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(54) Title: BLOCKCHAIN DATA STORAGE BASED ON SHARED NODES AND ERROR CORRECTION CODE

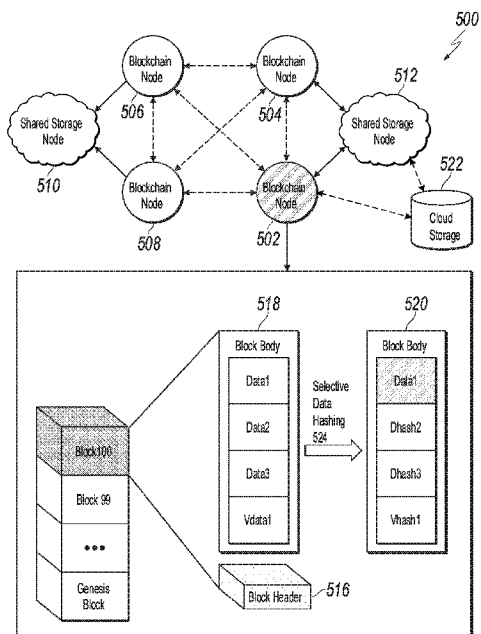


FIG. 5

(57) Abstract: Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for storing blockchain data. One of the methods includes determining block data and current state data associated with a current block of a blockchain; sending the current state data to one or more shared storage nodes of a blockchain network; performing error correction coding of the block data to generate encoded block data; dividing, based on one or more predetermined rules, the encoded block data to a plurality of data sets; storing, based on the one or more predetermined rules, one or more data sets of the plurality of data sets; hashing each of rest of the plurality of data sets to generate one or more hash values corresponding to the rest of the plurality of data sets; and storing the one or more hash values and the current state data.

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A. CLASSIFICATION OF SUBJECT MATTER G06F 21/64(2013.01)i According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) G06F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CNPAT, WPI, EPODOC, IEEE, CNKI, ISI, GOOGLE: blockchain, distributed ledger system, DLSS, Ethereum, state data, world state, shared node, store, storage, code, ECC, error correction code		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN 109933592 A (HANGZHOU FUZAMEI TECHNOLOGY CO., LTD.) 25 June 2019 (2019-06-25) description, paragraphs [0025]-[0051]	1-14
A	CN 109359096 A (FOSHAN UNIVERSITY) 19 February 2019 (2019-02-19) the whole document	1-14
A	US 2018159682 A1 (CAVENDISH WOOD LIMITED) 07 June 2018 (2018-06-07) the whole document	1-14
A	WO 2018056445 A1 (GMO INTERNET INC.) 29 March 2018 (2018-03-29) the whole document	1-14
A	CN 109274717 A (TAIKANG INSURANCE GROUP INC.) 25 January 2019 (2019-01-25) the whole document	1-14
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Name and mailing address of the ISA/CN National Intellectual Property Administration, PRC 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088 China Facsimile No. (86-10)62019451		Authorized officer ZHANG, Linlin Telephone No. 86-(10)-53961404

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Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
CN	109933592	A	25 June 2019	None			
CN	109359096	A	19 February 2019	None			
US	2018159682	A1	07 June 2018	GB	201620546	D0	18 January 2017
				GB	2557277	A	20 June 2018
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CN	109274717	A	25 January 2019	None			