



# HEMIS

Simple tools for popular games.

## **Hemis: PTX Roadmap**

## ROADMAP: OVERVIEW

Phase	Description	Completion Date	Status
Planning	Design Decisions	May 2026	Complete
Phase 0	In-Process Simulation	May 2026	Complete
Phase 1	Regtest Multi-Node		In Progress
Phase 2	Quorum Validation		Upcoming
Phase 3	Testnet		Upcoming
Phase 4	Pre-mainnet		Upcoming
PTX Mainnet	PTX Mainnet		Upcoming

## ROADMAP: PHASES

<b>Design Design Finalization — Architecture &amp; Specification</b> ✓ COMPLETE - Delivered May 2026	
PLANNING	Design Finalized
PTX architecture locked	
Quorum spec and security model finalised	
API surface design complete	
KDD register — all 26 decisions recorded	
Full design document v1.1 issued	
Technical overview and marketing brief issued	
ODC register — open decisions tracked	

**Phase 0 In-Process Simulation — Python Simulator & NIST Validation**  
✓ COMPLETE - Delivered May 2026

PHASE

In-Process Simulation

Protocol state machine validated

9/9 adversarial scheduler tests PASS

11/11  $\chi^2$  uniformity tests PASS

15/15 NIST SP 800-22 tests PASS (reference C implementation)

640M bits tested across 100 runs

Rejection sampling uniformity confirmed

Fisher-Yates zero-duplicate verified

Phase 0 Final Report issued

**Phase 1 Regtest Multi-Node — Real hemisd Binaries on Proxmox**  
**In Progress**

PHASE

Regtest Multi-Node

PTX architecture on real hemisd binaries

gm\_commit / gm\_reveal RPCs implemented

Block height anchoring end-to-end

Accept / PoSe penalty mechanics live

5 nodes, single virtualised host (Proxmox)

Real 60s blocks or setmocktime CI

KDD register locked — all decisions recorded

API contract finalised (KDD-025, KDD-026)

**Phase 2 Quorum Validation — Threshold BLS Signing  
Upcoming**

PHASE

Quorum Validation

Gamemaster node software released

Threshold BLS signing live (supranational/blst)

Quorum RNG proof end-to-end

RPC interface for external integrators

Trusted-dealer DKG, n=11

Toxiproxy fault injection suite

Prometheus/Grafana telemetry from day one

Lottery distribution over 10,000 rounds

**Phase 3 Public Testnet — External Operators & Community Audit  
Upcoming**

PHASE

Testnet

API hardening and SDK release

Adversarial testing by external operators

Community audit of protocol and codebase

Full Pedersen DKG (n=21)

Real geographic node distribution

21+ independent Gamemaster operators

Public block explorer live

Continuous NIST entropy pipeline

**Phase 4 Hybrid Public Testnet — Pre-Mainnet Hardening  
UPCOMING**

PHASE

Pre-mainnet hardening

External operators majority of Gamemaster nodes

Real P2P gossip latency validated at n=21

Session expiry and fee model finalised

HSM / remote-signer integration path

First real-world 1–3s latency measurement

ODC-007, ODC-008 closed with developer data

Lottery window calibration from real operators

SPV proof of beacon outputs

**Phase 5 PTX Mainnet — Full Production Launch  
Q4 2027 UPCOMING**

PHASE

PTX Mainnet

PoS launch — full production consensus

Community control — governance voting live

Open source — full codebase published

PTX API open to all game developers

Dynamic slashing calibrated to round value

Collateral floor — 33% Sybil attack capital-prohibitive

n=21+ quorum, t=~67% threshold

SDK and documentation at launch