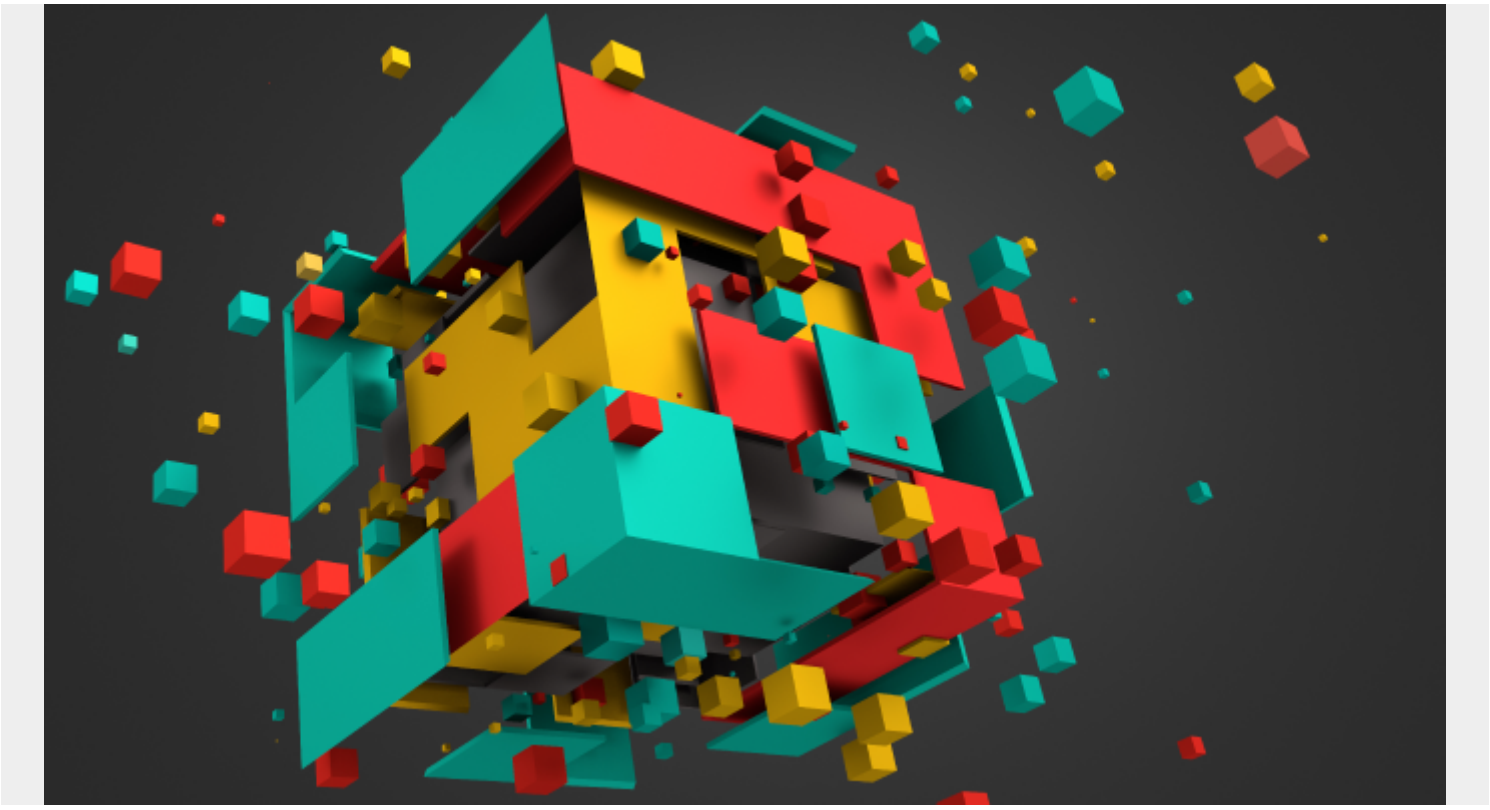
ENTERPRISE BLOCKCHAIN: 4 WAYS BLOCKCHAIN CAN BE USED IN THE DIGITAL ENTERPRISE



Blockchain. It seems it's a word that's on the minds and lips of everyone these days, yet due to its infancy in the business world, is still highly misunderstood by a majority of employees, including CEOs. In fact, according to a recent survey conducted by HSBC, 59% of respondents hadn't even heard of blockchain.

While the explosion of Bitcoin in 2017 brought the concept of cryptocurrencies and blockchain to the forefront for many individuals looking to invest, it also piqued the interest for businesses and how they might utilize this revolutionary technology. An October 2017 survey found that 24 percent of businesses have started looking into the technology's practical applications, while 16 percent of companies have already purchased blockchain-enabled tools.

TechCrunch reports that major enterprise vendors including "SAP, IBM, Oracle, Microsoft and Amazon all looking at providing some level of Blockchain as a service" for their customers and market segments.

Blockchain's capabilities for security are fairly easy to recognize, but its other applications for enterprises are harder to understand.

What is Blockchain?

In simple terms, a blockchain is a public record of information in which a community of users can control how that information is edited and updated (think Wikipedia-style). Each chunk of time is documented in a block, which is then chained together with other blocks of records, hence the name.

The major difference between sites like Wikipedia and the distributed ledger that is blockchain, however, is within its innovative technology. While Wikipedia has a master copy that is edited and approved on a server, then sending out the new version to all users, blockchain is completely controlled by numerous users all coming to the same conclusion. Once a large number of people authenticate the edit, it automatically becomes the new master copy. This verified block can never be erased or modified, truly making it a record of digital events.

Going back to Bitcoin, most people are most familiar with blockchain in terms of how it is used for cryptocurrencies. For example, when someone wants to pay another person with Bitcoin, the community of users ensure the giver has the money to begin with, then they ensure that the money is transferred to the recipient. The entire transaction is authenticated by the public (versus a centralized entity like a bank) through the ledger. While crypto is an extremely common use of this exciting technology, there are still endless blockchain applications for enterprises.

Ways Blockchain Can Be Used in the Digital Enterprise

Even though blockchain technology has been around for many years, enterprises are still finding ways in which it best fits their unique business and needs. As these develop and evolve, the potential uses for blockchain will only continue to expand and grow. While these are only scratching the surface of what is possible, some of the common ways blockchain can be used in the digital enterprise include smart contracts, sharing sensitive patient healthcare information, ensuring transparent background checks, and of course, financial services.

Smart Contracts

One of the most interesting uses of blockchain for enterprises proves to be in smart contracts. Traditional contracts can be utilized on the blockchain in the exact same ways physical contracts would be used, for instances like financial services and transactions, insurance claims, employment contracts, mortgage agreements, and even for protected copyrighted materials.

Due to that fact that smart contracts are designed and implemented within blockchains, they automatically inherit the benefits of blockchain for companies:

- Smart contracts are immutable, meaning that they can never be changed and no one can tamper with or change the contract
- Their distributed nature requires that the outcome of the contract is validated by everyone within the network
- They remove the need for a third-party intermediary and allow for direct, transparent transactions to take place
- All smart contract transactions are stored in chronological order in the blockchain and provide a complete audit trail
- Their efficiency and absence of intermediaries allows smart contracts to save organizations

tons of money on infrastructure costs and could even reduce these expenses by over 30%

Sharing Confidential Patient Information

While electronic healthcare records (EHRs) have greatly helped with the centralization of patient data, they have also brought up the challenge of keeping this sensitive information private and protected as it is both stored and shared. Whether organizations are dealing with patient medical records, complex billing cycles, medical research data, or pharmaceutical information, the security needs only continue to become more complex, particularly when you factor in the growth of connected devices and the Internet of Medical Things (IoMT).

Blockchain technology helps to solve this issue as the decentralized ledger is cryptographically secure and the entire record is both comprehensive and up-to-date, providing a chronologically accurate depiction of health information for all service providers across all devices.

Another beneficial application of blockchain for healthcare industries is in dealing with insurance companies. If all parties are involved in the payments and claims process, including patient, provider, and payer, then they all see the same information at the same time, providing a frictionless and more efficient process for all.

Eliminating Background Checks

Another excellent blockchain application for enterprises is when it comes to the HR industry. A huge portion of HR's responsibilities is to ensure that potential and new employees are who they say they are and that all of their information checks out.

Instead of having the HR department contact every reference and previous company to verify the candidate's employment history, blockchain could be used to verify important, but time-consuming, information like employment dates, title, job responsibilities, and other relevant credentials, saving thousands of hours per year for other necessary tasks.

Financial Services

A list of blockchain applications for businesses wouldn't be complete without a mention of financial services. While most payment systems are currently administered by financial institutions, such as banks, these services come with costs and oftentimes expensive fees, especially for small to mid-sized businesses.

While large enterprises often have an advantage in the global market, easily absorbing these fees along with other protections, blockchain technology is actually helping to level the playing field. For companies of all sizes, seeing little to no fees to transfer funds can make a big difference, especially with international transactions.

Another part that organizations are recognizing when using blockchain for financial services is the amount of transparency and efficiency involved. All parties again have complete access to the process and there are no hidden steps or misunderstandings.

Blockchain is the Enterprise

No matter which of these applications are used within the digital enterprise, the advantages for businesses are hard to deny. For companies that are looking to start utilizing blockchain within their organization, smart contracts, sharing confidential data, background checks, and financial services are an excellent place to start. No matter what you choose, there is one thing that is for sure: distributed ledgers like blockchain are here to stay.