// ENTERPRISE RELEASE 1.8.2 SIGNED · HARDENED · SELF-HOSTED · 26 NOV 2026

THE EXECUTION DESK THAT LEARNS YOUR MARKET, ON YOUR OWN METAL.

ODIN Suite is a self-learning multi-venue execution engine for mining capital. It prices SHA-256 hashrate and GPU compute on NiceHash, Braiins Hashpower, MiningRigRentals, Clore.ai and Vast.ai in one unit of account, supervises your fleet, and tells you when selling hashrate would beat your pool. It re-prices every 2 seconds, corrects itself against what your pool actually pays, and commits capital only where the margin clears its error band: inside your network, with your keys never leaving it.

MODEL ACCURACY	PAID VS. MARKET	FORECAST BAND	SAFETY
100.6%	**−4.3%**	**79.0%**	**0 trips**
pool credits vs. modelled income, 25,496 sats verified	average NiceHash price below the clearing price, spend-weighted	inside the 80% band, 500 forecasts, +12.1% vs. random walk	kill switch never tripped · audit chain intact

Live on our own farm, 17–26 Nov 2026. NiceHash verified P/L +674 sats on small proving budgets; Vast.ai GPU rentals −$0.43 over the same period. We publish both: **asgardhashworks.com/#record**.

01 WHERE MARGIN IS LOST

OVERPAYING

Static bids chase spikes and keep paying above break-even after difficulty moves.

IDLE OR MISSPENT CAPITAL

Budgets are spent evenly instead of where the spread is widest, and stall when funds run short of a refill.

SILENT HARDWARE LOSS

Hashboards drop, miners freeze and hotspots climb unnoticed, while cloud tools add per-unit fees and key-custody risk.

02 THREE MODULES, INSIDE YOUR PERIMETER

MODULE	WHAT IT DOES	DEPLOYMENT
ODIN 1.8.2 Execution	Live buy-side execution on NiceHash SHA256AsicBoost, Braiins Hashpower, MiningRigRentals, Clore.ai and Vast.ai GPU spot, each behind its own market switch. OUTBOUND scores selling vs. your pool every minute (shadow: it reports, it never sells). Verified P/L against real pool credits.	Windows 10/11 (one-click setup) · Linux x86_64 (systemd, sandboxed)
SLEIPNIR 2.6.1 Supervision	Polls every unit concurrently: Antminer, Whatsminer, Avalon, Braiins OS, LuxOS (cgminer API, TCP 4028), AxeOS devices, GPU and CPU miners. Temperature, hashrate and watt alerts; restarts GPU/CPU miners and AxeOS devices. Large ASICs are watched and alerted, never power-cycled.	Same host or a separate node
HUGINN Recon	Read-only phone console: profit windows, orders, verified P/L, OUTBOUND, fleet health, one-tap SUPPORT. No route can place, change or cancel anything.	Loopback only, published to your tailnet with Tailscale

03 THE ENGINE: 18 MODELS, ONE DECISION EVERY 2 SECONDS

HASHVALUE & CALIBRATION

Income per EH/s from live difficulty and real block rewards, net of fees, then checked against your pool's credits after the payout delay ODIN measures itself.

RETARGET FORECAST

Next difficulty change with its error bar; the bid ceiling glides down ahead of it at NiceHash's own price-step pace.

BUDGET PACING

Park price solved for the money you have and how long it must last, by Lagrangian duality.

REGIME DETECTION

CUSUM and Bayesian online change-points: 33 confirmed market shifts in 224 h; stale history is down-weighted the moment one lands.

CONFORMAL FORECASTS

30-minute price bands with a coverage guarantee (79.0% of an 80% band). A dip boost needs the lower bound to clear, not the point estimate.

MEAN REVERSION

Ornstein–Uhlenbeck on two time scales: short dips revert in ~4 minutes, so ODIN never pays an order fee to chase noise.

FILL CURVE

Isotonic fit of how much of an order fills at each distance from the clearing price, learned on your account.

RIVAL & WAR GAME

Survival estimates of rival bots' ceilings and Thompson-sampled bid steps: ODIN declines wars it will lose.

OVERFIT GATE

Walk-forward tuning with no look-ahead; a new setting must pass CSCV with low probability of backtest overfitting.

Around all of them: a profit guard that parks above break-even, an absolute price ceiling, step-limited raises, an anti-chase freeze, daily spend and loss caps, and a persistent kill switch that also stops running GPU rentals. New installs start watch-only.

04 PROOF: LIVE CAPTURES, REAL ACCOUNTS, NOTHING STAGED

EXECUTION · VERIFIED AT THE POOL

17–26 Nov 2026: NiceHash charged 25,496 sats; Kryptex credited 26,170 (+674, +2.6%). ODIN bought on five days, always below the market clearing price (−3.4% to −13.2%), and sat out on the days no price was profitable.

OUTBOUND · SCORED HONESTLY

Every minute: pool payout after fees vs. what NiceHash and MRR buyers pay, less a 1% switching cost; MRR weighted by real rental utilisation. On 21 Nov our pool beat the best buyer by 1.6%, and OUTBOUND said so.

05 GOVERNANCE & SECURITY

KEYS SEALED AT REST

DPAPI on Windows; TPM2-sealed systemd credentials on Linux. Order permissions only: withdrawals stay disabled on every key, and no code path withdraws.

TAMPER-EVIDENT LEDGER

Every decision is a SHA-256 hash-chained JSON line. `odin --verify-audit` names any edited, removed or reordered line. Feeds Loki, Splunk or Elastic.

SIGNED RELEASES

Each release's checksum list is Ed25519-signed with a key that never leaves our office. `odin --upgrade` refuses anything we didn't sign, then test-runs and can roll back.

SUPPLY CHAIN

Built on Asgard Hashworks' own build machines: clippy with zero warnings, RustSec `cargo audit`, CycloneDX SBOMs, SHA-256 checksums. Windows Authenticode via SSL.com is in final review.

HOSTILE-INPUT TESTED

Every build replays a recorded order book and thousands of corrupted copies (NaN, 1e308, nulls, truncated bodies, outage pages) through every parser.

REVIEWABLE

A published threat model maps every defence to code (AHW-SEC-TM-1.8.2), with a pen-test scope ready for your security team (AHW-SEC-ROE-1.8.2). Zero inbound ports.

06 COMMERCIAL LICENSING

STRUCTURE	INVESTMENT	SCOPE
Annual site licence	from $24,000 / yr	Unlimited nodes within one facility, priced by contracted hashrate; Windows and Linux builds; offline signed licence; priority engineering support with a response-time agreement.
Base + performance	$2,000 / mo + 10%	10% of verified net P/L (pool credits received minus venue charges, from ODIN's own ledger). No profit, base only.
Perpetual binary	from $75,000 + 20% / yr	Permanent internal-use licence for the deployed major version; the annual fee covers updates, venue API changes and support.

Retail plans for single farms: Pro Home $9 / mo, Pro Farm $49 / mo, Pro Business $249 / mo (asgardhashworks.com/#plans). Custom venue and pool connectors are scoped on request.

07 30-DAY COMMERCIAL PILOT

DAYS 1–7 · SHADOW

Watch-only on live data: no orders. SLEIPNIR supervises every unit; ODIN logs the levels it would have locked, the dips it would have caught, and a running "would have earned" counter.

DAYS 8–14 · CAPPED LIVE

Live buy-side bidding inside your hard price ceiling, order and speed caps and a daily loss kill switch you set. Every action audited.

DAYS 15–30 · SCALE

Scale to the pilot allocation. Deliverable: the verified audit ledger, a P/L report against your pool baseline, and the OUTBOUND report on your own fleet.

$3,500 pilot, credited 100% toward your licence. 10–50 PH/s slice. If the numbers don't justify the licence, the report will say so.

08 WHY IT HOLDS UP

- The income model is checked against real pool credits (Kryptex live today; Foundry, Luxor, Antpool or Braiins Pool scoped on request), not a spreadsheet.
- Tuning is walk-forward and out of sample, never fitted to the past it is scored on.
- New installs start watch-only; live trading is an explicit switch, per venue.
- HUGINN is read-only by construction, not by a permission setting.
- We publish our losing venue next to our winning one.

BOOK A TECHNICAL WALKTHROUGH OR PILOT

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DOWNLOAD & VERIFY

asgardhashworks.com/download

Signed 1.8.2 release, SHA-256 fingerprints, SBOMs. Free to install; starts watch-only.

Infrastructure software, not financial advice. Trading hashrate can lose money; operators set every ceiling, cap and kill switch. Not affiliated with NiceHash, Braiins, MiningRigRentals, Clore.ai, Vast.ai, Kryptex, Bitmain, MicroBT or Canaan.