Web 3.0
The next **internet revolution** on a decentralized network.

DRIVING HORIZONS

AARAV™
SOLUTIONS

Web 3.0 is an emerging concept on the internet. Here, users and machines can seamlessly interact with data, value, and other counterparties via peer-to-peer networks as self-governing without the involvement of third parties. This results in the creation of an ecosystem of a human-centric approach. The privacy-preserving computing fabric is kept in primary focus through the next wave of the web.

The broader view of this concept is, it is built with an idea of decentralized apps and uses platforms that are created largely on layers of Blockchain, Cryptocurrency, NFTs (Non-fungible tokens), and Artificial Intelligence. Through these applications, any authorized person can monitor the data without allowing monetization of their data.
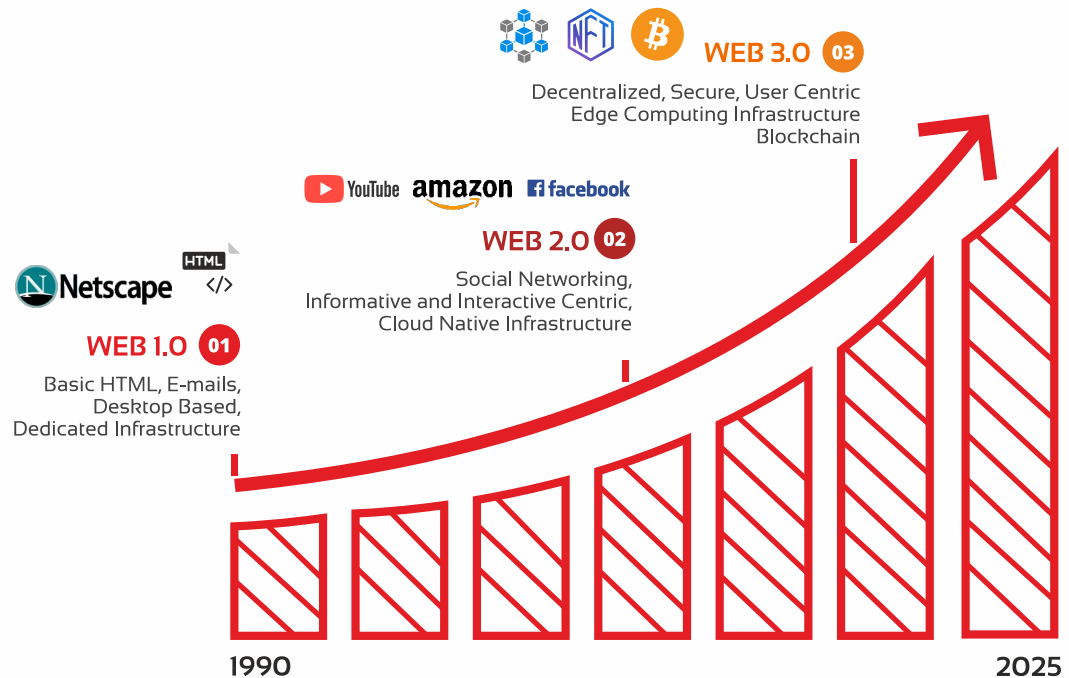
History of Web Evolutions

Roughly between 1991 to 2004, Web 1.0 was leading the way. These years are considered the first stage of the World Wide Web's evolution. During Web 1.0, the internet users were mostly "just consumers" and not defined as "content creators". That decade was just a 'read-only' version of the internet for the users where they can search and access information but could not communicate with it or interact with it.

The ongoing decade which is named Web 2.0 - began in 2004. Under this phase, people started connecting through social media networking services and started uploading content. All these are now leading to the content creation in massive volumes by users.

However, this data content is largely controlled by a small group of tech giants including Facebook, Twitter, Amazon, Apple, Microsoft, and Google in the current Web 2.0 stage.

All these controls on content have put users in a dilemma and a rise in privacy issues are seen. User's think that they have lost their freedom over their personal, business, or financial data. Eradicating these problems, Web 3.0 is anticipated to help over these privacy issues on personal & financial data.

WEB 3.0 03
Decentralized, Secure, User Centric
Edge Computing Infrastructure
Blockchain

WEB 2.0 02
Social Networking,
Informative and Interactive Centric,
Cloud Native Infrastructure

WEB 1.0 01
Basic HTML, E-mails,
Desktop Based,
Dedicated Infrastructure

1990   2025

Advantages of Web 3.0

Control digital assets on their own:

In Web 3.0, people can control their data and visit around from social media to email to shopping using a single personalized account by creating a public record on the blockchain network of all of those activities. People will have ownership stakes in platforms and applications without any intermediate or any middle person.

All-in-one Services in Blockchain Network:

So social & payment activities like sharing photos, communicating with friends, and buying things online will not be long with Big Tech companies but be done through small competing services on the Blockchain network — where, for instance, every time you post a message, you earn a token for your contribution, giving you both ownership stake in the platform and that will turn in cash at one day.

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Rise of NFTs and other Digital Assets:

The Web 3.0 movement has been helped along by the rise of NFTs, which are digital collectibles and other online files that can be bought and sold with cryptocurrency.NFT means 'non-fungible', which is a unique concept. These NFTs cannot be directly replaced with something else. Unlike in other digital currencies where exchanging one digital coin of equal value for another would give the same amount, NFT has its unique value which is subjective. NFTs can be used to represent photos, videos, audio, tweets, and other types of digital files.
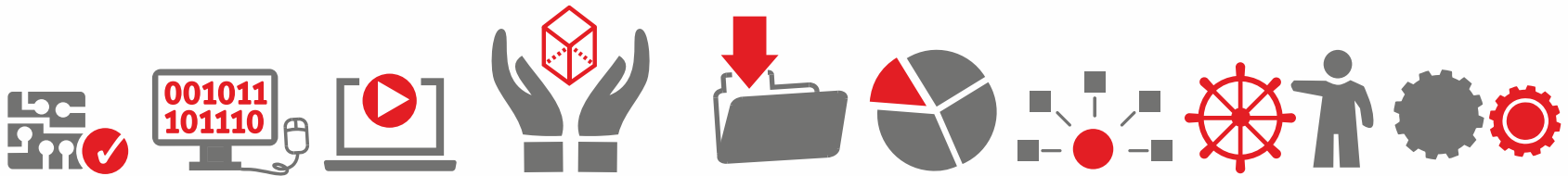
Advantages of Web 3.0

Decentralization in Messaging apps:

Messaging apps have always remained in part of our lives, we have been using apps like Facebook Messenger, WhatsApp, Slack, Telegram, etc., while using these messaging applications, there are two issues that users continue to suffer from - unsafe transmission of messages and reliance on centralized solutions which makes the platforms open to hacks.

- The solution to these issues is Web 3.0 driven messaging apps like ySign, Obsidian, e-Chat, etc. which are operated by the power of Blockchain to maintain users' privacy and security.

Decentralized Storage Solution:

In Web 2.0 storage of data was done through online cloud drives. Most of the data storage operators in the market today are centralized, meaning the data can be manipulated or sold for advertisements. Web 3.0 provides a solution to this, is the decentralized storage facility. The concept behind it is that the files and data are first encrypted and then shared through a peer-to-peer network, meaning they are not stored in any one place but on multiple nodes.

- Web 1.0 and 2.0 works on DNS (Domain Name Server) protocol through HTTP. which is like the traditional postal method in a centralized network. The InterPlanetary File System (IPFS) will most likely replace the current DNS system. IPFS is also like a postal system but in a decentralized network.

- New modern concepts like DAOs (decentralized autonomous organizations) and DeFi (decentralized finance) are also a part of the web 3.0 movement.

Key Takeaway

We are on the verge of a real internet revolution. While it is true that there are several challenges to Web 3.0 implementation, the pure innovation that it can bring out in our lives has a truly overwhelming effect.

The transition from Web 2.0 to Web 3.0 however, will not happen overnight. Meaning, businesses will have time to look back at their process and see where they fit in the decentralization and transparency network.

Our Thought Leaders

Dinesh is passionate about continuously challenging the status quo in support of adopting innovative approaches and technologies.He holds more than 17years of experience as a software professional, innovator, and leader designing E2E architecture, building complex application software/product, team building & mentoring, project budgeting, oracle database management, data migration, IT automation, designing solutions for OSS-BSS domains & oracle BRM in various industries like Broadband, VOIP, WIFI, Telecom, Digital Cable TV, Utility services, OTT. He enables key initiatives & organizations' technology vision using innovative, emerging & results-oriented technologies like Cloud-native Microservices, CI/CD, IoT, AI, Hyperlegdger Blockchain. As Principal Architect for Adptx Suite products by Aarav Solutions, he designed end-to-end and led the product team to bring emerging technologies as an integral part of the Adptx Suite Subscriber management solution.

- Dinesh Suthar, Principal Architect-Product Engineering & Innovations, Aarav Solutions

About Aarav Solutions

Aarav Solutions is a global product engineering and IT Consulting Services Provider. Our clientele comes from a broad array of industries –

Telecommunications, Banking & Finance, Government, Power and Utilities among various other B2B segments.

We have our R&D offices in India and the USA. We are also present across the globe in South East Asia, Australia and MEA regions and we have successfully helped organizations in their digital transformation journey. Since our inception in 2012, we are focused on 'Driving Horizons' for our stakeholders viz. employees, customers and partners with innovation and delivery excellence.

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