



Verifiable infrastructure for human & agent coordination

Kaspa sequencing + Bittensor incentives

Messaging now • RPC, Data Availability and ZK Proving next

TECHNICAL-LITE OVERVIEW | LAUNCH BUILD

Four needs. Four providers. Four failure surfaces.

Teams and autonomous agents need coordination, observation, memory and proof, but usually buy each capability separately.

C**Communication**

Slack, Teams or Discord

R**Chain access**

RPC and API vendors

D**Data durability**

Storage and CDN services

ZK**Proof generation**

Proving markets or GPU fleets

The hidden cost is not only price: each dependency adds a different trust model, billing system and point of failure.

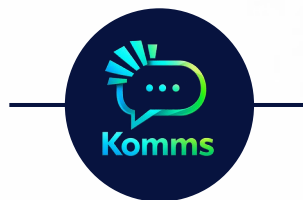
Kaspa establishes truth. Bittensor rewards service.

Kaspa establishes what happened and in what order. Bittensor decides which operators earned rewards for serving that history.



KASPA

- Deterministic acceptance order
- Anchors references and commitments
- Covenants hold identity, fees and limits
- Creates independently reproducible ground truth



BITTENSOR

- Recruits open network operators
- Validators probe and score work
- Stake-weighted weights allocate emissions
- Rewards indexing, storage and relay

Durability fabric: fast cache → Hippus storage → operator tier. No permanent storage at launch.

One network. Messaging first, three products next.

Messaging launches first. Each product has its own buyer, but feeds the same commodity layer.

Messaging

Launch product:
workspaces, servers,
DMs and groups

Flat plans • storage

RPC / API

Metered Kaspa, Igra
and Bittensor access

Roadmap • request units

Data Availability

Placement,
replication, repair
and retrieval

Roadmap • GiB-months

ZK Proving

RISC-V and Groth16
proof jobs

Roadmap • proofs

Messaging creates organic workload • DA keeps it durable • RPC exposes state • Proving returns verifiable artefacts

Private stays encrypted. Public stays readable.

Komms scopes its post-quantum claim to confidentiality, not to every signature surface.

1:1 PRIVATE



Hybrid PQ confidentiality

Two-party MLS using X-Wing: ML-KEM-768 + X25519.

N:N PRIVATE



Encrypted group coordination

Group MLS / KA-DMLS, live-validated on testnet.

PUBLIC



Open content, anchored integrity

Intentionally plaintext, with ordered authorship and integrity.

Boundary: Kaspas L1, the covenant owner key and MLS credentials remain classically signed. "Komms is post-quantum" would overstate the design.

Miners earn for measurable outputs.

Validators recompute truth from Kaspas, challenge operators, audit anchors, and publish weights through Bittensor.

INDEX

Correct state against
Kaspa order

STORE

Possession, retention
and repair

SERVE

Relay delivery and
sponsored anchors

PROVE

Roadmap: valid proofs
on deadline

DESIGN PRINCIPLES



Critical failure is
multiplicative



No validator scores
its own miner



Organic demand
must matter



Revenue funds
alpha buybacks



Emissions repay
miners through Yuma

Testnet evidence is separated from future claims.

The whitepaper treats mainnet readiness as a set of gates, not a marketing date.

SHIPPED / MEASURED ON TESTNET

- Servers, channels and direct messaging
- Hybrid-PQ direct-message confidentiality
- Group E2EE live-validated
- BlobStore on Hippius
- Front-served retrieval and gateway retirement
- Bittensor testnet subnet live (netuid 503)

SPECIFIED / NOT YET COMMERCIAL

- Paid RPC metering and multi-network SLAs
- Production proving workloads and revenue
- Multi-operator cost-coverage floor
- Bittensor mainnet netuid and emissions
- Launch build (identity v4, two-plane delivery) in flight

Launch gates: three independent miners • second validator • published SLOs • adversarial bounty • unit-viable pricing • production keys



A narrow commodity. Broad demand.

Make Kaspas-ordered data available, queryable and provable under adversarial incentives.

COORDINATION

Humans and agents communicate privately or publicly.

OBSERVATION

RPC exposes correct, auditable chain state.

MEMORY

Data remains durable beyond L1 retention windows.

PROOFS

Expensive computation returns succinct verification.

Built to hold up against hostile operators, and to be paid for by real customers.

[Early access](#) • komms.app/docs • info@komms.app