



Deep Research

Boba Network

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Please see [Page 39](#) for Important Disclosures

Boba: A Multichain Layer 2 Focused on Gaming

- **Growing demand for Layer 1 block space.** Through 2021, the demand for Ethereum block space has exploded on all metrics ([Slide 4](#)). Post-merge, Ethereum will attempt to scale via execution layers, while alternate Layer 1s might continue gaining market share on different use cases ([Slide 6](#)).
- **Bridging Web 2 to Web 3 with Hybrid Compute.** Boba's hybrid compute technology brings the decentralization of Web 3 to the compute power of Web 2, while possessing distinct advantages over incumbent Layer 2 networks ([Slide 11](#)). Beyond latencies unlocked in gaming, hybrid compute can incorporate real-world data into other verticals such as NFTs and DeFi, leveraging blockchain technology to disrupt incumbents in traditional industries.
- **Becoming the first multichain Layer 2 focused on gaming.** Boba's Hybrid Compute allows existing gaming studios to execute games off-chain while settling financial value on-chain. This positions BOBA well to accrue value from games built atop its network ([Slide 9](#)). So far, the Boba team has built infrastructure that connects Web 2 to Web 3 through the Turing Upgrade ([Slide 22](#)), with integrations with other Alternate Layer 1s to come.
- **Preliminary performance shows semblance of a budding network.** After the airdrop to OMG holders, Boba has seen a surge of TVL to DEX infrastructure (OolongSwap) and cross-chain bridging (Connex Network), followed by a steep decline. Moving forward, they will look to capitalize on stickier network activity in multichain gaming by introducing vote-escrowed tokenomics to the BOBA token and bootstrapping value-driven governance with the unclaimed OMG airdrop and epoch-based BOBA incentives ([Slide 26](#)).
- **Gaming to drive the next leg of network growth.** Boba is actively forming partnerships with Web 3 gaming startups to scale adoption, counting EvoVerses, Unix Gaming, 7Wisps, and Vigilancer 2099 as new additions ([Slide 29](#)). To support the next phase of growth brought by gaming, the team relies on robust infrastructure in dApps (Sushiswap), tooling (Covalent), and bridging (Connex), with future plans to launch an ecosystem fund.
- **Risks.** Amidst a weak macroeconomic backdrop. Boba has raised a healthy \$45m Series A round to explore multichain gaming enabled by Hybrid Compute. As such, the network's success hinges on gaming to onboard the next wave of users, with Boba capturing enough market share. Given the prevalent narrative over Zero Knowledge technology, the team is also exploring ORxZK hybrid architecture to capitalize on the strengths of both rollup technologies ([Slide 36](#)).

Bottom Line – Boba Networks is a nascent PoS network initially launched to scale Ethereum. Having built the infrastructure for a smart contract layer, Boba leverages Hybrid Compute technology to attempt to scale gaming dApps across alternate Layer 1 networks.



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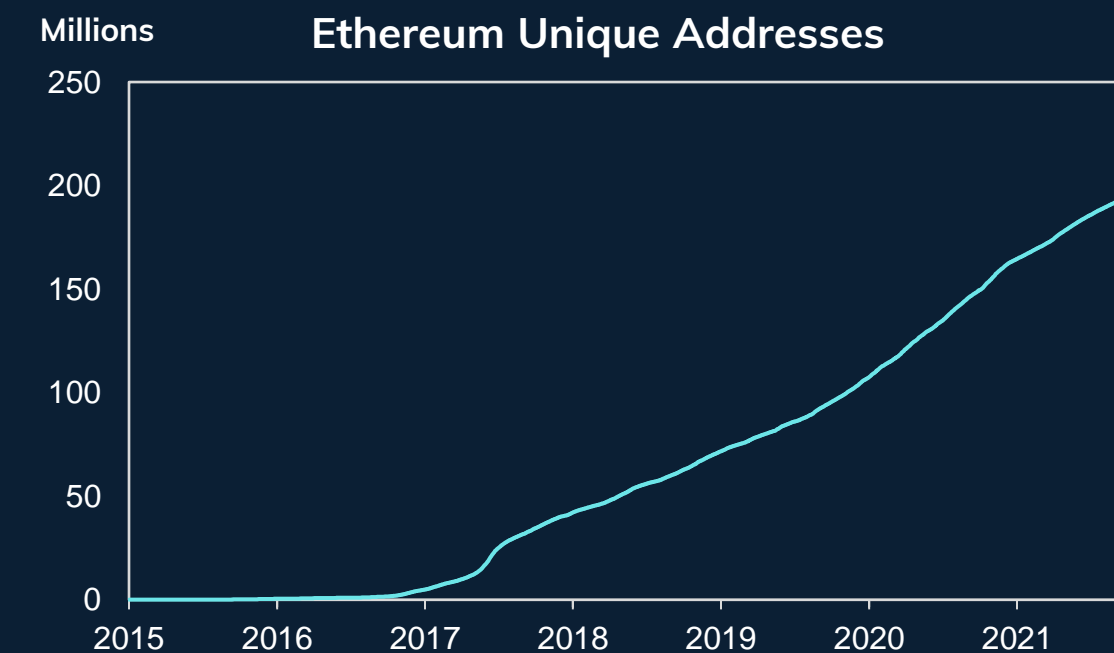
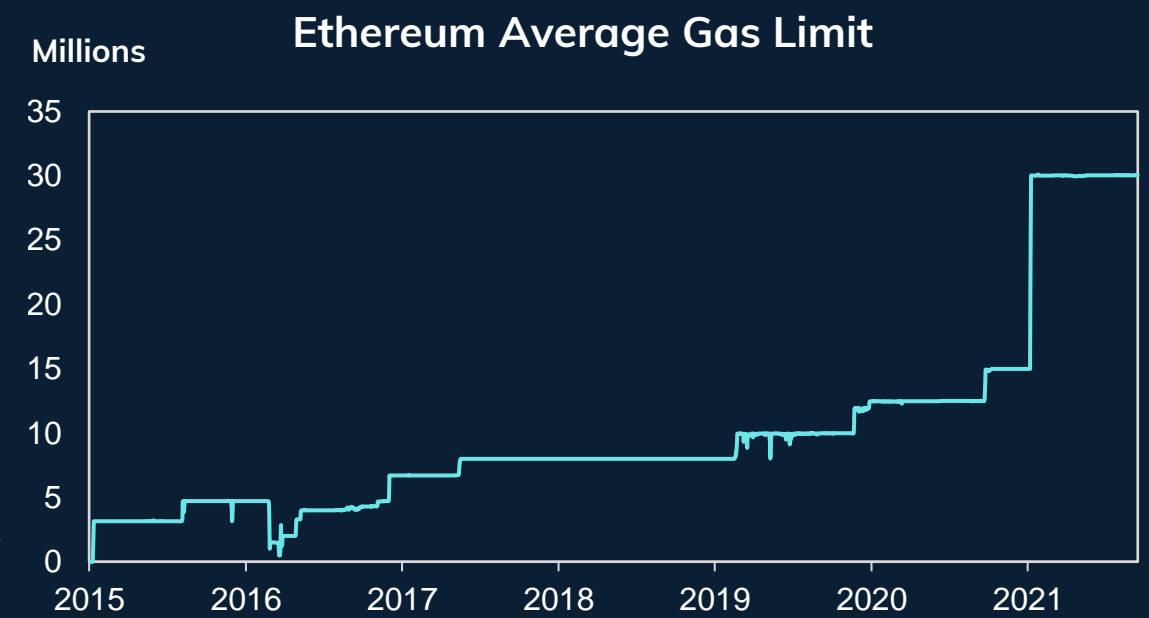
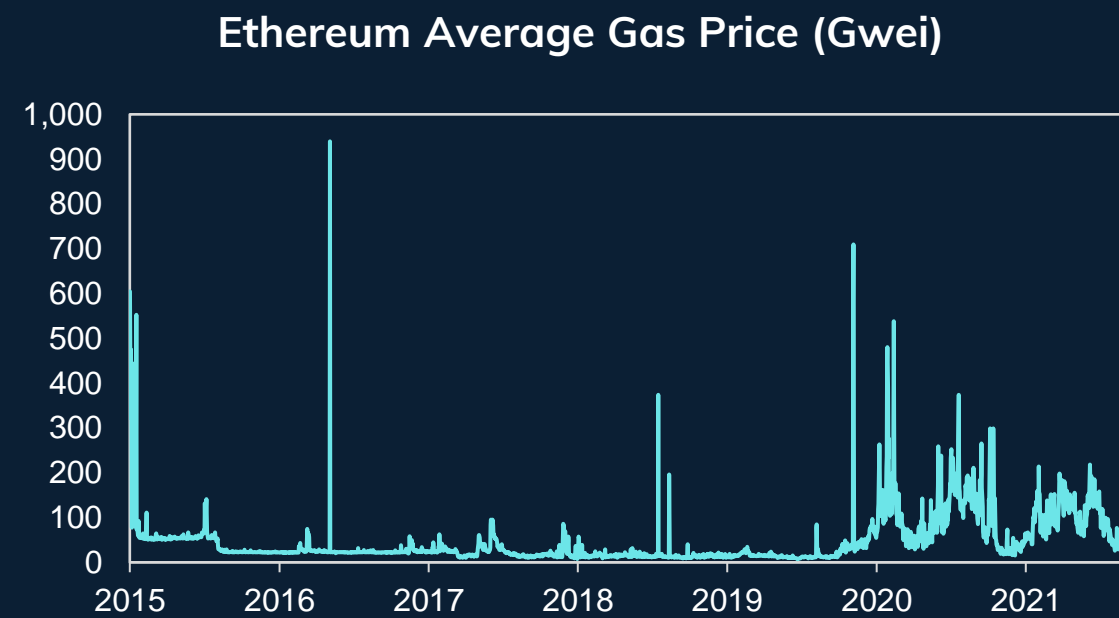
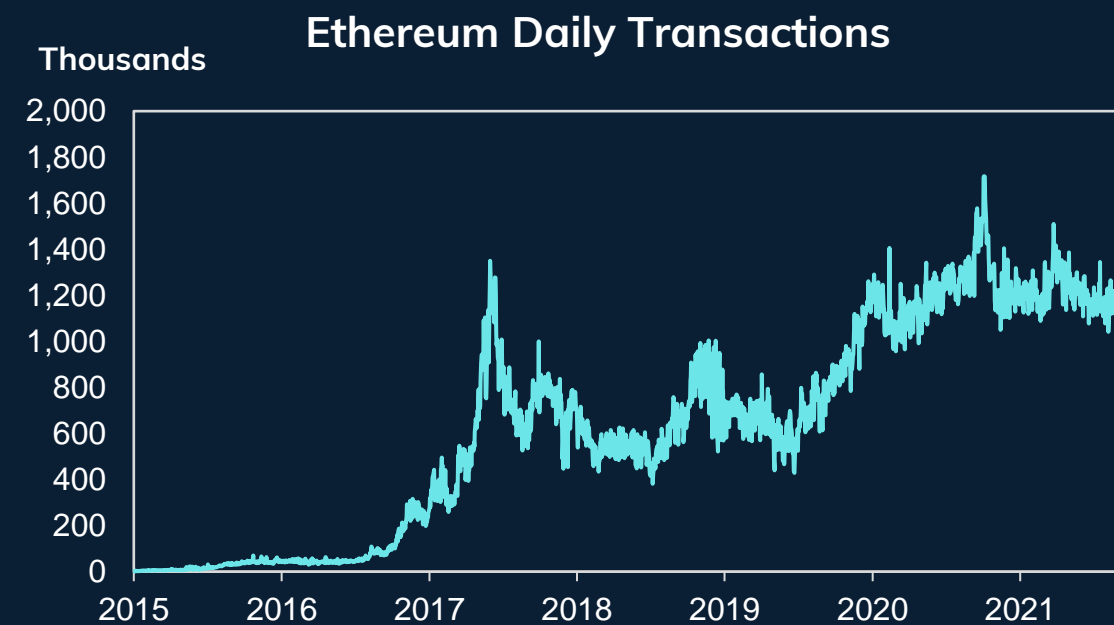
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Growing Demand for Layer 1 Block Space

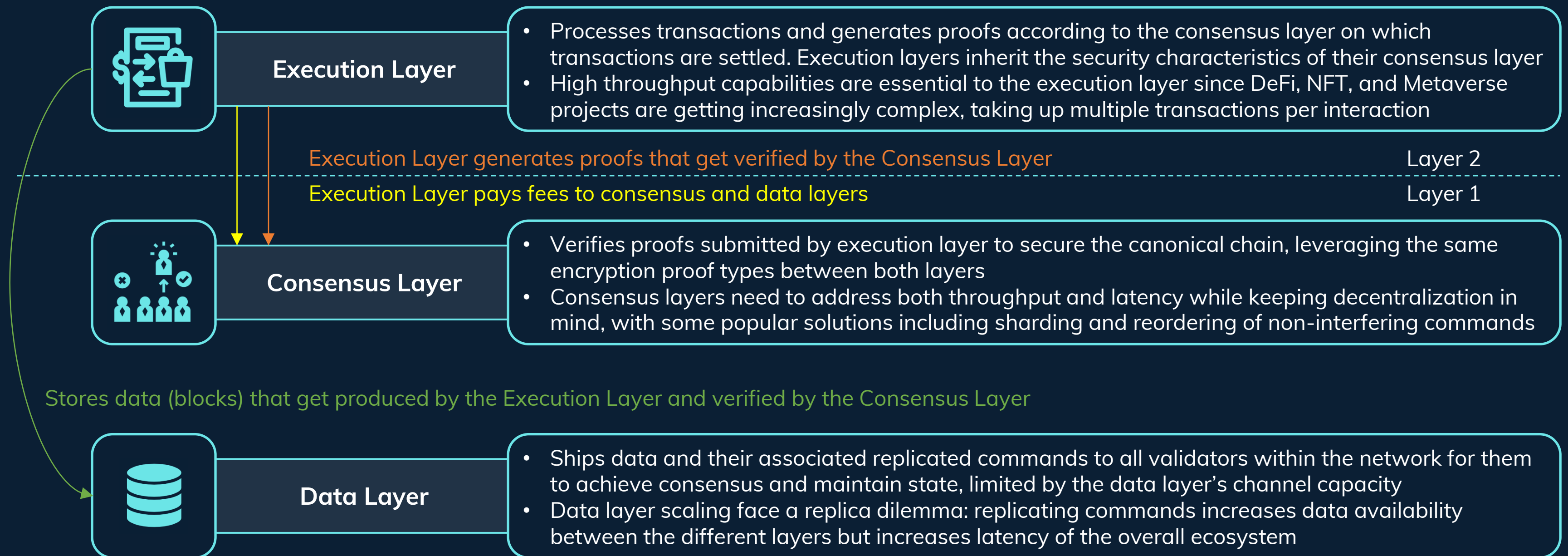
- Given the increasing adoption of decentralized smart contract networks in 2021, on-chain block space has become a scarce commodity. Ethereum, the Layer 1 network of choice for many, has seen the surge in adoption first-hand, as illustrated by the metrics below.



- From Q3 '15 to Q2 '22, Ethereum daily transactions has experienced a CAGR of 157%, increasing by 542x over almost 7 years
- Ethereum unique addresses have grown by a CAGR of 442% over the same period, seeing a total of 193m unique wallets as of Q2 '22
- Evidently, this increase in activity is also reflected in Ethereum's average gas limits and average gas price. As DeFi protocols build more complex products, average gas limit per transaction has increased. The demand for these complex products has proliferated as well, as users are willing to pay more per unit of gas in the form gas prices

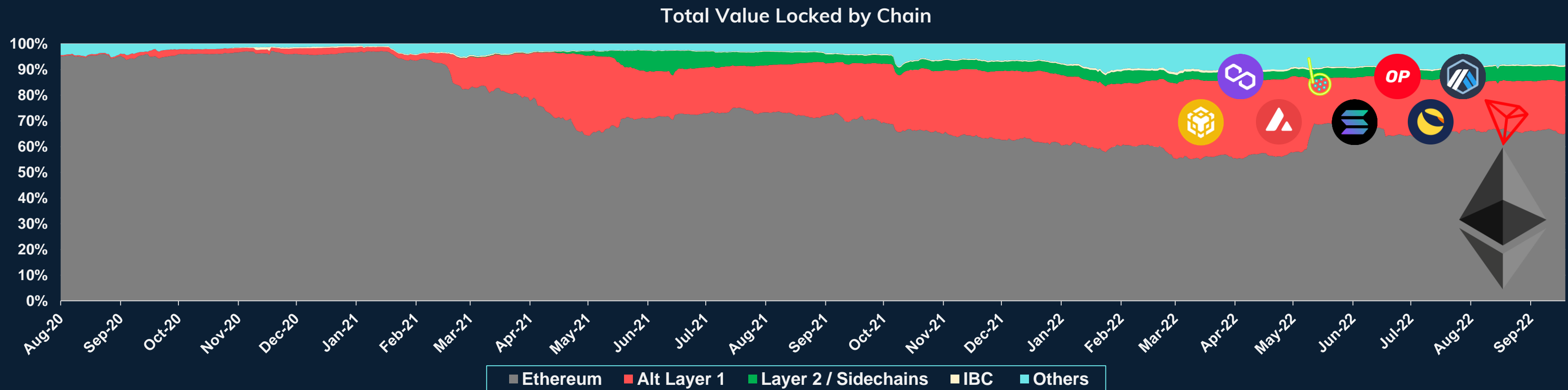
Coupled with Blockchain Layer Unbundling

- Gas fees has skyrocketed with demand for block space, rendering ETH Mainnet to only be feasible for larger portfolios.
- As such, the discourse on blockchain scaling design has converged around modular approaches, with most scaling solutions today serving as the execution layer, while the underlying Layer 1 serves as the consensus and data layers.



Has Resulted in Blockchain Activity Going Multichain

- While Ethereum is still widely regarded as the dominant Layer 1, an overwhelming demand for block space has seen on-chain activity flowing to alternate Layer-1s and EVM-compatible Layer 2 / sidechains since early 2021.
- With blockchains consciously choosing between design tradeoffs to cater to different use cases, a multichain future is almost a foregone conclusion. This phenomenon is supported by TVL distribution per categories below.



The unbundling of blockchain layers and growing relevance of multichain networks presents an opportunity for an execution layer to serve as the scaling solution to Ethereum and alternate Layer-1s

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Boba Strives to Be the First Multichain Layer 2

- Recognizing the importance of cross-chain interoperability, Boba has announced integrations with BNB Smart Chain, Avalanche, and Moonbeam. Each Layer 1 integration will introduce new DeFi / NFT primitives to the Boba ecosystem, and a new community of Boba users to these multichain dApps.

Scaling Ethereum and Beyond

BNB Smart Chain



Avalanche



Moonbeam



Ethereum



- Boba Networks launched its optimistic scaling solution for Ethereum as a proof-of-concept. As Hybrid Compute grows to support larger data sets and data types, the team is concurrently focused on deploying across other Layer 1 Networks.
- BNB Smart Chain is an EVM-compatible blockchain with smart contract functionality, running in parallel to the BNB Beacon Chain. It is the second largest blockchain by TVL, benefitting from its CEX affiliation and on-ramp.
- Avalanche is an alternate Layer 1 network that popularized the notion of scalability via application-specific subnets. At launch, it boasted \$180m in Avalanche Rush DeFi incentives, attracting almost \$24b in TVL at its peak.
- Moonbeam is an EVM-compatible Polkadot relay chain built using the Substrate blockchain framework. Similar to Polkadot, Moonbeam has a sister network Moonriver that is live on Kusama. The chain hosts \$147m in TVL across 20 dApps.

Enabling dApp Multi-chain Interoperability



- Deployed live on Ethereum and with Avalanche, BSC, and Moonbeam integrations to come, Boba hopes to help dApps benefit from deployment homogeneity while launching across Layer 1s scaled by Boba.

While creating stronger demand for BOBA

- Tokenomics proposal voted on soon to incorporate vote-escrowed mechanisms to the BOBA token, drawing inspiration from Curve Finance.
- With Boba Network scaling other Layer-1 networks and bridging dApps to build across them, Boba stands to capture value from multiple vectors and different stakeholders across their value chain.

Focused on Finding Product-Market Fit in Gaming

- Given e-sports' success, gaming remains the most likely vertical to onboard the next billion users to the digital asset space.
- Hybrid compute allows existing studios to connect existing databases to Layer 1 blockchains in the Boba Ecosystem.



- The gaming sector has enjoyed breakthrough success since the advent of devices, albeit through different mediums (consoles → desktop → mobile → blockchain).
 - Web 2.0 gaming companies have mainstream adoption, yet lack the tools for players to transfer value between games
- Some Web 3.0 gaming companies are attempting to cater to the mainstream by building robust and intricate games, but breakthrough ones will take time.
 - Web 3.0-based games offer a solution to this, leveraging the blockchain and its currency as the medium of exchange
 - Boba's Hybrid Compute is the infrastructure to allow well-established gaming companies to better serve gamers who appreciate value transfer and liquidity between different games



Value Transfer

BOBA denominates utility in its own ecosystem and accrues value of gaming projects building across Layer 1 Networks that Boba scales



Token sinks

Gaming dApps that attract native gamers users without unsustainable incentives can introduce more robust token sinks that aids game longevity



Hybrid Compute

Using hybrid compute, existing gaming studios can plug and play into blockchain settlement, executing games off-chain yet settling financial value (e.g. NFTs) on-chain.

*Web 3 game design considerations on Boba Network

Games in Development on Boba Networks



1. EVM: Ethereum Virtual Machine, the software platform that developers use to create decentralized applications (dApps) on Ethereum.

Hybrid Compute Bridges Web 2.0 to Web 3.0



Advantages

- Prioritizes speed
- Good UI / UX
- Easy implementation
- Scalable infrastructure
- Inexpensive maintenance

Limitations

- Centralized points of failure
- Not censorship-resistant
- Proprietary software
- Permissioned access
- Value accrues to shareholders

Advantages

- Decentralized
- Censorship resistant
- Open-source software
- Permissionless access
- Value accrues to users (i.e. token holders)

Limitations











- Prioritizes decentralization
- Subpar UI / UX
- Complex implementation
- High cost to users
- Significant setup costs




- Web 2.0-focused companies benefit from speed, polished user interfaces and experiences, and are easy to implement.
- Web 3.0 protocols prioritize decentralization at the expense of subpar user experiences and higher user costs.
 - While incumbent Layer 2 scaling networks offer faster transactions than Ethereum, few are doing so across other Layer 1 networks or onboarding real-world companies or applications to Web 3.0.

Boba leverages the computational power of Web 2.0 and the decentralization of Web 3 through Boba's hybrid compute model

With Distinctive Advantages over Other L2 Networks

- Launched in Nov' 21, Boba Network is the first Layer 2 network that strives to be the execution chain across all Layer 1s.
- Additionally, Boba Network has several characteristics that differentiates itself from alternative Layer 2 networks.

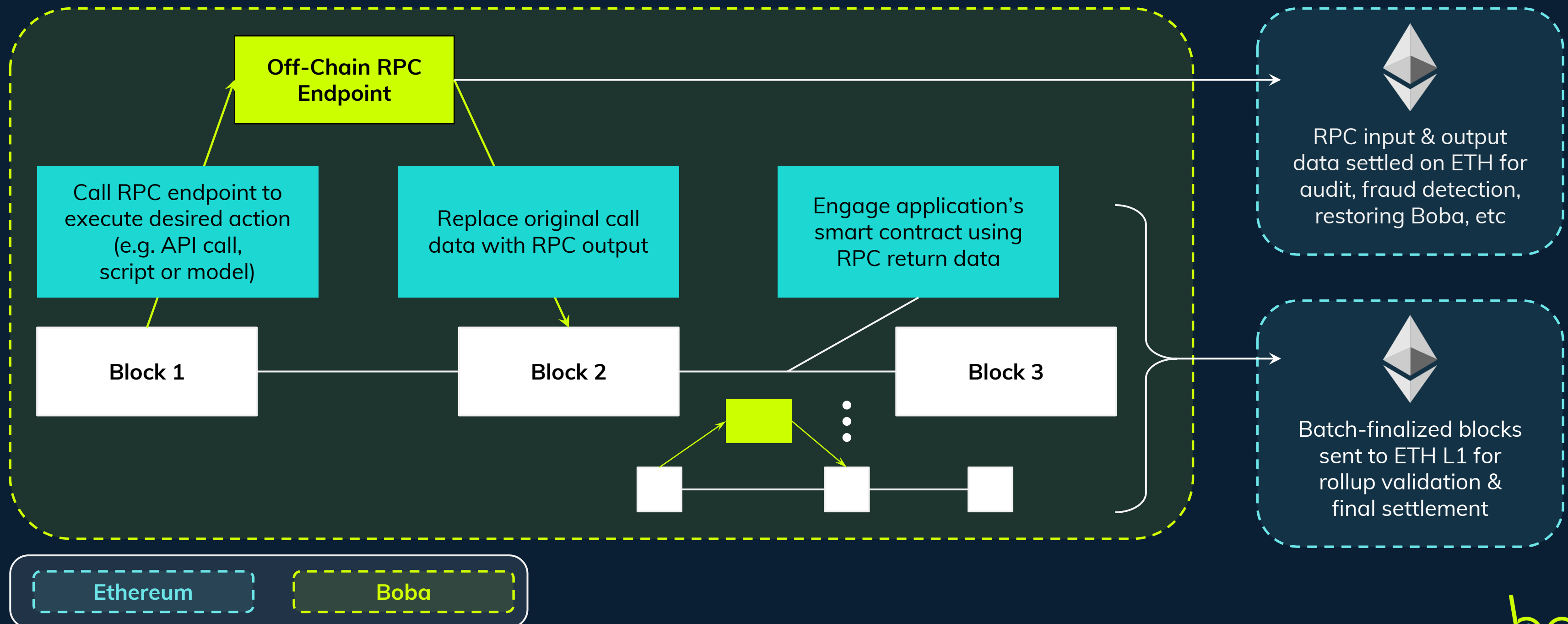
Network Characteristics	BOBA Network 	Other L2 Networks 
Bridges real-world data to blockchain networks		
Uses native token to pay gas fees		
Network governance directed by native DAO		
Serves as an execution layer for underlying Layer 1 networks		

 **Fulfills**  **Does Not Fulfill**  **Case dependent**



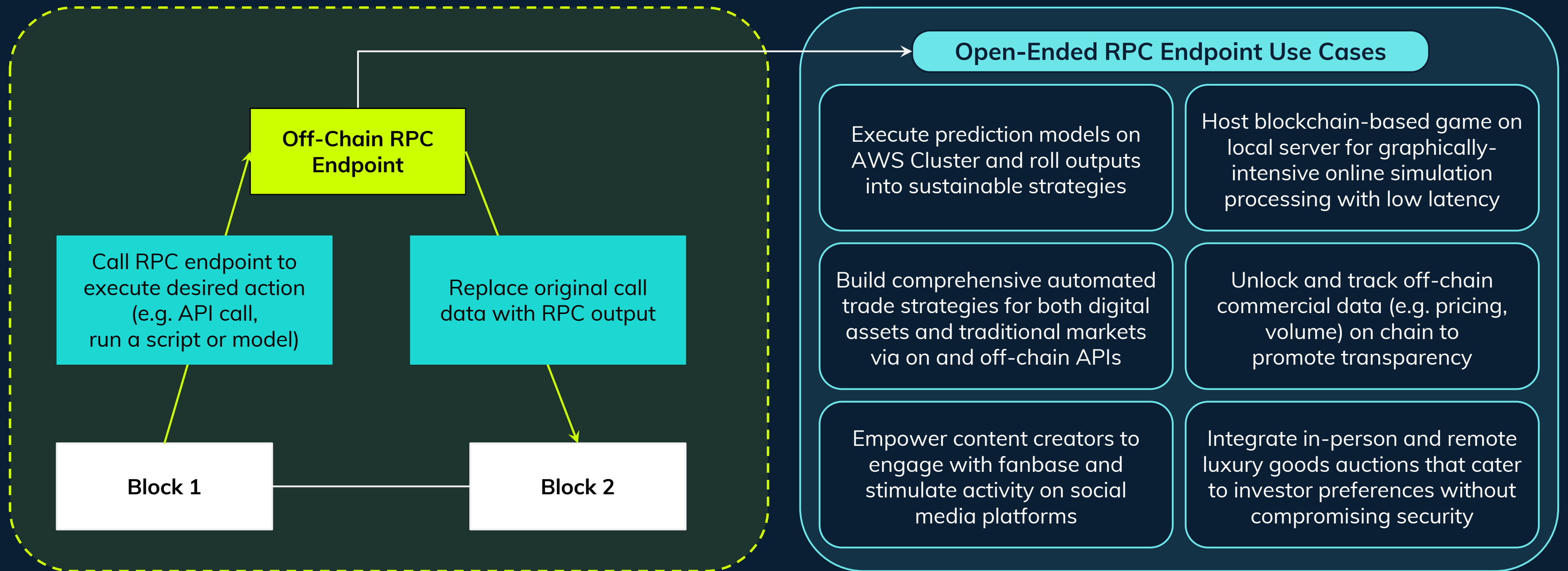
Boba's Proprietary Hybrid Compute Technology

- Hybrid computing encodes data sourced via Web2 infrastructure into smart contracts that are validated and tracked on the Boba Network while validated on the base layer, including Ethereum and more recently Avalanche.
- Outsourcing computationally-intensive actions can improve dApp capital efficiency as well as improve network efficiency.



Integrating Web2 Infrastructure into Web3

- Integrating RPC endpoint accessibility into the Boba network creates a pathway to smooth the transition from crypto being a cypherpunk technology to an immutable network that empowers crypto-native and real-world applications.



Hybrid Computing Empowers NFTs and the Metaverse..

- Leveraging real-world data sets, hybrid computing introduces entire use cases and possibilities for NFTs and the Metaverse, all without expending valuable on-chain block space.



- By connecting to real-world RPC endpoints, Hybrid Compute offers the ability for NFTs to incorporate real-world data in their value propositions.
- For real-world art pieces, Hybrid Compute can import real-world characteristics (e.g.: condition, location displayed) pertaining to the art, apart from the digital image.
 - This technology unlocks permutations of use-cases in physical and digital asset ownership
 - Example: Segregation of physical and digital art ownership, incorporating periodic updates of physical art data into NFT
- For crypto-native NFT projects, Hybrid Compute incorporates ancillary real-world data into projects.
 - Example: NFT backgrounds dynamic based on real-world environmental data such as geolocation and weather



- Traditionally, DeFi protocols have built blockchain-native consumer apps, inheriting the limitations of their respective smart contract platforms.
- As DeFi matures and more computationally-intensive DeFi apps get developed, these limitations are magnified, including EVM's ability to only work with integers.
 - Boba allows for ancillary yet critical DeFi infrastructure (quantitative risk management tooling and dashboards) to be built off-chain, realizing significant gas limit savings for DeFi protocols
- Boba also embodies the infrastructure that connects real-world and DeFi rates in real-time.
 - This infrastructure is key as DeFi rates converge to that of the real world and the space legitimizes as a result

.. And Unlocks Value in Traditional Industries

- Because of Hybrid Compute's ability to bridge real world data into the blockchain, Boba Network is well-positioned to capture value from on-chain data migrations, while retaining it through native infrastructure.



Real Estate

- Real estate is one of the largest industries in the world, representing a Total Addressable Market (TAM) of c.\$10t.
- Hybrid Compute allows for unification of silo-ed real estate depositories on the decentralized Boba Network
 - Municipal real estate registries can upload their municipality's data in exchange for that of others, all in a trustless manner
- This allows for real estate stakeholders to speculate on or hedge real estate exposure at a much larger scale
 - Investors can gain exposure to foreign real estate without significant capital outlay for full ownership
 - Real estate owners can hedge exposure through on-chain derivatives



Weather

- Currently, 3% of U.S. GDP (\$7.0t) is directly or indirectly affected by weather and climate
 - U.S. private weather industry has a market cap. of \$14.4b
- As such, Hybrid Compute benefits these stakeholders through:
 - Improved forecasts for insurance companies to inform potential liabilities from inclement weather
 - Improved weather forecasting for utility and logistic companies to manage operational expenses
- These stakeholders can then strategize using on-chain derivatives offered by DeFi apps built atop Boba Network
 - Insurance, utility, and logistics companies can hedge exposure to unfavorable conditions
 - Insurance pricing accuracy will improve as a result

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Boba Network Developed by Enya Labs



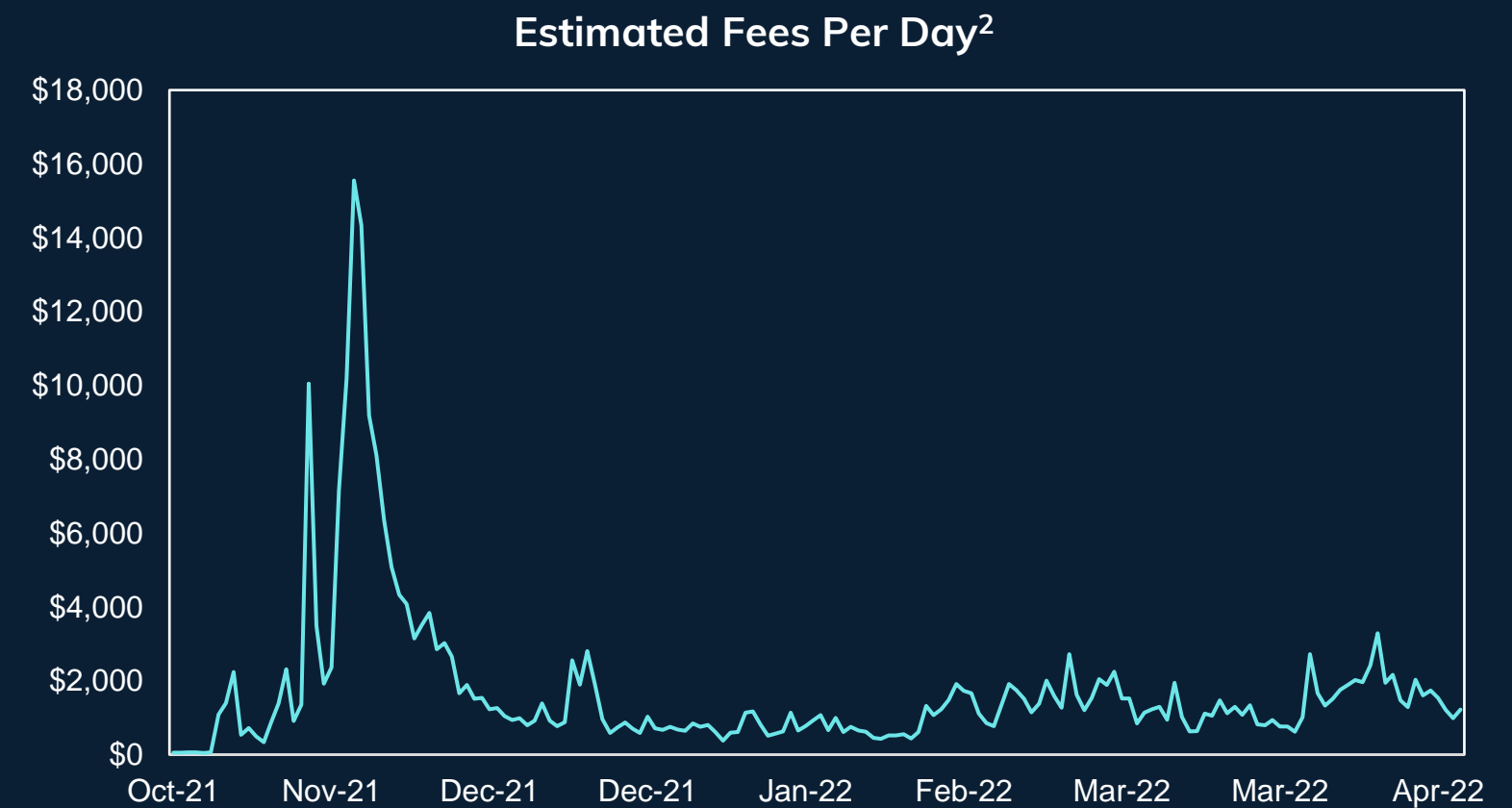
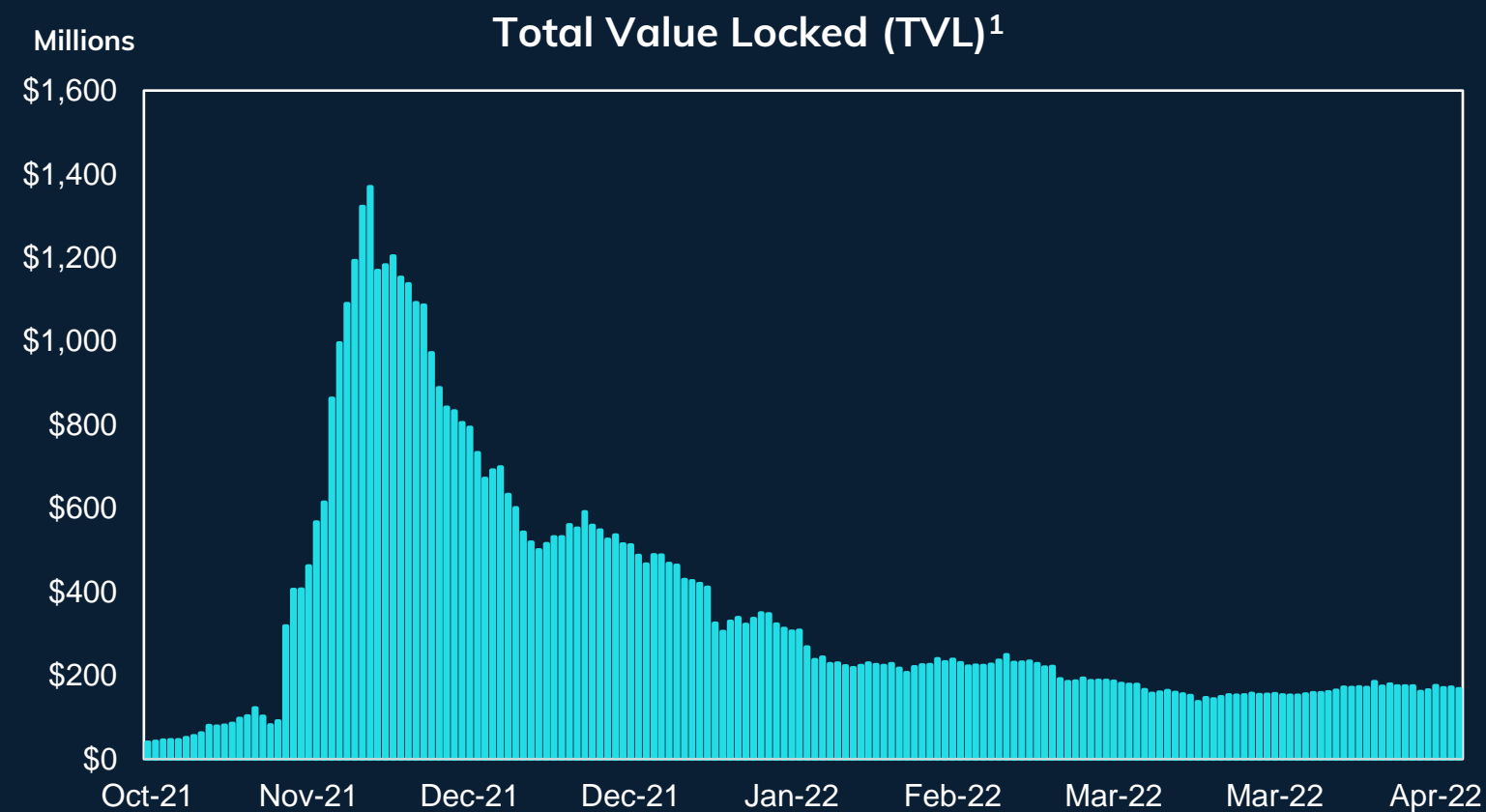
Feras Al Sadek	Violet Abtahi	Alan Chiu	Steven Howell	James Semmonella
Head of Marketing MENA	Chief Operating Officer	CEO / Founder	Head of People Ops	Head of Ecosystem Growth
<ul style="list-style-type: none"> Managing Partner and Co-founder at Ghaf Capital Partners, one of the first Web3 Private Investment firms in MENA 1st Degree Honors in International Business and Marketing, Middlesex University Dubai 2019 Marketing Professional of the Year by XAGA / Xpedition 	<ul style="list-style-type: none"> Entrepreneur, Investor and Board Member Doctorate of Business Administration from UMEF, Executive MBA from Stony Brook University 	<ul style="list-style-type: none"> Two exits in distributed systems startups Co-President, Stanford Angels and Entrepreneurs Sloan Fellow, Stanford Graduate School of Business 	<ul style="list-style-type: none"> Previously held positions as Chief of Staff at Enya Labs and Director of People Ops at Kasa Living BS Product Design from Stanford University 	<ul style="list-style-type: none"> Previously lead business development teams at Templafy and CB Insights BA Political Economics from Bates College

Enya Labs developed Hybrid Compute for Boba Network, making it the only smart contract platform that offers Web3-Web2 connectivity

Boba Network is the smart contract platform that leverages Enya's technology to scale Layer 1 networks and multichain dApps



Historical Financial Performance



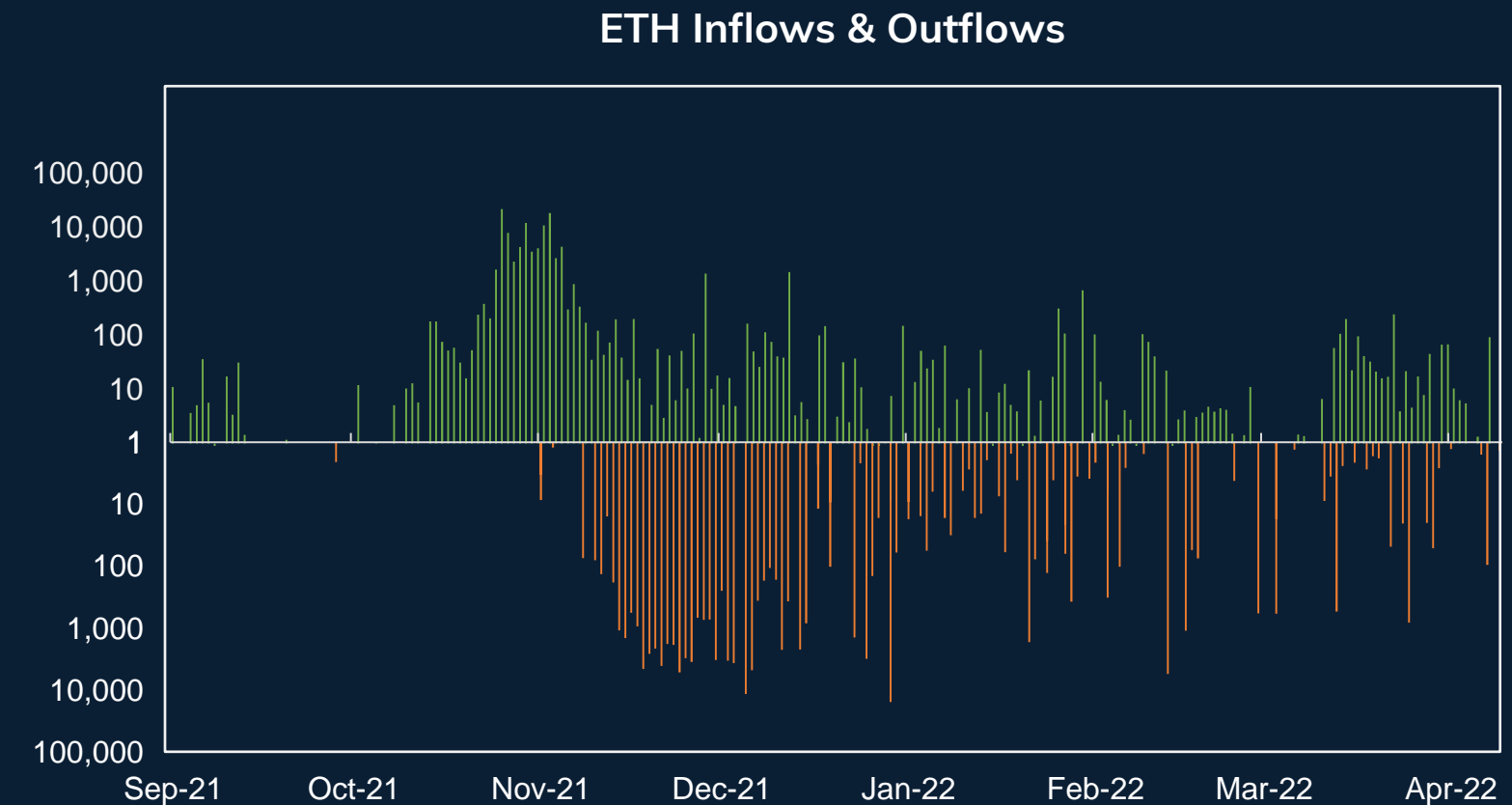
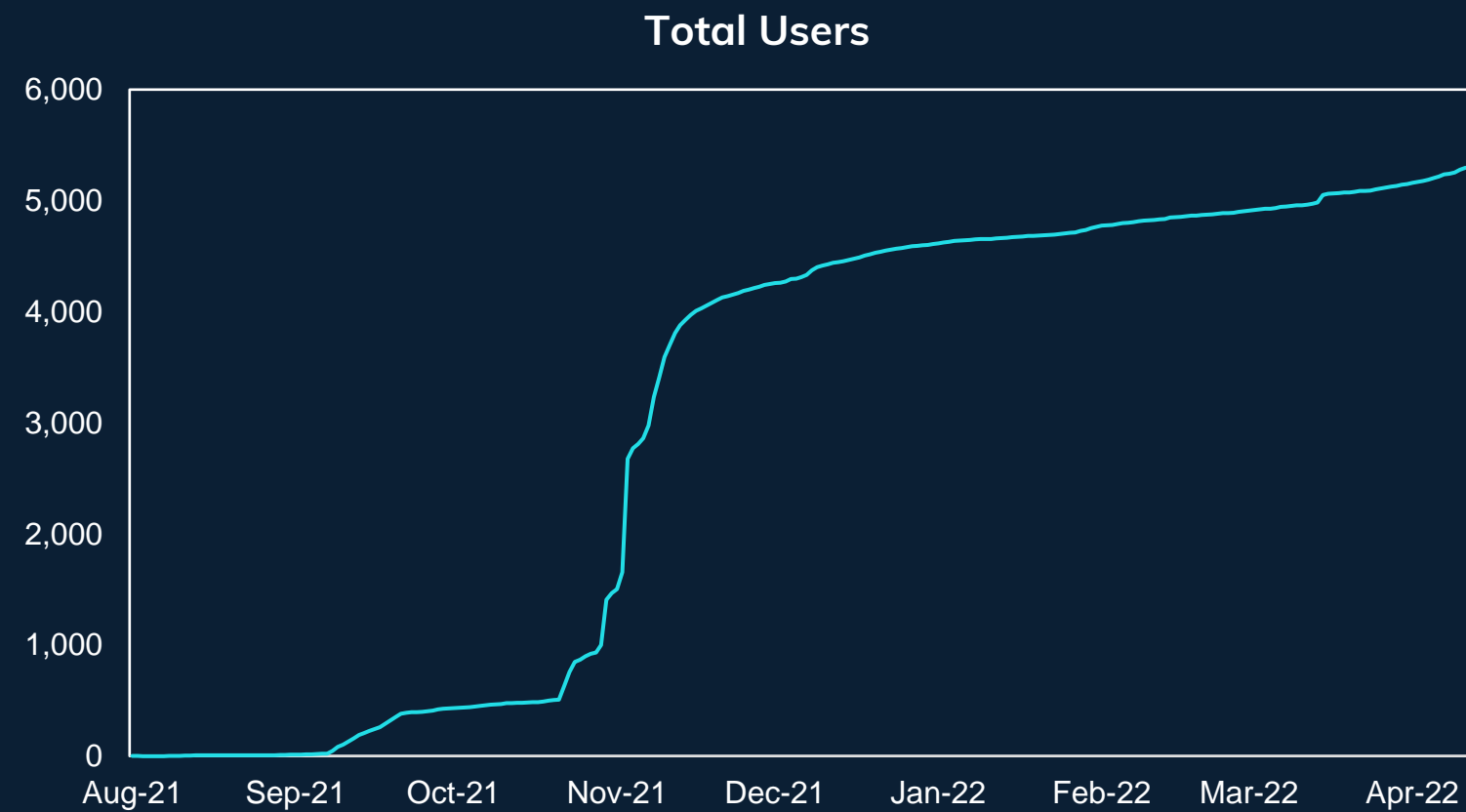
- In line with the BOBA token launch, Boba Network experienced a surge in TVL through Nov '21, which peaked at \$633m.
 - TVL is currently sitting at 4.4m, down from all time high in November of 2021.
- The Boba Network facilitated c.538k transactions since launch³ and transaction figures have been trending up since the start of 2022.
 - Daily transactions peaked at launch on Nov '21 at 25k, while Apr '22 printed the highest transaction count at 9k since launch.
 - This transaction activity stems from c.22k wallet addresses and 30+ projects on the network. The recent Sushiswap partnership is a near-term catalyst for increased network activity, with the established DeFi platform launching four product suites on Boba.

1. Total Value Locked (TVL) quoted includes BOBA and OMG tokens.

2. Transaction fees are deduced by multiplying transaction counts by an average transaction cost of \$1.24 (\$0.47 transfer fee + \$0.77 swap fee).

3. Transaction data as of Q2' 2022.

Historical Operational Performance



- Since launch, Boba Network's total users have grown to 5,303 Daily Active Users (DAU)¹.
 - While majority of user inflows occurred during launch in Nov '21 (506 → 4,056 users), growth has been steadily increasing into 2022.
- Similarly, Boba Network saw Ethereum (ETH) inflows rise to an all time high in November, peaking at 22.2k ETH on November 15th.
 - Outflows peaked in late Dec '21 (11.3k ETH) and Jan' 22 (15.3k ETH), and net flows have been trending positively since.
 - Given that Boba Network has been predominantly Layer 2 rollup of Ethereum, 94% of historical flows have been from ETH. As such, we leverage ETH flows as a proxy for total flows to the Boba Network.

1. User data as of Q2' 2022.

Historical Metrics Dashboard

- Since launch, Boba Network has exhibited the performance of a budding Layer 2 network with activity incentivized by preliminary liquidity mining programs. Improvements across operational and financial metrics could be expected once the network finds product-market fit within the multichain gaming vertical.

Month End	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Boba Price (\$)	2.95	1.60	1.31	1.45	0.98	0.50	0.37	0.57	0.32
% Change	n/a	(45.98%)	(17.96%)	10.99%	(32.45%)	(48.79%)	(26.74%)	54.03%	(43.51%)
Circulating Supply (MM)	168.59	164.21	162.48	151.25	170.43	153.52	182.29	167.44	168.83
% Change	n/a	(2.60%)	(1.05%)	(6.92%)	12.68%	(9.92%)	18.74%	(8.15%)	0.83%
Market Cap (\$, MM)	497.94	261.99	212.67	219.72	167.24	77.14	67.11	94.94	54.08
% Change	n/a	(47.38%)	(18.83%)	3.31%	(23.88%)	(53.87%)	(13.01%)	41.48%	(43.04%)
Fully Diluted Supply (MM)	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
% Change	-	-	-	-	-	-	-	-	-
Fully Diluted Market Cap (\$, MM)	1,476.75	797.75	654.44	726.35	490.66	251.25	184.06	283.50	160.15
% Change	n/a	(45.98%)	(17.96%)	10.99%	(32.45%)	(48.79%)	(26.74%)	54.03%	(43.51%)
Avg Daily Active Addresses	12,078	13,994	14,881	15,798	17,982	20,025	21,081	21,893	23,103
% Change	138.76%	15.87%	6.34%	6.17%	13.82%	11.36%	5.27%	3.85%	5.53%
Avg Daily Transaction Count	2,364	1,171	2,213	1,993	3,541	3,298	2,205	1,524	1,356
% Change	(64.17%)	(50.46%)	88.98%	(9.93%)	77.68%	(6.86%)	(33.15%)	(30.90%)	(10.99%)
Average TVL (\$, MM)	150.41	83.51	59.98	44.45	55.16	34.76	11.23	8.44	6.86
% Change	(69.08%)	(44.48%)	(28.18%)	(25.88%)	24.10%	(36.99%)	(67.70%)	(24.82%)	(18.66%)



Historical Roadmap and Governance Developments

- Apart from prioritizing decentralization at launch through Boba DAO, Boba Network has formed key partnerships to empower the Boba ecosystem and passed proposals to assign utility for the BOBA token.

Complete

Token Airdrop

November 2021

- OMG token holders who bridged to Boba Network were airdropped BOBA on a 1:1 ratio in Nov '21
- BOBA is the governance token for Boba DAO, incentivizing community initiatives and directing the network's future

Cere Network Integration

March 2022

- In Mar '22, Boba announced an integration with Cere network.
- The partnership enables Cere's Decentralized Data Cloud (DDC) to be built atop of Boba's Layer 2 infrastructure.

WAGMI v2

March 2022

- Boba also introduced its WAGMI v2 incentives program in Mar '22.
- WAGMI v2 increased the rewards pool to a total of \$3 million BOBA to attract more users and developers to the ecosystem.

Token Proposal

April 2022

- Proposal 4 was passed in April of 2022 to use BOBA as gas on the Boba network.

Gitcoin & Global Hackathon

April 2022

- Gitcoin Virtual Hackathon saw \$15,000 allocated to Meme NFT, a meme NFT tokenization platform and DeCloud, an API for Arweave for the Boba wallet
- Boba Network's Global Virtual Hackathon further saw \$100k split amongst 12 startups

Engineering Roadmap

- The Boba development team has also been consistently shipping post-launch, completing the Turing integration in March '22 that allows Web 3 developers to connect to existing Web 2 sources. 2022 will see the team focusing on a tokenomics revamp, deploying across other Layer 1s, and improvements to the core Hybrid Compute technology.

Complete

In Progress

Mainnet Launch
September 2021

Turing
Rinkeby: February 2022
Mainnet: March 2022

2022

2023

- Enya Labs, core contributor of the OMG Foundation, developed the first proof-of-concept Layer 2
- At Messari Mainnet '21, Boba Network announced the Mainnet launch of its Layer 2 Optimistic Rollup

- Turing was deployed Mainnet in March of 2022.
 - This was a notable milestone as it allows Ethereum to interact with non-distributed Web 2 computers with just a single line of code
 - Example use cases include a Twitter activity-based fountain token and smart contracts CAPTCHAs.

- BOBA veTokenomics proposal
- Alternate Rollup client 'Anchorage' in Erigon
- Deployments on other Layer 1s as Boba Network becomes the first multichain Layer 2
- Hybrid Compute improvements to support larger data structures and more data types

- Escape hatches for Layer 1 and delay-code upgrades
- Rollup Account Abstraction that allows other account types to be derived by a single account
- Optimistic x Zero Knowledge Hybrid Rollup architecture
- Research parallel execution of EVM transactions

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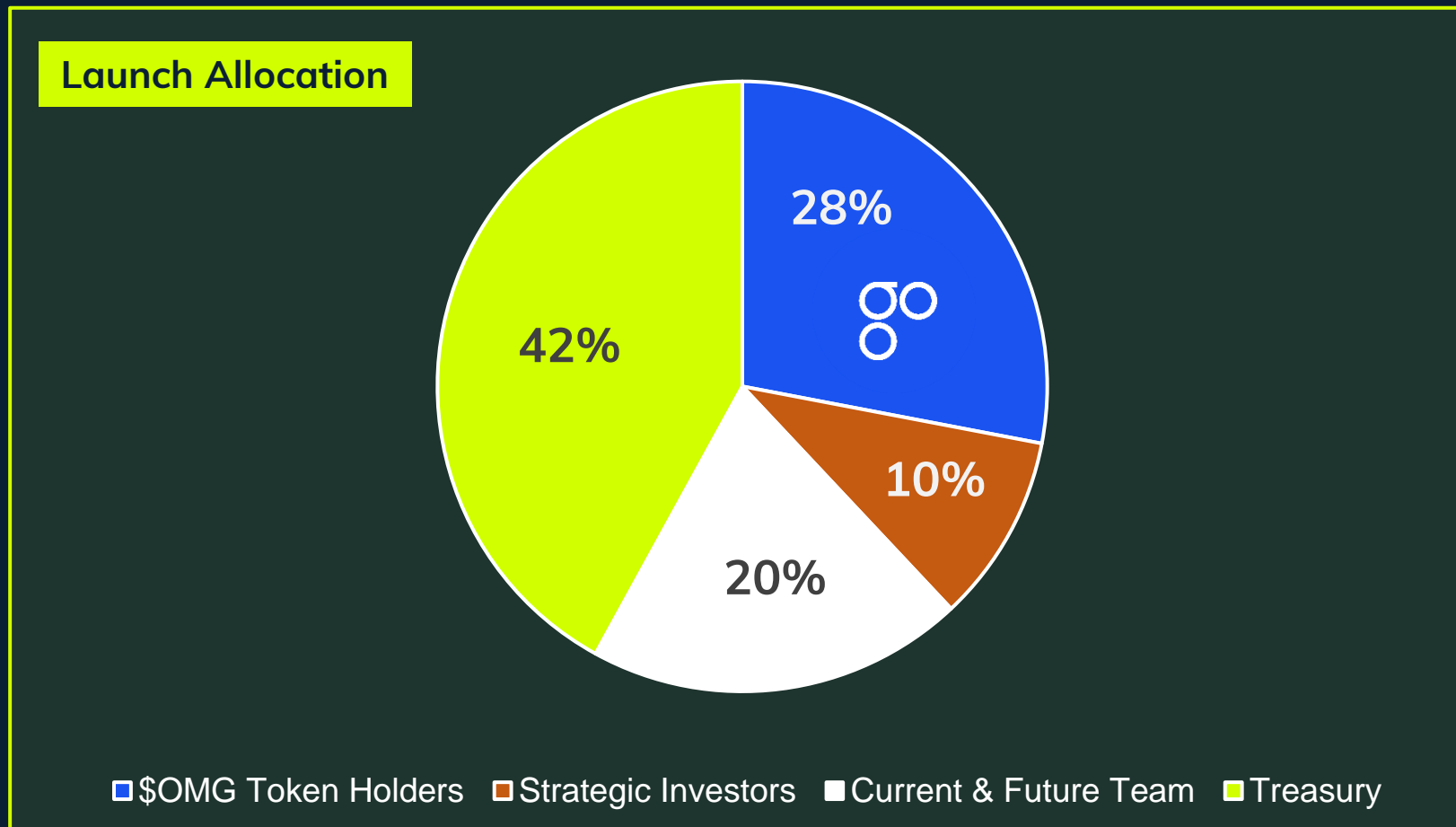
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Boba Tokenomics



Stakeholder	Allocation	%
OMG Token Holders	140M	28%
Strategic Investors	50M	10%
Current & Future Team	100M	20%
Treasury	210M	42%

- In Nov '21, Boba Network airdropped 140m (28%) BOBA 1:1 to users that held OMG tokens on Ethereum.
- BOBA has a maximum supply of 500m, and current circulating supply is c.331m.
 - Over the next four years, circulating supply will inflate linearly to reach the maximum supply.
- Boba Treasury (42%) will deploy tokens to fund liquidity mining incentives, Boba DAO initiatives and grants to Boba startups.
- Strategic investors constituted 10% of BOBA tokens at launch, but Boba Network has fundraised since then.
 - In Apr' 22, Boba Network announced a \$45m Series A, with participation from Crypto.com, M13, Hypersphere, Huobi, and BitMart.

Native Utility and Incentives in BOBA Tokens

- Launched by Enya Labs with the support of OMG Foundation, BOBA secures the Proof-of-Stake Boba Network and to facilitate Boba DAO governance. Boba also announced 19M BOBA incentives to kickstart veTokenomics flywheel.



BOBA as Gas

- In Apr '22, Proposal #4 was passed to enable BOBA to be used as a gas token on the Boba Network.
 - ETH will still be the default gas token but users will have the option to pay with BOBA with a 25% discount

Benefits

- Increase utility and demand for BOBA token as users can use it to pay for transactions with a 25% discount
- Improves user experience by unifying BOBA as the fee token for all Boba Ecosystem services, including Hybrid Compute
- Attracts TVL as BOBA can now be airdropped via faucets to users who bridge from other networks
 - This also prevents the need to bridge both ETH and BOBA

9M

BOBA Tokens for Locking Bonus Airdrop

- Token allocation from unclaimed BOBA airdrops to OMG holders that expire on Nov '22
- veBoba allows token holders to lock their BOBA tokens in exchange for governance-enabled derivative
- Governance power follows a linear distribution scaling with locked duration
 - 1 BOBA locked for 3 months = 0.25 govBOBA
 - 1 BOBA locked for 6 months = 0.5 govBOBA
 - 1 BOBA locked for 12 months = 1 govBOBA
- Locking duration can be extended at any time to regain governance voting power
- 50k govBOBA required to submit written proposals to the DAO, with a 250k govBOBA quorum

Supported by Vote-Escrowed Tokenomics

- Pioneered by stablecoin decentralized exchange Curve Finance and its derivative Convex Finance, veTokenomics on BOBA tokens has been designed, with its implementation to be proposed via a DAO vote in Q4 '22.

BOBA Flywheel



1

veBOBA enables governance participation amongst BOBA community



2

Governance participation necessitates token ownership, which aligns incentives



3

Vote-escrowed locking takes BOBA out of circulation, relieving selling pressure



4

Ability for veBOBA holders to monetize governance power through bribes

10M

BOBA Token Incentives Over 1 Year

- Token emissions follow weekly epochs, where BOBA holders can lock their tokens for veBOBA and cast votes on which liquidity pools receive the staggered incentives.
- govBoba owners can use their veNFTs once per week to vote to direct BOBA emissions to different liquidity pools, with voting power renewed from one epoch to the next.
- Partnerships with Redacted Cartel's Hidden Hand marketplace also enable veNFT holders to monetize their voting power via native token bribes.
- veBOBA holders will also be entitled to a share of transaction fees generated on Boba network, details of which will be announced at a later date.
- Tokenomics change will be proposed via a DAO vote in Q4 '22.

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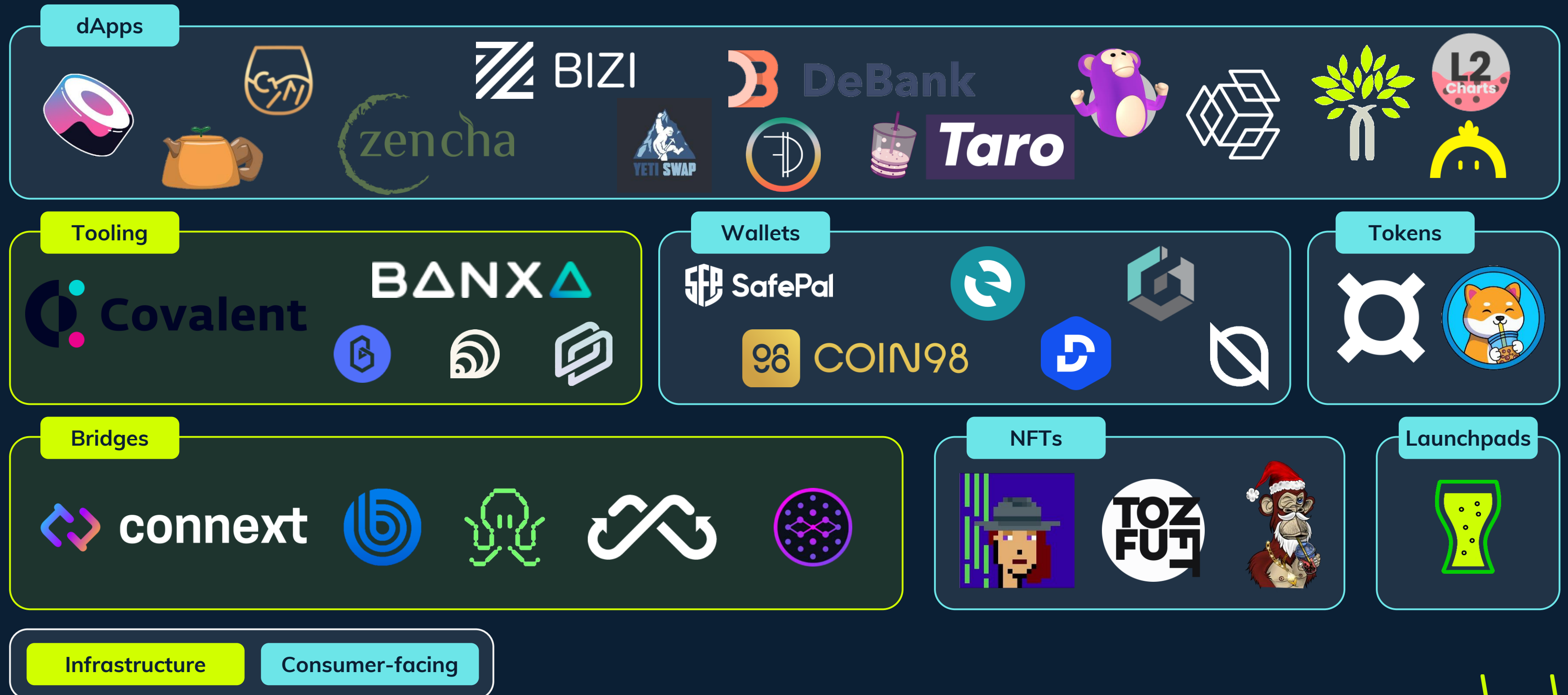
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Boba's Ecosystem Offers Necessary Infrastructure...

- Boba Network has a growing ecosystem of consumer-facing dApps and robust infrastructure to support network growth.



.. To Support Upcoming Gaming Launches

- By deploying on Boba, gaming developers enjoy developmental homogeneity on L2 as Boba scales other Layer 1s.



EvoVerses

- EvoVerses is a 3D game that allows players to Explore, Battle and Evolve using in-game creatures named Evos.
- The game leverages Unreal Engine 5 to generate graphics and is Boba's launch partner dApp on Avalanche, with the partnership to allow processing efficiencies brought by hybrid compute.
- The team launched the EVO governance token in Q2 '22 on TraderJoe paired against AVAX.



Unix Gaming

- Unix Gaming is a P2E guild that counts 200k community members in games like Axie Infinity, Splinterlands, Binemon and Heroes & Empires.
- The game released an ERC-20 token UNIX traded on Ethereum and Polygon that is also listed on four centralized exchanges
- Unix Gaming last raised \$30m from a private sale and Copper launch, counting LD Capital, AU21, and Akash Network as investors.



7Wisps

- 7Wisps is a development studio focused on creating Web3 experiences across NFTs, GameFi and DeFi.
- The studio counts games, launchpads, and marketplaces in its portfolio.






Vigilancer 2099

- Vigilancer 2099 is an RPG Cyberpunk action game where players take on the role of a bounty hunter in a densely populated Megablock located in the harsh world of Prey City.
- Players can customize gear and weapons as they track, kill or spare bounties for various rewards.
- The game is currently in development and is coming to PC and consoles.

Building Blocks for Widespread Adoption

- Boba Network has launched successfully in Q4 '21, but the budding Layer 2 network has work ahead to retain liquidity and promote organic network activity. Ecosystem fund in plans to further scale games across other Layer 1 networks.

Core DeFi Pillar	Role
Established Money Market	On-chain borrowing of BOBA to encourage organic price discovery instead of short-term price pumps 
DEX with Deep Liquidity	On-chain swapping of BOBA with dApp or partner tokens at minimal cost (e.g. fees, slippage) to users 
Infrastructure	Bridges, yield aggregators, analytics platforms, and oracles will support robust on-chain activity in the ecosystem 

Boba Ecosystem Fund

- Boba is looking to raise an ecosystem fund in Q4 '22 – Q1 '23 to invest in native and cross-chain projects building on the network
- The ecosystem fund will have the mandate to provide financial and advisory support to maximize startup growth as Boba expands its reach across other Layer-1 smart contract platforms

Ecosystem Funds of Other Smart Contract Platforms



Historical Proof-of-Concept Partnerships

- In Aug '21, on-chain liquidity provider Dodo began integrating with Boba Network. Through the integration, Dodo will provide ample liquidity to the ecosystem, supporting smooth fund flows and organic growth.



- In Feb '22, Dodo officially launched on Boba network, participating in Boba's WAGMI Incentive Program. The launch came after Dodo's migration of 2m tokens to Boba Network.
- The liquidity mining program lasted from Feb 8 '22 – Feb 28 '22, attracting \$4.31m TVL at peak.

Proactive Market Maker (PMM)

- Dodo's proprietary PMM algorithm accounts for market demand shifts to enable higher capital efficiency. This is made possible by adjustments to asset ratios, liquidity depths, and fee rates to minimize slippage and impermanent loss.
- This is an improvement from the traditional constant product market maker model, where liquidity is distributed linearly across different prices. Instead, PMM allows for the congregation of liquidity around the mean price.

Crowdpooling

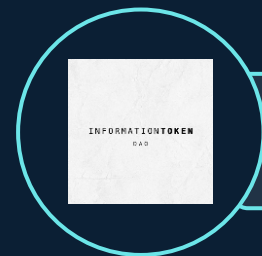
- Crowdpooling allows Boba to distribute tokens and kickstart liquidity markets. Inspired by call-auction mechanisms in traditional markets, Crowdpooling minimizes front-running by bots that plague other liquidity bootstrapping mechanisms.
- Boba decides on initial offering price and campaign duration, while participants receive tokens proportionate to the total capital staked. Once completed, funds raised are used to provide liquidity to support trading.

SmartTrade Trading & Aggregation

- SmartTrade leverages custom routing algorithms through DEX aggregators such as 0x and 1inch to provide its DEX users optimal swap rates between any two tokens, all on the same network.
- As cross-chain gains traction, Boba and Dodo are well-positioned to capitalize on this since Dodo is currently deployed on over multiple chains, including Binance Smart Chain, Ethereum, Polygon, Aurora, and Arbitrum.

Crypto-native Partnerships

- Earlier this year, Boba announced partnerships with InfoTokenDAO and Cere Network.
- These partnerships represent a stamp of approval to crypto-native capital that can seed liquidity in the Boba Network.



Information Token

- Information Token is a Decentralized Autonomous Organization that counts 100 token holders as its core members.
- The DAO is focused on investment, incubation, and consulting in the digital asset space, even holding scholar programs for crypto-natives to create value by working with one another.
- Historically, InfoTokenDAO has had a successful track record in incubating projects, including Velodrome Finance that has attracted \$112m in TVL on Optimism.
- Through the partnership, InfoTokenDAO members collectively advised Boba Network on tokenomics with an emphasis on delivering growth, adoption and value to BOBA token holders.
- The result of the partnership was a tokenomics revamp of BOBA, detailed in the ve-Tokenomics section above.



Cere Network

- Cere Network is a Decentralized Data Cloud (DDC) platform that operates at the intersection of consumer data, e-commerce, and NFTs.
 - With alumni from Polkadot and Cosmos, the network prioritizes cross-chain interoperability
 - Cere operates similarly to existing Web 2.0 cloud data platforms, except user data is encrypted through the blockchain
- Using Cere's Freeport vaults, Boba can offer extensive token and NFT functionality, including
 - Artificial Intelligence-driven technology that caters to enterprises and is end-to-end encrypted and privacy-compliant
 - Full self-custody over data and assets

Native dApps Signaling Early Product-Market Fit..

- Oolongswap (\$OLO) was launched in tandem with Boba Network, offering the first multi-product platform on the budding Layer-2 network. At its peak, Oolongswap attracted \$536m in TVL across Farm, Stake, Bond, and Lend Products.



Farm

- Oolongswap's Farm product reward users who deposit their tokens into relevant liquidity pools with \$OLO and oloWAGMlv3 tokens
 - if monthly trade volume \geq \$75m, then 1 oloWAGMlv3 is redeemable for 2 Boba
 - if monthly trade volume $<$ \$75mm, then 1 oloWAGMlv3 is redeemable for 1 Boba
- While yield farming is not novel, having LP rewards contingent on trading volume prevents overpaying for native protocol activity



Stake

- Staking allows farmers to stake \$OLO for \$YOLO (Yield-earning \$OLO)
- \$YOLO is the governance token for Oolongswap, aligning long-term token holders and governance of the multi-product platform
 - This includes fund allocation of Oolongswap's Protocol-Controlled-Value (PCV)
- \$YOLO stakers have a 5-day cooldown period and a 2-day un stake window. Should users miss the un stake window, they will have to re-activate the cooldown period



Bond

- Bonding involves users swapping their LP tokens in exchange for \$OLO tokens at a discount
- The bonding mechanism was initially popularized by OlympusDAO, and is a way for Oolongswap to own the liquidity of \$OLO LP pairs
- Oolongswap's accumulation of its own LP tokens increases the liquidity depth and stability for \$OLO LP pairs, negating the need for excessive incentives for external liquidity providers and limiting inflation in the long term



Lend

- Oolong Lending is built in partnership with Ola Finance, a Lending-as-a-Service platform that allows users to
 - Lend tokens to borrowers to earn yield
 - Borrow against their tokens to leverage long
 - Borrow against their tokens to short
- Borrow and lending rates are variable and reflect leverage demand on the platform
- Lending is overcollateralized - borrowers can only borrow as much as / lower than the value of their collateral

Whilst Continually Pursuing Key Building Blocks

- Boba Networks also listed their token on Coinbase, launched their native blockchain explorer with Etherscan, and announced the deployment on core Sushi products on the budding Layer 2.



Bobascan Explorer

- Boba Networks partnered with Etherscan to launch Bobascan, Boba Network's native blockchain explorer
 - Features on Etherscan such as 'Verified Contracts' and Proxy analysis are now available to Boba users
 - Developers will also be able to use Bobascan APIs to read blockchain data,



Sushiswap

- Sushi will bring its suite of products to Boba Network, allowing Boba users to access core DeFi primitives and for Sushi to gain new users
- The Boba launch will involve mining liquidity mining rewards through
 - Legacy SushiSwap (AMM)
 - Bentobox (Yield Vaults)
 - Kashi (Margin)
 - Furro (Payments Streaming)

Coinbase Listing

- On June 30, Coinbase listed BOBA against USDT and USD on coinbase.com & in Coinbase iOS & Android apps
 - As did other newer assets listed on Coinbase, BOBA had an 'experimental' tag beside the ticker
- Coinbase users can currently buy, sell, convert, send, receive or store BOBA
 - While withdrawals and deposits of BOBA are live, only the ERC-20 version of the token is supported, which means users can only withdraw to Ethereum
 - We expect native BOBA to Boba network integrations to be live soon

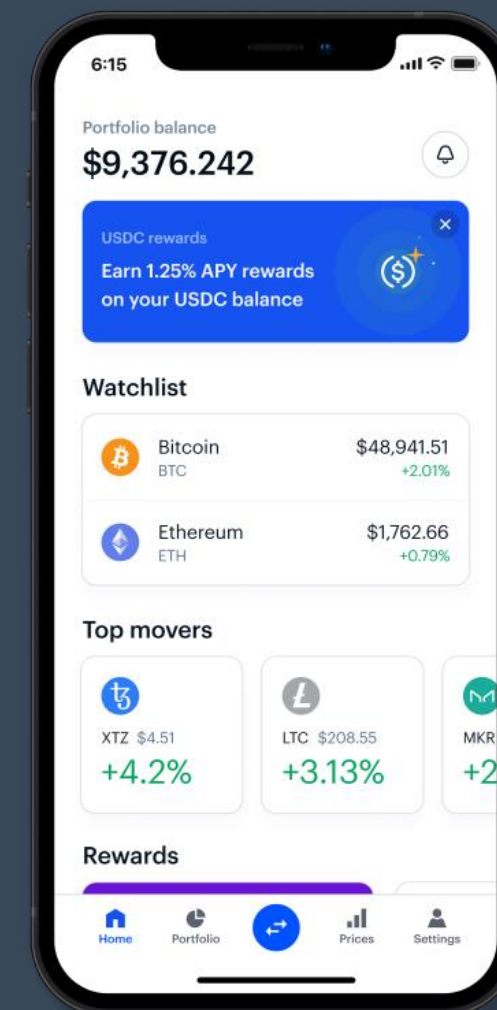


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Key Risks and Mitigants

- A hammer in search of a nail, dwindling retail interest, preference over a competing technology, and macroeconomic headwinds pose as the largest risks to Boba Network, albeit with several strong mitigants.



Weak Demand for Hybrid Compute

- At this stage, the demand for Boba's Hybrid Compute technology remains largely unverified. While the Total Addressable Market (TAM) for off to on-chain infrastructure is large, Boba needs to capture this market effectively.
- **Mitigant(s):** The infrastructure between off and on-chain is still in its early days. Capturing part of this market shall depend on Boba's Go-to-Market strategy and execution.



Preference for ZK over Optimistic Rollups

- Although the race of rollup technology is far from over, zero knowledge-based rollups have more mind share since they perform with lower latency.
- **Mitigant(s):** Boba Network is an optimistic rollup today, but the team is actively researching Optimistic x Zero Knowledge hybrid rollup architecture to capitalize on the strengths of both rollup technologies.



Dwindling Retail Interest

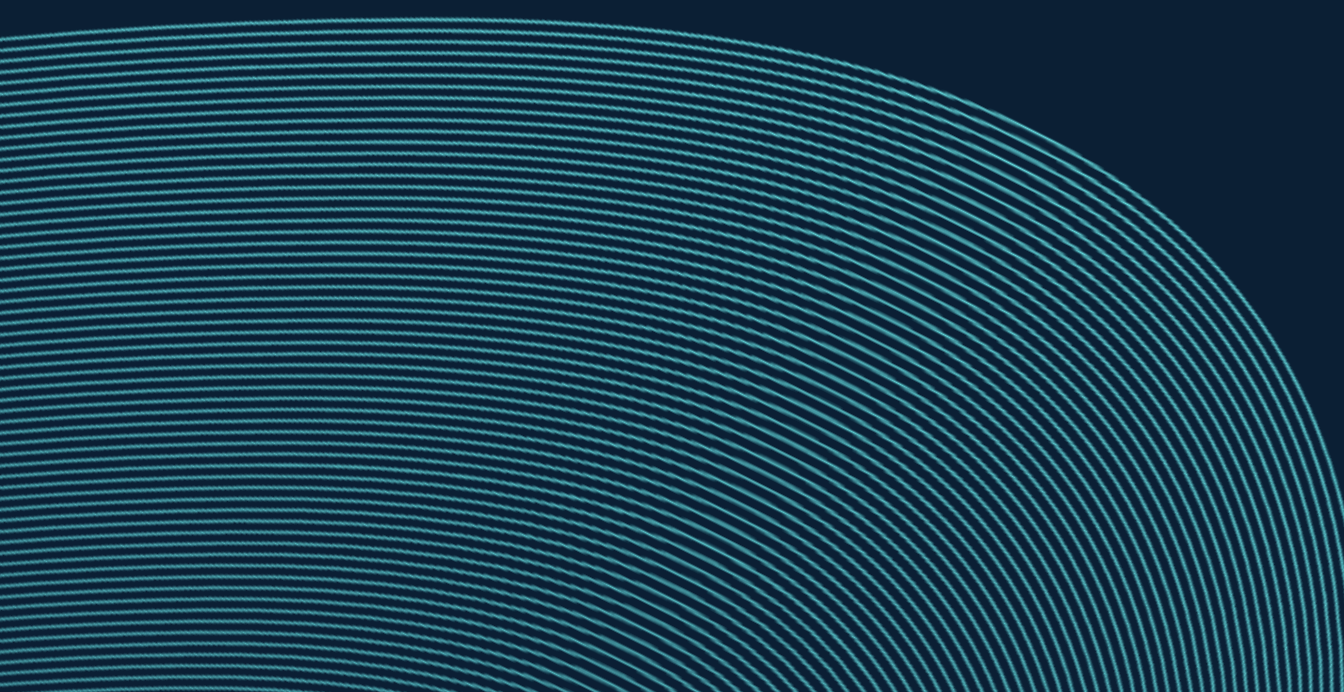
- Since its airdrop launch in Nov '21 to OMG token holders, Boba has seen a steep drop in TVL. Initial TVL concentrated on OolongSwap, Boba's first borrow/lend platform.
- **Mitigant(s):** Contingent on the adoption of hybrid compute by Web 3 protocols, and the revision of ve-Tokenomics for BOBA, it is plausible to see a resurgence in retail interest through gaming.



Macroeconomic Headwinds

- The macroeconomic environment has seen the market downturn has shortening the runway of projects across the entire digital asset ecosystem, including Layer 2 protocols.
- **Mitigant(s):** Boba has raised a fresh round of \$45m in Series A funding, with a lean full-time team implying a healthy runway. An experienced management team can build towards promising off and on-chain use cases.

Appendix



Optimistic and Zero-Knowledge Rollups

- Optimistic and ZK rollups differ, but there are efforts to combine them to leverage the best of both worlds.

Optimistic



Optimistic rollups assume that the transaction is correct and will be executed on the Layer 2

- Fixed period before transactions are settled on the L1 for participants to dispute and reverse transactions fraudulent transactions and penalize malicious actors

Pros:

- Optimistic rollups are EVM- and Solidity-compatible so users can easily migrate from ETH to Layer 2
- All data is stored on Layer 1 in a data storage contract, so Layer 2 remains decentralized and secure

Cons:

- Long wait times for finality due to potential fraud challenges
- Operator have strong influence and can meaningfully impact transaction ordering

Zero-Knowledge



Zero-knowledge rollups bundle transactions and generate a cryptographic proof of validity that is posted to the L1

- Zk rollups can use indices in place of addresses (reduce data from 32 bytes to 4 bytes) and other data compression techniques to reduce the size and costs of transactions

Pros:

- Fast finality since the state is verified instantly once proofs are sent to the Layer 1
- Doesn't broadcast user data to the Layer 1, just the individual proofs verifying valid transactions

Cons:

- Validity proofs themselves are computationally intensive
- Messaged sent to verifiers and provers have a chance to get corrupted or destroyed

Boba and Optimism teams are working to integrate Zero-Knowledge proofs into their optimistic rollup platforms

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