grape

The first web4 infrastructure for a decentralized internet

v.01

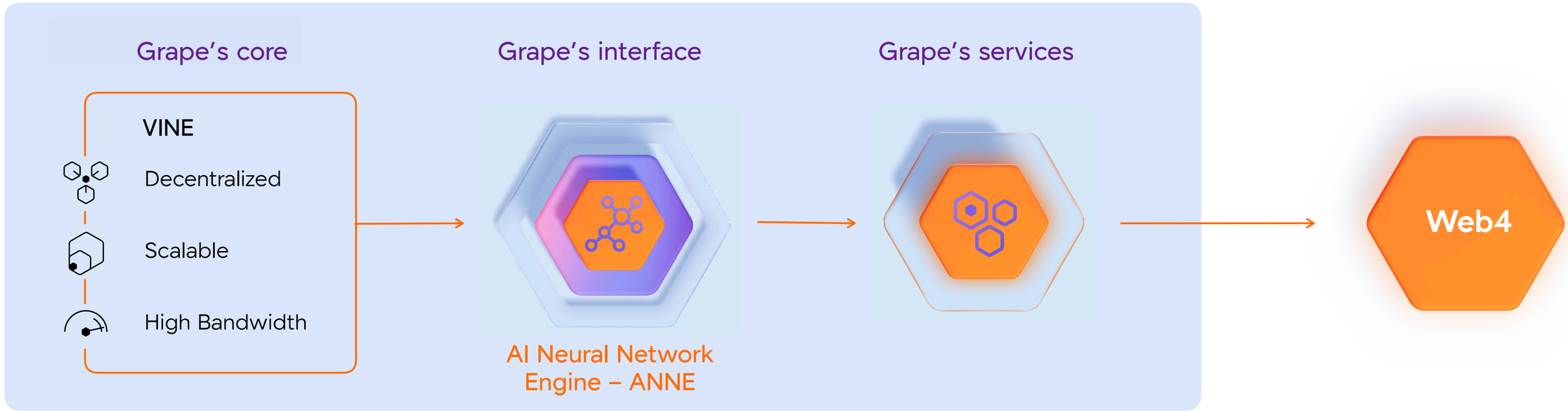
What is Grape?

Grape is the first web4-type technology created to support the true decentralization of the Internet.

Grape believes that to provide a wide audience with easy access to data decentralization, the infrastructure should have a simple interface enabling a **codeless approach** from top to bottom.

What is web4?

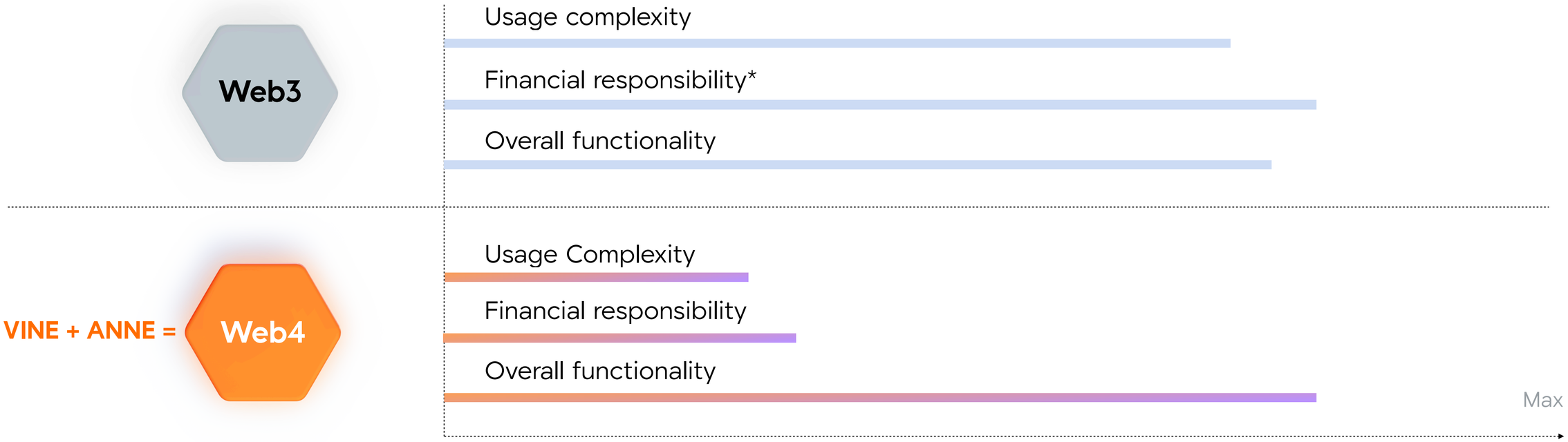
Web4 is an ecosystem of the decentralized Internet with biometric access to all applications and AI-powered assistant to easily navigate them.



What is unique in Grape?

Grape has created 2 proprietary technologies that combined can improve the adoption of web3 and push it to the next industrial level.

1. **VINE** – a scalable decentralized infrastructure with practically unlimited bandwidth based on DAG.
2. **ANNE** – an AI-based interface to access web3 technologies with the simplicity of Web 2.0.

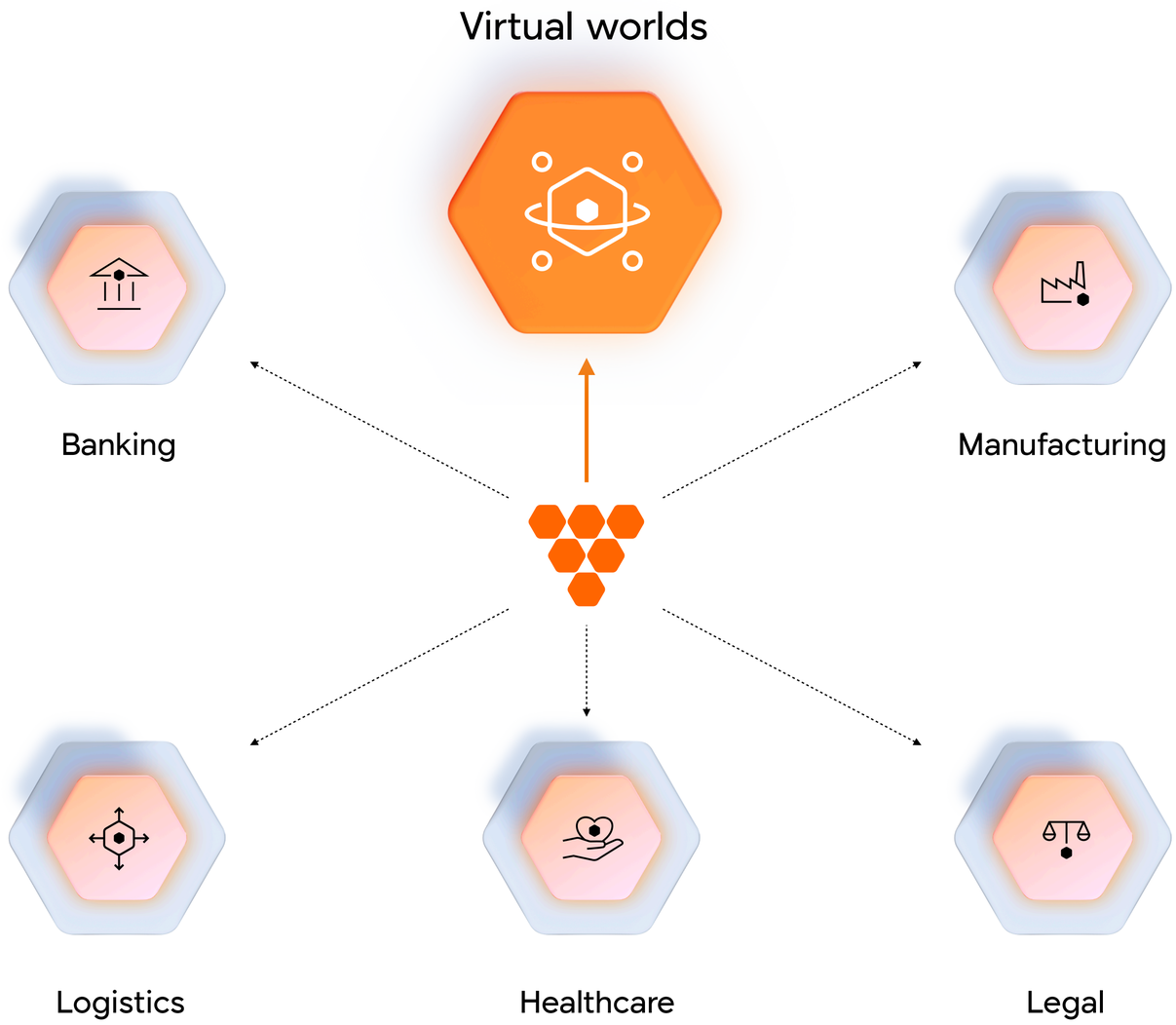


In web3, if you lose private keys to your wallet there is no way to restore access - thus everything in this wallet is lost forever.

Which industries can benefit from Grape?

Grape is a comprehensive decentralized infrastructure that is designed to **withstand huge loads**. It has all the necessary functionality to support the needs of DApps for various industries.

We chose virtual worlds as a starting point to validate the functionality of the ecosystem, test its scalability, and potential.



Section 1 - web3 market overview

There is no layer 1 ecosystem on the market that can support all its needs

Despite this, the web3 industry shows sharp growth, mainly from GameFi & Metaverse projects.

GameFi users generate **~500 million monthly transactions.**

Most ecosystems launch investment funds - Tron Foundation launched **$300 Million GameFi Fund.**

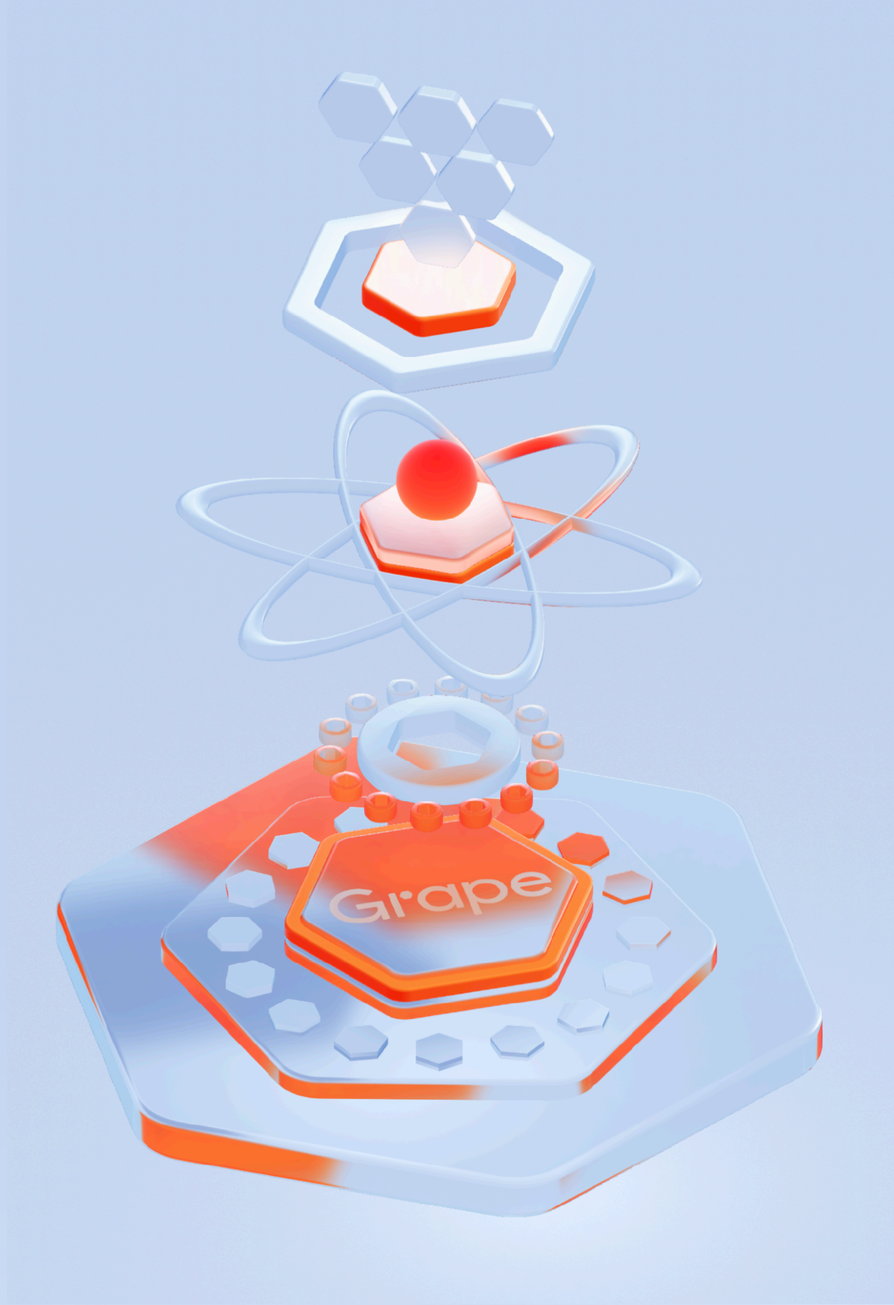
AAA game developers work on web3-based games - **Ubisoft plans to bring NTFs** to games.

Bottlenecks of current layer 1s:

- High transaction costs
- Low transaction speed
- Insufficient infrastructure
- Limited token interoperability
- Limited security features
- Usage of centralized storages

Web3 and virtual worlds requirements for the decentralized infrastructure

- **High performance** network
- **Easy-to-use** tools to launch dApps and web3 projects
- **Military-grade** security of funds and infrastructure
- **Decentralized** data & digital-asset storage
- **Interoperable** NFT standard



Grape is targeting
the most fast-growing industries

An estimated 2.9 billion people — more than 1/3 of the world population, played a video game in 2021*.

Virtual world market to surpass
CAGR 43.7%
$1,525.7 billion by 2030

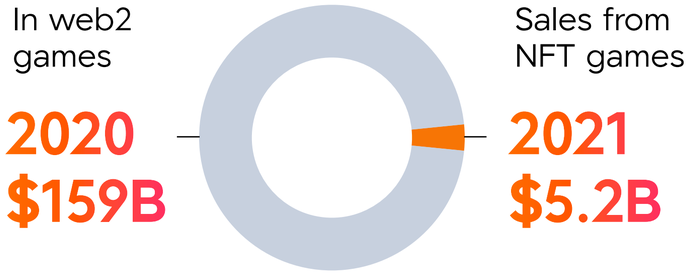
The **gaming** market to surpass
CAGR 10.2%
$470 billion by 2030

GameFi market to surpass
CAGR 23.7%
$74.2 billion by 2031

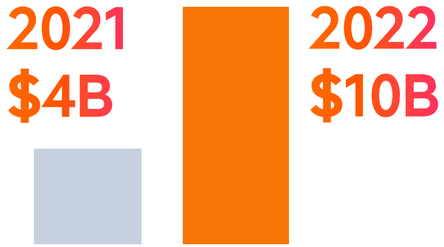
*EY report

Despite the market drop, virtual worlds continues to attract billions of dollars

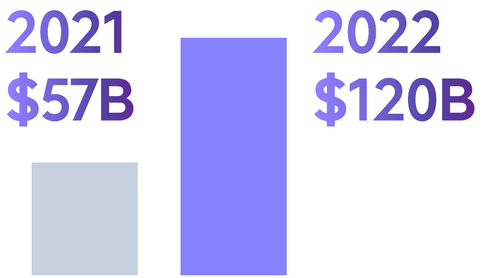
In-game purchase



Invested in GameFi



Invested in metaverse



Microsoft's **$70B** acquisition of Activision will allow the company to develop Microsoft-backed games and software within the metaverse in the coming years.

Axie Infinity, the most popular NFT game in the world, has announced three esports tournaments with a total prize pool worth **$1M**.

Section 2 - Meet Grape. The first Web4 infrastructure for virtual worlds

Quantum resistant

Carbon neutral
with aim to become carbon positive by 2025

Direct Acyclic Graph
for unparalleled scalability

Launchpad
for fundraising

Low barrier
to network validation

Multiplatform non-custodial **wallet**

NFT **marketplace**

UP TO 700.000 TPS

Easy-to-use
Web UI to launch dApps

Web4
as a service for fast launch of new projects

Biometrics support
for authentication including ECG

Native DEX
for token trading

Native fiat onramp

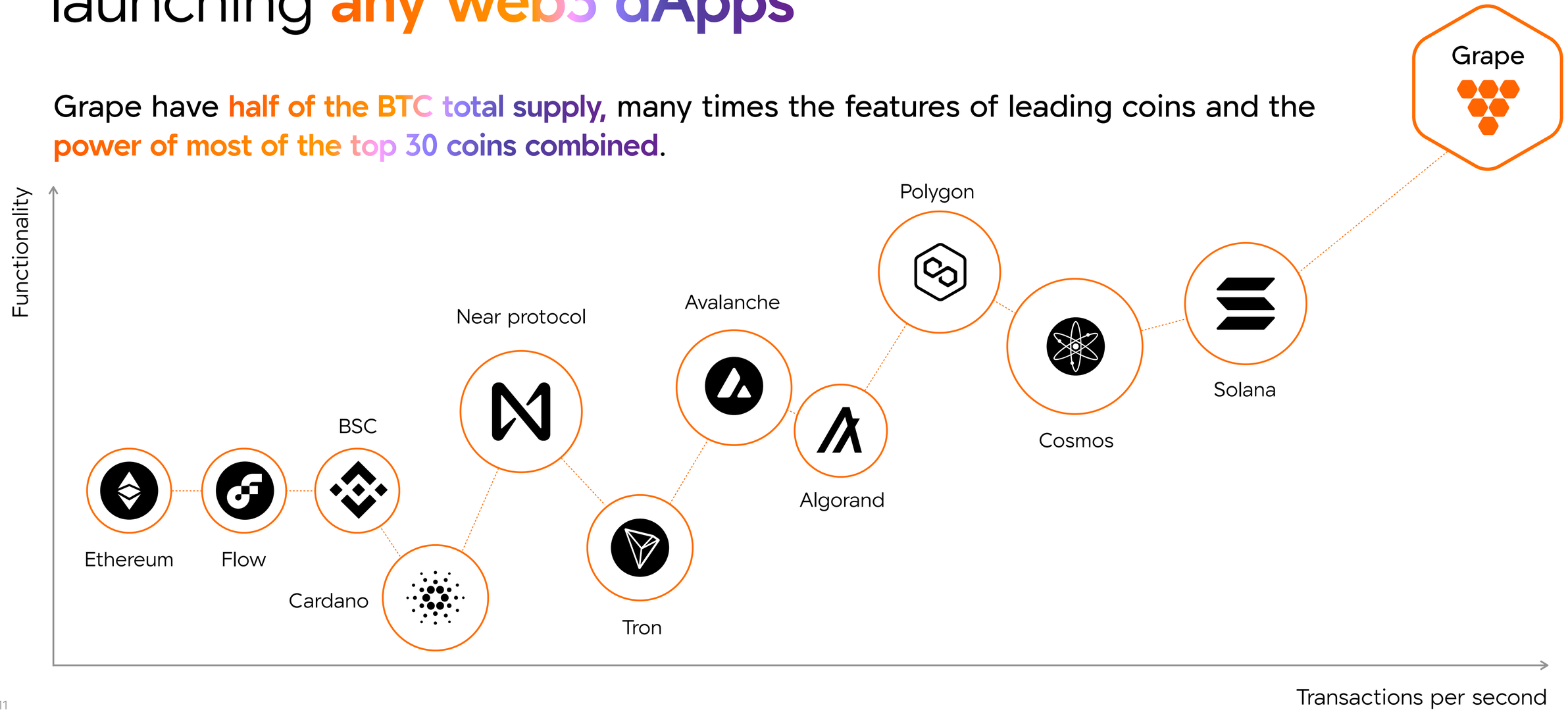
Interoperable virtual assets as an NFT standard

AI Neural Network Engine
for simple access to decentralized infrastructure

Decentralized storage
for personal data and digital assets

Grape infrastructure allows launching any web3 dApps

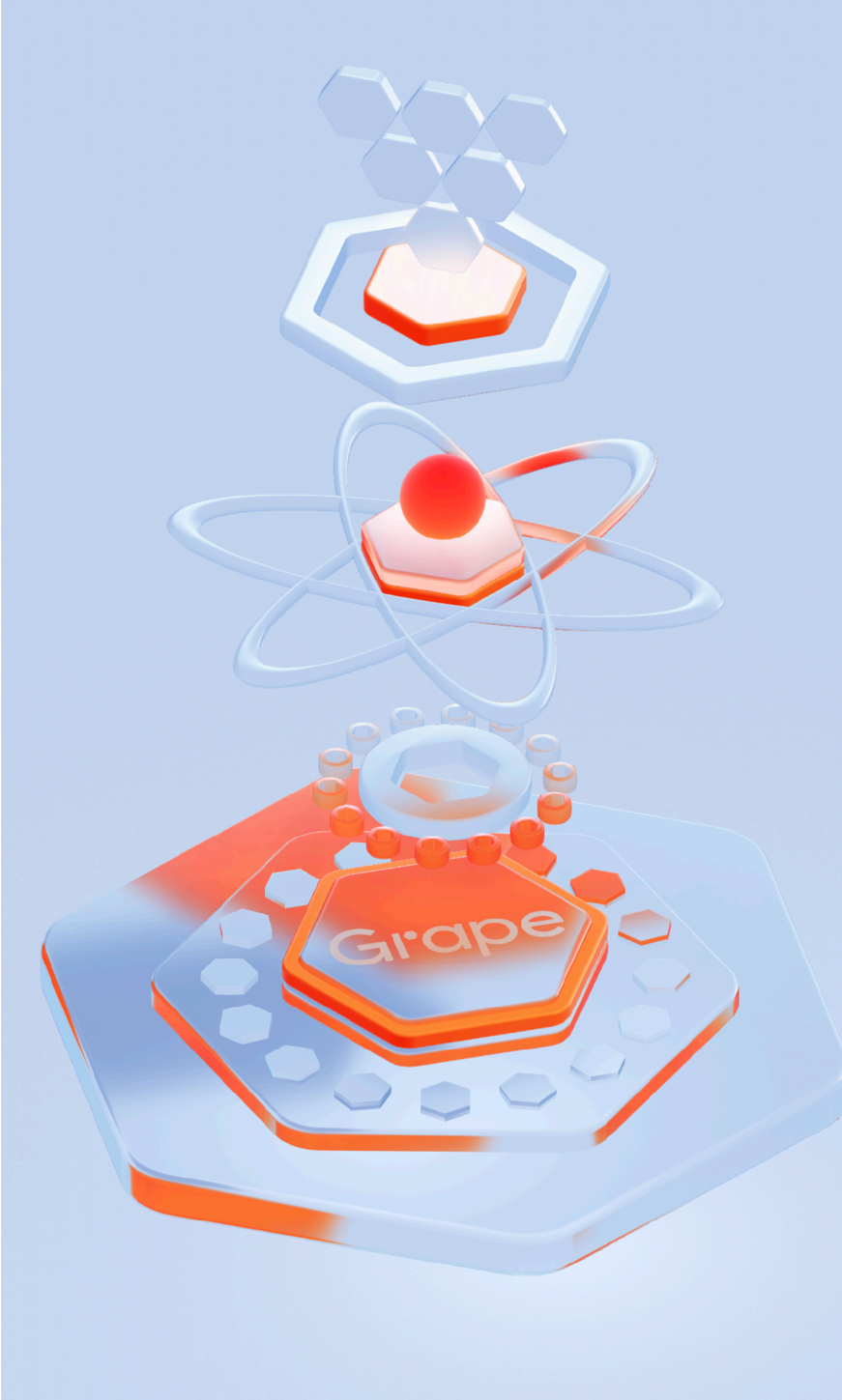
Grape have half of the BTC total supply, many times the features of leading coins and the power of most of the top 30 coins combined.



Grape created VINE - a proprietary DAG basis with multi-layer functionality

- Launchpad
- DEX
- Quantum resistant encryption
- Smart contracts
- AI-based interface
- Decentralized cloud storage
- Biometric users access
- Marketplace
- Interoperable NFTs standard transfer

Main net ····· VINE ····· Branch-chain



Each action in a virtual world is based on a data transfer, which is a foundation for transaction

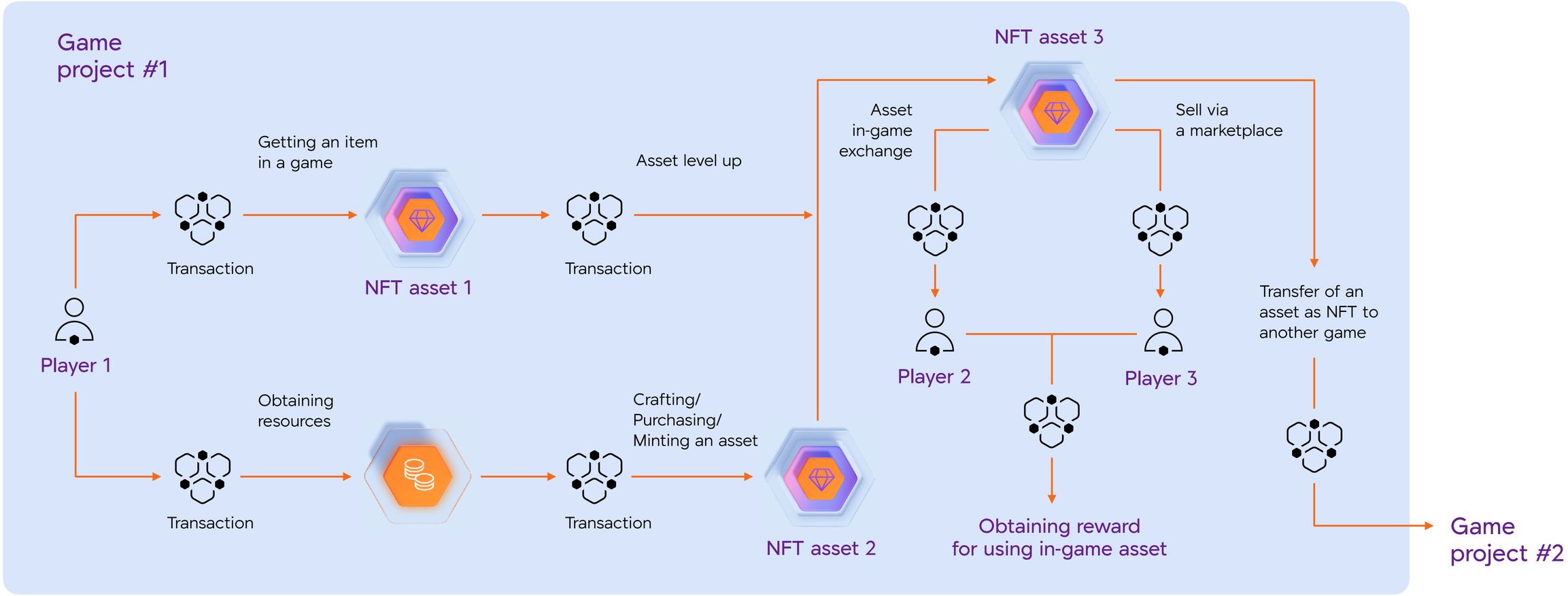
Grape main pillars to ensure ecosystems operation:

VINE - scalable DAG technology for fast and cheap transactions

Decentralized cloud storage for securely storing NFTs and other game data

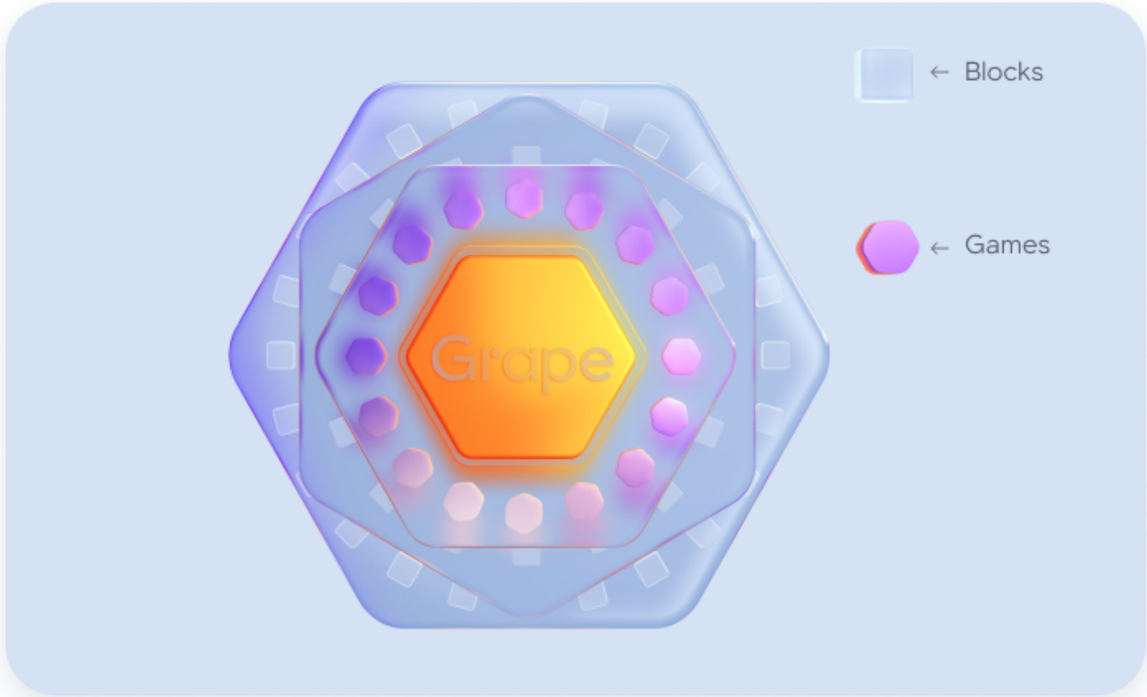
Templates and standards for **interoperable NFTs**

Example of a project's data flow within Grape ecosystem



Grape is a robust decentralized infrastructure with unparalleled scalability that can withhold extreme loads of games and virtual worlds

VINE allows formulating the transaction tree **asynchronously** without hitting the bottleneck of linear limitations.



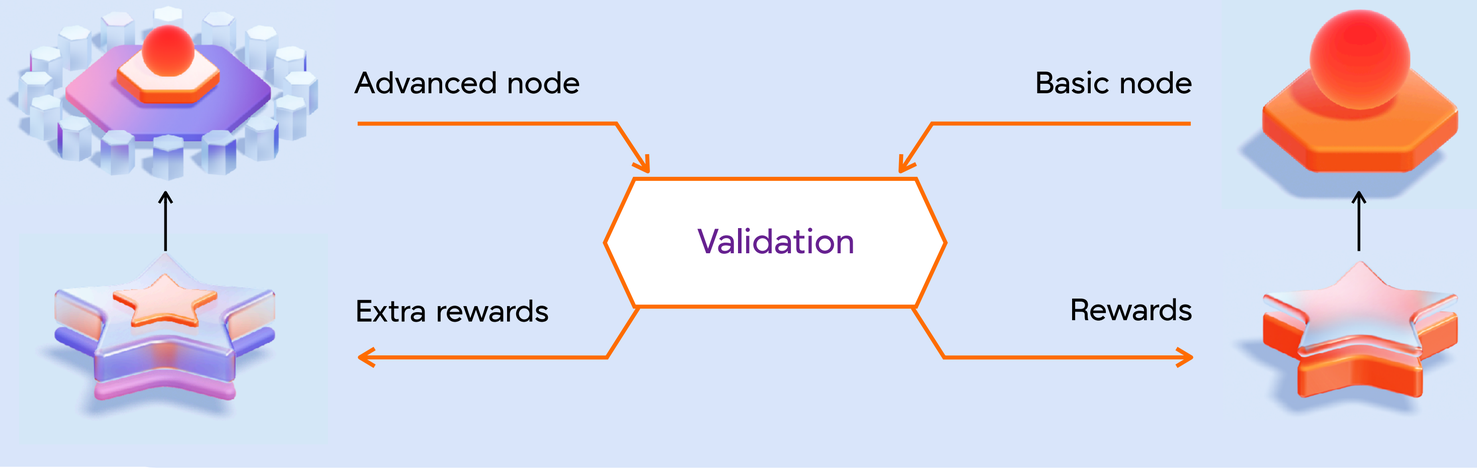
One of the most technology advanced blockchains Solana had an 18 hours downtime due to transaction overload.

The primary goal of Grape is to create a fully decentralized infrastructure

Due to unique design, Grape network performance will grow with each new advanced node connected to it.

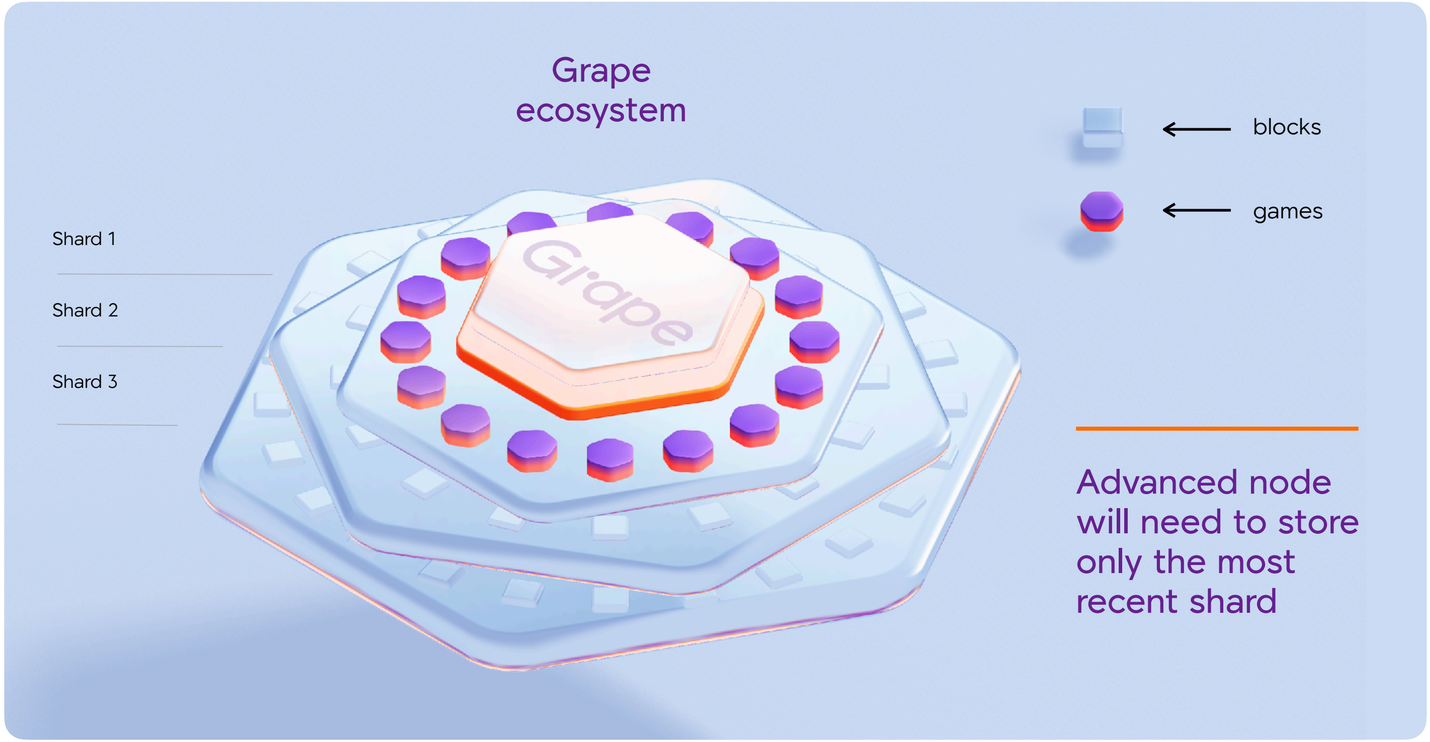
1. Advanced validators will need to store database to ensure effective scalability of the network.

2. Basic validators will be able to verify transactions with any device without the need to store database.



To make advanced nodes even more accessible and achieve higher performance for Grape, we'll launch sharding to split the database

In comparison, to participate in block validation in Ethereum, a user requires to stake at least 32 ETH and have more than 900 terabytes of free space to download the full Ethereum blockchain.



VINE is an evolutionary mechanism for scalability

700K+ TPS Grape

10x faster than Solana

150x faster than Avalanche

350x faster than Tron

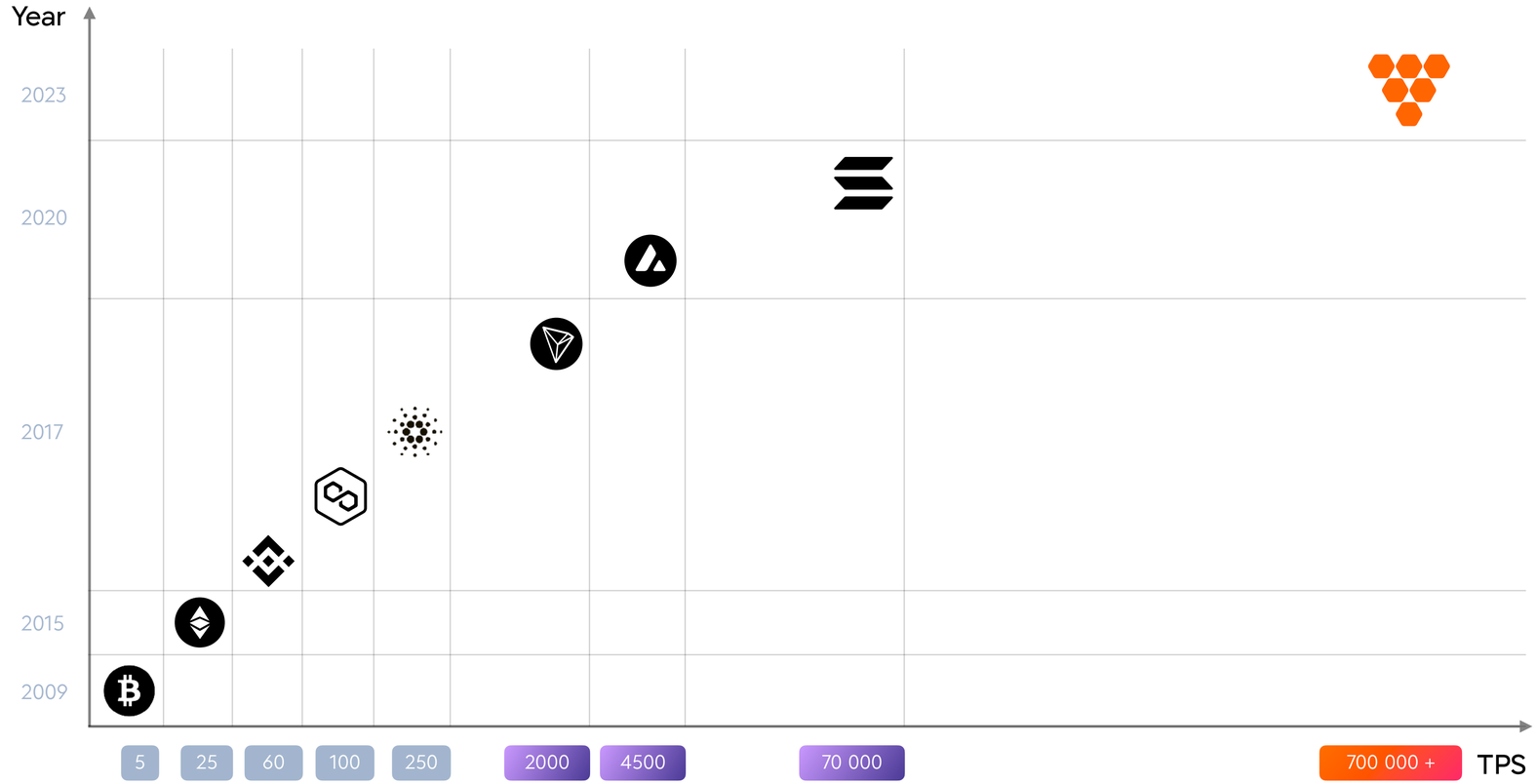
2Kx faster than Cardano

5Kx faster than Polygon

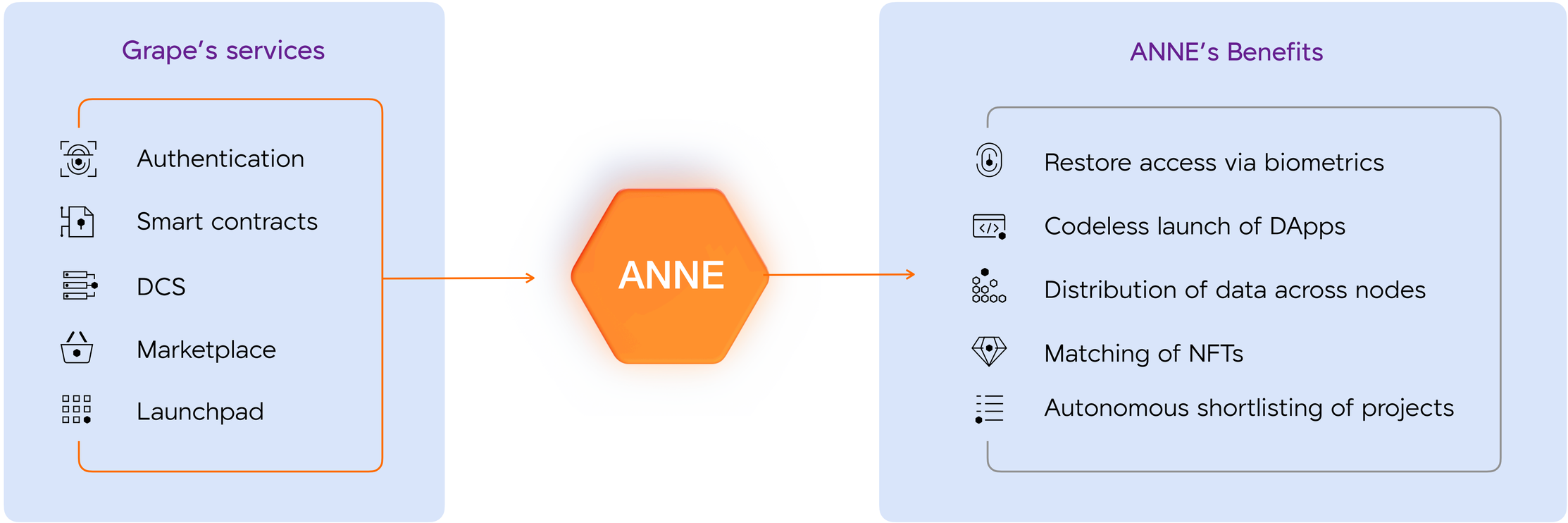
7Kx faster than BSC

17Kx faster than ETH

84Kx faster than BTC



ANNE is a proprietary AI-based interface that improves each functional module of Grape

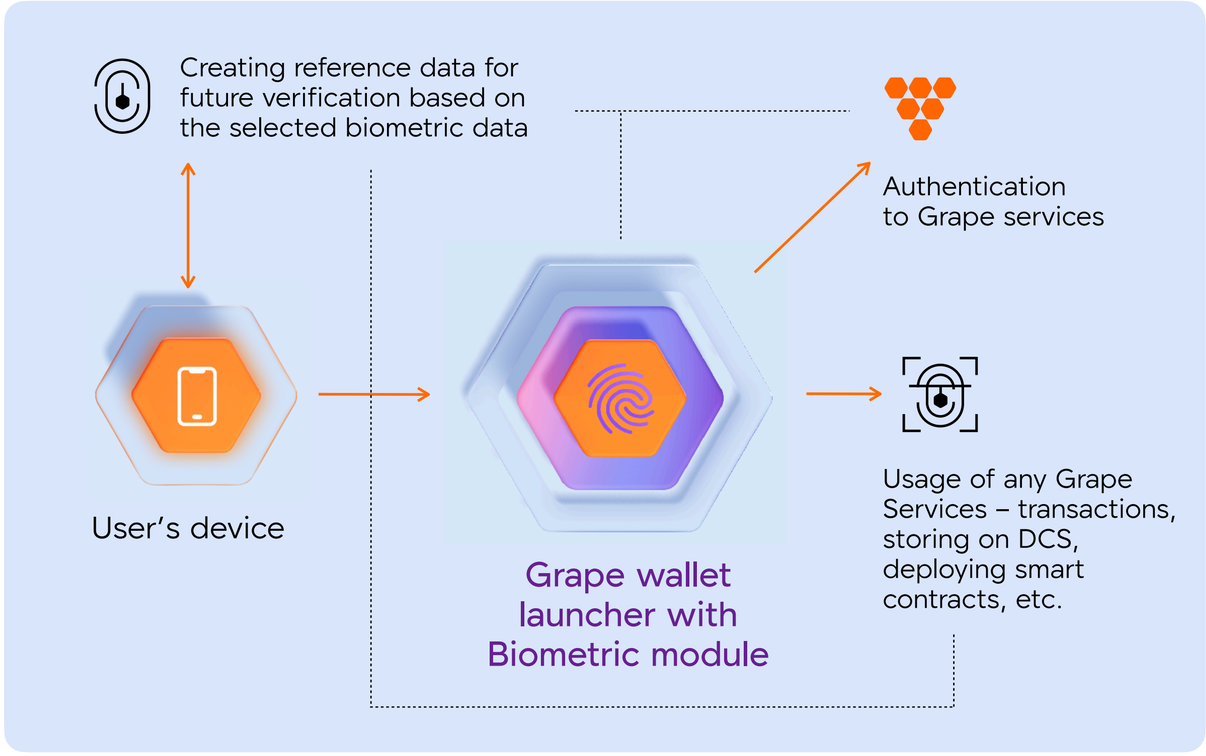


Grape will allow multiple biometric options for authentication and verification options including ECG

Maintaining decentralized approaches to privacy, users will be able to access wallets using **unique biometric identificators** including Electrocardiogram.

Security levels will be fully **customizable** through the application to simplify operations with assets and ensure the highest security level.

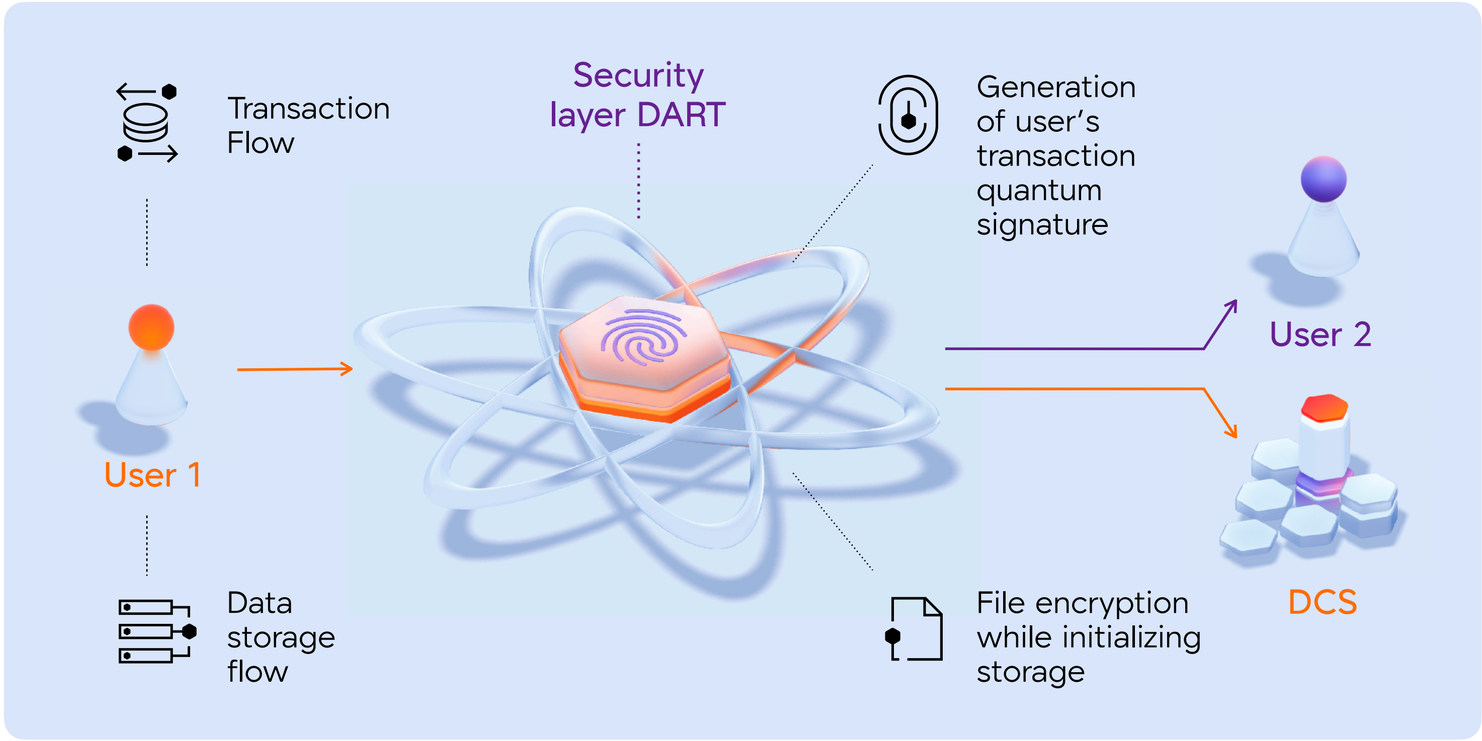
Cryptocurrency theft increased 516% from 2020, to $3.2 billion worth of cryptocurrency.



Grape quantum resistance - as a fundamental requirement in the post-quantum world

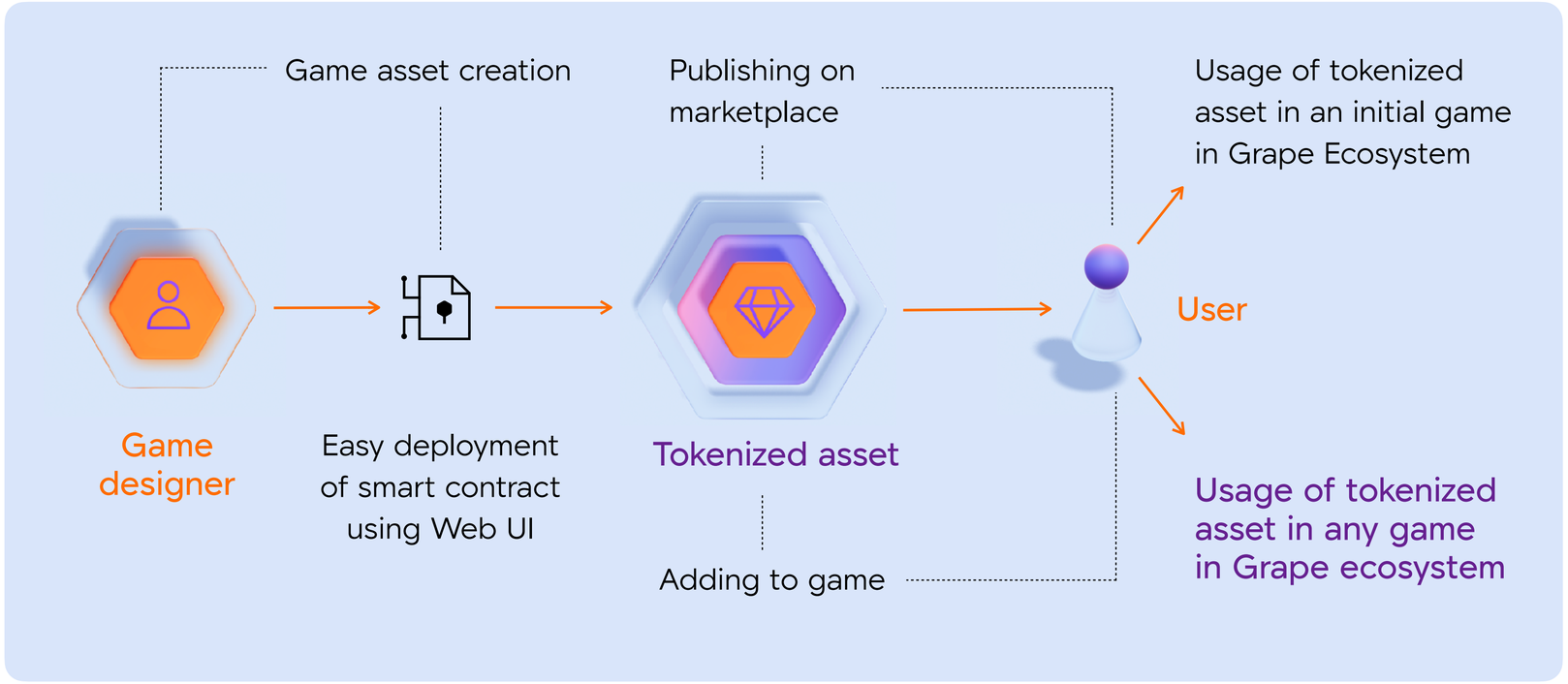
A proprietary module DART is based on the **quantum-resistant** encryption algorithm, which allows Grape to ensure comprehensive security.

Opinion-based estimates of the cumulative probability of a digital quantum computer able to break RSA-2048 within 24 hours.



Grape's unique smart contract engine removes boundaries between virtual worlds by introducing interoperable NFTs

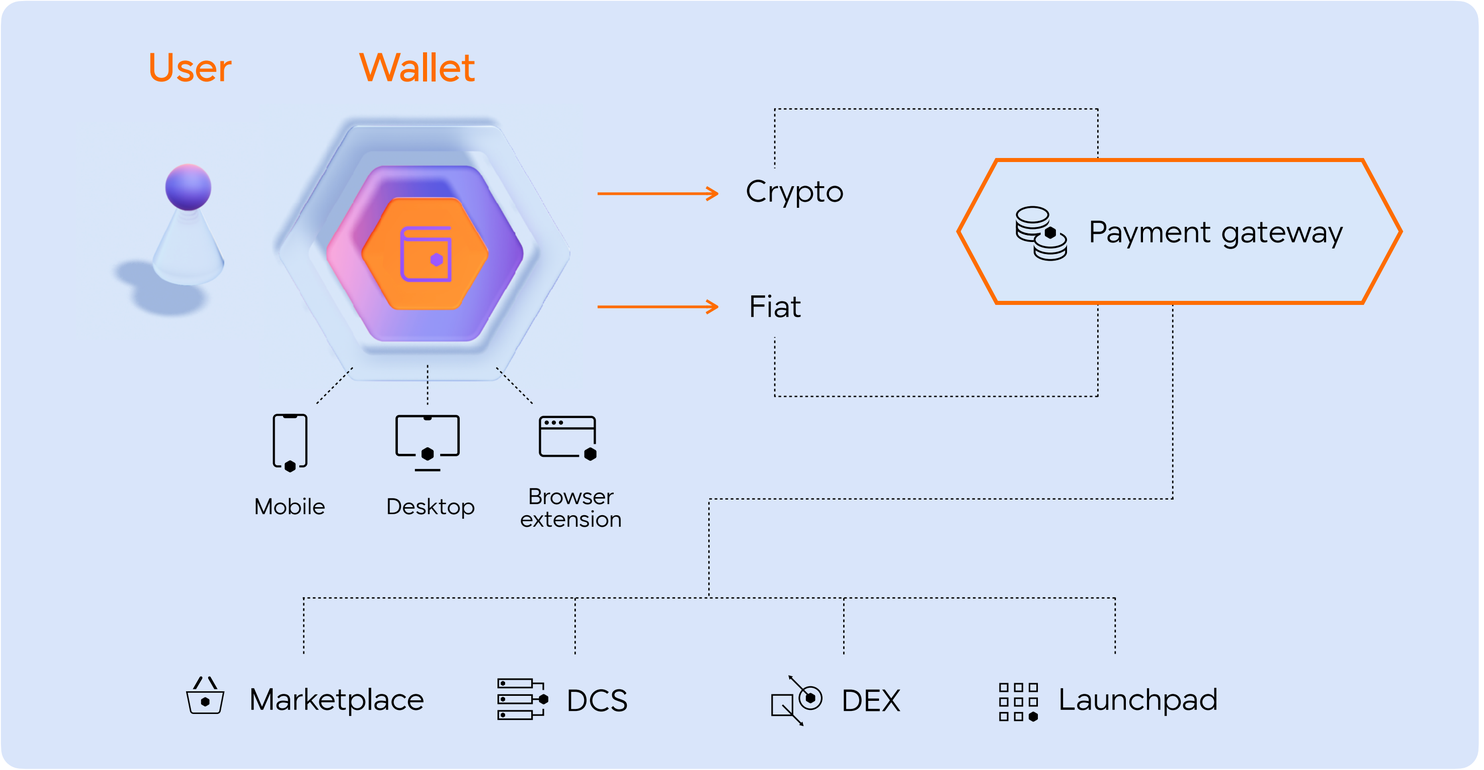
Some platforms like Oculus perceive the development of an open NFT market on their platform as a competitive advantage.



ERC-20 ERC-721 ERC-1155 ERC-777 EVM comp

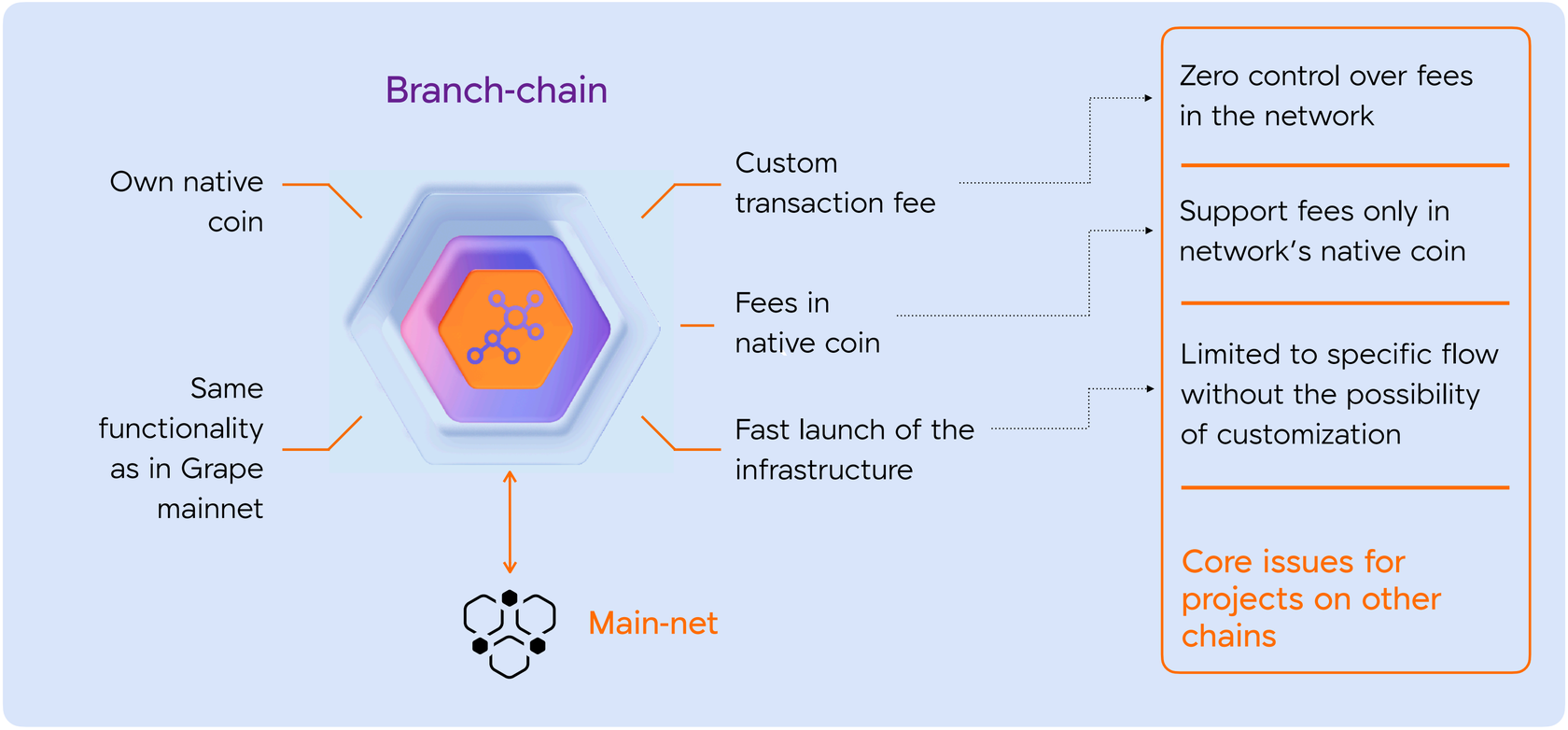
Grape will support both fiat and crypto in its multi-platform wallet

With recent beta launch of fiat-crypto onramp solution from Stripe, it becomes obvious that market requires on edge solutions to be able to use blockchain with both fiat and crypto.



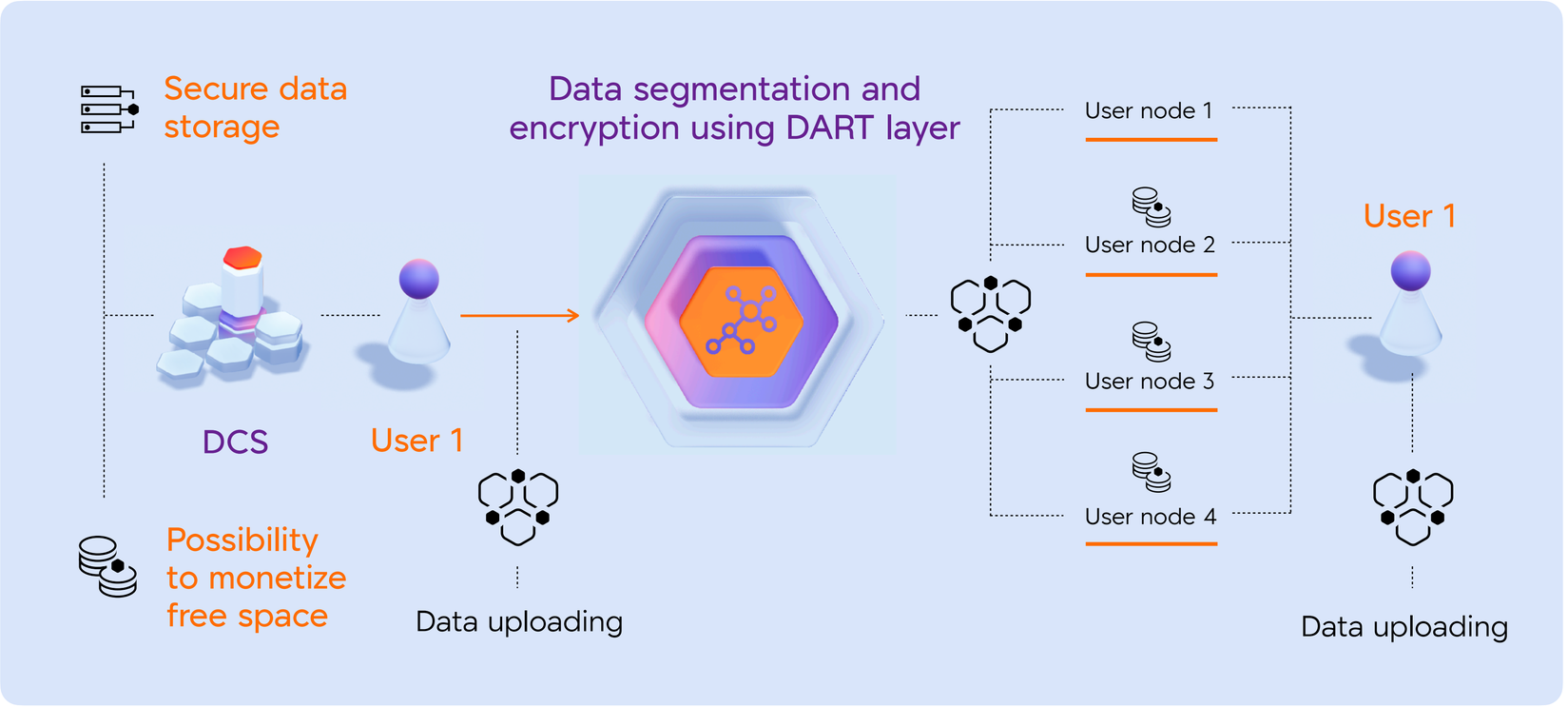
Grape will introduce Web4 as a Service – a tool to launch projects using ready-to-deploy infrastructure

Grape will provide an **autonomous infrastructure** for projects requiring custom operations flow with most of the ecosystem's benefits.



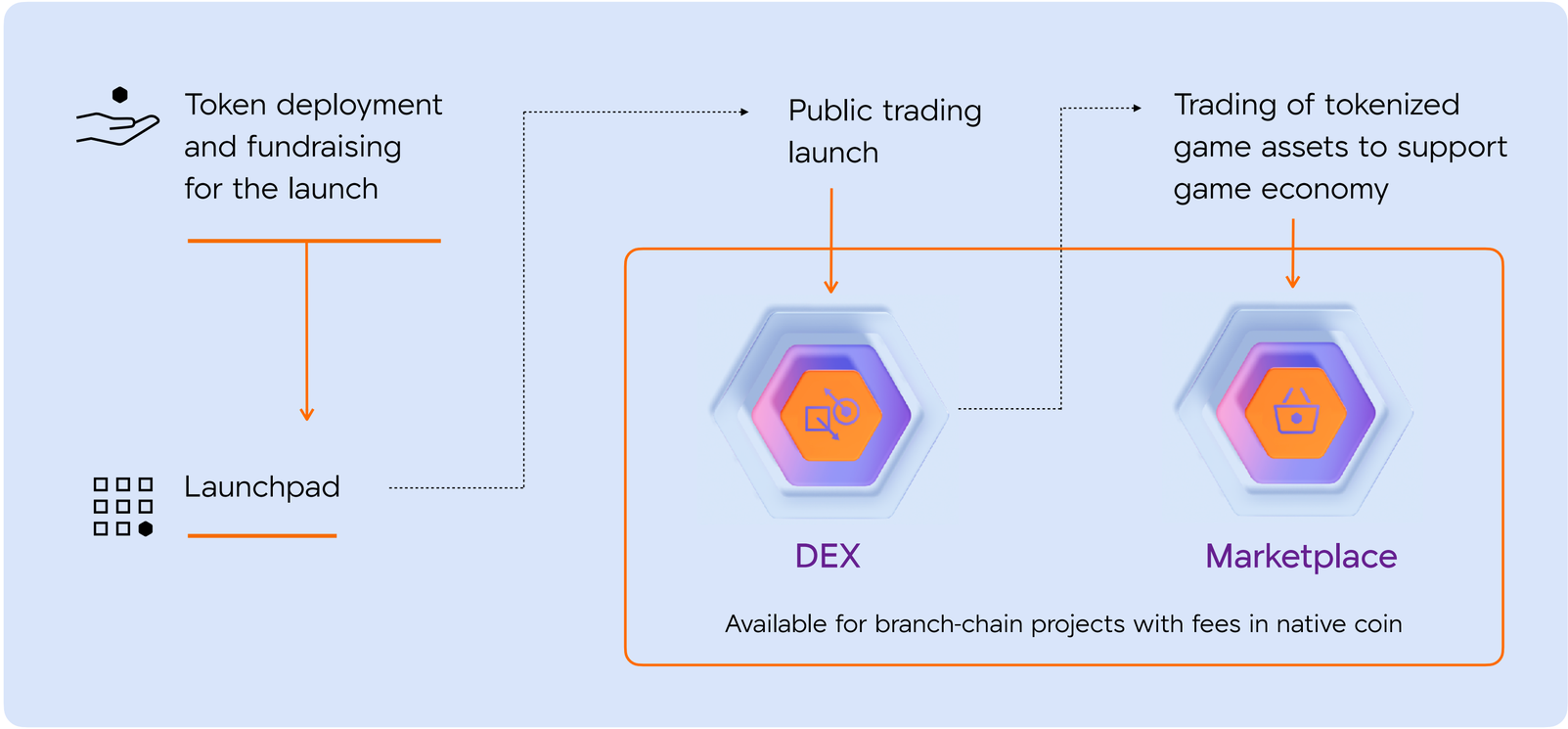
Decentralized data storage (DCS) is the crucial element of the decentralized ecosystem

Grape will allow **anyone** to become a **node operator** and provide disk space for distributed data storage in exchange for a reward.



Grape allows to launch and maintain projects within a single ecosystem

Grape’s economics infrastructure covers the **full cycle of project’s needs** from the fundraising to the initial token launch on the exchange or marketplace.



Section 3 - Tokenomics

Tokenomics

Distribution

7 whitelist distribution rounds, with 2,000 or less spaces available in each round, each round has minimum buy amounts.

	Total supply %	Total supply
Pre-Distribution	40.0%	4,000,000
Staking and Community rewards	10%	1,000,000
Grape DAO	10%	1,000,000
Grape Labs	40.0%	4,000,000
Total	**100%**	**10,000,000**

Price Protection Protocols

All distribution purchases have a 120-day stake with 20% APY. After this staking period, the distributed GRP is subject to a 30% sell tariff for the first 30 days, 20% for the second, and 10% for the third.

These tariffs will be paid to stakers, increasing the 20% APY.

Exchange listing

Planned First Exchange Listing: September 1st. To launch close to mainnet, subject to change.

Planned Exchange Listing Price (subject to change based on market: $80

Planned First Exchange: Uniswap (in order to uphold price protection during the post-launch phase) then most major centralized exchanges.

Grape economics and tx fee structure

Grape's goal is to ensure that ecosystem operators and the community earn sufficiently from commissions to maintain and grow the network.

Gas fees for operations and gwei structure will be introduced with public testnet launch

Basic tx fee distribution

Receiver	Share
Basic node	30%
Advanced node	60%
Grape DAO	5%
Grape Labs	5%
Total	**100%**

Launchpad commission to platform

2.5% in raised funds	**90% goes to Grape Labs**
2.5% in token	**10% goes to Grape DAO**

DCS cost structure

2.5$ for node operators per 1 TB of data

25$ for node operators for 1TB of egress bandwidth

3.5$ for users per 1 TB of data

6.5$ for user per 1 TB bandwidth

Roadmap

2023

Q1 PoC VINE testnet

Q2 Public testnet launch

Q3 Decentralized file storage launch

Q4 Mainnet launch

- Fiat onramp
- Interoperable NFTs

Alpha launch of ANNE

2024

Q1 Authentication to wallets using biometrics

- DEX, Launchpad, Marketplace
- Web3 as a Service Launch

Q2 Mainnet sharding

Q3-Q4 Launch of ANNE