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The centralized version of the web or web2 has offered the world a more robust and reliable infrastructure than the original web, generally known as web1. However, the centralized web created many challenges for users, like authorizing centralized entities to take custody of data and decide whom to allow access to the web.

Web3 is an emerging version of the World Wide Web that promotes decentralization through blockchain technology. Web3 also allows users to take control of their identity and data through private-key cryptography. Web3's future will be defined by the ease with which dApps can be built. So, it is crucial to define the web3 stack.

In this write-up, we will take a look at the web3 stack and explore its different layers. It's crucial to understand the meaning of web3 before diving into the web3 stack. Web3 is a collection of technologies that enable the development of decentralized apps (dApps). dApps offer users greater control over identity and value, as well as decentralized control and a distributed infrastructure, among other benefits.

Web3 is a vision for a decentralized internet built on blockchain technology. The current internet model is highly centralized and much more broken than many realize. Users must deal with data breaches and vendor lock-ins. Web3, which is a read-write-own mode of the internet, is designed to address most or at least some of these problems.

The web3 stack removes power from central intermediaries and promises a better user experience. It also increases data safety and provides fail-resistant services.

Some features that web3 allows are:

- Decentralized web infrastructure
- Ownership (of data, content and platform)
- Native digital payments\
- Self-sovereign identity
- Trust-less, distributed and robust infrastructure
- Open, public, composable back-end

The web3 stack

The web3 tech stack is a combination of technologies and tools that are distinct from the web2 stack. Web3 replaces databases and centralized technologies with open, decentralized technologies such as blockchains. This is a complex and intrinsic transition. The transition from a client-server attribute into a decentralized web is not radical.

Web3 technology stack can be divided into the following layers:

- Layer 0 Infrastructure
- Layer 1 Protocols
- Layer 2 Utilities
- Layer 3 Services
- Layer 4 Applications

End note

Web3 is a new, evolving internet that users own. As mentioned above, the web3 technology stack includes infrastructure, protocols, user applications, and access points, which are yet an evolving world of web3. Web3's modularity and interoperability are the keys to its power, and we can combine the layers of the above stack to create many new use cases. The framework and layers we have highlighted will likely remain the same, but we expect the opportunities and projects within them to change dramatically over the next few years.