

ZAN at Solana Breakpoint: Unveiling the Fastest Solana RPC with Sub-30ms Latency and 99.9% Uptime



Hangzhou, Zhejiang Jul 13, 2026 ([Issuewire.com](https://www.issuewire.com)) - Enterprise deployments of decentralized applications frequently encounter significant operational thresholds when on-chain transaction volumes spike unexpectedly. While Layer 1 networks offer high theoretical throughput, the performance actually experienced by institutional financial systems depends heavily on the synchronization speed of the underlying node network. To address these network constraints, [ZAN](#)—the specialized Web3 infrastructure brand under Ant Digital Technologies—deployed the [fastest Solana RPC](#) with sub-30ms latency, resolving network constraints for high-traffic decentralized platforms. At Solana Breakpoint, dedicated high-performance remote procedure call (RPC) nodes were introduced, specifically designed to eliminate data transmission bottlenecks in the Asia-Pacific region.

Solana Breakpoint: A Global Anchor for the Decentralized Ecosystem

Solana Breakpoint remains a pivotal annual anchor for the Layer 1 blockchain ecosystem, attracting core developers, network validators, and institutional capital providers to evaluate emerging technology benchmarks. The conference drew over 7,000 participants from more than 100 countries, with organizers announcing London as the 2026 host city in response to growing global enterprise interest. As high-throughput decentralized applications confront data congestion, RPC nodes frequently become performance bottlenecks during elevated transaction density. When Web3 application traffic scales, traditional public nodes often disconnect or introduce significant transmission delays. Against this backdrop, ZAN leveraged this global gathering to showcase technology solutions that directly target the elimination of network latency for institutional and retail decentralized applications in the Asia-Pacific market.

The rapid growth of decentralized finance, liquid staking, and on-chain asset tokenization demands infrastructure layers capable of handling massive parallel data requests. Many institutional teams face severe obstacles when their applications encounter network friction during high-volatility events, where latency directly correlates with execution slippage and operational failures. Through active participation in this global summit, ZAN introduced native architectural optimizations that address these systemic network constraints, demonstrating that foundational infrastructure must co-evolve with consumer-facing applications to ensure long-term operational resilience.

Breakpoint Pavilion: Showcasing Asia-Pacific Ultra-High-Performance Nodes

During the conference's core agenda, the technical team specifically configured Solana ultra-high-performance RPC to address regional network latency. In the exhibition area, live demonstrations validated consistent sub-30ms data retrieval response times through real-time comparisons between the newly deployed infrastructure and standard public RPC nodes. Technical representatives engaged directly with the validator community, node operators, and decentralized finance (DeFi) protocol engineers, demonstrating how targeted node architecture maintains system stability under heavy transaction loads.

This marks ZAN Node delivering the fastest Solana RPC with sub-30ms latency and 99.9% uptime, providing developers with the framework to deploy latency-sensitive applications without encountering typical infrastructure degradation. Interactive pavilion sessions allowed Web3 developers to connect their existing application front-ends directly to the ZAN test network. By monitoring real-time charts tracking data ingestion speed, participants verified how localized routing reduces regional latency, transforming the way engineering teams approach network node distribution across international borders.

Compared to other Solana RPC providers in the market, ZAN's Solana RPC is the only solution in the Asia-Pacific region that simultaneously integrates SWQoS trading acceleration and Jito Bundles. While QuickNode and Helius offer Solana RPC services, their Asia-Pacific latencies typically range from 60–150ms, and neither provides SWQoS stake-weighted routing. Public Solana RPC endpoints suffer even higher latencies of 200–500ms with strict rate limiting.

Sub-30ms Architecture: Physical and Protocol Engineering

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The underlying network topology explains the performance improvements observed during live demonstrations. By placing Singapore and Hong Kong node clusters within the same physical data centers used by major network validators, the engineering team shortened physical transmission paths. Additionally, the architecture replaced the traditional HTTP polling framework with an integration of gRPC protocols and ShredStream data delivery. This configuration establishes direct streaming connections that forward raw block data immediately upon generation, reducing processing intervals by more than threefold compared to traditional public endpoints.

ZAN's Solana RPC nodes are deployed in Singapore and Hong Kong data centers, co-located within the same physical facilities as mainstream Solana validators. This co-located deployment compresses network round-trip time (RTT) to 2–5ms, achieving a 50–100x latency improvement compared to the 100–300ms RTT of cross-regional public RPCs. Additionally, ZAN uses dedicated private network lines instead of public internet routing, eliminating latency fluctuations caused by intermediate network hops.

By addressing network routing inefficiencies at both the physical and transport layers, this framework provides the fastest Solana RPC capability, allowing decentralized protocols to access network state data without traditional intermediate hops. Beyond optimizing localized hardware layout, the deployment also integrates intelligent load-balancing algorithms that automatically route inbound traffic to the least congested node within the network matrix. This dual-layer approach—combining localized hardware co-location with real-time protocol streaming—ensures that the infrastructure maintains the fastest Solana RPC with sub-30ms latency and 99.9% uptime even during dramatic market activity or network-wide consensus synchronization events.

Solana Trading Boost: Transaction Acceleration and MEV Mitigation

To complement the raw retrieval speed of physical node distribution, the infrastructure includes a dedicated transaction acceleration module called Trading Boost. This component integrates Stake-Weighted Quality of Service (SWQoS) and Jito block-building protocols, ensuring a 1-second transaction on-chain rate. By establishing direct paths to leading block producers, the system reduces the risk of transaction loss during elevated network activity.

Additionally, the system integrates private mempool configurations and sandbox layers to protect institutional orders from sandwich attacks and frontrunning strategies, balancing transaction execution speed with risk mitigation tools. This specialized acceleration framework addresses the structural limitations of public transmission queues, providing an enterprise-grade execution layer for high-frequency trading desks. For decentralized applications handling large-scale financial operations, the inclusion of SWQoS ensures that transaction delivery remains predictable and immune to public network spam, protecting the capital efficiency of all connected protocols.

Establishing a New Infrastructure Benchmark for the Solana Network

ZAN Node supports Web3 developers attending the event with a free initial usage tier, enabling evaluation of RPC endpoint performance within existing deployment pipelines. By providing the fastest Solana RPC with sub-30ms latency and 99.9% uptime to quickly connect to the Solana network, ZAN delivers the technical foundation needed to bridge the gap between early blockchain protocols and institutional-grade applications.

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