

Build Your Own Gen AI Lab.

A focused, on-premise AI environment that brings together the three AI domains banks need today — Analytical Machine Learning, Generative AI and Agentic AI — without sending a single byte of customer data outside the bank. Powered by Smartera 3S's banking AI catalog and the new generation of compact AI infrastructure.

FOR BANKING DECISION-MAKERS

EGYPT · 2026

M Analytical Machine Learning — proven and still essential

Traditional AI and predictive analytics rely heavily on **historical data** for model development, training and evaluation. For more than a decade, banks have used analytical machine learning to turn structured data — accounts, transactions, demographics, behaviors — into operational decisions: who is likely to leave, who can repay, what to offer next, and which customers belong in the same segment. Analytical ML is not going away — it remains the workhorse for risk, segmentation and predictive scoring, and continues to run alongside the new Generative and Agentic AI domains.



Customer Churn Prediction

XGBoost / Random Forest models on transactions, balances and engagement signals to flag attrition risk.



Credit & PD Risk Assessment

LightGBM and XGBoost on financial ratios and repayment history to estimate Probability of Default.



Income & Salary Prediction

XGBRegressor on demographics and spending to refine credit limits and risk-based pricing.



Customer Segmentation

KMeans clustering on wealth, channel, loyalty and spending patterns for personalized offers.

G Generative AI & Agentic AI — what they add

Generative AI

Complementing traditional ML — which predicts numbers and classes — Generative AI understands and **creates human-like content**: text, summaries, reports, recommendations and natural conversations grounded in the bank's own knowledge.

-  **Knowledge Assistants (RAG)**
Llama 3 + LangChain over policy docs, manuals and product guides.
-  **Policy Expert**
Instant, context-aware answers on internal policies and compliance.
-  **Product Expert**
Real-time NLU chatbot for loans, cards and savings inquiries.
-  **HR Assistant (GenAI)**
Job descriptions and resume screening from natural prompts.

Agentic AI

AI agents go beyond responses: they **plan, decide and act autonomously**, coordinating workflows and interacting with enterprise systems with minimal human intervention.

-  **Automated Customer Service**
Multi-agent triage across products, channels and accounts.
-  **Balance Sheet Analyzer**
Multi-agent extraction, ratio analysis and AI-driven business insights from financial PDFs.
-  **Credit Memo Generation**
Multi-agent drafting of corporate / SME credit memos from financials, bureau and exposure data — cuts prep time 60–80%.
-  **AI-Powered Employee Assistant**
HR, IT and operations co-pilots across the bank.

Why banks need AI inside their walls — and why that's now affordable.

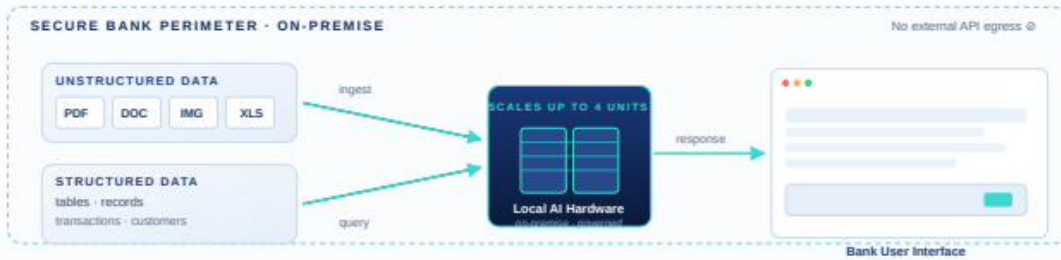
🛡️ Data Privacy & Security — the non-negotiable

Banks cannot risk sending sensitive customer records, transactions or enterprise data to public foundational models through external APIs such as GPT or Gemini. Regulatory exposure, residency requirements and reputational risk make it unacceptable. The answer is **secure, locally deployed AI infrastructure** that hosts and operates AI models *inside* the bank's environment — fully governed, fully private.

Generative AI extends AI capabilities beyond structured data. Alongside the bank's existing data, GenAI now reasons over **unstructured content** — PDFs, Word documents, scanned files and images — all processed inside the bank's secure environment.

Secure On-Premise AI Deployment

Structured + unstructured data → local AI hardware → bank user interface · no external API egress



YESTERDAY · Large-scale AI infrastructure

High CAPEX, complex installation, heavy operational footprint.



- Multi-rack server clusters
- Dedicated cooling & power systems
- Specialized installation requirements
- High CAPEX & long deployment cycles

TODAY · Compact AI infrastructure

Desktop-class footprint. Bank-grade performance.

Compact On-Prem AI Unit

- Single compact unit, desk-side or rack
- NVIDIA Blackwell Ultra / GB10 efficiency
- Standard power, minimal cooling
- Affordable CAPEX · weeks to deploy

NVIDIA GTC 2026 Two compact AI platforms — built around workload, not hardware

CAPABILITY	PLATFORM 1 PERFORMANCE TIER	PLATFORM 2 COMPACT TIER
Supported Concurrent Users	Up to ~200 users Enterprise-wide AI services across business lines	Up to ~25 users Focused departmental or pilot workloads
Supported LLM Size	Up to 200B+ parameters Frontier and large foundation models · multi-model serving	Up to 70B parameters Mid-scale and quantized LLMs for departmental use
AI Performance	Up to 20 PFLOPS FP4 sparse inference · sustained throughput for production GenAI	~1 PFLOP FP4 inference · responsive performance for focused workloads
Workload Profile	Inference + on-device fine-tuning Bank-wide RAG, Agentic AI and analytical ML in parallel	Optimized inference RAG assistants, internal chat, document Q&A
Deployment Scope	Enterprise / multi-department Anchor unit for the bank's central AI Lab	Departmental / pilot Quick-start AI inside a single business unit
Scalability	Concatenate up to 4 units Linear scale for users, models and throughput	Pair or stack as needed Add capacity as adoption grows

Two compact platforms — both desktop-class, both bank-deployable. Platform 1 anchors enterprise-scale Generative and Agentic AI services for the whole bank; Platform 2 brings the same operating model to focused departmental or pilot workloads. Sizing is matched to the bank's user base, model strategy and AI roadmap.

Smartera 3S — your AI partner in banking

Smartera 3S is a leading technology company specializing in systems and solutions for the banking industry, with deep expertise in digital transformation and AI enablement. We bring a **comprehensive catalog of production-ready AI use cases** tailored to financial institutions, combined with the engineering experience to deploy them inside the bank.

THE OFFERING

Gen AI Lab Package for Banks

A turnkey program that lets your bank establish its own secure, internal AI environment — infrastructure, software, an operational LLM and the people skills to run it. Everything you need to start delivering Generative and Agentic AI use cases from inside the bank's perimeter.

<p>1</p> <p>AI Platform Infrastructure</p> <p>Complete setup of compact, NVIDIA GTC 2026-class AI platforms sized for the bank's workloads, user base and target model scale.</p>	<p>2</p> <p>Software Environment</p> <p>Installation and configuration of the AI runtime, vector database, orchestration and observability stack.</p>	<p>3</p> <p>LLM Use Case Deployment</p> <p>One end-to-end banking AI use case — selection, knowledge connection, deployment and handover, fully on-premise.</p>	<p>4</p> <p>Technical Enablement</p> <p>End-to-end engineering enablement: integration, security review, operations runbooks and handover.</p>
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1 AI PLATFORM CAPACITY Two compact AI platforms · concatenated as one Gen AI Lab

<p>CONCURRENT USERS</p> <p>~225 users</p> <p>Combined capacity for bank-wide AI services</p>	<p>MODEL CAPACITY</p> <p>Up to 200B+</p> <p>Parameter LLMs — frontier & foundation models</p>	<p>AI PERFORMANCE</p> <p>~21 PFLOPS</p> <p>Aggregate FP4 inference throughput</p>	<p>WORKLOAD COVERAGE</p> <p>Inference + Tuning</p> <p>RAG, Agentic AI and on-device fine-tuning</p>	<p>SCALABILITY</p> <p>Up to 4 units</p> <p>Linear growth as adoption expands</p>
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2 SOFTWARE ENVIRONMENT Installation · configuration · database preparation · network connection

<p>PACKAGES</p> <p>Software installation</p> <p>All required packages and dependencies installed and prepared to run the AI environment.</p>	<p>CONFIGURATION</p> <p>Environment setup</p> <p>System and security settings configured to match the bank's operational standards.</p>	<p>DATABASE</p> <p>Database preparation</p> <p>Databases provisioned and prepared to support the AI workloads inside the bank.</p>	<p>NETWORK</p> <p>Network connections</p> <p>Connectivity established with the bank's internal network, fully on-premise.</p>
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3 LLM USE CASE DEPLOYMENT Retrieval-Augmented Generation · tailored for banking

RAG Use Case INCLUDED

Smartera 3S delivers one practical banking AI use case directly inside the bank — a **Retrieval-Augmented Generation (RAG) assistant** that answers natural-language questions by retrieving grounded information from the bank's own knowledge sources. The use case is shaped around banking realities — policies, procedures, product manuals, regulatory references and operational knowledge — so the bank starts seeing value from day one rather than from a pilot that never ships.

- **Grounded answers** sourced from the bank's own documents
- **Banking-tailored** — policies, products, procedures, regulations
- **On-premise deployment** — no data leaves the bank's perimeter
- **Operational handover** with documentation and runbook

4 TECHNICAL ENABLEMENT Two training tracks · business teams & IT teams

<p>TRACK 1 · BUSINESS</p> <p>Maximizing Business Value from AI 01</p> <p>For executives, business owners, product and strategy teams — focused on translating AI capabilities into measurable banking outcomes.</p> <ul style="list-style-type: none"> ▶ AI use-case discovery & prioritization ▶ ROI, KPIs and value realization ▶ Operating model & governance ▶ Strategic roadmap for AI adoption 	<p>TRACK 2 · IT & TECHNICAL</p> <p>Developing & Operating GenAI 02</p> <p>For data, engineering and infrastructure teams — focused on building, customizing and operating Generative AI internally.</p> <ul style="list-style-type: none"> ▶ Agentic orchestration & tooling ▶ MLOps, monitoring & security ▶ Use-case development lifecycle
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Ready to bring AI inside your bank? Smartera 3S deploys the lab, trains your people, and delivers a working banking AI use case end-to-end. **Smartera 3S**
DELIVERING THE FUTURE NOW

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