



DOCUMENT REF:

ARIA/EDU/2026/INST-PROP

ACADEMIC

CYCLE:

Academic Year
2026/2027

TO: THE BOARD OF MANAGEMENT & PRINCIPAL

STATUS: Formal Institutional Proposal

ARIA School OS: Institutional Adoption Proposal & Executive Briefing

An All-In-One Administrative Operating System & AI Academic Engine for Kenyan & East African Institutions

OFFICIAL BOARD SUBMISSION

TO: THE ESTEEMED MEMBERS OF THE BOARD OF MANAGEMENT, DIRECTORS & PRINCIPAL:

School leadership in 2026 carries a formidable dual mandate: delivering top-tier national examination mean grades (KCSE / Cambridge / CBC / NECTA), satisfying intense parental accountability, and sustaining high teacher retention—all within rigid school fee ceilings. However, across our secondary institutions, dedicated educators lose **15 to 20 hours every week to manual paperwork** (handwritten lesson plans, registers, continuous assessment books, and physical report card compilation). This administrative drag creates chronic educator fatigue, late syllabus lag detection, and unaddressed learning gaps.

ARIA School OS is an authoritative, unified institutional operating system engineered specifically to resolve these frictions. Through 14 purpose-built administration modules, an Educator Command Center, and an offline-first Socratic AI engine, ARIA unifies school governance into a high-speed, zero-IT-overhead cloud platform. Crucially, as detailed in our *Parent ICT & AI Learning Levy Blueprint* on Page 5, your school can deploy ARIA OS at **zero net cost** to the school operating budget while retaining **KES 240,000+ in pure annual surplus funds** for institutional development.

⚠️ CURRENT ADMINISTRATIVE BOTTLENECKS

- **Severe Educator Administrative Drag:** Teachers lose 15–20 hours/week hand-writing lesson plans, paper mark books, and physical registers instead of mentoring learners.
- **Undetected Syllabus Lag:** Departmental syllabus pacing deficits remain invisible until mock exams or weeks prior to national examinations.
- **Manual Report Card Chaos:** End-of-term report card production takes 2 weeks of clerical overtime, calculation errors, and generic handwritten remarks.
- **Fragmented Student Records:** Disconnected attendance sheets, fee ledgers, and discipline notes scatter across disparate offices without central oversight.

🚀 THE ARIA SCHOOL OS PARADIGM

- ✓ **15-Second Automated Teaching Studio:** Instant Bloom's Taxonomy lesson plans, auto-marked homework rubrics, and PPTX slide deck authoring.
- ✓ **Real-Time Departmental Pacing Radar:** Live telemetry tracks syllabus completion across streams, flagging lagging topics before midterm examinations.
- ✓ **1-Click Automated Report Cards:** Crest-branded report cards compiled in 1 click with GPA calculations, class rankings (#1 of N), and diagnostic remarks.
- ✓ **Student 360 & Instant WhatsApp Comm:** Unified academic, boarding, medical, and pastoral profiles with instant 1-click WhatsApp guardian notifications.

STRATEGIC PILLARS OF INSTITUTIONAL TRANSFORMATION

Executive Overview • Zero Net Cost Architecture

1. WHOLE-SCHOOL GOVERNANCE

14 interconnected modules providing the Principal, BOM, and Deans with real-time visibility across attendance, grades, faculty rostering, and confidential school vaults.

2. EDUCATOR TIME RECLAMATION

Reclaims 15+ hours weekly per teacher through automated lesson planning, multi-curriculum exam authoring, and rubric grading—restoring instructional passion.

3. ZERO-COST FINANCIAL SURPLUS

Funded smoothly via a modest KES 300/term Parent ICT Levy that saves parents thousands in tuition while generating KES 240k+ net annual surplus for school labs.

SECTION 1: THE ARIA SCHOOL OS CORE SUITE — ADMINISTRATIVE & ACADEMIC GOVERNANCE

Modules 1 through 8 • Unified Institutional Infrastructure

Every component of ARIA School OS has been engineered to eliminate clerical friction, provide crystal-clear accountability, and respect the realities of African institutional infrastructure (bandwidth constraints, high class sizes, and diverse multi-curriculum tracks).

MODULE 1

Executive Dashboard

- Role-Based Executive Views:** Dedicated views tailored specifically for Principals, Academic Deans, HODs, and Bursars.
- Real-Time Attendance Trends:** Live morning roll-call attendance counters and 30-day percentage trendlines across all streams.
- Grade Distributions:** Dynamic histogram visualization of Cambridge A*–U and KCSE mean grade bell curves.
- AI Insight Cards:** Automated telemetry cards highlighting syllabus lags, sudden grade drops, and attendance anomalies.

MODULE 2

School Portal & Switcher

- 60-Second Setup:** Instant institutional provisioning with automated stream creation and curriculum mapping.
- WhatsApp Invite Sharing:** Generates secure, tokenized invitation links shareable directly via WhatsApp to staff and parents.
- Multi-School Switcher:** Centralized dashboard switcher enabling school directors to govern multiple campuses seamlessly.
- Progressive Web App (PWA):** Installs immediately on any Android phone, iPhone, tablet, or Windows desktop without app store friction.

MODULE 3

10-Second Attendance Roll Call

- Lightning 4-State Register:** Teachers record daily roll call in 10 seconds via mobile with single-tap P / A / L / E (Present, Absent, Late, Excused).
- Chronic Absenteeism Radar:** Automatic warning triggers the moment any student's cumulative attendance dips below 75%.
- Boarding Dormitory Roll Call:** Specialized evening check-in tool for Boarding Masters/Matronns with hostel bed manifests.
- Parent Notification Triggers:** Instant automated SMS/WhatsApp alerts sent to parents when an unexcused absence is registered.

MODULE 4

Homework & Assignment Distribution

- Multi-Class Distribution:** Broadcast assignments, reading packets, and practice sets across multiple streams in 1 click.
- Auto-Grading Integration:** Digital submissions automatically evaluated against official rubrics, reducing marking time by 80%.
- Teacher Rubric Drawer:** Standardized marking criteria with weighted sub-scores (content, structure, accuracy, grammar).
- Late Submission & Exemption Tracking:** Automated timestamping and submission status ledger for every enrolled learner.

MODULE 5

Continuous Assessment Gradebook

- Multi-Assessment Architecture:** Standardized capture for CAT 1, CAT 2, CAT 3, Midterm, and End-of-Term Final examinations.
- Configurable Weighting:** Fully customizable percentage weighting formulas (e.g. 30% Continuous Assessment, 70% Final Exam).
- Multi-Scale Conversion:** Automatic real-time grade mapping to Cambridge A*–U, KCSE 12-point, CBC Levels 1–4, and NECTA Division I–IV.
- Historical Performance Trajectories:** Longitudinal score tracking highlighting student progression from Form 1 through Form 4/6.

MODULE 6

Automated Report Cards

- 1-Click Whole-Cohort Compilation:** Compiles and prints hundreds of professional student report cards in under 3 minutes.
- Dynamic GPA & Stream Rankings:** Accurate calculation of Grade Point Averages and stream rankings (#1 of N) without spreadsheet errors.
- Institutional Crest & Watermark:** High-resolution school crest branding, customized letterhead, and term stamp integration.
- Intelligent Diagnostic Remarks:** Generates context-aware, constructive Class Teacher and Principal remarks based on mastery trends.

MODULES 7 & 8

Master Timetable Engine & Academic Calendar

- Conflict-Free Scheduling Engine:** Algorithmic room, laboratory, and teacher assignment eliminating double-booking errors.
- Stream & Teacher Timetable Views:** Master grid view for administration, personalized weekly schedules for individual faculty.
- 8 Standardized Event Categories:** Academic Exams, Midterm Breaks, School Holidays, Sports/Co-Curricular, PTA Conferences, Staff INSET, Public Holidays, and BOM Meetings.
- Term Calendar Sync:** Synchronizes term key dates, examination timetables, and fee payment deadlines across staff and parents.

SECTION 2: FACULTY ROSTER, MASTER DATA, SECURITY VAULTS & SUB-
WORKSPACES

Modules 9 through 14 + AI Telemetry Copilot • Enterprise Institutional Control

MODULE 9

Student 360 Directory

- Bulk CSV/Excel Ingestion:** Ingest entire school registers in seconds with automated duplicate and format detection.
- Unified Student Profiles:** Academic history, attendance ledger, disciplinary flags, and medical notes in one dossier.
- Instant WhatsApp Dialer:** 1-click guardian communication initiating instant WhatsApp messages and phone calls.
- Cohort Archival & Alumni Tracking:** Clean year-end cohort rollover with historical transcript retention.

MODULE 10

Staff Directory & 18-Role Roster

- 18 Granular Role Tiers:** Principal, Deputy Headmaster, Deputy Head, Dean of Studies, Dean of Students, Deputy Dean, A-Level Coord, O-Level Coord, HOD, Subject Teacher, Class Teacher, Boarding Master, Boarding Mistress, Discipline Master, Counselor, Bursar, Student, Parent.
- Departmental Tagging:** Group staff into Sciences, Humanities, Languages, Mathematics, and Technical departments.
- Role-Scoped Access:** Zero data leakage; teachers see only assigned cohorts, while executive leadership maintains school-wide radar.

MODULE 11

School Structure & Master Data

- Stream & Class Management:** Configure Form 1–4 and CBC grades across parallel streams (e.g. North, South, East, West).
- Curriculum & Subject Catalog:** Master course codes across 122+ subjects, department assignments, and teacher allocations.
- House System Configuration:** Track student house points, dormitory allocations, and inter-house athletic rankings.
- Academic Cycle Definitions:** Set multi-term dates, weightings, and assessment schedules school-wide.

MODULE 12

Teacher Statistics & AI Diagnostics

- Topic Mastery Progress Bars:** Visual radar displaying class mastery across individual curriculum subtopics.
- Syllabus Deficit Detection:** Automatically flags concepts where class averages fall below benchmark targets.
- 2-Week Remedial Action Plans:** On-demand AI generated pedagogical interventions targeting class specific misconceptions.
- Comparative Cohort Analytics:** Identifies variance across streams to foster collaborative teacher moderation.

MODULE 13 & 14: INSTITUTIONAL SUB-WORKSPACES, SECURITY VAULT & BRANDING

Audit Logging • At-Risk Radar • Medical/Boarding Triage • Multi-Curriculum

Institutional Document Vault (3 Security Tiers)
Classified cloud repository for schemes of work, staff minutes, and exam moderation papers with *Normal*, *Restricted*, and *Confidential* clearance levels and document watermarking.

Security Audit Log Ledger & IP Tracking
Immutable forensic ledger recording every administrative action, score change, attendance modification, user login, IP address, and timestamp for strict Data Protection Act compliance.

Automated At-Risk Student Scanner
Diagnostic radar continuously scanning grades and attendance. Automatically flags any learner scoring <40% in ≥2 subjects or with <75% attendance, generating instant pastoral escalation cards.

Boarding Hostel & Sick Bay / Exeat Tracker
End-to-end boarding life command: hostel room allocations, dispensary clinical triage records, and digital exeat passes with parent SMS verification and security gate return timestamps.

ARIA SCHOOL OS AI COPILOT — NATURAL LANGUAGE TELEMETRY QUERIES
School leadership can ask plain-English operational queries and receive instant live analytics: "Which Form 3 students dropped more than 10% in Physics this term?", "Show syllabus lag across Humanities", or "Summarize boarding hostel attendance this week."

EXECUTIVE TELEMETRY

ARIA Technologies Ltd. • Institutional Education Division • Nairobi, Kenya

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Page 3 of 5 (Operations, Security & Sub-Workspaces)

SECTION 3: THE EDUCATOR COMMAND CENTER — RECLAIMING 15+ HOURS WEEKLY PER TEACHER

6 Integrated AI Tools • Lesson Plans, Tests, Slides & Rubrics

The ARIA Educator Command Center transforms teachers from overworked clerks into empowered master instructors. By automating the mechanical burden of lesson planning, quiz synthesis, and initial rubric grading, educators reclaim up to 20 hours each week to mentor struggling students.

**15-Sec Lesson Planner**
Generates structured 40/45-min lesson plans based on Bloom's Taxonomy with instructional hooks, group tasks, and rubrics. **Export directly to PDF or Word DOCX** in seconds.

**Multi-Curriculum Exam Studio**
Authors rigorous topical mock exams complete with official step-by-step marking schemes and model answers across **KCSE, CBC, Cambridge (IGCSE/A-Level), NECTA, and IB**.

**Class Quiz & Revision Studio**
Synthesizes targeted 10–25 question multiple-choice and structured quizzes addressing identified class weak points for instant pre-exam formative checks.

**AI Slide Deck Builder**
Generates complete **16:9 widescreen PowerPoint .pptx presentations** with visual layouts, structured bullet points, and instructional speaker notes.

**Homework Auto-Grader**
Evaluates student essays and assignments against custom teacher rubrics, delivering score suggestions, key strengths, constructive corrections, and exemplar sentences.

**Classroom Mastery Radar**
Centralized teacher hub with active cohort rosters, pending submission queues, and visual mastery radar tracking student progress across curriculum competencies.

**UNPRECEDENTED BONUS: EVERY ENROLLED STUDENT & TEACHER GETS ARIA PRO AI 100% FREE**

KES 0.00 EXTRA

While legacy software vendors charge schools KES 1,000 to KES 2,500 *per student per month* for digital tutoring software, ARIA provides an **all-inclusive institutional license**. When your institution is licensed, **EVERY single enrolled student and teacher receives full, unrestricted ARIA Pro AI Study OS at zero extra cost.**

1. 24/7 Socratic AI Tutor
'Ask ARIA' guides learners with step-by-step reasoning and hints rather than giving direct answers, building genuine critical thinking in English & Kiswahili.

2. Voice Notes & Audio TTS
Natural speech narration and audio playback enabling multi-sensory study for auditory learners and language pronunciation fluency.

3. Vision OCR Photo Solver
Students snap a photo of any textbook problem, handwritten equation, or circuit diagram for instant guided step-by-step breakdown.

4. 100% Dual Offline WebLLM Engine
50,000-token local neural model running directly in Chrome/Edge. Functions with **ZERO internet** in classrooms and boarding dorms!

5. Multiplayer Study Rooms
Virtual collaborative study halls with live shared whiteboards, synchronized notes, and peer study rooms for evening revision.

6. 30+ Canonical STEM Diagrams
Interactive vector generation of electric circuits, chemical titration curves, cell organelles, geometry proofs, and Mohr's circles.

**Neural Timetable & Fatigue Tracker:** Circadian rhythm schedule optimizer with focus sprint pomodoro timers.

Complete 1:1 Digital Learning Parity Guaranteed

Section 5: The "Parent ICT & AI Learning Levy" Financial Blueprint — Zero Net Cost to the School

The Zero Net-Cost Formula: School Boards frequently fear that deploying modern AI and digital school management requires reallocating funds from already stretched tuition or development budgets. With ARIA School OS, the school operational budget pays **KES 0.00 out of pocket**. Parents currently spend **KES 3,000 to KES 10,000 monthly** on private holiday tuition and revision booklets. When the school introduces ARIA School OS with 24/7 personal AI tutoring, parents enthusiastically support a modest ICT & AI Learning Levy of just **KES 300 per term** (only KES 3.30/day)—saving families thousands while generating guaranteed development surplus for the institution.

CONCRETE FINANCIAL MODEL: SECONDARY SCHOOL WITH 400 ENROLLED STUDENTS

Zero Net Budget Reallocation • Pure Positive Cash Flow

STEP	FINANCIAL PARAMETER	CALCULATION FORMULA	FINANCIAL TOTAL
Step 1	Termly Parent ICT Levy Collection	400 Students × KES 300 / Term	KES 120,000 / term
Step 2	Annual ICT Levy Collection (3 Terms)	KES 120,000 per term × 3 Terms	KES 360,000 / academic year
Step 3	ARIA Professional Institutional License	Fixed Institutional License (Up to 500 Students)	- KES 120,000 / academic year
RESULT	RETAINED SCHOOL CASH SURPLUS	KES 360,000 Collected – KES 120,000 License	+ KES 240,000 NET ANNUAL SURPLUS

SCHOOL ENROLLMENT	LEVY / STUDENT / TERM	TERMLY COLLECTION	ANNUAL COLLECTION (3 TERMS)	ARIA LICENSE TIER	ANNUAL RETAINED CASH SURPLUS
200 Students	KES 300	KES 60,000	KES 180,000	Professional (KES 120,000)	+ KES 60,000 Net Surplus
400 Students (Standard)	KES 300	KES 120,000	KES 360,000	Professional (KES 120,000)	+ KES 240,000 PURE PROFIT / YEAR
600 Students	KES 300	KES 180,000	KES 540,000	Professional (KES 120,000)	+ KES 420,000 Net Surplus
1,000 Students	KES 300	KES 300,000	KES 900,000	Enterprise (KES 280,000)	+ KES 620,000 Net Surplus

Computer Labs
Procure tablets, desktop terminals, or secure charging trolleys.

Science Reagents
Stock apparatus and reagents for national practical examinations.

Teacher Motivation
Fund termly faculty bonuses for on-time syllabus completion.

School Library
Acquire reference texts, solar inverters, or student facilities.

SECTION 6: ACADEMIC YEAR INSTITUTIONAL PRICING TIERS

Fixed Institutional Billing • Zero Per-Student Surcharges

Starter Pilot
KES 0
Free 30-Day Evaluation
Up to 50 Students & 10 Staff

- ✓ Full Admin Dashboard Access
- ✓ 10-Second Digital Attendance
- ✓ Continuous Gradebook (1 Class)
- ✓ 50 Free Student ARIA Pro AI Logins
- ✓ Zero contractual lock-in

RECOMMENDED FOR STANDARD SCHOOLS

Professional Institutional
KES 120,000
per Academic Year (KES 40,000 / term • or 2,400,000 TZS/yr)
Up to 500 Students & All Faculty

- ✓ Complete 14-Module School OS Suite
- ✓ Unlimited Streams, Cohorts & Timetabling
- ✓ 1-Click Crest Report Cards + Remarks
- ✓ Educator Studio & PPTX Slide Builder
- ✓ ★ FREE ARIA Pro AI for ALL 500 Students
- ✓ 100% Offline Engine (Zero Active Wi-Fi)
- ✓ Priority WhatsApp Support & Staff Training

Enterprise Flagship
KES 280,000
per Academic Year (KES 95,000 / term • or 5,500,000 TZS/yr)
Unlimited Students & Multi-Campus

- ✓ Everything in Professional Tier
- ✓ Unlimited Student & Staff Accounts
- ✓ Multi-Campus Central Director Radar
- ✓ Custom Domain & School Branding
- ✓ Financial ERP & Fee Ledger Integration
- ✓ Dedicated Executive Account Director

RAPID 24-HOUR DEPLOYMENT & OFFICIAL CHANNELS
Step 1 (Hrs 1–4): Tenant provisioning & data ingestion. Send class lists (CSV/Excel or photo). Portal live in 4 hours.
Step 2 (Hrs 5–12): Practical 45-minute live staff training call (zero technical background required).
Step 3 (Hrs 13–24): Go-Live! Staff logins distributed; free student ARIA Pro AI accounts activated immediately.
Payment Gateways: Lipa Na M-Pesa (Business Till/Paybill) & Bank Wire (Equity Bank / KCB Bank Kenya Ltd). Official school cheques & RTGS accepted.

✓ KRA ETR Tax Invoices

✓ Kenya Data Protection Act 2019

✓ 99.9% Uptime SLA

INSTITUTIONAL ENDORSEMENT & BOARD RATIFICATION

Jameel Rashid
Founder & Managing Director
ARIA Technologies Ltd. • +254 794 277 717

[OFFICIAL]
SCHOOL STAMP
& SEAL

Ratified for Board of Management by:
Name: _____ Title: _____ Date: __/__/2026

ARIA Technologies Ltd. • Direct Pilot Activation: +254 794 277 717

contact@ariaos.education • https://ariainterface.onrender.com

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