

uvodnik



Vladimir Vasić

Udruženje banaka Srbije  
ubs@ubs-asb.com

# DEKADA JEDNE TEHNOLOGIJE

Šta pomislimo kad kažemo blockchain? Bitcoin, bitcoin, bitcoin... Godina u kojoj je tim ljudi pod pseudonimom Satoshi Nakamoto predstavio platformu za kriptovalutu - bitcoin, danas odista deluje jako daleko. Ne samo zbog toga što se u protekloj deceniji toliko toga događalo na polju kriptovaluta, već i zbog činjenice da se radi o fenomenu daleko složenijem i širem od same transakcije zbog koje je nastao.

U osnovi, to je još jedna varijanta baze podataka. Blockchain skladišti kriptografske evidencije o finansijskim transakcijama, ali ovakvi sistemi mogu unositi bilo koju vrstu podataka. Ono što blockchain čini drugačijim jeste decentralizacija. Blockchain ne skladišti podatke na jednom mestu poput klasičnih baza, već ih distribuira na sve nodove u sistemu, što na jedinstven način iziskuje konsenzus za bilo kakvu promenu u sadržaju.

Tradicionalno, društvo se oslanja na pouzdane posrednike kao što su sudovi, banke ili državne institucije, koji obrađuju i čuvaju podatke o našim transakcijama. Nasuprot tome, blockchain je zanimljiv jer integritet sadržaja distribuirane knjige (*distributed ledger*) ne zavisi od određene osobe ili organizacije. Dakle, umesto da se oslanjamo na pouzdane organizacije trećih strana, možemo se osloniti na pouzdani sistem.

Uz sektor finansija, veliki potencijal za primenu blockchaine postoji u oblasti nekretnina, gde vlasnik nepokretnosti može da izvrši prenos bez ikakve interakcije sa registrom ili javnim beležnikom, a svaki novi transfer imovine postaje deo zapisanog lanca vlasništva.

Na isti način ova tehnologija može biti korišćena i za registre privrednih subjekata, čuvanje

# A DECADE OF A TECHNOLOGY

Vladimir Vasić

Association of Serbian Banks  
ubs@ubs-asb.com

**W**hat do we think of when we say blockchain? Bitcoin, bitcoin, bitcoin... The year in which a team of people under the joint pseudonym Satoshi Nakamoto presented the platform for bitcoin as a cryptocurrency, today does seem rather far away. Not only because in the past decade so many things have happened when it comes to cryptocurrencies, but also because of the fact that we are dealing with a phenomenon way broader and more complex than the very transaction behind its origination.

Basically, it is a variant of a database. Blockchain stores cryptographic records about financial transactions, but these systems can hold any other type of data as well. What makes blockchain different is decentralization. Blockchain does not store data in a single place like classic databases, instead distributing them among all the nodes comprising the system, thereby uniquely requiring a consensus for any changes in the content.

Traditionally, the society relies on trustworthy intermediaries such as courts, banks or state institutions to process and store the data about our transactions. As opposed to that, blockchain is interesting because the integrity of the distributed ledger does not depend on a specific person or organization. Thus, instead of counting on a reliable organization of third parties, we can count on the reliable system.

In addition to the financial sector, a huge potential for the implementation of blockchain technology is in the real estate, where an owner can perform a transfer without any interaction with the cadastre or a public notary, each new transfer of ownership becoming an integral part of the recorded chain.



i ažuriranje medicinskih kartona, vođenje matičnih knjiga. Posedovanje stana, kuće, zemlje, automobila, informacije o poreklu imovine, medicinski podaci, pravo intelektualne svojine – sve je ovo idealno za primenu blockchaina, pa neke države već rade na tome da ga integrišu u razne oblasti privrednog i društvenog života, a posebno tamo gde postoji visok rizik od prevara i malverzacija.

Takođe, blockchain može biti korišćen i za automatsko zaključivanje ugovora, bez ličnog prisustva, što otvara široko polje primene, bez

potrebe za centralizovanim platformama ili poslovnim bankama (tzv. *smart contracts*).

Veliki posrednici u svim sferama društva gube na značaju i njihova neophodnost prestaje u sferi garanta transakcije. Troškovi transakcija će takođe biti dosta niži, a pouzdanost sistema veća. Osim razvoja javnih lanaca, možemo očekivati i razvoj zaštićenih i privatnih lanaca i hibrida, koji će unaprediti postojeće sisteme i usluge.

Pa ipak, na kraju dana, kada pored evidentnog potencijala sagledamo limite i rizike koji su prisutni, moramo da priznamo

## Malta - blockchain ostrvo

Često pominjana i kao „blockchain ostrvo“, Malta je jedna od prvih zemalja koja je prepoznala značaj blockchain tehnologije. Dolaskom u zemlju jedne od najvećih kripto menjačnica - Binance, vrata su se otvorila i drugima. Ubrzo zatim, formirana je prva u svetu decentralizovana banka, a zatim i takva berza.

Od 2018. godine, kada parlament usvaja pravni okvir za blockchain tehnologiju, Malta postaje država sa najvećim blockchain potencijalom na globalnom nivou. Nastavljajući u tom pravcu, usvojen je set zakona sa ciljem da se pruži direktan podsticaj blockchain startapovima. Rezultat je fascinantan - Malta postaje zemlja sa najviše pojedinačno pokrenutih blockchain projekata, a očekuje se i otvaranje prve kripto banke.

Izjave najviših zvaničnika jasno ukazuju na njihovu opredeljenost razvoju digitalnog društva i Malta se u tom smislu kreće koracima od sedam milja. Mnogo toga je urađeno u proteklom periodu, ali su izazovi i dalje veliki. Kao i odlučnost da se ostane u prvim redovima.

## Malta - Blockchain Island

Frequently referred to as the “blockchain island”, Malta is one of the first countries to have recognized the importance of blockchain technology. The arrival of Binance - one of the biggest cryptocurrency exchange offices in the country, opened the door for others. Soon afterwards, the first decentralized bank in the world was formed, followed by the stock exchange of that type.

In 2018 when the parliament adopted the legal framework for blockchain technology, Malta became the country with the largest blockchain potential globally. Going further in this direction, it adopted a set of laws to directly stimulate blockchain start-ups. The results are fascinating - Malta has become the country with the largest number of individually launched blockchain projects, and the opening of its first cryptobank is expected soon.

The statements of the top officials clearly confirm Malta’s dedication to the digital society development and it is taking giant steps on this path. A lot has been done in the previous period, but the challenges remain. As does determination to stay at the frontline.

Likewise, this technology can be used for the business registers, the storage and updating of medical records, maintenance of civil registers, etc. Ownership over an apartment, a house, land, a car, just like the information about the origin of assets, medical records, intellectual property rights - all this is ideal for the implementation of blockchain, which is why some countries have already been working on integrating it into various fields of economic and social life, especially in the areas entailing a high risk of frauds and malversations.

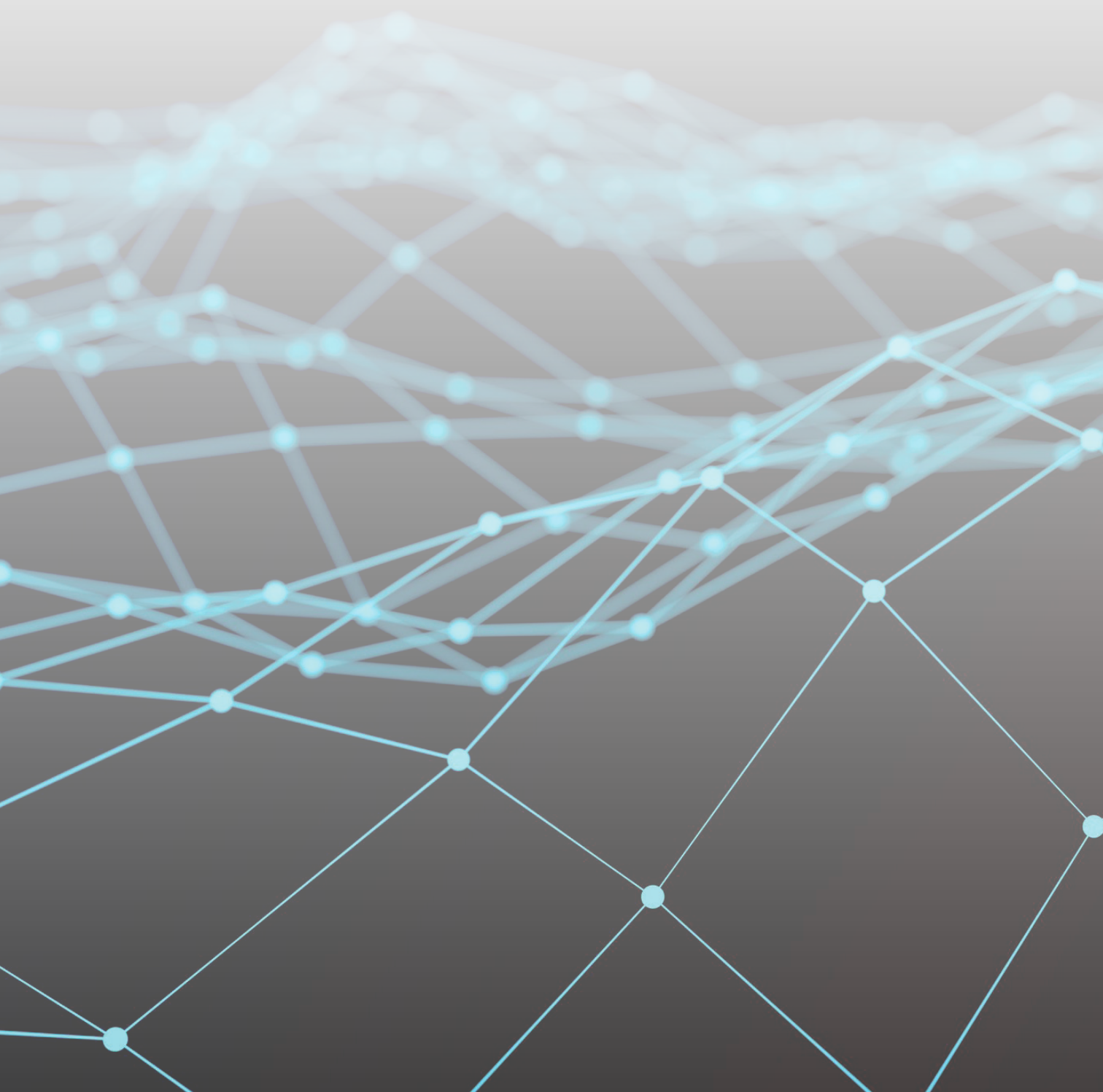
Moreover, blockchain can be used for automatic conclusion of contracts, without the live presence of contractual parties, which opens up a broad field for implementation, eliminating the need for centralized platforms of commercial banks (the so-called smart contracts).

Large intermediaries in all spheres of society are losing on significance and they are no longer necessary as transaction guarantors. Transactions costs will also be substantially lower, and system reliability higher. Apart from the public chains' development, we can

da je primena blockchain tehnologije i dalje suočena sa brojnim praktičnim izazovima koje treba prevazići u godinama koje dolaze. Iako su rešenja koja se nude obećavajuća, široka primena u praksi će biti moguća tek nakon prevazilaženja prepreka koje će biti

otklonjene baš putem ove tehnologije. Tu se svakako ne misli samo na tehnička rešenja. Izmene regulative, i što je još važnije, promene u načinu razmišljanja i promene ustaljene operativne prakse, prilično su spore i zahtevaju dosta vremena.

Glavni i odgovorni urednik  
Vladimir Vasić



expect the development of protected and private chains and hybrids, which would advance the existing systems and services.

Nevertheless, at the end of the day, when, in addition to the undisputable potential, we examine the accompanying limits and risks, we have to admit that the implementation of blockchain technology is still facing numerous practical challenges that need to be overcome

in the forthcoming years. Although the offered solutions are promising, the wide-ranging application in practice will only be possible after surpassing the obstacles eradicated by means of this very technology. This certainly does not refer simply to technical solutions. Regulatory changes and, more importantly, changes in the mindset and entrenched operational practice are rather slow and require a lot of time.

Editor-in-Chief  
Vladimir Vasić

