XI'AN · HYPERSCALE FOR RADIX

WEEK 21 · 18 MAY 2026

18–24 May 2026

Hyperscale Weekly

Split the work, not the world

CURRENT MILESTONE

Milestone 1 · Adaptive Sharding

Teaching the network to split and merge its shards on its own

Week 4

Previously: Milestone 1 had just kicked off — the 18-month build was officially underway, but the first week was a quiet one with no code landing yet.

The quiet week is over — real code is now landing. flightofthefox scaffolded the beacon — the slow coordination chain that tracks validators and the shard map — along with its sub-consensus machinery, and reshaped the production node around a 'thread-per-shard' model. The foundations of M1 are starting to take visible shape.

252	+17k −3.5k	300	8
COMMITS	LINES CHANGED	FILES TOUCHED	DAY COMMIT STREAK

COMMITS / DAY  peak 70/day · 7/7 days active

WHAT FLIGHTOFTHEFOX BUILT

The beacon finds its footing

flightofthefox scaffolded the beacon crate — the slow chain that tracks validators and topology — with sub-consensus state machines, randomness reveals, recovery machinery, and stake accounting. This is the Census of the network coming into existence.

'see "The Census" on hyperscale.rs

One thread per shard

The production node was reworked so each hosted shard runs on its own pinned thread, with its own state, metrics, and event loop. This is the operational skeleton that lets many shards run side by side cleanly.

'see "The System" on hyperscale.rs

Cleaner cross-shard paths

flightofthefox tightened the logic for cross-shard transactions: ownership, provisions, and dedup paths are now more reliable. Transactions that touch multiple shards should commit more predictably.

'see "The Generals" on hyperscale.rs

THE BOTTOM LINE

STANDOUT CHANGE

The beacon crate — the slow coordination chain that tracks validators and the shard map — is now scaffolded with its sub-consensus state machines.

WHAT'S NEXT

Likely next: wiring the beacon into the production node and expanding the recovery and witness machinery so validators can be safely rotated in and out.

Written by AI from public commits, the community chat and hyperscale.rs — may contain mistakes.

From the community

What people are saying, and the words behind the work.

HEARD IN THE CHAT

The mood: A quiet week in the chat — flightofthefox heads-down on code, no public messages.

THIS WEEK'S CONCEPT

> **The Census** — *The beacon that tracks validators & topology.* The beacon is the slow chain that tracks validators, stake, and the shard map — the heart of the system's coordination. Scaffolding it this week means the foundations of M1 are now visible in code.
>
> hyperscale.rs/census

JARGON, DECODED

VRF — A cryptographic lottery ticket — a number anyone can verify was generated fairly, used here to randomly assign validators to jobs.

Epoch — A fixed time window after which the network reshuffles which validators are in charge of which shard.

Quorum certificate — A signed receipt from a majority of validators that a decision has been agreed upon.

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ZOOM OUT

The bigger picture

Where the work landed, and the map to read along on hyperscale.rs.

MOMENTUM · LINES CHANGED / WEEK



last 8 weeks · newest right

THIS WEEK'S WORK



WHERE THE WORK LANDED

beacon · The Census
crate scaffolded, sub-consensus state machines added

node · The System
reworked around a thread-per-shard model

shard · The Generals
cross-shard provisions and ownership tightened

THE FULL PICTURE

The System
The whole sharded design at a glance.

The Journey
One transaction's trip through the network.

The Clock
Consensus-attested time across independent shards.

The Census
The leaderless beacon of validators, stake and shards.

The Overlap
Why two conflicting blocks can never both commit.

The Generals
All-or-nothing cross-shard commits, computed not voted.

The Archive
Every published byte is preserved or provably expired.

The Library
All state in one merkle tree; a shard is a subtree.

The Will
How in-flight transactions settle when a shard dies.

The Lottery
Random, ever-moving committees; proven cheats are jailed.

The Triage
Under overload, urgent traffic never waits for bulk.

The Governor
Validator entry is re-priced every epoch, like a market.

The Crash Lab
The simulator that replays any failure byte-for-byte.

The Proof
Proving safety with maths, not just tests.

The Asterisks
Every design's trade-offs — including Hyperscale's own.

THE ROAD TO MAINNET

M1	M2	M3	M4	M5	M6
Adaptive Sharding	Radix Engine	Gateway & API	Validator GUI	Migration	Live support
~4 mo	~5 mo	~3 mo	~3 mo	~3 mo	12 mo

Now: Milestone 1 · Adaptive Sharding — Week 4. Since day one: 2,324 commits — one developer, fully in public.

LINKS

WEBSITE
hyperscale.rs

CODE (PUBLIC)
github.com/hyperscalers/hyperscale-rs

MILESTONE PROPOSAL (PDF)
hyperscale.rs/xian_proposal.pdf

COMMUNITY (TELEGRAM)
t.me/hyperscale_rs

AUTHOR
flightofthefox

scan for hyperscale.rs

Questions? flightofthefox is always happy to discuss in the community Telegram — t.me/hyperscale_rs.

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