Web3 Development Report

Q3’ 2022: Ethereum Ecosystem and Beyond

alchemy
The Big Picture

Prices down, devs up.

Despite Ethereum decreasing 70% in price, verified smart contract deployments increased by over 40%
Q3’22 was the biggest for devs, ever

1.5m
Ethereum SDK installs/week
+178% Y/Y

17,375
Smart contracts (verified) /month
+160% Y/Y

12,495
dapps
(12x since 2018)
This is despite the bear market

- NFTS: -88% Trading volume USD Y/Y
- DEFI: -69% Total value locked Y/Y
- PRICES: -56% Ethereum price USD Y/Y
Approach
3 ways to measure developer activity

- **Libraries**: Developer tools to easily read/write to the blockchain
- **Smart contracts**: Computer programs stored on a blockchain
- **dapps**: End-user ready applications with decentralized backends

These 3 indicators show us if devs are **building**, **deploying**, and **growing**
Ethereum Libraries

Libraries are up and to the right
1.5m/weekly Ethereum SDK installs

Ethereum SDKs include Ethers.js and Web3.js, which developers need to build on the Ethereum blockchain.
Weekly downloads
Ethers.js, Web3.js, and Combined

<table>
<thead>
<tr>
<th>Year</th>
<th>Ethers.js</th>
<th>Web3.js</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>53,863</td>
<td>91,936</td>
<td>145,799</td>
</tr>
<tr>
<td>2019</td>
<td>66,959 (+24%)</td>
<td>113,272 (+23%)</td>
<td>180,231 (+24%)</td>
</tr>
<tr>
<td>2020</td>
<td>163,799 (+145%)</td>
<td>161,257 (+42%)</td>
<td>325,056 (+80%)</td>
</tr>
<tr>
<td>2021</td>
<td>304,273 (+86%)</td>
<td>587,567 (+137%)</td>
<td>881,837 (+101%)</td>
</tr>
<tr>
<td>2022</td>
<td>948,981 (+212%)</td>
<td>1,536,548 (+178%)</td>
<td>2,485,531 (+142%)</td>
</tr>
</tbody>
</table>
Smart Contracts

Smart contracts are up and to the right
Verified smart contract deployments are up more than 50% in 2022.

Verified smart contracts were used for measurement of production applications. The number of total contracts deployed is more than 10X larger.
36% of all verified smart contracts were deployed just this year, making 2022 the biggest year ever.
Monthly verified smart contracts up 2.6x Y/Y

New monthly all time highs (ATHs) consistently set

<table>
<thead>
<tr>
<th>Month</th>
<th>Verified Smart Contract Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/22</td>
<td>14,615</td>
</tr>
<tr>
<td>8/22</td>
<td>16,698</td>
</tr>
<tr>
<td>9/22</td>
<td>17,736</td>
</tr>
</tbody>
</table>
Smart contracts not tied to prices

Price of Ethereum

Verified smart contract deployment

4/1/22: 12,337 ($3,450)
6/30/22: 11,824 ($1,035)
9/30/22: 17,736 ($1,323)
dapps

dapps are up and to the right
More than 12,000 dapps and growing

0x, Aave, Audius, Balancer, Coherent, CollabLand, Compound, Context, Curve, Dark Forest, Decentral Games, DeveloperDAO, dydx, Farcaster, Fractal, Gitcoin, Gods Unchained, Goldfinch, Helius, Hop, Hyperspace, Illuvium, JonesDAO, Lens, Magic Eden, Metamask, Mirror, OpenSea, Pancake Swap, Phantom, Royal, Quickswap, Quix, Safe, Showtime, Slingshot Finance, Snapshot, Solanart, Stargate Finance, Sudoswap, Sweat, Synapse, Syndicate, Synthetix, Tally, Uniswap, x2y2, Zapper, Zerion
Beyond Ethereum

Polygon, Optimism, Arbitrum, and Solana
335% growth in active developer teams YTD
804% growth in active developer teams Y/Y
153% growth in API consumption YTD
Arbitrum

516% growth in active developer teams YTD

795% growth in active developer teams Y/Y

121% growth in API consumption YTD
Optimism

- Growth in active developer teams YTD: >1000%
- Growth in active developer teams Y/Y: >1000%
- Growth in API consumption YTD: >460%
Solana

>1000% growth in active developer teams YTD

>1000% growth in active developer teams Y/Y

>500% growth in API consumption YTD
Additional Alchemy data

- **2x** Archive requests YTD suggesting more developers are leveraging historical chain data
- **10x** Enhanced API requests YTD confirming expansions from core node APIs to more advanced infrastructure across DeFi, DAOs, and gaming
- **10x** NFT API requests YTD suggesting more use of NFTs in user-facing products and analytics
Data infrastructure is growing

Chainlink
- 500+ projects
- 4.2B on-chain data points

The Graph
- 500+ subgraphs
- 560B queries

Alchemy
- >10B weekly requests for archive data
Social infrastructure is growing

- **ENS**: 545,948+ owners
- **Lens Protocol**: 76,660+ owners
- **Farcaster**: 164,000 casts by 3,405 all-time casters
Wallet and DeFi infrastructure is growing

- **WalletConnect**: 46,250 weekly installs, +13% Y/Y
- **RainbowKit**: 26,359 weekly installs, launched 2022
- **Uniswap v3 SDK**: 27,841 weekly installs, +280% Y/Y
Methodology
Methodology

This report strives to provide an accurate and useful representation of web3 development. The following sources were used for data collection purposes: Etherscan (verified smart contracts), DappRadar (dapp count), Github and NPM JS (SDK installations and metadata), CoinMarketCap (token prices), and the Internet Archive (fetching historical versions of aforementioned pages to provide timestamped data sources). web3 Javascript library weekly downloads were used as a proxy for developer activity here. This metric is helpful but imperfect due to the ability for the library to be downloaded multiple times by the same user intentionally or unintentionally. However, it provides one signal for directional guidance.
Thank you to the report’s sources

Developer Activity: Alchemy

Smart Contracts and Programs: Etherscan and Solscan

Market and Prices: DappRadar, Defi Pulse, CoinMarketCap, Dune

SDKs: Github and NPM

Historical Web Pages: Internet Archive
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