

MULTICOIN CAPITAL

Jito (JTO) Asset Report

The logo for Jito, featuring the word "Jito" in a bold, dark green, sans-serif font. The letters are thick and modern, with a slight shadow effect behind them.

By Shayon Sengupta & Tushar Jain

MARCH 4, 2025

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Executive Summary

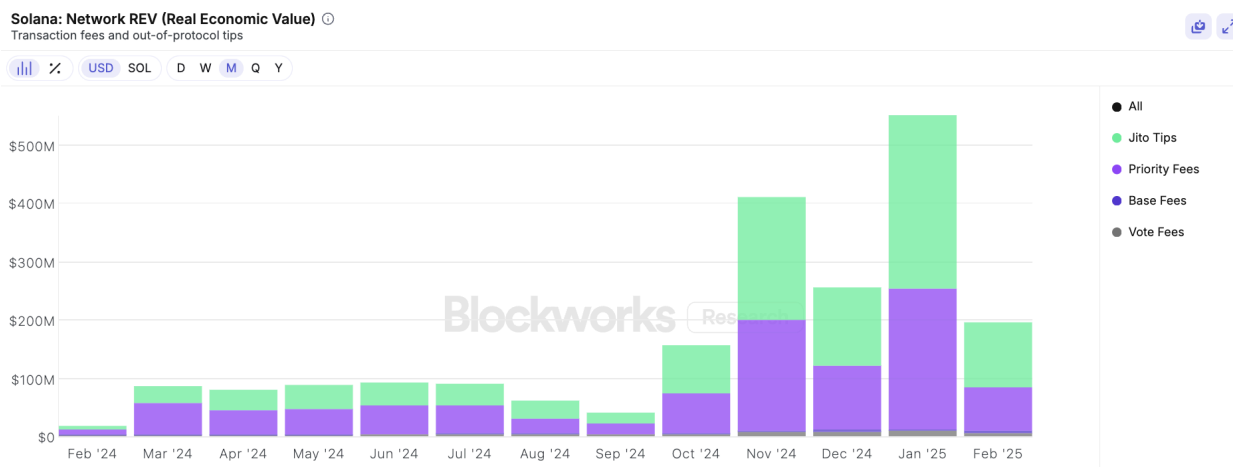
[Jito](#) has become an essential component of Solana's economic machine, and we believe their systems are [critical infrastructure](#) for transaction processing and block production across the Solana network. Simply put, it is at the epicenter of a multi-sided network that keeps Solana humming.

Today, Jito is an integrated software system with three core pieces:

1. transaction processing and block production architecture (i.e., [Jito-Solana Validator Client](#), and affiliated products [Relayer](#), [Shredstream](#), [Block Engine](#), and [Bundles](#)),
2. staking architecture (i.e., [JitoSOL](#), Jito's liquid staking token, and [Stakenet](#), Jito's autonomous, decentralized stake delegation algorithm), and
3. restaking architecture (i.e., [Node Consensus Networks](#) including [TipRouter](#) and [Vaults](#)).

We have [spoken](#) and [written](#) extensively about MEV as a framework for valuing asset ledgers. Throughout 2024, MEV capture and redistribution moved [up the stack](#). We expect this trend to continue for the foreseeable future. We view JTO as one of the largest beneficiaries of this movement as crypto market structure matures.

Solana is the most widely used and productive public blockchain network in existence today by a wide margin, consistently surpassing all other major chains on [transaction revenue](#) (per [Dune Analytics, chart excludes tips](#)) and [trading volume](#) (per [DefiLlama](#)) starting in Q4 2024. Since then, Solana's REV (Real Economic Value) has exploded as a function of facilitating billions in volume, and more than half of the transaction fees on Solana are processed through the Jito system.



Source: [Blockworks Research](#), March, 3, 2025

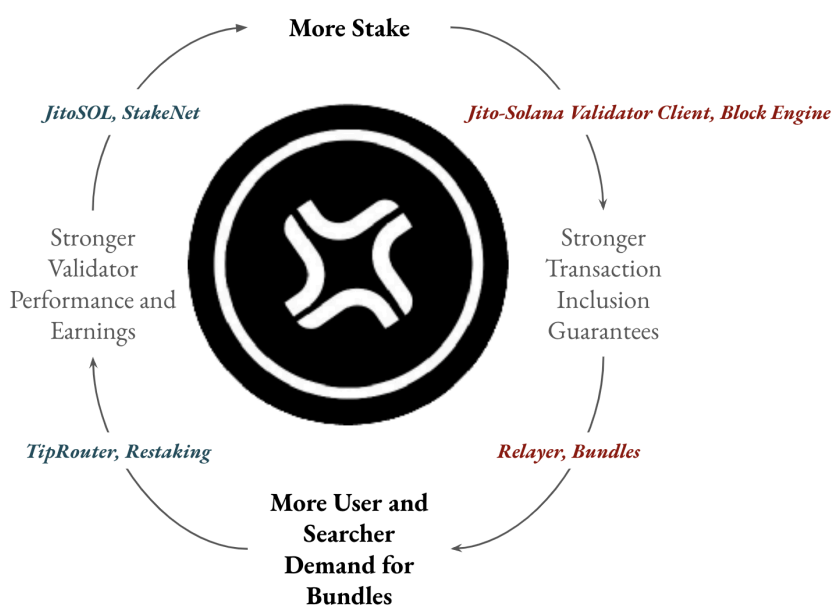


In addition to value capture moving up the stack, we believe JTO represents the best fundamentally-sound, risk-adjusted way to get asymmetric exposure to [Internet Capital Markets on Solana](#).

Transaction execution around [hotly contested state is crucial](#) for the functioning of a permissionless, high-performance, distributed asset ledger. The only way Solana achieves its original vision of [“blockchain at Nasdaq speed”](#) is by handling extreme amounts of ingress and egress with low latency. Jito plays a [critical role](#) in this, segmenting Solana transactions by time preference, while stabilizing the network and preventing congestion that arises from overwhelming demand for transaction inclusion.

The Jito suite of products has been instrumental in preserving user experience on Solana as the system scales. At the time of writing, over [94%](#) of stake on Solana runs the Jito-Solana client, which has provided much needed reliability in landing transactions with consistently low median fees during high volatility events. We believe that this unlocks exponential growth at the application layer — enabling use cases like performant derivatives exchanges capable of prioritizing maker cancels, leading to tighter spreads ([Drift](#)), DePINs that rely on low-cost token transfers at scale ([io.net](#), [Render](#), [Hivemapper](#), [GEODNET](#), and [Helium](#)), new spot asset issuance and exchange platforms ([Jupiter](#), [Clearpools](#), and [Backpack](#)), and more.

Each of the Jito products reinforces the others. The StakeNet delegation system and JitoSOL stake pool encourage validators to run the Jito-Solana client. Running the Jito-Solana client allows validators to earn and distribute higher rewards to their stakers through more profitable block construction. Restaking helps decentralize reward distribution while adding unique utility for JitoSOL and JTO, further incentivizing use while driving incremental earnings for stakers.





As the beating heart of MEV capture and distribution across Solana, we expect Jito to capture an increasing share of the economic value generated from Solana — bundle tips, staking rewards, and restaking yields provide multiple avenues of value accrual. Our bull-case price target for JTO is \$11.63, or 4.45x the 7-day TWAP price of \$2.61 as of March 3, 2025 based on the assumptions and model discussed in the Valuation section of this report.

Jito is the primary beneficiary of Solana’s explosive growth, and the ticker is JTO.

History

Jito Labs was co-founded by Lucas Bruder ([buffalu](#)) and Zano Sherwani ([segfaultdoctor](#)) in 2021. Prior to Jito Labs, Lucas worked at Tesla and Built Robotics, two of the world’s leading robotics companies, as an embedded systems engineer, which later informed his insight to build a novel MEV system from a hardware-adjacent perspective. Zano is also a full-stack engineer with extensive experience from companies like Amazon, Hungry, and Parsec.

We first met the team in August 2021, when they outlined a set of transaction processing tools and validator primitives that would support the capture and distribution of MEV in a manner purpose built for Solana. The original mechanisms were born out of a recognition that the very components of Solana’s design that enabled transactions at high speeds and low costs would lend themselves to a more unique market structure for MEV — specifically, one in which latency would be a dominant component rather than simple auctions for transaction inclusion.

It was clear to both Lucas and Zano that the MEV systems that would emerge on Solana would [look different from what existed on Ethereum](#). They understood that without building thoughtful transaction propagation and block production infrastructure, the network would face the same problems that plagued the Ethereum network under high use: spam, unfair transaction ordering, eye-watering fees, and reduced network stability. Multicoin led Jito’s seed round of financing at that time.

Lucas and Zano’s early experiments focused on improving Solana’s transaction flow for contentious, time-sensitive events. Unlike Ethereum, Solana transactions are sent directly to validator leaders, guided by a deterministic leader schedule. The team identified the opportunity to build a block engine: a system that could coordinate transaction bundling, simulation, and inclusion for the purposes of improved MEV distribution and increased network performance.

Today, the Jito Network consists of a set of complementary products that coordinate stake and the



flow of value around it. Two distinct entities, Jito Labs and the Jito Foundation, together with a distributed group of contributors, help foster the network's growth.

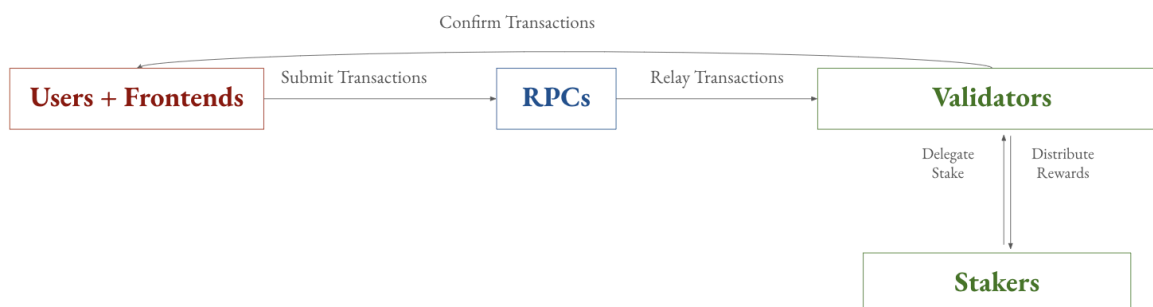
Jito Labs focuses on the technical development of transaction processing and block production products in the broader portfolio (the Jito validator client, the block engine, the TipRouter contracts, and MEV dashboards). The Jito Foundation centers its efforts on growing adoption of staking, (re)staking and LST products while benefitting the Solana network generally. The Foundation also promotes governance frameworks and network security enhancements, focusing on creating an inclusive and fair environment for participants.

A Brief Primer on Solana's Transaction Supply Chain

In order to understand how Jito supercharges the transaction propagation and block production on Solana, it's important to understand how the Solana network would function without it.

The Constituents

There are four stakeholders in the transaction propagation lifecycle: users and frontends, RPCs, validators, and stakers.



Users refer to traders, asset issuers, protocols, or any entity that intends to write to the chain's state. They interact with the network through **frontends** (i.e. [wallets](#) and [applications](#) like [telegram bots](#)), which generate transactions and submit them with inclusion parameters (i.e. base fees, priority fees, and additional tips in order to obtain stronger guarantees around transaction inclusion). Users benefit from a well-coordinated structure where stakers, validators, and frontends work together to deliver strong transaction fulfillment guarantees at fair prices.

RPCs serve as intermediaries between users and validators, allowing frontends to send transactions and query the chain's state. They forward transactions to validators, and provide read-access to the



chain. RPC selection is a critical component of transaction fulfilment, especially in fast execution scenarios or high congestion events.

Validators process transactions, produce blocks, and participate in consensus, thereby updating and maintaining the chain's state. Validators aim to construct the most full, profitable blocks possible, and require tools to ingest transactions and order them accordingly. They earn fees via inflation-based network emissions earned for block production, base and priority fees from users and frontends, and any additional fees earned from out-of-protocol rewards for inclusion or ordering —which ultimately provides benefits to both the validators and their stakers.

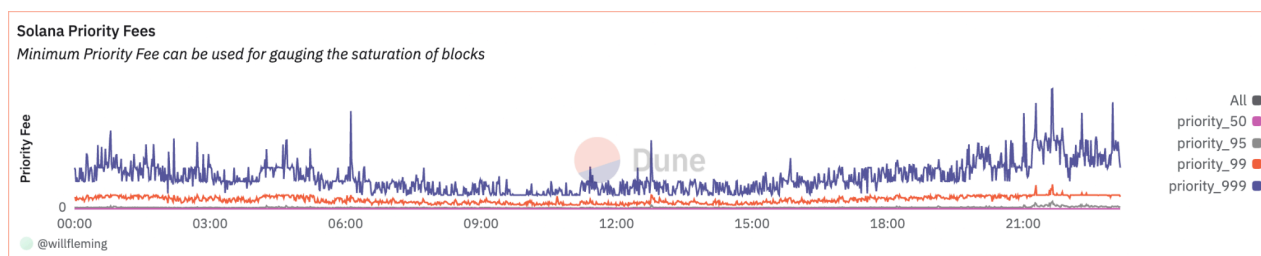
Stakers are the backbone of the network. In delegating SOL to validators, they provide the overlay of economic security needed for PoS networks like Solana to function. Stakers earn rewards for doing so, which include both traditional inflation-based emissions, any additional revenues earned through out-of-protocol transaction inclusion or ordering, and, in the future, block rewards (base and priority fees).

Transaction Lifecycle

Every Solana transaction includes two parameters at a minimum: base fees and priority fees.

Base fees are a fixed amount (5000 [lamports](#), or 0.000005 SOL per signature). Their primary function is to prevent spam by ensuring there is always a nonzero cost to submitting transactions.

Priority fees are optional and allow the transaction originator to expedite their transaction in the validator's queue. These fees are by definition variable, with two inputs: the compute budget (the maximum compute units needed to process the transaction) and the compute unit price (units of SOL per compute unit). Users can set these inputs manually, though in practice wallets use recommended values. Priority fees are generally substantially higher than base fees as a relative share of total fees paid for transactions.



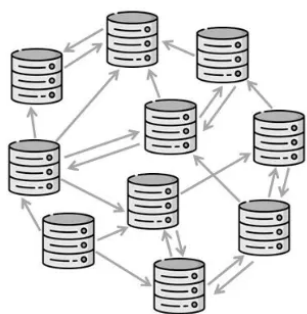
Source: [Dune Analytics](#), March 3, 2025



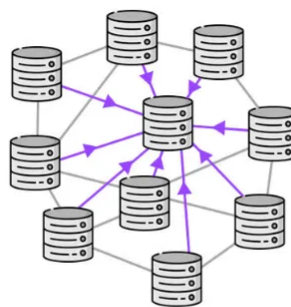
In the past, 50% of both fees were [burned](#), with the remainder paid to validators as compensation for processing the transactions. Under [SIMD-96](#), which is [approved](#) and implemented, the full share of priority fees will be distributed to validators.

When a user initiates a transaction, it is first signed locally by their wallet using their private key. The signed transaction is then submitted to an [RPC server](#), which then routes the transaction as a [UDP](#) packet to the current and next few validators according to Solana's leader schedule. Each validator has a [Transaction Processing Unit \(TPU\)](#), which receives the transaction, verifies the signature using the CPU, executes it, and then relays it to other validators across the network.

Unlike Ethereum's gossip-based transaction propagation, Solana's propagation system broadcasts transactions via [GulfStream](#) directly to the subsequent leader (as opposed to relaying them to all validators around the world). This style of transaction relay is often compared to streaming, since there is no global queue of transactions (traditionally referred to as a "mempool") that all validators use to access pack blocks.



Gossip network + Mempool



Gulf Stream + Leader schedule

Source: [Eden Block](#)

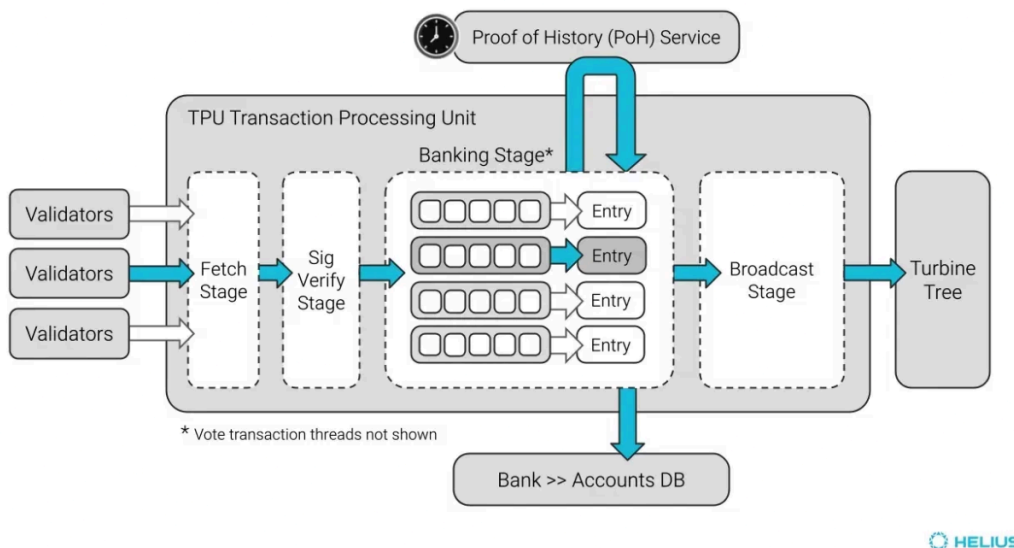
Once received, the leader processes transactions by verifying signatures, assembling transactions into a block, and then executing them in sequence. This routing system uses a [deterministic schedule](#) that defines which validator will produce which blocks at which times.

With Solana's defined leader schedule, RPC nodes know where to send transactions, and can therefore reduce network overhead and meaningfully improve latency. The **lack of a global mempool and the deterministic leader schedule drastically change how external actors think about capitalizing on visible pending transactions:** on Ethereum, transaction builders can simply specify a higher gas price in order to have their transaction included in a block; on Solana,



transaction inclusion is much more a function of latency given shorter blocks and real-time transaction streaming. In other words, transaction inclusion on Solana is not explicitly or only an auction.

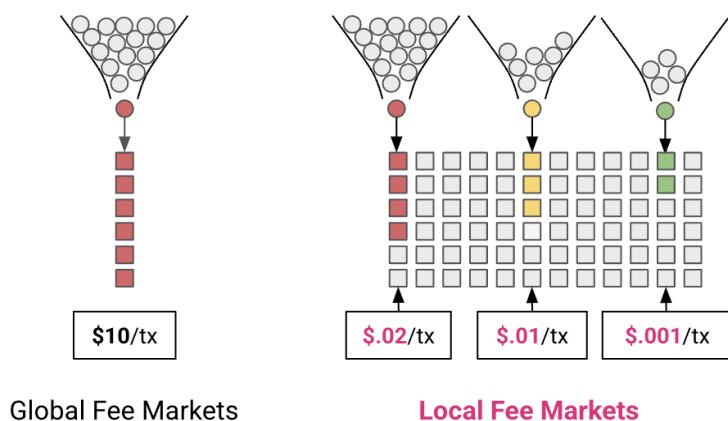
A Solana [slot](#) is defined as a discrete unit of time (~400 milliseconds) where the leader is responsible for producing a block. After the TPU *fetches* transactions and *verifies* signatures, they enter the *banking stage*, where Solana's runtime checks account locks (read/write) to prevent conflicting updates during execution. Each transaction's instructions are processed by the relevant on-chain programs — read/write the specified accounts and execute the logic (e.g., token transfers, smart contract function calls, etc.). Transactions are then added to the Proof-of-History service, which uses a verifiable delay function to order and timestamp transactions and commit the results to [AccountsDB](#) as a block proposal. The block proposal is *broadcast* to other validators in the network via Turbine.



Source: [Helius](#)

Local Fee Markets

As bursty traffic on specific accounts (such as [NFT mints in 2021](#)) led to delays and congestion, Solana core developers saw the need to isolate congestion to specific hot programs or accounts. This insight led to the invention of local fee markets, which are unique to Solana.



Source: [Multicoin Summit 2023 \(Modular v. Integrated: Theory and Practice\)](#)

Local fee markets are designed to help the network handle ephemeral congestion by making the network fee adjustable based on the region of state touched—i.e., transactions that want to touch popular accounts have to pay more, while other unrelated transactions could still process at approximately the base median fee. This *local* approach is more efficient than a single global fee, because it only applies where there's real contention. Local Fee Markets were introduced experimentally on mainnet around versions 1.10–1.14.

Network Congestion

The propagation mechanisms described in the previous section are what enable the high-speed, low-fee transactions that Solana is known for, but they also introduce a few challenges.

The highest EV strategy for sophisticated market actors when demand for blockspace is high has historically been to submit a high volume of low-priority transactions, effectively burdening the network and degrading the user experience for all participants. This was a byproduct of the validator client including inefficiencies that made transaction prioritization more probabilistic than deterministic by fee.

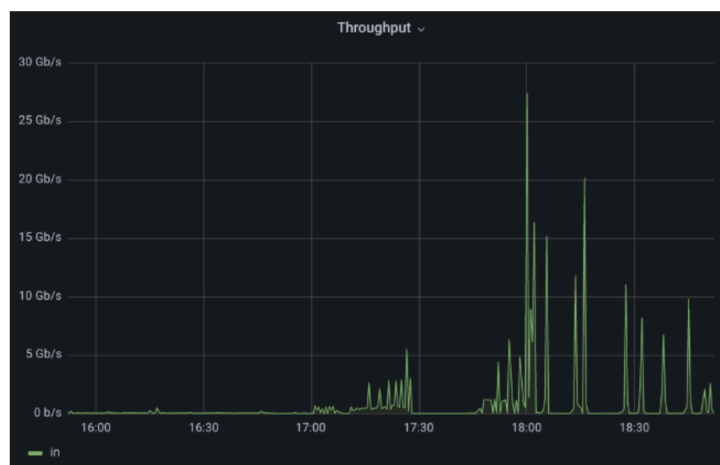
There are generally two types of transactions that the network faces challenges with handling: inclusion-sensitive and ordering-sensitive transactions.

Type A Transactions: Inclusion-Sensitive Transactions

When demand for blockspace is high, like [memecoin launches](#) or [liquidation events](#), users will pursue the strategy that maximizes the probability of transaction inclusion. In these events, bots



flood the network with redundant transactions to increase their odds of success — and they can do this because base fees and priority fees are generally low. These behaviors degrade network performance, increase latency for standard users, and consume valuable compute resources.



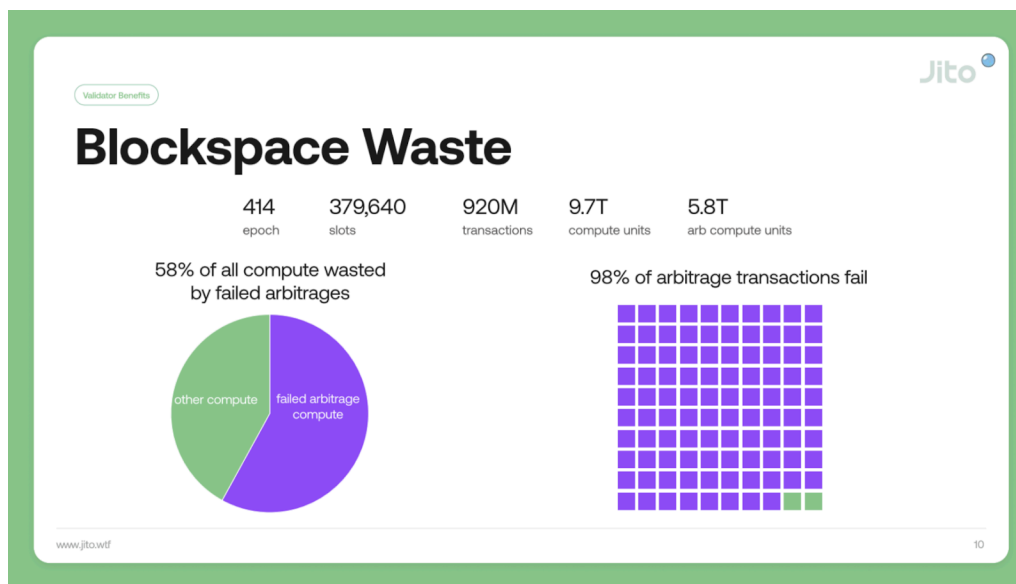
Validators occasionally experience spikes with 15 Gb/s or higher network ingress. Almost all of this traffic is spam.
Data from July 25, 2022 provided Certus One.

Source: [Jito Foundation Blog](#)

The absence of a public mempool limits visibility into pending transactions, reducing transparency and making it difficult for external actors to optimize or assess the efficacy of transaction inclusion.

Type B Transactions: Ordering-Sensitive Transactions

Traditional arbitrage transactions have two or more legs that need to be executed in sequence, and liquidations are often dependent on inclusion directly after a distinct transaction like an oracle update. The streaming nature of transaction relay on Solana makes ordering two or more logically dependent transactions atomically very difficult. If searchers, the sophisticated market participants who chase these opportunities, can't obtain strong guarantees about the ordering of their transactions, protocols can't keep prices in line or function properly. As a result, searchers spam the network with redundant transactions to increase the probability of winning against competitors – again, facilitated by low base and priority fees. In early 2023, over half of all compute resources on Solana were failed arbitrage transactions largely attributable to ordering-sensitive transaction spam.



Source: [Jito Foundation Blog](#)

The common thread across these two types of transactions is *spam*, and it is exactly the resulting network congestion that drove [outages and performance degradation](#) in the Solana's early years (Solana has not experienced an outage in over a year).

Early versions of the Solana validator [transaction scheduler](#) (systems responsible for ordering transactions), did not ensure that transactions with higher priority fees would be included in a block. Instead, they offered a probabilistic guarantee, making it more likely—but not certain—that such transactions are included. More [recent versions](#) of the scheduler address core concurrency issues, reducing the likelihood of conflicts and delays through deep checks at each stage of the transaction processing operation, but the overall system still lacks a comprehensive block-builder that can aggregate and order transactions in an efficient, predictable manner.

While local fee markets help with account-level prioritization, *they stop short of implementing a global aggregator that can identify the most profitable or critical transactions across the entire network*. This gap manifests in scenarios involving intensive MEV, where nuanced reorderings of transactions can produce (or degrade) substantial revenue opportunities. Without a dedicated auction, leaders can inadvertently stall or miss higher-fee flows that never arrive promptly in the local queue of transactions.

The Solution: Jito Transaction Tips and Bundles

In Type A transactions — such as memecoin launches or liquidation races — the dominant strategy under the Solana scheduler is to flood the network with redundant transactions to improve odds of inclusion. Jito runs *off-chain blockspace auctions*, such that transactions sent with SOL



denominated **Jito tips** (in addition to priority fees and base fees) are simulated, processed, and relayed away from the core protocol, thereby providing critical relief to the network.

Transactions with Jito tips that touch the same account are run in the same auction, while those that do not touch intersecting state are run in separate auctions. Leaders running the Jito-Solana Validator Client package blocks in a way that maximizes tips (up to a threshold compute unit). This significantly reduces the volume of wasted transactions, freeing up bandwidth and compute resources while improving overall network performance and improving the experience for all users.

In Type B transactions, where ordering and atomic execution is key, **bundles** provide the opportunity for (much needed) precise transaction sequencing.

Bundles offer a way to package multiple dependent transactions together into a single unit to execute atomically. If the transactions land, they land together. If they don't, the transaction originator does not pay any fees, effectively gaining revert protection.

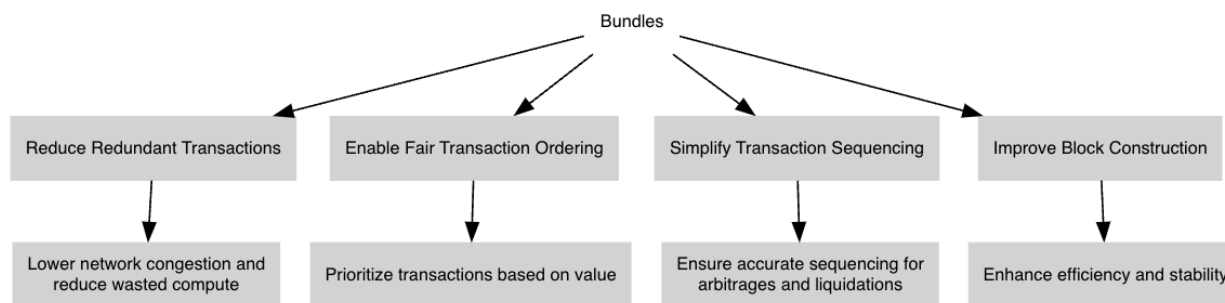
For example, a market maker arbitraging prices across DEXes can use a bundle to ensure both legs of the transaction occur in a single logical step. Similarly, liquidators can package their transactions alongside the necessary oracle update to ensure timely execution.

The screenshot shows a transaction bundle interface with the following steps:

- Interact with program `88888n...LRvJha`
- Swap `121.699900978` `$30,245.72` `WSOL` for `190,343.497286` `$44,420.27` `FWOG` on `Raydium Liquidity Pool V4`
- Swap `190,343.497286` `$44,420.27` `FWOG` for `490,803.653604` `$53,808.27` `MLG` on `Meteora DLMM Program`
- Swap `490,803.653604` `$53,808.27` `MLG` for `129.452824622` `$32,172.54` `WSOL` on `Raydium Liquidity Pool V4`
- Transfer from `888DUd...2gz3e1` to `8w2AZp...V1F8GQ` for `0.133489753` `$33.17` `SOL`

Step 1: Swap **121.69 WSOL** for **190,343.49 FWOG**
Step 2: Swap **190,343.49 FWOG** for **490,803.65 MLG**
Step 3: Swap **490,803.65 MLG** for **129.45 WSOL**
(Total Profit: 7.76 SOL)

Bundles compress dependent transactions in a single, atomic package, and remove the need for protocols to rely on external state updates or race conditions to achieve optimal ordering.



Ultimately, the leader still holds the exclusive ability to reorder, include, or censor transactions within their blocks—this is what is classically defined as MEV. This discretion enables them to produce value from transaction inclusion and sequencing, such as prioritizing specific arbitrage or liquidation opportunities for themselves or partners. Jito operationalizes this ability and facilitates the capture and redistribution of MEV for the benefit of the whole Solana network.

We have [written previously](#) about how MEV is neither a force for good or bad as commonly represented, rather an inevitable externality of markets in any construction (especially distributed systems). Definitions of MEV include classifications of toxic (frontrunning retail orders and sandwiching transactions) and non-toxic (arbitrages and liquidations), but this captures only a portion of what validators and stakers see in their MEV profits today.

In the classic definition, the average MEV transaction begins with a searcher—an actor who identifies opportunities for profit based on transaction sequencing. It is worth noting that as trading market structure on blockchains matures, it is not just sophisticated market actors that contribute to economic value generated from transaction inclusion and ordering, but rather end users themselves seeking inclusion or ordering guarantees as their transactions become more complex.

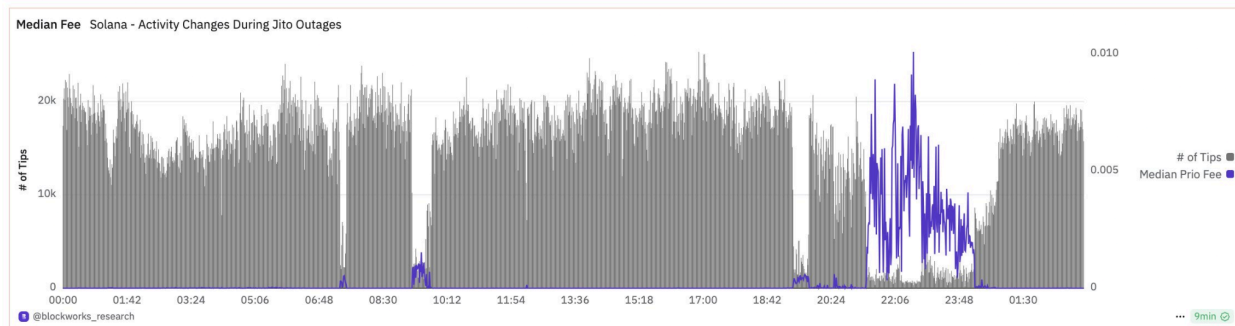
MEV—if defined as the set of revenue opportunities available to validators from transaction inclusion and ordering—is an unavoidable phenomenon that keeps markets in line and users happy. We view it less as a tax on users, and more as an incremental economic layer over base transaction fees that supports the core function of the network. In sum, that economic layer improves network efficiency and experience, although this may not always be true for the individual experience of each transaction. Jito has processed almost [\\$1B](#) worth of tips since inception, and we expect that number to continue to rise alongside overall network activity.

There are positive externalities of running structured blockspace auctions for transaction inclusion and ordering, — this is exactly the value that Jito creates for the network via tips and bundles. They



explicitly change the dominant strategy for transaction processing from a latency-based spam method to a structured auction.

To illustrate, consider the priority fee dynamic during the [three-hour period on January 19](#) when the Jito block engine experienced a temporary performance issue under intense network throughput. Priority fees skyrocketed, and inclusion rates were lower (blocks were less than 50% packed). Median priority fees jumped 5000x while total confirmed transactions and compute units per block fell by over 50%.

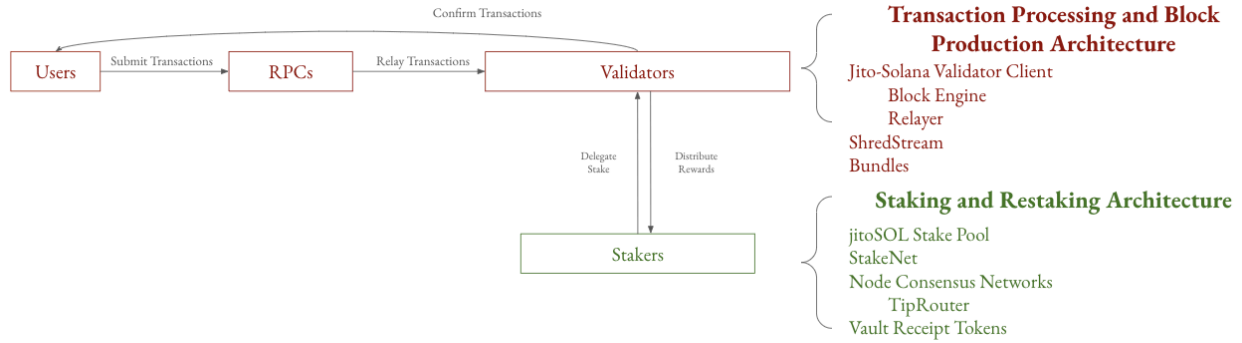


Source: [Blockworks Research](#)

The presence of a blockspace auction has clearly demonstrated positive externalities not only for users through revert protection, but for the network by creating two separate lanes for transactions, which leads to better block construction and lower median fees

Jito Network Overview

The Jito Network is an integrated system with three core pieces: (i) Transaction processing and block production architecture (i.e., [Jito-Solana Validator Client](#), and affiliated products [Relayer](#), [Shredstream](#), [Block Engine](#), and [Bundles](#)), (ii) staking architecture (i.e., [JitoSQL](#), Jito's liquid staking token, and [Stakenet](#), Jito's autonomous, decentralized stake delegation algorithm), and (iii) restaking architecture (i.e., [Node Consensus Networks](#) and [Vaults](#)).

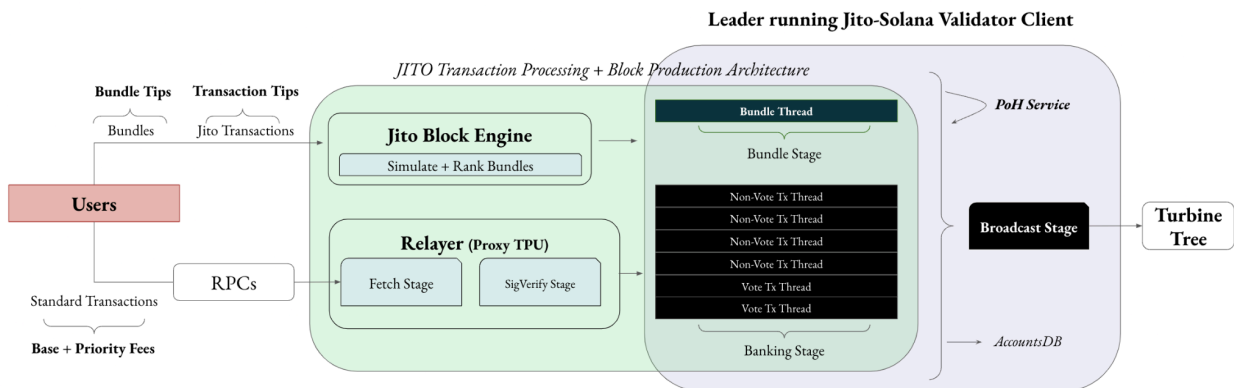


The Jito Validator Client and Block Engine

Jito has built two core pieces of validator infrastructure that integrate transaction bundles into the Solana network: the Jito-Solana validator client and the Jito Block Engine.

The Jito-Solana [validator client](#) is a fork of the Agave validator client that incorporates the Jito Block Engine. The Jito [Block Engine](#) serves the function of a blockspace auction by simulating bundle transactions and those attached with Jito tips, and preparing the ideal set of transactions to include in a block.

Searchers submit bundles and users submit transactions with Jito tips **directly to the block engine**. A core component that ties the aforementioned pieces together is the [Jito Relay](#). The Relay is a custom transaction processing unit (TPU) proxy that filters, deduplicates, and verifies transactions before forwarding them to the validator. The core function of the relay is to distribute transaction loads and prevent packet floods during high volatility events, outsourcing an ingress intensive portion of the block production process.





Jito validators run the block engine as a separate thread, and bundles are prioritized based on fees within this thread. The system pre-allocates block space specifically for the Jito thread—so out of the total [48M CUs in a block](#), a portion is carved out for Jito bundles and transaction tips. The Jito block engine maintains the equivalent of local fee markets for different pieces of state. This structure increases the likelihood of inclusion and ordering while discouraging network spam. Although transaction inclusion cannot be made strictly deterministic, this mechanism is much more efficient for network stability.

Before we cover shreds, it is worth examining what a typical bundle transaction might look like:

Step 1: Opportunity Identification. The searcher identifies an arbitrage opportunity across two DEXs (e.g., Orca and Raydium). Let's say Token X is priced lower on Raydium than on Orca. By buying on Raydium and selling on Orca atomically, the searcher can lock in a profit.

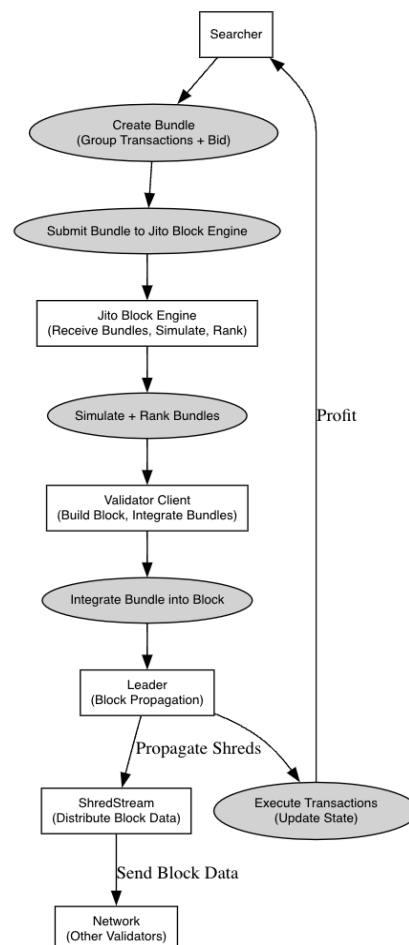
Step 2: Bundle Construction. The searcher constructs the two transactions (e.g., a purchase order on Raydium and a sell order on Orca) as a bundle, specifying the sequence of trades and their dependencies. These transactions must execute atomically—either fully or not at all—to ensure profit.

Step 3: Block Engine. The Jito block engine runs the simulation and auction, and sends the winning transaction to the next leader in Solana's deterministic leader schedule mempool.

Step 4: Validator Simulation and Execution. If the winning transaction's conditions are met, it is prioritized for inclusion in the next block, maximizing the validator's earnings.

Step 5: Confirmation. The bundle is executed as part of the block, and the arbitrage profit is realized. The validator collects the tip paid by the searcher for the transaction inclusion portion of the MEV revenue, while the searcher captures the remainder.

Searchers on Solana have a strong incentive to [run their own nodes and/or integrate and co-locate with high-staked nodes](#) for the most up-to-date view of the chain, since bundle transactions are inherently latency-sensitive.

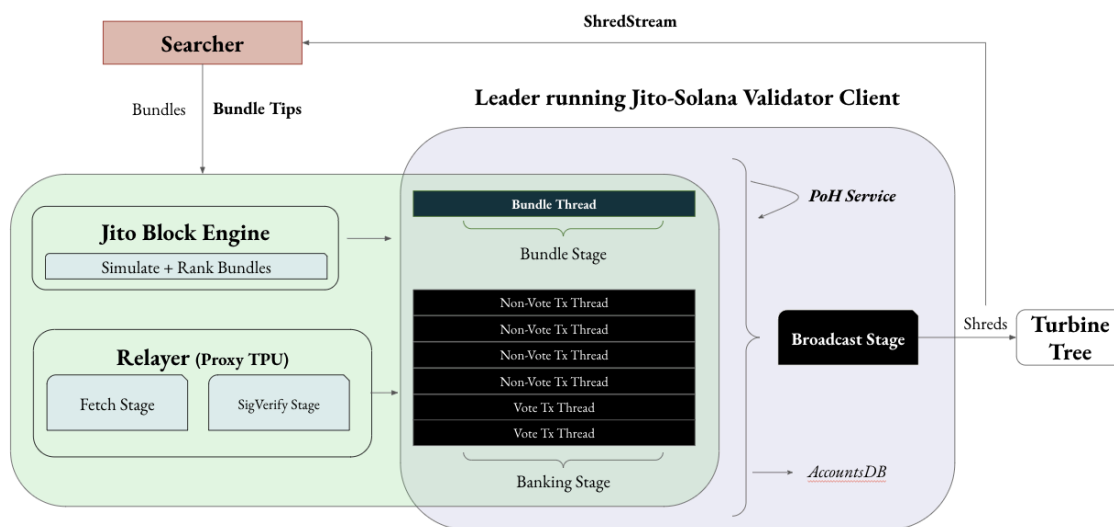




Jito ShredStream

A shred on Solana is the smallest unit of data used for block propagation and consensus within the network. Shreds are a core part of Turbine, which defines how data is transmitted across nodes. ShredStream streams these shreds directly from leaders, allowing direct access to raw state updates in real-time. It allows searchers to gain low-latency access to transaction and block data as soon as it's propagated through the network

By having access to high-fidelity data in real time, searchers can quickly detect arbitrage opportunities, liquidation triggers, or other profitable MEV scenarios and construct bundles to send to the system.



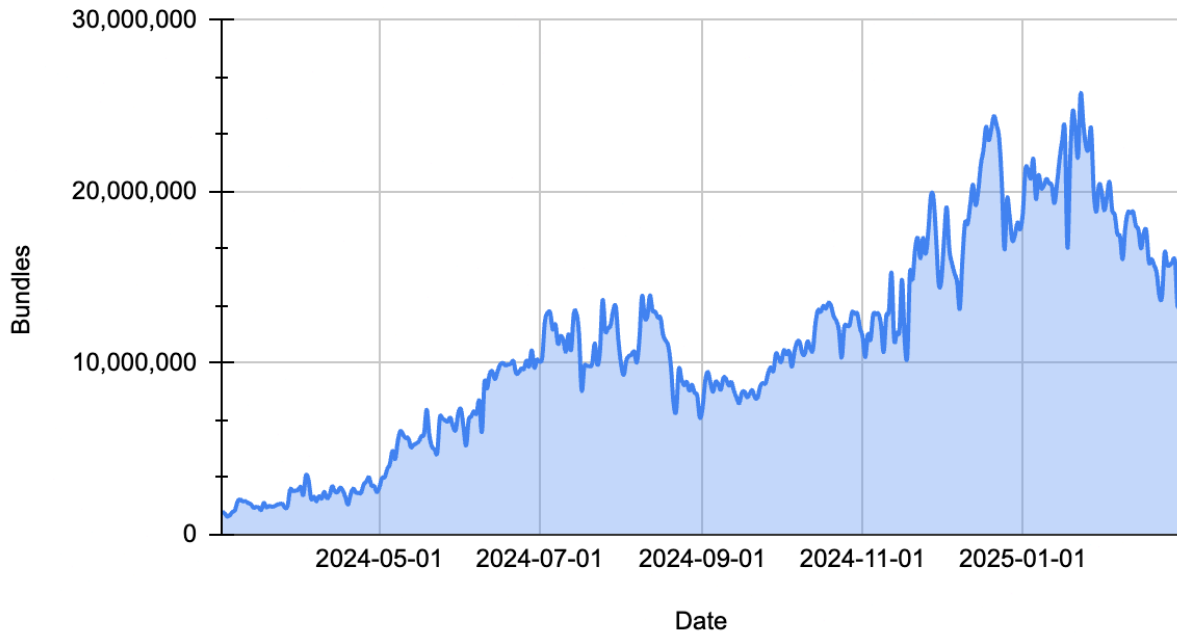
Client Adoption and Performance

As of March 3, 2025, more than [94% of stake-weighted](#) validators on Solana run the Jito Solana Validator Client. Most of these validators run unmodified versions of the Jito-Solana client, although some validators have built their own schedulers to control inclusion and ordering over non-Jito reserved blockspace.

As of today, over [4 billion bundles](#) have been sent and finalized via the Jito block engine. As an illustration of growth, in February 2024, approximately 34 million bundles were processed. In February 2025, the system processed approximately 512 million bundles (up 15x).



Jito Bundles Sent vs Time



Source: [Jito Explorer](#)

And over 5.4 million SOL worth of bundle tips have been distributed to validators via the network.



Source: [Jito Explorer](#), March 3, 2025



The client also meaningfully improves both validator earnings and overall network performance, measured via block production rate in relative cohorts.

Average block production rate



Source: [p2p](#), blue dots: Jito validators; line: cluster average, March 3, 2025

Jito previously operated MempoolStream, a 200ms window in which searchers could see all incoming transactions which effectively acted as a proxy mempool for the network, but this led to degradation in UX for users due to increased [sandwich attacks](#). In March 2024, Jito Labs discontinued the mempool service as a good steward of the network, despite foregoing meaningful incremental revenue in the form of fees on additional tips.

Staking Architecture

JitoSOL

Stake is central to the Jito system because it underpins both the economic incentives and the behavior patterns of validators within Solana’s network. We wrote extensively about this in our [first Jito thesis published in 2022](#).

Validators derive their ability to propose and produce blocks and therefore generate a return on their investment directly from (1) the amount of stake delegated to them and (2) the profitability and efficiency of their blocks. Conversely, stakers—whether through direct delegation or liquid staking solutions like JitoSOL—provide validators with the capital necessary to function on the



network. Their share of the rewards through staking are a direct consequence of the operations of the validators.

Routing the flow of stake ensures that validators running the Jito client are not only well-positioned to benefit from outsized inclusion and ordering fees, but can also consistently operate in alignment with Jito’s mission of maintaining network stability. To this end, Stakenet coordinates the staking activity of jitoSOL.

[JitoSOL](#) is a liquid staking protocol that allows stakers to receive MEV-augmented yields generated from the validator client and block engine. The construction ties staking directly to the profits created by running blockspace auctions across the set of validators on the network, allowing JitoSOL holders to benefit from both traditional staking emissions and MEV rewards. JitoSOL yields are consistently 10% higher than the base staking yield from emissions and transaction fees.

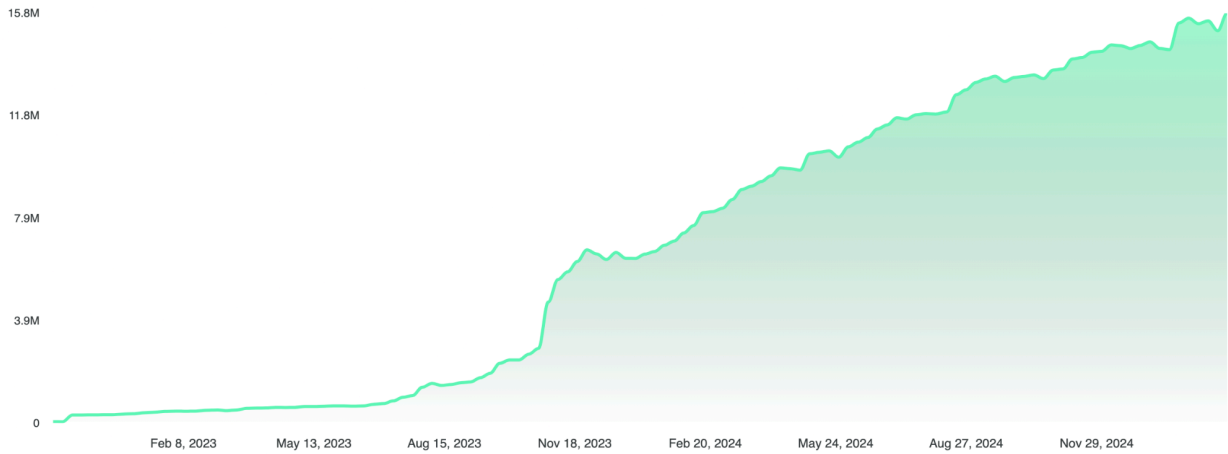


Source: [Jito Foundation Stats](#), March 3, 2025

When users deposit SOL into the JitoSOL staking pool, they receive JitoSOL tokens, which represent a proportional claim of spot SOL in stake accounts. The underlying SOL is then delegated to a set of validators that are selected based on their performance. Jito’s stake pool only delegates to validators running the Jito Solana validator client.



JitoSOL TVL
15,776,282 SOL



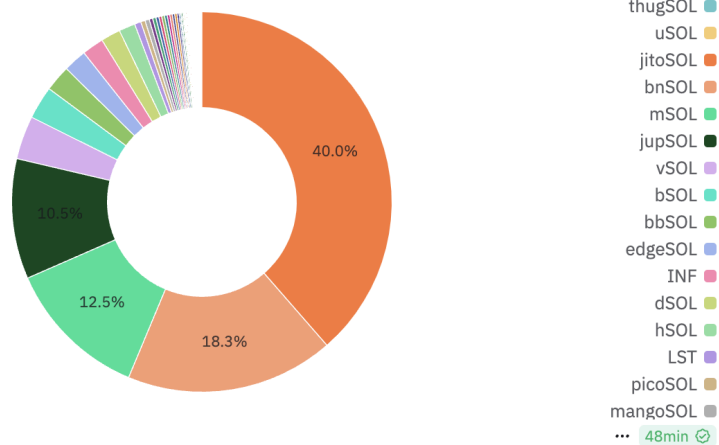
Source: [Jito Foundation Stats](#), March 3, 2025

These validators are able to earn augmented revenue from bundle tips. JitoSOL’s yield accrues through price appreciation rather than continuous token distribution; as MEV and staking rewards are realized, the exchange rate of JitoSOL to SOL increases. The stake pool also offers a straightforward withdrawal mechanism, allowing stakers to redeem their JitoSOL for SOL after a short cooldown period with no slippage. Jito charges a 4% fee on all rewards accrued to stakers, which nets out to approximately 0.30% of total staked SOL in the stake pool on an annual basis.

JitoSOL is the dominant LST by circulation on Solana today ([at 40% market share](#)), with [over 15 Million SOL staked](#) (up ~92% YoY) across the stake pool ([\\$2.4B in market capitalization](#)).

Solana: Dominance of Liquid Staking Token

Supply: Circulating Supply of the Liquid Staking Token instead of the amount of SOL Staked



@21co

- thugSOL
- uSOL
- jitoSOL
- bnSOL
- mSOL
- jupSOL
- vSOL
- bSOL
- bbSOL
- edgeSOL
- INF
- dSOL
- hSOL
- LST
- picoSOL
- mangoSOL
- ... 48min



Source: [Dune Analytics](#), March 3, 2025

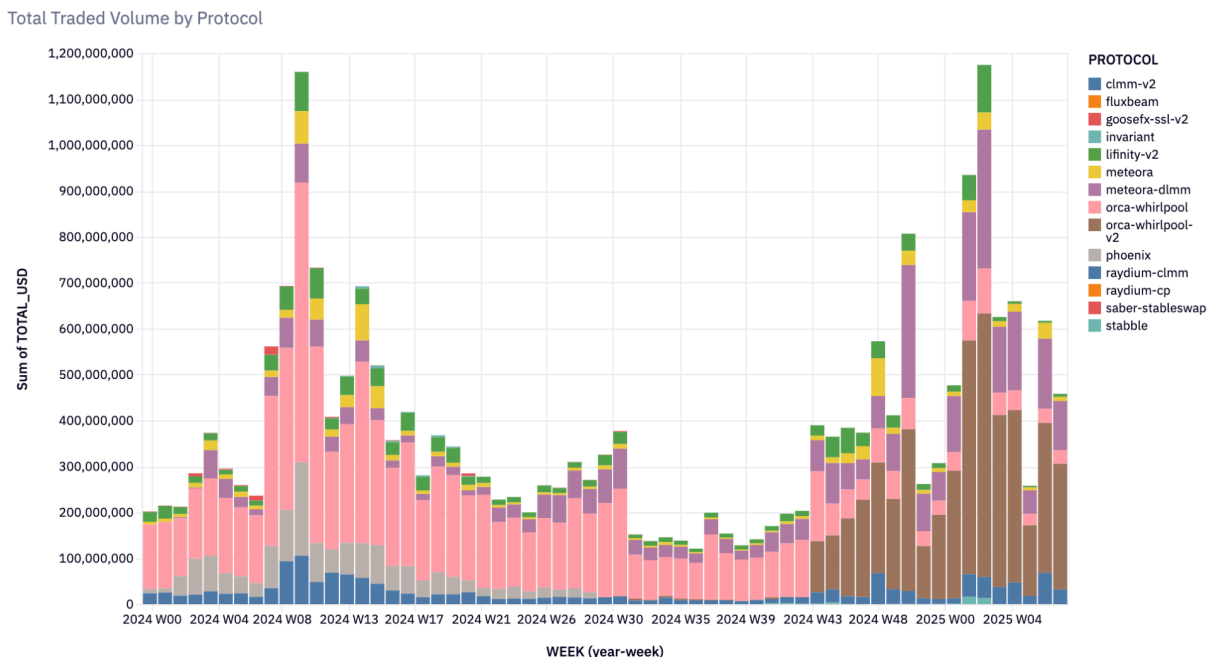
The raison d'être for liquid staking tokens on Solana is enabling capital efficiency across DeFi, while maintaining active staking participation across validators. The paper, "[Why stake when you can borrow](#)" describes a core dilemma for native token holders on L1 blockchains: if the universe of opportunities to earn yield is so large and those yields exceed traditional staking rewards, capital flees from stake accounts to other lucrative opportunities like lending or provisioning liquidity. In the limit, this harms the economic security profile of the network.

The first order solution is to turn a stake account into a capital asset, which is exactly what LSTs like JitoSOL do. Unlike Ethereum, where unstaking has a variable, often [extended, cooldown duration](#), unstaking on Solana is possible after one epoch, meaning it can take no longer than [2-3 days](#). While prompt liquidity is an advantage, the far more compelling proposition is for users to accrue staking-driven yields (inflation, block rewards, tips) as a baseline, while simultaneously being able to participate in other DeFi opportunities, effectively stacking the two sources of rewards.

Every borrow-lend protocol, spot exchange, and derivatives exchange that supports JitoSOL as collateral is naturally able to offer its users *an immediate benefit over spot SOL* through auto-compounding rewards.

There are three major drivers of returns to scale in LSTs, *liquidity, integrations, and trust* — each of which compound the other.

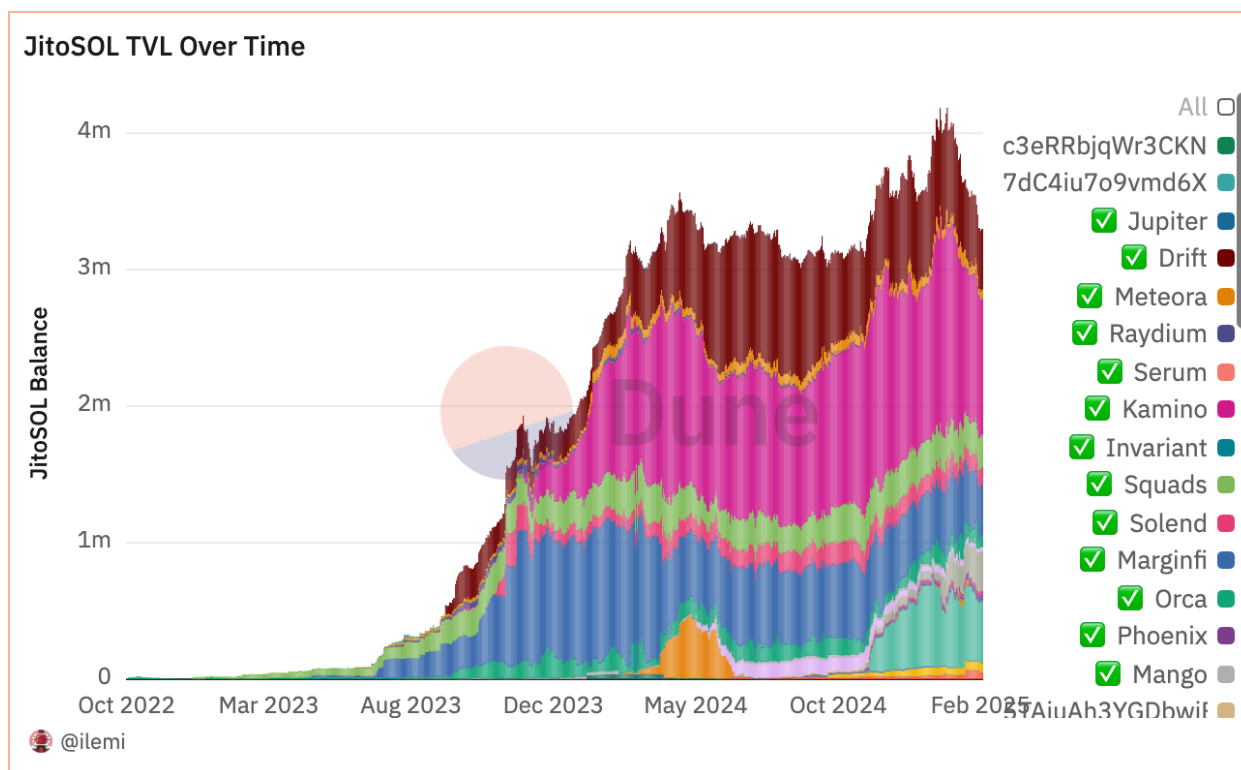
Liquidity is a hard requirement for LST holders, and for DeFi protocols to deem a given LST a pristine collateral asset. For example, if a borrow/lend protocol uses JitoSOL as a collateral asset and needs to process a liquidation to return the protocol to health, incurring significant amounts of slippage or not being able to liquidate the position is not an option. Larger holders also prioritize liquidity since they can exit positions immediately at fair value. This has been a key driver in stETH's market dominance on Ethereum. JitoSOL is the most liquid Solana LST by a wide margin (average weekly trading volume in 2025 is north of \$200M across venues).



Source: [JitoSOL Pools Dashboard](#), March 3, 2025

Liquidity in turn, drives *integrations*. DeFi protocols are more likely to accept JitoSOL as a quote/pair asset or collateral asset if they have strong guarantees around the liquidity profile of the asset. The Jito Foundation website highlights [32 venues](#) across automated market-makers, borrow-lend protocols, and derivatives exchanges, where JitoSOL is a collateral asset. For instance, JitoSOL has [more supply-side liquidity](#) than spot SOL on Kamino Finance, the dominant borrow-lend protocol on Solana.

Solana has over one thousand LSTs but almost all of them can only function as a staking product. The user experience of checking for DeFi integrations in each app or liquidity before exiting is poor. The dominant LST will be ubiquitous with equal or greater DeFi penetration compared to SOL. Building this ecosystem takes time and abundant user activity but becomes an extremely powerful moat against newer entrants.



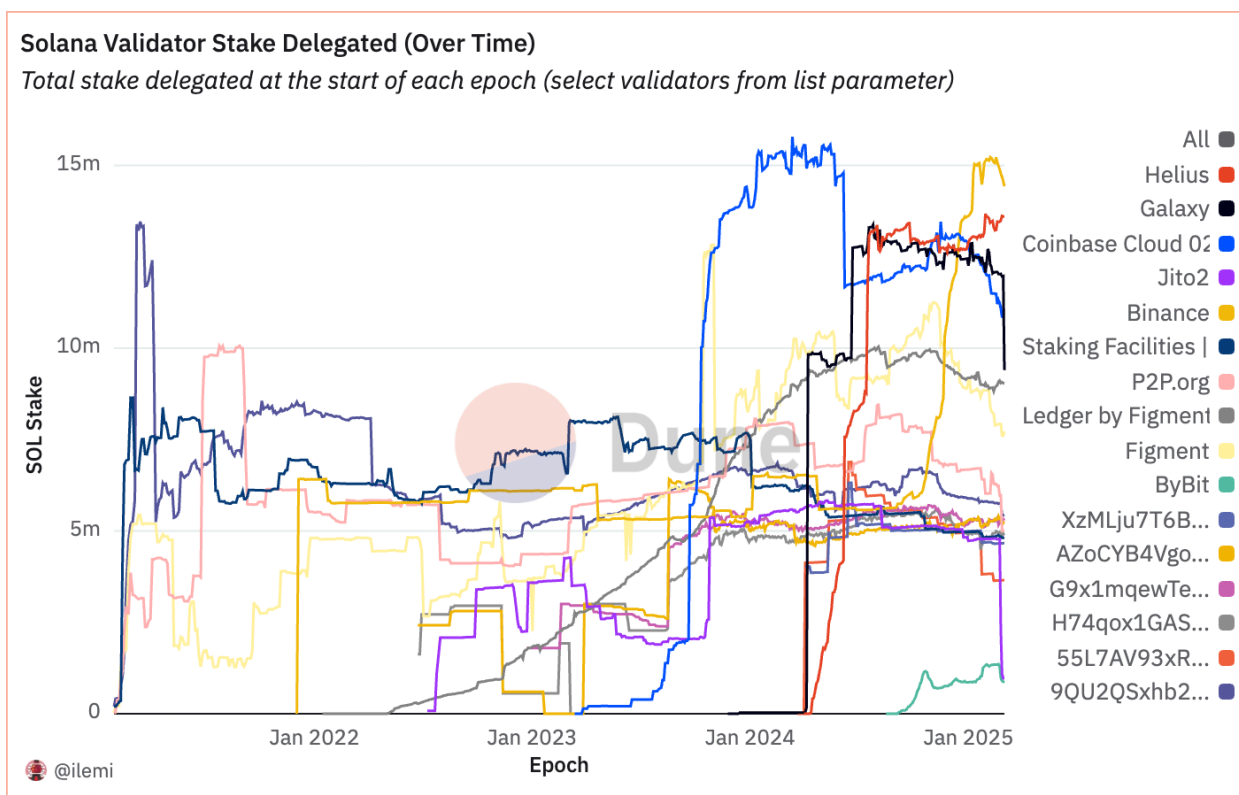
Source: [Dune Analytics](#), March 3, 2025

Integrations drive liquidity, and liquidity drives integrations, and over time this compounds *trust*. It is difficult to understate the importance of establishing trust among stakers, protocols, and users that JitoSOL is a secure, decentralized product. The JitoSOL contracts have been [audited nine times](#), and are built over the core Solana Labs stake account contracts which have been battle-tested and hardened over years.

Consistent growth across these three vectors has allowed JitoSOL to evolve into an [institutional-grade product](#). Large, regulated asset managers and custodians require the strongest possible guarantees around security, decentralization, and performance — JitoSOL is the clear leader today. Custodians such as Anchorage and Coinbase, and prime brokerages like FalconX, service and/or support JitoSOL as the primary Solana LST.

StakeNet

Capital is an expression of preference, and stakers implicitly vote on the future of the Solana network by delegating to specific validators over others. Jito architecture continues to play a pivotal role in stake dynamics via [StakeNet](#), an automated, trustless delegation system that seeks to ensure the effective allocation of stake across the Solana network.



Source: [Dune Analytics](#), March 3, 2025

Every staker wants to stake to the highest performing validators, and every validator is fighting for stake. Validator operations are competitive, and performance is a function of many things: hardware profile, bandwidth, location, and block production rules. This is not static — protocol changes over time are constantly reshaping the field of competition.

StakeNet uses transparent, cryptographically verifiable data in order to automate the evaluation, scoring, and delegation process across validators, ensuring that stake is allocated based on clear and measurable criteria. The system operates through two on-chain programs that work together to maintain efficiency and fairness.

The [Validator History Program](#) stores performance data for validators over a three-year period, covering up to 512 epochs. This data includes vote credits, commission rates, bundle tips, and software versions, providing a reliable record for evaluating validator performance. The [Steward Program](#) builds on this data, using it to calculate scores for validators and automate stake delegation to those with the best performance metrics.

The use of on-chain data makes StakeNet's operations transparent and verifiable, allowing participants to trust the outcomes of its processes. By prioritizing high-performing validators, it enhances network security and efficiency. At the same time, its automated system simplifies

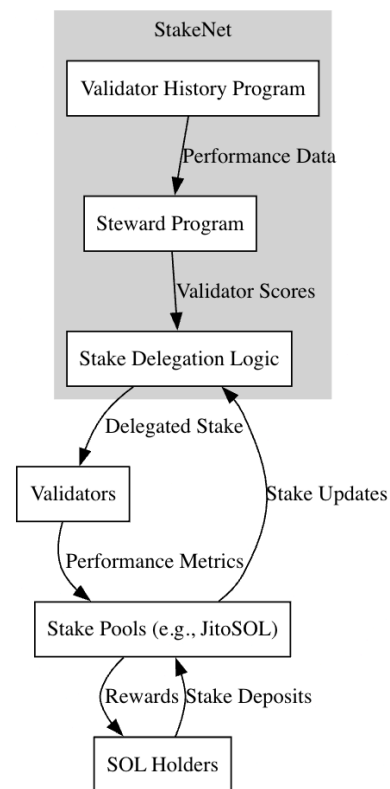


staking for users, eliminating the need for deep technical knowledge about validator performance. **StakeNet is the only stake pool in all of crypto with a fully decentralized, autonomous administrator.**

StakeNet uses a state machine within the Steward Program to adjust stake delegations based on updated validator scores. This ensures that stakes are continually allocated to high-performing validators, creating a process that adapts over time without requiring manual intervention.

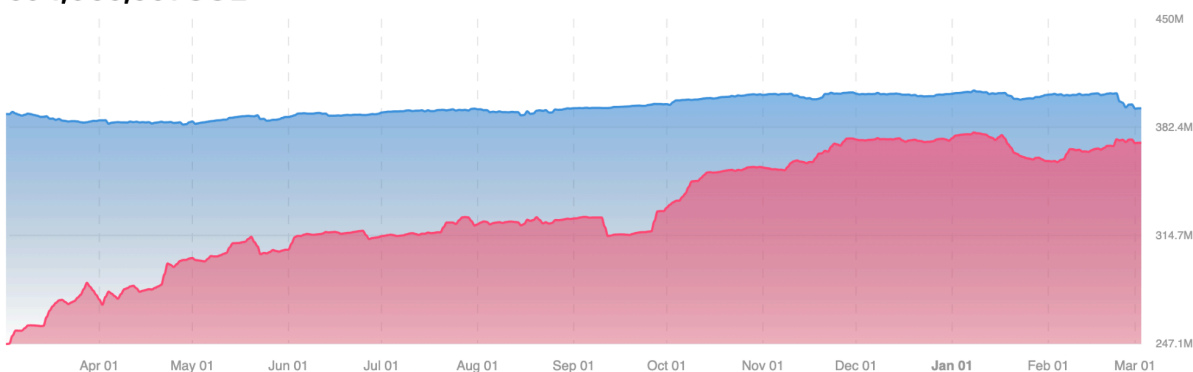
In automating the distribution of stake across pools toward validators based on transparent and cryptographically verifiable metrics, *StakeNet creates a critical safeguard against concentration and therefore centralization of stake deployment.* For reference and contrast, [Lido stETH](#), a similar liquid staking service on Ethereum has received [significant criticism for the centralizing effect](#) it has on the distribution of stake across the network, due in part to the lack of a StakeNet-like fair delegation mechanism (humans make Lido's delegation decisions) and in-protocol staking mechanisms on Ethereum overall. All assets in the JitoSOL stake pool are delegated to validators via StakeNet, fully eliminating any such centralization concern.

Jito-enabled staking creates a direct feedback loop where stake supports validator alignment, validator alignment supports MEV capture, and MEV capture generates rewards that further attract stake, solidifying Jito's position in the ecosystem.



Total Stake vs Jito Solana Share

394,065,551 SOL





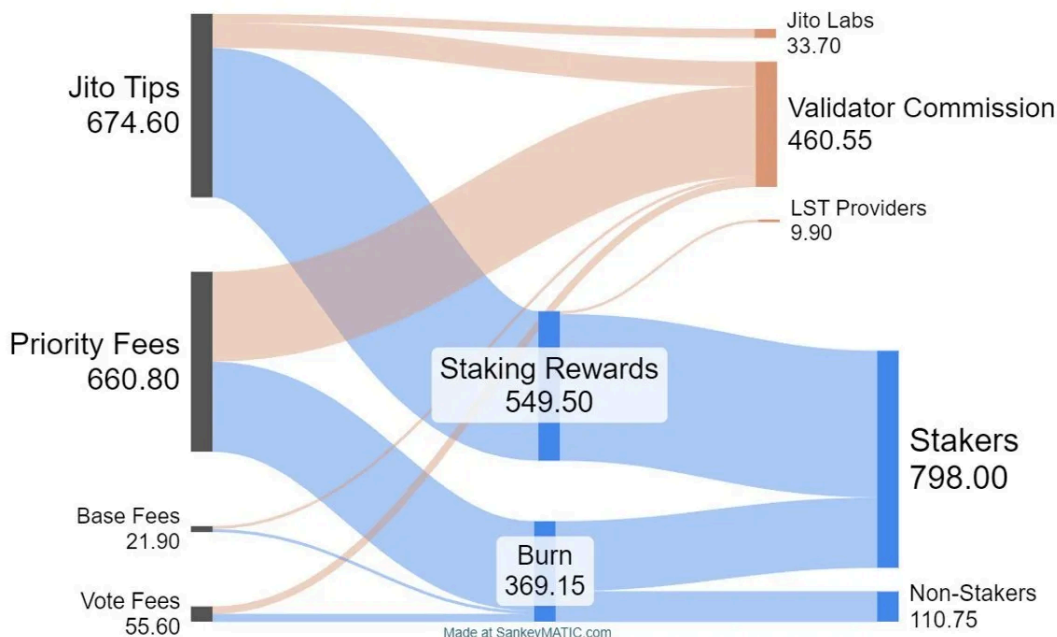
Source: [Jito Explorer](#), March 3, 2025

TipRouter

TipRouter is a Jito built system for decentralizing the distribution of tips across stakers, validators, and Jito affiliated entities. As coordinating software for users, validators, and stakers, TipRouter is a core pillar of infrastructure on the path toward trust-minimized, autonomous staking practices on Solana.

Today, validators tend to distribute a large share of Jito tips to their stakers, but keep the majority of priority fees for themselves. [SIMD-96](#) increases the notional amount of validator earnings by depositing the entire priority fee to validators instead of burning half, which has led to a shift in the conversation around best practices for validators. Until [SIMD-123](#), which intends to ossify rewards distribution between validators and stakers at the protocol layer, is approved and implemented, we expect TipRouter to play an additional important role in the distribution of rewards: validators will be able to define the relative split across base fees, priority fees, Jito tips, and emissions rewards to share with stakers, which will inform even more fine-grained delegation practices in the long term (since each validator relays a slightly different split across each bucket of fees below to their stakers).

Solana 2024 REV Distribution (\$M)



Source: [Substack \(buffalu\)](#)



We expect that TipRouter can mediate the flow of each bucket of fees on a bespoke basis for validators, and the telemetry around these distributions can further be fed into StakeNet as an additional performance metric to inform the delegation of stake over time. TipRouter is functionally an out-of-protocol solution for SIMD-123 that creates stronger incentive alignment for stakers and validators post SIMD-96.

JitoSOL can route stake to validators that are choosing to distribute priority fees to stakers using TipRouter. We expect that the jitoSOL stake pool will accrue bargaining power among validators, and effectively force a distribution of priority fees to stakers over time.

Restaking Architecture

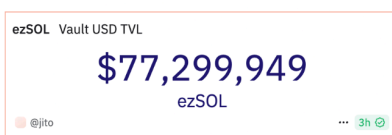
[Restaking](#) is a system that extends the functionality of staked assets on Solana by allowing them to be used to provide security for additional economic activities.

This means taking tokens like SOL, JitoSOL, or USDC and using them to secure other network functions, such as oracle networks or specialized validator services.

The Jito Restaking system is built around [Node Consensus Networks \(NCNs\)](#). These are distributed networks that validate and confirm transactions or data for specific applications, such as price oracles or cross-chain bridges. Jito Restaking allows these networks to be bootstrapped using restaked tokens, which remain liquid for use across other venues as [Vault Receipt Tokens \(VRTs\)](#) in a construction similar to Liquid Staking Tokens.

Protocols leveraging restaking can implement customized slashing conditions to handle risks, such as penalizing validators for misbehavior while capping the maximum loss, ensuring the underlying assets remain economically viable. Jito Restaking also enables support for multiple assets, including SOL, liquid staking tokens like JitoSOL (the [dominant restaked LST](#)), stablecoins, and even project governance tokens, giving projects flexibility in how they secure their operations.

By enabling staked assets to secure additional applications, the system reduces the need for entirely new tokens for new networks or functions. It also helps improve the network's security by consolidating stake into productive and accountable mechanisms. Over [\\$180 million](#) worth of assets is currently restaked across three ecosystem-led Vault Receipt Tokens, built by teams at [Fragmetric](#), [Renzo](#), and [Kyros](#).





Source: [Dune Analytics](#)

Node Consensus Networks are live today, and actively producing meaningful incremental yield for stakers that choose to participate in securing them. Examples include:

1. [Jito TipRouter](#). Bundle tips processed by the Jito Block Engine are currently subject to a 5% fee to Jito Labs. With TipRouter, Jito Labs will retain a 3% fee and 3% will be routed to Jito DAO and restaking constituents. The contract that routes the distribution of these tips over a fixed set of epochs is secured by an NCN. Restakers securing the TipRouter NCN receive 0.30% (half allocated for LST vaults, half for JTO vaults) of bundle tips. These fees currently annualize to upwards of [3%](#) per year.
2. [Switchboard](#). Intends to use Jito's staking and slashing parameters to improve the security and performance of their Oracle services.
3. [Squads Policy Network](#). A network of nodes that acts as a conditional signer for multisig wallets on the Squads Policy Program, approving transactions only if they comply with user-defined policies.

The TipRouter NCN in particular is the highest yielding protocol of any kind that is secured by restaking, excluding those using governance token emissions to temporarily subsidize returns.

Sources of Compounding

Structural Lock-In

Jito's system is designed to build layers of integration that reinforce one another. This creates meaningful returns to scale that compound and generate lock-in over time.

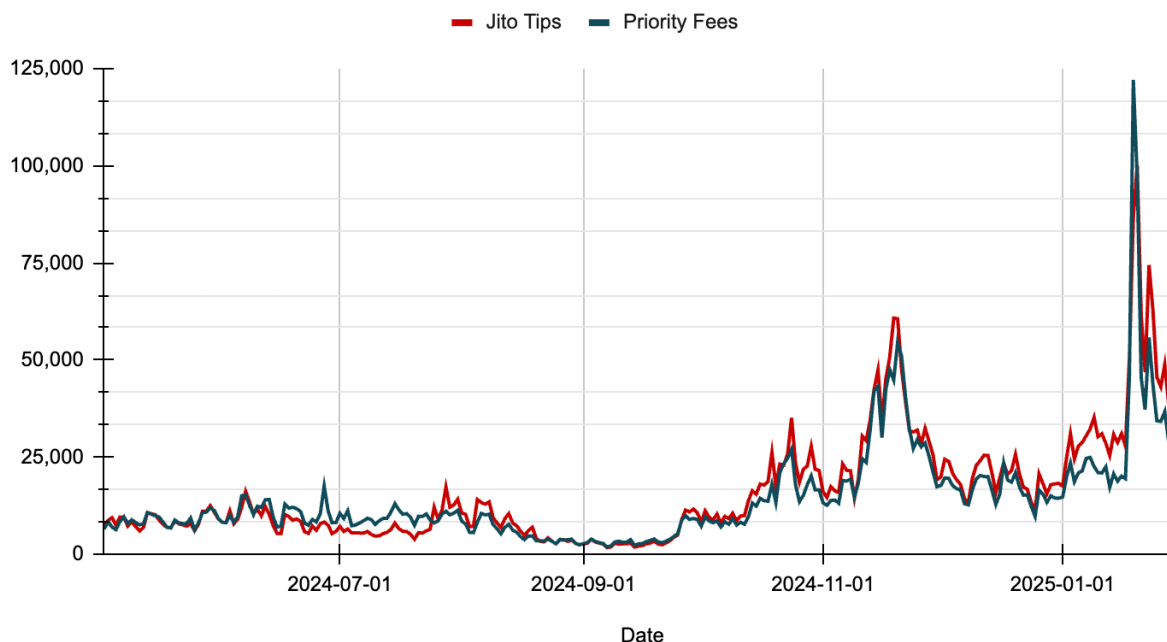
The Jito Block Engine is the starting point, which improves transaction inclusion and ultimately validator profitability through an auction. More profitable block construction incentivizes validators to adopt the Jito-Solana validator client, which is the means by which validators access the block engine. The more validators that run Jito-Solana, the more useful the block engine becomes for users and frontends.

The more frontends and users need to structure transactions that are latency sensitive or that need to execute atomically, the more Jito tips are collected via transactions and bundles, and the more profitable it becomes for validators to run the Jito Solana validator client. For illustration, The



notional value of Jito tips today consistently exceeds priority fees, with a significant portion of transactions including both priority fees and Jito tips to increase probability of inclusion.

Jito Tips and Priority Fees [SOL] vs Time (May 2024 - Feb 2025)



Source: [Jito Explorer](#)

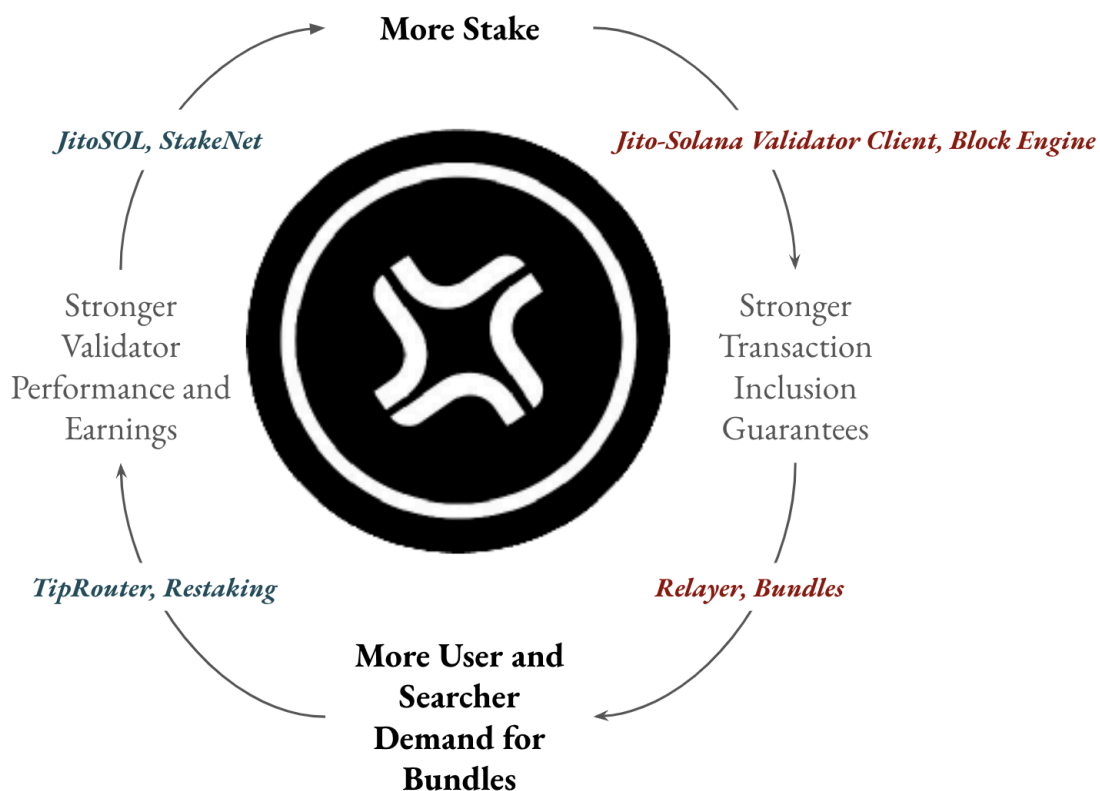
JitoSOL compounds these effects by channeling transaction and bundle tips to stakers as augmented yield, allowing participants to earn yield from staking rewards and MEV, while maintaining liquidity for use in DeFi or other activities. StakeNet builds on this foundation by automating stake delegations to the highest-performing validators in the most trustless, automated, and secure manner. By rewarding reliable validators with more stake, StakeNet reinforces the use of Jito’s validator client and block engine, as participating validators consistently earn higher rewards, locking them into the system.

The natural endstate is for all DeFi activity over time to use JitoSOL as the base and collateral asset, which significantly reinforces the marketplace-style network effects of the LST product (wherein the demand side is SOL stakers, and the supply side is validators). As with many marketplaces, the primary vectors of differentiation are discovery (or curation), and brand (or trust). JitoSOL and StakeNet handle *discovery* by constructing Stake Pools with top performing validators, and *brand* in the form of liquidity, integrations, and trust across stakers, protocols, and users. Operating a two-sided marketplace for the distribution of stake drives staying power for both Jito’s block production architecture as well as restaking products.



Restaking extends the system further by enabling staked assets to be used for additional purposes, like the distribution of tips via TipRouter (or in the future, bootstrapping insurance funds or automating portions of StakeNet). It builds directly on the foundation of JitoSOL and StakeNet, allowing the value locked in staking to support new layers of economic activity, creating even more opportunity for Jito to decentralize and secure the key components of the Solana network. Restaking adds a third stakeholder to the conventional two-sided staking marketplace, shifting from stakers and validators to stakers, validators, and protocols (or Node Consensus Networks). Three-sided marketplaces have even stronger returns to scale and staying power than two-sided marketplaces, and JitoSOL gets ossified as a pristine collateral asset within restaking vaults and elsewhere (JitoSOL is 97% of restaked LSTs on Jito Restaking, and is likely to drive a consistent sink for JitoSOL over time).

Together, these components create a self-reinforcing system. Validators, stakers, and protocols all benefit from integrating with Jito, and doing so deepens their staying power over the network. The grand vision here is to enable a fully autonomous MEV DAO that can route rewards from inclusion and ordering in bespoke ways to improve network performance and user satisfaction — in a fully trustless, permissionless manner.





Jito's compounding is rooted in its integration into Solana's most critical operations. By dominating blockspace auctions, embedding deeply into validator clients, and creating structural network effects via staking products, Jito ensures that its products sit at the center of a majority of economic value on the network.

This embedding creates substantial barriers to entry for competitors. Validators who have adopted the Jito client benefit from better performance and higher rewards, directly as a consequence of being part of a network with other leaders and searchers—making it irrational to switch to alternatives.

Traction

2024 in Review

In 2024, Solana experienced a significant increase in on-chain activity, which in turn amplified opportunities for MEV extraction. This surge was largely driven by the interlocking components of Jito's systems, which facilitated a structured marketplace for high-priority, latency sensitive transactions.

Validators utilizing the Jito-Solana client reported substantial boosts in staking rewards due to MEV tips. For instance, Figment's Solana validator noted that in [Q4 2024](#), MEV rewards accrued through running the Jito-Solana Validator client led to a 27% outperformance, yielding an 8.42% return compared to the network average of 6.41%.

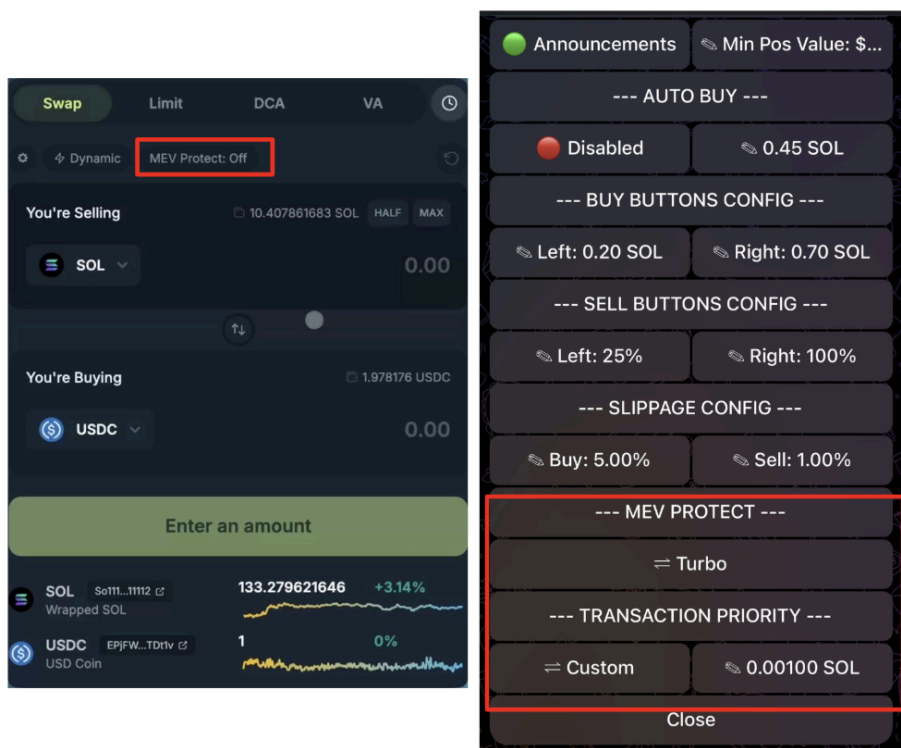
The growth of memecoin activity on Solana was a significant contributor to bundle tips. Traders need strong transaction inclusion guarantees when sizing into assets with short shelf lives, and Jito bundles provide a much stronger guarantee about inclusion and ordering than traditional base and priority fees. Most telegram bots like [Bonkbot](#), aggregators like [Jupiter](#), and third-party transaction generation tools like [Slerf](#) treat bundles as a core feature for transaction creation in the UX for their users, minimizing the risk of sandwiching or frontrunning and providing much-needed latency guarantees.

This means that it isn't just searchers or sophisticated market participants using Jito bundles to submit transactions; it's users. Frontends integrate bundles in order to give their users transaction execution guarantees.

Increasingly, we observe that a large portion of what gets classified as MEV on Solana refers to transaction inclusion fees from ordinary users. We have observed that Jito bundles, as a result of their dominance over the transaction propagation lifecycle, provide users the strongest guarantees



around inclusion, and validators and stakers benefit directly from this mechanism just as they would through traditional base and priority fees.



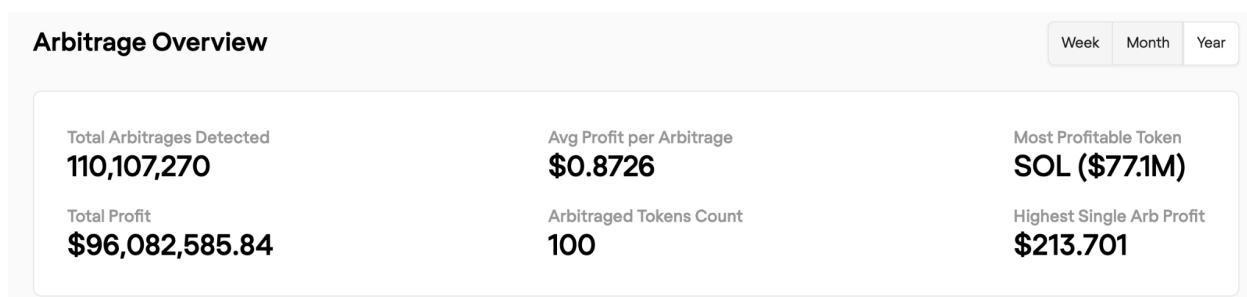
Source: [Jupiter](#) and [Bonkbot](#) Interfaces

2024 also saw meaningful trading activity for spot assets on Solana, and increased margin activity across the board. Arbitrages and liquidations also increased. Trading volume across DEXes is up over [400% YoY](#).



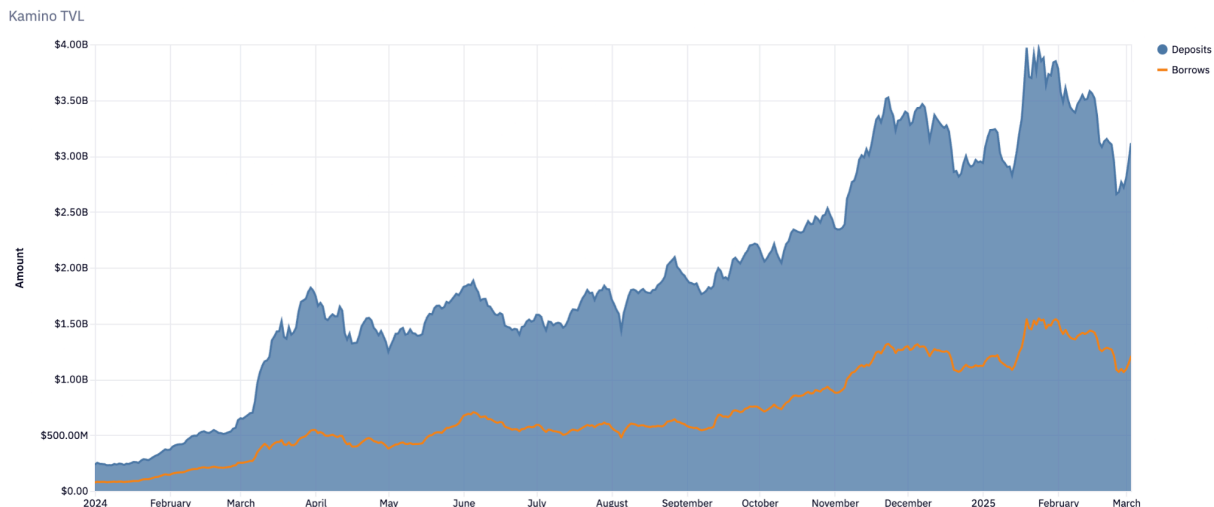
Source: [DefiLlama](#), March 3, 2025

This inherently has led to a significant increase in arbitrage volumes, and bundle tips associated with them.



Source: [Jito Explorer](#), March 3, 2025

Borrow-lend activity continues to compound on Solana, up over 10x YoY, which creates competitive liquidation opportunities that benefit Jito validators and stakers, while ensuring that protocols function efficiently and remain solvent.



Source: [Kamino Dashboard](#), March 3, 2025

All of these are key factors in Jito capturing an outsized portion of Solana’s Real Economic Value, as defined as total fees for transaction propagation sent across the network.

Solana: Quarterly Token Holder Income Statement

(USD (\$M))	SOL						
(\$M)		Q1 2025 F	Q1 2025 A	Q4 2024	Q3 2024	Q2 2024	Q1 2024
Total Economic Value							
REV		\$1,110.2	\$752.5	\$825.8	\$195.8	\$263.6	\$127.6
SOL Issuance		\$1,389.1	\$941.5	\$1,294.6	\$1,004.4	\$1,035.3	\$896.7
Total Economic Value		\$2,499.3	\$1,694.0	\$2,120.4	\$1,200.2	\$1,298.9	\$1,024.3
Real Economic Value (REV)							
Vote Fees		\$26.5	\$18.0	\$22.0	\$14.7	\$10.2	\$8.6
Base Fees		\$9.8	\$6.7	\$8.3	\$4.8	\$5.0	\$3.7
Priority Fees		\$470.5	\$318.9	\$366.3	\$90.1	\$131.2	\$73.2
Jito Tips		\$603.4	\$409.0	\$429.2	\$86.3	\$117.1	\$42.0
Real Economic Value		\$1,110.2	\$752.5	\$825.8	\$195.8	\$263.6	\$127.6
Operator Payments							
Validator Commission on Transaction Fees		-\$276.2	-\$187.2	-\$198.3	-\$54.8	-\$73.3	-\$42.8
Validator Commission on Jito Tips		-\$71.9	-\$48.7	-\$46.5	-\$14.9	-\$23.5	-\$6.6
Jito Labs Take Rate on Jito Tips		-\$30.2	-\$20.4	-\$21.5	-\$4.3	-\$5.9	-\$2.1
Validator Commission on SOL Issuance		-\$42.0	-\$28.5	-\$41.9	-\$33.5	-\$37.2	-\$39.1
LST Management Fee on Staking Rewards		-\$4.3	-\$2.9	-\$3.7	-\$2.2	-\$2.3	-\$1.7
Total Operator Payments		-\$424.6	-\$287.8	-\$311.9	-\$109.7	-\$142.0	-\$92.3
Token Holder Net Income		\$685.6	\$464.7	\$514.0	\$86.1	\$121.6	\$35.3

Source: [Blockworks Research](#), March 3, 2025



As core network activity continues to compound, we expect Jito to be the primary beneficiary as a critical layer in dispensing transaction inclusion fees.

Risks

Alternative Ordering Rules

As market microstructure matures on Solana, we expect the needs of transaction originators to become more finetuned.

For instance, bundles today cannot be defined at a specific position in the block — they simply execute whenever they are picked up by the validator from the block engine and allocated according to the ordering rules within the reserved blockspace. Traders may want an even more specific view on where they want their transactions to sit in the stack, and competing validator service providers may choose to serve this exact interest.

Similarly, the primary bottleneck to tighter spreads onchain today is the inability for makers to remove resting orders at the top of the block without paying significant transaction fees on a per slot basis. For onchain spot and derivatives exchanges to compete with centralized counterparts, no-fee maker cancels are a critical feature for makers to supply necessary liquidity to these venues.

Jito's current ordering system is not static. The Jito Block Engine rules will evolve along with market microstructure, and their deep integration with validators today affirms their position as the primary service provider to help them serve traders and users across the network.

Alternative Market Structures for Transaction Fulfilment

Blockspace auctions are one way to facilitate the capture and redistribution of what we classically define as MEV, but there are other constructions that solve for user intent prior to the transaction creation process.

[Orderflow auctions](#) allow market makers to directly match orders with traders for fulfillment prior to hitting any onchain venues for liquidity, and market makers then hedge out their exposure elsewhere. There are many different shapes that this can take on-chain, the most common of which is the classic [RFQ](#) system; there are several teams like [Drift](#), [Pyth](#), and [Jupiter](#) who match orders off chain and settle them on chain.



The majority of recent trading volume on Solana DEXes involves trading pairs with at least one lower liquidity asset, so orderflow auctions have relatively less utility because there aren't market makers who want to trade those assets. Typically those traders are trading against a pool, not a market maker. Blockspace auctions that guarantee transaction fulfillment and ordering are the best option for trading low liquidity assets.

So the question is whether blockspace or orderflow auctions ultimately get the bigger slice of MEV.

If orderflow auctions are pervasive, retail aggregators (e.g., Dexscreener or Birdeye) or wallets (e.g., Phantom or Backpack) can skim a significant portion of MEV before it reaches the validator, but only if (i) they dominate user flow and (ii) can keep that flow private. They can capture this MEV by selling orderflow in real time to market makers who will fulfill orders offchain. Critically, makers need to be able to quote on these assets for this to work, so this construction only works for large liquid assets.

For assets that have price discovery onchain in liquidity pools, blockspace auctions will likely remain dominant since there are effectively no third-party market makers in this construction. In this case, validators who run custom clients like Jito can serve demand for inclusion and atomic ordering which allows them to capture most of the MEV.

In practice, both can coexist: a wallet-level auction might capture the first opportunity for MEV, and then any leftover opportunities in the mempool get captured by validators in a blockspace auction. The exact split depends on network design, what assets are being traded, how widely adopted aggregator/wallet auctions are, and whether validators have robust MEV infrastructure.

Alternative Validator Clients

The launch of [Firedancer](#), a high-performance validator client developed by Jump Crypto, brings much awaited client diversity to Solana. In the long run, the presence of multiple validator clients producing blocks on the network should increase stability and network performance by reducing the risk of a single bug or exploit impacting the entire validator network.

Firedancer's focus on increasing throughput and reducing latency is extremely expansionary for the value that will be generated and captured on Solana.

There are some concerns that Firedancer's adoption could shift power dynamics, potentially reducing Jito's influence if validators prioritize Firedancer for its performance gains. Based on our analysis, the Jito validator client retains a significant role in Firedancer as a comparable system for bundle processing even with a new client architecture. The Jito team is actively working with the Firedancer team to build comparable block engine and validator client products that will operate



much the same way that the Jito software integrates with the current Agave client. We expect [Jito-Dancer](#) to be released alongside or shortly after Firedancer. Frankendancer has [recently](#) integrated support for Jito Bundles.

Alternative Block Production Systems

There are a handful of competing block production systems today.

[Bloxroute BDN](#) and [Paladin](#) both aim to address challenges around transaction propagation and MEV on Solana, but they differ significantly from Jito in design and scope.

Bloxroute, known for its Block Distribution Network (BDN) on various blockchains, functions as a high-performance relay layer that accelerates the flow of transactions and block data. On Solana, it seeks to minimize latency and improve network throughput by [delivering shreds faster](#) than default configurations by aggregating RPCs services for transaction submission. Although Bloxroute has offered MEV protection services on Ethereum, its Solana product is functionally a competitor to the Jito Relay. This is a subset of Jito's suite of products, focused on transaction propagation rather than providing a specialized, MEV-aware block-building solution at the validator level.

Paladin, by contrast, is a direct fork of the Jito-Solana validator client with slight modifications at the transaction ingestion and filtering layers. The system is focused on two goals: first, a "priority port" which creates a dedicated lane of transactions for holders of the PAL token, and second, a filtering system that drops transactions that resemble sandwich attacks. Paladin fragments transaction flows between PAL holders and non-PAL holders, and offers privileged access to the former through a dedicated UDP endpoint. Paladin also offers PAL-token denominated bribes to validators to accrue stake-weight — the current total share of the network running the Paladin [client is under 15%](#). Paladin validators have historically earned [between 25-50%](#) less in combined fees and tips compared to Jito validators, and Paladin blocks tend to include fewer transactions, reducing overall network throughput. It remains to be seen as to whether this brand of token-gated transaction segmentation will create any positive externalities for the Solana network.

JTO Token

JTO serves as the governance token for the Jito Network.

The current stated utility of the token is that JTO holders can propose and vote on strategic initiatives across the network, including setting fees for the JitoSOL stake pool, restaking and tip distribution programs, updating delegation strategies by managing parameters of the StakeNet programs, and overseeing the treasury of JTO tokens and fees generated from JitoSOL.



The more nuanced interpretation of this is that JTO holders can influence economic parameters that affect the distribution of rewards within the Jito ecosystem. This includes decisions related to MEV revenue sharing, staking rewards, and other mechanisms that impact both validators and stakers.

Today, Jito Labs claims a 5% fee on all bundle tips, which is recycled to build and maintain the block engine and validator client. [JIP-8](#) is a recently passed governance proposal to reduce Jito Labs' fee to 3%, and to distribute a 3% fee to the Jito tokenholder DAO (with 30 basis points of that fee distributed to the Node Consensus Network securing the TipRouter contracts). Over time, we expect the fees associated with bundles to shift further towards the DAO, and potentially increase as Jito strengthens its lock-in on the transaction supply chain. Although not yet proposed, we anticipate the Jito DAO may eventually use its earnings to buy-and-burn JTO, directly routing all revenues to tokenholders.

There are several other proposed ways to improve utility for JTO. Discussions have included using JTO as a spam resistance mechanism for the bundle relay, or a staking/slashing based reputation for searchers to interact with the block engine, and as a required asset among some set of restaking networks. For example, as the relative share of bundle transactions versus non-bundle transactions increases, the block engine may require new JTO denominated fee markets in order to function. In this construction, we expect that in addition to the classic SOL denominated tips, bundles are prioritized on the basis of JTO denominated tips which are ultimately burned.

We expect the function of JTO in the system to also change as Solana matures over time — to include an insurance fund for stake pools post slashing, or as validator reputation scores as Solana adopts multiple client architectures.

The total supply of JTO is capped at 1 billion tokens, with allocations designed to promote community growth and network development. A portion of these tokens were distributed through one of Solana's largest airdrops to early supporters, while the remaining supply is managed by the Jito Foundation and the Jito DAO to fund future initiatives and incentivize participation.

We expect the Jito DAO to use all of its earnings to buy-and-burn JTO, directly routing revenues to tokenholders.

JTO Token Valuation

The full model is attached [here](#). We encourage you to fork and adjust the variables to test different assumptions.



Methodology¹

Our valuation methodology is in SOL terms—i.e., as a percentage of total Solana market capitalization. At the time of writing, the 1D TWAP price for SOL is \$164.69, and the fully diluted value of the Solana network is \$98,037,547,915.

We arrive at a per JTO token price based on revenues and multiples based approach based on the sum of two parts — revenues accrued to Jito DAO as a function of bundle tips, and management fees accrued to Jito DAO as a function of JitoSOL yields. We have deliberately left out fees accrued to the Jito DAO via restaking, as we have little precision at this time as to the SOL-denominated fees accrued through this method. Any premium that needs to be applied is left as an exercise to the reader.

Our valuation, p , is given by

$$p = p_1(\text{BundleTips}) + p_2(\text{StakingFees})$$

where

$$p_1 = \text{Jito Tips as \% of Solana REV} \times \\ \text{\% of Tips Flowing to Jito DAO}$$

and

$$p_2 = \text{jitoSOL as \% of Staked SOL} \times \\ \text{\% of Staked SOL in LSTs} \times \\ \text{Yield} \times \\ \text{Management Fee} \times \\ \text{Multiple}$$

We start with the backwards looking version of the model. At the time of writing, we arrive at a \$2.11 price for JTO which conservatively lies within a 25% range of the 7-day TWAP price of JTO.

¹ The JTO tokens held by the Funds are marked for the Funds' valuation purposes using Fair Market Value pursuant to Multicoin's Valuation Policy, which valuation methodology is accounting-based and differs from the valuation methodology used in this report. The valuation methodology used in this report is opinion based, provided solely for the purposes of discussion, and should not be relied upon as the basis for purchasing or selling JTO or any similar token and may differ materially from the accounting-based valuation methodology used by the Funds. This report's estimated valuation only represents a best efforts estimate of the potential valuation of JTO, and is not expressed as, or implied as, assessments of the quality of a token, a summary of past performance, or an actionable investment strategy for an investor. Valuations provided are based upon detailed assumptions at the time they are included in this report and such assumptions may no longer be relevant after the date of the report. Our target price or valuation and any base or bull case scenarios which are relied upon to arrive at that target price or valuation may not be achieved as displayed herein.



p_1 (Bundle Tips)	
Jito tips as a % of Solana REV	52.09%
% of Tips flowing into Jito DAO (x)	3.00%
JTO as implied % of Sol Market Cap (=)	1.563%

p_2 (Staking Fees)	
jitoSOL as % of SOL in LSTs	43.87%
% SOL Staked in LSTs (x)	9.59%
Yield (x)	9.45%
Management Fee (x)	4.00%
Multiple (x)	37.04
JTO as implied % of Sol Market Cap (=)	0.589%

In summing the two parts, we arrive at an implied valuation of **2.152%** of Solana's Network Value, which translates to a **\$2.11** per token price for JTO or a \$2.11 Billion network valuation.

In the forwards looking section, we project forward twelve months of revenues to the DAO in the form of bundle tips and staking fees.

Our model relies on effectively five variables:

- 1. Jito Tips as a % of Solana REV**
- 2. % of Tips Flowing to Jito DAO**
- 3. jitoSOL as % of Staked SOL**
- 4. % of Staked SOL in LSTs**
- 5. Multiple**

We believe that each of the core variables into the model are beneficiaries of structural tailwinds that will drive these numbers significantly up:

- 1. Percentage of Jito Tips Flowing to Jito DAO** [JIP-8](#) will route 3% of all bundle tips directly toward the DAO (0.30% of this to NCN node operators, vault managers, and restakers). As the network continues to decentralize and Jito Labs builds enough of a balance sheet to remain self-sufficient for the foreseeable future, we can expect this rate to trend toward the entire 5% that Jito Labs has historically accrued as a take rate. As stake-weighted



validator client adoption trends closer to 100% and network load increases, it may even be possible to see the take rate increase over time (net fees on bundles have already increased from 5% to 6%).

2. **Jito Tips as a percentage of Solana REV** Bundles are disproportionately superior to priority fees for 1) high volatility events 2) latency sensitive transactions and 3) multiple ordering sensitive transactions that need to execute atomically. If recent events create a continuation for the memecoin story in 2025, bundle tips will continue to dominate as a share of total REV.
3. **Percentage of Staked SOL in LSTs** Market structure for staking is evolving. [SIMD 228](#) is a precursor to long-term staking, which could meaningfully increase the low LST penetration rate of [9.7%](#) through the introduction of programmatic lockups. In its current form, real-time changes to emissions could increase the value of instant redemption via LSTs even if the total SOL staked varies.
4. **jitoSOL as a percentage of Staked SOL in LSTs** [JIP-9](#) resolves the freerider problem that has been limiting jitoSOL market share at approximately [40%](#). Long tail LSTs with low spot liquidity against SOL have historically tapped into JitoSOL/SOL liquidity via one hop (e.g., hSOL -> JitoSOL is seamless conversion via stake accounts, JitoSOL -> SOL via liquidity pool) to process exits. This is explicitly toxic flow for both JitoSOL holders and JitoSOL/SOL LPs. The newly proposed interceptor sets high fees on newly minted JitoSOL sales in the AMM, which should reduce the viability of long-tail LSTs significantly.
5. **Multiple** The current Solana FDV / REV ratio is 36.8. Jito, as a smaller, higher beta asset, is likely to be ascribed a higher multiple on LST revenues.

In our bear case, we make very conservative assumptions about each of the above. We assume no increase in Jito share of total Solana REV, no increase in fee capture for bundle tips for the DAO, a roughly 15% increase in JitoSOL market share, and no increase in LST penetration more broadly. This brings us to a per token price of **\$2.36** (at current SOL prices), or a Jito Network value of **2.40%** of Solana's network value.

p_1 (Bundle Tips)	
Jito tips as a % of Solana REV	52.09%
% of Tips flowing into Jito DAO (x)	3.00%
p_1 JTO as Implied % of Sol Market Cap (=)	1.563%

Bear Case	
Jito Tips as % of Solana REV	52%
% of Tips Flowing to Jito DAO	3%
jitoSOL as % of Staked SOL	60%
% of Staked SOL in LSTs	10%
Multiple	37.04
p JTO as implied % of SOL Market Cap (%)	2.40%
Implied JTO Price	\$2.36

p_2 (Staking Fees)	
jitoSOL as % of SOL in LSTs	60.00%
% SOL Staked in LSTs (x)	10.00%
Yield (x)	9.45%
Management Fee (x)	4.00%
Multiple (x)	37.04
p_2 JTO as Implied % of Sol Market Cap (=)	0.840%



In our base case, we make more optimistic assumptions about each of the above. We assume a roughly 18% increase in Jito share of total Solana REV, a 2% increase in fee capture for bundle tips for the DAO, a 5% increase in JitoSOL market share, and 25% increase in LST penetration more broadly. This brings us to a per token price of **\$6.80** (at current SOL prices), or a Jito Network value of **6.94%** of Solana’s network value.

p_1 (Bundle Tips)	
Jito tips as a % of Solana REV	70.00%
% of Tips flowing into Jito DAO (x)	5.00%
p_1 JTO as implied % of Sol Market Cap (%)	3.500%

Base Case	
Jito Tips as % of Solana REV	70%
% of Tips Flowing to Jito DAO	5%
jitoSOL as % of Staked SOL	65%
% of Staked SOL in LSTs	35%
Multiple	40
p JTO as implied % of SOL Market Cap (%)	6.94%
Implied JTO Price	\$6.80

p_2 (Staking Fees)	
jitoSOL as % of SOL in LSTs	65.00%
% SOL Staked in LSTs (x)	35.00%
Yield (x)	9.45%
Management Fee (x)	4.00%
Multiple (x)	40.00
p_2 JTO as implied % of Sol Market Cap (%)	3.440%

In our bull case, we increment our assumptions slightly above the base case. We assume an incremental 5% increase in Jito share of total Solana REV, 2% increase in fee capture for bundle tips for the DAO, a 5% increase in JitoSOL market share, and 25% increase in LST penetration more broadly. This brings us to a per token price of **\$11.63** (at current SOL prices), or a Jito Network value of **11.87%** of Solana’s network value..

p_1 (Bundle Tips)	
Jito tips as a % of Solana REV	75.00%
% of Tips flowing into Jito DAO (x)	7.00%
p_1 JTO as implied % of Sol Market Cap (%)	5.250%

Bull Case	
Jito Tips as % of Solana REV	75%
% of Tips Flowing to Jito DAO	7%
jitoSOL as % of Staked SOL	70%
% of Staked SOL in LSTs	50%
Multiple	50
p JTO as implied % of SOL Market Cap (%)	11.87%
Implied JTO Price	\$11.63

p_2 (Staking Fees)	
jitoSOL as % of SOL in LSTs	70.00%
% SOL Staked in LSTs (x)	50.00%
Yield (x)	9.45%
Management Fee (x)	4.00%
Multiple (x)	50.00
p_2 JTO as implied % of Sol Market Cap (%)	6.615%