

In 2009 Satoshi Nakamoto started the electronic payment system and virtual cash Bitcoin for the first time. Bitcoin has to guarantee some level of security as well as other digital currencies. It's necessary to prevent double-spending or it's required to provide anonymity of payments. The difference between Bitcoin and most of the other virtual currencies is absence of any trusted party which would provide demands mentioned above. In this paper we describe the structure and properties of basic elements of this payment system. In the mean time we explain methods how to deal with the fact that Bitcoin is completely decentralized. The paper gives complex and detailed information which you can find only in official source code of bitcoin client or in many separated and particular articles.