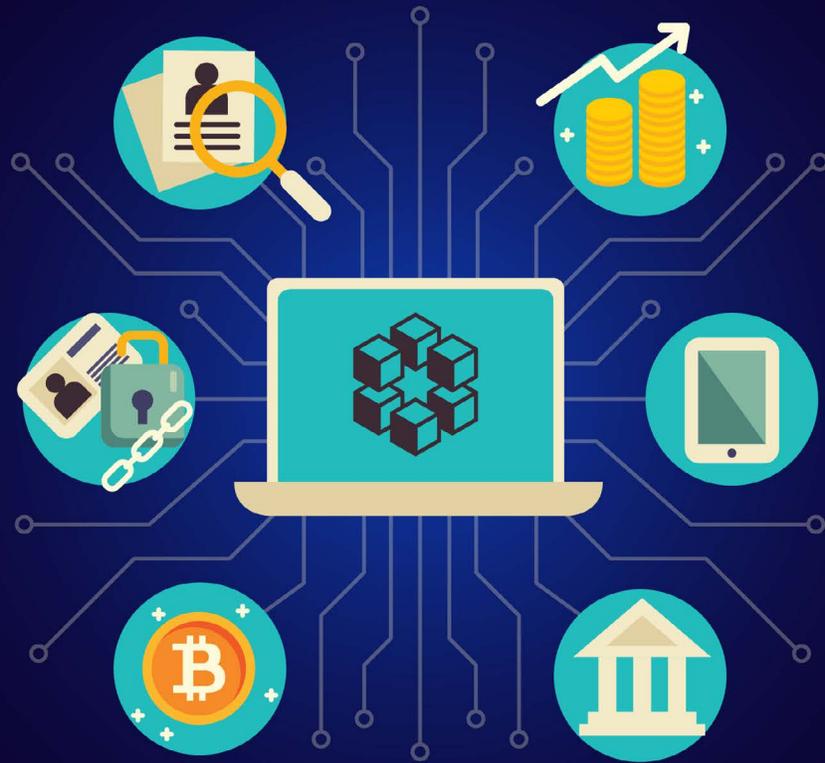


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# PUBLIC VS. PRIVATE **BLOCKCHAIN**

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**Before we dive deep into the advantages of one blockchain over the other, let's have a brief understanding in case it is something new to our understanding.**

### **What is a Blockchain?**

**W**hen a continuously growing list of distributed and decentralized public ledger records is stored, it is done in the form of blocks. To keep the transactions' confidentiality intact, the 'blocks' get connected through cryptography, thus forming a blockchain. They are the best known for playing a crucial role in the cryptocurrency system, like Bitcoin, where they maintain a secured and decentralized record of transactions stored digitally. Every set of data additions (managed by a cluster of computers with access controls) is publicly visible to everyone, and the nodes involved are responsible for their action. It is a perfectly democratic system.

### **Types of Blockchains:**

There are two types of blockchains: Public Blockchain and Private Blockchain. A Public Blockchain is the kind of blockchain that can be accessed without prior permission and where people can participate within the blockchain. Its structure is a decentralized one, and there is no single entity that controls the network in its entirety. The data here are unmodifiable and inalterable after the blockchain verification is done. A Private Blockchain is a blockchain managed by a network of administrators and participants who need the authority's consent to join the network. There are single or multiple entities who control the network, leading to these kinds of blockchains relying on third parties to transact. These entities involved solely know the transactions.

## Public vs. Private Blockchain:

Now that we know the basics let's head towards a deeper understanding.

The accessibility of private blockchain is lower and limited, which helps in understanding and permitting only those members who seem to be good contributors to the process. This limited user count helps maintain the speedy processing of transactions than the public blockchains, where too many users request multiple transactions.

The transaction costs are significantly less in the case of private blockchains. The costs are fairly constant and precise. It's comparatively higher in the case of public blockchains since multiple nodes are slowing the process.

Other than this, while the public blockchain data can't be modified or altered, once finalized, the private blockchain data can be changed, owing to its fewer participants. They can even delete a block if found necessary.

The limited nodes of private blockchains not only reduce transaction costs but make them more efficient than public blockchains. While public blockchains deal with scalability issues and slowdowns due to huge ledger access in real-time, private blockchains face lesser such issues due to lesser participants.

## Conclusion

Both these types of blockchains are very different from each other. However, their relative advantages and disadvantages open up space for the users to use both these networks together at their own convenience. The mid-path, often known as 'Permissioned Blockchains,' allows a mixed usage of both the blockchains and supports this customization. If we view it from the enterprise environment point of view, we can deem both the blockchains to be suitable, but the final call is entirely on the participant. Technology is the future and a savior to the economy in the form of blockchains.



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