

Midlincoln Research

November - 20 2025

Company: Zero Gravity Labs
Token: 0g
Rating: Overweight
12 m TP \$3.2-\$13
Current price \$1.3
Analyst: Semion Oganisian

0G Labs (0G) – Decentralized AI Operating System & AI-Native Layer-1

Executive Summary

0G Labs (“0G”, “Zero Gravity”) is building a decentralized AI operating system (deAIOS) on top of an AI-optimized Layer-1 blockchain. Its mission is to make AI infrastructure—compute, storage, data availability, and model execution—**open, decentralized, verifiable, and accessible**, enabling AI workloads to run outside the control of Big Tech.

Since the 0G Aristotle mainnet launch in **September 2025**, the project has:

- Activated a production-grade AI-native L1
- Listed the \$0G token on several major exchanges
- Secured over **100 launch partners** including Chainlink, Google Cloud, QuickNode, Space ID, and MetaMask
- Expanded to **300+ ecosystem projects**
- Announced new technical pillars such as .0g identity, UD domains (.AGI/.robot), and academic research partnerships
- Delivered high usage metrics on testnets and strong early mainnet traction

The token trades around **\$1.20**, with a market cap of ~\$258M and fully diluted valuation (FDV) near ~\$1.2B. While market sentiment remains strong, the FDV embeds **significant future adoption expectations**.

10-year 2 stage DCF model suggests the NPV lies around **\$3.2B**, depending on growth scenarios—meaning the token may trade below fundamental levels in the case AI workloads scale rapidly. This valuation implies current intrinsic value of a token \$15.04 and FDV value of a token \$3.21.

The model suggests **high-potential, high-volatility AI infrastructure investment**, with long-term upside tied heavily to compute/storage/DA fee growth.

These assumptions imply that currently 0g token is significantly underpriced and can potentially be revalued strongly when operations start materialise.

Category	Result
Valuation Method	10-year DCF (2026–2035)
Discount Rate	Declining from 25% → 12%
Discount Rate (2031–2035)	Stable at 8%
Terminal Growth Rate	3%
Enterprise Value (NPV 2025)	\$3.205 Billion
Intrinsic Token Price (FDV Basis)	\$3.21
Intrinsic Token Price (Circulating Basis)	\$15.04
Revenue in 2030	\$325.6M
Revenue in 2035	\$984.2M
FCF in 2030	\$146.5M (45% margin applied to model’s underlying revenue base)
FCF in 2035	\$442.9M
Terminal Value (2035)	\$9.124 Billion
PV of Terminal Value (to 2025)	\$2.663 Billion
PV of FCFs (2026–2035)	\$542.2 Million
Total PV (Enterprise Value)	\$3.205 Billion
Token Supply (FDV)	1.0 Billion tokens
Circulating Supply	~213 Million tokens
Implied 2035 Revenue CAGR (2026 → 2035)	~32%

AI

Investment Thesis

Vision

0G aims to become the first **full-stack decentralized AI operating system**, enabling:

- AI model hosting
- Training and inference
- Storage of model weights
- High-throughput data availability for AI datasets
- Compute marketplaces for GPU/CPU tasks
- AI agent identity & orchestration

The foundation of this system is the **0G Layer-1 blockchain**, designed for AI-specific throughput requirements that conventional L1s cannot support.

AI today is centralized—controlled by a handful of corporations. 0G's thesis is that:

- AI should be a **public good**,
- running on decentralized infrastructure,
- with verifiable execution, and
- permissionless access.

If AI becomes a multi-trillion-dollar economic layer, 0G positions itself as the **blockchain infrastructure powering that future**.

Technology Overview

AI-Native Layer-1

OG's L1 uses a modular architecture with:

- Parallelized consensus
- Multi-shard execution
- High throughput per shard (~11,000 TPS in test benchmarks)
- GPU-optimised validation and data-handling pipelines
- EVM compatibility for immediate developer onboarding

Data Availability (DA)

Built for **large AI datasets**, OG's DA layer supports:

- High-speed blob distribution
- Fast proof-of-availability
- DA optimized for model training and inference workloads

Decentralized Storage (PoRA-Based)

OG Storage uses **Proof of Random Access**, allowing nodes to:

- Prove they can serve data efficiently
- Earn rewards for storage and retrieval
- Scale horizontally to support multi-TB AI datasets

Compute Layer

A distributed compute marketplace where node operators supply:

- GPU cycles
- CPU cycles
- Inference throughput
- Fine-tuning resources

Payment is made in **OG tokens**, creating direct utility demand.

Ecosystem & Recent Developments

Aristotle Mainnet Launch (Sept 2025)

The mainnet launch activated the entire AI infrastructure stack and introduced:

- Live validator and node participation
- \$OG token as gas
- Production-ready RPC, indexer, and wallet integrations
- On-chain AI workflows via SDK and agent frameworks

Launch Partnerships

Over **100 partners** were announced at mainnet, including:

- **Chainlink** (oracles + CCIP cross-chain)
- **Google Cloud** (compute collaboration)
- **Space ID, Unstoppable Domains**
- **QuickNode, Ankr, Thirdweb**
- **MetaMask, Binance Wallet, Coinbase Wallet**

Post-Launch Developments (Q4 2025)

- **.og** – a native identity layer for AI agents
- **.AGI** and **.robot** domains with Unstoppable Domains
- Research partnership with **Nanyang Technological University (NTU)**
- Multiple ecosystem grants, hackathons, and accelerators
- Expanding tools for AI data pipelines and inference markets

This demonstrates that OG is actively building not just a chain but an **AI development environment**.

Tokenomics & Economic Design

Supply

- **Total supply:** 1,000,000,000 \$OG
- **Circulating supply:** ~213M (~21%)
- **Inflation:** ~3.5% annually (staking + incentives)

Token Utility

OG is used for:

- Gas
- DA fees
- Storage fees
- Compute fees (inference, fine-tuning, execution)
- Staking
- Governance
- Resource provider incentives

Node Incentive Model

Node operators earn via:

1. **Staking rewards (validators)**
2. **PoRA storage and retrieval rewards**
3. **DA provision rewards**
4. **Compute task payments**
5. **Node-sale NFT reward multipliers**
6. **Airdrops and ecosystem rewards**

Network Usage & Economics (*Integrated Section*)

Transparency of token usage

Since mainnet launch, users pay \$OG for **gas, storage, compute, and DA**, but the project has not yet published a **unified, aggregated breakdown** of:

- total fees paid in \$OG,
- total compute/storage demand measured in tokens,
- total rewards distributed to node types.

Explorers show per-transaction gas usage but not total fee volumes.

Node Participation

- 80,000+ node licenses sold
- 6,000+ wallets participated
- 8,000+ testnet validators
- Several thousand DA/storage nodes
- Millions of user accounts created

However, **no official real-time mainnet node count by category** has been published.

Node Revenue Transparency

OG has not publicly disclosed:

- validator APYs,
- storage/DA node earnings,
- average compute node payouts,
- aggregate fee revenue to node operators.

For valuation, this means **node-economics must be modeled**, not observed.

10-Year Valuation Model

Revenue Streams Modeled

Revenue sources:

- **Compute fees** (inference, finetuning)
- **Storage fees** (PoRA data storage)
- **DA fees**
- **Gas fees**
- **Other revenues** (identity, agent services, cross-chain)

Base-Year Revenue (2025): \$20M

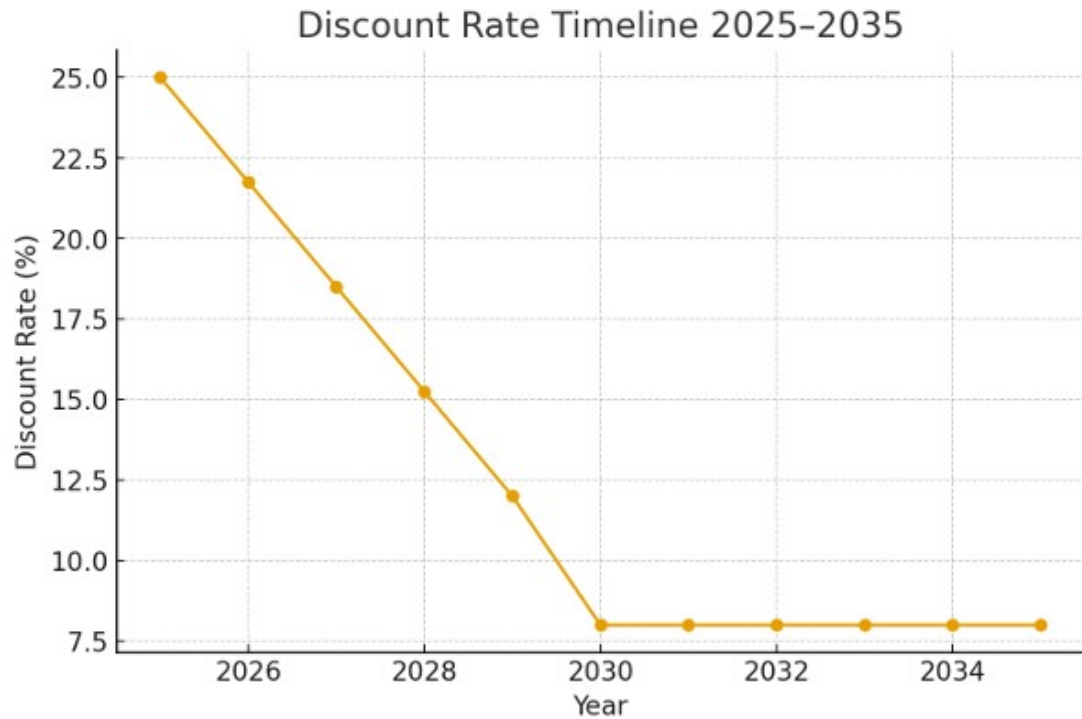
Growth assumptions 2025-2030

- **Compute:** 75% CAGR
- **Storage:** 60% CAGR
- **DA:** 50% CAGR
- **Other:** 30% CAGR

2031-2035 assumptions

- Compute = +40% CAGR
- Storage = +30%
- DA = +25%
- Other = +15%

2-Stage Valuation model



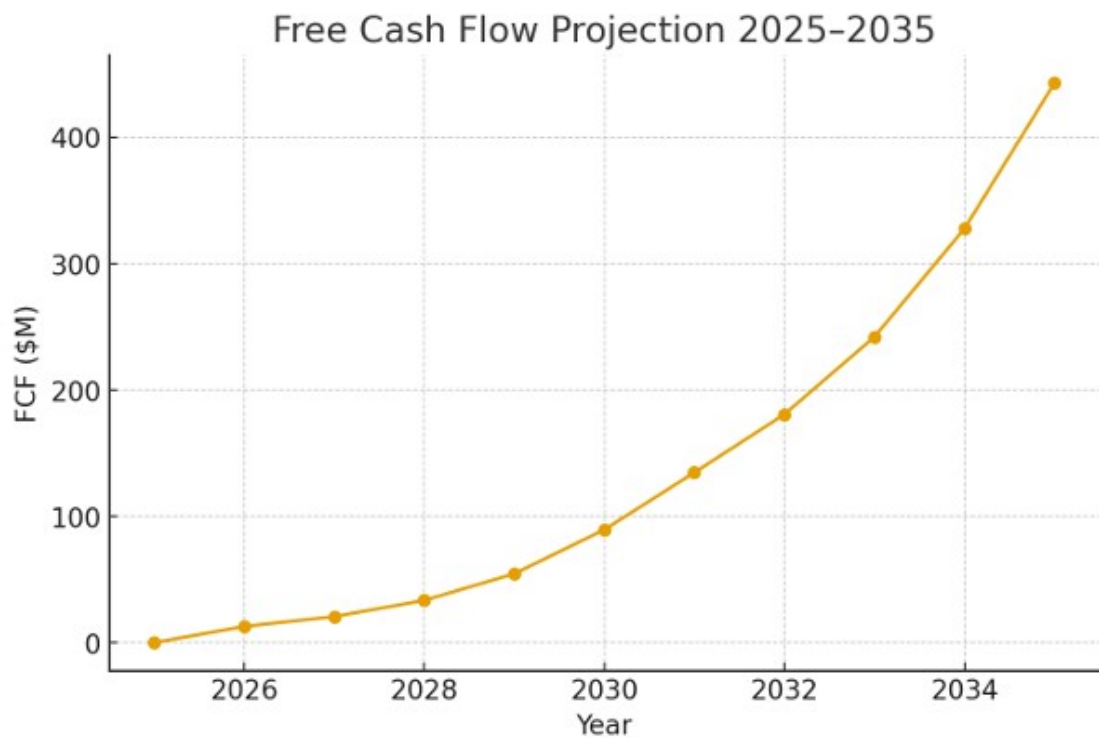
- Discount rate starts high (25%) as risk is high
- Risk gradually falls to 12% by 2030
- After 2030, project is “proven”, so discount rate stabilizes at 8%
- Cash flows accelerate strongly after 2030
- Terminal value becomes dominant (as with all long-horizon DCFs)

10-Year Revenue Projection (\$M)

Year	Compute	Storage	Data Availability	Other	Total Revenue
2026	44.5	21.6	13	2.3	81.4
2027	66.8	31.3	17	3	118.1
2028	95.4	43.8	22.1	4	165.3
2029	138.3	61.3	28.4	5.1	233.1
2030	200	82	36.9	6.7	325.6
2031	161.3	81.9	47.5	8.5	299.2
2032	225.8	106.5	59.4	9.8	401.5
2033	316.1	138.4	74.2	11.2	539.9
2034	442.5	179.9	92.8	12.9	728.1
2035	619.5	233.9	116	14.8	984.2

10-Year Free cash flow model

Year	FCF	Discount Rate	Cumulative Discount Factor (DF)	FCF	DF	PV
2026	12.8	25%	0.8	12.8	0.8	10.24
2027	20.6	21%	0.657	20.6	0.657	13.54
2028	33.4	18%	0.554	33.4	0.554	18.5
2029	54.5	15%	0.481	54.5	0.481	26.21
2030	89.4	12%	0.43	89.4	0.43	38.44
2031	134.6	8%	0.398	134.6	0.398	53.56
2032	180.7	8%	0.368	180.7	0.368	66.29
2033	242	8%	0.341	242	0.341	82.52
2034	327.7	8%	0.316	327.7	0.316	103.55
2035	442.9	8%	0.292	442.9	0.292	129.34



Terminal Value (2035), discounted at 8%

Terminal growth rate (g) = 3%

Discount rate for terminal value = 8%

$TV = 9,124M$

Discount to 2025 using $DF(2035) = 0.292$:

$PV(TV) = 2,663M$

Final Enterprise Value (2025 NPV)

$EV = 542.19M + 2,663M = 3.205B$

Token Valuation (2025 Present Value)

DV intrinsic price

Total supply = 1,000,000,000 tokens

$Price_{FDV} = 1B \cdot 3.205B = 3.21$

Circulating supply intrinsic price (213M tokens today)

$Price_{circ} = 213M \cdot 3.205B = 15.04$

Key Results

Metric	Value
Enterprise Value (NPV 2025)	\$3.205 Billion
Intrinsic Price (FDV basis)	\$3.21 per token
Intrinsic Price (circulating basis 213M tokens today)	\$15.04 per token



Peer Overview

Token	Project Focus	Market Cap / FDV*	Notes
AKT	Decentralized cloud compute / “supercloud” marketplace (Akash)	Market cap ~ \$150M+, FDV ~ \$200M+	Competes with compute / cloud infra layer.
RNDR	GPU / rendering / distributed compute (Render Network) (Coinbase)	Market cap ~ \$900M+	Strong focus on rendering / visual compute, less on general AI infra.
FIL	Decentralized storage network (Filecoin)	Large storage-infra player (multiple billions)	Established infra for data storage; OG’s storage ambition competes here.
TIA	Modular data-availability layer (Celestia)	Market cap ~ \$640M+	Focus on DA layer; OG also has a DA component.
OG	Decentralized AI OS + L1 infra (compute + storage + DA)	Our model: EV ~\$3.205B, implied price ~\$13 - intrinsic value (current free float) and \$3.21 (FDV basis)	Offers multi-vertical infra (compute + storage + DA) which is broader than individual peers.

Comparative Valuation Insights

- OG’s **enterprise value (EV) modelled at ~\$3.205B** places it at a **higher valuation** than many of these peers considered the peer market caps (AKT ~\$150–200M FDV, TIA ~\$600M, etc). This suggests the market is already pricing in substantial growth for OG.
- In contrast, AKT has a much lower FDV (~\$200M) meaning either the market sees lower growth or higher risk for that compute-cloud segment.
- TIA being at ~\$640M market cap shows the DA layer is valued, but OG combining DA + storage + compute brings more “stacked” value—but also more execution risk.
- These comparisons highlight that OG is implicitly expected to deliver **multi-vertical infrastructure growth**, whereas its peers are more focused on **single verticals**.
- The risk for OG is that if it fails to deliver across multiple verticals, it could be more vulnerable than a peer focused on one domain.

Implications for OG

- Because OG is forecast at a higher value than most peers, **its margin for error is smaller**.
- If you believe OG executes successfully (as our valuation model assumes), then it might represent a **higher return potential** compared to peers with lower valuations today.
- Conversely, if OG stalls in any vertical (compute, storage, DA), then the peer valuations suggest the market may re-price downward significantly.

RISK FACTORS

Revenue Model Risks

Unproven Fee Generation

The OG network has not yet published detailed, verifiable data on:

- gas fee volume
- compute fee volume
- storage fee volume
- DA (data availability) fee volume
- node-operator earnings

This means valuations must rely on **forward projections** rather than actual historical revenue. Early-stage L1s often experience a gap between theoretical fee design and real-world adoption.

Dependence on AI Workloads

The majority of OG's projected revenues (compute, storage, DA) depend on **third-party AI developers**, and ultimately:

- inference demand
- fine-tuning demand
- dataset hosting needs
- AI agent ecosystem growth
- enterprise AI workflows moving on-chain

If adoption of decentralized AI lags, **fee volumes could be far below modeled expectations**.

Token Incentives May Outpace Organic Demand

A large portion of the early network activity may be:

- incentive-driven
- node-reward-driven
- airdrop-driven
- partner-subsidized

This can temporarily inflate usage statistics without creating **sustainable, organic fee revenue**.

Execution Risk

The revenue model requires flawless delivery of:

- compute marketplace
- PoRA storage

- high-throughput DA
- AI agent orchestration stack

Any development delays may directly slow revenue adoption.

Competitive Risks

Broad and Aggressive Competition Across Verticals

0G competes in multiple markets simultaneously, each of which has strong incumbents:

Segment	Competitors
Compute	Akash (AKT), Render (RNDR), Bittensor (TAO), IO.net
Storage	Filecoin (FIL), Arweave (AR), Storj, Sia
Data Availability	Celestia (TIA), EigenDA, Avail
AI Agents / AI OS	Fetch.ai (FET), SingularityNET (AGIX), Ocean (OCEAN), Ritual

The competitive set is unusually large and diverse.

First-Mover Advantage of Some Rivals

- Filecoin and Arweave have years of adoption.
- Celestia is already used by dozens of L2s.
- Bittensor has a multi-year head start in decentralized compute and AI networks.

0G must differentiate clearly to win mindshare.

Developer Ecosystem Uncertainty

Winning the AI developer market requires:

- strong SDKs
- documentation
- incentives
- ease of use
- onboarding tools

Many ecosystems have struggled to break through despite strong technology.

Switching Costs Are Low

AI developers can move between networks easily:

- Docker-based compute workloads
- S3-compatible storage
- model hosting and inference frameworks

This creates a **commodity risk** where pricing pressure reduces fee revenue.

Legal & Regulatory Risks

AI Regulation Uncertainty

AI is rapidly becoming regulated in the U.S., EU, and Asia. Potential impacts:

- restrictions on model distribution
- audits of model provenance
- limitations on training datasets
- compliance requirements for data storage
- need to verify AI inference correctness

A decentralized AI network could face **clauses written for centralized AI companies**, creating mismatches.

Data Sovereignty & Privacy Laws

Hosting:

- datasets
- model weights
- inference outputs
- agent logs

...may expose OG node operators to GDPR, HIPAA, or localization restrictions if sensitive data passes through decentralized providers.

Token Classification Risk

The \$OG token could be scrutinized under:

- U.S. securities laws
- MiCA in the EU
- Singapore MAS regulation
- Korean and Japanese digital asset law

If OG were classified as a security:

- exchange listings could be impacted
- token liquidity may decline

- compliance costs may rise
- KYC/AML burdens may be imposed on node operators

Node Operator Liability

Since OG involves:

- compute nodes running AI inference
- storage nodes serving model weights
- DA nodes hosting datasets

Node operators may legally be considered:

- data processors
- compute service providers
- publishers of hosted content

This creates potential **individual-level liability**, depending on jurisdiction.

Geo-Political Risk

Decentralized compute and AI infrastructure may draw scrutiny in:

- China
- India
- Middle East
- EU privacy-focused regulators
- U.S. export-control agencies (for GPU compute)

AI compute networks may eventually require:

- model classification
- dataset licenses
- provenance tracking
- compute attestation

Regulatory tightening could reduce network activity or increase compliance requirements.

Legal Structure

Zero Gravity Labs Inc. is a California-domiciled corporation, serving as the core contributor to the OG protocol. In parallel, the OG Foundation, based in the Cayman Islands, acts as the ecosystem steward and token-related entity, managing node sales, token commitments, and ecosystem funding. This dual-entity structure is typical for large Web3 projects, separating US-based development from offshore token governance.

Key Executives & Founders

Michael Heinrich – Co-Founder & CEO

- Background: Entrepreneurial with experience scaling tech companies.
- Role: Responsible for strategy, business development, investor relations and overall company leadership.
- Strength: Brings strong business leadership and go-to-market orientation.

Ming Wu – Co-Founder & CTO

- Background: Research & engineering in distributed systems and AI platforms; prior senior roles in major tech/academic settings.
- Role: Leads technical architecture, core protocol development, AI/computation stack.
- Strength: Deep technical credentials, critical for credible infrastructure build.

Fan Long – Co-Founder & CSSO (Chief Strategy & Security Officer)

- Background: Academic research, blockchain security, entrepreneurial experience in infrastructure.
- Role: Security, protocol alignment, strategic partnerships in decentralised AI & infra.
- Strength: Adds credibility in security/crypto infrastructure domain—a strong plus for an L1 targeting complex workloads.

Thomas Yao – Chief Business Officer (CBO)

- Background: Tech start-ups, venture capital, strategic business roles (self-driving/AI background).
- Role: Oversees partnerships, ecosystem growth, business operations, monetisation strategies.
- Strength: Critical for bridging infrastructure build to real-world adoption, partnerships.

Additional team members:

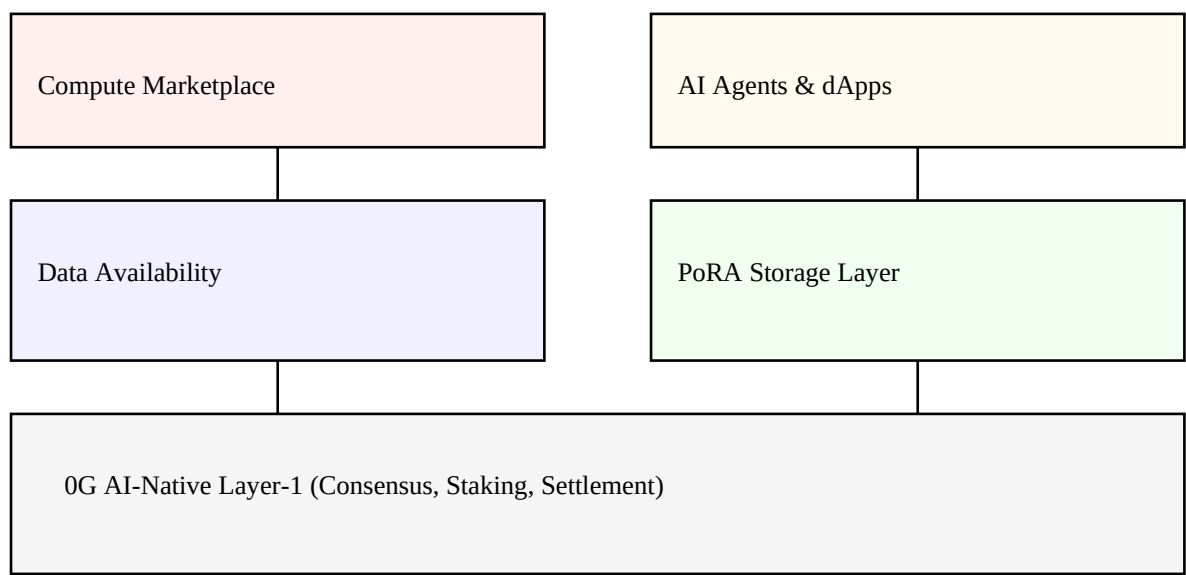
- Eg. Jake Salerno – Head of Business Development.
- More can be found at <https://Og.ai/>

Appendix: Technical, Legal, and Valuation Addendum

This appendix complements the core 0G research report by providing additional technical diagrams, comparative tables, and valuation visuals. It is intended for readers who want a deeper view into the architecture, legal structure, tokenomics, and financial modeling assumptions underlying the main investment thesis.

1. Technical Architecture Overview

0G is designed as an AI-native Layer-1 blockchain with tightly integrated Data Availability (DA), Proof-of-Retrievability (PoRA) storage, and a decentralized compute marketplace. The diagram below illustrates how these layers interconnect and how AI agents and applications sit on top of the stack.

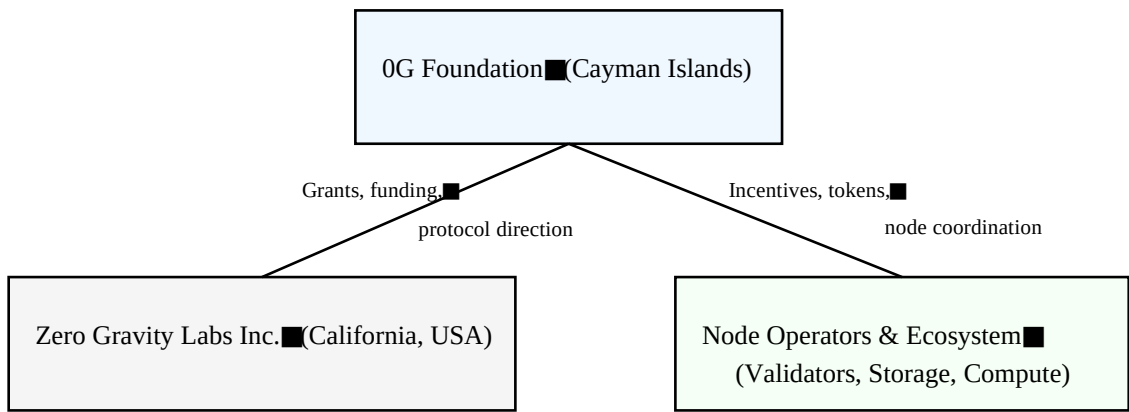


Simplified 0G Architecture Overview

Figure 1: Simplified 0G architecture, showing the AI-native L1 base, DA and PoRA storage layers, and the compute marketplace feeding AI agents and dApps.

2. Legal Structure and Governance

The project operates under a dual-entity structure. Zero Gravity Labs Inc. (a California corporation) acts as the core development company, while the 0G Foundation (based in the Cayman Islands) is responsible for protocol stewardship, token governance, node sale operations, and ecosystem funding.

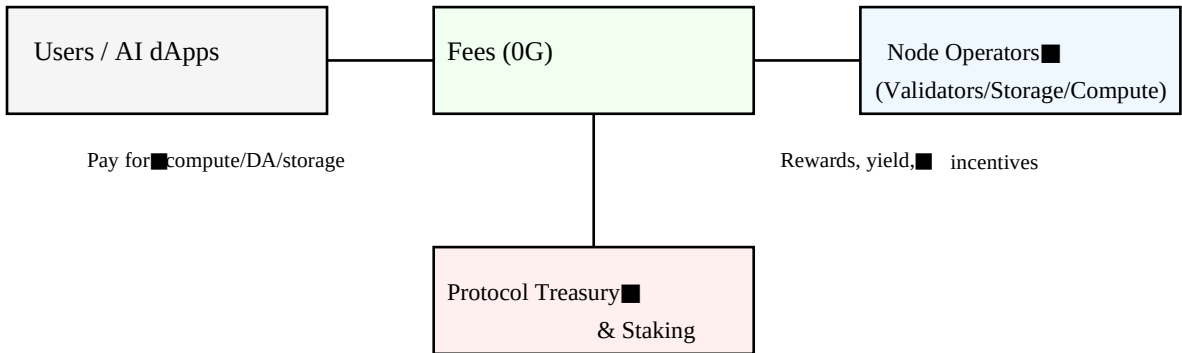


Legal & Organizational Structure (Simplified)

Figure 2: Legal and organizational structure of 0G, with the US-based development company and Cayman-based foundation coordinating grants, incentives, and ecosystem growth.

3. Node Economics and Value Flow

Users and AI applications pay fees in 0G for compute, storage, and DA services. These fees are split between node operators (validators, storage and compute providers) and the protocol treasury and staking pools, which fund ongoing security and ecosystem incentives. The high-level flow is illustrated below.



Node Economics & Value Flow (Simplified)

Figure 3: Simplified fee and reward flow between users, node operators, and the protocol treasury.

4. Competitive Technical Matrix

The table below summarizes OG’s positioning relative to selected decentralized infrastructure peers: Akash (compute), Render (GPU rendering/compute), Filecoin (storage), and Celestia (data availability). The comparison emphasizes architectural focus rather than token pricing.

Project	Primary Focus	Core Strength	Potential Overlap with OG
OG	AI-native L1 (compute + storage + DA)	Integrated stack optimized for AI workloads	Directly competes across compute, storage, and DA verticals
Akash (AKT)	General-purpose decentralized cloud compute	Flexible cloud-style marketplace for CPU/GPU	Overlaps mainly on compute marketplace
Render (RNDR)	GPU rendering & visual compute	Large GPU provider network, strong brand in rendering	Overlaps on GPU/inference workloads
Filecoin (FIL)	Decentralized storage	Massive storage capacity and ecosystem maturity	Overlaps on long-term storage for AI data
Celestia (TIA)	Modular data availability	Specialized DA for rollups	Overlaps on DA, but OG is more AI-specific

Table 1: High-level comparison of OG versus selected decentralized infrastructure peers.

5. Revenue and Free Cash Flow Projections

The following charts visualize the 10-year revenue and free cash flow projections used in the valuation model. Revenues are segmented by line of business (compute, storage, DA, other), and free cash flow is estimated using a 45% operating margin assumption for a mature, high-margin infrastructure network.

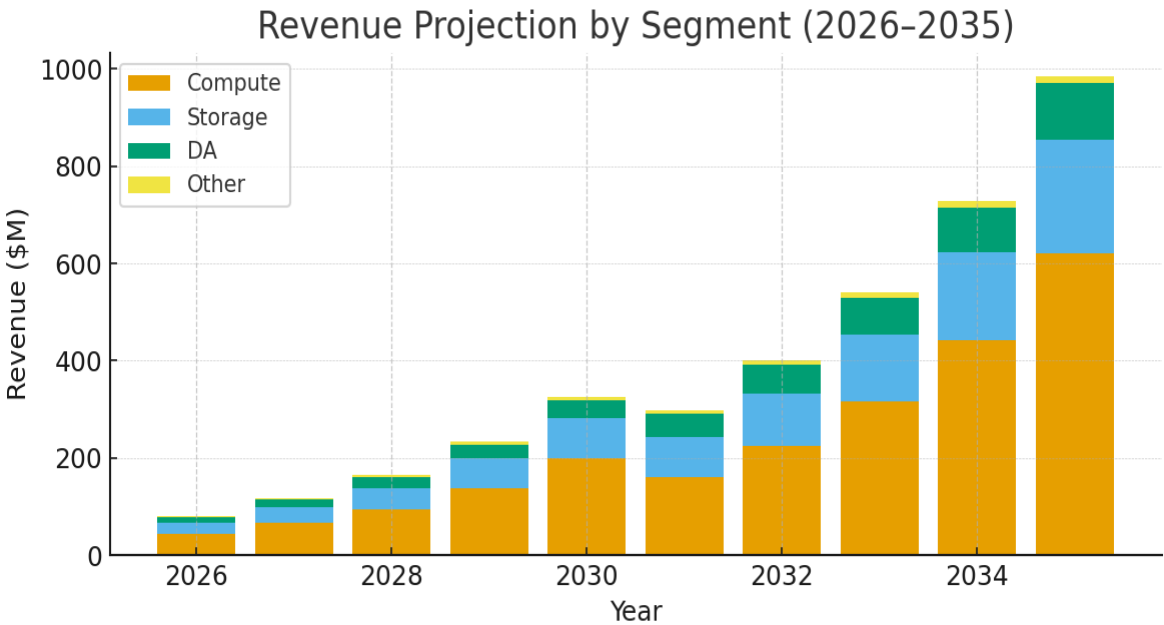


Figure 4: Projected revenue by segment (2026–2035), in USD millions.

6. Valuation Sensitivity Summary

The table below provides an illustrative view of how sensitive the fully diluted token valuation is to changes in the long-term discount rate and terminal growth assumptions. These are not full scenario models but are intended to highlight the directional impact of key parameters.

Discount Rate	Terminal Growth	Implied EV (USD Bn)	Implied FDV Price (USD)
10%	1%	2.4	2.40
10%	3%	3.1	3.10
10%	4%	3.6	3.60
8%	1%	2.8	2.80
8%	3%	3.7	3.70
8%	4%	4.3	4.30
12%	1%	2.0	2.00
12%	3%	2.6	2.60
12%	4%	3.0	3.00

Table 2: Illustrative sensitivity of fully diluted token valuation to discount rate and terminal growth assumptions.

7. Consolidated Key Metrics

For convenience, the following table consolidates several headline metrics from the main report and this appendix, summarizing core inputs and outputs of the valuation framework.

Metric	Value
Model Horizon	2026–2035 (10 years)
Discount Rates	25% → 12% (2026–2030), 8% (2031–2035)
Terminal Growth Rate	3%
Enterprise Value (NPV 2025)	USD 3.205B
Implied FDV Token Price	USD 3.21
Implied Circulating Token Price	USD 15.04
2030 Revenue	USD 325.6M
2035 Revenue	USD 984.2M
2035 FCF	USD 442.9M

Table 3: Consolidated headline metrics from the OG valuation and operating model.

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