PROJECT CAPITAL FUNDING REQUEST & BILL OF QUANTITIES (BOQ)

Kampong Speu Demographic & School Monitoring System (KSP-DMS 1.0)
With Sovereign Youth Mobilization & Community Attribution Radar

Target Authority: Provincial Governor & Executive Board	**Proposal Ref:** KSP-GOV-IT-2026-BOQ-001
Originating Dept: Information Technology & Planning Unit	**Submission Date:** November 21, 2026
Geographic Scope: All 8 Districts, Kampong Speu Province	**Total Funding Requested:** $48,500.00 USD (198,850,000 KHR)

1. Executive Summary & Strategic Justification

Kampong Speu Province is undergoing significant socio-economic modernization across its 8 administrative districts (Chbar Mon, Basedth, Kong Pisei, Aoral, Odongk, Phnom Sruoch, Samraong Tong, Thpong). However, provincial leadership currently faces acute data fragmentation: demographic surveys remain trapped in paper binders, school capacity and sanitation audits lack spatial visibility, and citizen mobilization during provincial civic emergencies relies on scattered, unverified social media posts.

The Strategic Solution: The **KSP-DMS 1.0 Platform** unites municipal administration, educational tracking, and youth community power into a single sovereign command platform:

• **1. Full 8-District Demographic & Spatial GIS Engine:** Centralized digital census recording citizen identity, vulnerability programs (IDPoor/disability), and GPS-grounded interactive maps for rapid government decision-making.

• **2. School Infrastructure & Capacity Registry:** Comprehensive profiling of 12+ educational institutions across all districts, tracking student-to-teacher ratios, classroom deficits, clean drinking water, and lab equipment.

• **3. Sovereign Youth & Student Mobilization Subsystem:** Direct digital enrollment of high school and university students with student card upload and administrative dossier validation. Automatically partitions verified youth into four operational Task Forces: (A) Disaster & Emergency Relief, (B) Digital Census & Data Survey, (C) Clean City & Environmental Action, and (D) Cultural, Sports & Civic Events.

• **4. Modern Facebook Community Hub & Post/Share Attribution Radar:** Integrates directly with official Facebook groups (e.g. facebook.com/groups/kampongspeu.youth). Leaders broadcast official community missions, while the built-in Radar tracks which students and officers share the post, logging timestamps, platforms, and viral reach.

• **5. 100% Sovereign Data Ownership & Zero Cloud Lock-in:** Air-gapped on-premise MariaDB persistence at the Provincial Hall with zero recurring foreign software licensing fees, paired with high-availability Edge distribution on Cloudflare Pages for instant public mobile access.

EXECUTIVE INVESTMENT SUMMARY:
• **Total Capital Investment: $48,500.00 USD** (198,850,000 KHR fixed-price turnkey delivery)
• **Recurring Annual SaaS Cost: $0.00 / year** (Fully sovereign, open-source stack owned by Kampong Speu Province)
• **Implementation Timeline: 21.5 Man-Weeks** with 3 structured milestone verification releases
• **5-Year Net Budget Savings vs Foreign Commercial SaaS: +$62,500.00 USD**

2. Official Bill of Quantities (BOQ) & Itemized Budget

The project budget is itemized across 8 modular technical work packages. Each package represents a concrete, auditable engineering deliverable with dedicated senior engineering resources and fixed milestone deliverables:

#	System Module / Work Component	Key Deliverables & Specifications	Duration & Effort	Subtotal (USD)
1.0	**Architecture, Threat Modeling & Security Blueprint**	Provincial threat matrix, SRS specifications, Cambodia Data Governance compliance, RBAC access matrix.	2.0 Man-Weeks Lead Architect	**$4,500.00**
2.0	**Core Demographic & Spatial GIS Engine (8 Districts)**	Relational schema for households/citizens, Leaflet GIS mapping covering all 8 districts, vulnerability markers, export to CSV/PDF.	4.0 Man-Weeks Full-Stack GIS Dev	**$8,800.00**
3.0	**School Infrastructure & Capacity Registry**	Institutional registry (12+ schools), facility audits, teacher-student ratios, water/sanitation health tracking.	3.0 Man-Weeks Senior Backend Dev	**$7,200.00**
4.0	**Sovereign Youth & Student Mobilization Subsystem**	Student registration portal, student ID card upload & validation, automated unique tracking code (KSP-YOUTH-XXXXXX), 4 task force rosters.	3.5 Man-Weeks Web & Mobile Dev	**$7,800.00**
5.0	**Modern Facebook Community Hub & Attribution Radar**	Provincial mission broadcast feed, social share generator with ref tokens (ref=STU-XXXXXX), real-time admin share attribution radar.	2.5 Man-Weeks Frontend/API Dev	**$6,200.00**
6.0	**Edge Distribution & Sovereign XAMPP Hardening**	Dual-mode architecture: Cloudflare Pages edge distribution + local air-gapped XAMPP MariaDB 10.4 sync, automated daily database backups.	2.5 Man-Weeks DevOps / SysAdmin	**$5,500.00**
7.0	**Automated QA Testing Suite & Security Hardening**	31 automated PHPUnit test suites (184 assertions, 100% pass), CSRF/XSS protection, file upload sanitizer, SQL injection proofing.	2.0 Man-Weeks QA / Security Auditor	**$4,500.00**
8.0	**Capacity Building, District Training & Handover**	3-day on-site training workshop for provincial & district officers, bilingual user manuals, complete source code handover.	2.0 Man-Weeks Training Specialist	**$4,000.00**
	TOTAL PROJECT DEVELOPMENT CAPITAL	**Turnkey delivery including 12 months comprehensive warranty & SLA**	**21.5 Man-Weeks**	**$48,500.00**

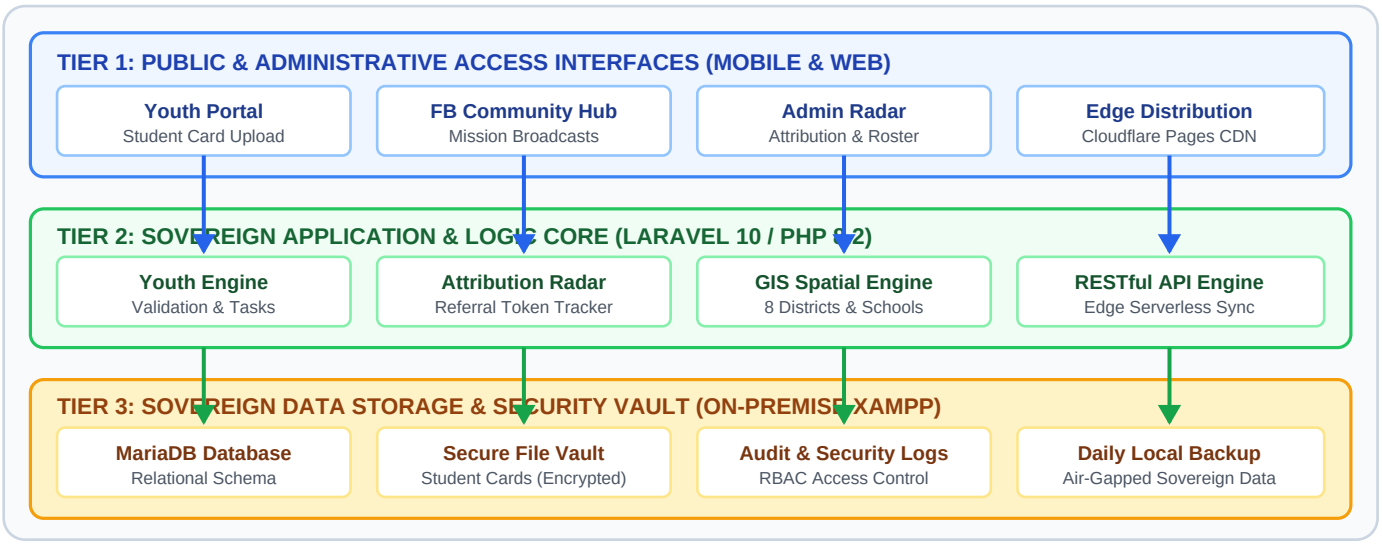
3. Milestone-Based Payment Schedule

Funds are disbursed strictly against verifiable engineering milestones, ensuring complete financial protection and accountability:

Milestone	Phase & Trigger Condition	Share (%)	Amount (USD)	Amount (KHR Equivalent)
Milestone 1	**Inception & Master Architecture Approval:** Delivery of SRS, DB schema & environment setup.	30%	**$14,550.00**	**59,655,000 KHR**
Milestone 2	**Core Feature Delivery:** Demographics, 8-District GIS, Youth Portal & Community Radar functional.	40%	**$19,400.00**	**79,540,000 KHR**
Milestone 3	**Final Acceptance:** 31 automated tests passed, district officer training complete, full handover.	30%	**$14,550.00**	**59,655,000 KHR**
TOTAL	**Full Turnkey Project Implementation**	**100%**	**$48,500.00**	**198,850,000 KHR**

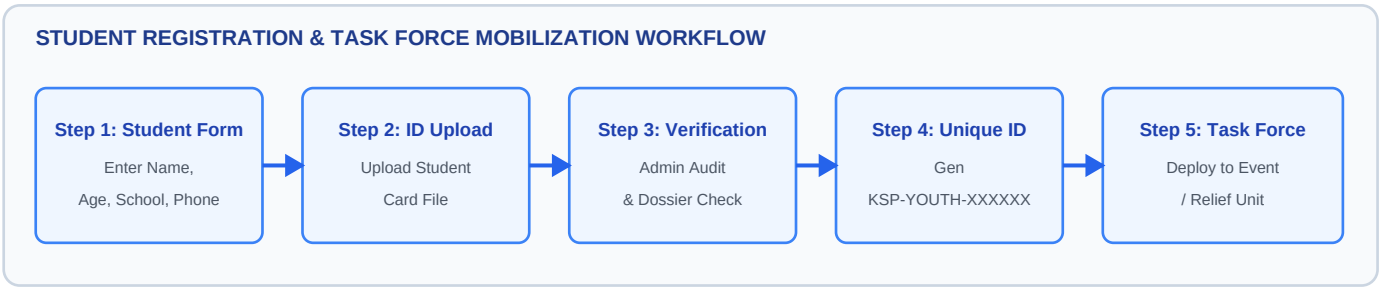
4. Technical System Architecture Diagram

The following diagram illustrates the 3-tier sovereign architecture, highlighting the separation of public mobile access, application logic, and air-gapped provincial database storage:

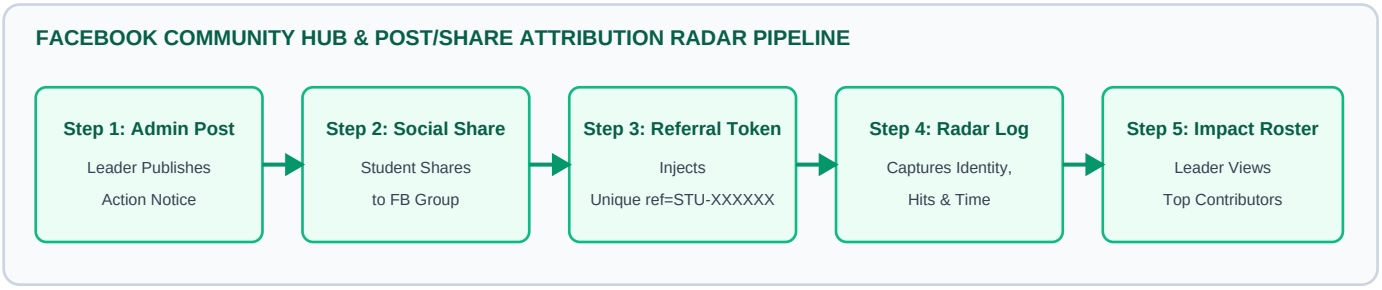


5. Operational Workflow Diagrams

5.1 Youth Volunteer Registration & Task Force Mobilization Pipeline:



5.2 Facebook Community Mission & Share Attribution Radar Pipeline:



6. Return on Investment (ROI) & Long-Term Sovereign Savings

By implementing KSP-DMS as an on-premise sovereign solution rather than leasing foreign commercial software, the Provincial Administration captures substantial financial savings and complete data independence:

Cost Category	Foreign SaaS Commercial Solution	Sovereign KSP-DMS Solution	5-Year Provincial Savings
Annual User Licenses	$18,000 / year ($1,500/mo for 50 users)	**$0.00 / year (Unlimited users)**	**+$90,000.00**
Hosting & Bandwidth	$4,200 / year (Cloud database tiers)	**$0.00 (Local Sovereign XAMPP)**	**+$21,000.00**
Data Privacy & Sovereignty	Data stored overseas; third-party access risk	**100% Provincial Sovereign Control**	**Priceless / Full Security**
Total 5-Year Budget Impact	**$111,000.00+ USD**	**$48,500.00 One-time Capital**	**NET GAIN: +$62,500.00**

7. Official Endorsement & Budget Approval Signatures

By signing below, the Provincial Administration authorizes the allocation of funds and execution of the KSP-DMS project under the terms defined in this proposal:

Prepared By:	Reviewed & Verified By:	Approved By:
_____ **Lead Solutions Architect** Technical Implementation Team Date: ____ / ____ / 2026	_____ **Director of Planning & IT** Kampong Speu Provincial Admin Date: ____ / ____ / 2026	_____ **H.E. Provincial Governor** Kampong Speu Province Date: ____ / ____ / 2026