

Top Ten Things to Know About Avalanche

1. What's the history behind Avalanche & Ava Labs?

- Avalanche was founded by Cornell computer science professor Emin Gün Sirer and PhD students Kevin Sekniqi and Ted Yin after discovering a pseudonymous report written by Team Rocket in 2018.
- The public Avalanche blockchain network was launched by the Avalanche Foundation on mainnet in September 2020.
- Ava Labs is a software company and licensed service provider to the Avalanche Foundation. Ava Labs develops software and infrastructure to support the Avalanche ecosystem across a variety of use cases (e.g., DeFi, NFTs & Culture, Gaming, Enterprise, Exchanges & Wallets, and Institutions) and builds products that foster ecosystem adoption and growth.

2. Who is the team behind Ava Labs?

- World-class group of experts in a variety of fields including computer science, economics, finance and law, with offices in New York and Miami.
- The Executive team consists of Emin Gun Sirer, Founder and CEO; John Wu, President; Kevin Sekniqi, COO; Ted Yin, Chief Protocol Architect; Chris Lavery, CFO; and Lee Schneider, General Counsel.
- ~200+ worldwide and growing.

3. What differentiates the Avalanche network from other layer 1 (L1) blockchains?

- Proof-of-Stake (PoS) blockchain powering Web3.
- Utilizes the 3rd-ever novel consensus mechanism called "Avalanche," enabling sub-second finality.
- Highest Nakamoto Coefficient of any PoS blockchain, indicating greater decentralization.
- Lower transaction fees.
- Avalanche is the 'platform of platforms' for those seeking maximum flexibility and control over their projects, fitting a kind of "Amazon Web Services" model for blockchains-as-a-service. Avalanche enables unprecedented customization and scaling for individuals and institutions with its novel "**Subnet**" technology.
- More integrated and value-accruing to the primary network than Cosmos. Much more powerful than Polkadot in both performance and decentralization of consensus mechanism.
- Consumes significantly less energy than most blockchain networks (only 46 U.S. households/yr compared to 1.6M for Ethereum).
- Parameterizable liveness/safety.

4. What makes the Avalanche consensus unique?

- 3rd ever novel consensus and a breakthrough from 50 years of distributed systems innovation.
- Combines the benefits of Nakamoto consensus (decentralization) with those of Classical consensus (speed, quick finality, energy/resource efficiency).
- Uses repeated sub-sampling of nodes to build confidence that a transaction is valid.
- Allows the network to scale to billions of users and millions of full, block-producing validators without compromising performance.

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5. What are Avalanche Subnets?

- Subnets can be thought of as ‘**custom blockchains**’ or **sub-networks** that give users infinite control and scalability. It’s the way in which the Avalanche network scales horizontally.
- Dynamic set of validators working together to achieve consensus on the state of a set of blockchains
- Subnets are a dramatic step forward over existing blockchain models that enforce a uniform set of rules across the entire network, meaning a simple NFT launch and multi-billion dollar loan between institutions are beholden to the same network toolkit and logic.
- Allows individuals and enterprises to control all layers of their platform, including custom virtual machines, gas tokens, compliance requirements, data encryption, privacy, and permissioning that is tailor made to each use case.

6. What is the difference between the Avalanche Primary Network & Subnets?

- The Avalanche Primary Network features three built-in blockchains–Exchange Chain (X-Chain), Platform Chain (P-Chain), and Contract Chain (C-Chain)– each of which have a special place in the architecture.
- Primary Network is also considered a special subnet.
- All members of all custom subnets must validate the Primary Network by staking at least 2,000 AVAX tokens.

7. What products has Ava Labs built?

- In July 2021, Avalanche Bridge was launched and has facilitated over \$60 billion in transfers from/to Ethereum and Bitcoin.
- In June 2022, Ava Labs released Core, a Web3 operating system for users to interact with Avalanche.
- Other products include API layer, which services two billion requests per day (Primary Network); a Subnet Explorer/Metrics/Indexer to make a ‘Subnet in a Box’ offering and a platform to run APIs/Validators for Subnets. ‘Guided track’ functionality for instance, allows the launch of a blockchain using only a JSON file.

8. What are some enterprises & institutions coalescing around Avalanche?

- Deloitte developed its ‘Close As You Go’ platform, which improves security, speed, auditability and accuracy of FEMA reimbursements.
- Lemonade Foundation launched an initiative for faster and more efficient insurance payouts.
- Mastercard chose Ava Labs to join the Mastercard Start Path accelerator to explore use cases with Avalanche
- Intain is building an Avalanche subnet to automate administration and tokenization of asset-backed securities.
- Securitize facilitates security token issuance and trading for private securities.

9. Is Avalanche environmentally friendly?

- Yes. According to the Crypto Carbon Ratings Institute Avalanche consumes only 0.0005% of that consumed by Bitcoin and 0.0028% of energy consumed by the Ethereum network.
- Avalanche consumes the energy-equivalent of just 46 American households per year (compared with 8.5 million for Bitcoin and 1.6 million for Ethereum).

10. What else should I know about AVAX?

- AVAX is a hard-capped asset; only 720 million AVAX will ever be minted.
- All AVAX fees are burnt, which reduces the supply with greater levels of adoption.
- Validating custom subnets requires validating the Primary Network by staking 2,000 AVAX min per validator.
- As more Subnets launch, more AVAX will be staked.

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