QUASAR

Decentralized Quantum Computing Marketplace

Bittensor Subnet Proposal | Version 1.0 | February 2026

Active Miners	Circuits / Day	Subnet Share	TVL Target
100	10,000	20% TAO	USD 10M

"Quasar lets anyone access verified quantum computing power without waiting in queues, paying huge fees, or trusting a single company."

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1. Executive Summary

What is Quasar?

Quasar is a Bittensor subnet that creates a decentralized marketplace for quantum computing. Like Uber for quantum computers, it connects researchers who need quantum computing power with miners who own or rent quantum hardware — all verified automatically and paid in TAO.

> *"Quasar lets anyone access verified quantum computing power without waiting in long queues, paying huge fees, or trusting a single company."*

How It Works — At a Glance

Step	What Happens
1	User submits a quantum calculation request in standard Qiskit / OpenQASM format
2	Miners compete to run it on real quantum hardware (QPU) or GPU simulators
3	Validators independently verify results using statistical tests (TVD, noise fingerprinting)
4	Best miners earn TAO tokens proportional to their quality score via Yuma Consensus
5	User receives verified, trustworthy results — no single company to trust

Year 1 Targets

Miners	Calc/Day	Network Share	TVL
100	10,000	20% subnet TAO	USD 10 Million

2. The Problem We're Solving

Quantum computing access today is controlled by a handful of companies — IBM, Google, IonQ, Rigetti — creating three structural problems that block progress for everyone else.

Problem	Current Reality	Who Gets Hurt
Long Queues & High Prices	Free users wait hours or days. Premium access requires institutional partnerships costing thousands per month.	Startups and independent researchers locked out
Vendor Lock-In	Each provider has its own tools and formats. Migrating away requires expensive re-engineering.	Developers trapped with one provider
Unverifiable Results	No independent way to verify if a calculation ran on real hardware or if results are accurate.	Research integrity compromised

Today's Broken Access Flow

Researcher needs quantum compute
→ Contacts IBM / IonQ / Rigetti
→ Waits in queue (hours or days)
→ Pays premium institutional fees
→ Receives result — no way to independently verify

Market Opportunity

The quantum computing market is expected to reach USD 2 billion by 2027. Pharmaceuticals, finance, and cybersecurity are actively investing — but cannot access reliable quantum compute at scale. Quasar fills this gap with decentralized, verified infrastructure.

3. Our Solution: Quasar

Quasar solves all three problems through a decentralized, verified marketplace built on Bittensor's incentive infrastructure — accessible, trustworthy, and self-improving through economic competition.

Problem	Quasar's Solution
Long queues & high prices	Multiple miners compete → faster service, better prices through market competition
Vendor lock-in	One standard API works with IBM, IonQ, Rigetti, or any simulator — change one line of code
Unverified results	Multiple independent validators check every result — verified by mathematics, not blind trust

Key Differentiating Features

Feature	How It Works
Fraud-Proof Verification	Above 50 qubits, it is physically impossible to fake results using a regular computer within 60 seconds. This is physics, not policy.
Hardware Authenticity Bonus	Real QPU miners earn a 1.5x reward bonus, creating strong economic incentives to invest in real quantum infrastructure.
Smart Routing	Automatically routes calculations to the best miner based on circuit complexity, queue times, and cost optimization.
Standard Developer Tools	Use familiar Qiskit tools. Switching to Quasar requires changing just one line of code — no relearning.
ZK-SNARK Attestation	Zero-knowledge proofs cut validator compute cost by 40% while making results cryptographically verifiable.
Cross-Network Integration	Other Bittensor AI subnets can call Quasar as a "quantum oracle" for specialized probabilistic calculations.

4. How Quasar Works

Here is exactly what happens when someone submits a quantum calculation — from the moment they hit send to receiving a verified result.

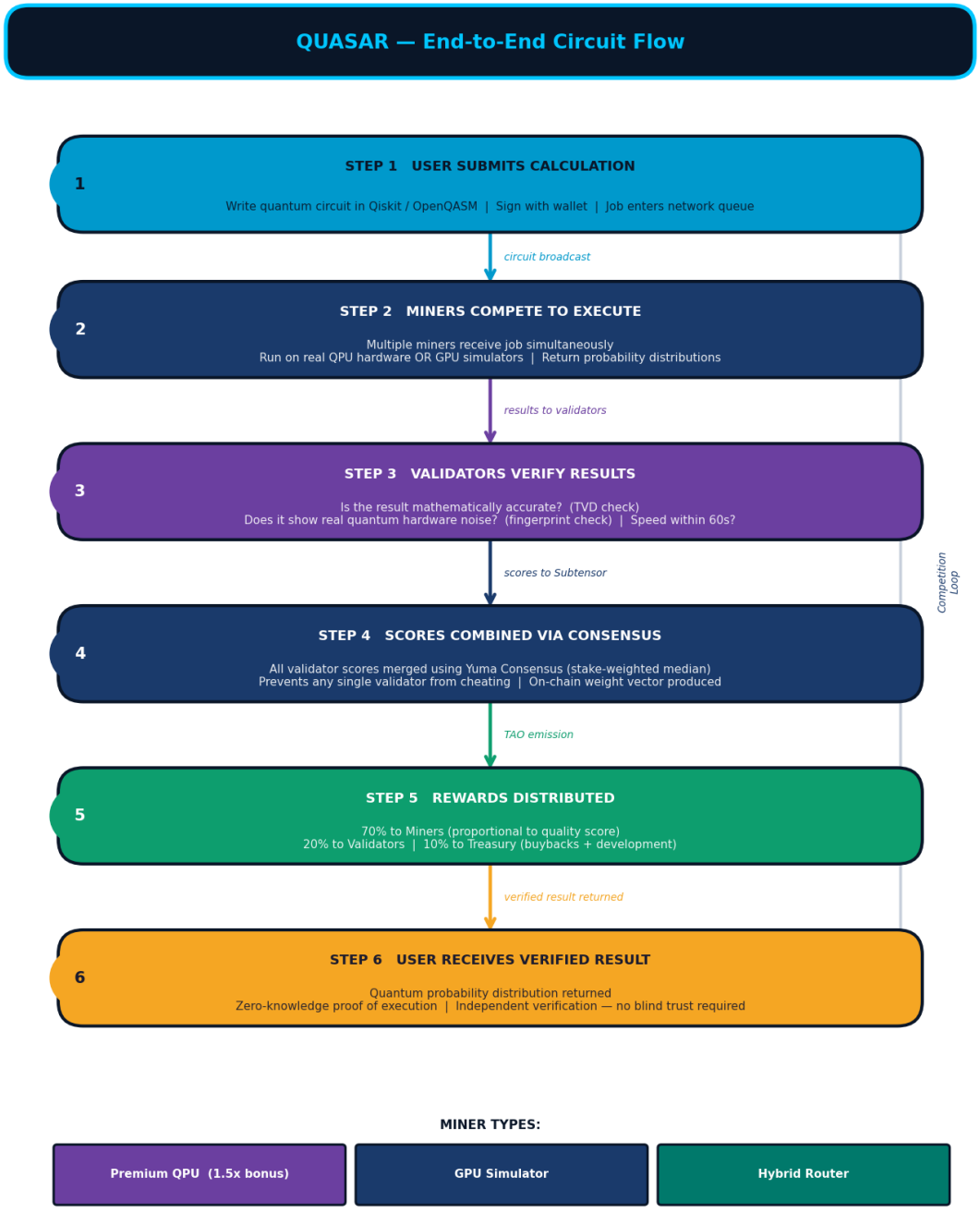


Figure 1: Quasar end-to-end circuit flow — 6 steps from submission to verified result and TAO reward

#	Stage	Detail
1	**Submit Circuit**	Quantum circuit in Qiskit/OpenQASM sent to Quasar API with wallet signature
2	**Job Routing**	Smart router dispatches circuit to best available miners — QPU or simulator based on complexity
3	**Miner Execution**	Miners run circuit on quantum hardware or GPU simulators; return probability distributions
4	**Validator Verification**	At least 3 validators check accuracy (TVD), hardware fingerprint, and cross-miner consensus
5	**Yuma Consensus**	Stake-weighted median of validator scores produces final miner quality rankings
6	**Rewards & Results**	Miners receive TAO proportional to quality; user receives verified result

5. The Quasar Ecosystem & Miner Types

Quasar is a three-sided ecosystem: users who need quantum compute, miners who provide it, and validators who verify it. The Bittensor blockchain coordinates rewards automatically with no middleman.

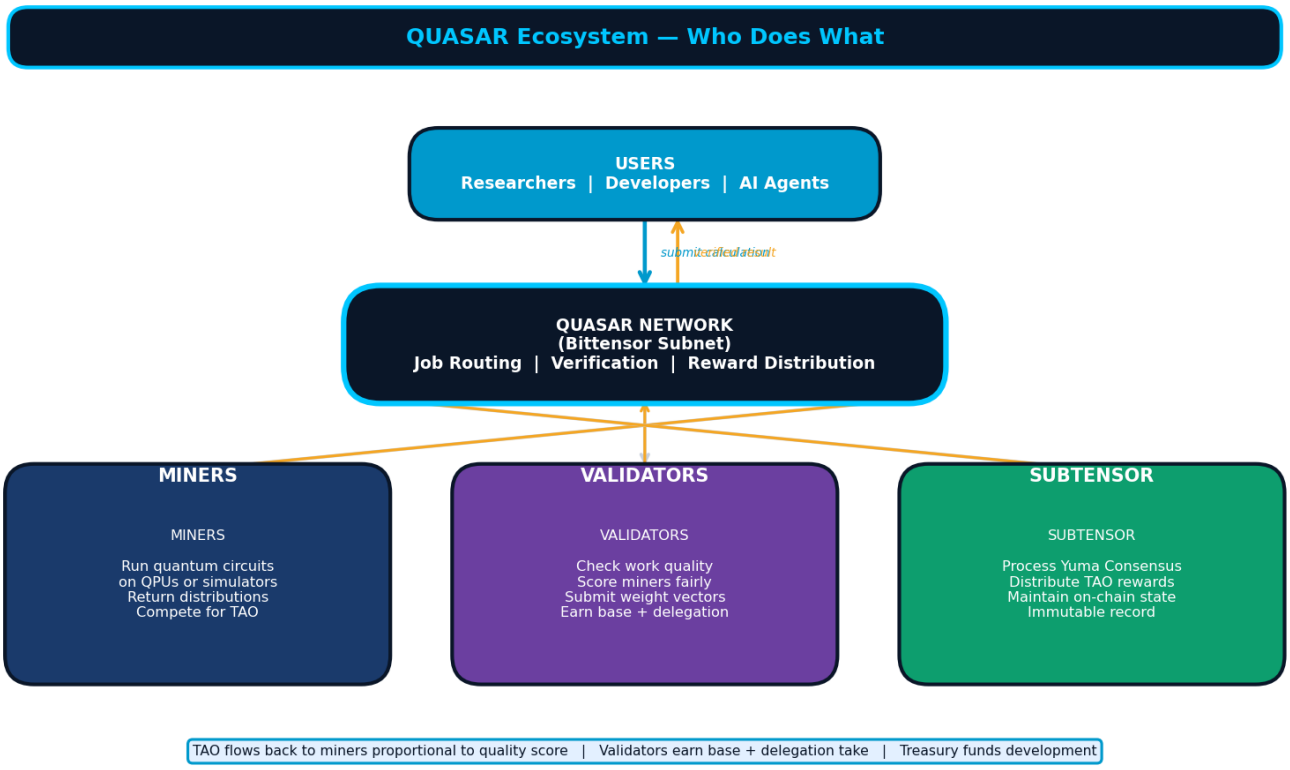


Figure 2: Quasar ecosystem — users, miners, validators, and Subtensor blockchain

Miner Hardware Tiers

Tier	Hardware	Max Qubits	Best For	Reward
Premium QPU	IBM / IonQ / Rigetti cloud API	27–127	Authenticity-critical work	1.5x bonus
High-Fidelity Sim	GPU statevector (cuQuantum)	28–36	High-volume calculations	Medium
Density Matrix Sim	Noisy GPU sim (Qiskit Aer)	20–30	Tunable noise testing	Medium
Hybrid Router	Dynamic QPU + Sim dispatch	20–127	Cost optimization	Variable

Target Markets

Market	Use Case	Market Signal
Pharmaceutical	VQE drug molecule simulation — protein-ligand binding	Pfizer and Roche running quantum chemistry pilots
Financial Institutions	Portfolio optimization, risk modelling, Monte Carlo simulations	JPMorgan and Goldman Sachs have dedicated quantum teams
Cryptography / Web3	Post-quantum cryptography (PQC) algorithm testing	NIST PQC standards finalized; enterprise migration underway

6. Scoring System

Every calculation gets scored across four dimensions. Scores normalize to percentile rankings, aggregate through Yuma Consensus, and convert into TAO emission weights.

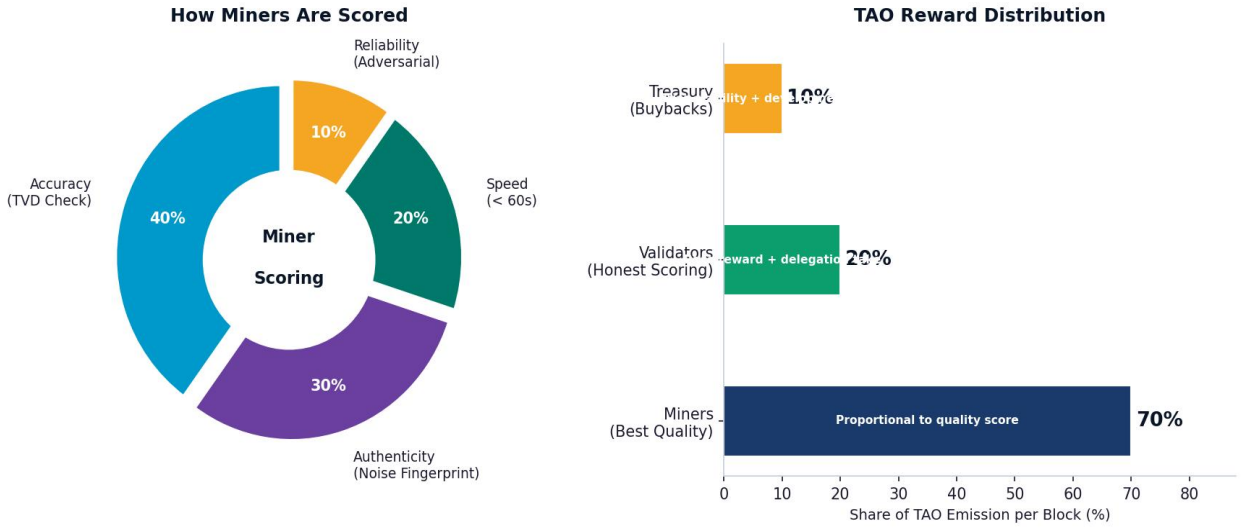


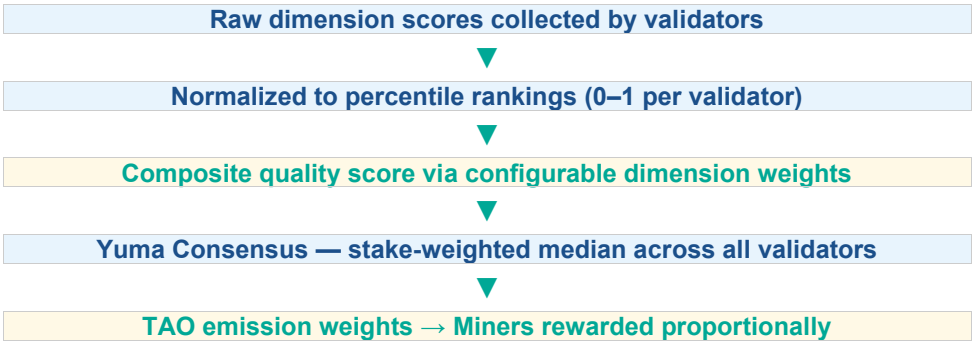
Figure 3: Scoring dimension weights (left) and TAO emission distribution (right)

The Four Scoring Dimensions

Dimension	Weight	What It Measures	Verification Method
Accuracy (TVD)	40%	How close is the result to the mathematically correct answer?	Total Variation Distance vs. theoretical distribution. Lower TVD = higher score.
Authenticity	30%	Real QPU or simulator? Verified through hardware noise patterns.	Noise fingerprinting — real QPUs have error patterns simulators cannot replicate. 1.5x bonus for QPU.
Speed / Latency	20%	Response speed measured against 60-second hard limit.	Time from circuit dispatch to result receipt. Faster = higher score.
Robustness	10%	Stability under adversarial inputs and edge-case circuits.	Validators send tricky circuits to stress-test miners. Bonus points for clean handling.

> *Key Insight: A miner attempting to fake 50-qubit RCS execution using a classical GPU would need approximately 4 petabytes of RAM or several hours of computation — far exceeding the 60-second evaluation window. Classical fraud is provably impractical at this scale.*

Score → Reward Flow



7. Emission Model

TAO tokens flow through three channels every block — rewarding quality work, incentivising honest validation, and stabilising the ecosystem through treasury buybacks.

Recipient	Share	Mechanism	Purpose
Miners	70%	Proportional to Yuma consensus quality weight	Rewards best quantum execution
Validators	20%	Base reward + percentage of delegated stake	Incentivises honest, thorough scoring
Treasury	10%	Automatic token buybacks	Price stabilisation + development funding

> *External fees (Phase 3+): Users pay fees to submit calculations. A 5% platform fee goes to the treasury via Chainlink oracle pricing — creating sustainable revenue beyond token emissions.*

Network Growth Flywheel

Emissions attract miners

▼

Competition improves execution quality

▼

Quality attracts external users

▼

User fees stabilize miner economics

▼

Better economics attract more capable hardware → repeat

8. Validator Design

Validators operate a layered challenge architecture — progressive testing from basic correctness through fraud-resistant RCS challenges — ensuring full resources focus on high-quality performers.

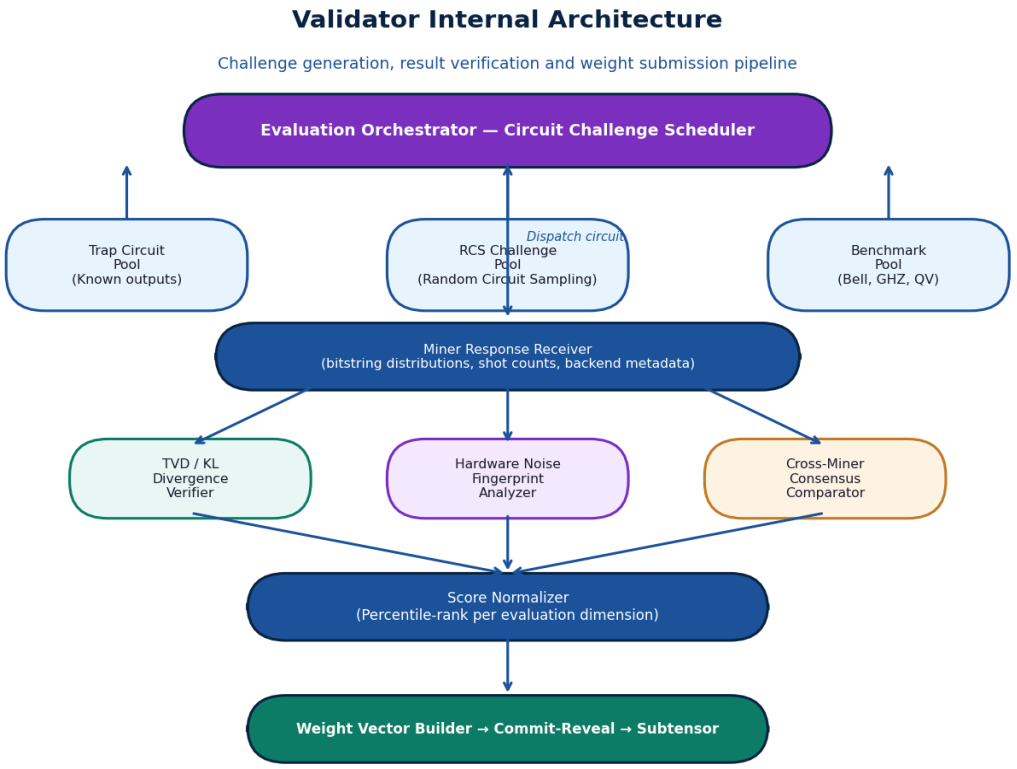


Figure 4: Validator internal architecture — three circuit pools feeding evaluation and scoring pipeline

Evaluation Funnel

Stage	What Happens	Pass / Fail Criteria
Initial Screen	Basic trap circuits dispatched	TVD > 0.3 or malformed responses → deregistered (24-hour grace period)
Secondary Screen	Randomized & multi-qubit circuits	Tests capability boundaries + first hardware authenticity check for QPU claimants
Full Validation	Complete suite by 3+ validators concurrently	RCS challenges + adversarial inputs + throughput tests. Scores averaged with outlier clipping.

Three Circuit Pools

Pool	Contents	Update Frequency
Trap Circuit Pool	Bell state, GHZ state, QFT — exact known output distributions	Rotated weekly to prevent memorization
Benchmark Pool	Quantum Volume, Mirror Circuits, Clifford benchmarks	Updated monthly for hardware capability assessment
RCS Challenge Pool	Fresh circuits generated from validator's private random seed	Dynamic — pre-computation impossible

Score aggregation: Validator scores combine through stake-weighted averaging. Outlier scores deviating more than two standard deviations from the cohort mean are clipped before averaging — preventing both accidental errors and deliberate manipulation.

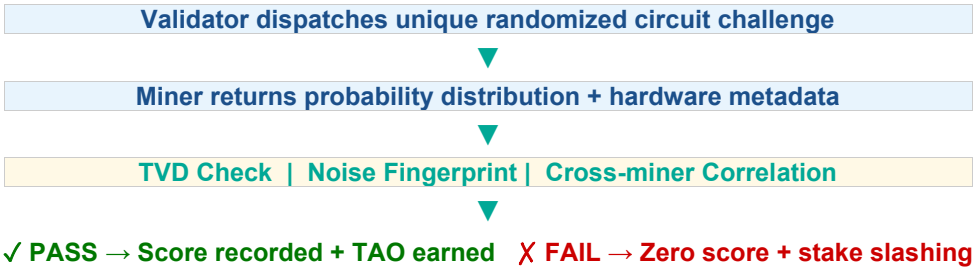
9. Fraud Prevention & Security

Quasar's verification architecture makes cheating economically catastrophic and physically impractical. Six attack vectors, all neutralized.

Attack Vector	How It's Neutralized
Classical Simulation Fraud	RCS circuits at 50+ qubits are classically intractable within 60 seconds. Hardware noise fingerprinting distinguishes real QPU noise from noiseless simulation.
Result Caching	Validators inject random single-qubit rotations into every circuit before dispatch. Cached answers won't match the unique randomized circuit.
Distribution Copying	Different circuit variants dispatched to different miners simultaneously. Cross-miner correlation analysis detects copied distributions.
Validator Collusion	Yuma's median aggregation neutralizes outliers. Colluding validators face influence reduction. Delegation market moves stake from dishonest validators.
Qubit Count Inflation	Graduated challenge circuits progressively increase complexity. Running fidelity profiles detect qubit capacity misrepresentation.
Latency Spoofing	Circuit randomization prevents pre-computation. Anomalous response time distributions are flagged and investigated.

> *Physics-Based Security: Above 50 qubits, it is physically impossible for anyone to fake results using a regular computer within our 60-second window. This is not a policy — it is physics.*

Fraud Detection Flow



10. System Architecture

Five primary layers interact through defined interfaces, designed for scalability, fault tolerance, and security within Bittensor's protocol constraints.

High-Level Network Architecture

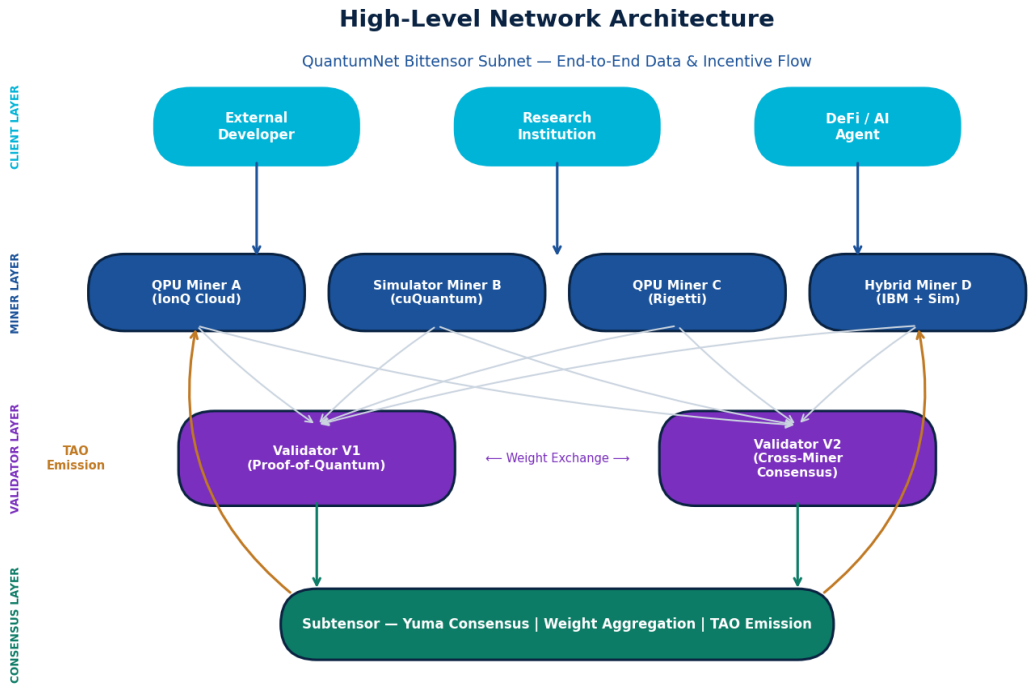


Figure 5: High-level network architecture — five layers from external clients to TAO emission feedback

Layer	Role
External Clients	Developers, researchers, AI agents — submit quantum circuits in OpenQASM or Qiskit format
Miner Layer	Execute circuits on QPU or simulator backends; return probability distributions via standardized JSON
Validator Layer	Dispatch challenge circuits, evaluate results, submit weight vectors to Subtensor chain
Subtensor Chain	Processes weights through Yuma consensus; distributes TAO emission proportionally
Emission Feedback	TAO rewards flow back to miners and validators, closing the incentive cycle

Miner Internal Architecture

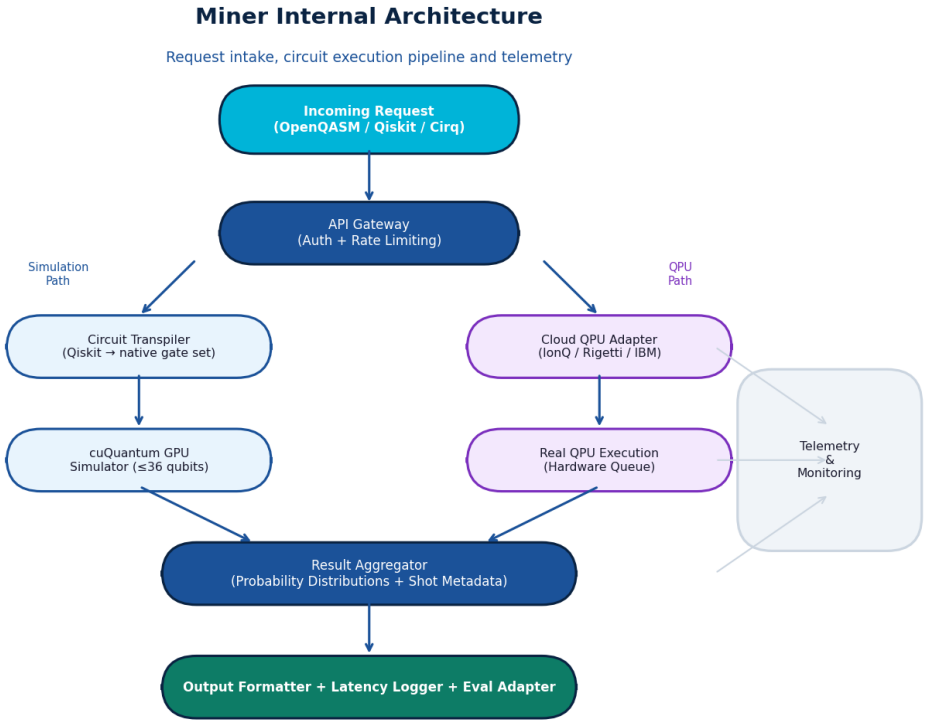


Figure 6: Miner internal architecture — dual-path pipeline for QPU and simulator execution flows

Subtensor Weight & Emission Flow

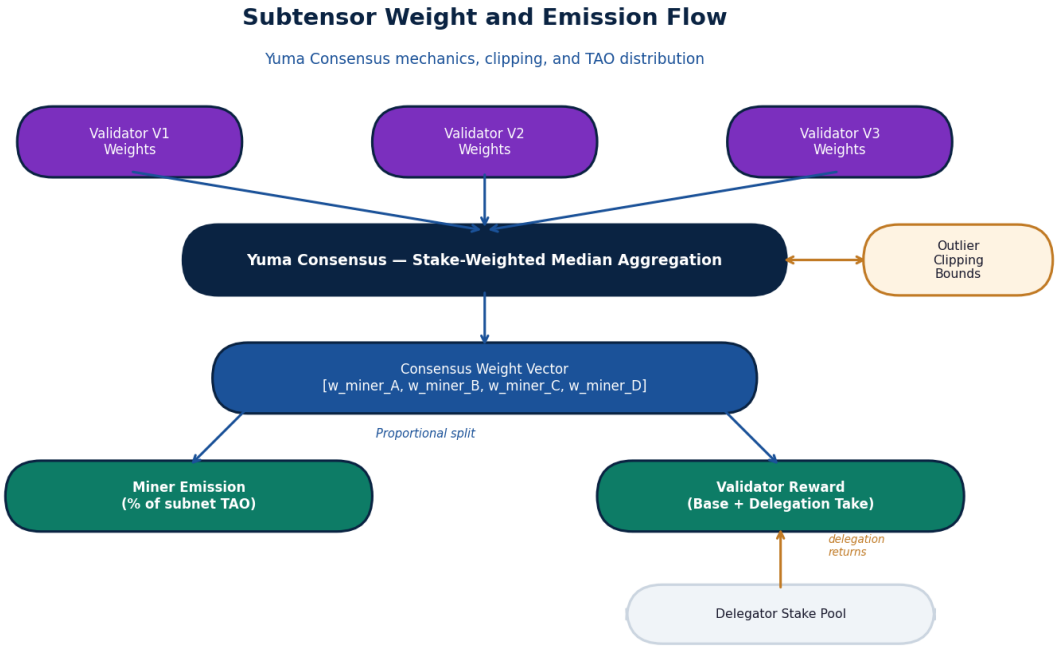


Figure 7: Subtensor weight and emission flow — stake-weighted median through Yuma consensus

Evaluation Lifecycle

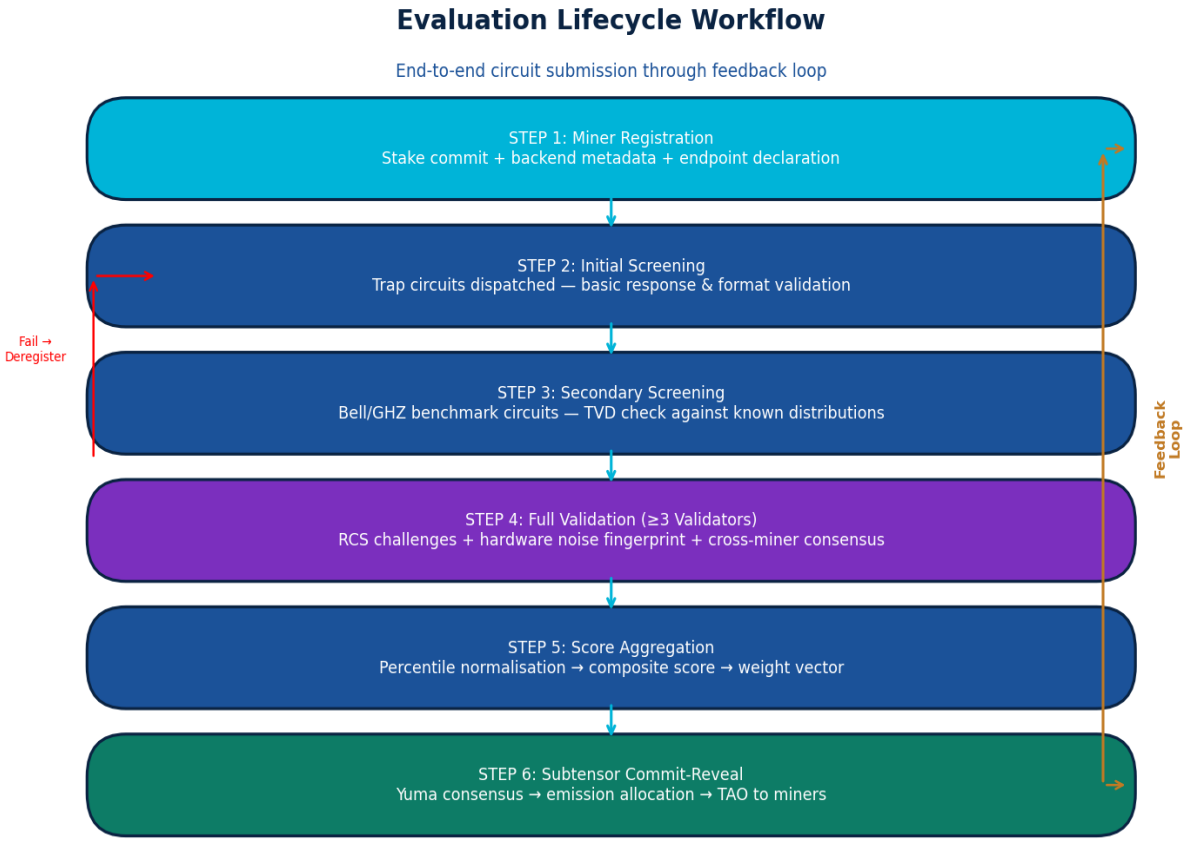


Figure 8: Evaluation lifecycle — six-stage progression from registration to continuous improvement feedback

11. Launch Roadmap

Four phases over twelve months — from testnet simulator-only to a full QPU marketplace with an inference fee market and ecosystem integrations.

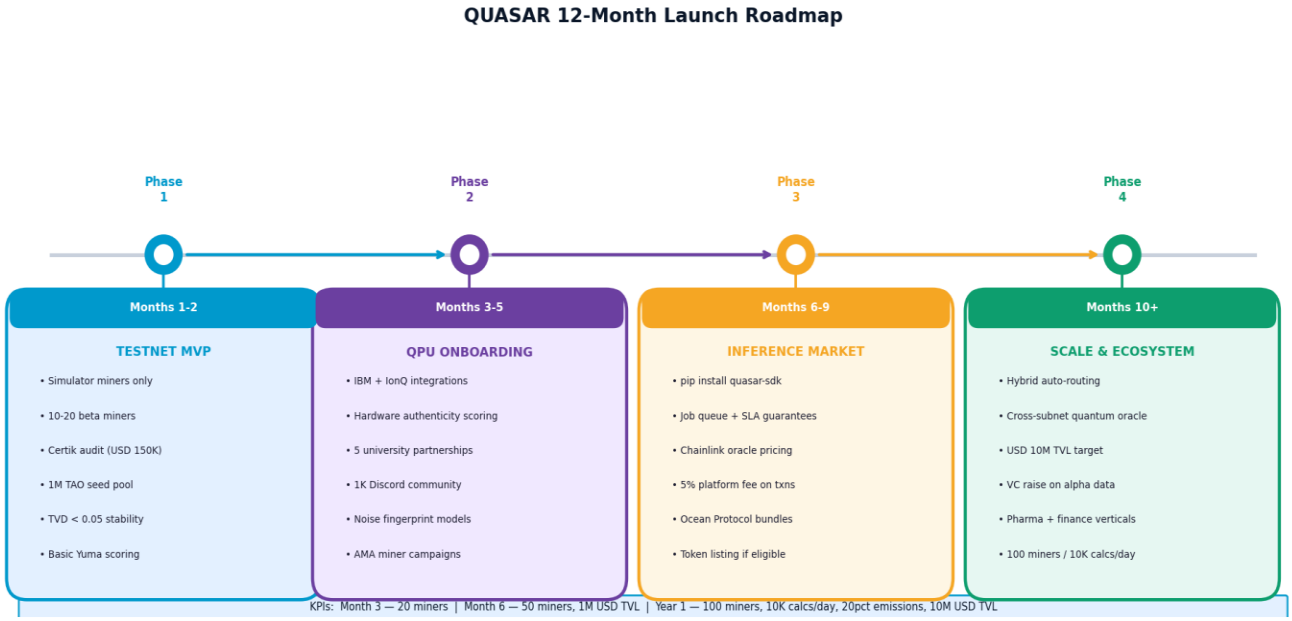


Figure 9: Quasar 12-month roadmap — 4 phases from testnet to scaled ecosystem

Phase 1: Testnet MVP Months 1–2	Phase 2: QPU Onboarding Months 3–5	Phase 3: Inference Market Months 6–9	Phase 4: Scale & Ecosystem Months 10+
• Simulator miners only (cuQuantum/Qiskit Aer) • 10–20 beta miners via bounties • Security audit (USD 150K budget) • 1M TAO seed pool committed • Accuracy target: TVD < 0.05	• IBM Quantum & IonQ API integrations • Hardware authenticity scoring activated • 5 university partnerships signed • Discord community: 1,000 members • Noise fingerprint models calibrated	• pip install quasar-sdk released publicly • External job queue with SLA guarantees • Chainlink oracle fee pricing live • 5% platform fee on paid transactions • Ocean Protocol data integrations	• Hybrid auto-routing QPU ↔ simulator • Cross-subnet quantum oracle APIs • USD 10M TVL milestone target • 100 miners, 10K circuits/day • Pharma (VQE) & finance verticals

12. Go-to-Market Strategy

Supply Side — Getting Miners

Strategy	Details
Bittensor Foundation Grants	Fund first 50 miner deployments with TAO grants
Bounty Program	Bonus TAO for first 20 miners achieving TVD < 0.05 quality target
One-Command Setup	GitHub repo with one-command setup scripts for cuQuantum and Qiskit Aer
University Outreach	Free validator permits for labs providing QPU API access commitments

Demand Side — Getting Users

Strategy	Details
Developer Events	Talks at Devcon and ETHGlobal with Qiskit-compatible SDK demo
Community Marketing	Posts in Qiskit forums and IBM Quantum Network developer channels
Industry Webinars	"Quantum Drug Discovery Without the Queue" pharma webinar series
Free Beta Credits	First 100 users get free calculation credits — zero cost to start

Partnership Strategy

Partner	Value Exchange
IonQ	Revenue sharing for calculations routed to IonQ hardware through reseller program
Ocean Protocol	Bundle quantum compute access with quantum chemistry datasets
Bittensor AI Subnets	Position Quasar as quantum oracle service for probabilistic sampling across the network

13. Business Model & Revenue

Revenue evolves across four phases — from pure emission funding during bootstrap to a self-sustaining marketplace driven by enterprise fees.

Phase	Primary Revenue	Secondary Revenue	Sustainability Trigger
Phase 1 (Months 1–2)	100% TAO emissions	None	Testnet accuracy: TVD < 0.05
Phase 2 (Months 3–5)	TAO emissions + QPU premium	Early enterprise pilots (unpaid)	QPU authenticity scoring live
Phase 3 (Months 6–9)	50% emissions / 50% inference fees	Ocean Protocol data bundles	Fee revenue covers miner costs
Phase 4 (Months 10+)	Inference fees dominant	VC capital on alpha emissions	Fee revenue exceeds emissions

> *Path to Sustainability: Phases 1–2 use emissions to fund the network while building quality and reputation. Phase 3 adds external job fees. By Phase 4, real enterprise revenue creates a self-sustaining marketplace independent of token price.*

Why Quantum Compute Is Perfect for Bittensor

Quantum circuit execution is one of the few compute workloads with objective, quantitative evaluation criteria deployable at the speed required for Bittensor validator weight submission. Unlike evaluating language models (which requires human judgment) or image generation (which requires perceptual models), quantum result fidelity is measurable in milliseconds using pure mathematics. This makes Quasar structurally superior to many other Bittensor subnet designs from an incentive alignment perspective.

14. Key Performance Indicators

All KPIs are publicly verifiable on-chain via the Bittensor metagraph and Quasar public dashboard. They serve as pass/fail gates between each phase.

Metric	Month 3	Month 6	Year 1
Active Miners	20	50	100
Calculations / Day	1,000	5,000	10,000
Subnet Emissions Share	2%	10%	20%
Paid TVL	USD 0	USD 1M	USD 10M
Average Accuracy (TVD)	< 0.05	< 0.03	< 0.02
QPU Miners (Real Hardware)	0	10	30
Discord Community	200	1,000	5,000

15. Risks & Mitigations

An honest accounting of the six highest-priority risks, with specific mechanisms in place for each.

Figure 10: Risk registry — six risks rated by probability and impact with mitigations

Risk	Probability	Impact	Mitigation Strategy
Miners Faking Results	Medium	High	RCS challenges above 50 qubits are physically impossible to fake classically in 60 seconds. Noise fingerprinting catches simulators. Stake slashing makes cheating economically catastrophic.
Hardware Costs Too High	Medium	Medium	Two-tier system: GPU simulators handle volume at low cost; QPU miners serve authenticity-premium circuits. Smart routing optimizes cost vs. emission ratio.
Not Enough Users	Medium	Medium	Free beta credits for first 100 users. Devcon and pharma webinar pipeline pre-builds demand. TAO emissions fund operations throughout demand-building phase.
Validator Collusion	Low	High	Yuma stake-weighted median neutralizes outlier validators. Clipping penalties make collusion financially costly. Delegation market moves stake from dishonest validators.
TAO Price Drops	Medium	Medium	Treasury buybacks absorb sell pressure. Transition to USD-denominated fees in Phase 3. Users pay in stable terms, insulated from token volatility.
QPU Queue Latency	High	Low	Route across IBM, IonQ, and Rigetti simultaneously. Automatic fallback to high-quality simulation. Queue times disclosed upfront in job metadata.

16. Quasar for Beginners

No physics degree required. No blockchain experience needed. Just curiosity.

The Uber Analogy

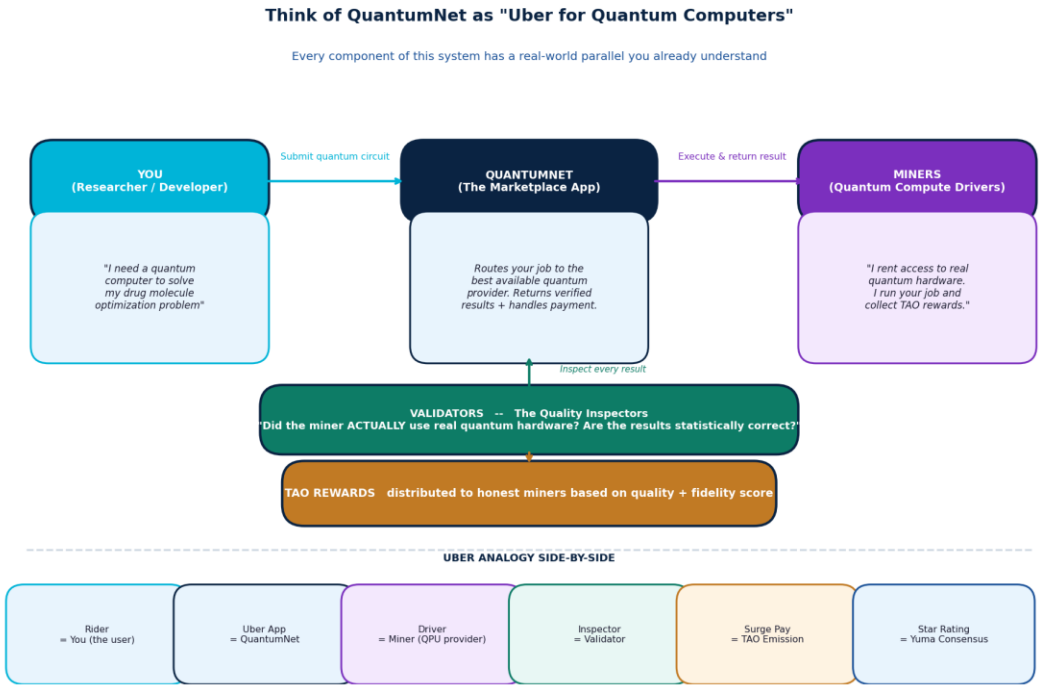


Figure 11: The Uber-for-Quantum-Computers analogy — who does what in Quasar

Uber	Quasar Equivalent
Does not own any cars	**Does not own any quantum computers**
Connects drivers with riders	**Connects miners (hardware) with users (researchers)**
Ratings filter out bad drivers	**Validators filter out bad / dishonest miners**
Pay per ride	**Pay per quantum calculation**
More supply = faster service + competitive prices	**More miners = faster results + lower fees**

What is a Quantum Computer?

Regular computers store information as bits: 0 or 1. Quantum computers store information as qubits: 0, 1, or both at the same time (until you look at the result). A 50-qubit computer can simultaneously represent 2^{50} states — roughly a quadrillion combinations.

> *The Maze Analogy: A regular computer tries every path in a maze one at a time. A quantum computer explores ALL paths simultaneously and collapses to the correct answer when measured.*

Classical vs. Quantum — What Each Does Best

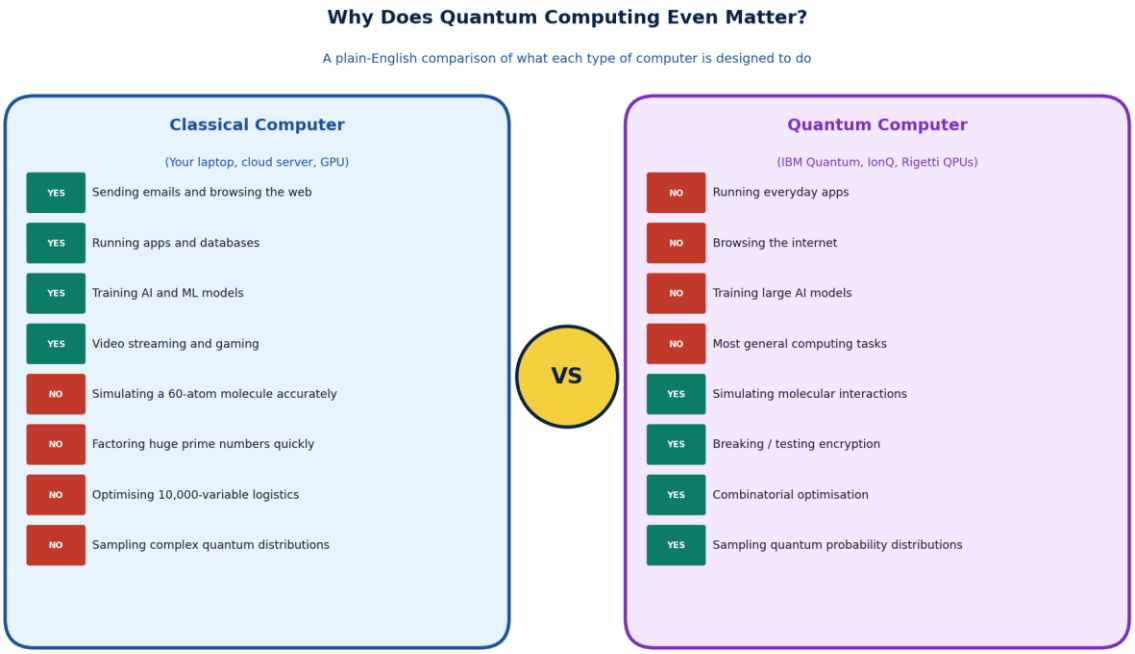


Figure 12: Classical vs Quantum — what each is actually built for (they coexist, not compete)

Quantum computers are not better at everything. They excel at enormous search spaces, simulating molecules, and certain cryptography. For everyday tasks (email, video, browsing), regular computers remain faster and cheaper. Both coexist — like a lab computer and a mass spectrometer.

17. Frequently Asked Questions

Q: Can miners fake results and collect rewards anyway?

A: No. Real quantum computers produce characteristic "noise patterns" that simulators cannot replicate. Validators check this fingerprint. For calculations above 50 qubits, faking requires petabytes of memory or hours of computation — physically impossible within our 60-second window.

Q: What is a "quantum circuit" in plain English?

A: A set of instructions for a quantum computer — like a recipe. "Put these qubits in superposition, entangle them, then measure." The output is a probability distribution over possible answers.

Q: Why not just use IBM or Google directly?

A: Three reasons: (1) Quasar aggregates multiple providers without separate accounts. (2) Competitive pricing through miner competition. (3) Independent result verification — IBM asks you to trust them; Quasar proves results are accurate through multiple independent mathematical checks.

Q: What is TAO?

A: The cryptocurrency of the Bittensor network. Miners earn TAO by executing calculations well. The financial incentive drives investment in better hardware, benefiting everyone.

Q: What is Yuma Consensus?

A: Bittensor's algorithm combining validator opinions into a fair truth using stake-weighted median. One bad actor cannot skew results — the median is resistant to outliers.

Q: Is this legal?

A: Yes. IBM, IonQ, and others offer commercial API access for programmatic use. Quasar miners are paying customers. Quasar is a coordination layer — the same legal model as any cloud reseller or API aggregation service.

Q: What if quantum hardware goes offline?

A: Miners who cannot respond get zero scores for that period. Other miners continue. No single point of failure — if IBM has an outage, IonQ miners and GPU simulators continue serving requests.

Myth vs. Reality

What People Assume	What Is Actually True
Quantum computers will replace regular computers	**They are specialized tools. Both coexist. Most tasks still need regular computers.**
Quasar gives you a quantum computer in your pocket	**Quasar gives remote access — like renting lab time without travelling there.**
Blockchain makes everything slow	**The blockchain only handles payments and scoring. Calculations happen off-chain at hardware speed.**
Validators can pick their favourite miners	**Validators face penalties for inaccurate scoring. Lying reduces their own income.**
You need a physics degree to use Quasar	**Use standard Qiskit tools, change one line of code, submit your calculation.**
Only big companies can participate	**Anyone can run a GPU simulator miner. University groups can access cloud QPU APIs affordably.**

18. Glossary

Every technical term that appears in this document, explained in plain English.

Term	Plain-English Explanation
Qubit	The basic unit of quantum information. Unlike bits (0 or 1 only), qubits can be both simultaneously until measured.
Quantum Circuit	A set of instructions for a quantum computer — like a recipe that tells the hardware what to calculate.
Superposition	The quantum property of being in multiple states at once. A qubit is simultaneously 0 and 1 until observed.
Entanglement	A quantum correlation where the state of one qubit instantly determines the state of another, regardless of distance.
QPU	Quantum Processing Unit. The actual quantum hardware chip — equivalent to a GPU for classical graphics compute.
OpenQASM	Open Quantum Assembly Language. The standard text format for writing quantum circuits.
Qiskit	IBM's open-source Python toolkit for quantum computing. The most widely used quantum SDK worldwide.
Bittensor	A blockchain network for decentralized AI and computing. Miners earn TAO for high-quality work.
Subnet	A specialized market on Bittensor with its own task. Quasar is the quantum computing subnet.
TAO	The cryptocurrency of Bittensor. Miners earn it; validators earn it; it can be traded in the ecosystem.
Miner	Someone who provides quantum calculation services in exchange for TAO rewards.
Validator	Someone who verifies miners are doing honest, accurate work. Scores miners and earns TAO.
Yuma Consensus	Bittensor's algorithm combining validator scores into fair rankings using stake-weighted median voting.
TVD	Total Variation Distance. A mathematical measure of how different two probability distributions are. Lower = more accurate.
Noise Fingerprint	The characteristic error pattern of real quantum hardware. Validators use it to detect simulator fraud.
Emission	The continuous release of new TAO tokens to participants based on quality scores.
Stake	TAO committed to the network as a security deposit. Affects validator influence; can be slashed for cheating.
RCS	Random Circuit Sampling. A class of circuits impossible to fake classically above ~50 qubits.
ZK-SNARK	Zero-Knowledge Proof. Proves a calculation was run without revealing the calculation itself. Cuts validator compute 40%.
Hardware Attestation	A cryptographic proof that a quantum circuit was executed on real quantum hardware via verified cloud API.

19. Next Steps & How to Get Involved

Implementation Checklist

Phase	Key Deliverables
Week 1–2 (Foundation)	☐ Register subnet on Bittensor: btcli subnet create --name quasar ☐ Assemble 5-person core team: 2 quantum engineers, 2 blockchain devs, 1 DevOps ☐ Commit 1M TAO seed pool to treasury multisig wallet ☐ Initialize GitHub monorepo: miner SDK, validator SDK, scoring engine, API gateway
Months 1–2 (Testnet)	☐ Miner SDK v0.1: cuQuantum + Qiskit Aer backends, OpenQASM ingestion ☐ Validator scoring engine v0.1: TVD computation, Yuma weight submission ☐ Deploy testnet: 10–20 simulator miners, 3 validators, live Yuma consensus ☐ Certik security audit kickoff (USD 150K budget) ☐ Achieve TVD < 0.05 on all 10-qubit test circuits before external miners join
Months 3–5 (QPU Launch)	☐ QPU adapter: IBM Quantum, IonQ Cloud, AWS Braket API integrations ☐ Noise fingerprint reference models calibrated against 5 QPU architectures ☐ Hardware authenticity scoring: 1.5x bonus integrated into emission weights ☐ 5 university partnership agreements signed with QPU access commitments
Months 6–9 (Market Launch)	☐ Public SDK: pip install quasar-sdk with Qiskit-compatible provider backend ☐ Inference marketplace: job queue, SLA tiers, Chainlink oracle fee pricing, 5% platform cut ☐ Ocean Protocol integration: quantum compute + quantum chemistry dataset bundles ☐ Token listing preparation if monthly emissions exceed USD 500K threshold

How to Get Involved

Role	Steps
Use Quantum Compute	Install Qiskit → Write your circuit → Replace backend with Quasar SDK (one line) → Create Bittensor wallet → Submit and receive verified results
Run Simulator Miner (Earn TAO)	Get GPU with 16GB+ VRAM → Install NVIDIA cuQuantum or Qiskit Aer → Clone Quasar miner SDK → Register with minimum stake → Start earning TAO automatically
Run QPU Miner (1.5x Bonus)	Sign up for IBM Quantum / IonQ Cloud / AWS Braket → Configure Quasar QPU adapter → Register as premium-tier miner → Earn 1.5x hardware authenticity bonus
Run Validator (Base + Delegation)	Set up dedicated GPU infrastructure → Acquire and stake TAO for validator permit → Run Quasar validator node → Earn base emission + delegation percentage

QUASAR

Decentralized Quantum Computing Infrastructure

Bittensor Subnet Proposal | Open-source under MIT License | 2026

"The best way to understand the future is to build it."