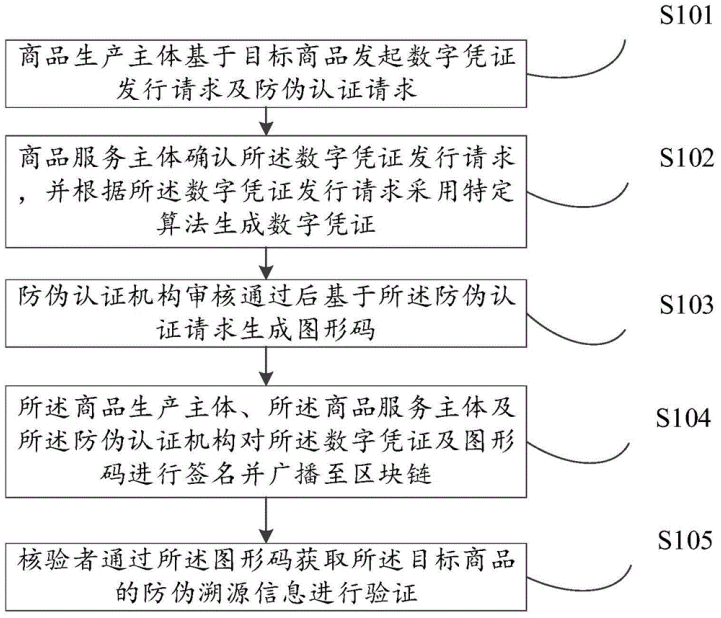
Inventors
WEI FAN
DONG YUNJIE
WU JIE

Priority data including date
2020CN-0723041 2020-07-24

IPC - International classification
G06K-017/00 G06Q-030/00* H04L-029/08

Family
CN111882329 A 2020-11-03

(CN111882329)
本发明实施例提供的基于区块链的产品溯源方法及装置，属于溯源技术领域，商品生产主体基于目标商品发起数字凭证发行请求及防伪认证请求，商品服务主体确认所述数字凭证发行请求，并根据所述数字凭证发行请求采用特定算法生成数字凭证；防伪认证机构审核通过后基于所述防伪认证请求生成图形码；所述商品生产主体、所述商品服务主体及所述防伪认证机构对所述数字凭证及图形码进行签名并广播至区块链；核验者通过所述图形码获取所述目标商品的防伪溯源信息进行验证，通过数字凭证及多个参与方的认证来保证商品来源及产品重要环节的可追溯性和不可人为篡改。



基于区块链的业务费用结算方法、装置、设备及存储介质

CN111882273 A

Current assignees

SHANGHAI DONGPU INFORMATION TECHNOLOGY*

Inventors

WANG JUNGUO

Priority data including date

2020CN-0699744 2020-07-20

IPC - International classification

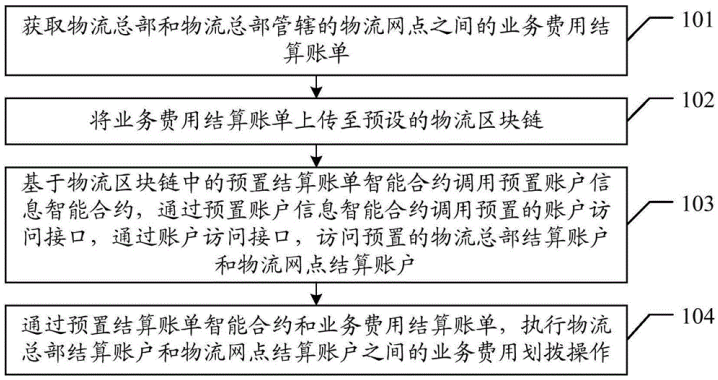
G06F-021/64 G06Q-010/08* G06Q-040/04

Family

CN111882273 A 2020-11-03

(CN111882273)

本发明涉及物流技术领域，提供一种基于区块链的业务费用结算方法、装置、设备及存储介质，用于解决现有技术中，物流业务费用的结算数据安全性低的问题。基于区块链的业务费用结算方法包括：获取物流总部和物流总部管辖的物流网点之间的业务费用结算账单；将业务费用结算账单上传至预设的物流区块链；基于物流区块链中的预置结算账单智能合约调用预置账户信息智能合约，通过预置账户信息智能合约调用预置的账户访问接口，通过账户访问接口，访问预置的物流总部结算账户和物流网点结算账户；通过预置结算账单智能合约和业务费用结算账单，执行物流总部结算账户和物流网点结算账户之间的业务费用划拨操作。



基于区块链和星际文件系统的物流单证存档方法和系统
CN111882261 A

Current assignees
HEFEI WEITIAN YUNTONG INFORMATION TECHNOLOGY*

Inventors
FENG LEI
DU BING
YANG HAOFENG

Priority data including date
2020CN-0542278 2020-06-15

IPC - International classification

G06F-016/22	G06F-016/27	G06F-021/60
G06F-021/64	G06Q-010/08*	

Family

CN111882261 A 2020-11-03

(CN111882261)
本发明公开了基于区块链和星际文件系统的物流单证存档方法和系统，涉及区块链技术领域。 本发明包括：通过物流平台管理系统记录物流单证流转过程以及物流单证状态；构建用于存储物流单证的星际文件系统IPFS；确定星际文件系统IPFS与物流平台管理系统的接口标准；通过物流平台管理系统最终确认物流单证后，通过API接口签收物流回单并存档至星际文件系统IPFS；星际文件系统IPFS将若干小文件块随机存储到IPFS节点并对应生成唯一的哈希表。 本发明通过基于区块链技术的加密、时间戳特性，可以保证物流单证传输及最后存档的不可篡改和可信；IPFS星际文件系统基于哈希加密、P2P协议等技术，可以保证物流单证存档的永久性，保证存储成本低，检索更有效。

电子产品的防伪方法、装置、存储介质以及电子设备
CN111882325 A

Current assignees
SHENZHEN COOLPAD SOFTWARE TECHNOLOGY*

Inventors
SHI AIMIN

Priority data including date
2020CN-0557947 2020-06-17

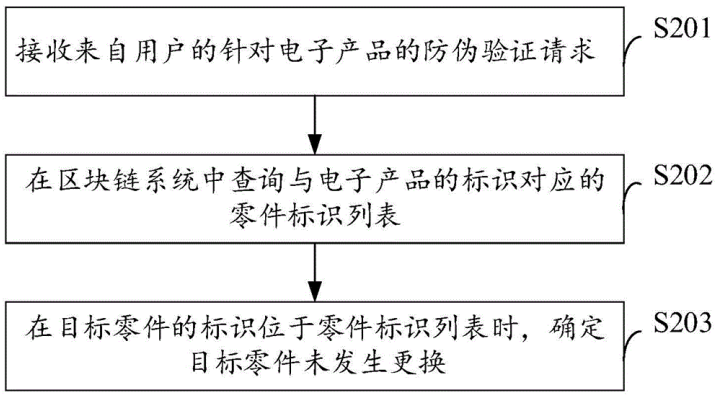
IPC - International classification
G06F-016/2455 G06F-021/64 G06Q-030/00*

Family

CN111882325	A	2020-11-03

(CN111882325)

本申请实施例公开了一种电子产品的防伪方法、装置、存储介质以及电子设备。 所述方法包括：接收来自用户的针对电子产品的防伪验证请求，其中，电子产品包括目标器件，所述防伪验证请求中携带电子产品的标识和目标零件的标识，在区块链系统中查询与所述电子产品的标识对应的零件标识列表，在所述目标零件的标识位于所述零件标识列表时，确定所述目标零件未发生更换。 通过执行本申请的方法，在对电子产品进行防伪验证时，在区块链系统中验证用户发送的防伪验证请求中携带的电子产品的标识和目标零件的标识，基于区块链的不可串改性，如果在区块链系统中查询到电子产品的目标零件的标识，则可以确定目标零件未发生更换，提高了电子产品的防伪技术。



基于区块链的公检法系统

CN111885163 A

Current assignees

BEIJING HAOPU INFORMATION & TECHNOLOGY*

Inventors

MA HAOBO

Priority data including date

2020CN-0718835 2020-07-23

IPC - International classification

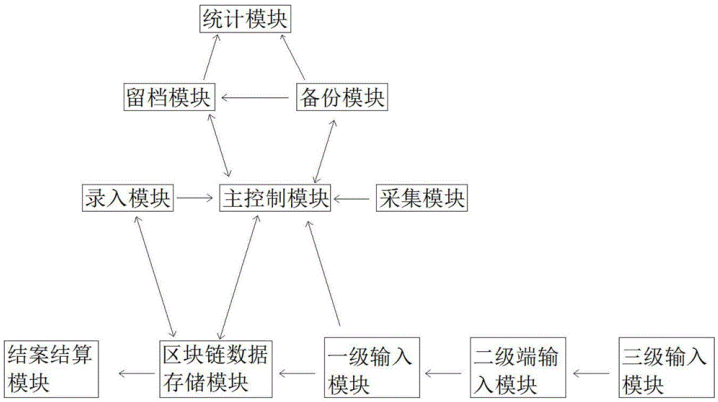
G06Q-050/18 G06Q-050/26 H04L-029/06 H04L-029/08*

Family

CN111885163 A 2020-11-03

(CN111885163)

本发明提供基于区块链的公检法系统，其特征在于包括主控制模块，录入模块，采集模块，区块链数据存储模块，留档模块，备份模块，统计模块，结案结算模块，一级存储模块，二级存储模块，三级存储模块，本发明中的留档模块、备份模块分别与主控制模块连接，留档模块、备份模块分别与统计模块连接，实现对当事人提交的电子版证据文件进行备份和留档，实现了对移交的证据文件进行备份和留档，不需要重复移交证据，不会影响开庭审理的进行，同时统计模块能够对证据文件数据进行统计，实现了在线智能统计，提高了工作效率；实现了上级部门具有较强的权限，能够对下级部门的文件进行调运，达到随时调运的功能。



一种防止交易跨链重放的方法、装置及电子设备

CN111884808 A

Current assignees
HANGZHOU RIVTOWER TECHNOLOGY*

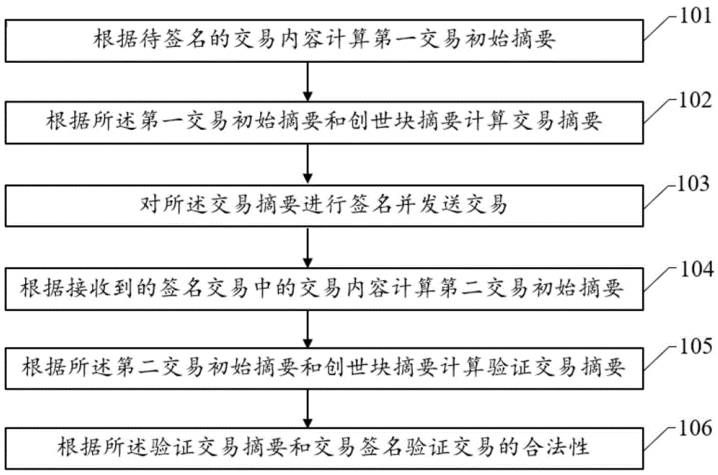
Inventors
WANG XIAOLIANG
ZHANG YANING

IPC - International classification
G06Q-040/04 H04L-009/32* H04L-029/06

Priority data including date
2020CN-0697255 2020-07-20

Family
CN111884808 A 2020-11-03

(CN111884808)
本说明书实施例涉及一种防止交易跨链重放的方法、装置及电子设备，主要包括：根据待签名的交易内容计算第一交易初始摘要；根据所述第一交易初始摘要和创世块摘要计算交易摘要；对所述交易摘要进行签名并发送交易；根据接收到的签名交易中的交易内容计算第二交易初始摘要；根据所述第二交易初始摘要和创世块摘要计算验证交易摘要；根据所述验证交易摘要和交易签名验证交易的合法性。 通过在用户构造交易的过程中，需要将交易内容与创世块摘要一并参与计算交易摘要，用户再根据得到的交易摘要进行签名。 节点在进行验签的时候，也需要包含创世块的摘要进行验证，从而经济便捷地解决了交易跨链重放的问题。



基于区块链的漫游管理方法及网络接入节点

CN111885586 A

Current assignees
CHINA UNICOM*

Inventors
HUANG KE

Priority data including date
2020CN-0712514 2020-07-22

IPC - International classification

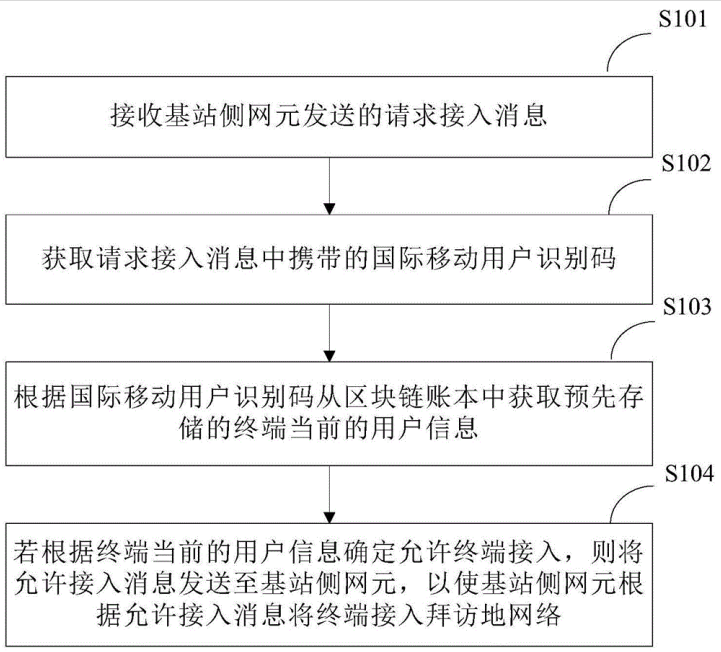
H04L-009/32	H04L-029/08	H04W-008/08*
H04W-008/20	H04W-012/02	H04W-012/08

Family

CN111885586 A 2020-11-03

(CN111885586)

本公开提出了一种基于区块链的漫游管理方法及网络接入节点，所述方法包括：接收基站侧网元发送的请求接入消息,获取其中携带的国际移动用户识别码，请求接入消息是终端请求接入拜访地网络时向所述基站侧网元发送的；根据国际移动用户识别码从区块链账本中获取预先存储的终端当前的用户信息，区块链包括拜访地网络的各个拜访地接入节点和归属地网络的各个归属地接入节点；若根据终端当前的用户信息确定允许终端接入，则将允许接入消息发送至基站侧网元，以使基站侧网元根据允许接入消息将终端接入拜访地网络。 拜访地网络无需频繁向归属地网络获取用户的签约信息等数据，使用区块链的加密技术来保护用户的签约信息等数据，更加安全便捷。



Intelligent contract operation method, device, equipment and storage medium
CN111563253 A

Current assignees
BAIDU ONLINE NETWORK TECHNOLOGY*

Inventors
DUAN BING
WANG HONGYAN
XIAO WEI
FAN BINGXIN

Priority data including date
2020CN-0683529 2020-07-16

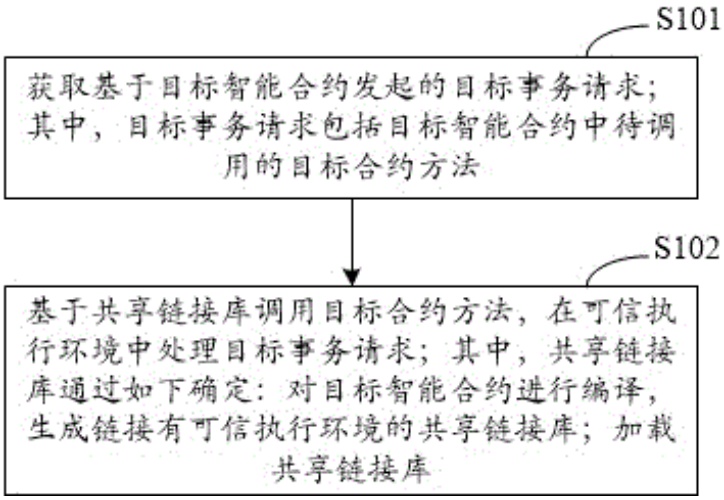
IPC - International classification
G06F-009/445 G06F-021/53*

CPC - Cooperative classification
G06F-009/445/21 G06F-021/53*

Family

CN111563253	B	2020-11-03		CN111563253	A	2020-08-21

(CN111563253)
The application discloses an intelligent contract operation method, an intelligent contract operation device, intelligent contract operation equipment and a storage medium, relates to the technical field of block chains, and can be applied to cloud computing and cloud services. The specific implementation scheme is as follows: acquiring a target transaction request initiated based on a target intelligent contract; the target transaction request comprises a target contract method to be called in a target intelligent contract; calling a target contract method based on the shared link library, and processing a target transaction request in a trusted execution environment; wherein the shared link library is determined by: compiling the target intelligent contract to generate a shared link library linked with a trusted execution environment; and loading the shared link library. The method and the device improve the safety in the running process of the intelligent contract, reduce the resource loss and simultaneously consider the universality of the block chain system.



Certificated bookkeeping method based on block chain mutual-evidence and convolutional neural network

CN110188787 A

Current assignees

HUAIYIN INSTITUTE OF TECHNOLOGY*

Inventors

XIAO SHAOZHANG
NI JINTING
ZHU QUANYIN
CHEN XIAOYI
MA SIWEI
ZHU YAFEI
WANG XIAO

Priority data including date

2019CN-0289748 2019-04-11

IPC - International classification

G06F-016/27	G06K-009/34	G06K-009/62*
G06N-003/04	G06N-003/08	G06Q-040/04

CPC - Cooperative classification

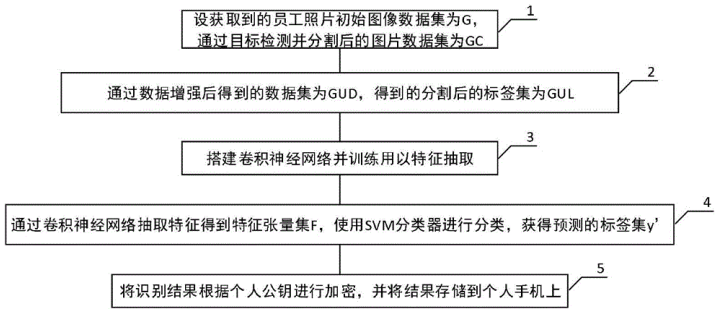
G06F-016/27*	G06K-009/34/2	G06K-009/62/69
G06N-003/04/54	G06N-003/08	G06Q-040/04

Family

CN110188787	B	2020-11-03	CN110188787	A	2019-08-30	

(CN110188787)

The invention discloses a certificated bookkeeping method based on block chain mutual-evidence and a convolutional neural network, and the method comprises the steps: carrying out the feature extraction based on the convolutional neural network, carrying out the classification through employing a conventional machine learning algorithm, and carrying out the integration and distributed storage of data through employing a block chain mutual certificates mode. Specifically, the method comprises the following steps: firstly, receiving photo information which is sent by a user and needs to be identified through a WeChat end; and calling a target detection algorithm to identify and cut a human body in the picture, then carrying out feature extraction and classification through the trained neuralnetwork, finally carrying out secondary verification on an identification result in a mutual-evidence voting manner, and storing a verification result in a mobile phone of each employee in a distributed manner. According to the method, photos of a human body can be effectively collected and identified, and certificated bookkeeping can be accurately carried out through a mutual evidence mode.



在区块链中执行交易的方法及装置

CN111882435 A

Current assignees

ALIPAY INFORMATION TECHNOLOGY*

Inventors

LIU XIAOJIAN

Priority data including date

2020CN-0754103 2020-03-12

IPC - International classification

G06F-012/14 G06F-021/62 G06F-021/64

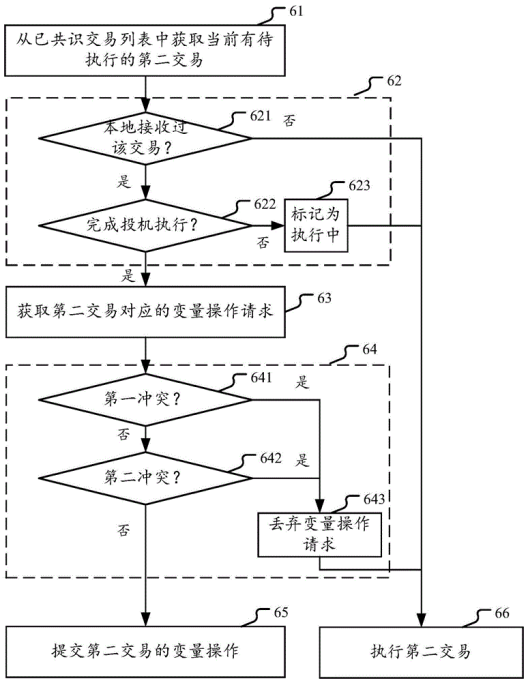
G06Q-020/38 G06Q-040/04*

Family

CN111882435 A 2020-11-03

(CN111882435)

本说明书实施例提供一种在区块链中执行交易的方法和装置。该方法包括在交易被共识之前的投机执行，和基于共识的正式执行。投机执行的过程包括，首先读取本地记录的第一交易；接着执行第一交易中的交易逻辑，在内存中记录执行结果所对应的变量操作请求；然后将该交易标记为已投机执行的交易。正式执行的过程包括，获取已共识且有待执行的第二交易；判断第二交易是否为已投机执行的交易，如果是，则获取对应的尚未提交的变量操作请求；然后根据变量操作请求，判断该第二交易的投机执行与基于共识的交易执行是否存在冲突；如果不存在冲突，直接提交变量操作请求所对应的变量操作。如此，提高交易的执行效率。



Smart contract based credit network

EP3649609 A1

Current assignees

LIPIO INTERNATIONAL
LIPIO INTERNATIONAL S ESSETTE SEA
RIPIO INT
RIPIO INT SEZC*
RIPIO INTERNATIONAL SEZC
RIPIO INTERNATIONAL SPECIAL ECONOMIC ZONE

Inventors

SERRANO SEBASTIAN
GRUSZECZKA LUCIANA MARCELA
GARCIA DAVID

Priority data including date

2017US-62528844 2017-07-05
2018US-16628522 2018-07-05
2018WO-US40953 2018-07-05

IPC - International classification

G06Q-020/00	G06Q-020/04	G06Q-020/10
G06Q-020/36	G06Q-020/38	G06Q-020/40
G06Q-040/00	G06Q-040/02*	

CPC - Cooperative classification

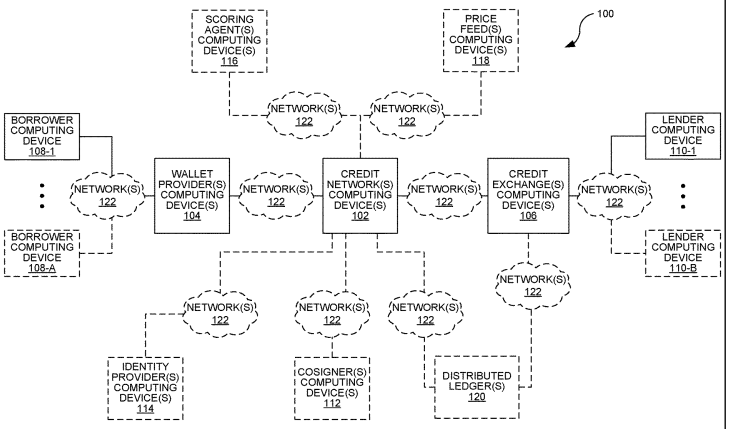
G06Q-020/10/2	G06Q-020/36	G06Q-020/36/7
G06Q-020/38/29	G06Q-020/40/5	G06Q-040/02*
G06Q-040/02*5		

Family

EP3649609	A4	2020-11-04	CO2020000009	A2	2020-04-24
JP2020528631	A	2020-09-24	CN110998641	A	2020-04-10
CL2020000012	A1	2020-08-14	KR10-2020-0016389	A	2020-02-14
PE20200657	A1	2020-06-11	BR112020000043	A1	2020-01-14
US20200184553	A1	2020-06-11	WO2019/010331	A1	2019-01-10
EP3649609	A1	2020-05-13			

(EP3649609)

A system includes credit network computing device(s) coupled to wallet provider computing device(s) and credit exchange computing device(s). Wallet provider computing device(s) receives credit request for loan having credit terms from borrower; generates smart contract including information regarding borrower and credit terms; and communicates smart contract to credit network computing device(s). Credit network computing device(s) receives indication that cosigner agrees to cosign for credit request on behalf of borrower; and communicates smart contract representing credit requests to credit exchange computing device(s). Credit exchange computing device(s) places smart contract representing credit request on order book. Credit exchange computing device(s) receives trading order for smart contract representing credit request from lender. Credit exchange computing device(s) determines whether trading order for lender matches credit terms of smart contract representing credit request; and executes loan between borrower, cosigner, and lender when trading order for lender matches credit terms of smart contract representing credit request.



Records access and management
EP3583526 A1

Current assignees

EINGOT*

Inventors

RADUCHEL WILLIAM J

SPIVY ART

Priority data including date

2007US-60947809 2007-07-03
2007US-60974997 2007-09-25
2008US-12167746 2008-07-03
2008WO-US69228 2008-07-03
2013US-14083691 2013-11-19
2014US-14523110 2014-10-24
2015WO-US56961 2015-10-22
2016US-15273170 2016-09-22
2017US-15435150 2017-02-16
2018US-15998992 2018-08-20
2018WO-US18507 2018-02-16
2019US-16298069 2019-03-11
2019US-16432382 2019-06-05

IPC - International classification

A61B-005/00	G06F-016/2457	G06F-017/30
G06F-019/00	G06F-021/31	G06F-021/62*
G06Q-010/00	G06Q-010/06	G06Q-050/00
G06Q-050/22	G16H-010/60*	G16H-010/65
G16H-040/20	H04L-029/06	H04L-029/08
H04W-004/02	H04W-008/18	H04W-012/00
H04W-012/02	H04W-012/06	

CPC - Cooperative classification

G06F-016/00	G06F-016/24578	G06F-017/30/53
G06F-019/00	G06F-019/322*	G06F-019/323*
G06F-021/31	G06F-021/62/45*	G06Q-010/06/3
G06Q-050/22*	G06Q-050/24	G16H-010/60*
G16H-010/65	G16H-020/10	G16H-040/20
G16H-040/67*	G16H-050/20	G16H-050/30
H04L-009/32/36	H04L-009/32/97	H04L-063/0442
H04L-063/0876	H04L-067/18	H04L-2209/38
H04L-2209/88	H04W-004/02*	H04W-004/02*/1
H04W-008/18	H04W-012/0013	H04W-012/02
H04W-012/06	H04W-012/0608	H04W-012/0609

PCL - US patent classification

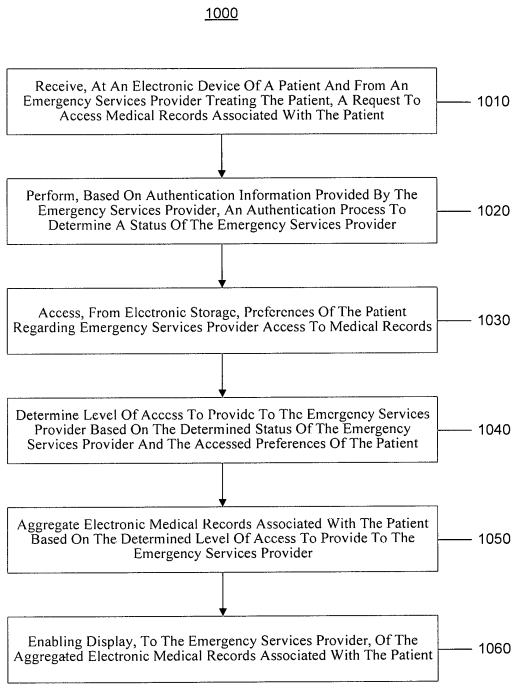
PCLO:	705003000*	705003000*	705003000*
PCLX:	705002000		

Family

US20200350043	A1	2020-11-05	US9619616	B2	2017-04-11
US10818385	B2	2020-10-27	US20170011172	A1	2017-01-12
EP3583526	A4	2020-03-04	US9489486	B2	2016-11-08
EP3583526	A1	2019-12-25	CN102693357	B	2016-06-15
CN110462654	A	2019-11-15	WO2016/065172	A1	2016-04-28
IN201947037205	A	2019-09-27	US20150046192	A1	2015-02-12
US20190287663	A1	2019-09-19	US20140081669	A1	2014-03-20
US20190208354	A1	2019-07-04	US8600776	B2	2013-12-03
US10231077	B2	2019-03-12	CN102693357	A	2012-09-26
US20190027234	A1	2019-01-24	CN101742960	B	2012-06-20
US10078728	B2	2018-09-18	IN8383/DELNP/2009	A	2010-07-16
WO2018/152410	A1	2018-08-23	CN101742960	A	2010-06-16
CN107004048	A	2017-08-01	US20090037224	A1	2009-02-05
US20170161439	A1	2017-06-08	WO2009/006609	A1	2009-01-08
IN201747018225	A	2017-06-02			

(EP3583526)

Systems and methods for providing a healthcare provider with an electronic medical record of a patient, a recommendation, or an alert relating to the patient, based on an analysis of the patient's health data. Multiple electronic repositories may store the patient's health data as disaggregated health data. The patient's health data may be organized in a Healthcare Identity Graph providing a comprehensive medical history of the user. A device of the patient may access and analyze the patient's health data in response to detecting an event. The device can generate outputs or trigger actions based on the analysis of the patient's health data, and record the outputs or actions in the patient's Healthcare Identity Graph. Authentication and verification of the outputs or actions are stored at a Healthcare Liability Graph.



一种基于区块链及通证经济模型的数字资产确权系统

CN111882337 A

Current assignees

EAST CHINA NORMAL UNIVERSITY*

Inventors

YU RUYI
XU YING
YANG JINGYUAN
CHEN YANG
HU MENGHAN
JIANG ZHE
ZHAI GUANGTAO

Priority data including date

2020CN-0784703 2020-08-06

IPC - International classification

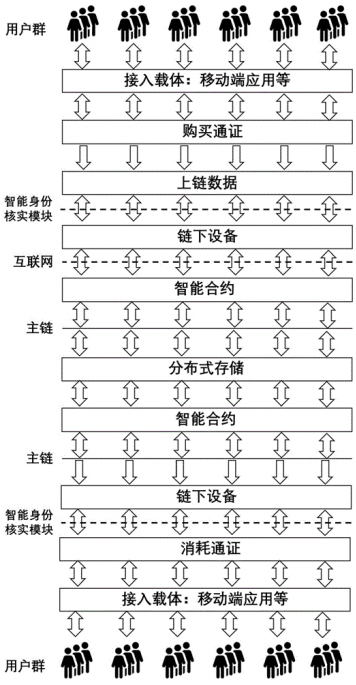
G06Q-030/00* G06Q-030/06 G06Q-040/04
H04L-029/06 H04L-029/08

Family

CN111882337 A 2020-11-03

(CN111882337)

本发明公开了一种基于区块链及通证经济模型的数字资产确权系统，其特点是将通证经济模型和人工智能技术引入区块链，构建一个0阶数字资产确权系统、1阶数字资产确权系统和高阶数字资产确权系统位为层层递进的数字资产确权系统，实现对数字资产进行有效的确权、交易和安全性保障。本发明与现有技术相比具有抗硬件复制和抗软件复制的优点，有效整合了区块链技术、通证经济模型、人工智能技术，可以多方位实现用户对“唯一”数字资产的需求，提高了确权系统的安全性和鲁棒性，从而满足不同数字资产在不同应用场景下的确权需求。



一种基于区块链和Oracle预言机的物流运价预测方法和系统
CN111882104 A

Current assignees
HEFEI WEITIAN YUNTONG INFORMATION TECHNOLOGY*

Inventors
FENG LEI
DU BING
YANG HAOFENG

Priority data including date
2020CN-0542226 2020-06-15

IPC - International classification
G06F-016/27 G06F-021/64 G06Q-010/04*
G06Q-010/08

Family
CN111882104 A 2020-11-03

(CN111882104)
本发明公开了一种基于区块链**和**Oracle预**言机的物流运价**预测**方法和系**统，涉及物流运价**评**估技**术**领**域。 本发明包括如下步**骤：物流平台、物流需求方就物流运输方式及路**线在自身的物流信息系**统或网站上发布运价**预测需求；ChainLink智能合**约为预**言机**记录**一个事件；ChainLink Core接到事件，并路由任**务，给到适配器；ChainLink适配器向外部API发出请求；ChainLink适配器处理响应，并将其返回给Core；ChainLink Core将数据报告给ChainLink智能合约；ChainLink智能合约汇总响应，加权得出一个最终反馈，并将其发送给用户智能合约。 本发明通过采用区块链技术和ORACLE系统的存储技术，在物流运价预测中进行应用，对物流运价的预测会更加科学，使信息化处理更经济，反馈更及时。

交易签名方法、装置、移动终端和系统

CN111884810 A

Inventors
ZHANG SHUHUA
YANG ANRONG
LU ZHICHAO
WEI AIHONG

Priority data including date
2020CN-0703231 2020-07-20

IPC - International classification

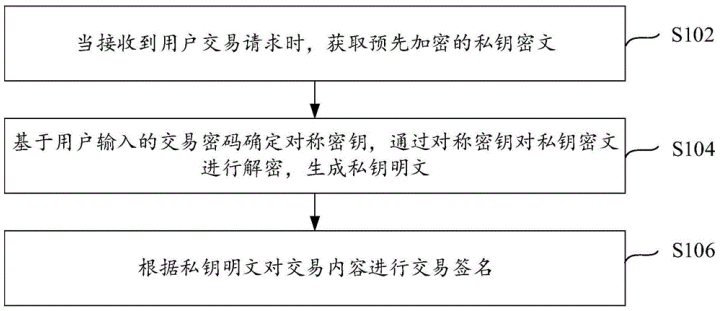
G06F-016/27	G06F-021/60	G06Q-040/04
H04L-009/06	H04L-009/08	H04L-009/32*
H04L-029/06		

Family

CN111884810 A 2020-11-03

(CN111884810)

本发明提供了一种交易签名方法、装置、移动终端和系统，涉及区块链技术领域，该方法应用于移动终端浏览器；方法包括：当接收到用户交易请求时，获取预先加密的私钥密文；基于用户输入的交易密码确定对称密钥，通过对称密钥对私钥密文进行解密，生成私钥明文；根据私钥明文对交易内容进行交易签名。本发明能够在用户终端浏览器实现通证交易签名，提升了交易签名的灵活性及交易签名的效率，从而提升了用户体验。



基于区块链的数据处理方法、装置和计算机设备

CN111885053 A

Current assignees

DONGGUAN MONDA PLASTIC CHEMICAL TECHNOLOGY*

Inventors

ZHANG ZHIRONG

WU LIANBO

Priority data including date

2020CN-0710856 2020-07-22

IPC - International classification

H04L-009/08 H04L-012/24 H04L-029/06*

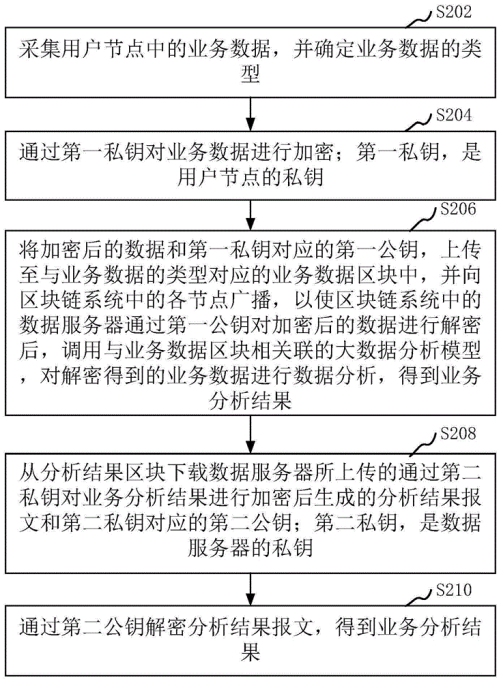
H04L-029/08

Family

CN111885053 A 2020-11-03

(CN111885053)

本申请涉及一种基于区块链的数据处理方法、装置和计算机设备。 所述方法包括：采集用户节点中的业务数据，并确定业务数据的类型；通过第一私钥对业务数据进行加密；将加密后的数据和第一公钥，上传至与业务数据的类型对应的业务数据区块中，并向区块链系统中的各节点广播，以使区块链系统中的数据服务器通过第一公钥对加密后的数据进行解密后，调用与业务数据区块相关联的大数据分析模型，对业务数据进行数据分析，得到业务分析结果；从分析结果区块下载数据服务器所上传的通过第二私钥对业务分析结果进行加密后生成的分析结果报文和第二公钥；通过第二公钥解密分析结果报文，得到业务分析结果。 采用本方法能够提高数据处理的安全性。



Manufacture of inventories of image products
WO202040934 A1

Current assignees
EIGHT PLUS VENTURES*

Inventors
BERTSCH CHRISTOPH
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STURGEON DOUGLAS
SZIKLAI ANTHONY

Priority data including date
2018US-16110831 2018-08-23
2019US-16399739 2019-04-30
2019US-16669213 2019-10-30

IPC - International classification

G06F-021/00	G06F-021/16*	G06F-021/44
G06F-021/62	G06K-009/00	G06T-001/00
H04L-009/06		

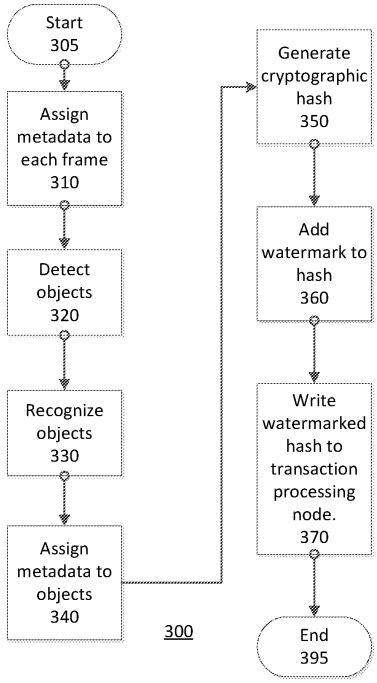
CPC - Cooperative classification

G06F-016/7837	G06F-021/16*	G06F-021/44
G06F-021/62	G06F-021/64*	G06F-2221/0733
G06K-009/00/711	G06K-009/00/744	G06T-001/00/21
H04L-009/06/37	H04L-009/06/43	H04L-009/32/39
H04L-2209/38	H04L-2209/608	

Family

US10824699	B2	2020-11-03	WO2020/040935	A1	2020-02-27
US20200065457	A1	2020-02-27	US10467391	B1	2019-11-05
WO2020/040934	A1	2020-02-27	US10296729	B1	2019-05-21

(WO2020/040934)
There are disclosed methods and apparatus for manufacture of image inventories. A production and packaging machine applies derivations to still images from image products. It assigns metadata to the derivative images. The production and packaging machine then generates a cryptographic hash of the derivative image and the metadata to produce a derivative image product, and writes the hash to a node of a transaction processing network.



Data trusted security sharing system and method based on block chain technology
CN109246248 A

Current assignees
TSINGHUA UNIVERSITY*

Inventors
YIN HAO
YIN BO

Priority data including date
2018CN-1301459 2018-11-02

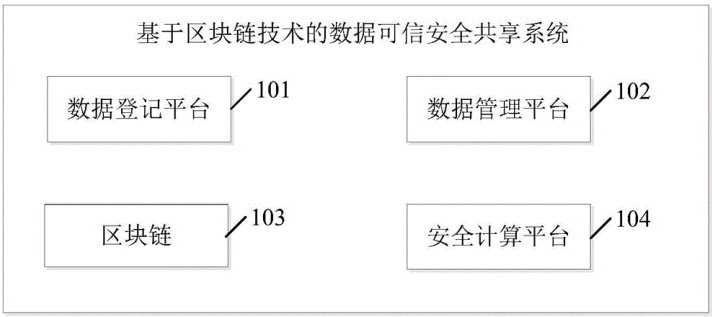
IPC - International classification
H04L-029/08*

CPC - Cooperative classification
H04L-067/10* H04L-2463/103

Family

CN109246248	B	2020-11-03		CN109246248	A	2019-01-18

(CN109246248)
The present application discloses a data trusted security sharing system and method based on area chain technology. The system comprises a data registration platform, a data management platform, a security computing platform and a block chain. The data registration platform registers the data uploaded by the data publisher uniformly, which realizes the protection of data ownership in the process of data circulation. The data management platform manages the data which has the ownership relation with the data publisher, and effectively guarantees the data publisher's ownership to the data. In the data flow, the block chain records the network behavior information of the data users, monitors the network behavior, and ensures the data involved in the network behavior to be true and reliable. When the data user uses the target data, the target data is processed in the secure computing platform, and the processing result is returned to the data user, so as to realize the separation of the data ownership and the use right, avoid the data user to contact the data, and ensure the safety and controllability of the data circulation process.



Control unit and method for manipulation-proof detection of operating safety-related integrity monitoring data

EP3528524 A1

Current assignees

SIEMENS*

Inventors

FALK DR RAINER

Priority data including date

2018EP-0157606 2018-02-20

2018WO-EP84387 2018-12-11

IPC - International classification

G07C-003/00 G07C-005/00 H04W-012/12*

CPC - Cooperative classification

G07C-005/00/8 H04W-012/00524 H04W-012/12*

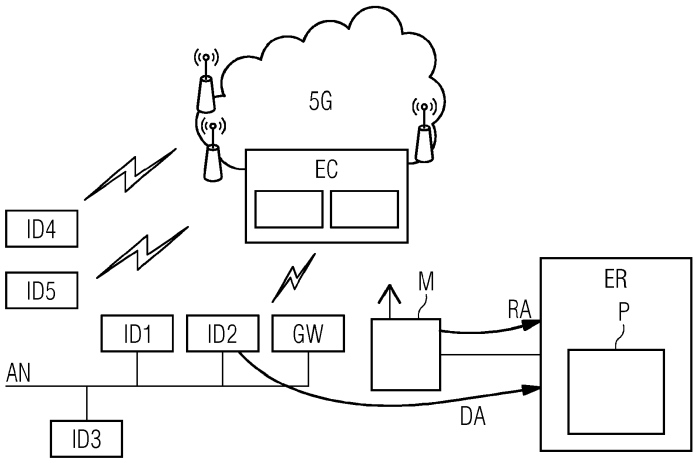
Family

EP3732913	A1	2020-11-04	WO2019/161958	A1	2019-08-29
CN111713123	A	2020-09-25	EP3528524	A1	2019-08-21

(EP3528524)

The invention relates to a control unit (ER) which comprises at least one processor (P) which is designed to carry out the following steps: - tamper-proof detection of operational safety-related integrity monitoring data of a system (ID1 to ID5) which is equipped with an operational safety-critical function and which is connected or can be connected to a communications network by radio transmission (5G), the integrity monitoring data describing integrity monitoring of the system and external access to the radio transmission; and - tamper-proof recording and/or storing of the integrity monitoring data in order to evaluate same in the event of a use of the operational safety-related function.

(From WO2019161958 A1)



A method for managing a verified digital identity
EP3732648 A1

Current assignees
NEWBANKING*

Inventors
HELLES MORTEN
LARSEN CHRISTIAN VISTI

Priority data including date
2017DK-0071026 2017-12-27
2018WO-EP85933 2018-12-19

IPC - International classification
G06Q-020/40 G06Q-040/02*

CPC - Cooperative classification
G06Q-020/02 G06Q-020/36/3 G06Q-020/40/14
G06Q-040/02*

Family

EP3732648	A1	2020-11-04		WO2019/129582	A1	2019-07-04
WO2019/129582	A4	2019-10-10				

(EP3732648)
A method and a system for managing a verified digital identity of a user is disclosed. The method comprises receiving a verified digital identity for a user, the digital identity comprising user-data stored as data items; wherein each data item is certified as a verified data item. The method includes the following transactions: receiving a user-data consent from the user to enable one or more institutions, including a first institution, access to a selected group of the data items;receiving a user-data request from the first institution requesting access to user data from the digital identity, determining whether the first institution's request matches the user-data consent for enabling access to the selected group of data items, in accordance with a determination that the institution's user-data request matches the user-data consent for enabling access to the data items, granting the user data request, and providing access for the first institution to the selected group of data items.

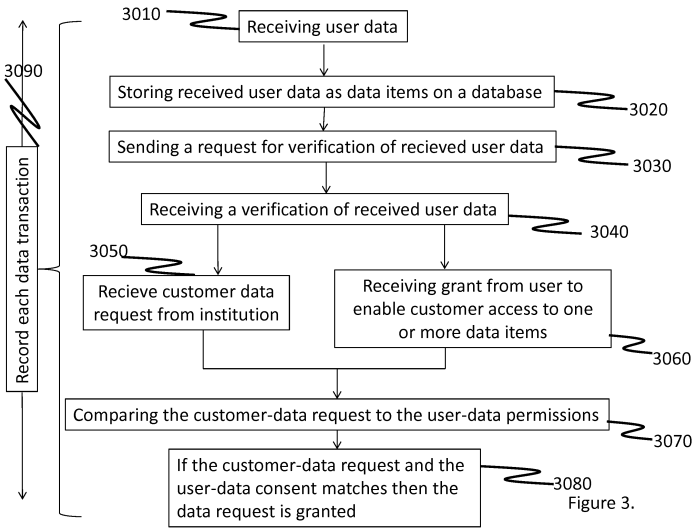


Figure 3.

System and method for providing and maintaining irrefutable proof of the building, testing, deployment and release of software

WO2020222856 A1

Current assignees

INTUIT*

Inventors

WHITCOMB, Thomas

Priority data including date

2019US-16400086 2019-05-01

IPC - International classification

G06F-008/60	G06F-008/70*	G06F-011/36
G06Q-010/10	H04L-009/06	H04L-009/32*

CPC - Cooperative classification

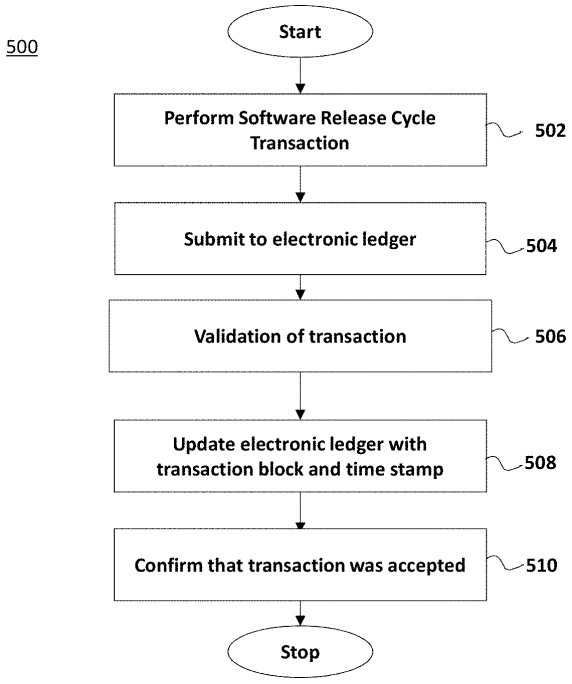
G06F-008/60	G06F-008/70	G06F-011/36/72
H04L-009/06/37	H04L-009/32/36*	H04L-2209/38

Family

US20200351099	A1	2020-11-05		WO2020/222856	A1	2020-11-05

(WO2020/222856)

A system and method for providing and maintaining irrefutable proof of the building, testing, deployment and release of a software product. The system and method provide a secure, immutable electronic ledger to be accessed by various services and systems during the software product's development and release cycle. The ledger may be implemented using electronic blocks linked together via cryptography.



基于监狱管理的计分考核系统

CN111882226 A

Current assignees
GUIZHOU DONGGUAN TECHNOLOGY*

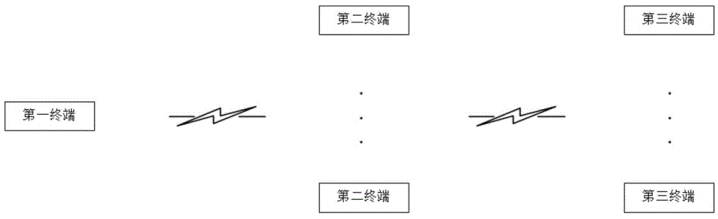
Inventors
PENG JUNGUO

Priority data including date
2020CN-0757203 2020-07-31

IPC - International classification
G06Q-010/06* G06Q-050/26 H04L-029/08

Family
CN111882226 A 2020-11-03

(CN111882226)
本发明涉及数据管理技术领域，具体公开了基于监狱管理的计分考核系统，包括第一终端和若干第二终端、若干第三终端；第一终端用于为若干第二终端设定录入权限，第一终端还用于指定若干第二终端作为区块链节点；具有录入权限的第二终端用于录入计分考核数据，将录入的计分考核数据发送至第三终端；第三终端用于对计分考核数据进行验证，将验证通过的计分考核数据广播至作为区块链节点的第二终端；作为区块链节点的第二终端用于将计分考核数据存储在区块链网络中采用本发明的技术方案能够保证记录数据的真实性。



一种防止分叉链交易重放的方法、装置及电子设备

CN111884809 A

Current assignees
HANGZHOU RIVTOWER TECHNOLOGY*

Inventors
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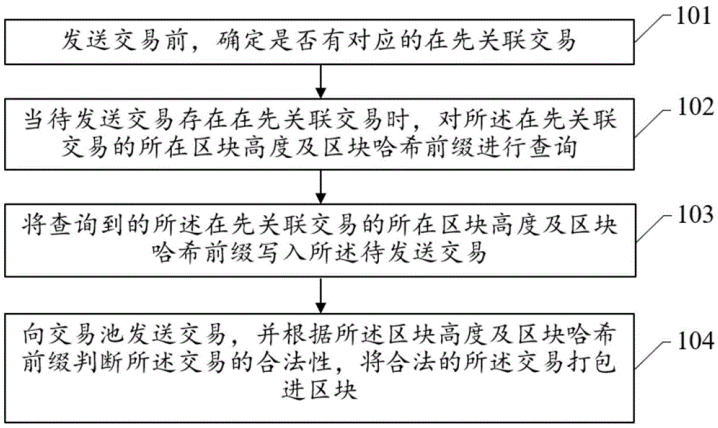
ZHANG YANING

Priority data including date
2020CN-0697655 2020-07-20

IPC - International classification
G06Q-040/04 H04L-009/32* H04L-029/06

Family
CN111884809 A 2020-11-03

(CN111884809)
本说明书实施例涉及一种防止分叉链交易重放的方法、装置及电子设备，主要包括：发送交易前，确定是否有对应的在先关联交易；当待发送交易存在在先关联交易时，对所述在先关联交易的所在区块高度及区块哈希前缀进行查询；将查询到的所述在先关联交易的所在区块高度及区块哈希前缀写入所述待发送交易；向交易池发送交易，并根据所述区块高度及区块哈希前缀判断所述交易的合法性，将合法的所述交易打包进区块。通过锁定在先关联交易的所在区块高度及区块哈希前缀，从而锁定在先交易被正确执行的状态和所在区块的区块链全局状态，保证交易执行前环境的确定性，防止链分叉时交易被错误打包引起的安全问题。



一种面向智能家居的用户可监管匿名身份认证方法

CN111884991 A

Current assignees
HANGZHOU DIANZI UNIVERSITY*

Inventors
LÜ QIUYUN
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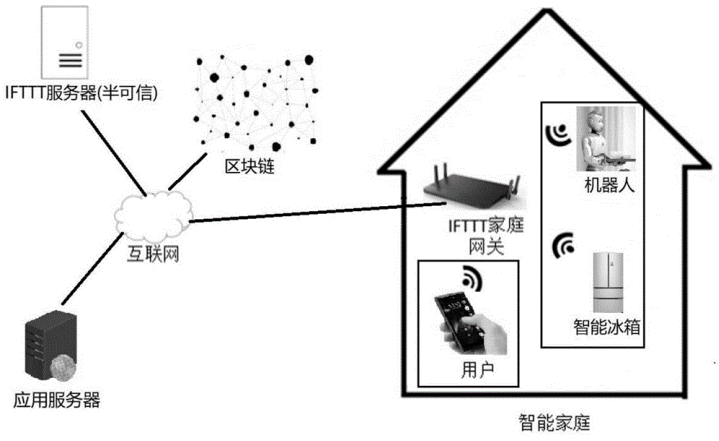
DENG ZHINING
LIU JUANLIANG

Priority data including date
2020CN-0511958 2020-06-08

IPC - International classification
H04L-009/08 H04L-009/30 H04L-029/06*

Family
CN111884991 A 2020-11-03

(CN111884991)
本发明公开了一种面向智能家居的用户可监管匿名身份认证方法。 本发明涉及IFTTT服务器、用户、智能设备、应用服务器和区块链。 本发明首先系统进行初始化，生成系统所需参数；然后，用户U和应用服务器向IS注册以及智能设备SD向用户U注册；接着，智能设备SD代表用户U访问应用服务器实现匿名双向认证，双向认证完毕后，应用服务器向区块链写入认证结果；最后用户U通过自己的私钥和IS-认证密钥监管自己的智能设备SD，最终实现可监管的匿名认证协议。 本发明引入区块链技术，构建用户可监管的智能设备访问外网时的匿名认证方法，利用区块链不可篡改的特性，用户可以随时通过区块链监管智能设备的所有行为，从而实现完全控制该智能设备。



决策模型诊断方法、装置及计算机可读存储介质

CN111882533 A

Current assignees
PINGAN TECHNOLOGY
SHANDONG EYE INSTITUTE

Inventors
XIE LIXIN
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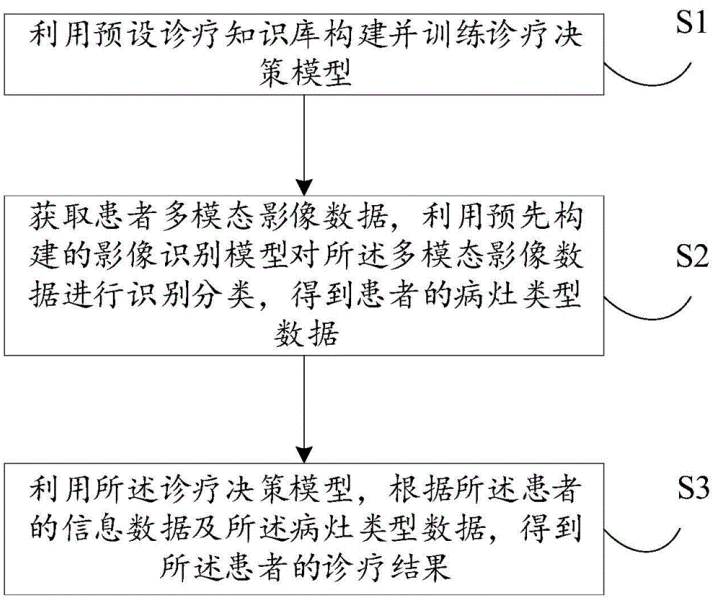
TIAN JINGTAO
LÜ CHUANFENG
HU GANG

Priority data including date
2020CN-0683785 2020-07-15

IPC - International classification
G06N-003/04 G06T-007/00* G16H-050/50

Family
CN111882533 A 2020-11-03

(CN111882533)
本发明涉及人工智能领域，揭露了一种决策模型诊断方法，包括：利用预设诊疗知识库构建并训练诊疗决策模型；获取患者多模态影像数据，利用预先构建的影像识别模型对所述多模态影像数据进行识别分类，得到患者的病灶类型数据；利用所述诊疗决策模型，根据所述患者的信息数据及所述病灶类型数据，得到所述患者的诊疗结果。此外，本发明还涉及区块链技术，其中，患者的隐私信息可存储于区块链中。本发明还提出一种决策模型诊断装置、电子设备以及计算机可读存储介质。本发明可以实现结合患者的信息数据，利用患者多模态影像数据得到患者具体的诊疗结果。



一种风险预测模型的训练方法和相关装置

CN111882416 A

Current assignees
WEIKUN SHANGHAI TECHNOLOGY SERVICE*

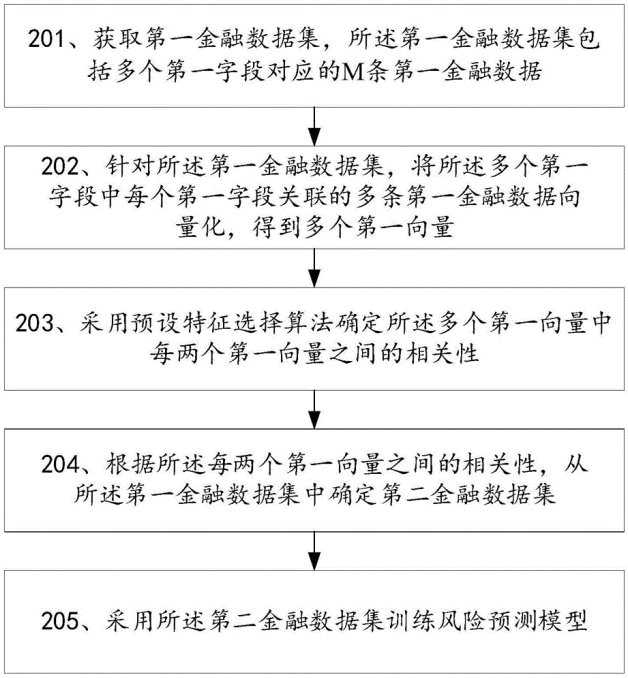
Inventors
LI ZHAO
ZHANG BINJIE

Priority data including date
2020CN-0720354 2020-07-24

IPC - International classification
G06N-003/08 G06Q-040/00*

Family
CN111882416 A 2020-11-03

(CN111882416)
本申请涉及区块存储系统及人工智能领域，公开了一种风险预测模型的训练方法和相关装置，该方法包括：获取第一金融数据集，所述第一金融数据集包括多个第一字段对应的M条第一金融数据；针对所述第一金融数据集，将所述多个第一字段中每个第一字段关联的多条第一金融数据向量化，得到多个第一向量；采用预设特征选择算法确定所述多个向量中每两个第一向量之间的相关性；根据所述每两个第一向量之间的相关性，从所述第一金融数据集中确定第二金融数据集；采用所述第二金融数据集训练风险预测模型。 实施本申请实施例，减短了风险预测模型的训练周期，降低了训练复杂度。



一种质量检测模型的训练方法和相关装置

CN111882415 A

Current assignees
WEIKUN SHANGHAI TECHNOLOGY SERVICE*

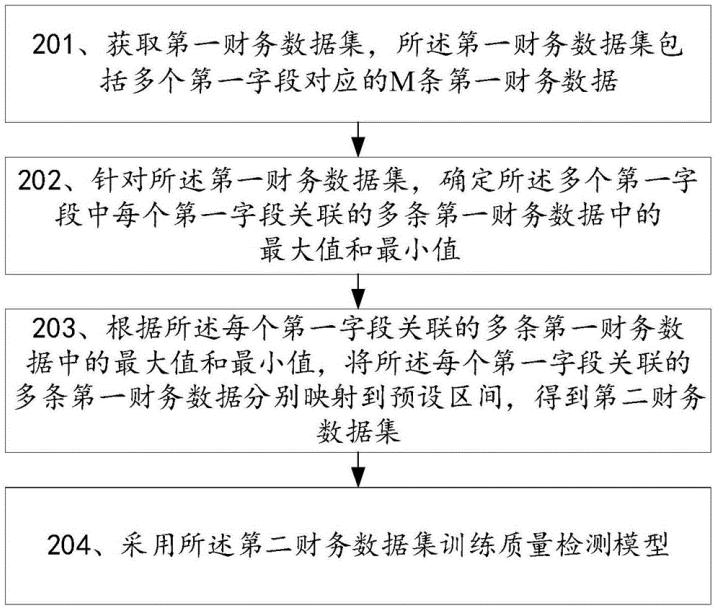
Inventors
LI ZHAO

Priority data including date
2020CN-0720352 2020-07-24

IPC - International classification
G06N-003/08 G06Q-040/00*

Family
CN111882415 A 2020-11-03

(CN111882415)
本申请涉及区块链技术以及人工智能中的检测模型技术，公开了一种质量检测模型的训练方法和相关装置，该方法包括：获取第一财务数据集，所述第一财务数据集包括多个第一字段对应的M条第一财务数据；针对所述第一财务数据集，确定多个第一字段中每个第一字段关联的多条第一财务数据中的最大值和最小值；根据每个第一字段关联的多条第一财务数据中的最大值和最小值，将每个第一字段关联的多条第一财务数据分别映射到预设区间，得到第二财务数据集；采用所述第二财务数据集训练质量检测模型。 实施本申请实施例，减短了质量检测模型的训练周期，降低了训练复杂度。



域名存储方法及装置

CN111885212 A

Current assignees

FUXI TECHNOLOGY HEZE

SHANDONG FUXI THINK TANK INTERNET RESEARCH INSTITUTE

Inventors

LI XIAODONG

ZHANG YI

WANG WEI

WEI JIUQI

Priority data including date

2020CN-0493111 2020-06-03

IPC - International classification

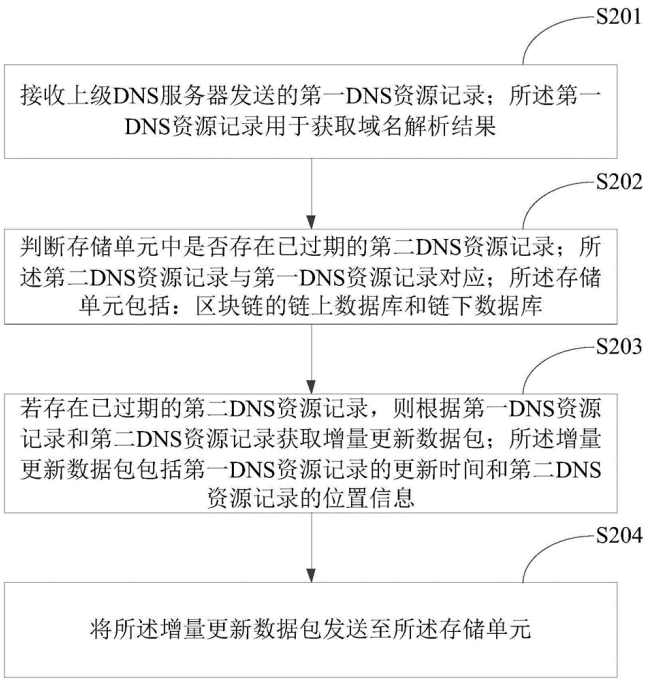
H04L-029/08 H04L-029/12*

Family

CN111885212 A 2020-11-03

(CN111885212)

本发明实施例提供一种域名存储方法及装置，接收上级DNS服务器发送的第一DNS资源记录；所述第一DNS资源记录用于获取域名解析结果；判断存储单元中是否存在已过期的第二DNS资源记录；所述第二DNS资源记录与第一DNS资源记录对应；所述存储单元包括：区块链的链上数据库和链下数据库；若存在已过期的第二DNS资源记录，则根据第一DNS资源记录和第二DNS资源记录获取增量更新数据包；所述增量更新数据包包括第一DNS资源记录的更新时间和第二DNS资源记录的位置信息；将所述增量更新数据包发送至所述存储单元，通过对DNS资源记录的更新信息进行存储，减少了存储信息，从而实现存储效率的提高。



双卡终端的接入方法、终端及服务器

CN111885600 A

Current assignees

CHINA UNICOM*

Inventors

XIAO ZHENGRONG

XING JIANBING

TIAN XINXUE

ZHANG MENG

Priority data including date

2020CN-0909957 2020-09-02

IPC - International classification

H04L-009/00 H04W-012/00 H04W-012/02*

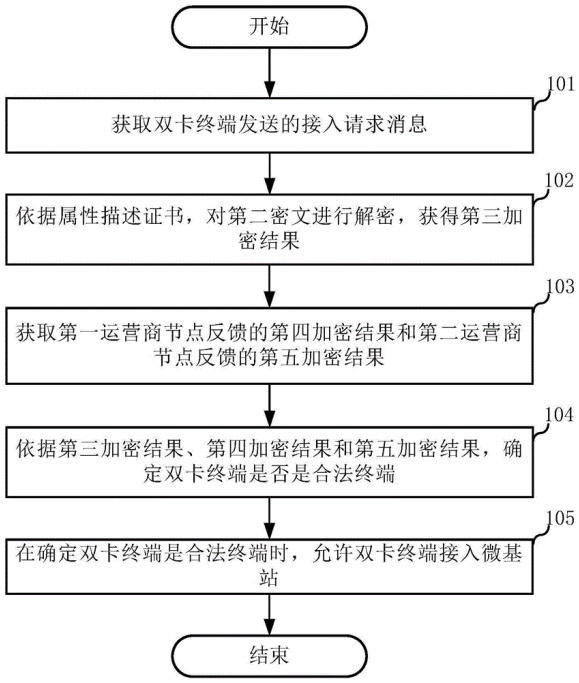
H04W-012/06 H04W-012/08 H04W-088/06

Family

CN111885600 A 2020-11-03

(CN111885600)

本申请公开一种双卡终端的接入方法、终端及服务器,方法包括：获取双卡终端发送的接入请求消息，接入请求消息包括第二密文；依据属性描述证书，对第二密文进行解密，获得第三加密结果；获取第一运营商节点反馈的第四加密结果和第二运营商节点反馈的第五加密结果，第四加密结果是第一运营商节点使用同态加密算法对双卡终端的标识、第一随机数消息和第一卡的网络标识进行加密生成的结果，第五加密结果是第二运营商节点使用同态加密算法对双卡终端的标识、第二随机数消息和第二卡的网络标识进行加密生成的结果；依据第三加密结果、第四加密结果和第五加密结果，确定双卡终端是否是合法终端；在确定双卡终端是合法终端时，允许双卡终端接入微基站。



基于区块链的零知识证明方法、装置及电子设备

CN111885056 A

Current assignees

BEIJING KINGSOFT CLOUD INTERNET TECHNOLOGY*

Inventors

WANG SEN

ZHU JIANG

YANG TIANYA

HU CHAO

Priority data including date

2020CN-0712581 2020-07-22

IPC - International classification

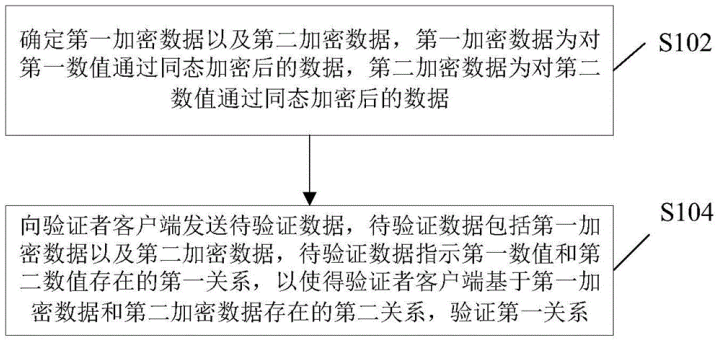
H04L-009/00 H04L-009/32 H04L-029/06*

Family

CN111885056 A 2020-11-03

(CN111885056)

本申请提供了一种基于区块链的零知识证明方法、装置及电子设备，涉及区块链技术领域，该方法通过确定第一加密数据以及第二加密数据，第一加密数据为对第一数值通过同态加密后的数据，第二加密数据为对第二数值通过同态加密后的数据；向验证者客户端发送待验证数据，待验证数据包括第一加密数据以及第二加密数据，待验证数据指示第一数值和第二数值存在的第一关系，以使得验证者客户端基于第一加密数据和第二加密数据存在的第二关系，验证第一关系。本申请通过利用零知识证明实现了链上可用不可见的数据隐私保护，能够有效缓解现有技术中的隐私数据泄露的问题。



Base for block chain traceability query terminal
CN211853220U U

Current assignees
EASY TO SIGN CHAIN SHENZHEN TECHNOLOGY*

Inventors
GUI QING

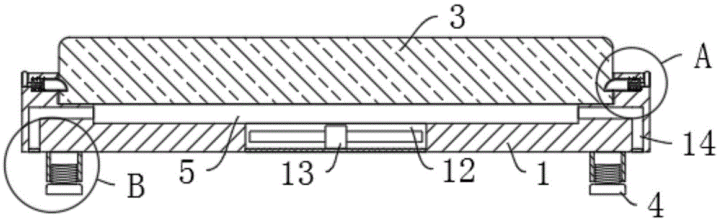
Priority data including date
2019CN-U2425644 2019-12-30

IPC - International classification
F16M-005/00* F16M-007/00 H05K-007/20

Family

CN211853220	U	2020-11-03

(CN211853220)
The utility model discloses a block chain is traced to source and is inquired base for terminal, the on-line screen storage device comprises a supporting pedestal and is characterized by further comprising, the top of supporting the base is equipped with the standing groove, be equipped with the inquiry terminal in the standing groove, be equipped with elastic positioning mechanism between inquiry terminal and the standing groove, the lower extreme of supporting the base is equipped with four supporting legss four the supporting legs is connected through adjustment mechanism between the lower terminal surface of supporting legs and support base, the interior bottom of standing groove be equipped with inquiry terminal complex heat dissipation mechanism. The utility model discloses, it can dispel the heat and the leveling to block chain inquiry terminal of tracing to the source, and the function is more to can be convenient to block chain inquiry terminal of tracing to the source dismantles the installation.



图片版权认证方法、装置及存储介质

CN111881425 A

Current assignees

PINGAN TECHNOLOGY*

Inventors

CAO BIN

Priority data including date

2020CN-0737237 2020-07-28

IPC - International classification

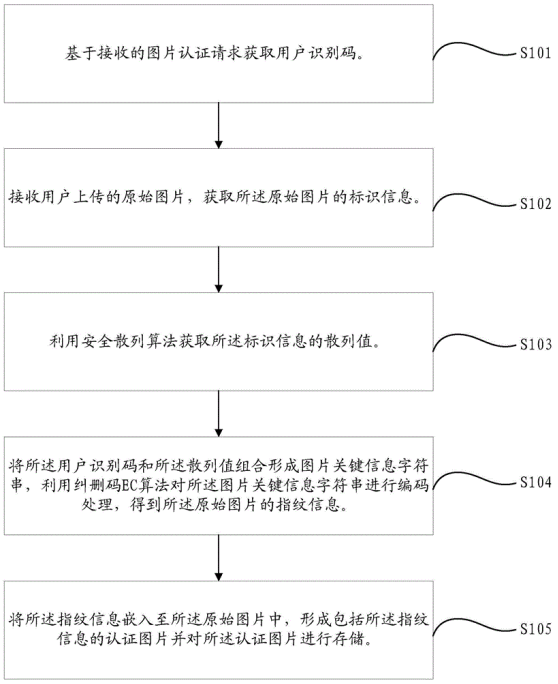
G06F-021/16* G06T-009/00

Family

CN111881425 A 2020-11-03

(CN111881425)

本发明涉及图片处理及人工智能技术领域，尤其涉及一种图片版权认证方法、装置及存储介质。 本发明的图片版权认证方法、装置及存储介质，为每个认证的用户创建唯一的用户识别码，并将原始图片的标识信息进行编码，得到标识信息的散列值，再将用户识别码和散列值组合形成的图片关键信息字符串进行编码处理，得到所述原始图片的指纹信息，将指纹信息嵌入原始图片中形成认证图片并存储，通过上述方式，由于该指纹信息同时指向图片标识和用户身份，难以伪造和篡改的同时便于用户进行版权证明，并且，若认证图片中嵌入的指纹信息部分丢失，还可进行数据还原，进一步增加了指纹信息伪造和篡改的难度。



基于区块链的资源账户绑定方法、装置、设备和介质

CN111881483 A

Current assignees

GUANGZHOU CRG CHAIN DAJINFU TECHNOLOGY*

Inventors

ZOU JUN

LI YUAN

XU JUN

CAI MENGHUAN

Priority data including date

2020CN-0788761 2020-08-07

IPC - International classification

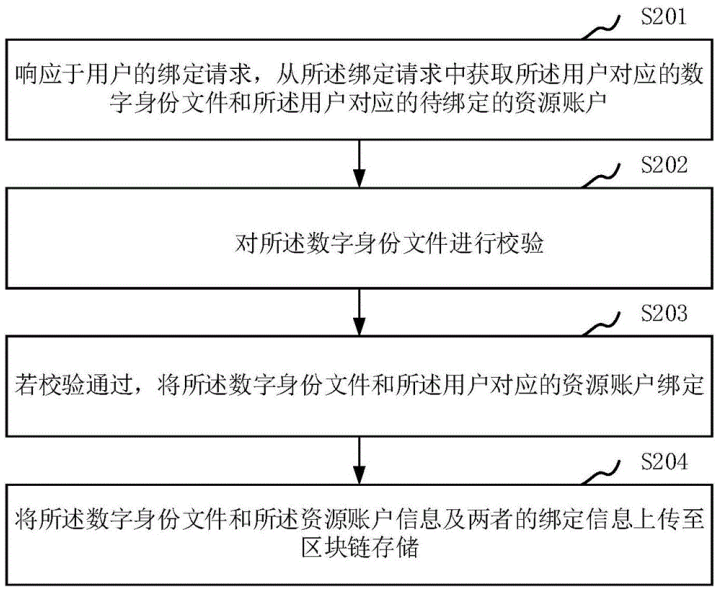
G06F-021/31 G06F-021/62*

Family

CN111881483 A 2020-11-03

(CN111881483)

本申请涉及网络技术领域，提供了一种基于区块链的资源账户绑定方法、装置、计算机设备和存储介质。本申请可提升业务机构对资源账户的识别效率和访问效率。该方法包括：通过响应用户的绑定请求，从绑定请求中获取用户对应的数字身份文件和用户的待绑定的资源账户，将数字身份文件进行校验后，将数字身份文件和对应的资源账户绑定，将数字身份文件和资源账户以及两者的绑定信息上传至区块链存储，该区块链上存储的数字身份文件和资源账户以及两者的绑定信息对多个业务机构服务器开放访问权限。



一种基于区块链智能合约的工业数据处理方法及系统

CN111881217 A

Current assignees

EPIC HUST TECHNOLOGY*

Inventors

JIANG LU
DU JUNZHI
ZHOU LI
FANG BO
ZHOU XIAOQING
FENG JIE

Priority data including date

2020CN-0785799 2020-08-06

IPC - International classification

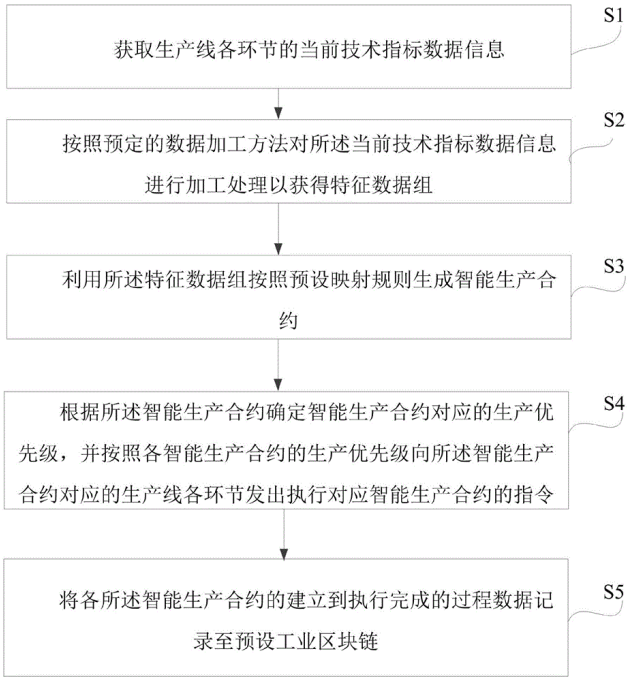
G05B-019/418 G06F-016/215 G06F-016/27*

Family

CN111881217 A 2020-11-03

(CN111881217)

本发明涉及一种基于区块链智能合约的工业数据处理方法及系统，所述方法包括：获取生产线各环节的当前技术指标数据信息并按照预定数据加工方法进行加工处理以获得特征数据组；利用特征数据组按照预设映射规则生成智能生产合约；根据所述智能生产合约确定智能生产合约对应的生产优先级，并按照各智能生产合约的生产优先级向所述智能生产合约对应的生产线各环节发出执行对应智能生产合约的指令；将各智能生产合约的建立到执行完成的过程数据记录至预设工业区块链。 本发明技术方案解决了传统的工业生产中生产过程的质量和流程信息通常采用人工核查的方式来对生产过程中的质量进行监控，采样率低，且检测结果具有较大的片面性的问题。



基于区块链的信息变更方法、车管所节点及运营商节点
CN111885074 A

Current assignees
CHINA UNICOM*

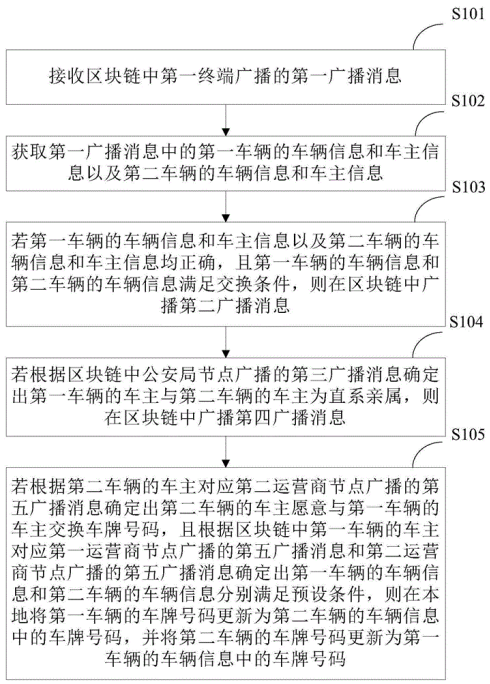
Inventors
TIAN XINXUE
XIAO ZHENGRONG
MA SHUHUI
YANG ZIWEN
DONG HUI

Priority data including date
2020CN-0743819 2020-07-29

IPC - International classification
G07C-005/00 H04L-009/32 H04L-012/18
H04L-029/06* H04L-029/08

Family
CN111885074 A 2020-11-03

(CN111885074)
本公开提供了一种基于区块链的信息变更方法、车管所节点及运营商节点，所述方法包括：接收区块链中第一终端广播的第一广播消息，并其中的第一车辆的车辆信息和车主信息以及第二车辆的车辆信息和车主信息；若第一车辆的车辆信息和车主信息以及第二车辆的车辆信息和车主信息均正确，且第一车辆的车辆信息和第二车辆的车辆信息满足交换条件，则在区块链中广播第二广播消息；若确定出第一车辆的车主与第二车辆的车主为直系亲属，则在区块链中广播第四广播消息；在本地将第一车辆的车牌号码更新为第二车辆的车辆信息中的车牌号码，并将第二车辆的车牌号码更新为第一车辆的车辆信息中的车牌号码。 实现更便捷的互换车牌号码，同时保证车主隐私性。



一种按顺序打包交易的方法、装置及电子设备

CN111882322 A

Current assignees
HANGZHOU RIVTOWER TECHNOLOGY*

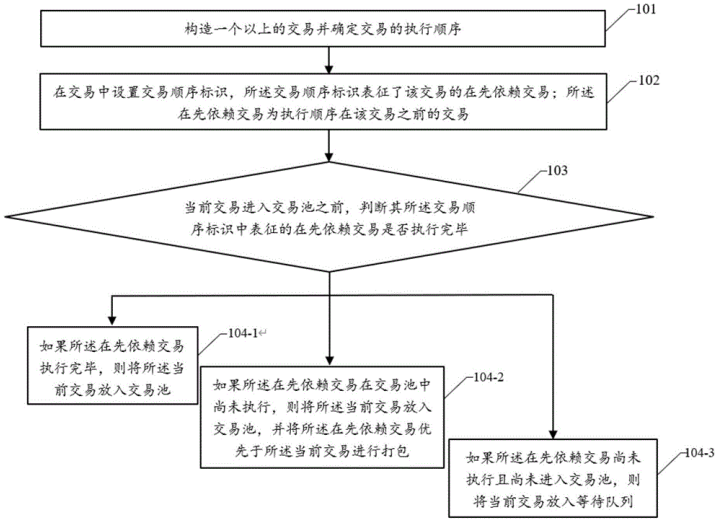
Inventors
WANG XIAOLIANG
ZHANG YANING

Priority data including date
2020CN-0697227 2020-07-20

IPC - International classification
G06Q-020/40* G06Q-040/04

Family
CN111882322 A 2020-11-03

(CN111882322)
本说明书实施例涉及一种按顺序打包交易的方法、装置及电子设备，通过在交易中设置交易顺序标识，保证在该交易执行时，其执行顺序此交易之前的所有交易已执行完毕，无需担心区块链交易打包时的顺序关系。当用户在连续发送具有依赖关系的交易时，对于具有依赖关系的交易可以尽快打包到区块中，而不需要等待区块确定之后发送后续交易。对于在先依赖交易尚未执行的交易，放入等待队列后，通过一定的规则和策略，将符合条件的交易重新放入交易池；并通过清除等待队列中的早期交易以保证等待队列中的交易数量在预设范围内。



一种语料标注系统、方法及存储介质

CN111881294 A

Current assignees
BOTSALLY TECHNOLOGY SHENZHEN*

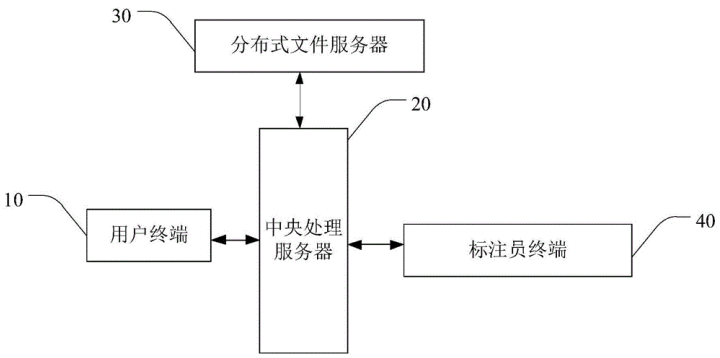
Inventors
YANG YONGDONG

Priority data including date
2020CN-0754175 2020-07-30

IPC - International classification
G06F-016/35* G06F-016/36 G06F-040/242
G06F-040/289

Family
CN111881294 A 2020-11-03

(CN111881294)
本发明公开了一种语料标注系统、方法及存储介质，根据待标注语料数据的类别将待标注语料数据输入至对应的预标注模型中计算得到预标注语料数据，利用知识图谱和数据字典检查预标注数据所存在的标注错误等噪声风险点，对噪声风险点进行人工标注，最后将标注数据上传至分布式文件服务器，并在区块链中构建交易规则，按照预先构建的交易规则进行交易，由于按照不同类别对待标注语料数据进行了预标注，提高了预标注的准确率，且通过知识图谱和数据字典检查、标记和纠正预标注语料数据中的易错风险点，人工再对风险点进行确认性标注，在保证标注准确率的基础上减小了人工标注的工作量，在区块链对标注数据上进行交易，使得标注数据能够交易共享。



Systems, devices, and methods for dlt-based data management platforms and data products

WO2020210721 A1

Current assignees

SYMBIONT IO

VANGUARD

Inventors

PENNINGTON WARREN

EVANS JOHN

SMITH MARK

VIJAYARAGHAVAN ANUSH

PAPANEK RON

Priority data including date

2019US-62833502 2019-04-12

2020US-16845838 2020-04-10

IPC - International classification

G06F-016/18 G06F-016/23* G06Q-020/06

G06Q-020/38 G06Q-020/40* H04L-009/06

H04L-009/32

CPC - Cooperative classification

G06Q-020/40/5* G06Q-2220/00 H04L-009/06/43

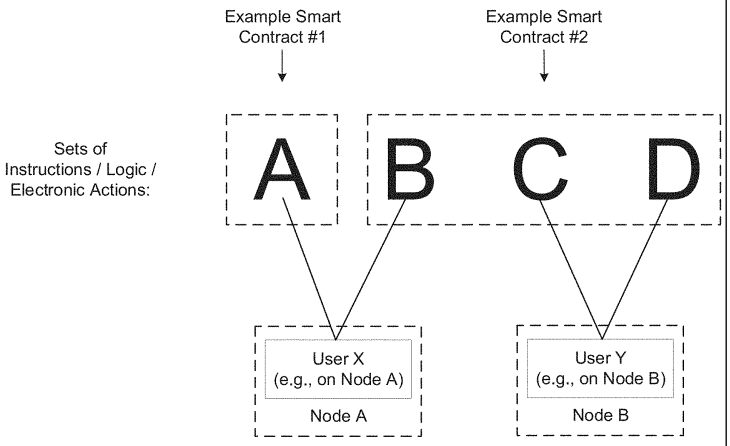
H04L-009/32/63 H04L-2209/38 H04L-2209/56

Family

US10825024	B1	2020-11-03	WO2020/210721	A1	2020-10-15	
US20200327546	A1	2020-10-15				

(WO2020/210721)

The various embodiments described herein relate to systems, methods, and devices associated with distributed ledger systems (e.g., distributed ledger technology implemented on a decentralized network) that can be used to handle and manage the distribution and access of data in a manner that preserves the benefits of distributed ledger technology while enabling the private sharing of data. More specifically, the distributed ledger systems contemplated herein involve distributed ledger technology (DLT)-based data management platforms that can be implemented on nodes of a data management network.



A food safety public query system based on a block chain
CN109670327 A

Current assignees
BEIJING SHEENLINE TECHNOLOGY*

Inventors
YAO XIAOBING

Priority data including date
2018CN-1591153 2018-12-25

IPC - International classification
G06F-021/60* G06F-021/64 G06Q-010/06
G06Q-030/00

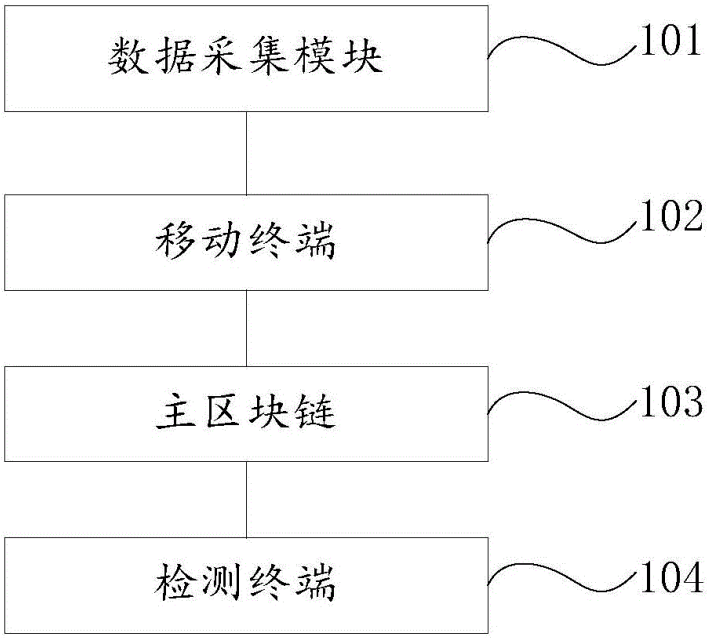
CPC - Cooperative classification
G06F-021/60/2 G06F-021/64 G06Q-010/06/395*
G06Q-030/018

Family

CN109670327	B	2020-11-03		CN109670327	A	2019-04-23

(CN109670327)

The embodiment of the invention provides a food safety public query system based on a block chain, and the system comprises a data collection module which is used for collecting basic data of a presettype of a tested food, carrying out the encryption of the basic data, generating encrypted basic data, and sending the encrypted basic data to a mobile terminal; a mobile terminal which is used for receiving the encrypted basic data sent by the data acquisition module and sending the encrypted basic data to the main block chain; a main block chain which is used for receiving the encrypted basic data sent by the mobile terminal and storing the encrypted basic data in a block of the main block chain; and a detection terminal which is used for extracting the encrypted basic data from the block of the main block chain, decrypting the encrypted basic data, determining the quality data of the detected food according to the decrypted encrypted basic data, and sending the quality data to the corresponding block of the main block chain. The food safety is detected by using the block chain technology, so that the detection process consumes a time end and is convenient, and the detection resultis reliable.



Insurance product management method and device based on block chain, medium and electronic device

CN109636627 A

Current assignees

TAIKANG INSURANCE*

Inventors

LI FULU

CHANG QIAN

DU SONG

Priority data including date

2018CN-1476141 2018-12-04

IPC - International classification

G06Q-040/08*

CPC - Cooperative classification

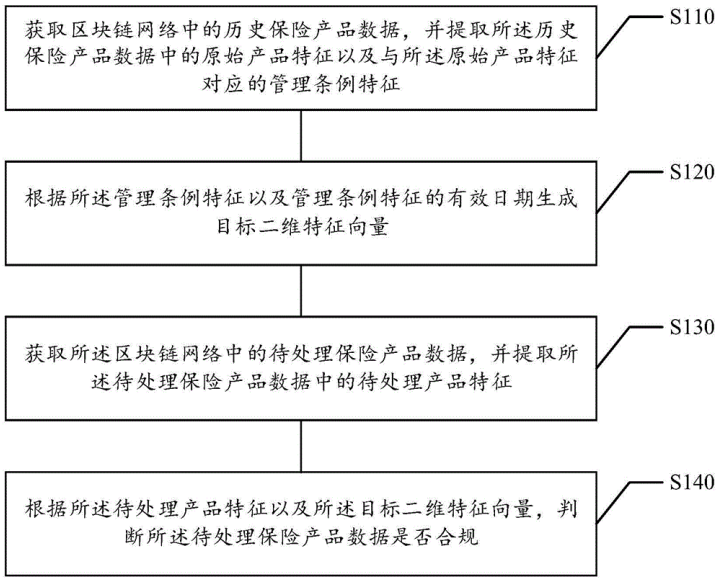
G06Q-040/08*

Family

CN109636627	B	2020-11-03		CN109636627	A	2019-04-16

(CN109636627)

The embodiment of the invention provides an insurance product management method and device based on a block chain, a medium and an electronic device. The insurance product management method based on ablock chain comprises the steps: obtaining the historical insurance product data in a block chain network, and extracting the original product features in the historical insurance product data and the management example features corresponding to the original product features; generating a target two-dimensional feature vector according to the management example feature and the valid date of the management example feature; obtaining to-be-processed insurance product data in the block chain network, and extracting to-be-processed product features in the to-be-processed insurance product data; and judging whether the to-be-processed insurance product data is compliant or not according to the to-be-processed product characteristics and the target two-dimensional characteristic vector. According to the technical scheme provided by the embodiment of the invention, whether the to-be-processed insurance product data is compliant can be automatically judged, the processing efficiency of the to-be-processed insurance product data is improved, and the labor cost is saved.



A method and a system for checking out based on a block chain
CN109255709 A

Current assignees
SHENZHEN ZHENGPIN CREATIVE TECHNOLOGY*

Inventors
LI WENHUA

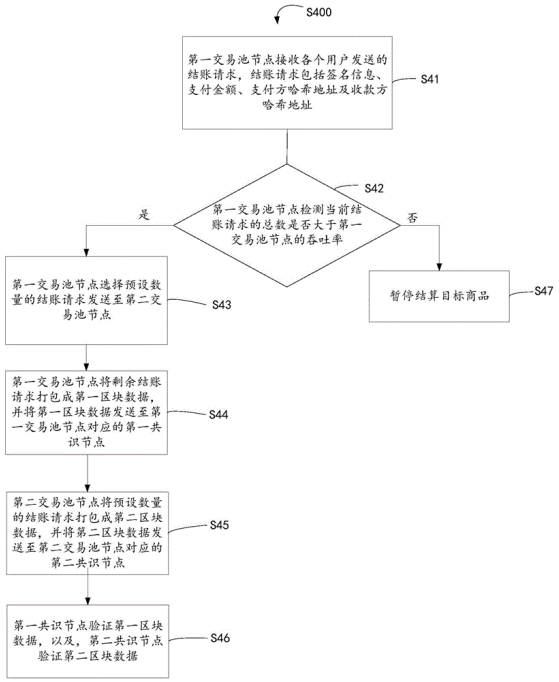
Priority data including date
2018CN-1033592 2018-09-05

IPC - International classification
G06Q-020/38 G06Q-040/04* H04L-029/08

CPC - Cooperative classification
G06Q-020/38/27 G06Q-040/04* H04L-067/32

Family
CN109255709 B 2020-11-03 CN109255709 A 2019-01-22

(CN109255709)
The invention relates to the technical field of block chains, in particular to a method and a system for checking out based on a block chain. The method comprises the following steps: the first transaction pool node detects whether the total number of current settlement requests is greater than the throughput rate of the first transaction pool node; if yes, the first transaction pool node selectsa preset number of checkout requests to send to the second transaction pool node; the first transaction pool node packages the remaining settlement request into the first block data and sends the first block data to the first consensus node corresponding to the first transaction pool node, ehe second transaction pool node packages the preset number of checkout requests into the second block data and sends the second block data to the second consensus node corresponding to the second transaction pool node. Since the first transaction pool node selects a preset number of settlement requests to send to the second transaction pool node when there are too many current settlement requests, the first transaction pool node processes the settlement requests in parallel with the second transaction pool node, thereby improving the efficiency of processing the settlement transactions.



A method and apparatus for updating a chain code identical identifier
CN109087097 A

Current assignees
JINGDONG DIGITAL TECHNOLOGY HOLDING*

Inventors
LI GUANNAN

Priority data including date
2018CN-0834251 2018-07-26

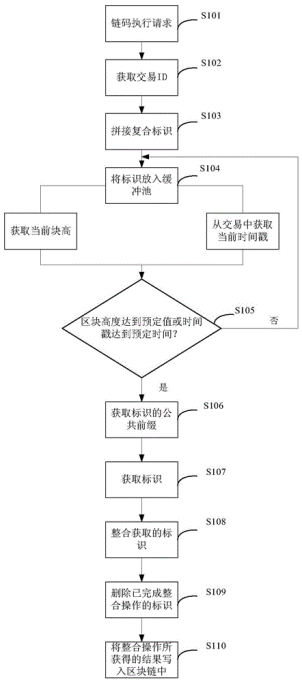
IPC - International classification
G06Q-020/38* G06Q-040/04

CPC - Cooperative classification
G06Q-020/38/2* G06Q-040/04

Family

CN109087097	B	2020-11-03		CN109087097	A	2018-12-25

(CN109087097)
The invention discloses a method and a device for updating chain code identical identifier, which relates to the computer technical field. One embodiment of the method includes: requesting chain codeexecution; getting the transaction ID; connecting the unified prefix to the transaction ID; putting the identity into the buffer pool; judging whether the block height reaches a predetermined value ora timestamp reaches a predetermined time; getting the public prefix of the identity; obtaining identifiers to be updated according to the obtained common prefix and the modules to be updated; integration of acquired logos; Remove the identity of the consolidation completed; as well as writing the result obtained by the integration operation into the block chain. The embodiment can realize the concurrent writing of chain codes by updating the same identifier of chain codes, maximize the reduction of the invalid operation of the block chain, effectively reduce the transaction failure rate, andimprove the efficiency of writing the block chain at the same time.



Database mergeable ledgers
US20200349123 A1

Current assignees

IBM*

Inventors

Irazabal Jeronimo

Priority data including date

2019US-16401343 2019-05-02

IPC - International classification

G06F-016/18	G06F-016/182*	G06F-016/21
G06F-016/27	G06N-020/00	G06Q-020/38
H04L-009/06		

CPC - Cooperative classification

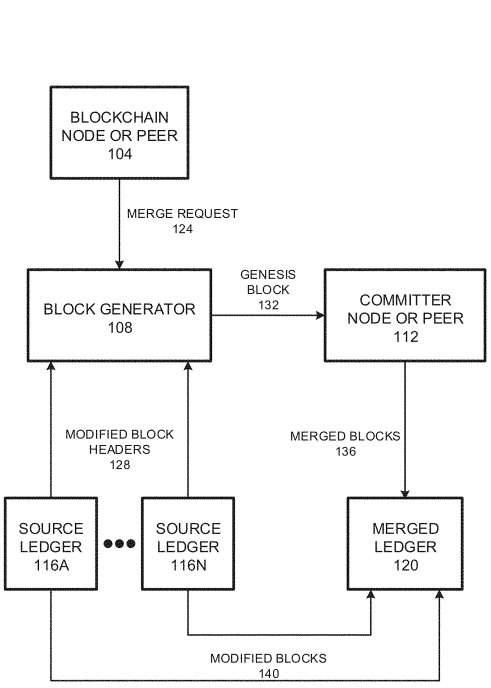
G06F-016/1805	G06F-016/1824*	G06F-016/1834
G06N-020/00	G06Q-020/38/2	H04L-009/06/43
H04L-2209/38		

Family

US20200349123	A1	2020-11-05		CN111881109	A	2020-11-03

(US20200349123)

An example operation may include one or more of generating, by a block generator, modified blocks for source ledgers, receiving a merge request to merge a plurality of source ledgers into a merged ledger, identifying the plurality of source ledgers, generating a genesis block from modified blocks of the identified source ledgers, ordering blocks, by a committer node or peer, in the merged ledger based on the genesis block, and validating a block order in the merged ledger.



Extensible template for asset token
US20200349562 A1

Current assignees

MICROSOFT TECHNOLOGY LICENSING*

Inventors

MADHURAM Supriya
PATEL Nayana Singh
GRAY John Marley
CIGNAVITCH Gregory Philip
LEE Brenda Yachu

Priority data including date

2019US-62843513 2019-05-05

IPC - International classification

G06Q-020/06	G06Q-020/36	G06Q-020/38*
G06Q-030/06	H04L-009/06	H04L-009/08
H04L-009/32		

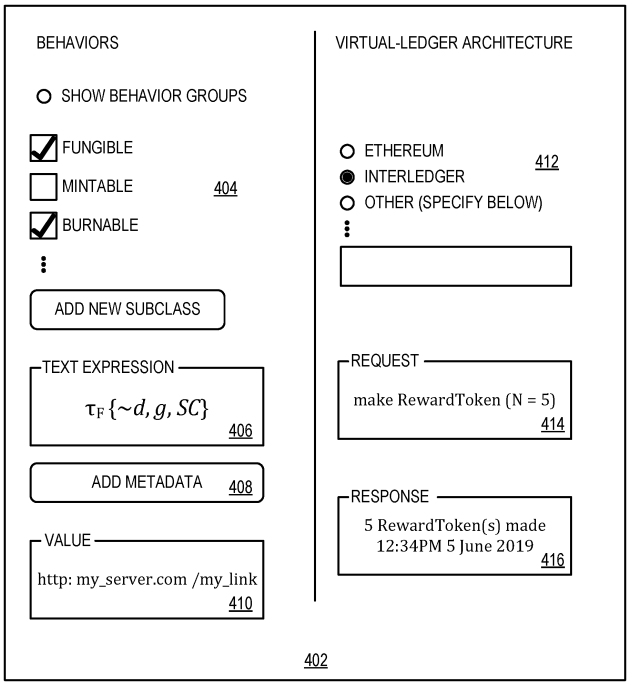
CPC - Cooperative classification

G06Q-020/06/58	G06Q-020/36/72	G06Q-020/38/9*
G06Q-030/06/21*	G06Q-2220/18	H04L-009/06/37
H04L-009/08/19	H04L-009/32/13*	H04L-009/32/28

Family

US20200349562	A1	2020-11-05	US20200351092	A1	2020-11-05
US20200349625	A1	2020-11-05	US20200351093	A1	2020-11-05

(US20200349562)
A computer system comprises a logic system, and, operatively coupled to the logic system, a computer-memory system holding instructions that, when executed by the logic system, cause the computer system to: receive a token-behavior selection corresponding to a real-world asset to be tracked on a virtual ledger, the token behavior selection identifying a client-defined combination of behaviors; construct a template for registration of a token class on the virtual ledger according to the provider-defined architecture of the virtual ledger, wherein each new token instantiated from the token class exhibits the client-defined combination of behaviors as determined by the token-behavior selection; and provide access to the template to a client computer device.



一种具有图灵完备智能合约的区块链实现方法

CN111882437 A

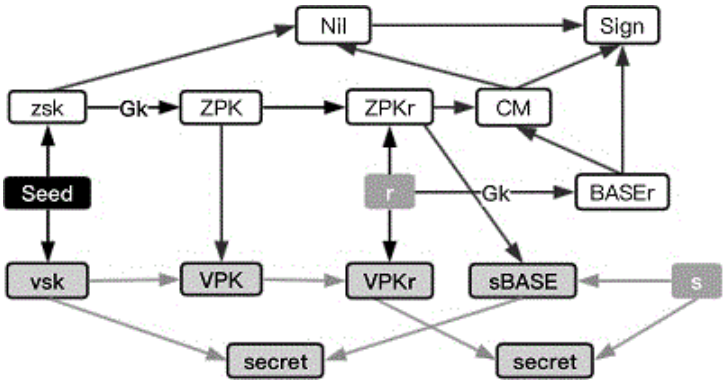
Inventors
HONG XUEFAN

Priority data including date
2020CN-0799494 2020-08-11

IPC - International classification
G06F-021/64 G06Q-040/04*

Family
CN111882437 A 2020-11-03

(CN111882437)
本发明公开了一种具有图灵完备智能合约的区块链实现方法，通过NIZK，将交易体系的输入和输出以及交易细节完全隐藏起来，除了交易双方，其他任何人对这些隐藏细节完全是不可见的对于具有隐藏合约发行资产总数的需求，将在线上运行智能合约内部提供一种名为隐匿数据的隐藏结构，同时只在链下对这种隐匿数据进行计算；采用共识机制，提升网络的吞吐量；对于具有隐藏合约内部计算规则的需求，将合约的运行分解为线下计算和线上验证两个步骤，线下计算完全了解运算规则和数据，并给出运算后的加密结果。 本发明具有安全可靠、应用广泛等优点。



基于区块链的数据获取方法、装置、计算机设备和存储介质

CN111885153 A

Current assignees

DONGGUAN MONDA PLASTIC CHEMICAL TECHNOLOGY*

Inventors

ZHANG ZHIRONG

WU LIANBO

Priority data including date

2020CN-0709436 2020-07-22

IPC - International classification

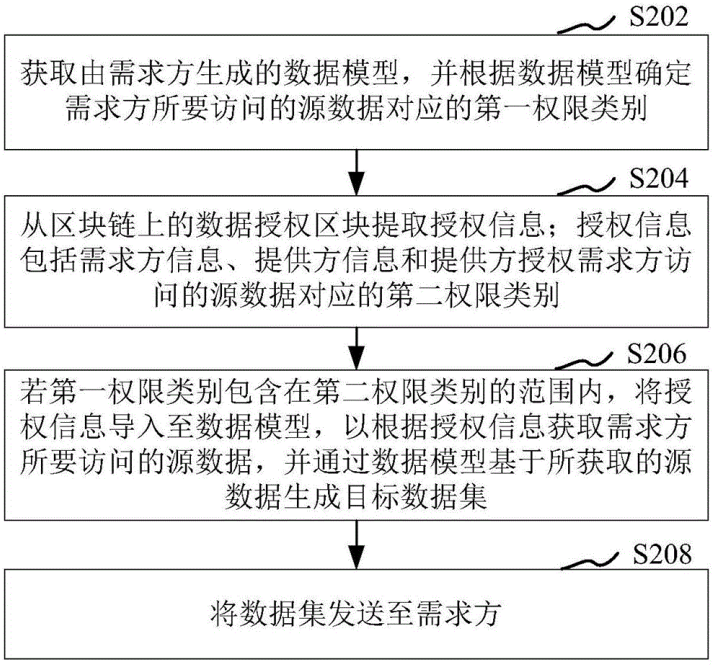
H04L-029/06 H04L-029/08*

Family

CN111885153 A 2020-11-03

(CN111885153)

本申请涉及一种基于区块链的数据获取方法、装置、计算机设备和存储介质。 所述方法包括：获取由需求方生成的数据模型，并根据所述数据模型确定所述需求方所要访问的源数据对应的第一权限类别；从区块链上的数据授权区块提取授权信息；所述授权信息包括需求方信息、提供方信息和提供方授权所述需求方访问的源数据对应的第二权限类别；若所述第一权限类别包含在所述第二权限类别的范围内，将所述授权信息导入至所述数据模型，以根据所述授权信息获取所述需求方所要访问的源数据，并通过所述数据模型基于所获取的源数据生成目标数据集；将所述目标数据集发送至所述需求方。 采用本方法能够提高数据获取过程中的安全性。



一种支持两轮通信的匿名多跳锁定方法

CN111882320 A

Current assignees

ZHEJIANG GONGSHANG UNIVERSITY*

Inventors

MAO XIAOHANG

PAN BIANJING

SHAO JUN

Priority data including date

2020CN-0716750 2020-07-23

IPC - International classification

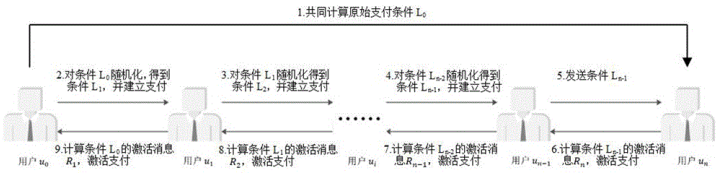
G06Q-020/10 G06Q-020/38* G06Q-040/04

Family

CN111882320 A 2020-11-03

(CN111882320)

本发明公开了一种支持两轮通信的匿名多跳锁定方法，包括如下步骤：S101，打开支付通道，在两个用户之间建立支付通道；S102，关闭支付通道，关闭两个用户之间的支付通道；S103，链下多跳支付，包括如下步骤：S201，初始化；S202，建立支付锁定；S203，释放支付锁定。不需要确定具体支付路径，付款方可以任意选择与某个相邻的中介建立支付，实现了支付路径的匿名；用户通过使用有寿命限制的智能合约，避免了付款方与中介的信任问题，实现参与用户之间的公平交换。



Mobile device based on block chain equipment
CN211846301U U

Current assignees
SHANGHAI JUHUIYING DATA TECHNOLOGY*

Inventors
YANG ZHENYU

Priority data including date
2020CN-U128407 2020-01-20

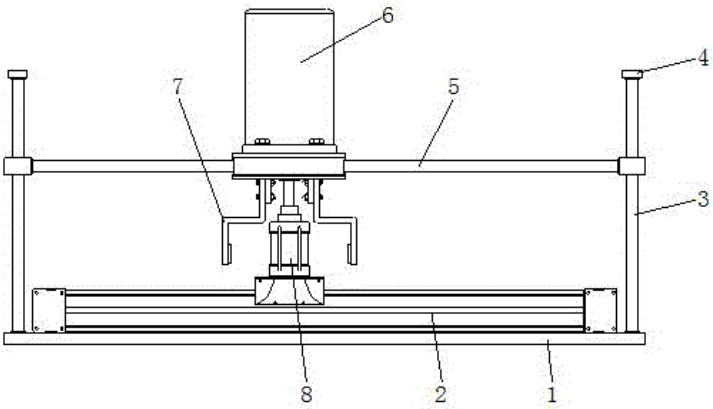
IPC - International classification
B65G-047/90*

Family

CN211846301	U	2020-11-03

(CN211846301)

The utility model relates to a block chain equipment technical field just discloses a mobile device based on block chain equipment, the on-line screen storage device comprises a base, electronic slide rail is installed at the top of base, the guide pillar that is located electronic slide rail both ends is installed at the top of base, the stopper is installed, two be provided with the bearing component on the guide pillar, be provided with the backup pad on the bearing component, install the centre gripping subassembly in the backup pad. This mobile device based on block chain equipment, centre gripping subassembly and the equipment contact in the backup pad to step up equipment, later cylinder drive bearing assembly shifts up on the guide pillar surface, drives the centre gripping subassembly in the backup pad through electronic slide rail and removes, so shifts the equipment of centre gripping subassembly centre gripping, and puts equipment on other conveyer belts, conveys, replaces the manpower through the device and shifts equipment, thereby reduces the human input, so reduce the cost.



一种区块链金融大数据处理方法

CN111885188 A

Current assignees
CHEN JIALIN*

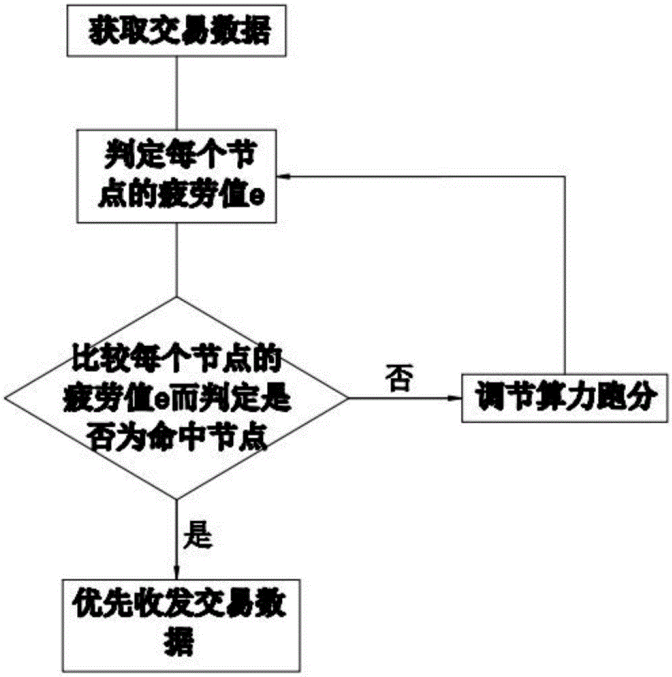
Inventors
THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Priority data including date
2020CN-0747346 2019-06-03

IPC - International classification
H04L-029/06 H04L-029/08*

Family
CN111885188 A 2020-11-03

(CN111885188)
本发明一种区块链金融大数据处理系统所述区块链包括至少5个相互连接的节点和与节点连接的区块链服务器，所述节点包括数据获取模块、数据发送模块、数据接收模块、区块链数据库，区块链服务器根据每个节点的数据接收模块开始解密交易数据至发送解密成功的回执的时间a和被解密的交易数据的容量b来判定该节点的算力跑分c，并根据每个节点的正在处理队列的数据的容量d而分配整个区块链的节点的交易信息的处理队列。 本发明通过上述解密并发送回执的时间a和被解密的交易数据的容量b来判定该节点的算力跑分c，从而以最为实际的场景来检测每个节点的算力，从而确定每个节点的最真实的运算能力，并根据其队列情况而调节每个节点的处理队列。



基于区块链的多方数据备份方法、装置及系统

CN111881486 A

Current assignees

INDUSTRY & COMMERCIAL BANK CHINA*

Inventors

LI GUANBIN

LI TAO

LU JIEWEN

LUO PENGFEI

Priority data including date

2020CN-0716517 2020-07-23

IPC - International classification

G06F-011/14 G06F-021/60 G06F-021/64*

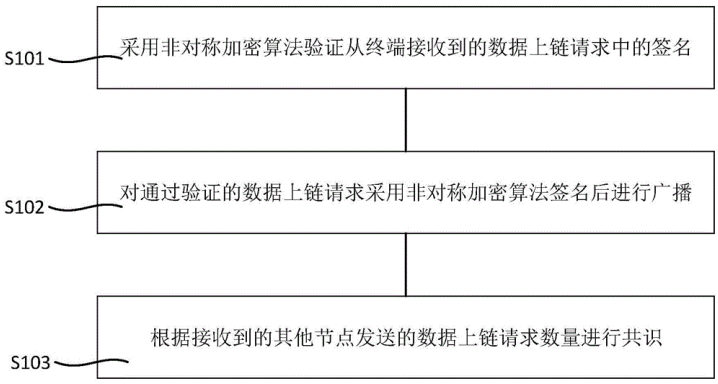
H04L-009/32 H04L-029/06

Family

CN111881486 A 2020-11-03

(CN111881486)

本发明提供了一种基于区块链的多方数据备份方法、装置及系统，包括：采用非对称加密算法验证从终端接收到的数据上链请求中的签名；对通过验证的数据上链请求采用非对称加密算法签名后进行广播；根据接收到的其他节点发送的数据上链请求数量进行共识。本申请基于区块链技术的分布式数据存储、链上各节点数据强一致性以及数据不可篡改、不可伪造的特点，建立数据备份区块链。有数据备份需求的机构可以申请接入并将数据上传到链上，借助链上其他机构的节点实现数据备份，避免数据丢失，同时数据上链前采用对称加密算法进行加密，加密密钥由上传数据的机构持有可以有效防止数据泄露。



一种区块链金融大数据处理方法

CN111885186 A

Current assignees
CHEN JIALIN*

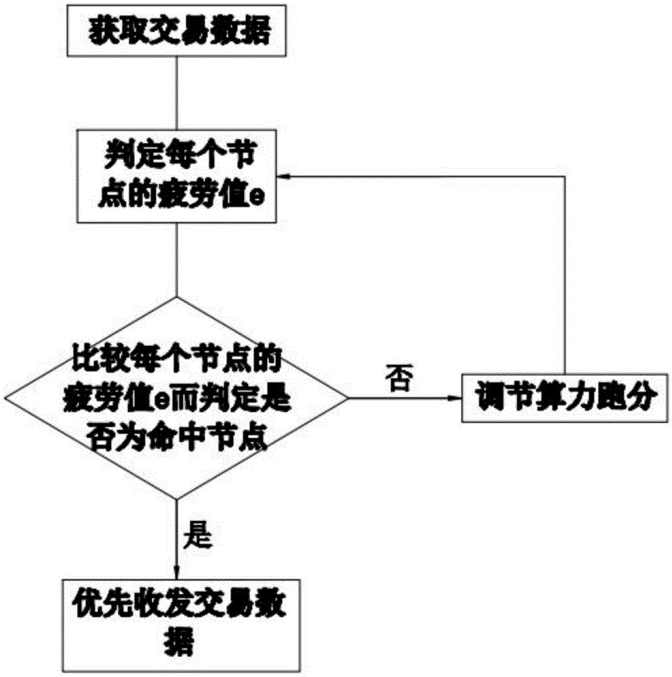
Inventors
THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Priority data including date
2020CN-0746365 2019-06-03

IPC - International classification
H04L-029/06 H04L-029/08*

Family
CN111885186 A 2020-11-03

(CN111885186)
本发明一种区块链金融大数据处理系统所述区块链包括至少5个相互连接的节点和与节点连接的区块链服务器，所述节点包括数据获取模块、数据发送模块、数据接收模块、区块链数据库，区块链服务器根据每个节点的数据接收模块开始解密交易数据至发送解密成功的回执的时间a和被解密的交易数据的容量b来判定该节点的算力跑分c，并根据每个节点的正在处理队列的数据的容量d而分配整个区块链的节点的交易信息的处理队列。 本发明通过上述解密并发送回执的时间a和被解密的交易数据的容量b来判定该节点的算力跑分c，从而以最为实际的场景来检测每个节点的算力，从而确定每个节点的最真实的运算能力，并根据其队列情况而调节每个节点的处理队列。



区块链数据上链处理方法、装置及设备

CN111882319 A

Current assignees

SU BO

Inventors

SU BO

Priority data including date

2020CN-0644293 2020-07-07

IPC - International classification

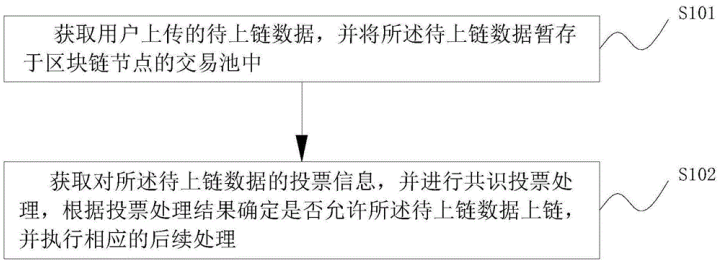
G06F-021/64 G06Q-020/38*

Family

CN111882319 A 2020-11-03

(CN111882319)

本申请涉及区块链数据上链处理方法、装置及设备，属于区块链技术领域，本申请包括：获取用户上传的待上链数据，并将待上链数据暂存于区块链节点的交易池中；获取对待上链数据的投票信息，并进行共识投票处理，根据投票处理结果确定是否允许待上链数据上链，并执行相应的后续处理。本申请提供一种新的区块链数据上链机制，有助于更好地满足区块链数据的上链管理需求。



一种管理报表数据处理方法、装置、计算机系统及可读存储介质

CN111881158 A

Current assignees

PING AN INTERNATIONAL FINANCE LEASING*

Inventors

HAN BING

Priority data including date

2020CN-0760869 2020-07-31

IPC - International classification

G06F-016/245* G06F-016/248 G06K-009/62

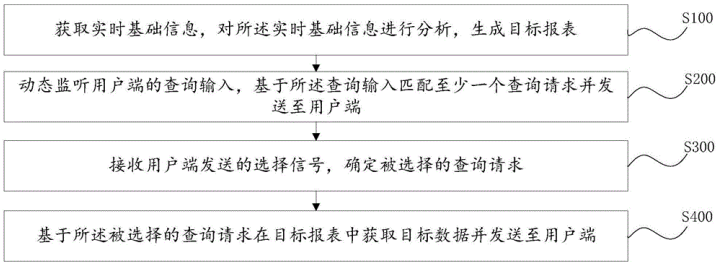
G06Q-040/00

Family

CN111881158 A 2020-11-03

(CN111881158)

本发明公开了管理报表数据处理、装置、计算机系统及可读存储介质，涉及大数据技术领域，包括：获取实时基础信息，对所述实时基础信息进行分析和预测，生成目标报表；动态监听用户端的查询输入，基于所述查询输入匹配至少一个查询请求并发送至用户端；接收用户端发送的选择信号，确定被选择的查询请求；基于所述被选择的查询请求在目标报表中获取目标数据并发送至用户端，解决现有技术中管理报表对数据展示比较繁杂，导致用户在查询时查找信息效率较低的问题。



一种基于区块链的可信伪中心存储系统

CN111885107 A

Current assignees

HANGZHOU DIANZI UNIVERSITY*

Inventors

TIAN ZEKUN

Yue Xueying

SUN LINGLING

Priority data including date

2020CN-0554286 2020-06-17

IPC - International classification

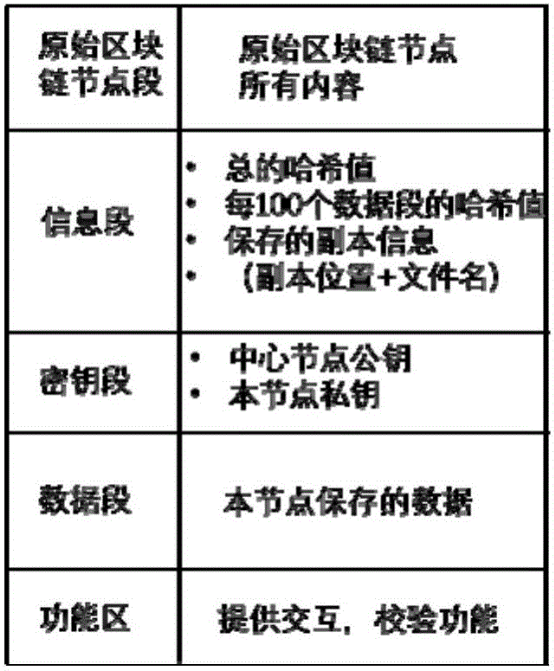
H04L-009/32 H04L-029/06 H04L-029/08*

Family

CN111885107 A 2020-11-03

(CN111885107)

本发明公开了一种基于区块链的可信伪中心存储系统，本发明包括区块链节点、中心存储节点；所述的区块链节点为普通区块链节点负责完成区块链的各项事务的基础上，还具有与中心存储节点交互的功能；所述的中心存储节点为负责接收来自区块链节点的数据信息，并在本地保存完整的数据，对用户提供查询的功能；本发明在保证数据不可修改和可追溯的基础上，通过区块链节点维护起一个中心节点，实现数据的伪中心化存储，大大降低了普通节点数据的冗余，同时保证了从中心节点查询到的数据的真实性。



A conveyer for block chain equipment
CN211845931U U

Current assignees

SHANGHAI JUHUIYING DATA TECHNOLOGY*

Inventors

YANG ZHENYU

Priority data including date

2020CN-U128395 2020-01-20

IPC - International classification

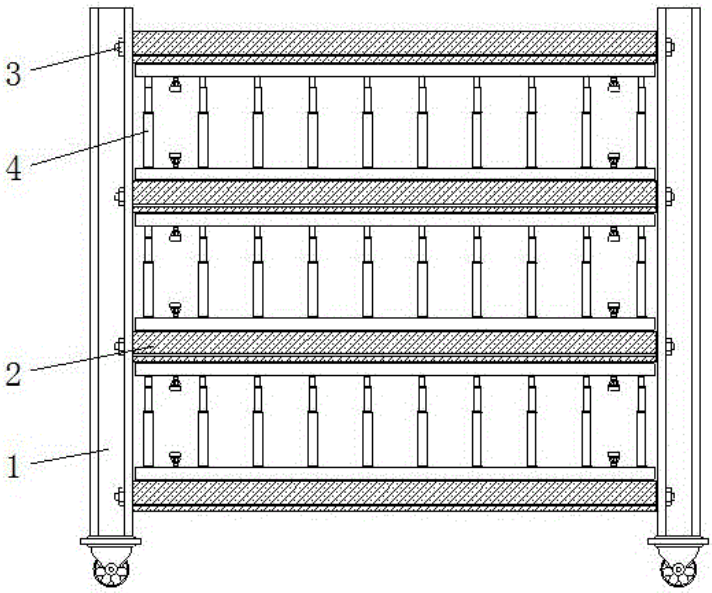
B62B-003/02 B62B-003/04 B65G-001/04*

Family

CN211845931 U 2020-11-03

(CN211845931)

The utility model relates to a block chain equipment technical field just discloses a conveyer for block chain equipment, including the support frame, deposit board, fastening bolt and isolation assembly, deposit the board and pass through fastening bolt and install between two support frames, the isolation assembly sets up two and sets up the front and back both sides between two deposit boards respectively. This a conveyer for block chain equipment, install the storage plate on the support frame through fastening bolt, can install the multiunit according to the demand and deposit the board, after block chain gateway and block chain switch processing, directly place on the storage plate, during the transportation, install the isolation assembly between two storage plates, both sides block around depositing the board, avoid equipment to drop, later through the whole equipment of vehicle pulling, the conveyer drives equipment and shifts to the warehouse in, so avoid equipment in the transportation, need the transport, reduce the human input.



一种基于区块链和IPFS的物流资料公示方法及系统

CN111882260 A

Current assignees

HEFEI WEITIAN YUNTONG INFORMATION TECHNOLOGY*

Inventors

FENG LEI

DU BING

YANG HAOFENG

Priority data including date

2020CN-0542270 2020-06-15

IPC - International classification

G06F-016/22 G06F-016/27 G06F-021/60

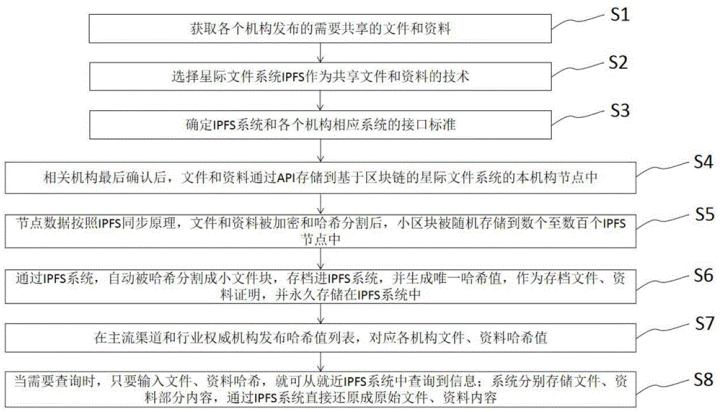
G06F-021/64 G06Q-010/08*

Family

CN111882260 A 2020-11-03

(CN111882260)

本发明公开了一种基于区块链和IPFS的物流资料公示方法及系统，涉及数据存储技术领域。本发明包括括如下步骤：选择星际文件系统IPFS作为共享文件和资料的技术；文件和资料通过API存储到基于区块链的星际文件系统的本机构节点中；节点数据按照IPFS同步原理，文件和资料被加密和哈希分割后，小区块被随机存储到数个至数百个IPFS节点中；通过IPFS系统，自动被哈希分割成小文件块，存档进IPFS系统，并生成唯一哈希值；在主流渠道和行业权威机构发布哈希值列表，对应各机构文件、资料哈希值。本发明通过采用区块链技术和星际文件系统的存储技术，在物流文件、资料存储中进行应用，保证相关方的数据隐私权，同时节约了物理存储开支，节省了人力管理的支出。



基于多训练目标的机构实体抽取方法、系统及装置

CN111881692 A

Current assignees

PINGAN TECHNOLOGY*

Inventors

CHAI LING

Priority data including date

2020CN-0738252 2020-07-28

IPC - International classification

G06F-016/36 G06F-040/30* G06K-009/62

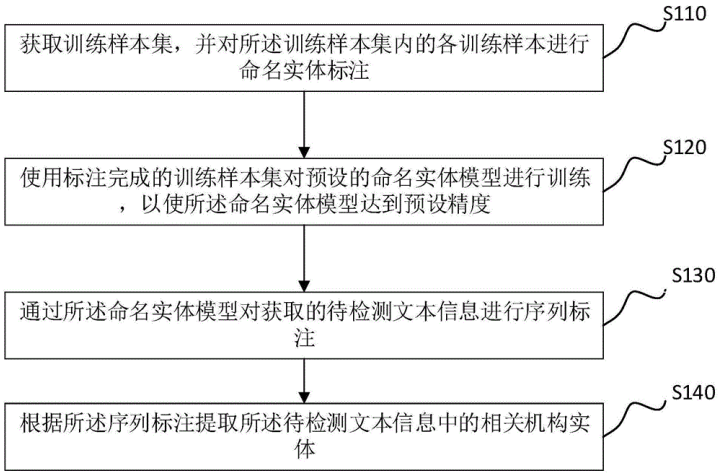
G06N-003/04 G06N-003/08

Family

CN111881692 A 2020-11-03

(CN111881692)

本发明涉及人工智能，提供一种基于多训练目标的机构实体抽取方法，包括：获取训练样本集，并对训练样本集内的各训练样本进行命名实体标注；使用标注完成的训练样本集对预设的命名实体模型进行训练，以使命名实体模型达到预设精度；通过所述命名实体模型对获取的待检测文本信息进行序列标注；根据序列标注提取待检测文本信息中的相关机构实体。 本发明还涉及区块链技术，训练样本集存储于区块链中。 本发明提供技术方案能够有效地解决现有的机构实体抽取方法效率低质量差的问题。



Block chain data processing method and device and electronic equipment
CN111541554 A

Current assignees
ZHUOER ZHILIAN RESEARCH INSTITUTE*

Inventors
XIANG SHUN

Priority data including date
2020CN-0668641 2020-07-13

IPC - International classification
H04L-009/32*

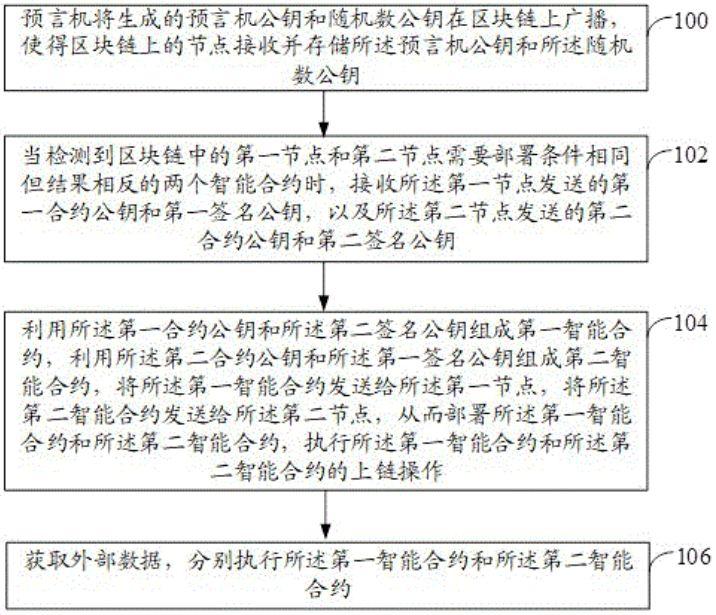
CPC - Cooperative classification
H04L-009/32/47* H04L-2209/38

Family

CN111541554	B	2020-11-03	CN111541554	A	2020-08-14	

(CN111541554)

The invention provides a block chain data processing method, a block chain data processing device and electronic equipment, wherein in the process of executing an intelligent contract related to a third party, a predicting machine only broadcasts a predicting machine public key and a random number public key, respective intelligent contracts of a first node and a second node are generated according to the contract public key and a signature public key respectively sent by the first node and the second node, the predicting machine signature public key obtained by the final change result is sent to the first node and the second node, and the judgment process of a specific event execution result is finished by the respective intelligent contracts of the first node and the second node, so that the interaction times of the predicting machine and the nodes can be reduced, the workload of the predicting machine is reduced, and the execution efficiency and the safety of the predicting machine are improved.



Tunnel positioning method based on block chain and edge calculation, storage medium and terminal

CN110290458 A

Current assignees

NANJING UNIVERSITY OF POSTS & TELECOMMUNICATIONS*

Inventors

WANG KUN
YU YUE
SUN YANFEI
QI, Jin
YUE DONG

Priority data including date

2019CN-0485226 2019-06-05

IPC - International classification

H04L-029/08	H04W-004/02*	H04W-004/30
H04W-004/80	H04W-012/06	H04W-064/00

CPC - Cooperative classification

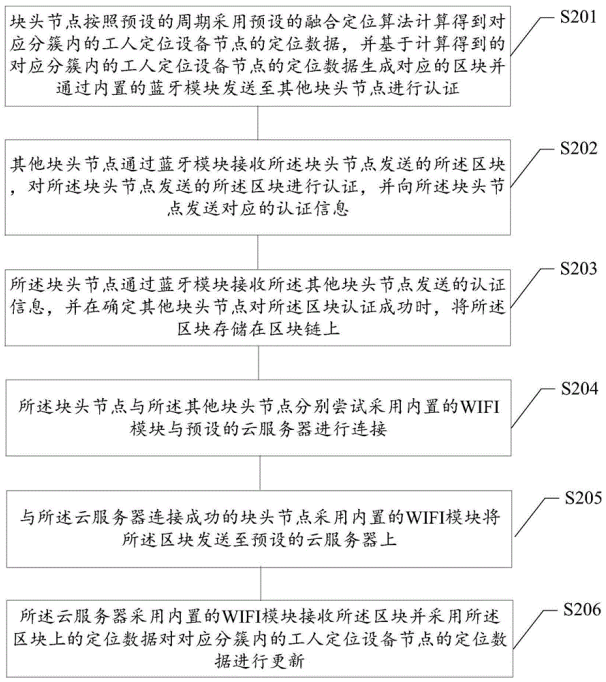
H04L-067/1097*	H04W-004/02	H04W-004/30
H04W-004/80	H04W-012/06	H04W-064/00/3

Family

CN110290458	B	2020-11-03	CN110290458	A	2019-09-27	

(CN110290458)

The invention discloses a tunnel positioning method based on block chains and edge calculation, a storage medium and a terminal. The method comprises the steps of enabling block head nodes to adopt a fusion positioning algorithm to calculate and obtain positioning data of worker positioning equipment nodes in corresponding clusters according to a period; based on the positioning data of the worker positioning equipment nodes in the corresponding clusters, generating a block, and sending the block to other block head nodes through a Bluetooth module for authentication; enabling the block head node to receive the authentication information sent by the other block head nodes, and store the block on a block chain when determining that the authentication of the other block head nodes on the block is successful; enabling the block head node which is successfully connected with the cloud server to adopt a built-in WIFI module to send the block to a preset cloud server; and enabling the cloud server to adopt a built-in WIFI module to receive the block and update the positioning data of the worker positioning equipment nodes in the corresponding cluster. According to the scheme, the positioning reliability and accuracy of tunnel workers can be improved.



Intellectual property data protection, transaction and right protection method and device based on block chain

CN109886045 A

Current assignees

BEIJING UNIVERSITY OF TECHNOLOGY*

Inventors

ZHU NAFEI
WANG JIANYU
HE JINGSHA
HAN SONG
WANG SIYU
XUE RUIXIN
ZUO WANG
SONG HONGYU
ZHANG KUN

Priority data including date

2019CN-0119262 2019-02-15

IPC - International classification

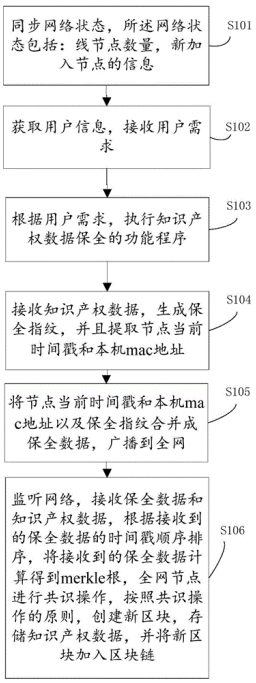
G06F-021/62* G06Q-050/18

Family

CN109886045 B 2020-11-03 CN109886045 A 2019-06-14

(CN109886045)

The invention provides an intellectual property data protection, transaction and right protection method and device based on a block chain, which is based on the public block chain, is clear and novelin logic, and is safe and feasible, the safety is enhanced through an admission mechanism and a litigation mechanism, the expandability is high, a bottom layer method can be focused on and an upper layer application can be expanded on the basis. The relevant design ideas are provided, the layered services can be provided according to safety requirements of users, and the method and the device canbe suitable for the more complex application scenes. Due to the fact that the block chain serves as the bottom support, the expansion of the application layer can guarantee the good credibility compared with an existing centralized application, and users are attracted better.



Timing method for job scheduling system
CN107277151 A

Current assignees
BEIJING SUGON INFORMATION INDUSTRY*

Inventors
SUN DONGPO
ZHANG TAO
WANG JIAYAO
YUAN, Shuai
WANG JIANMIN
ZHANG JINFENG

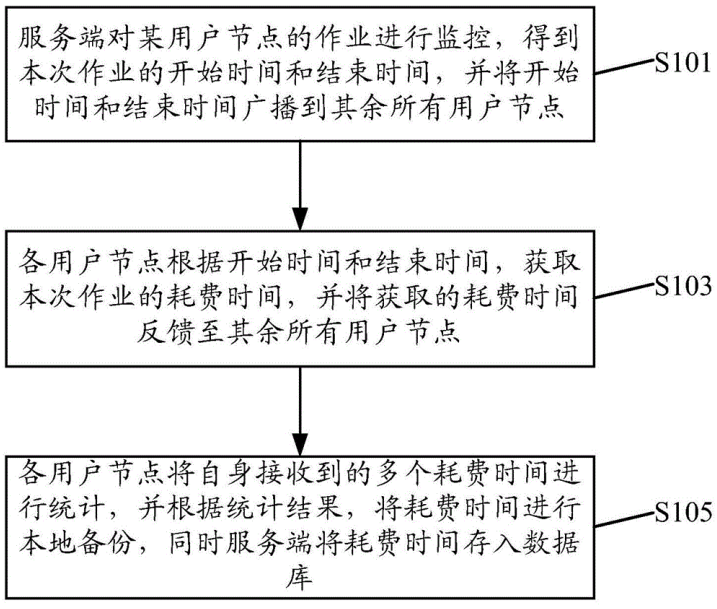
Priority data including date
2017CN-0511733 2017-06-27

IPC - International classification
G06F-011/14 H04L-009/06 H04L-029/08*

CPC - Cooperative classification
G06F-011/14/61 G06F-011/14/64 H04L-009/06/43
H04L-067/10* H04L-067/10*95

Family
CN107277151 B 2020-11-03 CN107277151 A 2017-10-20

(CN107277151)
The invention discloses a timing method for a job scheduling system. The timing method comprises the steps that a server side monitors job of certain user node, thereby obtaining start time and end time of the job of this time, and the server side broadcasts the start time and the end time to all other user nodes; each user node obtains the consumed time of the job of this time according to the start time and the end time and feeds back the obtained consumed time to all other user nodes; and each user node carries out statistics on a plurality of pieces of consumed time received by each user node and locally backs up the consumed time according to a statistic result, and moreover, the server side stores the consumed time to a database. According to the system, a machine-hour database is jointly maintained by all user nodes; the information synchronization is timely and is symmetrical; the security of system data can be ensured; the data loss and damage risks resulting from centralized management are avoided; and once a fault occurs in a block database of the center server side, the system database can be timely recovered by the other user nodes.



Block chain-based data transmission system and method
CN106549933 A

Current assignees
CENTRIN CLOUD FINANCE & DATA TECHNOLOGY*

Inventors
WANG BAOXING

Priority data including date
2016CN-0841538 2016-09-22

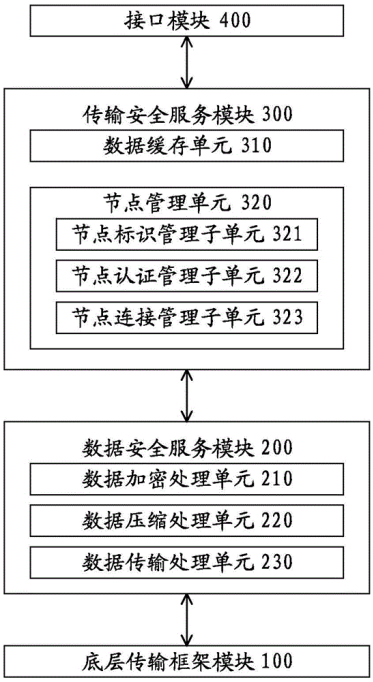
IPC - International classification
H04L-009/32 H04L-029/06*

CPC - Cooperative classification
H04L-009/32/47 H04L-009/32/97 H04L-063/0428* H04L-063/1466

Family

CN106549933	B	2020-11-03		CN106549933	A	2017-03-29

(CN106549933)
The present invention discloses a block chain-based data transmission system and method. The system comprises a bottom transmission framework module, a data security service module, a transmission security service module, and an interface module. The bottom transmission framework module is used for forwarding data between a block chain and multiple service terminals. The data security service module is in communicated connection with the bottom transmission framework module, and is used for performing security authentication on data transmitted with the bottom transmission framework module in a communicated manner. The transmission security service module is in communicated connection with the data security service module and is used for transmitting and managing data transmitted with the data security service module in a communicated manner. The interface module is in communicated connection with the transmission security service module and at least one service terminal, and is used for being invoked by at least one service terminal so as to start the data transmission system of the block chain. The data in transmission is not tampered, private data can be encrypted and transmitted safely, and block chain-based massive data transmission is safe and efficient.



基于区块链的互联互通方法和装置、存储介质及电子装置

CN111885026 A

Current assignees
HAIER YOUJIA INTELLIGENT TECHNOLOGY*

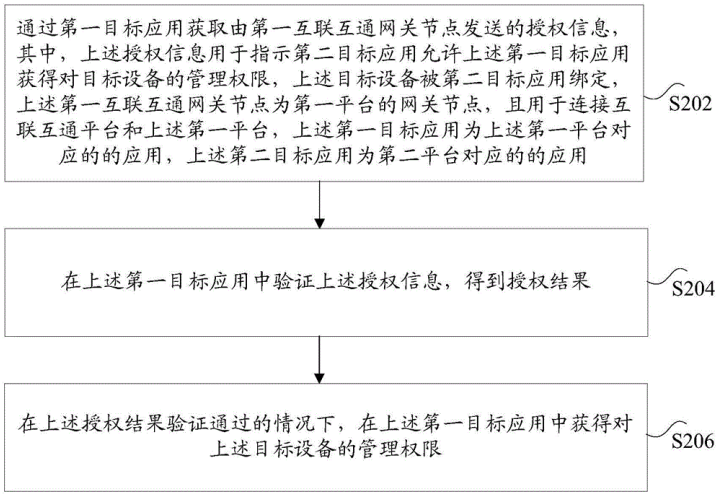
Inventors
LI YUEMIAO

Priority data including date
2020CN-0664387 2020-07-10

IPC - International classification
H04L-012/28 H04L-029/06* H04L-029/08

Family
CN111885026 A 2020-11-03

(CN111885026)
本发明公开了一种基于区块链的互联互通方法和装置、存储介质及电子装置。该方法包括：通过第一目标应用获取由第一互联互通网关节点发送的授权信息，授权信息用于指示所述第一目标应用获得对目标设备的管理权限，目标设备被第二目标应用绑定，第一互联互通网关节点为第一平台的网关节点，且用于连接互联互通平台和第一平台，第一目标应用为第一平台对应的应用，第二目标应用为第二平台对应的应用；在第一目标应用中验证授权信息，得到授权结果；在授权结果验证通过的情况下，在第一目标应用中获得对目标设备的管理权限。解决了在实现一个APP上管理家中所有厂商的家电设备时，存在对接工作量大，重复开发，关系维护复杂的问题。



基于区块链的作业数据处理方法、装置及系统

CN111881166 A

Current assignees

INDUSTRY & COMMERCIAL BANK CHINA*

Inventors

SUN CAICHAN

SHEN JU

YANG XU

CHEN HAOYU

Priority data including date

2020CN-0708633 2020-07-22

IPC - International classification

G06F-016/2455* G06F-016/27 G06F-021/64

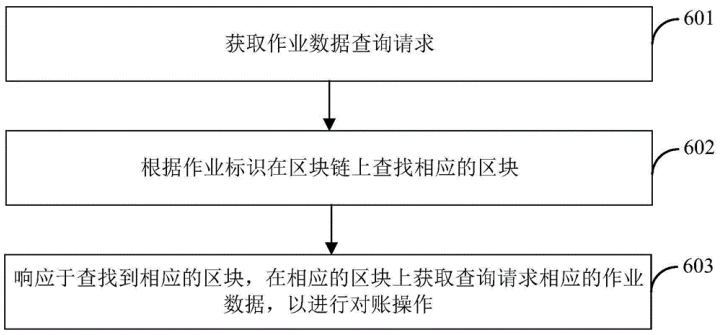
G06Q-020/38 G06Q-040/04

Family

CN111881166 A 2020-11-03

(CN111881166)

本发明公开了一种基于区块链的作业数据处理方法、装置及系统，其中，该方法包括：获取作业数据查询请求，所述请求包括：作业标识；根据所述作业标识在区块链上查找相应的区块；响应于查找到相应的区块，在所述相应的区块上获取所述查询请求相应的作业数据，以进行对账操作。通过本发明，可以有效提升对账效率，且较好地保证账务的完整性和安全性。



基于HTTP的模型调用方法、系统、计算机设备和存储介质
CN111880864 A

Current assignees
PINGAN INTERNATIONAL SMART URBAN TECHNOLOGY*

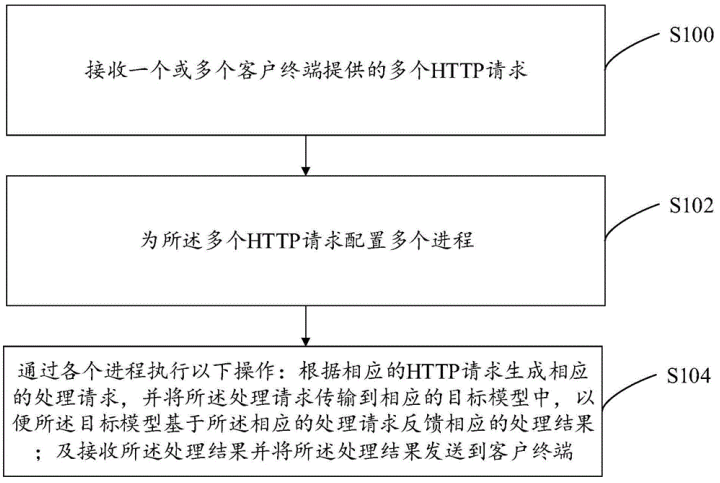
Inventors
ZHONG XIAN

Priority data including date
2020CN-0751931 2020-07-30

IPC - International classification
G06F-009/448* G06F-009/50

Family
CN111880864 A 2020-11-03

(CN111880864)
本发明实施例提供了一种基于HTTP的模型调用方法，所述方法包括：接收一个或多个客户终端提供的多个HTTP请求；为所述多个HTTP请求配置多个进程；通过各个进程执行以下操作：根据相应的HTTP请求生成相应的处理请求，并将所述处理请求传输到相应的目标模型中，以便所述目标模型基于所述相应的处理请求反馈相应的处理结果；及接收所述处理结果并将所述处理结果发送到客户终端。本发明实施例通过为多个HTTP请求分配对应的进程，并通过调用对应的目标模型对HTTP请求进行处理操作，提高了对HTTP请求密集时的计算处理速度和并发时的处理效率。



话术训练处理方法、装置、计算机设备和可读存储介质

CN111883111 A

Current assignees

PINGAN INTERNATIONAL SMART URBAN TECHNOLOGY*

Inventors

YAO LINGYUN

Priority data including date

2020CN-0753812 2020-07-30

IPC - International classification

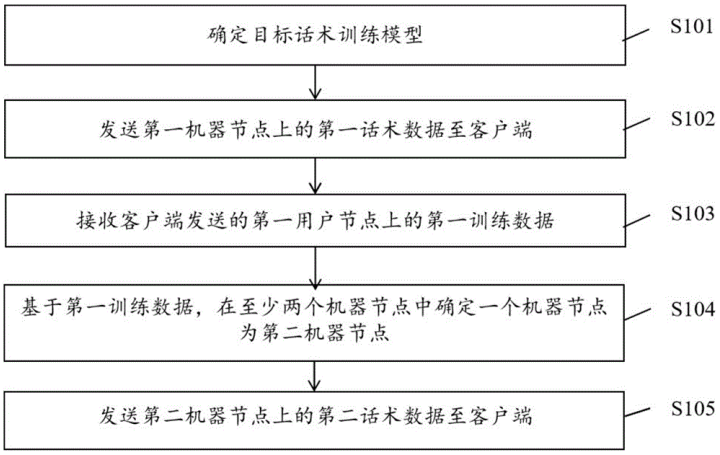
G06F-016/27 G06F-040/30 G10L-015/01
G10L-015/06* G10L-015/18 G10L-015/26
G10L-025/51

Family

CN111883111 A 2020-11-03

(CN111883111)

本发明提供了一种话术训练处**理方法、装置、计算机**设备**和可**读**存**储**介**质。 该**方法包括：确定目**标话术训练**模型；发送第一机器**节**点上的第一**话术**数据至客户端；接收客户端发送的第一用**户节**点上的第一**训练**数据；基于第一**训练**数据，在至少两个机器**节**点中确定一个机器**节**点为第二机器**节**点；发送第二机器**节**点上的第二**话术**数据至客户端。 此外，本发明涉及区**块链技术，话术训练**模型和机器**节**点上的**话术**数据等，可存**储于区**块链节**点中；本发明还涉及智慧城市技术，在智慧城市服务中，可使用该话术训练处理方法进行相关话术训练。 通过本发明，能够根据话术训练数据灵活调整话术训练流程。



基于区块链技术的用户身份隐私加密方法
CN111881482 A

Current assignees
HUANG CANNAN

Inventors
HUANG CANNAN

Priority data including date
2020CN-0778798 2020-08-05

IPC - International classification
G06F-021/62* G06Q-020/38

Family
CN111881482 A 2020-11-03

(CN111881482)
本发明涉及基于区块链技术的用户身份隐私加密方法，包括：存储不同造型的小图形并赋予各小图形一串独立的短数字编码；利用所述短数字编码组合成若干具有多位独立数字编码的长数字编码；筛选和删除重复组合的长数字编码；依照各长数字编码的规则将对应的小图形组合形成独立唯一的大图形；将各所述大图形上传至区块链，依照协议随机或受指定地发送并展示给用户专属图形密码，并与用户身份绑定加密处理，在区块链上以专属图形密码记录表明用户身份。本发明将用户的真实身份信息和含有数字编码的专属图形分开，区块链只记录含有数字编码图形的交易信息，不记录用户真实身份信息，在保证了真实交易信息情况下，有效的保护用户的隐私。

一种数据访问控制方法、系统及权限管理系统、介质

CN111881472 A

Current assignees

CLOUD ACCOUNT TECHNOLOGY TIANJIN*

Inventors

ZHU YUMENG
WU HAO
SONG JIMING
YANG YI
ZOU YONGQIANG
YANG HUI

Priority data including date

2020CN-0711318 2020-07-22

IPC - International classification

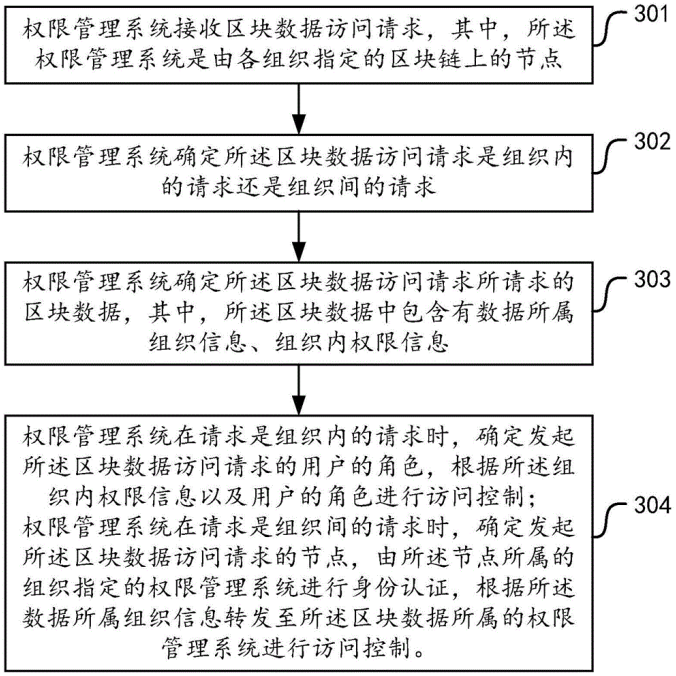
G06F-016/27 G06F-021/62*

Family

CN111881472 A 2020-11-03

(CN111881472)

本发明公开了一种数据访问控制方法、系统及权限管理系统、介质，包括：权限管理系统接收区块数据访问请求，其中，权限管理系统是由各组织指定的区块链上的节点；确定区块数据访问请求是组织内的请求还是组织间的请求；确定区块数据访问请求所请求的区块数据，区块数据中包含有数据所属组织信息、组织内权限信息；在请求是组织内的请求时，确定发起区块数据访问请求的用户的角色，根据组织内权限信息以及用户的角色进行访问控制；在请求是组织间的请求时，确定发起区块数据访问请求的节点，由节点所属的权限管理系统进行身份认证，由区块数据所属的权限管理系统进行访问控制。 采用本发明可以实现多个组织内部及组织间的权限控制。



基于区块链的数据监控方法

CN111884878 A

Current assignees

FAN XIN

Inventors

FAN XIN

Priority data including date

2020CN-0725166 2020-07-24

IPC - International classification

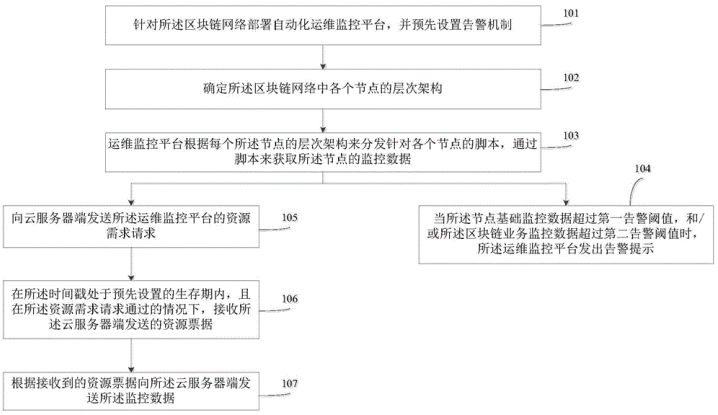
H04L-012/24 H04L-012/26* H04L-029/08

Family

CN111884878 A 2020-11-03

(CN111884878)

本申请实施例公开了一种基于区块链的数据监控方法及装置，其中方法包括：针对区块链网络部署自动化运维监控平台，并预先设置告警机制；确定区块链网络中节点的层次架构；运维监控平台根据节点的层次架构来分发针对各个节点的脚本，通过脚本来获取节点的监控数据；当节点基础监控数据超过第一告警阈值，和/或区块链业务监控数据超过第二告警阈值时，运维监控平台发出告警提示；以及向云服务器端发送运维监控平台的资源需求请求，在时间戳处于预先设置的生存期内，且述资源需求请求通过的情况下，接收所述云服务器端发送的资源票据；根据接收到的资源票据向云服务器端发送所述监控数据。 能够实时监控节点状态，及时响应节点故障，保障节点运行。



基于物联网的数据传输方法、装置、云平台和计算机设备
CN111885197 A

Current assignees
PING AN INTERNATIONAL FINANCE LEASING*

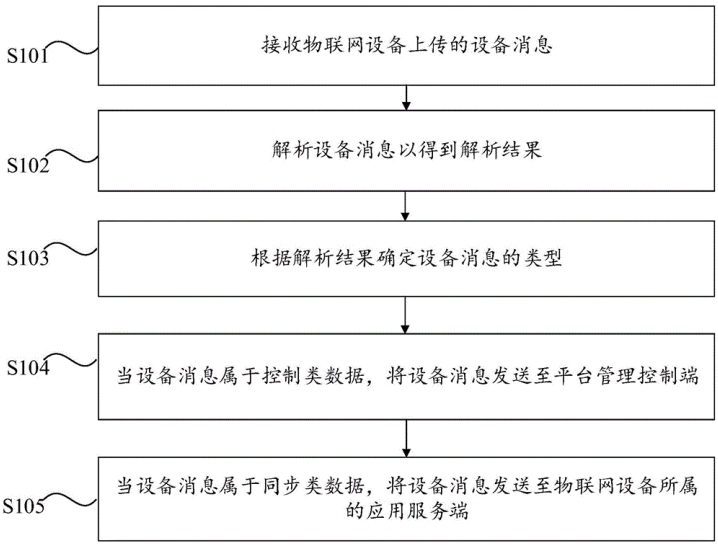
Inventors
CHEN SHUANGYUAN
CHEN XIANGJIAN
LI PING

Priority data including date
2020CN-0760848 2020-07-31

IPC - International classification
H04L-029/06 H04L-029/08*

Family
CN111885197 A 2020-11-03

(CN111885197)
本发明涉及云技术，应用于智慧城市，提供了一种基于物联网的数据传输方法、装置、云平台和计算机设备。该方法包括：接收物联网设备上传的设备消息；解析设备消息以得到解析结果；根据解析结果确定设备消息的类型，其中，设备消息的类型包括控制类数据和同步类数据；当设备消息属于控制类数据，将设备消息发送至平台管理控制端，其中，平台管理控制端用于通过规则引擎确定设备消息对应的应用服务端，并发送至对应的应用服务端；当设备消息属于同步类数据，将设备消息发送至物联网设备所属的应用服务端。此外，本发明还涉及区块链技术，设备消息可存储于区块链节点中。通过本发明，能够减小基于物联网的云平台中消息流转时耗，提升流转效率。



数据刷新方法、装置、电子设备及计算机可读存储介质

CN111880948 A

Current assignees
CHINA PING AN PROPERTY INSURANCE*

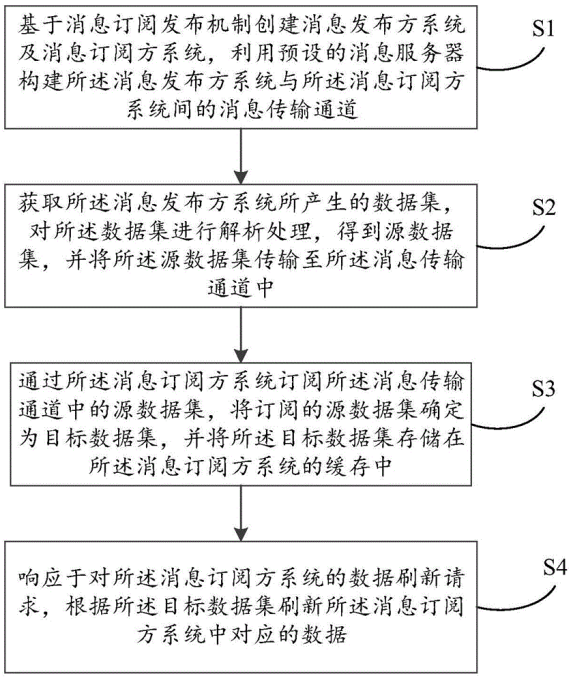
Inventors
LIANG WEIKANG
LI YUKAI

Priority data including date
2020CN-0720710 2020-07-23

IPC - International classification
G06F-009/54* H04L-029/08

Family
CN111880948 A 2020-11-03

(CN111880948)
本发明涉及数据处理技术，揭露一种基于消息订阅发布机制的数据刷新方法，包括：创建消息发布方系统及消息订阅方系统，利用预设消息服务器构建消息发布方系统与消息订阅方系统间的消息传输通道；获取消息发布方系统所产生的数据集，对数据集进行解析处理，得到源数据集，将源数据集传输至消息传输通道；通过消息订阅方系统订阅消息传输通道的源数据，将订阅的源数据确定为目标数据集，将目标数据集存储在消息订阅方系统的缓存中；响应于对消息订阅方系统的数据刷新请求，根据目标数据集刷新消息订阅方系统中对应的数据。 本发明还涉及区块链技术，消息发布方系统所产生的数据集可部署于区块链节点上。 本发明可以实现不同系统之间的数据实时刷新。



训练样本制作方法、装置、计算机设备及可读存储介质

CN111881902 A

Current assignees

PINGAN TECHNOLOGY*

Inventors

SHENG JIANDA

YE MING

ZHANG GUOHUI

SONG CHEN

Priority data including date

2020CN-0739646 2020-07-28

IPC - International classification

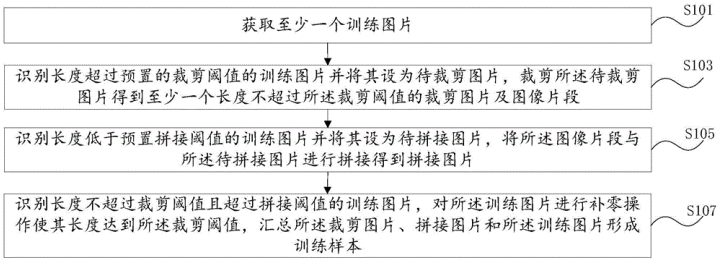
G06K-009/20* G06K-009/34 G06K-009/62

Family

CN111881902 A 2020-11-03

(CN111881902)

本发明涉及人工智能技术领域，公开了一种训练样本制作方法、装置、计算机设备及可读存储介质，包括：识别长度超过预置的裁剪阈值的训练图片并将其设为待裁剪图片，裁剪待裁剪图片得到长度不超过裁剪阈值的裁剪图片及图像片段；识别长度低于预置拼接阈值的训练图片并将其设为待拼接图片，将图像片段与待拼接图片进行拼接得到拼接图片；识别长度不超过裁剪阈值且超过拼接阈值的训练图片，对训练图片进行补零操作使其长度达到裁剪阈值，汇总裁剪图片、拼接图片和训练图片形成训练样本。本发明还涉及区块链技术，信息可存储于区块链节点中。本发明在保证训练样本的批量化训练同时，降低了补零信息的占比，提高了OCR识别训练的效率。



信息更新方法及服务器、终端

CN111885072 A

Current assignees

CHINA UNICOM*

Inventors

TIAN XINXUE
XIAO ZHENGRONG
MA SHUHUI
YANG ZIWEN
DONG HUI

Priority data including date

2020CN-0743632 2020-07-29

IPC - International classification

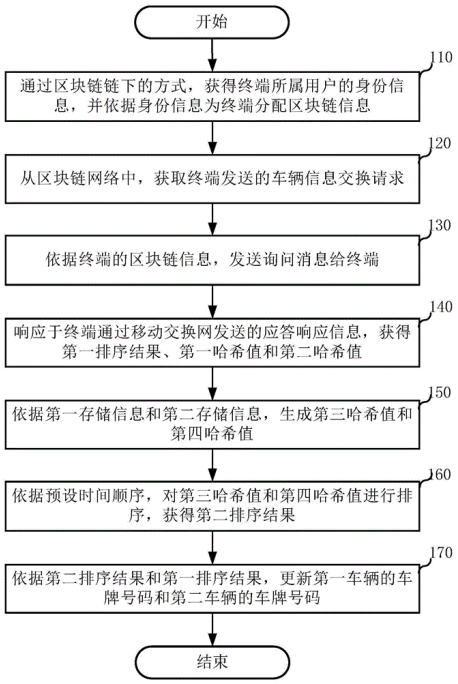
G07C-005/00 H04L-009/32 H04L-012/18
H04L-029/06* H04L-029/08

Family

CN111885072 A 2020-11-03

(CN111885072)

本申请公开了一种信息更新方法及服务器、终端，方法包括：通过区块链链下的方式，获得终端所属用户的身份信息，并依据身份信息为终端分配区块链信息；从区块链网络中，获取终端发送的车辆信息交换请求；依据终端的区块链信息，发送询问消息给终端；响应于终端通过移动交换网发送的应答响应信息，获得第一排序结果、第一哈希值和第二哈希值；依据第一存储信息和第二存储信息，生成第三哈希值和第四哈希值；依据预设时间顺序，对第三哈希值和第四哈希值进行排序，获得第二排序结果；依据第二排序结果和第一排序结果，更新第一车辆的车牌号码和第二车辆的车牌号码。 避免终端的隐私信息被泄露，提升用户信息的安全性，以提高客户体验度。



对象选取方法及装置、电子设备

CN111882745 A

Current assignees
ADVANCED NEW TECHNOLOGIES*

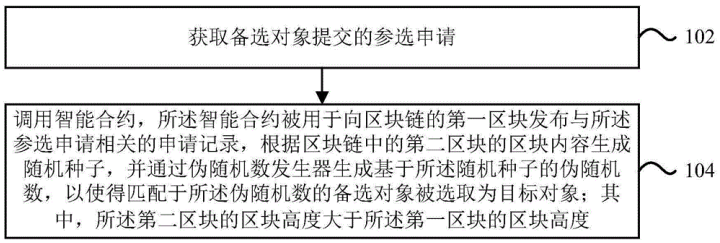
Inventors
MA BAOLI
ZHANG WENBIN
LIU ZHENG
SONG XUYANG
CUI JIAHUI

Priority data including date
2020CN-0753642 2018-10-26

IPC - International classification
G07C-015/00*

Family
CN111882745 A 2020-11-03

(CN111882745)
本说明书一个或多个实施例提供一种对象选取方法及装置、电子设备，应用于区块链节点；所述方法包括：获取备选对象提交的参选申请；调用智能合约，所述智能合约被用于向区块链的第一区块发布与所述参选申请相关的申请记录，根据区块链中的第二区块的区块内容生成随机种子，并通过伪随机数发生器生成基于所述随机种子的伪随机数，以使得匹配于所述伪随机数的备选对象被选取为目标对象；其中，所述第二区块的区块高度大于所述第一区块的区块高度。



一种基于区块链终端的防伪溯源方法

CN111882331 A

Current assignees
ANHUI GAOSHAN TECHNOLOGY*

Inventors
YANG NINGBO
CHEN FENG

Priority data including date
2020CN-0734689 2020-07-28

IPC - International classification
G06Q-010/08 G06Q-030/00*

Family
CN111882331 A 2020-11-03

(CN111882331)
本发明公开了一种基于区块链终端的防伪溯源方法，步骤一：在产品生产时需要进行登记申报，获取到产品区块链终端；步骤二：在产品进行生产时将产品的生产信息通过hash算法得到一个字符串，将字符串件加密处理后，将加密后的字符串进行上链；步骤三：获取到产品的运输目的地信息，并规划出产品从产地到运输地之间的推荐路径与运输时间信息，产品从产地到运输地之间的推荐路径与运输时间信息通过hash算法处理进行并经过加密处理后进行上链；步骤四：产品运输到目的地之后，保存到库房，将库房的位置信息、库房预警信息经过hash算法处理进行并经过加密处理后进行上链。 本发明能够更好进行防伪溯源，同时能够加快溯源速度。

基于监狱管理的劳动计量生产管理系统

CN111882227 A

Current assignees
GUIZHOU DONGGUAN TECHNOLOGY*

Inventors
PENG JUNGUO

Priority data including date
2020CN-0758613 2020-07-31

IPC - International classification
G06Q-010/06* G06Q-050/04 G06Q-050/26
H04L-029/08

Family
CN111882227 A 2020-11-03

(CN111882227)
本发明属于生产管理技术领域，尤其涉及一种基于监狱管理的劳动计量生产管理系统，包括：采集端，用于进行数据采集，包括罪犯个人信息数据、工位数据和加工信息数据；管理端，用于对采集端的采集数据进行分组绑定；服务器，用于将管理端分组绑定后的数据存储；其中，服务器用区块链技术对生产数据进行存储。使用本系统，通过采集端对生产数据进行录入，和人工计数相比，更不容易出现误差，记录的生产数据更加准确。将管理端分组绑定后的数据存储，且服务器用区块链技术对生产数据进行存储，对生产数据进行了上链处理后，数据的安全性、可信性更高。与现有技术相比，能够保证记录的数据准确性，当对某个生产数据存疑时，也便于进行追溯。

Block chain system user identity anonymity and traceability method, corresponding storage medium and electronic device

CN111064734 A

Current assignees

INSTITUTE OF INFORMATION ENGINEERING CAS*

Inventors

LI PEILI

XU HAIXIA

Priority data including date

2019CN-1356670 2019-12-25

IPC - International classification

H04L-009/32 H04L-029/06*

CPC - Cooperative classification

H04L-009/32/21 H04L-009/32/63 H04L-009/32/68

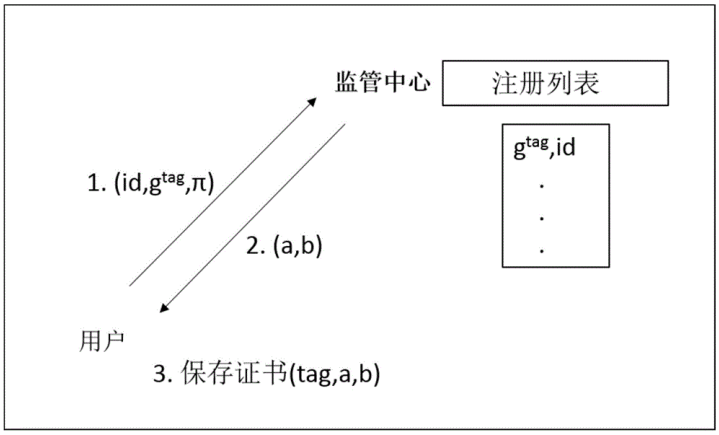
H04L-063/0421* H04L-2209/38 H04L-2209/42

Family

CN111064734 B 2020-11-03 CN111064734 A 2020-04-24

(CN111064734)

The invention discloses a block chain system user identity anonymity and traceability method, a corresponding storage medium and an electronic device. The method are suitable for a block chain networkcomposed of a plurality of other user sides and a supervision center, and the method comprises the following steps: obtaining a first certificate through the supervision center; obtaining a second certificate according to the first certificate and the first identifier, and randomizing and anonymizing the second certificate to obtain an anonymous certificate; sequentially generating a public and private key pair and binding information, and uploading a transaction composed of a public key, transaction information and the anonymous certificate to the block chain after the binding information isconfirmed on the block chain. The second certificate is randomized each time, the first identifier is secret, and the anonymous certificate does not leak any information related to the identity of the user. According to the invention, the user registers at the supervision center to obtain the certificate, and the user needs to attach the corresponding certificate every time the user sends a transaction, thereby achieving the traceability of the user.



Network architecture for gaming industry accounting
WO202056043 A1

Current assignees

JCM AMERICAN*

Inventors

MOHRHARDT DOMINIC
KUBAJAK DAVE
NGUYEN MIKE

Priority data including date

2018US-16130346 2018-09-13
2020US-16777756 2020-01-30

IPC - International classification

G07F-017/32*

CPC - Cooperative classification

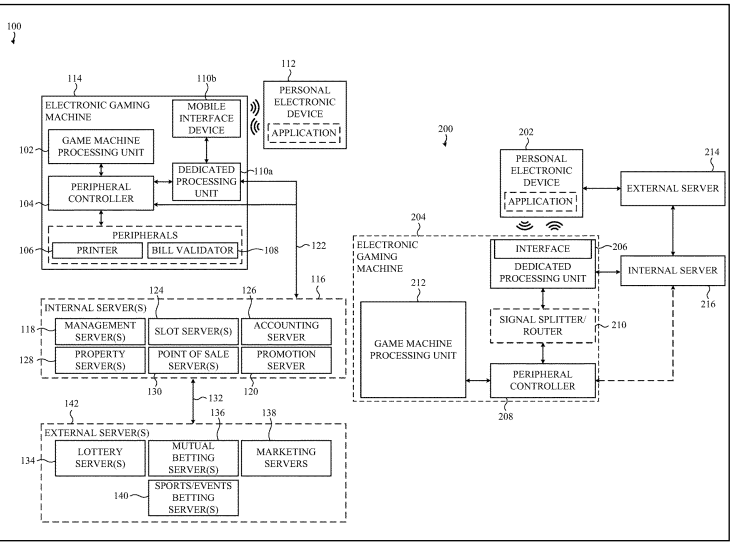
G07F-017/32/16 G07F-017/32/18 G07F-017/32/23
G07F-017/32/25* G07F-017/32/41 G07F-017/32/44

Family

US10825290	B2	2020-11-03	US20200090463	A1	2020-03-19
US20200168034	A1	2020-05-28	WO2020/056043	A1	2020-03-19

(WO2020/056043)

A peripheral device is installed in a cabinet of an electronic gaming machine and configured to detect and communicate with a personal electronic device of a player of a casino game. The personal electronic device is configured to communicate identity information and/or account information to the peripheral device that, in turn, can be used to enable gameplay on the electronic gaming machine. Other embodiments described herein reference a network architecture facilitating cryptographically-secure and verifiable accounting of all point or real-money transactions in a casino environment.



Grouping-based DPOS proxy node selection method
CN108833483 A

Current assignees
HAINA RENDONG SCIENCE & TECHNOLOGY*

Inventors
CENG SHENG

Priority data including date
2018CN-0492778 2018-05-22

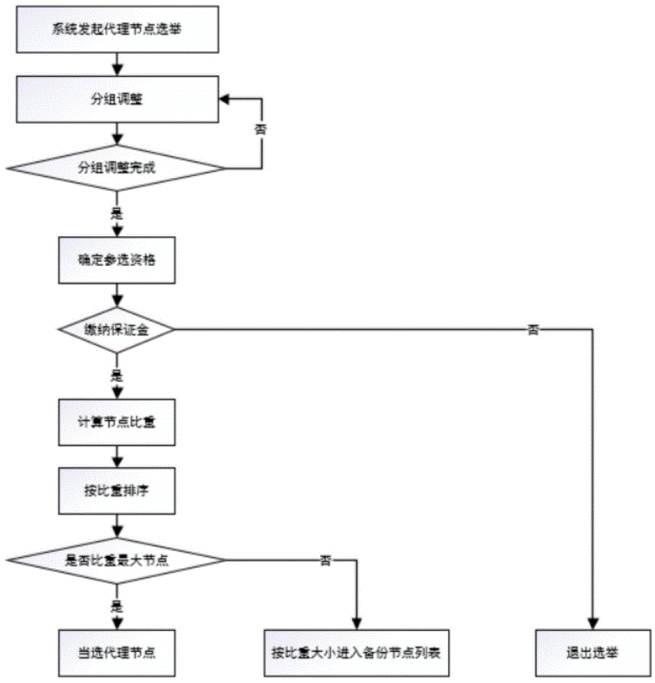
IPC - International classification
H04L-029/08*

CPC - Cooperative classification
H04L-067/1004 H04L-067/1061* H04L-067/1065
H04L-067/1072 H04L-067/28

Family

CN108833483	B	2020-11-03		CN108833483	A	2018-11-16

(CN108833483)
More particularly, the invention relates to a grouping-based DPOS proxy node selection method. The method comprises: nodes are grouped; after receiving of a selection signal, eligibility of nodes in all groups is determined, wherein the nodes with the eligibility are marked as candidate nodes; proxy nodes and backup nodes of all groups are selected from the candidate nodes; the proxy nodes carry out account keeping in turn according to a certain sequence; and the proxy nodes complete account keeping with one round and then selection is carried out again. With grouping, the nodes are only compared in one group and thus the opportunity of small-range selection is provided for each node, so that the probability of selection of small and medium-sized nodes is increased, the influence on the small and medium-sized nodes by the interests is reduced, the randomness is improved, and a centralizing risk is reduced. With the proxy nodes and backup nodes, the opportunities of obtaining proxy nodes are provided for other nodes in the groups after the proxy nodes in the groups exit for some reasons, so that the centralization risk is reduced.



Modular i/o configurations for edge computing using disaggregated chiplets
EP3734453 A1

Current assignees

INTEL*

Inventors

VERRALL TIMOTHY
SMITH NED
DOSHI KSHITIJ ARUN
GUIM BERNAT FRANCESC
QURESHI UZAIR

Priority data including date

2019US-16723118 2019-12-20
2019US-16723760 2019-12-20
2019US-16723873 2019-12-20
2019US-62841042 2019-04-30
2019US-62907597 2019-09-28
2019US-62939303 2019-11-22

IPC - International classification

G06F-001/20	G06F-009/48	G06F-009/50*
G06F-009/54	G06F-011/30	H04L-009/06
H04L-009/32	H04L-012/24	H04L-012/911
H04L-012/931	H04L-029/08	

CPC - Cooperative classification

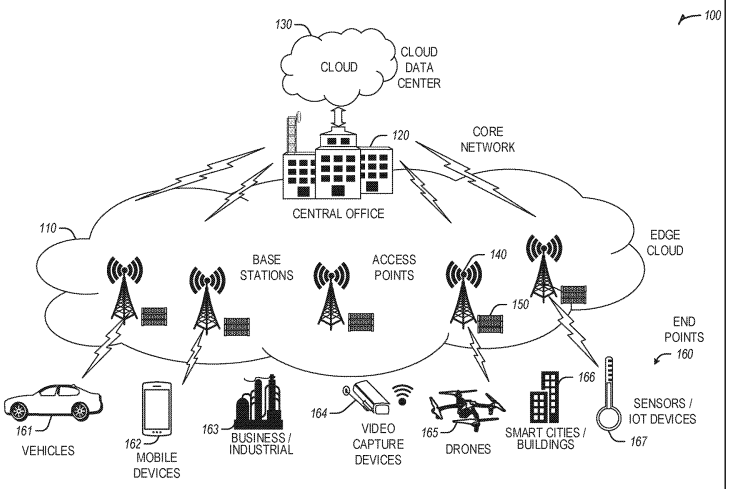
G06F-001/20/6	G06F-009/48/81	G06F-009/50/5
G06F-009/50/61*	G06F-009/50/72	G06F-009/50/94
G06F-009/54/2	G06F-011/30/06	G06F-2209/5021
H04L-009/06/37	H04L-009/32/13	H04L-009/32/47
H04L-041/0843*	H04L-041/0869	H04L-041/5054
H04L-047/781	H04L-049/70	

Family

DE102020203877	A1	2020-11-05	CN111865648	A	2020-10-30
DE102020203881	A1	2020-11-05	US20200167196	A1	2020-05-28
EP3734453	A1	2020-11-04	US20200167205	A1	2020-05-28
CN111865647	A	2020-10-30	US20200136906	A1	2020-04-30

(EP3734453)

Various approaches for deployment and use of configurable edge computing platforms are described. In an edge computing system, an edge computing device includes hardware resources that can be composed from a configuration of chiplets, as the chiplets are disaggregated for selective use and deployment (for compute, acceleration, memory, storage, or other resources). In an example, configuration operations are performed to: identify a condition for use of the hardware resource, based on an edge computing workload received at the edge computing device; obtain, determine, or identify properties of a configuration for the hardware resource that are available to be implemented with the chiplets, with the configuration enabling the hardware resource to satisfy the condition for use of the hardware resource; and compose the chiplets into the configuration, according to the properties of the configuration, to enable the use of the hardware resource for the edge computing workload.



Sidechain testing system for improving security and stability of smart contract
US20200349054 A1

Current assignees

HUAZHONG UNIVERSITY OF SCIENCE & TECHNOLOGY*

Inventors

Dai Weiqi
Jin Hai
Zou Deqing
Zhao Bingcheng

Priority data including date

2019CN-0367325 2019-05-05

IPC - International classification

G06F-011/36* G06F-021/64 G06Q-020/38
G06Q-040/04 H04L-009/00 H04L-009/06

CPC - Cooperative classification

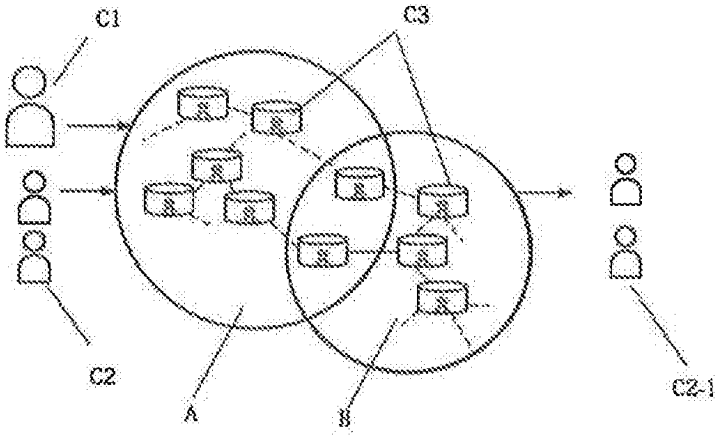
G06F-011/36/56* G06F-011/36/64 G06F-021/64*
G06Q-020/38/29 G06Q-040/04 H04L-009/00/8
H04L-009/06/37

Family

US20200349054	A1	2020-11-05		CN110097467	A	2019-08-06

(US20200349054)

The present disclosure involves a sidechain testing system and method for improving security and stability of a smart contract.



Managing Redistribution of Digital Media Assets
US20200349541 A1

Current assignees
APPLE*

Inventors
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Priority data including date
2019US-62841246 2019-05-01

IPC - International classification

G06F-021/60	G06Q-020/12*	G06Q-020/38
G06Q-030/06		

CPC - Cooperative classification

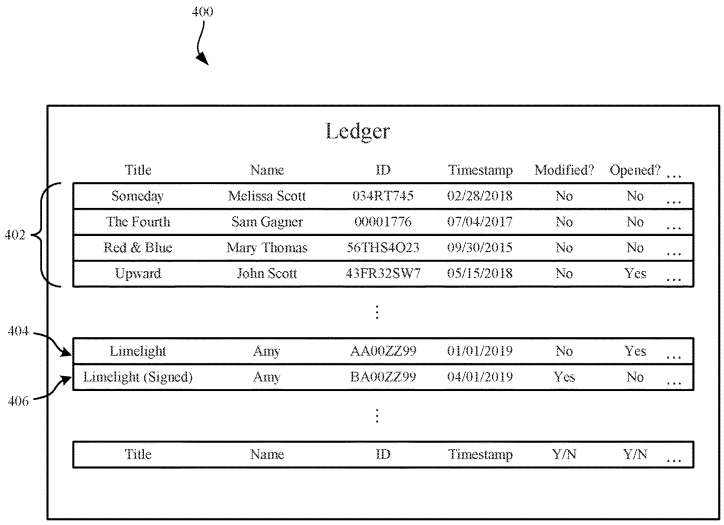
G06F-021/60/2	G06F-021/60/4	G06Q-020/12/35*
G06Q-020/38/215	G06Q-030/06/21	G06Q-030/06/35
G06Q-030/06/41		

Family

US20200349541 A1 2020-11-05

(US20200349541)

In some implementations, a computing device may obtain an original digital media asset published to a server device along with a distributed ledger that tracks ownership of the original digital media asset. The computing device may generate a customized digital media asset that replaces the original digital media asset, and modify the distributed ledger to indicate the customization or modification of the original digital media asset and identify the customized digital media asset and the ownership thereof. The computing device may publish the customized digital media asset to a server device for distribution. Upon transfer of ownership of the customized digital media asset to a new owner, the distributed ledger may be modified to indicate the new ownership of the customized digital media asset.



Identity Vault Service
US20200351266 A1

Current assignees

AT&T*

Inventors

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Easley Mark

Priority data including date

2019US-16399406 2019-04-30

IPC - International classification

G06F-021/62 H04L-029/06*

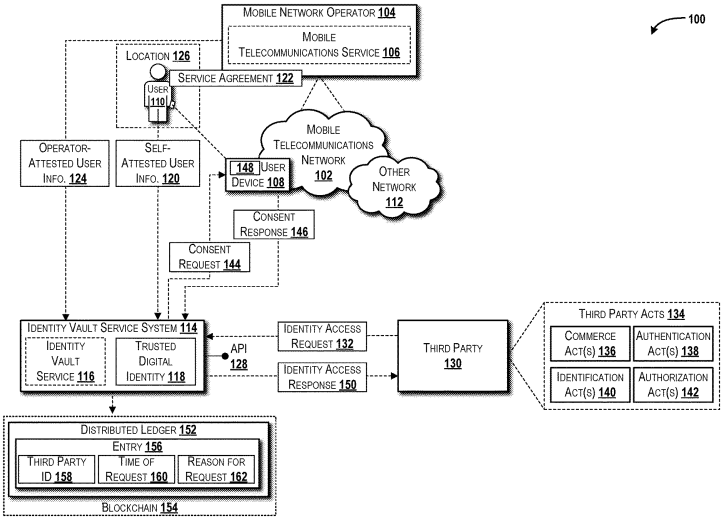
CPC - Cooperative classification

G06F-021/62/18 H04L-063/0884* H04L-063/102
H04L-063/107 H04L-063/1425

Family

US20200351266 A1 2020-11-05

(US20200351266)
Concepts and technologies for are disclosed an identity vault service. According to one aspect disclosed herein, an identity vault service system can collect self-attested and operator-attested user information. The operator-attested user information can be associated with a user and a mobile telecommunications service provided to the user by a mobile network operator. The system can create a trusted digital identity of the user based upon the self-attested and operator-attested user information. The system can receive an identity access request from a third party. The request can be for access to at least a portion of the trusted digital identity for use by the third party in performance of an act. The system can send a consent request to a user device and can receive a consent response that indicates whether the user permits access to at least the portion of the trusted digital identity of the user.



Program execution and data proof scheme using multiple key pair signatures
US20200349252 A1

Current assignees
ALIBABA HOLDING*

Inventors
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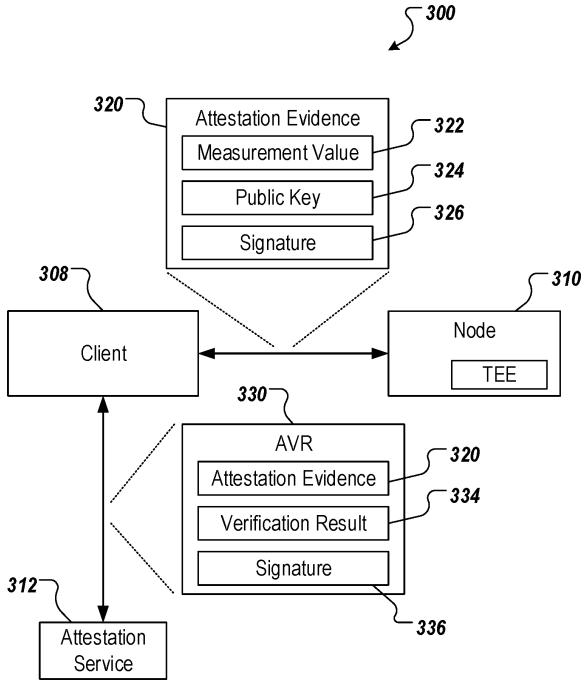
Priority data including date
2019US-16588436 2019-09-30
2019WO-CN79715 2019-03-26

IPC - International classification
G06F-021/53* G06F-021/60 H04L-009/00
H04L-009/32

CPC - Cooperative classification
G06F-021/53* G06F-021/60/2 H04L-009/00/6
H04L-009/32/47

Family
US20200349252 A1 2020-11-05

(US20200349252)
Methods, systems, and apparatus, including computer programs encoded on computer storage media for program execution and data proof scheme to prove that sub-logic code that was expected to be executed within a TEE was indeed executed, and that the resulting data is trustworthy. In some implementations, each sub-logic code of a plurality of sub-logic code is registered, and stored within the TEE, and a key pair (private key, public key) corresponding to the sub-logic code is generated. The client receives and stores the public key, sends requests to the TEE with an identifier of the sub-logic that is to be executed. The sub-logic code corresponding to the identifier is executed within the TEE, which signs the result using a digital signature that is generated using the private key of the sub-logic code. The client verifies the result based on the digital signature and the public key of the sub-logic code.



Automatic localization of acceleration in edge computing environments
EP3734452 A1

Current assignees

INTEL*

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GUIM BERNAT FRANCESC
KUMAR KARTHIK

Priority data including date

2019US-16563171 2019-09-06
2019US-16563175 2019-09-06
2019US-16563183 2019-09-06
2019US-16586576 2019-09-27
2019US-62841042 2019-04-30

IPC - International classification

G06F-009/50*	G06F-016/23	G06F-016/27
G06F-021/60	H04L-009/06	H04L-009/08
H04L-009/32	H04L-012/24	H04L-012/66
H04L-012/911	H04L-029/08	

CPC - Cooperative classification

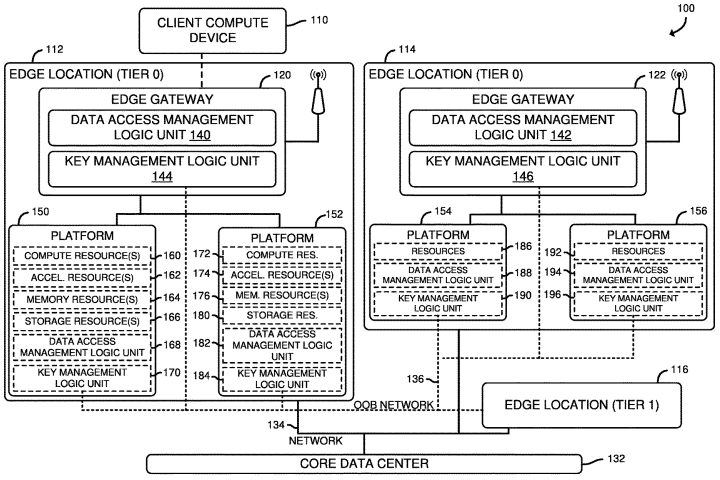
G06F-009/50/27*	G06F-009/50/33	G06F-009/50/44
G06F-009/50/72	G06F-009/50/77	G06F-009/50/83
G06F-009/50/94	G06F-016/2365*	G06F-016/27
G06F-016/784	G06F-021/60/2	G06F-021/64
G06F-2209/501	H04L-009/06/37	H04L-009/08/27
H04L-009/32/39	H04L-009/32/47	H04L-012/66
H04L-041/12	H04L-041/5009	H04L-047/82
H04L-063/123	H04L-067/18	H04L-067/32
H04L-2209/38	Y02D-010/00	

Family

EP3734452	A1	2020-11-04	US20190391971	A1	2019-12-26
US20200026575	A1	2020-01-23	US20190394096	A1	2019-12-26
US20190391855	A1	2019-12-26			

(EP3734452)

Methods, apparatus, systems and machine-readable storage media of an edge computing device which is enabled to access and select the use of local or remote acceleration resources for edge computing processing is disclosed. In an example, an edge computing device obtains first telemetry information that indicates availability of local acceleration circuitry to execute a function, and obtains second telemetry that indicates availability of a remote acceleration function to execute the function. An estimated time (and cost or other identifiable or estimateable considerations) to execute the function at the respective location is identified. The use of the local acceleration circuitry or the remote acceleration resource is selected based on the estimated time and other appropriate factors in relation to a service level agreement.



System for dynamic intelligent code change implementation
US20200242125 A1

Current assignees
BANK OF AMERICA*

Inventors
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Priority data including date
2019US-16262672 2019-01-30

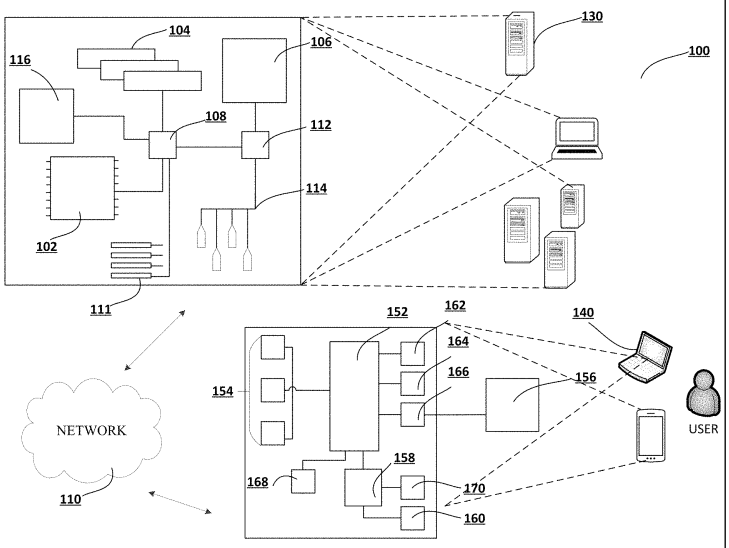
IPC - International classification
G06F-008/51 G06F-016/25*

CPC - Cooperative classification
G06F-008/51 G06F-008/76* G06F-016/254

Family

US10824635	B2	2020-11-03		US20200242125	A1	2020-07-30

(US20200242125)
Systems, computer program products, and methods are described herein for data transformation prediction and code change analysis. The present invention is configured to electronically receive one or more data transformation protocols; electronically extract data from a first source system based on at least receiving the one or more data transformation protocols; determine the one or more target systems associated with the data transformation request; extract a source code associated with each of the one or more target applications; transform the source code associated with each of the one or more target applications based on at least the one or more data transformation protocols; and implement the one or more changes to the one or more target systems based on at least transforming the source code associated with each of the one or more target applications.



Delivery of different services through client devices by video and interactive service provider

US20180343476 A1

Current assignees

TURNER BROADCASTING SYSTEM*

Inventors

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WEBB NICOLAS PAUL

Priority data including date

2017US-62511190 2017-05-25
2018US-15986218 2018-05-22
2018US-15986286 2018-05-22
2018US-15986361 2018-05-22
2018US-15986406 2018-05-22
2018US-15986451 2018-05-22
2018US-15988241 2018-05-24
2018US-15988308 2018-05-24
2018US-15988492 2018-05-24
2018US-15988572 2018-05-24
2020US-16902775 2020-06-16
2020US-16918085 2020-07-01

IPC - International classification

G06Q-030/02	G06Q-030/06	H04L-009/32
H04L-029/06	H04L-029/08	H04N-021/233
H04N-021/234*	H04N-021/235	H04N-021/2387
H04N-021/2389	H04N-021/239	H04N-021/24
H04N-021/2543	H04N-021/258	H04N-021/262
H04N-021/266	H04N-021/2668*	H04N-021/431
H04N-021/435	H04N-021/44	H04N-021/458
H04N-021/472	H04N-021/478	H04N-021/6332
H04N-021/6587	H04N-021/81	H04N-021/835
H04N-021/84	H04N-021/845	H04N-021/8545

CPC - Cooperative classification

G06Q-030/02/42	G06Q-030/02/51	G06Q-030/02/75
G06Q-030/06/33	G06Q-2220/00	H04H-020/10
H04L-009/32	H04L-065/4084	H04L-065/60
H04L-067/1097	H04L-067/125	H04L-067/16
H04L-067/306	H04L-067/32	H04L-067/42
H04N-021/233	H04N-021/234/18	H04N-021/234/24
H04N-021/235/3	H04N-021/2387	H04N-021/2389/2
H04N-021/239/3	H04N-021/24	H04N-021/2543
H04N-021/258/83	H04N-021/258/91	H04N-021/262/08
H04N-021/262/41	H04N-021/266	H04N-021/2668
H04N-021/431/2	H04N-021/431/6	H04N-021/435
H04N-021/44/008	H04N-021/44/016	H04N-021/458*
H04N-021/472/17	H04N-021/478/15	H04N-021/6332
H04N-021/6587	H04N-021/81/2	H04N-021/835
H04N-021/8358	H04N-021/84	H04N-021/845
H04N-021/8545		

Family

US10827220	B2	2020-11-03	US20180343481	A1	2018-11-29
US20200336790	A1	2020-10-22	US20180343482	A1	2018-11-29
US20200314494	A1	2020-10-01	US20180343484	A1	2018-11-29
US10785536	B2	2020-09-22	US20180343489	A1	2018-11-29
US10743067	B2	2020-08-11	US20180343491	A1	2018-11-29
US10735813	B2	2020-08-04	US20180343495	A1	2018-11-29
US20180343476	A1	2018-11-29	US20180343505	A1	2018-11-29
US20180343477	A1	2018-11-29			

(US20180343476)

A system that handles delivery of services through a client device, includes a video and interactive service provider and the client device. The video and interactive service provider inserts a plurality of trigger identifiers at different event opportunities in media content and transmits a media stream of the media content that includes programming media content and non-programming media content, to the client device. The client device detects the inserted trigger identifiers in the media content, renders overlay graphics on the media content in response to the detection of the inserted trigger identifiers, and activates at least one of input devices in vicinity of the client device or the rendered overlay graphics. The client device receives trigger responses over an activated overlay graphic, via the activated input devices and displays an interactive view on the client device, to enable delivery of services in response to the received trigger responses.