

ID (Simplified)	Original ID (Whi Module/Context)	Functional Requirement	Description
I. Strategic & Policy			
1	FR-STRAT-1.1	Strategic Context	Scale Admission and Student Management to manage the entire pre-tertiary population, utilizing CSSPS data.
2	FR-STRAT-1.2	Strategic Context	Strengthen School Management Systems via performance monitoring and administrative automation (attendance, payroll data, reporting).
3	FR-STRAT-1.3	Strategic Context	Ensure sustainable financing via integrated Fee Payment Management and E-Wallet for transparent tracking of funds (subsidies/grants).
4	FR-STRAT-2.1	Data Authority	Ensure Statutory Data Submission Compliance: Mandate G-NEMFIS as the single, authoritative channel for standardized EMIS data.
5	FR-STRAT-2.2	Data Authority	Implement Dual-Sector Management: Accommodate GES and NaSIA governance structures while enforcing unified data collection standards.
II. Core Architectural & Interoperability			
6	FR-ARCH-2.1.1	Identity Management	Mandatory Biometric Verification: Integrate directly with NIA IVSP for biometric authentication for all high-security users (Staff, Parents, E-Wallet).
7	FR-ARCH-2.1.2	Identity Management	KYC Data Synchronization: Utilize Ghana Card ID as the unique primary key, linking personal data records from the National Identity Register.
8	FR-ARCH-2.1.3	Identity Management	Verification Failure Protocol: Implement a formal protocol for "No Match" or "Failed" verifications, following NIA/BoG guidelines.
9	FR-ARCH-2.2.1	Financial Infra.	Mobile Money Interoperability (MMI): Facilitate seamless fund transfer between G-NEMFIS E-Wallet, mobile networks, and bank accounts (via GHPSS).
10	FR-ARCH-2.2.2	Financial Infra.	Unified Payment Architecture: Design to be compatible with NIA's vision of transforming the Ghana Card into a unified electronic wallet platform.
11	FR-ARCH-2.3.1	Data Resilience	Centralized Data Repository: All G-NEMFIS data must reside in a single repository with multi-level access controls.
12	FR-ARCH-2.3.2	Data Resilience	Full Disaster Recovery: Mandatory, full-featured backup and restoration protocols are non-negotiable.
13	FR-ARCH-2.4.1	GES Systems	CSSPS Data Exchange Integration: Mandatory integration to ingest all student placement data. (Harmonized with New Req. 8)
14	FR-ARCH-2.4.2	GES Systems	Curriculum and Assessment Data Integration: Integrate with NaCCA and NIB systems for EMIS, EGRA/EGMA data reporting.
II.5. System Access & API Architecture			
15	New (1)	API	Comprehensive API Endpoints for All Features: Expose secure, versioned RESTful API endpoints for all core functionalities.
16	New (2)	API	Third-Party Access Request System: Implement an auditable system to manage and approve third-party data access requests.
17	New (3)	API	Secure API Access: Provide secure, authenticated API access for approved third-party services and internal MoE/GES systems.
II.6. Third-Party Regulatory Integrations			
18	New (4)	Third-Party	NIA Parent, Student, and Teacher Verification Integration (Mandatory, real-time biometric verification).
19	New (5)	Third-Party	GRA Tax Status Confirmation Integration: Integrate with GRA to confirm the tax status (TIN) of parents and registered vendors.
20	New (6)	Third-Party	Office of Company Registration (Vendor/Tender Management) Integration: Verify the legal standing of private companies applying for vendor/tender.
21	New (7)	Third-Party	WAEC Examination Results Integration: Mandatory integration to ingest and cross-reference high-stakes examination results.
III. Core EMS Modules			
22	FR-MOD-3.1.1	Student Mgmt	Universal Student Registry: Capable of maintaining detailed records for every pre-tertiary student, cross-referenced with Ghana Card ID. (Harmonized with New Req. 10)
23	FR-MOD-3.1.2	Student Mgmt	School Regulatory Compliance Flagging: Automatically validate and alert users if a school's licensing status (NaSIA) is invalid or expired. (Harmonized with New Req. 9)
24	FR-MOD-3.1.3	Student Mgmt	Special and Inclusive Education Tracking: Dedicated data fields and reporting for students within this program.
25	FR-MOD-3.2.1	Teacher Mgmt	Automated PTR Monitoring: Calculate and visualize Pupil-Teacher Ratio in real-time against the national KPI target (30 ≤ PTR ≤ 40).
26	FR-MOD-3.2.2	Teacher Mgmt	Staff Disciplinary and Financial Reporting: Secure module for formal reporting of serious issues (e.g., financial embarrassment).
27	FR-MOD-3.2.3	Teacher Mgmt	Performance Analysis and Remediation: Automated alerts (e.g., for low pass rates) and mandatory fields for recording subsequent remedial actions taken by the Headmaster.
28	FR-MOD-3.3.1	Course/Report	National Curriculum Synchronization: Integrate and synchronize the official curriculum and core competences (NaCCA).
29	FR-MOD-3.3.2	Course/Report	Automated Report Card Generation: Seamlessly aggregate student data (attendance, marks, performance) into standardized report cards accessible via portal/app.
30	FR-MOD-3.3.3	Course/Report	School Health and Counselling Tracking: Log data related to Guidance and Counselling and SHEP activities.
III.1. New Admission & Student Mgmt			
31	New (9)	Registration	Nursery and School Registration (Public and Private): Centralized module for formal registration and license record-keeping of all pre-tertiary institutions.
32	New (10)	Registration	Parent and Student Registration Linked to Ghana Card: Mandatory registration using Ghana Card enforced by NIA IVSP verification.
33	New (11)	Attendance	Attendance - Teacher: Module for daily logging of teacher attendance, utilizing location/biometric data, linked to payroll.
34	New (12)	Attendance	Attendance - Students: System for tracking and reporting daily student attendance at class and school levels.
35	New (13)	Welfare	Confidential and Secure Safeguarding Reporting System: Highly secure, restricted module for formal reporting of safeguarding concerns.
36	New (14)	Welfare	Incident Management System and Notification to Parents: Log, track, and manage non-safeguarding incidents with automated parent notifications.
III.2. New Teacher & Staff Mgmt			
37	New (15)	Teacher Mgmt	Teacher Registration Linked to Ghana Card: Mandatory registration and unique ID assignment for all staff with qualification profiles.
38	New (16)	Teacher Mgmt	Teacher Deployment Status (Qualified and Unqualified Staff): Track the ratio of qualified vs. unqualified staff and calculate deployment gaps.
III.3. New Course/Performance			
39	New (17)	Academic	Student Academic / Performance Information: Record all academic records linked explicitly to school, subject, and the recording teacher.
40	New (18)	Academic	Mock Examination Module: Manage creation, administration, marking, and reporting of school-level mock examinations.
41	New (19)	Academic	Student Performance Analytics and Projection: Advanced analytics with granular drill-down options for all administrative levels.
IV. G-NEMFIS E-Wallet System			
42	FR-WAL-4.1.1	Core Wallet	Wallet Provisioning: Secure, closed-loop digital wallet tied to the student's Ghana Card ID and linked to a verified parent/guardian.
43	FR-WAL-4.1.2	Core Wallet	Fund Loading: Support funding through MMI and conventional banking methods.
44	FR-WAL-4.1.3	Core Wallet	Transaction Security: Mandatory application/screen lock on the mobile device for tap-to-pay functionality.
45	FR-WAL-4.2.1	Catalog Mgmt	Educational Catalog Management System (CMS) Integration: Centralized system to define, update, and publish a mandatory national catalog of approved educational goods/services.
46	FR-WAL-4.2.2	Catalog Mgmt	Mandatory Vendor Vetting: Only formally registered and licensed vendors who achieved Universal KYC status may be integrated into the Approved Marketplace. (Harmonized with New Req. 20)
47	FR-WAL-4.2.3	Catalog Mgmt	Closed-Loop Marketplace Transactions: Funds only redeemable for purchases through the school fee module or approved vendor marketplace.
IV.3. Vendor & Tender Management			
48	New (20)	Vendor Mgmt	Vendor Management (Suppliers to Schools): Module for registration, vetting, and lifecycle management of all approved suppliers.
49	New (21)	Vendor Mgmt	Tender Management (Publish EOI and Respond): Full-featured system to publish EOIs, solicit bids, and track responses.
50	New (22)	Vendor Mgmt	Tax Clearance Status (Vendors): Automated checks for valid Tax Clearance Certificate or confirmed tax status via GRA integration.
V. Regulatory & Financial Compliance			
51	FR-COMP-5.1.1	BoG Compliance	Dedicated EMI Compliance: Operational entity must be a regulated EMI or partner with a licensed RFI, adhering to all BoG Guidelines.
52	FR-COMP-5.1.2	BoG Compliance	Daily Liquidity Reconciliation: Reconcile liquid assets against total e-money value daily by 4:00 p.m. Ghana time.
53	FR-COMP-5.1.3	BoG Compliance	AML/CFT Systems and Controls: Implement auditable records, real-time monitoring, and automatic generation of alerts for suspicious transactions.
54	FR-COMP-5.3.1	Data Protection	Data Protection Certification: Maintain DPC certification.
55	FR-COMP-5.3.2	Data Protection	Privacy by Design: Follow principles including lawful processing, specification of purpose, and robust data security safeguards.
56	FR-COMP-5.3.3	Data Protection	Record Retention: Maintain complete records of every e-money transaction for a minimum of six years.
V.4. Data Consent & Privacy			
57	New (23)	Data Privacy	Subject Data Consent Management: System to record, manage, and enforce explicit, verifiable consent for data access by defined third parties.
VI. Parental Consent & Minor Accounts			
58	FR-CONSENT-6	Consent	Mandatory Consent Threshold: Mandatory parental/guardian consent and active control for all students under 18 years.
59	FR-CONSENT-6	Consent	Verified Adult Accountability: Legally transfer accountability for purchases from the minor to the Enhanced KYC-verified adult.
60	FR-CONSENT-6	Consent	Age-based Restriction Enforcement: Prohibit users under 18 from independently modifying core wallet settings or security features.
61	FR-WAL-6.2.1	Approval Workflow	Parental Category Pre-Approval Configuration: Parent defines spending limit/status (Allowed, Blocked, Approval Required) for CMS categories.
62	FR-WAL-6.2.2	Approval Workflow	Transaction Limit Override: Transaction is paused, and parent is notified for explicit approval if a single amount exceeds a pre-defined limit.
63	FR-WAL-6.2.3	Approval Workflow	Restricted Category Transaction Request: Transaction is paused, and parent is notified for approval/rejection for "Approval Required" categories.
64	FR-CONSENT-6	Monitoring	Transaction Visibility: Provide real-time access to a complete, auditable history of all E-Wallet transactions via the portal/app.
65	FR-CONSENT-6	Monitoring	Real-Time Notifications: Mandatory notifications for all transactions (fund loads, attempted/successful purchases).
66	FR-CONSENT-6	Monitoring	Remote Management: Allow parents to instantly suspend the student's wallet access or adjust pre-approval settings remotely.
VII. Policy Monitoring & Statutory Reporting			
67	FR-STAT-7.1	Policy Dashboard	Executive/National Policy Dashboards: Visualize KPIs (GER/NER, PTR%, Learning Outcomes Index, Infrastructure Adequacy, Funding Utilization, E-Wallet Economic Impact).
68	FR-STAT-7.2	Mgmt Dashboard	Management/Operational Dashboards: Provide School Compliance Scorecard, Teacher Deployment Status, Performance Alert Summary, and Budget Utilization Rate (BUR).
69	FR-STAT-7.3	School Dashboard	School Head/Operational Dashboards: Daily Attendance Summary, Fee Collection Status, Library and Asset Management (inventory, transport fleet).
70	FR-STAT-7.4	Statutory Report	Annual School Census Report (EMIS): Automatically generate required quantitative data for MoE, GES, UIS, and World Bank.
71	FR-STAT-7.4	Statutory Report	Financial Audit Report Package: Automatically generate comprehensive financial statements (GL, Trial Balance, I&E, BS) for all institutions.
72	FR-STAT-7.4	Statutory Report	AML/CFT Compliance Report: Automatically generate a summary of suspicious transactions, KYC, and audit trails for BoG.
73	FR-STAT-7.4	Statutory Report	Data Protection Audit Report: Automatically generate reports on compliance with Act 843 for the DPC.
VII.5. General Reporting & Rating Systems			
74	New (24)	Reporting	Comprehensive Reporting on All Data Sets: Flexible, ad-hoc reporting engine with custom report generation and export capabilities.
75	New (25)	Reporting	GES School Inspection Report System: Module for GES/NaSIA inspectors to input, finalize, and store official inspection reports.
76	New (26)	Reporting	School and Teacher Staff Rating System: System-generated performance rating based on academic data, GES Inspection reports, and KPI adherence.
VII.6. Administrative & Control Systems			
77	New (27)	Administration	General Approvals System: Centralized, customizable workflow engine for all non-transactional administrative approvals.
78	New (28)	Administration	Parent-Teacher Association (PTA) Management: Module for managing PTA membership, tracking levies, and communication.
VIII. User Access & Mobile Applications			

79	New (29)	Access	Mobile Apps for Parents, Teachers, and Students: Mandatory dedicated mobile application development.					
80	New (30)	Access	Portal Access: Educational Institution: School-level users limited to their institution's data, governed by role-based access control.					
81	New (31)	Access	Portal Access: GES/MoE System-Wide Control: GES/MoE users have system-wide read access but are restricted from changing core data; can perform oversight actions (blacklist, change status).					
82	New (32)	Access	Student Portal Access: Secure access limited to individual records and pre-approved, limited data updates.					
83	New (33)	Access	Vendor Portal Access: Secure portal for approved vendors to manage profiles, view payment status, and respond to tenders.					