

HostSwarm

Sovereign Medical Imaging AI

Private GPU inference for MRI analysis, insurance validation, and clinical support — running on your infrastructure, your keys, your rules.

Advisory decision support only · No patient data retained

Healthcare AI is powerful — but fragile.

Most medical AI systems rely on:

- Opaque cloud inference
- Shared compute resources
- Vendor-controlled models
- Unverifiable outputs
- Unclear data retention policies

This creates risk for hospitals, insurers, and patients.

"Speed without trust is not progress."

A different architecture.

HostSwarm is built on first principles:

Sovereign compute — Private GPUs, no shared inference

Deterministic pipelines — No hidden steps

Signed results — Cryptographic provenance

Calibrated confidence — Uncertainty is surfaced, not hidden

Audit-first design — Every action is recorded

Architecture

Portal → Secure API → Private GPU → Signed Report

End-to-end MRI intelligence.

- Automated MRI segmentation (MONAI, 3D UNet)
- Quantitative measurements (diameter, volume)
- Confidence-aware analysis
- Insurance claim validation
- PDF report generation
- Human-readable explanations (clinical & administrative)

HostSwarm does not replace clinicians — it supports them.

Proven at scale.

50 MRI Studies	100% Success Rate	0 Failed Jobs
0 Retries	154 ms Avg Inference	162 ms P95 Inference

Hardware: RTX 5090 (private)

All results generated on privately owned GPUs with full auditability.

Designed to say "I don't know."

HostSwarm explicitly surfaces uncertainty:

- Model confidence scores included in every report
- Low-confidence cases flagged automatically
- Insurance workflows defer to manual review when needed

"A safe system is one that knows its limits."

Built for payer reality.

HostSwarm integrates payer-aware logic:

- Stenosis severity grading
- Claim support scoring
- "Approve / Review / Escalate" outputs
- Clear rationale for every decision

Status:	Requires Review
Reason:	Confidence below operational threshold

Compliance by construction.

- ✓ No PHI retention
- ✓ Advisory-only outputs
- ✓ Signed provenance
- ✓ Immutable audit logs
- ✓ Tenant isolation
- ✓ On-prem or private cloud deployment

HostSwarm is infrastructure — not a black box.

Designed for serious operators.

Hospitals

- Faster triage
- Quantitative support
- Full control of compute

Insurers

- Consistent claim validation
- Review prioritization
- Audit-ready artifacts

Enterprise Partners

- API-first integration
- Deterministic behavior
- No vendor lock-in

Own your intelligence.

HostSwarm delivers medical AI without surrendering control:

- Your hardware
- Your keys
- Your data boundaries
- Your audit trail

Sovereign AI for healthcare operations.

sales@quantumswarm.io
hostswarm.io