



AI-Assisted Healthcare Operations & Orchestration Platform

A single governed operating layer for Healthcare across Middle East & Africa — assistive, auditable, human-in-command.

APPLICATION · Alibaba Cloud AI / Startup Catalyst Program

Pre-Seed · Egypt · Africa · Middle East

Incorporated: Egypt, November 2025 · CR No. 11471 · Tax ID 777-601-125

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Executive Summary

Core identity, status & leadership



Medigize unifies patient coordination, provider infrastructure, health-records continuity & fintech rails into one governed operating layer for the Middle East & Africa region.

The compute mandate: orchestrating data flows and multimodal clinical inputs (Speech · Text · Vision) safely demands heavy deep-learning infrastructure — the core reason we apply to Catalyst.

PRE-SEED

Egypt-incorporated, Nov 2025

3 PORTALS LIVE

Interactive end-to-end prototype

Q3 2026

Clinical validation · 200+ vignettes

Our Ecosystem

MIHOS / MiTwin — patient app + longitudinal PHR

MIPORT — provider SaaS / Clinical OS

MIOC — operations & governance console

Clinical Engine — governed Mixture-of-Experts

Technical status & roadmap

Advanced pre-seed: multi-portal interactive prototype + core business logic.

Catalyst pivot: from AI-lite core to enterprise clinical inference (Clinical MoE on Alibaba PAI-EAS).

LEADERSHIP



Dr. Omar Teleb — CEO

Consultant OB/GYN · MBA · former medical-tourism founder & CEO. Certified in Governance, Compliance, Risk & Internal Audit (Egyptian Institute of Directors — FRA).



Eng. Youssef Hesham — CTO

Full-stack & AI engineering · systems integration · AI-agency founder · CRM co-founder.

Applies Evidential Deep Learning (Univ. of Ulm) to build hallucination-resistant clinical safety processors.



The Problem — An Infrastructure & AI-Safety Crisis

Multimodal Data Silos

The clinical reality:

Medical history lives in disconnected silos across Middle East & Africa; journeys generate massive unstructured data (vision, voice, text).

The compute gap:

Standard web stacks & basic APIs cannot orchestrate this in real time — sub-second latency is out of reach.

Generic AI Fails in Middle East & Africa

Acoustic failures:

Off-the-shelf ASR breaks on Egyptian, Gulf & Levantine dialects, breaking provider intake.

Clinical hallucinations:

Broad LLMs lack the strict clinical safety required for triage.

AI-Safety & Governance Void

Ungoverned autonomy:

Many solutions deploy AI as 'thin wrappers' with no safety net — contradicting WHO, EU AI Act, FDA & SFDA high-risk rules.

Trust without measurement:

Most systems can't measure their own uncertainty, so they can't trigger a human override before harm.



The Solution — A Governed Health OS

One operating layer · three surfaces · one clinical engine

MIHOS

Patient App + Longitudinal PHR

Intake, archiving, OCR/NLP, consent-based file sharing and a full audit trail. From AI-Assisted PHR lite to full Personal Health Operating System

MIPORT

Provider SaaS / Clinical OS

Provider onboarding, workflow & matching, tiered SaaS from free Core up to CDS-integrated Clinical OS.

MIOC

Intelligence & Operations Console

Governance, operations, routing, oversight and the control plane for trust, safety & quality enforcement.

Clinical Engine — From AI-Assisted Intake to governed Mixture-of-Experts

A multi-dimensional MoE that powers triage, provider matching, provisional reporting & specialty routing **across all three surfaces**.

Governed by MiShield (trust, safety & price protection) and MIMARK (quality assurance), under a unified Governance Layer.

Clinical boundary: Medigize is not a diagnostic, treatment-recommendation, or autonomous clinical-decision tool. All AI is assistive, auditable and human-reviewed.

Market Opportunity

A layered, corridor-anchored opportunity



Entry TAM — Core Medical Journey

\$95–115B

2025 → \$250–300B by 2030

Launch Corridor SAM

\$2.35–4.30B

journey GMV (not platform revenue)

GCC Outbound (context)

~\$12B

source-corridor demand · GCC-high

Corridor structure

Hubs: Egypt (full Y1 operating hub) · Tunisia (conditional, post-Egypt milestone).

Source corridors (addressable SAM, not operating targets):

Libya \$100–200M (fastest activation) · Nigeria \$400M (20% of \$1–2B outbound) · KSA (scenario range).

Expansion pipeline: UAE · Turkey · Jordan — tracked, not counted in Launch SAM.

Why now

Structural gaps: persistent capacity shortfalls in oncology, cardiac & transplant care drive outbound flow.

Policy shift: regional regulators now enable cross-border digital health (e.g. Dubai Health Authority).

Convergence: fast-growing cross-border healthcare and telehealth meet fast-growing health-AI — Medigize sits at the intersection.

Figures are Medigize synthesized planning ranges; source and operational layers measured separately (no double-count). See Sources & Methodology.



Business Model & Revenue

Five revenue lines · stage-gated activation

Revenue lines

1 · Clinical Commerce & Care Transactions:

Procedure & diagnostics commissions across corridors.

2 · Journey Support & Partner-Led Rails:

Travel, stay, insurance, visas, home care.

3 · Provider SaaS & Workflow Infrastructure:

MIPORT tiers — free Core up to CDS-integrated Clinical OS.

4 · Enterprise, White-Label & Facilitator Programs:

B2B2C distribution & partner programs.

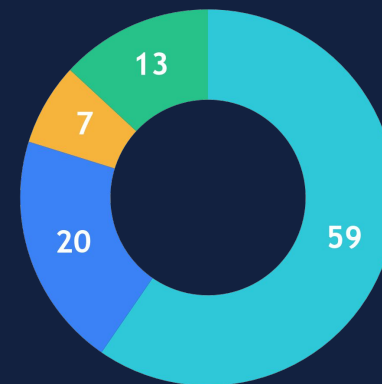
5 · MIHOS Continuity & Insights:

MiTwin (paid, Y3+) & enterprise insights / RWD maturity layer.

≈ \$7.90M

net platform revenue by Year 3 (2029) — Realistic base case

Year-3 revenue mix



- 59% Procedures & diagnostics
- 20% Journey support & partner rails
- 7% Provider, enterprise & MIHOS
- 13% Clinical digital services

Three scenarios modeled (Conservative · Realistic · Optimistic); revenue synced with Revenues Master & OPEX Master in the Data Room. Mix rounded — ~1% financing / BNPL not shown.



Multimodal Inference Architecture

Ingestion → Orchestration (Alibaba PAI-EAS) → Governance

INGESTION

MIHOS — Patient App

MIPORT — Provider Portal

Voice · Vision · Text

Omnichannel ingestion

Patient intake (MIHOS) and provider data (MIPORT) feed massive multimodal inputs directly into orchestration.

ORCHESTRATION LAYER · PAI-EAS

Localized Speech AI

Full-duplex Arabic ASR (Qwen-Audio)

MONAI Framework

Vision → dense embeddings

Clinical MoE + PAI-Blade

Triage · matching · routing

Custom Logits Processor

Entropy · energy · vacuity · dissonance

GOVERNANCE & OUTPUT

Validated Clinical Output

Human Override Required

AI Event Store

Every input, raw output & human-edit diff logged as an immutable, auditable record.

Continuous learning — RLHF

Verified corrections feed compliance-safe RLHF fine-tuning on Alibaba PAI (Designer / DLC).



Deep Engineering — The Clinical Safety Shield

Uncertainty Quantification

Assistive-AI mandate:

A strict boundary keeps AI purely assistive — enforced computationally, not only by prompt engineering.

Custom logits processors:

Raw logits are extracted inside custom PAI inference containers to compute entropy, dissonance, vacuity & energy in real time.

Hallucination Prevention

MoE gating:

Trust analysis gates expert selection — routing only to the most appropriate sub-model before any reasoning and output.

Mathematical trigger:

On high entropy/dissonance the system requires a human medical review (Escalation) — aligned with WHO & FDA principles.

RLHF & the AI Event Store

Immutable audit logs:

Every multimodal input, raw output & human-edit difference is logged in an auditable store.

Continuous fine-tuning:

Verified corrections feed RLHF into Alibaba Cloud PAI pipelines for compliance-safe optimization.

Medigize MoE — governed Mixture-of-Experts engine · safety designed to be computed, not asserted.

Why Alibaba Cloud

Our architecture maps natively to the Alibaba Cloud AI stack



MEDIGIZE NEED

Localized Arabic ASR & multimodal intake



Qwen-Audio · Qwen3-Omni · Model Studio (119 languages)

Clinical MoE serving & inference acceleration



PAI-EAS model serving + PAI-Blade optimization

Continuous, compliance-safe RLHF fine-tuning



PAI (Designer / DLC) training pipelines

DICOM / MONAI vision workload



GPU ECS — Heterogeneous Computing

Foundation models + free token quota



Model Studio — Qwen-Max / Plus / VL

Low-latency in-corridor inference (KSA · UAE)



Riyadh + Dubai regions · anonymized-tensor serving — sovereign PHI in-Kingdom

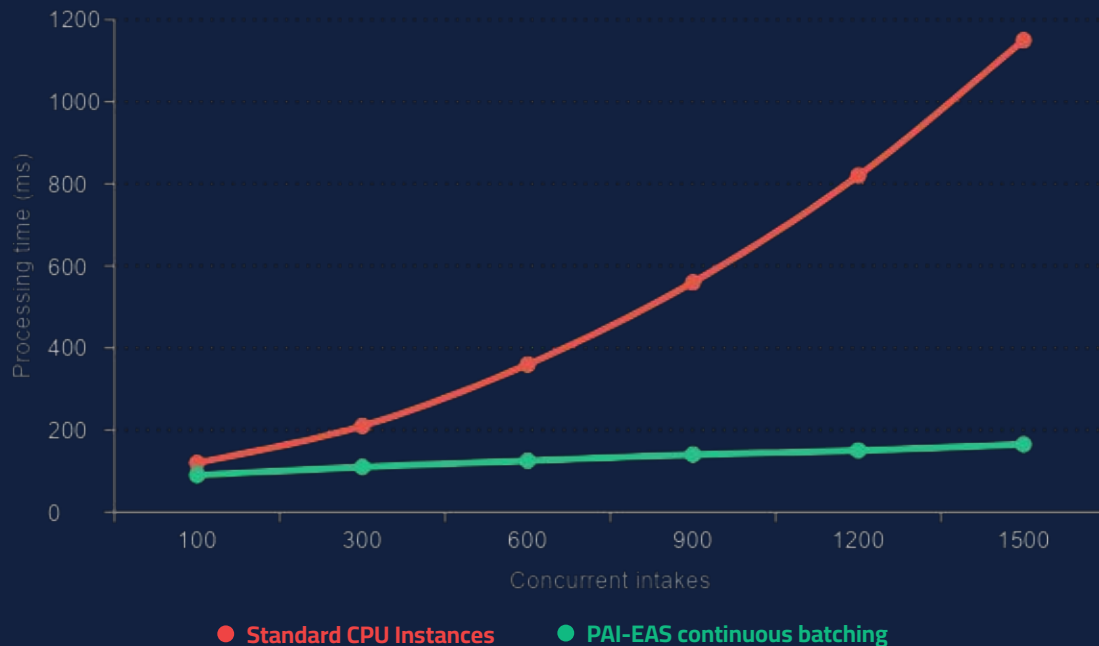
Decisive fit: Alibaba Cloud's Riyadh & Dubai regions run heavy MoE compute on anonymized tensors inside the corridor — while PHI of record stays in-Kingdom on Alibaba Cloud's SCCC-operated Riyadh region (KSA). No hyperscaler matches this in-region inference footprint for MEA.a



Compute Demand & Projected Consumption

Why credits matter — and how we will use them

Latency vs. concurrent clinical intakes



Targets: ~300 ms conversational response · ITU-T G.114 (150 ms one-way) voice standard.

Projected consumption — end-Y1 run-rate · recurring patient + clinician inference

Inference workload	Alibaba service · instance	GPU-hrs/mo
Patient intake & re-assessment	PAI-EAS · gn7i → gn7e	450–650
MIHOS daily companion	PAI-EAS · gn7i autoscaled	600–900
Clinician copilot (assistive)	PAI-EAS + RAG · gn7e	500–800
Periodic RLHF / fine-tune	PAI-DLC · gn7e / Lingjun	~100–150
DICOM / MONAI vision	GPU ECS · gn7i / gn6i	50–100
Run-rate total	<i>inference-dominant</i>	1,700–2,600

Mapped to the three Catalyst credit tiers — sized for full utilization

Launcher

~\$1K

Prototype & core logic

Gold

~\$20K

MVP · validation · RLHF

Diamond

up to \$120K

Multi-corridor production

End-Y1 run-rate 1,700–2,600 GPU-hrs/mo; annual ≈ 14,000–20,000 GPU-hrs reflects S-curve ramp (back-loaded adoption) · ~5–7B tokens/mo at end-Y1. Recurring across patient (multi-complaint intake + daily MIHOS) and clinician (DDx drafting · screening · meds & labs · clinical-evidence RAG · ICD coding) — all assistive, human-in-the-loop. 2B free Model Studio tokens offset early-ramp pre-processing (ASR / OCR / context summarization) during prototype & MVP. Credit year Q3 2026→Q3 2027. GPU-hrs cover self-hosted MoE, MONAI vision & RLHF only; ASR / OCR / summarization run on managed Model Studio (token-billed, not in this table). Bottom-up estimate calibrated to Ada · Infermedica · NHS 111.

Decoupled Architecture & Data Sovereignty



Zone 1 — The regulatory blockades

Global **privacy** **standards:**

Architecture mapped to HIPAA (USA) & GDPR (EU) principles across jurisdictions.

Strict **localization** **mandates:**

Egypt PDPL (151/2020), Saudi NCA/CCRF & Nigeria NDPA (2023) impose per-corridor PHI residency & transfer controls; Libya held to GDPR/PDPL-equivalent safeguards.

The **compute** **paradox:**

Putting heavy MoE hardware in every country is cost-prohibitive — but centralizing patient data breaks sovereignty.

Zone 2 — Decoupled storage & anonymized inference

Sovereign **storage** **layer:**

PHI encrypted at rest (AES-256), resident in-corridor — KSA on Alibaba Cloud's in-Kingdom Riyadh region (SCCC · NCA/CCRF-aligned); Egypt under PDPL (Law 151/2020); Nigeria under NDPA 2023 (NDPC); Libya under GDPR/PDPL-equivalent safeguards (no national DPL yet).

Cloud-agnostic **edge** **inference:**

An edge gateway tokenizes & anonymizes context before any data leaves the sovereign zone.

Zero-PHI **inference:**

By design, only scrubbed tensors reach Alibaba Cloud GPU compute clusters; re-identification keys never leave the sovereign zone. (PDPL · GDPR · HIPAA · SFDA MDS-G010/G027)

Architected for per-corridor compliance alignment — heavy clinical math, by design, without exposing identifiable data to compute.



The Catalyst Ask

Each program benefit maps to a concrete deployment

Up to \$120K Cloud Credits

Sustained GPU ECS + PAI-EAS edge nodes and continuous RLHF fine-tuning for our localized Clinical MoE.

Model Studio Tokens (up to 2B)

Qwen base models (Audio / VL) for Arabic-dialect ASR, OCR data extraction, and unstructured context compression prior to MoE routing.

Global Technology Services + 1:1 Cloud Architect

Validate custom logits processors and architect efficient MoE tensor parallelism with PAI-Blade.

Alibaba Cloud Academy + Tianchi

Upskill engineering on advanced PAI-EAS optimizations—specifically continuous batching and KV cache management.

Demo Days · Investor Connect · Co-Marketing

Regional pitch sessions and VC networks that underwrite heavy-compute, infrastructure-level AI.

Eligibility fit: Incorporated 2025 (<10y) · pre-seed with website & company email · working prototype · scalable, international model · AI as core technology — meets Catalyst criteria.



Execution Roadmap

From interactive prototype to corridor-scale clinical inference



WHY NOW

Structural capacity gaps

Oncology, cardiac & transplant shortfalls drive outbound patient flow.

Regulatory enablement

Regional frameworks now permit cross-border digital health.

Market convergence

Cross-border healthcare and telehealth × health-AI growth — Medigize at the intersection.

Sources & Methodology



Market Sizing

Entry TAM \$95–115B: Medigize synthesized planning range, anchored to medical-tourism clinical fees (Grand View Research, ~\$34.0B 2025) + travel/journey layers.

Launch Corridor SAM \$2.35–4.30B GMV: Data-room corridor bridge.

Telehealth / healthcare-SaaS context: Grand View Research · Mordor Intelligence.

Saudi Arabia / GCC

GCC outbound ~\$12B: Medigize GCC outbound table — regional context, not corridor denominator.

KSA Corridor range \$225M / \$300M / \$450M: internal calibration (~15% share); upper = ceiling pending MIHOS-pull validation.

Riyadh bed density ~2.4 / 1,000 vs. OECD ~4.2 (2023) — specialty gaps in oncology, cardiac & transplant drive outbound flow: Saudi GASTAT 2024 · BMC Health Services Research (2024).w

Africa & Growth Rates

Nigeria need-pool \$1B–\$2B: Nairametrics · PAMJ — Medigize counts ~\$400M corridor share.

Infrastructure-gap driver (~48%): Pan African Medical Journal. Africa internet (~38%): ITU / UNECA.

Medical tourism ~11.5%→25% CAGR scenarios; AI-in-healthcare ~38–39% CAGR to 2030 (Grand View Research).

Alibaba Cloud Program & Stack

Catalyst credits up to \$120K · AI Catalyst up to 2B Model Studio tokens · GTS 3-for-1 · Academy.

References:

- alibabacloud.com/startup/ai
- ME regions (Riyadh, Dubai): alibabacloud.com/global-locations
- Qwen / Model Studio: alibabacloud.com/product/modelstudio

Source hygiene: each figure carries source, year & scope. GMV, ARR and analytics layers are never combined without a stated bridge.

Data sovereignty & compliance: Egypt PDPL (Law 151/2020) · Nigeria NDPA 2023 (NDPC) · Saudi NCA/CCRF + PDPL · SFDA MDS-G010 / G027 · Alibaba Cloud Riyadh operated by SCCC (in-Kingdom partner region).