XI'AN · HYPERSCALE FOR RADIX

WEEK #25

26 Oct – 1 Nov 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 13 · since August 2026

Previously: flightofthefox had rebuilt cross-shard verdicts and the beacon fold, and was expected to continue the verdict, claims and signer plumbing.

This week flightofthefox stepped back from the engine internals and gave the network a new set of pipes, ripping out one transport entirely and standardising on another, plus DNS-based discovery. Meanwhile the crash-recovery drills moved onto the production harness, and staking pools learned several new tricks.

92	+4.2k −10k	315	1
+48% vs last wk	-30% vs last wk		
COMMITS	LINES CHANGED	FILES TOUCHED	DAY COMMIT STREAK

COMMITS / DAY  peak 31/day · 6/7 days active

WHAT FLIGHTOFTHEFOX BUILT

One network backend, fully swapped

flightofthefox removed the old libp2p transport completely and finished moving everything to iroh, with relays helping nodes connect and DNS records naming a network's peers. Simpler networking means validators are easier to run and connect.

'see "The Triage" on hyperscale.rs

Restart drills go live-fire

The crash-recovery scenarios that were proven in the simulator now also run against the real production build, covering restarts, crashes and partition stalls. A network that recovers cleanly from restarts is one the community can safely run.

'see "The Crash Lab" on hyperscale.rs

Time gets simpler and stricter

Chain timestamps are now plain Unix time, transactions whose validity window can't be reached are refused, and epochs shorter than two consensus views are banned. Fewer conversions means fewer places for clock bugs to hide.

'see "The Clock" on hyperscale.rs

THE BOTTOM LINE

STANDOUT CHANGE

The old libp2p networking transport was removed entirely, making iroh the one and only way Hyperscale nodes talk to each other.

WHAT'S NEXT

Likely next: continuing the staking-pool and validator onboarding plumbing, plus the hinted 'more optimized' network design he teased for the coming months.

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

Staking pools get real powers

Pools can now found themselves with stake and registration in one step, open on any deposit, hand over ownership, and build their own unjail path. This is validator on-ramp plumbing taking shape ahead of testnet.

'see "The Governor" on hyperscale.rs

ALSO THIS WEEK

- A transaction can now be published to its shards from a host seated nowhere.
- Beacon now publishes each shard's rotation order and the next shuffle boundary.
- Nodes keep an hour of certified header summaries per shard.
- A cross-shard spend beside a pending leg is now sent to its whole committee.
- A node can be started from a network file alone, from the library.

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From the community

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

HEARD IN THE CHAT

The mood: Chat was dominated by the Binance hack and DAO finance gripes; flightofthefox hosted a Friday voice call and promised to improve his mic.

> *“happy friday all ... seems like everyone's gone to the rapture”*
>
> — FLIGHTOFTHEFOX, IN THE COMMUNITY TELEGRAM

FLIGHTOFTHEFOX EXPLAINED

Networking is separate from sharding

He explained that networking is orthogonal to sharding — relays just help nodes connect — and hinted at a larger, more optimized network design in the next couple of months.

AI coding tools

He finds AI workflows useful for auditing and review work, but not for implementation because they’re too opaque and harder to course-correct.

THIS WEEK’S CONCEPT

The Triage — *The critical never queues behind the bulk.* The biggest change of the week was the network layer: libp2p is gone, iroh is the only backend, and peers can now find each other through DNS — a full re-plumbing of how nodes talk.

hyperscale.rs/triage

JARGON, DECODED

Relay — A helper node that passes traffic between validators that can’t connect directly.

Unix time — The standard worldwide count of seconds since 1970, used as the chain’s clock.

libp2p — The previous networking library for peer-to-peer connections, now removed.

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

ZOOM OUT

The bigger picture

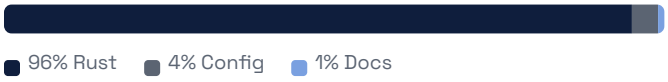
Where the work landed, and the map to read along on hyperscale.rs.

MOMENTUM · LINES CHANGED / WEEK



last 8 weeks · newest right

THIS WEEK'S WORK



96% Rust · 4% Config · 1% Docs

WHERE THE WORK LANDED

node · The System
node startup, handles and hosting reworked

production · The Crash Lab
restart and crash scenarios on production

network-libp2p · The Triage
old transport fully removed

beacon · The Census
queries, watch channel, schedule publication

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 13 · since August 2026. Since day one: 5,717 commits — one developer, fully in public.

LINKS

WEBSITE
hyperscale.rs

DISCUSS THIS ISSUE ON X
x.com/i/status/2117119793765445984

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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