The Dawn of Web3 Network Revenue

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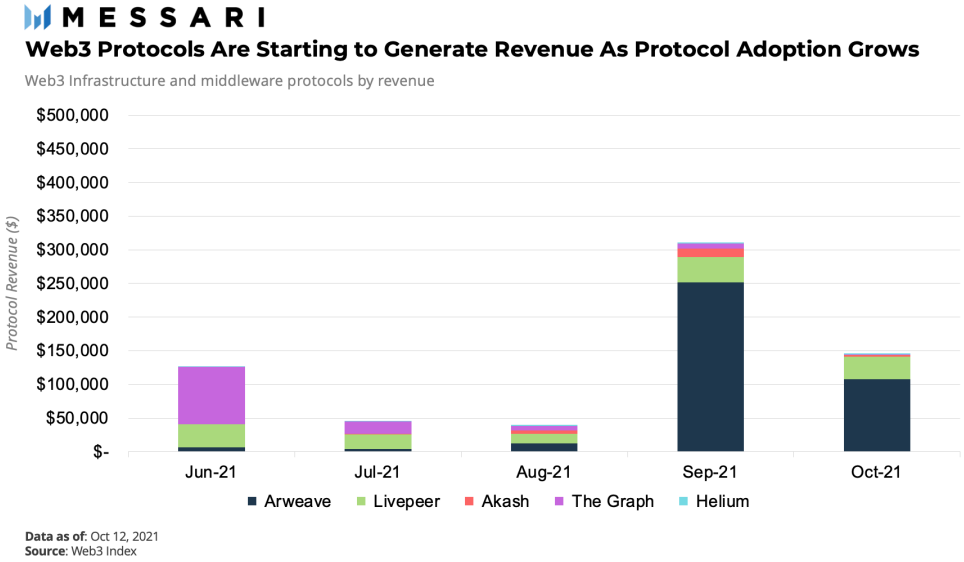
The proliferation of Web3 has been long anticipated but has taken time to fully manifest due to a need for infrastructure across computation, indexing, data management, hosting, storage, and other vital services.

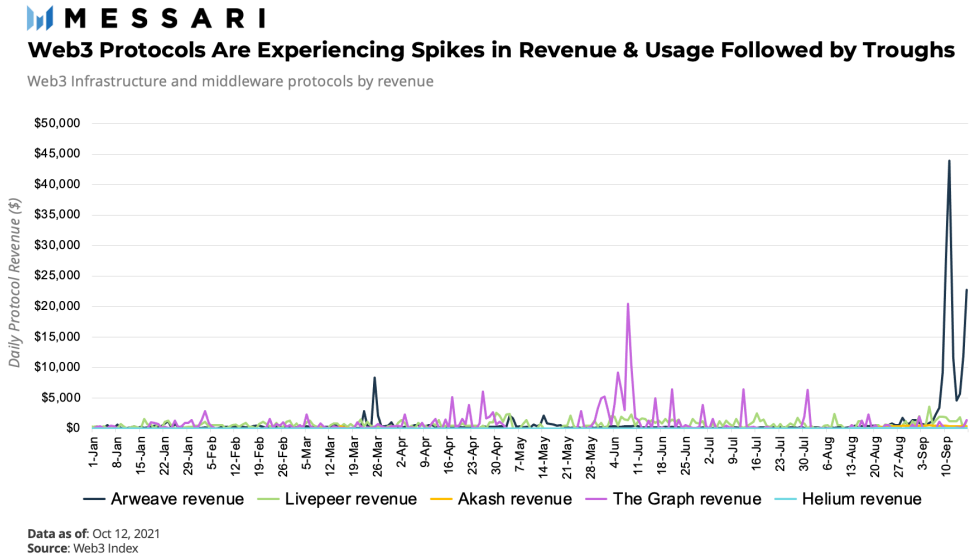
Web3 Index: Tracking Web3 Protocol Revenue

Data from Web3 Index shows that after years of building, several Web3 protocols are starting to experience strengthened network usage. As a result of this usage, which often requires spending of the protocol's native token in exchange for services, these Web3 protocols are beginning to generate revenue.



Note, the Web3 Index tracks revenue from network usage – the fees being paid into Web3 networks – rather than token reward distribution. Token reward revenue to individual participants doesn't always demand network utilization whereas revenue generated directly from network usage (burning tokens, paying fees to miners, or paying fees for services) is a stronger metric for analyzing protocol revenue and growth.

Looking closer, Web3 protocols suffer from spikes of protocol usage and revenue generation followed by troughs where protocol revenue declines.



However, this is to be expected across early-stage networks that are trying to integrate vendors and developers to use their services. Network usage varies across networks. File storage protocols for example might experience share increases in usage from new NFT projects while usage of networks like The Graph or Livepeer fluctuate with consumer demand for query or computation services. Over time, the volatility of usage should smooth out for networks that experience more stable demand.

Unbundling The Web

All of these Web3 protocols operate by providing services like computation, storage, and bandwidth. At the moment, these protocols are slowly growing their network demand. For storage protocols, demand spikes have been attributed to the growth in sectors like NFTs (increased demand for NFT storage on IPFS and Arweave). Other protocols like Helium and Livepeer have experienced growth in demand by onboarding new enterprises or developers who build apps that require their services.

Computation

Compute resources are required for a variety of applications and services. Many decentralized computation protocols function by creating a network of excess computational resources – from personal devices to data centers – and offer computational power at reduced costs.

Livepeer a marketplace for video infrastructure providers and streaming applications is processing millions of videos per week and generating several thousands of dollars in protocol fee revenue.

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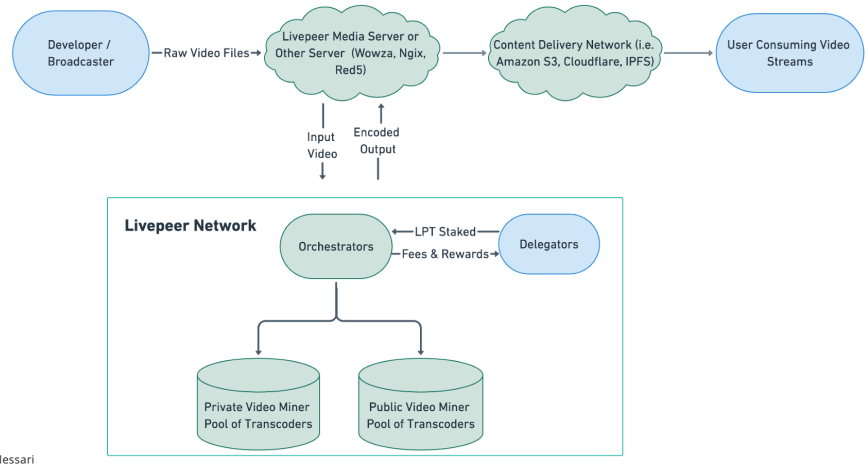
The Livepeer Network



Source: Messari

Read our Livepeer report for a deep dive into the Livepeer network.

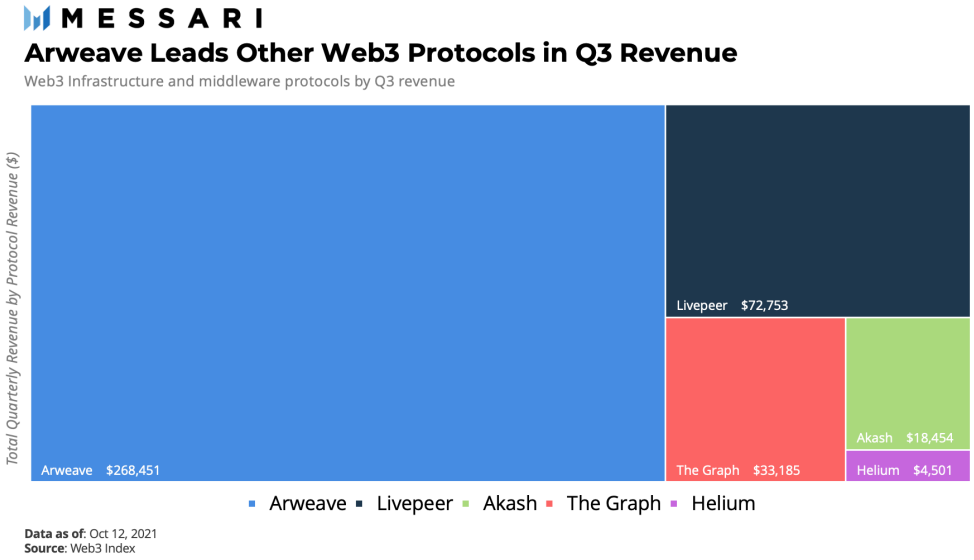
Akash Network is comprised of a blockchain network and distributed peer-to-peer marketplace for cloud computing resources. Akash enables developers to deploy a Docker container at a reduced cost compared to traditional cloud providers like AWS or Google. A Docker container is used by developers to maximize the number of applications running on a minimal number of servers.

Akash enables data centers to rent out their excess capacity similar to how Airbnb enables homeowners to rent out their underutilized bedrooms in apartments and houses. Recently, Akash announced an integration with Equinix Metal, one of the world's largest infrastructure providers with over 220 data centers across 25 countries.

Storage

Decentralized storage platforms already serve real needs for Layer-1's and have witnessed increased adoption serving the NFT market. Like Filecoin and Sia, Arweave is a file storage protocol, however, Arweave focuses on permanent data storage while Filecoin and Sia offers more flexible storage solutions. Additionally, the Filecoin blockchain acts as an incentivization protocol for IPFS while Arweave uses a variation of a blockchain called a blockweave in order to incentivize the network's long-term storage.

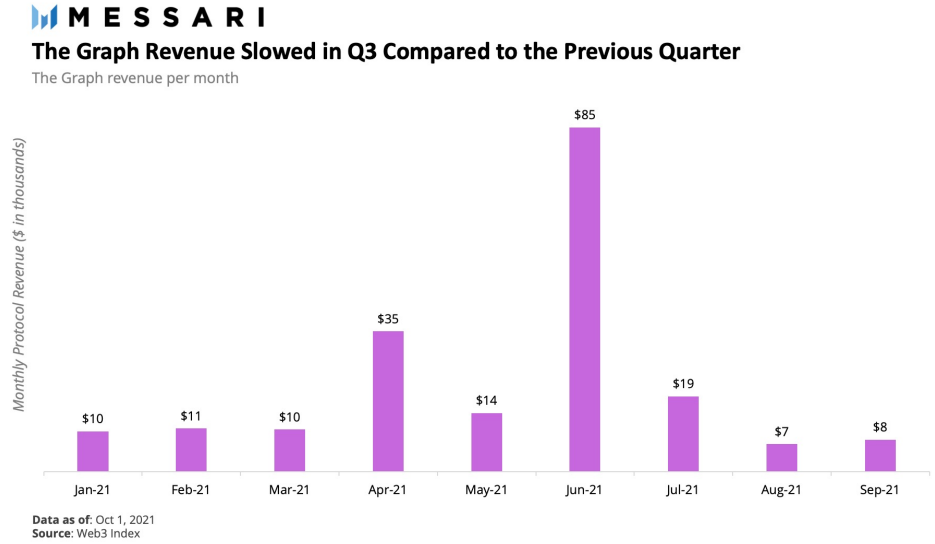
In Q3, Arweave leads other Web3 protocols within the Web3 index in revenue generated.



Indexing

Whether you know it or not, you use an indexer every day. Google indexes – compiles and makes searchable – information about websites. Google has bots that constantly crawl the web, indexing new websites and making them queryable for daily internet patrons.

Similarly, The Graph is a decentralized indexing protocol that enables querying blockchain data without being connected to a blockchain or having to rely on a centralized third party. Essentially, The Graph acts as an API protocol for blockchains and protocols.

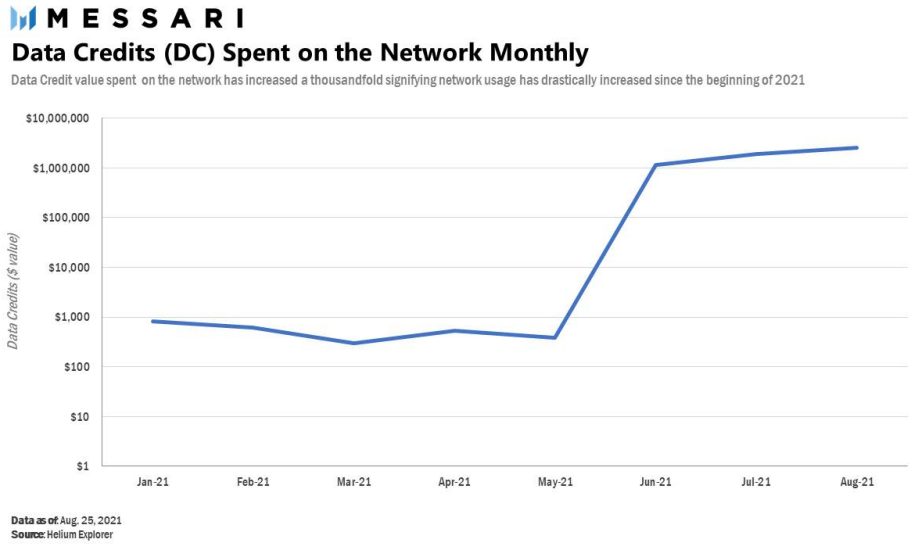


Learn more about The Graph network.

Bandwidth & Networking

Helium is an open wireless network built on the Helium blockchain which is run by a network of hardware devices (nodes) that maintain the network and transfer data. Helium implements an open LoRaWAN wireless network, which enables connectivity across longer distances that consume less bandwidth.

There has been a rapid increase in the utilization of 'Data Credits' spent monthly, which implies growth in data transfers on the network.



Read our report about Helium's recent network growth.

Final Thoughts on Web3

Revenue by network usage displays a more accurate representation of network growth as it displays what early customers are willing to pay for Web3 services. Although a useful metric, network revenue is not the only important metric. Ultimately, networks need to grow both their supply-side businesses (data centers, hotspots, miners, etc.) and demand-side (companies, developers, etc.) which help further increase the adoption flywheel.

The edges of the multichain future are getting penciled in as several blockchains – Ethereum, Cosmos, Solana, Polkadot, and Terra – having meaningful development.

However, the multichain future exists beyond general-purpose smart contract protocols and their interoperating Layer-2s. The multichain world will be comprised of a composable network of Web3 protocols unbundling the existing internet infrastructure. As Web3 protocols continue to evolve, they will transition from standalone protocols that are challenging to work with to robust application blockchains that serve a variety of dapps, developers, individuals, and institutions.