

AI MISHQAT PVT. LTD.

Sovereign AI Systems for *Defence & Critical Infrastructure.*

Full-stack AI capability — from local LLM deployment and agentic automation to computer vision, IoT integration, and multilingual intelligence — evaluated by the Indian Armed Services and Ministry of Defence.

Understanding AI is necessary. *Understanding defence is what matters.*

AI Mishqat was founded by three people who between them understand defence-grade technical manufacturing, AI systems engineering, and complex programme delivery. That combination is deliberate — and rare in the Indian AI landscape.



Murtuza Akbar Haamid
FOUNDING PARTNER-DIRECTOR

20+ years designing and manufacturing electrical, electronic, and electro-mechanical systems for marine and defence industries. Understands what it means to build systems that operate in classified, harsh, and mission-critical environments.



Aliasgar M. Thanawala
CO-FOUNDER & CTO

Technical architect across LLM agent systems, RAG infrastructure, computer vision, IoT integration, and full-stack AI engineering. Builds the systems Murtuza knows operationally and Mufaddal can deliver at programme scale.



Mufaddal Zaranwala
CO-FOUNDER & DIRECTOR

Programme management, commercial strategy, and client engagement. MSc Management Consulting, University of Leeds. Ensures every engagement is delivered on scope, on time, and against clearly defined technical outcomes.

WHY THIS MATTERS FOR DEFENCE PROCUREMENT

Most AI vendors understand their technology. Very few understand how a naval dockyard, an ordnance factory, or an aerospace manufacturer actually operates — its environmental constraints, security requirements, legacy infrastructure, and operational realities. Two of our three founders have built for these environments. We do not learn that on your programme.

Five formal evaluations.

Three establishments. Army, Navy, Ministry of Defence.

Mishqat has technically qualified for five Government of India defence and defence-production software tenders — formal technical evaluation under DAP 2020 and Ministry of Defence procurement procedures. Each qualification maps to a distinct AI capability domain.



VISION & PERCEPTION

AI-Based Inventory Data Entry System Using Computer Vision

Indian Army · Ammunition Factory Khadki, Pune

Evaluated under DAP 2020 · Ordnance Factories Board



CODING INTELLIGENCE

AI-Enabled Coding Assistant

Indian Navy · WESEE, Mumbai

Weapons & Electronics Systems Engineering Establishment · C4I domain



KNOWLEDGE SYSTEMS

AI-Enabled Question Bank Management System

Indian Navy · INICAI, Naval Dockyard Mumbai

Indian Naval Indigenisation Centre · Sovereign AI deployment



LOGISTICS INTELLIGENCE

AI-Based Inventory Management System

MoD · Hindustan Aeronautics Limited

Department of Defence Production · Aerospace manufacturing context



LANGUAGE INTELLIGENCE

AI-Based Russian to English Translation Software

MoD · Department of Defence Production

As per enclosed specification · Classified technical corpus

The intelligence stays *within your perimeter.*

Most commercial AI is structurally dependent on cloud infrastructure. Every query leaves the building. Every document processed touches an external server. For classified, sensitive, or operationally critical environments, this is not a configuration choice — it is a disqualifier.

WHAT SOVEREIGN DEPLOYMENT MEANS

Mishqat deploys large language models entirely within your establishment's own network. The model weights reside on your hardware. Inference happens on your servers. Nothing leaves your perimeter — not queries, not documents, not outputs. This is not a workaround; it is how our systems are designed to operate.

SOVEREIGN DEPLOYMENT SPECIFICATIONS

LLM DEPLOYMENT	Model weights held on-site. Inference runs on local hardware. No API call leaves the establishment perimeter.
NETWORK REQUIREMENT	None. The complete intelligence stack operates without internet connectivity. Air-gap compatible.
DATA RESIDENCY	All data — queries, documents, outputs, logs — remains within your network boundary.
MODEL CUSTODY	You hold the model. You control access. You determine who can query it and what it can see.
HARDWARE	Runs on NVIDIA GPU (RTX/A-series/H-series) or CPU-only for smaller deployments. Bare metal or VM.
AUDIT	Comprehensive logging of all queries, actions, and system interactions for security review.

The AIQBMS deployed at INICAI (Naval Dockyard Mumbai) and the AI Coding Assistant at WESEE — both operate within sensitive naval networks under exactly this model. The evaluations are the evidence.

Local LLMs and conventional AI.

Neither alone is sufficient. Combined, they handle anything.

A local LLM reasons, retrieves, generates, and understands language — but cannot see a camera feed, read a sensor, or detect an anomaly in real-time telemetry. Conventional AI perceives and detects — but cannot reason about what it sees, draft a maintenance order, or answer a question in plain language. An agentic system built on both can.



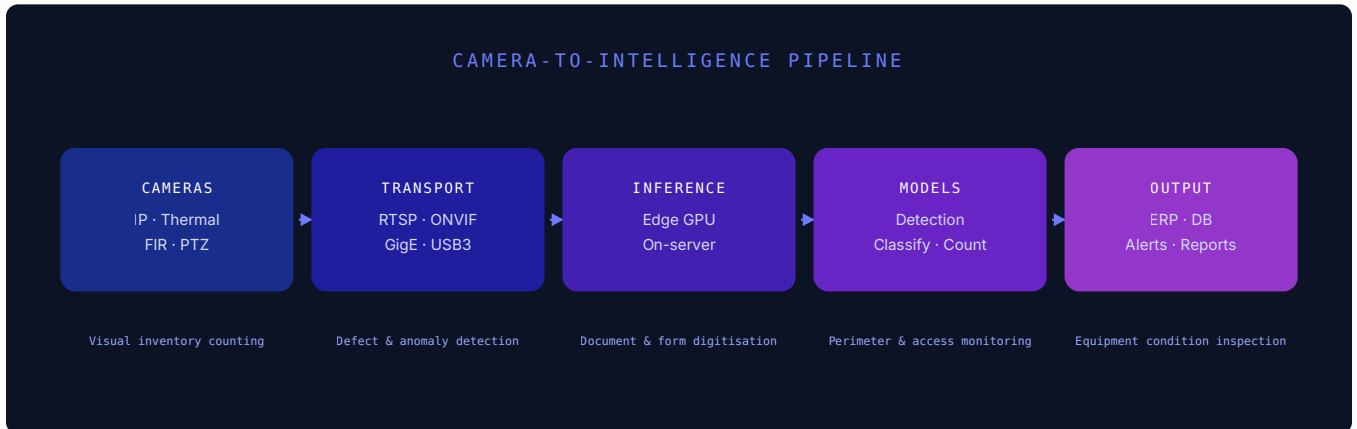
EXAMPLE SCENARIO

A thermal camera detects an anomaly (CV layer). A sensor confirms equipment irregularity (IoT/ML layer). The local LLM retrieves the relevant maintenance manual, drafts a work order, and routes it for officer review — entirely within the local network, without a human in the operational loop.

WHY MISHQAT

Most vendors offer one layer or the other. Cloud LLM providers cannot offer sovereignty. Traditional automation companies cannot offer language intelligence. Mishqat is built to deliver the complete integrated stack, on-premise, under your control.

What the system sees, *it understands.*



CAPABILITIES

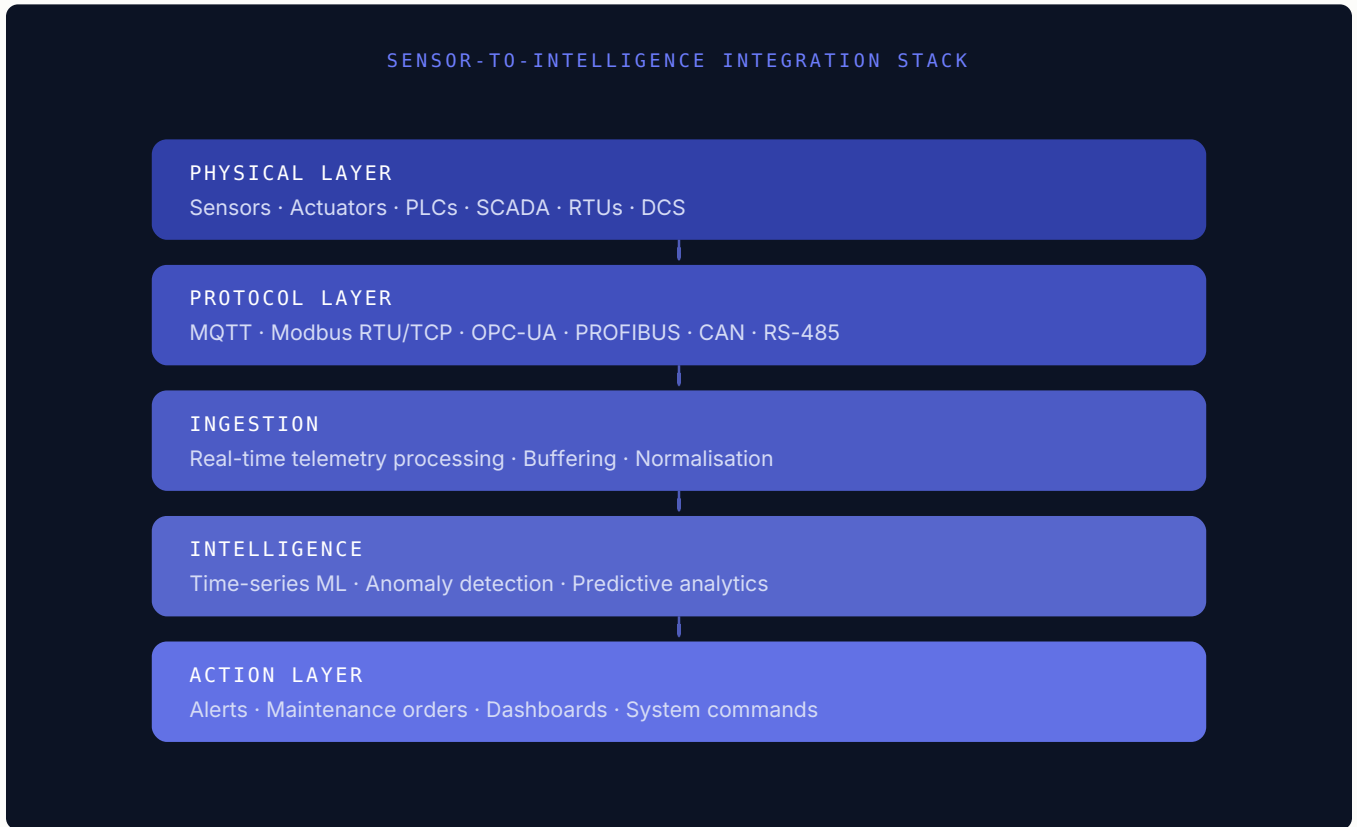
INVENTORY BY VISUAL COUNT	Automated counting of equipment, ammunition, stores, and assets from still or live camera feeds — without physical scanning or manual entry.
DEFECT & ANOMALY DETECTION	Visual identification of surface defects, structural irregularities, and equipment condition degradation in real time.
DOCUMENT & FORM DIGITISATION	Conversion of printed technical forms, logbooks, inspection records, and specifications to structured digital data via OCR and document AI.
PERIMETER & ACCESS MONITORING	Camera-based presence detection, personnel identification, and access logging integrated with existing security infrastructure.
EQUIPMENT CONDITION INSPECTION	Regular automated visual inspection of critical equipment — identifying wear, damage, or anomaly before it becomes a failure.

SUPPORTED PROTOCOLS & HARDWARE

- RTSP
- ONVIF
- GigE Vision
- USB3 Vision
- FLIR Compatible
- AXIS Compatible
- IP Camera
- Thermal / FIR
- PTZ Systems
- Edge Inference
- GPU Accelerated

Reference deployment: Ammunition Factory Khadki — AI-Based Inventory Data Entry System Using Computer Vision (Indian Army · DAP 2020).

The physical environment, *made intelligent.*



CAPABILITIES

PREDICTIVE MAINTENANCE	Time-series telemetry from equipment sensors analysed continuously to detect degradation patterns before failure — reducing unplanned downtime.
ANOMALY DETECTION	Real-time statistical deviation detection across sensor arrays — flagging readings that deviate from learned operational norms.
EQUIPMENT HEALTH MONITORING	Continuous tracking of operational parameters (temperature, vibration, pressure, RPM, current draw) across connected assets.
SCADA INTEGRATION	Bidirectional connection with existing SCADA platforms — reading live process data and, where authorised, issuing control signals.
OT-IT BRIDGE	Connecting operational technology (sensors, PLCs, RTUs) to information technology (databases, ERPs, reporting systems) securely.

PROTOCOLS & SYSTEMS SUPPORTED

- MQTT
- Modbus RTU
- Modbus TCP
- OPC-UA
- PROFIBUS
- CAN Bus
- RS-485/232
- BACnet
- Siemens S7
- Allen-Bradley
- Schneider
- Wonderware
- Ignition SCADA

No rip-and-replace.

We connect to what you have.

Defence establishments cannot retire functioning infrastructure for a software upgrade. Mishqat's systems are designed to connect alongside what is already deployed — not replace it. AI capability is layered on top of existing databases, SCADA systems, ERPs, and physical networks.

COMPATIBLE SYSTEMS & PLATFORMS

DATABASES	Oracle · SQL Server · PostgreSQL · MySQL · SQLite · MS Access · MongoDB
ERP & MIS	SAP · Custom defence MIS/ERP · Legacy procurement systems
SCADA & INDUSTRIAL	Wonderware · Ignition · Siemens WinCC · iFix · custom SCADA
DOCUMENT SYSTEMS	Network file systems · SharePoint · classified document repositories
COMMUNICATION	Email (SMTP/IMAP) · REST APIs · SOAP · custom integration layers
PHYSICAL NETWORK	Ethernet · Serial (RS-232/485) · CAN · fibre optic · air-gapped subnets

INTEGRATION APPROACH

We begin with a technical environment survey — understanding what systems are in use, what data they hold, and what integration points are available. The AI system is then built to connect at the appropriate layer: database-level, API-level, file-system-level, or protocol-level, depending on what exists and what is secure in context.

Technical language, *processed with precision.*

Defence documentation spans multiple languages, formats, and decades of accumulation. Mishqat's language intelligence systems process, translate, extract, and answer queries across this corpus — entirely within your network, with no external data exposure.

CAPABILITIES

RUSSIAN ↔ ENGLISH	Technical documentation, specifications, and equipment manuals processed by a sovereign AI translation system evaluated by the DDP, Ministry of Defence.
HINDI ↔ ENGLISH	Bidirectional processing for operational communications, reports, and documentation in official language contexts.
TECHNICAL NLP	Domain-specific understanding of defence, engineering, and scientific terminology — not general-purpose translation, but trained for precision.
DOCUMENT DIGITISATION	Scanned manuals, printed forms, handwritten logbooks, and legacy typed documents converted to structured, searchable digital records.
KNOWLEDGE EXTRACTION	Structured information extracted from large unstructured document corpora — equipment manuals, specifications, maintenance records, inspection reports.
QUESTION ANSWERING	Natural-language query interface over classified or sensitive document stores — officers ask questions in plain language, the system retrieves and synthesises answers locally.

REFERENCE · DDP QUALIFICATION

AI-Based Russian to English Translation Software — Ministry of Defence, Department of Defence Production. Evaluated for a corpus of classified technical and engineering documentation.

REFERENCE · INICAI QUALIFICATION

AI-Enabled Question Bank Management System — Indian Naval Indigenisation Centre, Naval Dockyard Mumbai. Sovereign knowledge management over a structured question and document corpus.

Three modes. *One is built for defence.*

Every Mishqat system can be deployed across three security models. For defence and classified contexts, the on-premise sovereign and air-gapped modes are designed to meet the data residency, access control, and network isolation requirements of sensitive operational environments.



SECURITY FEATURES – ALL MODES

ACCESS CONTROL	Role-based, with user-level permissions and session management	DATA HANDLING	No retention of query content beyond the session, unless explicitly configured
AUDIT LOGGING	All queries, system actions, and access events logged with timestamp and user identity	UPDATES	Delivered via physical media in air-gapped contexts; no automatic external updates

Complete capability reference.

All AI Mishqat technical capabilities across all domains. Every item has been designed, built, or evaluated in a production or defence context.

LLMS – LOCAL & SOVEREIGN

- On-premise LLM deployment — no cloud dependency
- Air-gapped inference — zero external network
- RAG over private / classified document corpora
- Multi-turn conversational AI — sovereign context
- Instruction-tuned models for domain-specific tasks

AGENTIC AI SYSTEMS

- Multi-agent orchestration — autonomous multi-step execution
- Tool use: DB queries, system calls, file operations
- Human-in-the-loop approval workflows
- Cross-system task coordination & handoff
- Agentic document processing pipelines

COMPUTER VISION

- Object detection, classification & tracking
- Visual inventory counting & asset verification
- Defect & anomaly detection from live feeds
- OCR and document image digitisation
- Thermal / FIR & IP camera integration (RTSP, ONVIF)

NATURAL LANGUAGE PROCESSING

- Multilingual NLP — English, Hindi, Russian & more
- Technical document translation (defence domain)
- Named entity recognition & information extraction
- Natural language query over classified document stores
- Speech-to-text transcription & processing

MACHINE LEARNING & ANALYTICS

- Time-series analysis & predictive maintenance
- Statistical anomaly detection on sensor telemetry
- Supervised classification and regression models
- Operational pattern recognition
- Model training & fine-tuning on domain data

IOT & SENSOR INTEGRATION

- MQTT · Modbus RTU/TCP · OPC-UA · PROFIBUS · CAN
- SCADA and DCS system integration
- PLC connectivity — Siemens, Allen-Bradley, Schneider
- Real-time telemetry ingestion & processing
- Equipment health monitoring dashboards

SYSTEM INTEGRATION

- Legacy ERP & MIS (SAP, custom defence systems)
- Database integration (Oracle, SQL Server, PostgreSQL)
- API integration (REST, SOAP, custom protocols)
- Document & network file system integration
- Air-gapped data transfer via physical media workflow

DEPLOYMENT & SECURITY

- On-premise sovereign — no external network required
- Air-gapped full isolation mode
- Role-based access control & audit logging
- NVIDIA GPU and CPU-only deployment options
- Containerised (Docker/ Podman), VM or bare metal

OZ — one AI brain *for your entire business.*

Beyond defence, Mishqat builds and deploys commercial AI under the OZ framework — a central intelligence layer that sits over a business's existing systems, learns how it operates, and runs it. Same engineering rigour. Cloud or on-premise.



Sits on top of what you run

SAP, Tally, Zoho, Shopify, WhatsApp, email, databases — nothing is replaced. OZ becomes the intelligence layer that finally connects and operates them.

Or built entirely from scratch

Where systems need to be built — full custom ERP, data platform, operations tool — we build the stack with OZ as the intelligence layer from day one.

INDUSTRIES SERVED

- MANUFACTURING
- TRADING & DISTRIBUTION
- CONSTRUCTION
- LEGAL
- ACCOUNTING & AUDIT
- TRUSTS & ORGS

*"The same team. The same standards.
Available to any enterprise that needs it."*



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"Sovereign intelligence,
built for your environment."