QONA SACCO SOCIETY LIMITED

Terms of Reference

Supply, Implementation and Support of a Channel Manager

September 2026

Qona Sacco Society Limited seeks a vendor to supply, configure, implement and support a Channel Manager that connects every member channel and third-party service to its core banking system through one secure, managed layer.

1. Background

Qona Sacco Society Limited ("Qona" or "the Society") is a member-owned deposit-taking SACCO headquartered at Goodman Plaza, Waiyaki Way, Westland's, Nairobi. The Society provides a range of financial services to its members, including savings, credit facilities, digital payments, and other member-centric banking services. As part of its strategic digital transformation agenda, Qona is undertaking a modernization plan aimed at enhancing operational efficiency, improving member experience, strengthening security, and enabling scalable growth.

A key component of this transformation is the implementation of a new Core Banking System (CBS), which will serve as the central platform for member account management, loans, savings, transactions, and reporting. The new CBS is expected to support increased automation, improved integration capabilities, enhanced regulatory compliance, and the introduction of innovative digital products and services.

To ensure seamless connectivity between the CBS and all digital touchpoints, Qona intends to implement a Channel Manager solution alongside the CBS programme. The

Channel Manager will provide a centralized integration and orchestration layer through which all member-facing channels, including mobile banking, internet banking, USSD, agency banking, payment gateways, card services, and third-party partner integrations, will connect to the new CBS.

The objective is to establish a secure, scalable, and well-governed integration architecture that simplifies channel management, reduces system complexity, improves transaction monitoring, and provides flexibility for future digital innovations. The Channel Manager is therefore expected to be fully implemented, integrated, tested, and operational in readiness for the CBS go-live, ensuring uninterrupted service delivery to members and partners.

1.1 Current state and challenges

- **Point-to-point integration.** Each channel and service provider integrates directly with the CBS. This works while integration points are few, but does not scale.
- **Security exposure.** Every provider is given direct access to the CBS, widening the attack surface and making access hard to govern and audit.
- **Change is slow and costly.** A single change in the CBS requires every connected provider to re-test or re-develop, delaying new products and services.
- **CBS migration risk.** Moving to a new CBS with direct integrations means rebuilding every channel connection at once. A Channel Manager decouples channels from the CBS so the migration can be handled once, in the middle layer.

1.2 Purpose of these Terms of Reference

These Terms of Reference (ToR) set out the scope, phases, deliverables, required capabilities and responsibilities for the supply, configuration, implementation and support of the Channel Manager, including annual post-implementation maintenance and support.

2. Objectives and Expected Outcomes

The objective is a single, secure channel and integration layer between Qona's delivery channels, its partners and the new CBS, which lets the Society launch and change services without touching every connected system.

The implementation will be judged successful against these outcomes:

1. **Improved agility.** Time-to-market for a new channel, product or partner integration reduces measurably after implementation.

2. **Lower cost of change.** The cost of delivering a new service, and the administrative cost of developing or enhancing business processes, falls by reusing the Channel Manager infrastructure.
3. **Abstraction from the CBS.** Channels are insulated from the CBS data structures, so changes to the CBS (including the current migration) do not require redevelopment of dependent channels, and vice versa. This drives reuse of services and loose coupling.
4. **Improved collaboration.** Qona can expose services to external parties (banks, aggregators, agents, regulators) securely and simply.
5. **Higher visibility of business processes.** Business and operations teams see real-time operational data on transactions and channel flows, so they can act on issues and spot problems early.
6. **Stronger control.** No third party has direct access to the CBS; all access is authenticated, authorised, logged and auditable.

3. Target Architecture

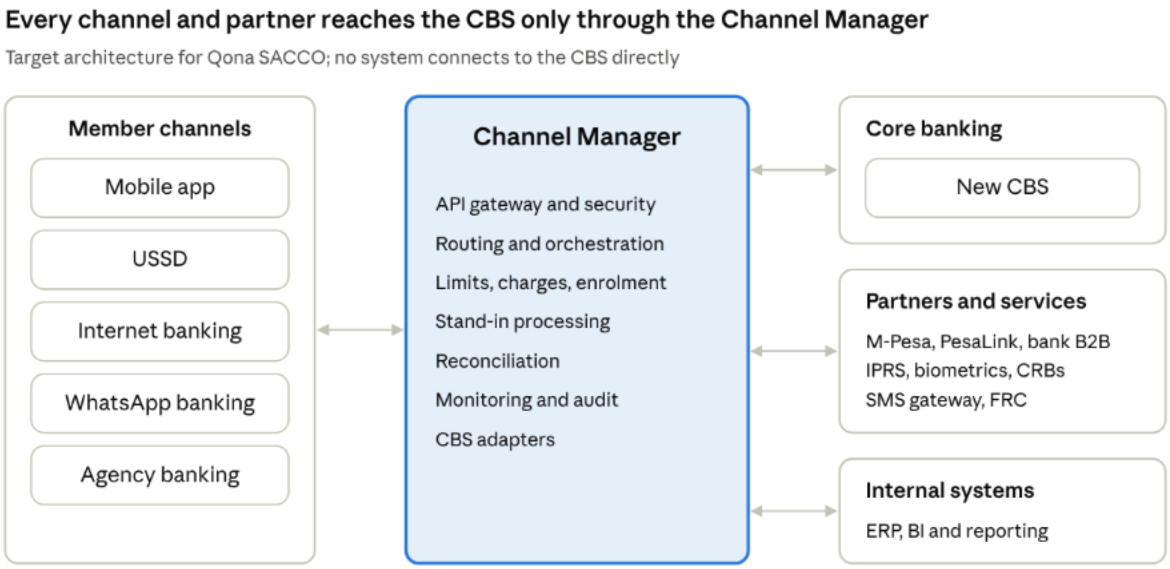


Figure 1: Target architecture: channels, Channel Manager, CBS and partners

Channels, partners and internal systems connect only to the Channel Manager, which alone holds a connection to the CBS; a change of CBS is absorbed in its adapters.

4. Scope of Work

The Vendor shall supply, configure, implement and support the Channel Manager, and provide annual post-implementation maintenance and support. In particular:

1. The Channel Manager shall provide the foundation for current and future channel and partner integrations, with service development, a service registry, service orchestration, policy enforcement for SLAs, and service monitoring.
2. The Vendor shall implement in a timely and cost-effective manner, following all applicable information security and reliability standards, including Central Bank of Kenya and SASRA requirements for deposit-taking SACCOs and the Data Protection Act, 2019.
3. The Vendor shall propose only solutions that support a hybrid deployment model (on-premises and cloud) with containerisation support. Qona intends to host on its own infrastructure; cloud scale-out must remain an option.
4. The Channel Manager shall be CBS-agnostic, with adapters that allow channels to be connected to the new CBS and, where the programme requires it, to run against the legacy CBS during transition and cutover.
5. The work shall run in three phases: Discovery, Design and Delivery, followed by solution administration and support.

4.1 Phase 1: Discovery

The Vendor shall study Qona's existing system landscape and identify all integration points and techniques in use. This work shall be done on-site. The deliverable is a Discovery Report containing at a minimum:

1. The AS-IS integration architecture, covering all upstream and downstream systems.
2. All actors in the integration landscape, e.g. partner banks, mobile network operators, aggregators, regulators, credit reference bureaus and agents.
3. A register of all existing integrations, capturing for each:
    a) Upstream system name and technology stack
    b) Downstream system name and technology stack
    c) Type of integration: real-time or scheduled batch
    d) Data points exchanged
    e) Technical description: file-based, shared database, web services (SOAP/REST, synchronous/asynchronous), trigger point
    f) Frequency and average payload size
    g) Security mechanism

h) Error handling mechanism
i) Acceptable SLAs

4. A mapping of each existing integration to the new CBS, identifying which interfaces change, which are retired and which are new.
5. Channel volumes and peak loads (transactions per second, daily and month-end peaks) to inform capacity planning.

4.2 Phase 2: Design

The Vendor shall prepare the blueprint of the channel and integration architecture. Deliverables in this phase are:

a) Channel and Integration Architecture Document, giving a complete and logical answer to all architecture needs:

1. The TO-BE architecture landscape showing all channels, applications and actors. This is the most critical part of the document.
2. The integration mechanisms and standards/protocols for sharing data between internal applications and with external parties (partner banks, mobile money operators, aggregators, regulators, agents). Integrations may be service-based (REST/SOAP), event/messaging-based or scheduled; the document shall set out the factors (system technology, internal/external, frequency, performance) that decide which type is used in each scenario.
3. How the architecture ensures consistency and dependability of data across business processes, tracing each process from origination (data capture across channels) to consolidation to consumption across internal and external systems.
4. Security architecture: authentication (LDAP, OpenID, SSO), role-based authorisation (OAuth 2.0), payload encryption, key management and channel-level controls.
5. Design patterns (connectors, adapters, wrappers) for integrating with the CBS and legacy applications. Integration to the CBS, the ERP, SQL databases and social messaging platforms shall be connector-based.
6. How the architecture supports a layer of lightweight, self-contained microservices.
7. Capacity planning for current channel volumes, and scalability planning for additional members, channels and capabilities. This shall cover hardware and software sizing and ensure optimal use of licences.
8. High availability and disaster recovery design on Qona's infrastructure.

b) Technical Design Document, describing every service/integration to be built on the Channel Manager. For each, at a minimum:

1. API approach/standard: REST, SOAP, event emitter or connector-based
2. Whether it is a System API (direct access to a resource without added complexity)
3. Whether it is a Process API (requires transformation, filtering, merging or other processing)
4. Processing type: fire-and-forget, synchronous or asynchronous
5. For existing integrations, whether the service is rewritten or wrapped
6. Contract interface types (XML, JSON, ISO 8583, ISO 20022 where applicable) and payload attributes
7. How the service is secured: authentication, authorisation, transport and end-to-end security
8. How Process APIs manage transactions (XA, two-phase commit, compensating transactions, reversals)
9. Exception handling
10. Service versioning
11. For messaging, whether publish-subscribe, point-to-point or both
12. How legacy integration is designed: connector or wrapper
13. For scheduled services, how scheduling and failure recovery work
14. Logging
15. Auditing and monitoring

c) Implementation Project Plan, aligned to the CBS programme plan and showing:

1. Prerequisites for delivery
2. Detailed activities and tasks with start and end dates
3. A Gantt chart showing dependencies and overlaps
4. Critical external dependencies (hardware, networking, third-party connectivity, CBS readiness)

d) System Test Plan, covering:

1. Testing of services/APIs, standalone and integrated
2. Performance (load and stress) testing
3. Security (penetration and vulnerability) testing
4. Channel end-to-end testing with each third party, including reversals and reconciliation

4.3 Phase 3: Delivery

a) Infrastructure setup and configuration of the Channel Manager stack in all environments (DEV, TEST, UAT and PROD) in line with the approved architecture and design.

b) Solution implementation, including:

1. Migration of existing channel integrations (retrofitted where required) onto the Channel Manager and repointing them to the new CBS
2. Design and development of new services/APIs to agreed standards and best practice
3. Test scripts and results: end-to-end integration, performance and security testing
4. Release and deployment plan and scripts
5. Backup and recovery plan and scripts
6. Technical and user manuals
7. Disaster recovery plan, tested
8. Support model and procedures for critical production support during the warranty period
9. Deployment of all services/APIs in all environments, including production, coordinated with the CBS go-live and cutover

4.4 Solution Administration and Support

The Vendor shall provide:

1. A strategy for maintaining and repairing the system, covering at a minimum:
    a) Incident and maintenance request reporting
    b) SLAs, to be agreed mutually (response and resolution times by severity)
    c) Change management for enhancements, bug fixes and patches
2. A framework for monitoring, tracking, debugging and auditing services/APIs in production
3. Archival and purging of log files, in line with Qona's retention policy
4. Build and deployment management: versioning, reporting and tracking
5. Regression testing after every bug fix or enhancement
6. Performance monitoring
7. Reporting on errors, exceptions and unauthorised access attempts
8. Training and knowledge transfer to Qona's ICT staff, sufficient for them to administer the platform and build simple integrations
9. Annual maintenance and support after the warranty period

5. Channels and Integrations in Scope

The Channel Manager shall, at a minimum, connect the channels and services below to the CBS. This list is indicative: Qona will confirm it before issue, and the Vendor shall validate it in the Discovery phase.

Category	Channel / integration	Direction
Member channels	Mobile app	Inbound
Member channels	USSD	Inbound
Member channels	Internet banking	Inbound
Member channels	WhatsApp banking	Inbound
Member channels	Agency banking	Inbound
Mobile money	M-Pesa (C2B, B2C, STK Push; agency / super agency)	Both
Payments	PesaLink	Both
Payments	Partner bank B2B links (to be listed by Qona)	Both
Payments	Direct debit	Both
Messaging	SMS gateway, including two-way guarantor SMS	Outbound / both
Verification	IPRS (identity)	Outbound
Verification	Biometrics	Outbound
Credit	Credit reference bureaus (Metropol, TransUnion)	Outbound
Compliance	Financial Reporting Centre (FRC) reporting	Outbound
Internal	ERP / finance system	Both
Internal	Business intelligence / reporting	Outbound

6. Required Channel Manager Capabilities

The proposed solution shall demonstrate the following capabilities. Bidders shall state for each whether it is standard, configurable, customised or not supported.

6.1 Integration and messaging

1. Seamless integration of existing systems and a platform for future channel and partner integrations
2. Reliable messaging: validation, transformation and secure delivery, with synchronous and asynchronous invocation
3. Transaction support: compensation and rollback of committed requests in composite services; rule-based, atomic and process-driven transactions; automatic reversals on timeout or failure
4. Protocol conversion: SOAP, HTTP(S), FTP(S), messaging queues, e-mail (send and mailbox listening) and ISO 8583 / ISO 20022 where required
5. Pre-built or configurable connectors for the CBS, ERP, SQL databases and the channels in Section 5
6. Service-based composite applications built on these design principles: service contracts, loose coupling, abstraction, reusability, autonomy, statelessness, discoverability and composability, including separation of concerns, service orchestration, and policy definition, management and enforcement

6.2 Channel management

1. Member channel enrolment and lifecycle: registration, activation, PIN/password management, device binding, blocking and deregistration
2. Configurable transaction limits by channel, product, member category and period
3. Configurable charges and fees by channel and transaction type, posted to the CBS
4. Stand-in or store-and-forward processing, with controlled limits, when the CBS is unavailable (e.g. end-of-day)
5. Automated reconciliation and settlement with M-Pesa, partner banks and PesaLink, with exception handling
6. Real-time notifications to members (SMS, push, e-mail)
7. Fraud and risk controls: velocity checks, anomaly alerts, blacklists
8. A back-office portal for Qona staff to manage members' channel access, limits, charges and exceptions, with maker-checker controls

6.3 Security

1. Authentication through LDAP, OpenID Connect, SSO, and Multi-Factor Authentication (MFA).
2. Role-based access control (RBAC) using OAuth 2.0 with segregation of duties.
3. End-to-end encryption for data in transit and at rest using industry-standard protocols.
4. API gateway controls include throttling, rate limiting, and traffic monitoring.
5. IP whitelisting, API key management, and partner-specific digital certificates.
6. Comprehensive audit trails for user activities, transactions, and configuration changes.
7. Real-time security monitoring, alerting, and incident response capabilities.
8. Compliance with the Data Protection Act, 2019, and applicable CBK and SASRA regulations.
9. Regular vulnerability assessments, penetration testing, and patch management processes.
10. Business continuity and disaster recovery mechanisms with automated backups and high availability.

6.4 Operations and performance

1. High performance and scalability, with high availability and disaster recovery on Qona's infrastructure
2. Hybrid deployment (on-premises and cloud) with the ability to scale out to the cloud; containerisation support
3. Service-level monitoring, fault detection, root-cause analysis, dashboards, reporting and historical analysis
4. A developer portal and service registry documenting all published APIs

7. Infrastructure and Responsibilities

Qona will provide the hosting infrastructure. The specifications below are the indicative minimum; the Vendor shall confirm or revise the sizing in its Design phase capacity plan and state any additional software or licences required.

7.1 Indicative server specifications

Specification	Production: application	Production: database	UAT: application	UAT: database

Server type	Intel x86, blade/edge/tower	Intel x86, blade/edge/tower	Intel x86, blade/edge/tower	Intel x86, blade/edge/tower
CPU cores / threads	8 / 8	8 / 8	4 / 8	4 / 8
RAM	64 GB	64 GB	32 GB	32 GB
Hard disk	1 TB	1 TB	500 GB	500 GB
SAN	–	0.5 TB	–	0.5 TB
NIC	1,000 Mbps	1,000 Mbps	1,000 Mbps	1,000 Mbps
No. of servers	2	1	1	1
Operating system	Windows Server 2019 or later	Windows Server 2019 or later	Windows Server 2019 or later	Windows Server 2019 or later
Database	–	Microsoft SQL Server, Enterprise	–	Microsoft SQL Server, Developer

Where the Vendor's solution runs on Linux or containers, it shall state the equivalent specification.

7.2 Environment preparation and task allocation

#	Task	Vendor	Qona	Notes
1	Hardware configuration confirmation on delivery	–	Lead	
2	Virtual machine creation	–	Lead	
3	Operating system installation	–	Lead	
4	Operating system parameters	Assist	Lead	Vendor specifies required parameters

5	System user creation	Assist	Lead	Vendor provides list of application users required
6	Database server installation	Assist	Lead	
7	Application installation (framework, service publication, schema creation, default parameters)	Lead	Assist	Qona provides admin-level access
8	Installation verification	Lead	–	
9	Application fine-tuning	Lead	–	
10	System security configuration	Assist	Lead	Vendor provides security requirements (ports etc.)
11	Security setup verification	Lead	–	
12	Server hardening	–	Lead	
13	Third-party connectivity (VPNs, certificates, whitelisting with M-Pesa, banks, bureaus)	Lead	Assist	Qona signs partner agreements

8. Deliverables Summary

Each deliverable is subject to Qona's written acceptance before the next phase begins.

Phase	Deliverable
Discovery	Discovery Report (AS-IS architecture, actors, integration register, CBS mapping, volumes)
Design	Channel and Integration Architecture Document
Design	Technical Design Document
Design	Implementation Project Plan, aligned to the CBS programme

Design	System Test Plan
Delivery	Configured DEV, TEST, UAT and PROD environments
Delivery	Migrated and new services/APIs, deployed to production
Delivery	Test scripts and signed-off results (integration, performance, security, UAT)
Delivery	Release, deployment, backup/recovery and DR plans and scripts
Delivery	Technical and user manuals
Delivery	Training and knowledge-transfer completion report
Support	Support model, SLAs and change-management procedure
Support	Warranty support, then annual maintenance and support

9. Vendor Requirements

Bidders shall provide:

1. Evidence of at least two channel manager, middleware or API gateway implementations for SACCOs, banks or microfinance institutions in Kenya or East Africa in the last five years, with reference letters
2. Evidence of integration with the channels in Section 5, in particular M-Pesa, PesaLink and the proposed CBS
3. CVs of the proposed project manager, solution architect and integration engineers
4. A local support presence in Kenya and the proposed support SLAs
5. A statement of compliance against Sections 4 to 7
6. Licensing model