TERMS OF REFERENCE

Mojaloop System Integrator - Enhanced Version

The Gambia National Interoperability Platform Implementation

Send all bids to: ndabo@iidia.org and copy iidia@iidia.org

1. Background

The Central Bank of The Gambia (CBG), in collaboration with the Institute for Inclusive Digital Africa (IIDIA) and other stakeholders, is implementing a national interoperability platform using Mojaloop, an open-source real-time payment system. This initiative aligns with The Gambia's National Financial Inclusion Strategy and supports broader ECOWAS regional integration objectives.

The platform aims to promote seamless interoperability among banks, mobile money operators (MMOs), microfinance institutions (MFIs), and other financial service providers (FSPs), thereby accelerating financial inclusion and economic development.

To ensure successful deployment, customization, and sustainable long-term operation of this critical financial infrastructure, a qualified Mojaloop System Integrator (SI) is required.

2. Objective

The primary objective is to procure an experienced System Integrator (SI) with expertise in deploying Mojaloop-based systems and implementing L1P-compliant infrastructure for a national interoperable digital payments platform. The system integrator will lead the comprehensive technical deployment, integration, customization, and support of The Gambia's Mojaloop-based national interoperability switch, ensuring it meets international standards, regulatory requirements, and stakeholder needs.

The selected international integrator must bid in association with a local integrator that operate in Gambia for the assignment.

3. Scope of Work

The selected System Integrator will be responsible for the following comprehensive scope:

A. Pre-Deployment Assessment and Planning

- Conduct a detailed infrastructure and stakeholder readiness assessment

- Develop a comprehensive project implementation roadmap with clear milestones

- Establish baseline performance metrics and success criteria

- Create detailed risk assessment matrix and mitigation strategies

B. System Architecture and Deployment

This initiative is funded by

- Deploy Mojaloop core components including Switch, Account Lookup Service (ALS), Central Ledger, Settlement, and Transaction Request Service

- Design and implement high-availability architecture with minimum 99.9% uptime

- Configure system for a minimum 10,000 transactions per second (TPS) capacity

- Implement a multi-data center deployment strategy for disaster recovery

- Deploy sandbox environment for participant testing and integration

C. Participant Integration and Onboarding

- Design and implement standardized participant onboarding procedures

- Develop and maintain FSP Interoperability APIs and integration guidelines

- Create dedicated integration testing environments and certification protocols

- Provide comprehensive technical guidance and support to participating institutions

D. Regulatory Compliance and Risk Management

- Ensure full compliance with CBG payment system regulations and guidelines

- Develop and implement comprehensive incident response procedures

- Implement appropriate transaction monitoring mechanisms.

E. Security Implementation

- Implement end-to-end encryption for all transactions and communications

- Establish multi-factor authentication and role-based access controls

- Deploy comprehensive audit logging systems

- Ensure compliance with international security standards (ISO 27001, PCI-DSS)

F. Customization and Localization

- Customize Mojaloop platform to accommodate local regulatory and business requirements

- Develop or modify adapters/middleware for legacy system compatibility

- Implement local currency handling and multi-currency support capabilities

- Integrate with existing CBG systems and regulatory reporting requirements

G. Testing and Quality Assurance

- Develop and execute comprehensive testing strategies (unit, integration, system, UAT)

- Conduct performance and load testing under realistic transaction volumes

- Perform security and penetration testing with third-party validation

- Execute disaster recovery and business continuity testing

- Support participant integration testing and certification processes

H. Go-Live Support and Transition

- Plan and execute phased go-live strategy (pilot, limited launch, full deployment)

- Provide 24/7 technical support during go-live periods

- Monitor system performance and resolve issues in real-time

- Conduct post-implementation reviews and optimization

- Support early-stage operations and user adoption initiatives

I. Capacity Building and Knowledge Transfer

- Design and deliver comprehensive training programs for CBG and Gamswitch technical teams

- Train participating institutions on system integration and operations

- Develop detailed user manuals, system documentation, and knowledge transfer materials

- Establish technical support helpdesk and escalation procedures

J. Ongoing Support and Maintenance

- Provide 24/7 system monitoring and incident response services

- Establish service level agreements (SLAs) for system availability and performance

- Apply security patches, system updates, and platform upgrades

- Conduct regular system health checks and performance optimization

- Provide ongoing technical support and troubleshooting services

- Maintain system documentation and update operational procedures

4. Technical Requirements and Specifications

4.1 Infrastructure Requirements

- **Processing Capacity:** Minimum 10,000 TPS with ability to scale to 50,000 TPS

- **System Availability:** 99.9% uptime with maximum 4 hours monthly downtime

- **Response Time:** Maximum 500ms for P2P and P2B transfers, 2 seconds for other use cases

- **Data Storage:** Encrypted data storage with minimum 7-year retention capability

- **Backup and Recovery:** Real-time data replication with maximum 15-minute RTO

4.2 Security Requirements

- End-to-end encryption using industry-standard protocols (TLS 1.3, AES-256)

- Multi-factor authentication for all administrative access

- Role-based access control with segregation of duties

- Comprehensive audit logging

- Regular security assessments and compliance reporting

4.3 Integration Standards

- RESTful API architecture with OpenAPI 3.0 specification

- ISO 20022 message format compliance

- Support for mobile money and banking channel integration

- Real-time settlement capability with T+0 processing

- Cross-border payment integration readiness (PAPSS compatible)

5. Deliverables

Phase 1: Assessment and Planning

- Comprehensive stakeholder and infrastructure assessment report

- Detailed project implementation plan with timeline and milestones

- Technical architecture document and system design specifications

- Risk assessment matrix and mitigation strategies

- Participant onboarding strategy and procedures

Phase 2: Development and Deployment

- Configured and tested Mojaloop production environment

- Deployed sandbox environment with participant integration capabilities

- Customized adapters and middleware components

- Comprehensive API documentation and integration guidelines

- Security assessment and compliance certification report

Phase 3: Integration and Testing

- Participant integration and certification completion

- Comprehensive testing reports (SIT, UAT, performance, security)

- Go-live readiness assessment and approval

- Training materials and capacity-building documentation

- Operational procedures and maintenance guidelines

Phase 4: Go-Live and Support

- Successful system go-live with all participants

- Post-implementation support and issue resolution logs

- Performance monitoring reports and optimization recommendations

- Knowledge transfer completion certificates

- Final project closure report and lessons learned documentation

6. Duration and Timeline

Total Contract Duration: The initial contract will be for a period of <u>06 months</u> with possibility of extension/renewal based on performance and project needs.

Timeline: The integrator must finalize the first onboarding of bank, MNO, MFI for a go live on <u>15th December 2025</u> at the latest

7. Reporting and Governance Structure

7.1 Reporting Lines

The System Integrator will report to:

- **Primary:** Program Lead, Gambia Interoperability Switch Program

7.2 Coordination Framework

Close coordination required with:

- Central Bank of The Gambia (CBG)

- Gamswitch management and technical teams

- Participating FSPs and their technical teams

- IIDIA program management and technical advisory teams

- Donor stakeholders

8. Required Qualifications and Experience

8.1 Institutional Requirements (Mandatory)

- **Mojaloop Experience:** Proven experience deploying Mojaloop in a national or institutional context.

- **Payment Systems Expertise:** Demonstrated experience with large-scale payment system deployments processing

- **Technical Capabilities:** Expertise in Kubernetes, APIs, DevOps, and microservices architecture.

- **Regional Experience:** Proven track record in West African or similar emerging market implementations

- **Regulatory Compliance:** Experience with central bank regulations and financial compliance frameworks

8.2 Key Personnel Requirements

Technical Lead/Mojaloop Architect (Mandatory)

- Minimum of 3 years of payment systems architecture experience

- Mojaloop Foundation certification or equivalent

- Experience leading at least one Mojaloop implementation

- Strong knowledge of payment industry standards (ISO 20022, EMV, PCI-DSS)

DevOps/Infrastructure Engineer (Mandatory)

- Kubernetes Administration certification

- Minimum 3 years DevOps experience in financial services

- Experience with CI/CD pipelines and infrastructure automation

Security Specialist (Mandatory)

- CISSP, CISM, or equivalent security certification

- Payment system security and compliance experience

- Experience with security assessments and penetration testing

- Knowledge of financial services security frameworks

Integration Engineer (Mandatory)

- Minimum 3 years API development and integration experience

- Financial services integration expertise

- Experience with legacy system integration and middleware

- Strong programming skills in Java, Node.js, or similar

8.3 Additional Requirements

- **Language Skills:** English proficiency (primary)

- **Availability:** Key personnel must be available full-time for the project duration

9. Evaluation Criteria (Weighted Scoring)

9.1 Technical Capability (30 points)

- Mojaloop implementation experience and success rate (10 points)

- Technical architecture approach and methodology (10 points)

- Security and compliance framework (5 points)

- Innovation and technology leadership (5 points)

9.2 Team Expertise and Capacity (25 points)

- Key personnel qualifications and experience (10 points)

- Team composition and organizational structure (5 points)

- Capacity building commitment and knowledge transfer plan (5 points)

- Capacity of local integrator partner of the international integrator (5 points)

9.3 Implementation Approach (25 points)

- Project methodology and timeline (10 points)

- Risk management and mitigation strategies (8 points)

- Change management and stakeholder engagement (7 points)

9.4 Financial Proposal (15 points)

- Cost competitiveness and value for money (8 points)

- Transparent and detailed pricing structure (4 points)

- Total cost of ownership considerations (3 points)

9.5 References and Track Record (5 points)

- Client references and satisfaction scores (3 points)

- Similar project success stories and case studies (2 points)

Minimum Qualifying Score: 70 out of 100 points

10. Submission Requirements

Interested firms must submit the following documents:

10.1 Technical Proposal

- Detailed technical approach and methodology

- Project timeline with clear milestones and dependencies

- Risk management framework and mitigation strategies

- Quality assurance and testing approach

- Change management and stakeholder engagement strategy

10.2 Team and Organizational Information

- Company profile with relevant experience and capabilities

- Organizational structure and project team composition

- Subcontracting arrangements (if applicable)

10.3 Financial Proposal

- Detailed cost breakdown by phase and deliverable

- Resource allocation and pricing structure

- Payment schedule aligned with milestones

- Cost estimates for extension period

- Value-added services and optional components

10.4 References and Documentation

- Case studies from similar Mojaloop implementations

- Relevant certifications and accreditations

- Financial statements and company registration documents

- Insurance and bonding information

11. Terms and Conditions

11.1 Contract Type

- Fixed-price contract with milestone-based payments

- Extension options based on performance evaluation

11.3 Intellectual Property

- All customizations and local adaptations become property of CBG

- Standard Mojaloop components remain open-source

- Documentation and training materials licensed to CBG

11.4 Service Level Agreements

- System availability: 99.9% uptime

- Incident response: 15 minutes for critical issues

- Problem resolution: 4 hours for system-down issues

- Performance maintenance: agreed TPS and response time targets

RFP publication: 23rd June 2025 – 04th July 2025

Submission Deadline: 04th July 2025

Evaluation Period: 4th– 10th July 2025

Contract Award: 14th July 2025

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