lium

Bitcast Brief 020 - Lium (Subnet 51)

Supporting information / resources:

Brand assets: Google Drive

Lium Overview

🧠 What is Lium?

Formerly named Celium, Lium is a **Web3-native GPU cloud** — a decentralized compute marketplace where anyone can rent or provide GPU power, powered by Bittensor's Subnet 51. It's a trustless, permissionless alternative to cloud giants like AWS or Azure, optimized for AI, ML, and other GPU-heavy workloads.

🛠️ How It Works

- **Miners**: Share idle GPU resources and earn TAO. Machines are ranked by performance.

- **Validators**: Audit GPUs to ensure miners deliver on their specs.

- **Renters**: Pay in crypto to spin up GPU instances on demand via a sleek UI or CLI.

🔗 *Everything runs on-chain*, with payments, rewards, and penalties handled by smart contracts.

💡 Why It Matters

- 🚀 **90% Cheaper** than AWS (with higher utilization efficiency)

- 🧱 **Decentralized Infrastructure** — no single point of failure

- 🙆 **No KYC** — open to anyone, anywhere

- 🧮 **Supports high-end GPUs** like H100, A100, MI200, etc.

- 🛡️ **Security-focused**: Validators + slashing = performance guarantee

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💰 Revenue

Lium.io is averaging $600/hr in usage revenue - <u>which is the most revenue being generated by any subnet.</u>

That's approximately $14,400/day and over $432,000 for the month, all of which is used to buy back its Alpha token.
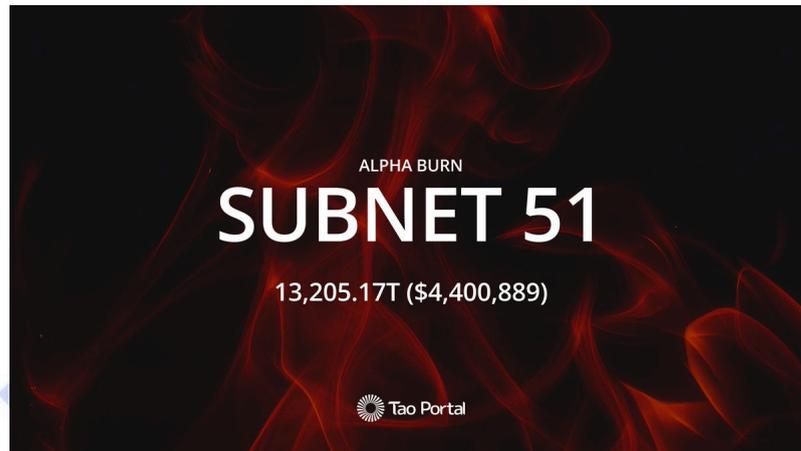
On top of that, Lium is also burning an average of 60% of the daily miner emissions.

📈 Based on a conservative 5% monthly growth rate, Lium is projected to generate $11.5M+ in annual revenue over the next 12 months.

See recent tweet: https://x.com/TaoPortal/status/1951990790978199927

Recent burn announcement: 174,210.11 Alpha Tokens Burnt! Which at the time equated to ~$4.4m (https://x.com/TaoPortal/status/1940860461182079487)

💰 New collateral requirements

Miners must post collateral that is at risk and incentivizes reliability.

If a miners GPU's experience unexpected downtime their collateral is forfeited and withheld by the network.

This incentivizes higher reliability from miners and results in a better service for customers.

🧰 Use cases

Enables GPU users to run

- Text to video
- Image editing
- Rentals
- Model training
- AI Transcription
- Music Generation
- AI Content Moderation
- ChatGPT/Midjourney-style user interfaces
- Custom Models/AI Workflows

🌍 Current Impact

- A mainstay in the **top 5 subnets on Bittensor**

- Serving live workloads globally via lium.io

- Popular among ML devs, AI researchers, and crypto-native builders

- Community calls it "**the AWS of Bittensor**"

🚧 Roadmap Highlights

- Public dashboard for real-time usage & revenue

- Advanced AI training support (multi-GPU coordination)

- Mobile/CLI onboarding tools for miners

- Confidential compute & containerized workloads

- Integration with EVM & Kubernetes

👷 The Team

Founded by **Datura, led by Fish**, a former large-scale Bittensor miner, Lium's team combines deep experience in GPU infrastructure and on-chain systems. They've built a platform optimized for reliability, scalability, and usability — staying true to Bittensor's permissionless ethos.

👷 Additional resources

X - https://x.com/lium_io
Website: https://lium.io/