The digital payment sector has seen a massive growth in recent years with the rise of mobile payment applications like PayPal and Apple Pay. These payments can become more secure, efficient, and faster with blockchain technology.

The year 2020 forever changed the way we work and perform routine tasks. With the emergence of the deadly coronavirus and the ultimate adoption of social distancing, even as the virus approaches its second anniversary, the concept of online and contactless payments is still massively prevalent. Contactless payment devices like digital wallets, mobile devices, and [payment cards](http://www.cardzgroup.com/ContactLessSmartCard.html) offer secure and fast methods. With less physical interaction, these methods allow payments with a single tap of mobile or a payment card.

## **With Convenience Comes Risk**

As contactless payment technology is increasingly being integrated in devices, its demand has also increased likewise. However, just like everything else, online payments also have their own setbacks that can lead to online fraud and security loopholes. Another challenge that customers face is card data security. Furthermore, making payments across the border can also be expensive and slow.

Contactless payments also pose data privacy and mobile security risks. Since the user does not need a PIN, a stolen device or lost credit card can allow a criminal to easily access the account. A phone that has no security features in place can make it very convenient for anyone to make purchases without being detected.

Furthermore, contactless payment cards use Radio Frequency Identification for transmitting data, and hackers have invented card skimmers and fake scanners to steal this dataOnce they have the information on the card, they can create exact copies of the cards and use them for fraudulent purposes. However, mobile wallets use Near Field Communication (NFC) to transmit data within close ranges and are considered somewhat safe.

## **Enter the Blockchain Technology**

The blockchain technology is based on a distributed ledger which stores and updates transactions in real time. Each transaction that is recorded on a block has a time stamp, which makes it impossible to tamper with the data. Hence, blockchain promotes security and trust in transactions for both seller and buyer.

When payment is done through a system based on blockchain, the transactions are fast, secure, and contactless – where both parties also trust each other. Moreover, as the data is encrypted, it is not possible for anyone to modify it.

## **How it Works**

With the help of blockchain technology, you can record each transaction in multiple separate blocks. Hence, if one block is attacked, the other blocks would still have the information safe and secure. When trying to hack a system based on blockchain, criminals would need to have incredible computing power to overcome and compromise the multitude of blocks simultaneously. This means that it is next to impossible to hack a blockchain-based system,

To understand this, consider that you have a cash note which has an encrypted data ledger. It has the details of all the transactions on it during the entire course of its lifetime. When you get the note, you can see all its transaction history and can decide whether the person giving you the note is trustworthy for carrying out a transaction with or not. This is what blockchain actually delivers – an additional layer of security and trust for ensuring that all parties remain satisfied and secure after a transaction.

Many companies have already incorporated blockchain for boosting their contactless payments.

A London-based fintech company SETL, in partnership with Deloitte has developed blockchain-based contactless payment card for secure and faster retail transactions. Deloitte [reports](https://www2.deloitte.com/uk/en/pages/financial-services/articles/investing-in-blockchain-technology-with-SETL.html) that in addition to enhancing security, the use of blockchain in contactless payment also makes the payment process and settlements more efficient. The two technologies combined can save up to $80 billion in accompanying costs.

Furthermore, with contactless payments powered by blockchain, merchants are able to recognize fraudulent customers and likewise take all important precautions. They can also give verification to genuine customers, determine whether a transaction is unusual, or if a customer was involved in fraud in the past. Contactless payments powered by blockchain does not let any party to have an upper hand because all the data of each user can be verified, without invading their privacy.

Similarly, when customers pay through a blockchain-based contactless payment system, they can see the merchant’s transaction history and find out if it has been fair or fraudulent in the past. The system keeps a record of all fraudulent instances by a merchant in the past and shares it with customers to warn them. The merchant cannot change the data because it is stored in an encrypted ledger.

## **Conclusion**

Blockchain technology has emerged as a game-changing solution for fast, transparent and secure financial transactions. As companies continue to adopt the technology, governments can think about forming advanced solutions that replace traditional systems and ensure security, faster payments, and negligible number of fraudulent payments. [China’s government](https://www.stimson.org/2021/blockchain-in-china/), for instance, has already developed projects based on blockchain that will allow sellers, buyers, and intermediaries to carry out contactless digital transactions. Blockchain technology can also be leveraged to support an array of public and government sector applications including digital payments, identity management, land registration, healthcare, electoral voting, and supply chain traceability.