XI'AN · HYPERSCALE FOR RADIX

WEEK 43 · 19 OCT 2026
19–25 Oct 2026

Hyperscale Weekly

Split the work, not the world

CURRENT MILESTONE

Milestone 2 · Radix Engine

Porting the Radix Engine so Scrypto runs across shards

Week 12 · since August 2026

Previously: flightofthefox closed a huge 124-commit week that rebuilt cross-shard verdicts so certificates decide nothing on their own, and took the iroh networking backend to near-production shape.

This week carried that same plumbing forward and spread into new territory: how the beacon's schedule is derived on every host, how signers attach to running shards, and how cross-shard crossing records are retired only on real proof. It's quieter in chat, but the code tells a story of the network's coordination machinery getting tightened from every side.

62	+13k −7.6k	312	1
-50% vs last wk	-47% vs last wk		
COMMITS	LINES CHANGED	FILES TOUCHED	DAY COMMIT STREAK

COMMITS / DAY 

peak 26/day · 6/7 days active

WHAT FLIGHTOFTHEFOX BUILT

Every host folds the beacon

The beacon coordinator was split so each host runs its own beacon loop and derives the schedule independently — one fold per host, one participant per identity, each block committed exactly once. Fewer ways for nodes to disagree about who's in charge.

'see "The Census" on hyperscale.rs

Crossings retire on proof

A crossing record — the trail a cross-shard transfer leaves behind — now retires only when an attested certificate says the transfer was actually taken, with a floor in the claims section. No more 'probably fine by now'.

'see "The Generals" on hyperscale.rs

One replica, many signers

Each hosted shard now keeps a single running replica, and validator signers get seated onto it and sign shard and execution artifacts. The validator identity model is now written down in the docs.

'see "The Overlap" on hyperscale.rs

THE BOTTOM LINE

STANDOUT CHANGE

Cross-shard crossing records can now only be retired when an attested certificate proves the transfer was actually taken — closing a trust gap in the claims system.

WHAT'S NEXT

Likely next: finishing the beacon fold/participant split and signer seating, then continuing the verdict and claims plumbing across shards.

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

More of what flightofthefox built

The week had more stories than one page could hold.

THE STORIES, CONTINUED

Slow sims get three hours

The simulator gained longer CI budgets, stricter timing rules — a run that stops advancing its clock now fails — and trace updates folded into one step, so rarer bugs get caught before they ship.

'see "The Crash Lab" on hyperscale.rs

ALSO THIS WEEK

- Shards are now cut only once no row of the shard can still hear the cut.
- Halt recovery runs ahead of the committee shuffle and reshape draws.
- Archive nodes now decode and store every committed block, with header copies keyed by digest.
- Block sync only starts on a certificate that actually verifies.
- Store durability is now tracked only in test runs that can lose power.

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From the community

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

HEARD IN THE CHAT

The mood: Mostly spam bots and memes this week; flightofthefox dropped a cheerful 'gm hyperscalers' and a one-liner about the project being a public good.

> *"hs-rs isn't a business, it's a public good"*
>
> — FLIGHTOFTHEFOX, IN THE COMMUNITY TELEGRAM

THIS WEEK'S CONCEPT

The Generals — *The two generals put down their messengers.* The week's core thread was cross-shard atomicity: crossing records, claims, and verdicts now live or die strictly on attested, quorum-backed facts rather than a node's word.

hyperscale.rs/generals

JARGON, DECODED

Replica — A running copy of one shard's code that its assigned validators share and sign on.

Crossing record — The tracking entry left behind when a transaction moves state from one shard to another.

Fold — A single deterministic pass through the beacon's blocks that derives schedules and committees.

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

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



93% Rust 7% Config

WHERE THE WORK LANDED

node · The Overlap
replica and signer seating model

beacon · The Census
coordinator split into fold and participant

shard · The Generals
crossing records retire on attested proof

simulation · The Crash Lab
longer CI budgets, stricter timing checks

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
done	~5 mo	~3 mo	~3 mo	~3 mo	12 mo

Now: Milestone 2 · Radix Engine — Week 12 · since August 2026. Since day one: 5,635 commits — one developer, fully in public.

LINKS

WEBSITE
hyperscale.rs

DISCUSS THIS ISSUE ON X
x.com/i/status/2114583104270602639

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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