A New Algorithm on Application of Blockchain Technology in Live Stream Video Transmissions and Telecommunications

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ABSTRACT

This article develops and defines Blockchain technology in its classic format. New suggested proposed algorithms are then analyzed in order to introduce new and modified versions of Blockchain technology. After that, fundamental infrastructure is presented in order to represent its application in new generation of telecommunications. In addition, this article interrogates these algorithms and their efficiency to make secure connections that transfer data packets in any format (boxes or packets of information) in a secure and encrypted method at which sender and receiver of information remain anonymous. Then, this research describes applications of the novel approach in new format of making live stream technology in real world communications. Moreover, according to this new approach, new concepts can be predicted in the new generation of social media based on live communications. Meanwhile, the compatibility is justified for consistency, reliability and flexibility of this new proposed technology with other existing and defined format of technology in today's world. At last, conclusions of this new emerging technology and its superiority compared to other designed technologies in the field of live streaming and telecommunications are discussed.

KEYWORDS

Bitcoin, Block, Blockchain, Deuterium, Digital Currencies, DLT, Ethereum, Live Stream, Methodology, Packet Delivery Ratio, Public Ledger, Telecommunications

INTRODUCTION

For the first time, Blockchain technology was invented and introduced to the world of Information technology by Satoshi Nakamoto in 2008 from Japan that his identity is still ambiguous for all Blockchain specialists, companies, scientists and so on. He presented a whitepaper entitled:" Bitcoin: A Peer to Peer Electronic Cash System" in which it was describing a merely peer-to-peer version of electronic cash and essentially encrypted financial transactions. Fundamentally, through electronic money that is called Bitcoin (Or in abbreviation BTC), Blockchain technology influenced all computer scientists, researchers, companies and IT professionals to become familiar with its initial application. Little by little, traders used Bitcoin and other new emerging digital currencies based on this secure technology and this way continued and extended into world business and financial transactions among small corporations and companies and also it overshadowed infinite borders to transfer money as a free and anonymous method to trade all people around the world. In fact, Blockchain technology yielded a digital trust that records important information in a secure public place and does not allow anyone to remove it or recognize the place of sender and receiver of electronic transaction. In addition, Blockchain is considered as both complex algorithm and a cryptographic electronic system that can be used to present many new and novel applications based on this infrastructure. In recent years, many conferences and seminars have been set up and many papers have been written in the domain of Blockchain technology and advances about bitcoin and emerging new digital currencies. In addition, some other technologies such as internet of things and other related technologies like cloud and cluster computing can be combined with Blockchain to produce new technological materials and structures (Decker & Wattenhofer 2013; Gareth & Peters 2015; Dev 2014; Vandervort 2014; Beikverdi & Song 2015; Khan & Saleh 2018; Collins 2016; Memon et al., 2018; Gatteschi et al., 2018; Han et al., 2018; Banerjee et al., 2018; Arenas et al., 2018; Hori & Ohashi 2018; Liu et al., 2018; Shen & Xiao 2018; Wu & Li 2018; Bdiwi et al., 2018; Piller & West 2014; Zheng et al., 2017; Scott et al., 2017; Sun et al., 2016; Tapscott & Tapscott 2016; Yli-Huumo et al., 2016; Purdon & Erturk 2017; Pilkington 2016; De La Rosa & Gibovic 2019; Dobrovink et al., 2018; Singh & Singh 2016; Chowdhury et al., 2018; Dabbagh et al., 2019; Zheng et al., 2018; Kuo & Chuen 2015; Zheng et al., 2017; Buterin 2014; NRI 2015; Wood 2015; Fernández-Caramés & Fraga-Lamas 2018; Haya & Salah 2018; Pittl et al., 2018; Niranjanamurthy et al., 2018). In this paper, we present application of Blockchain technology in live stream communications that can be implemented based on any generation or format of internet. Importance of attention to this idea is that we are going to design a live network of communications that can be used to establish live TV channels and stations by all people around the world. Our aim is to design and produce a platform based on basic Blockchain technology and its modified versions in order to have a live media by live stream promotion through all people around the world. Until now, Telegram created by Pavel Durov was developed through Blockchain technology in which they give ability to people in order to send and receive any type of data and files.

In addition, Telegram gained from cryptography based on Blockchain Algorithm. Blockchain technology can be compared analytically with different algorithms such as clustering and complex systems. Because all of these technologies can be analyzed based on data structure science that is fundamental structure of these existing algorithms in which data packets are considered as network of nodes in which data is storage inside these nodes that can communicate with each other according to different methods of processing and nodes communications. Now, in order to present our ideas, firstly we start by presenting structural definition of Blockchain technology. Secondly, we propose methodology of our research and also, we describe our protocol and platform to make new Blockchain algorithm for providing a channel or network of live stream communications. Then, we simulate operations by Os2 software and present the obtain results. At last, we present conclusions about all mentioned items in the manuscript and our final goal that will be introduced for productive, practical, applied and commercial applications. It is notice that it is a flexible platform to send and receive

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